

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL100915\  
 Data File : VL026180.D  
 Acq On : 9 Oct 2015 17:33  
 Operator : SY/MD  
 Sample : VL1009ABL01  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Oct 10 00:12:42 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL100915AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Oct 09 16:23:14 2015  
 QLast Update : Fri Oct 09 16:23:14 2015  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 6.67  | 49   | 905265   | 10.00 | ppbv  | 0.01     |
| 33) 1,4-Difluorobenzene | 8.35  | 114  | 2387384  | 10.00 | ppbv  | 0.01     |
| 55) Chlorobenzene-d5    | 13.77 | 117  | 2807421  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 16.32  | 95    | 2180321  | 10.12    | ppbv | 0.01    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.20% |

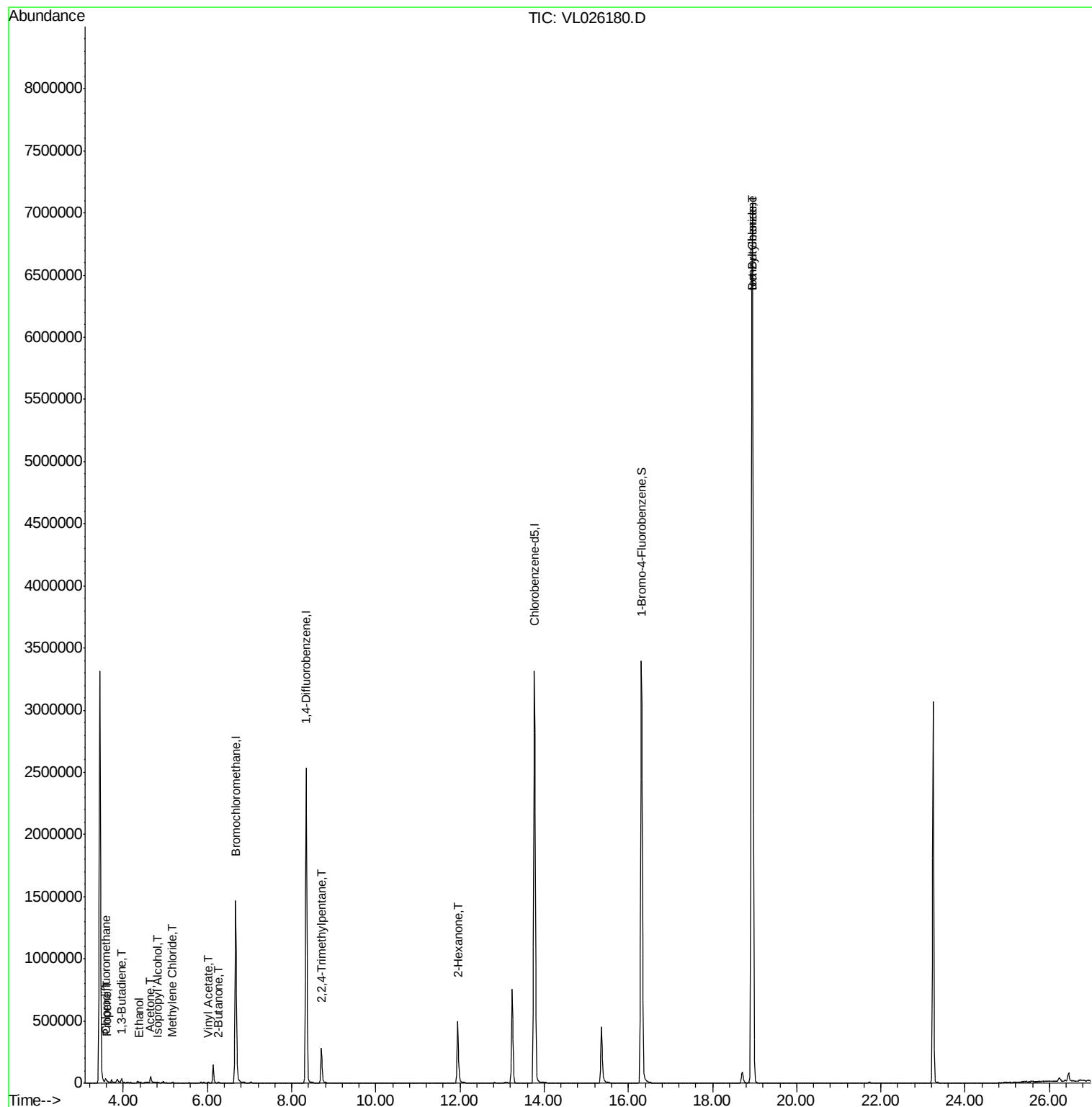
| Target Compounds           | R.T.  | QIon | Response | Conc | Units  | Ovalue |
|----------------------------|-------|------|----------|------|--------|--------|
| 3) Chlorodifluoromethane   | 3.58  | 51   | 7662     | 0.07 | ppbv   | 96     |
| 9) Propene                 | 3.62  | 41   | 3076     | 0.06 | ppbv # | 73     |
| 13) Ethanol                | 4.39  | 45   | 845      | 0.12 | ppbv # | 31     |
| 15) Acetone                | 4.65  | 43   | 50019    | 0.43 | ppbv # | 17     |
| 16) 1,3-Butadiene          | 3.96  | 39   | 4854     | 0.09 | ppbv # | 7      |
| 19) Isopropyl Alcohol      | 4.82  | 45   | 1736     | 0.04 | ppbv # | 1      |
| 20) Methylene Chloride     | 5.17  | 84   | 3823     | 0.08 | ppbv   | 90     |
| 23) Vinyl Acetate          | 6.02  | 43   | 6263     | 0.03 | ppbv # | 84     |
| 34) 2-Butanone             | 6.26  | 43   | 11738    | 0.09 | ppbv   | 93     |
| 44) 2,2,4-Trimethylpentane | 8.71  | 57   | 57050    | 0.15 | ppbv # | 1      |
| 51) 2-Hexanone             | 11.94 | 43   | 128948   | 0.82 | ppbv # | 48     |
| 65) tert-Butylbenzene      | 18.93 | 119  | 143966   | 0.36 | ppbv # | 25     |
| 66) Benzyl Chloride        | 18.94 | 91   | 3792     | 0.03 | ppbv # | 1      |

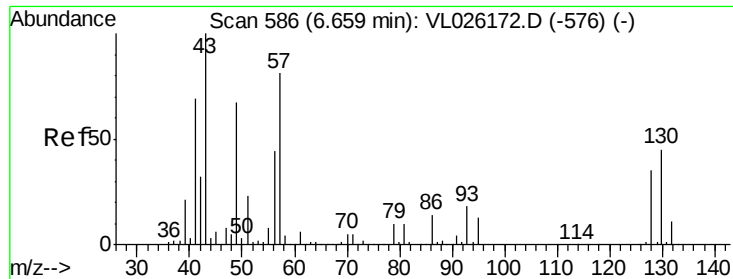
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Oct 10 00:12:42 2015  
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL100915AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Oct 09 16:23:14 2015  
QLast Update : Fri Oct 09 16:23:14 2015  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.67 min Scan# 588

Delta R.T. 0.01 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :  
MSVOA\_L  
ClientSampleId :

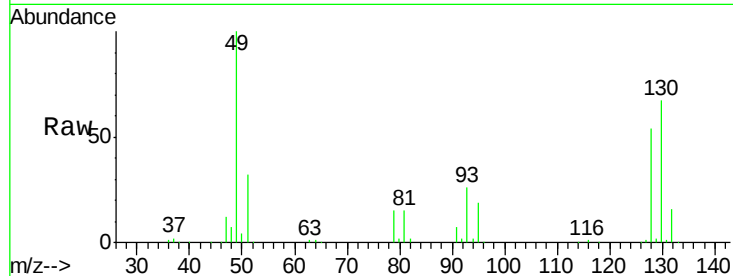
Tot Ion: 49 Resp: 905265

Ion Ratio Lower Upper

49 100

128 53.2 26.3 78.8

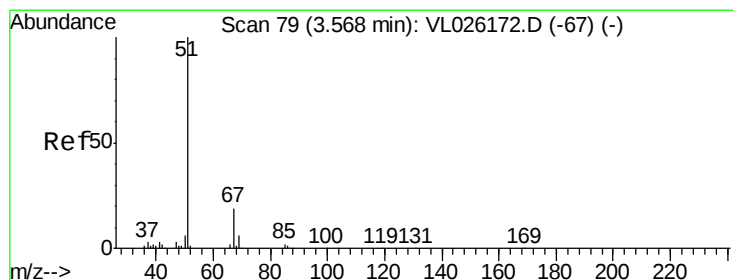
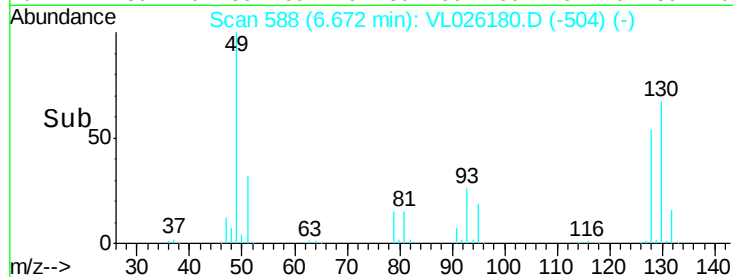
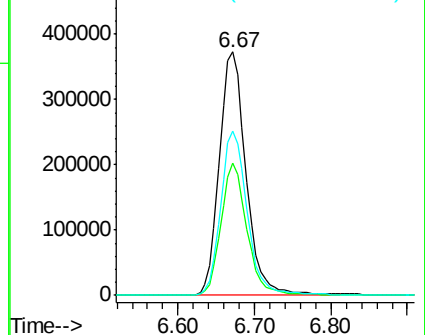
130 67.5 34.2 102.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.07 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.01 min

Lab File: VL026180.D

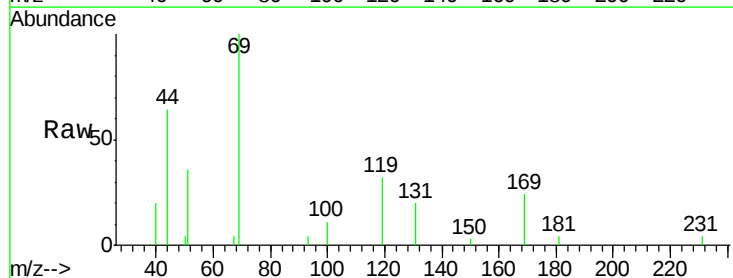
Acq: 9 Oct 2015 17:33

Tgt Ion: 51 Resp: 7662

Ion Ratio Lower Upper

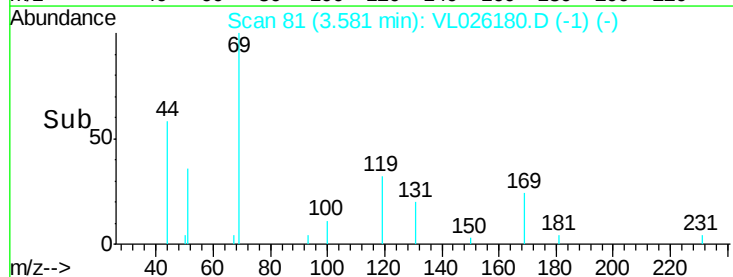
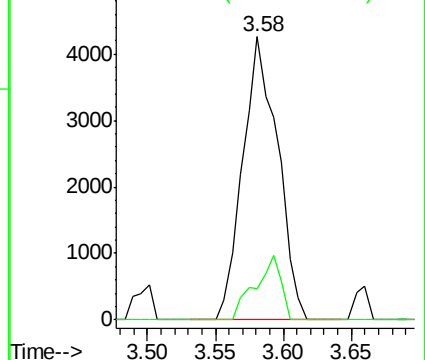
51 100

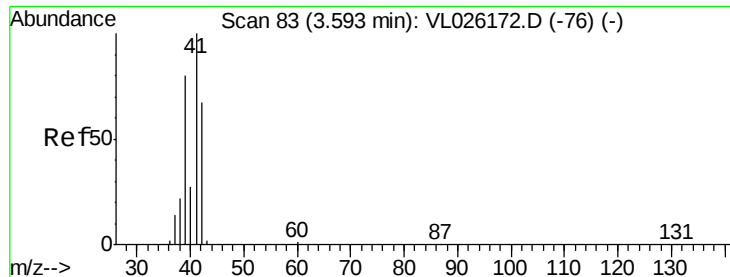
67 16.8 14.9 22.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 0.06 ppbv

RT: 3.62 min Scan# 88

Delta R.T. 0.03 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :

MSVOA\_L

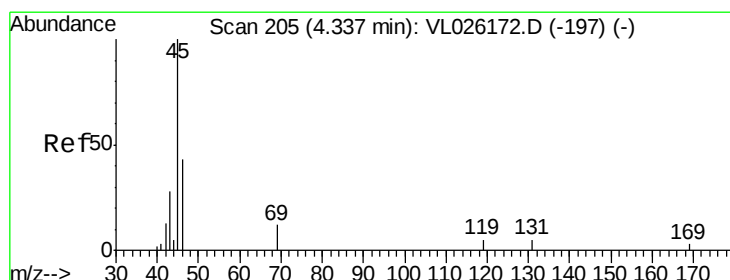
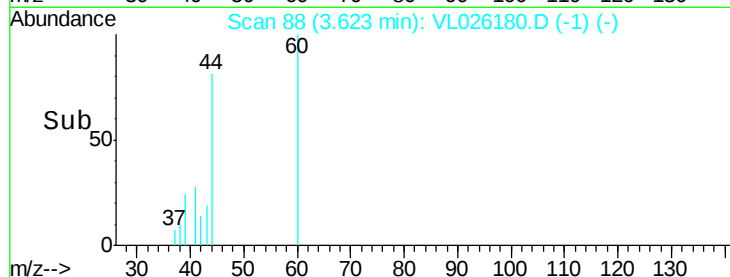
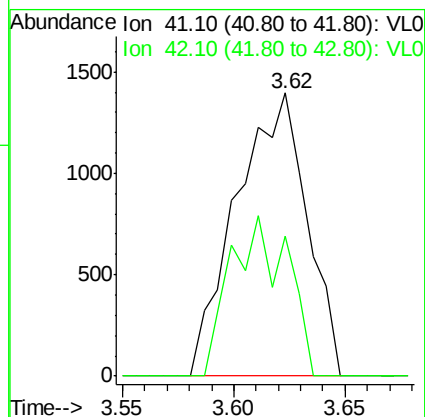
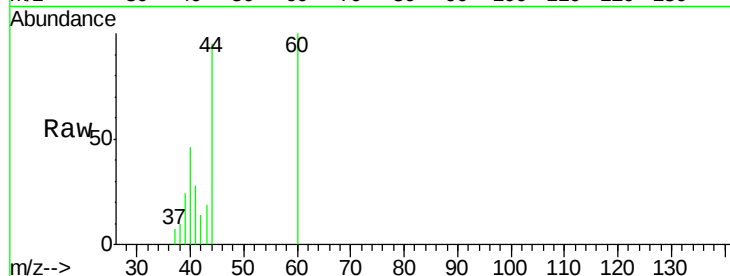
ClientSampleId :

Tot Ion: 41 Resp: 3076

Ion Ratio Lower Upper

41 100

42 45.3 53.6 80.4#



#13

Ethanol

Concen: 0.12 ppbv

RT: 4.39 min Scan# 213

Delta R.T. 0.05 min

Lab File: VL026180.D

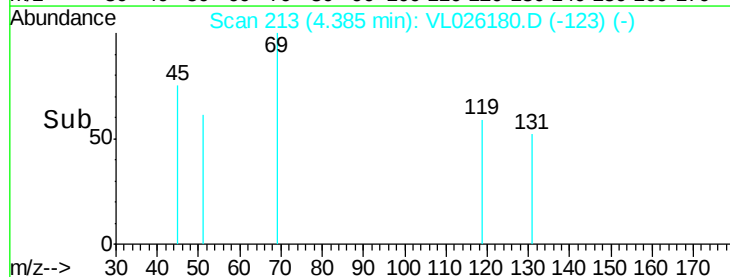
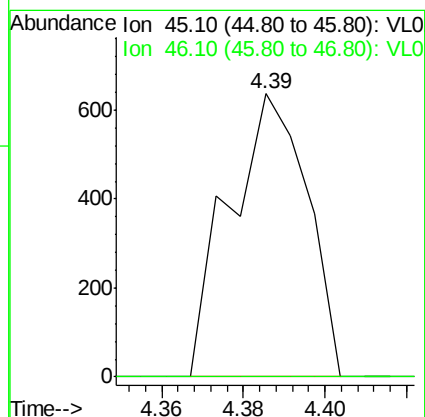
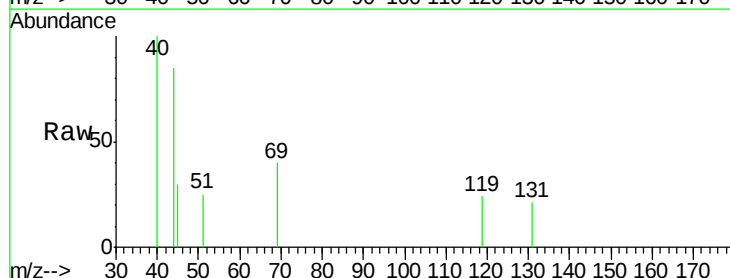
Acq: 9 Oct 2015 17:33

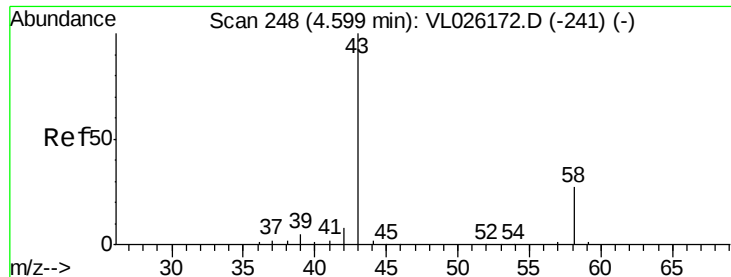
Tgt Ion: 45 Resp: 845

Ion Ratio Lower Upper

45 100

46 0.0 18.1 72.5#





#15

Acetone

Concen: 0.43 ppbv

RT: 4.65 min Scan# 257

Delta R.T. 0.05 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :

MSVOA\_L

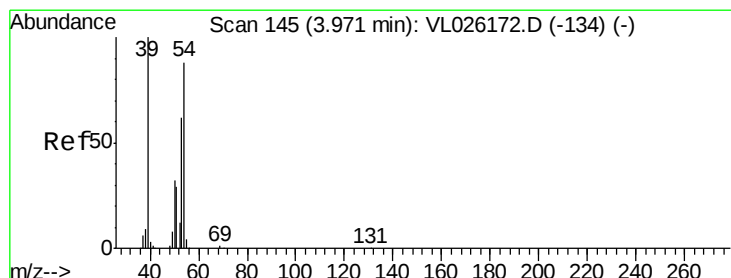
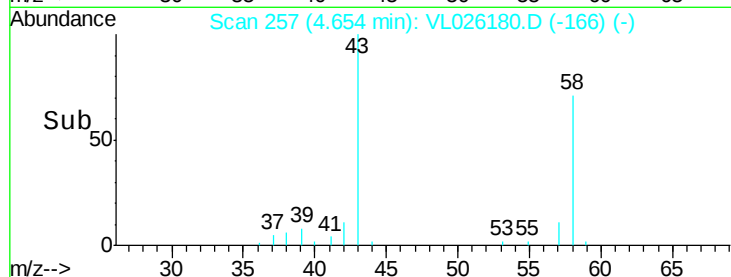
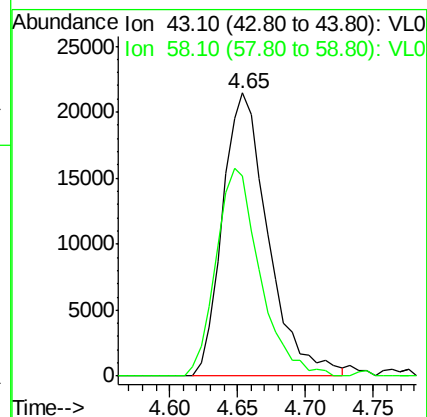
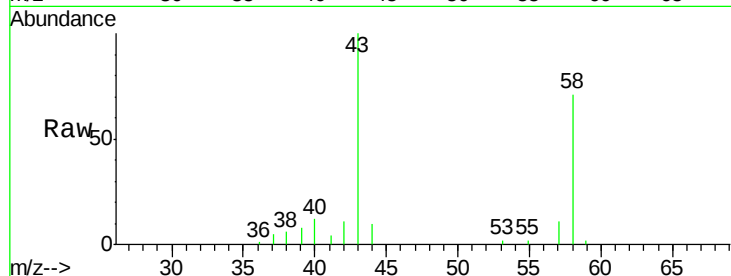
ClientSampleId :

Tot Ion: 43 Resp: 50019

Ion Ratio Lower Upper

43 100

58 71.0 22.0 33.0#



#16

1,3-Butadiene

Concen: 0.09 ppbv

RT: 3.96 min Scan# 143

Delta R.T. -0.01 min

Lab File: VL026180.D

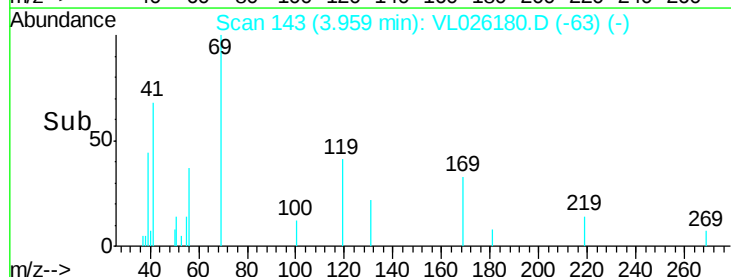
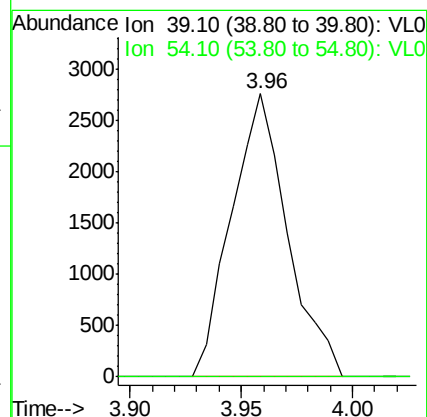
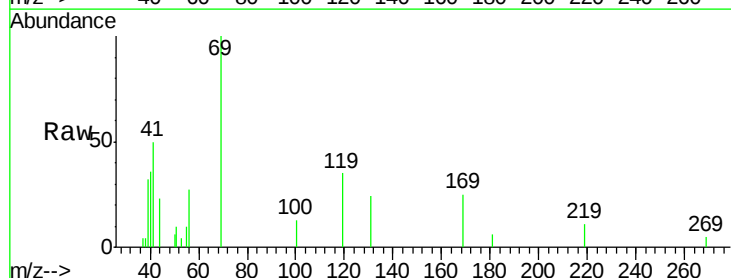
Acq: 9 Oct 2015 17:33

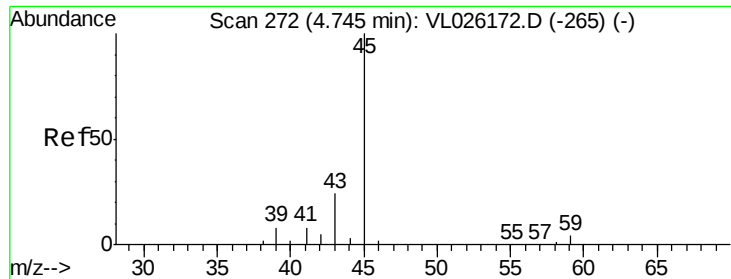
Tgt Ion: 39 Resp: 4854

Ion Ratio Lower Upper

39 100

54 0.0 67.9 101.9#



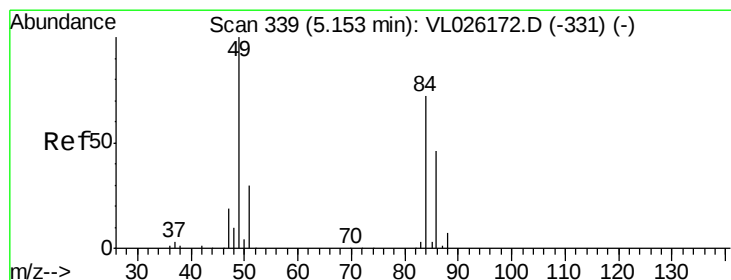
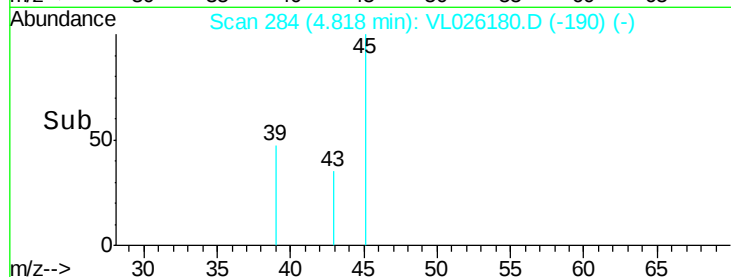
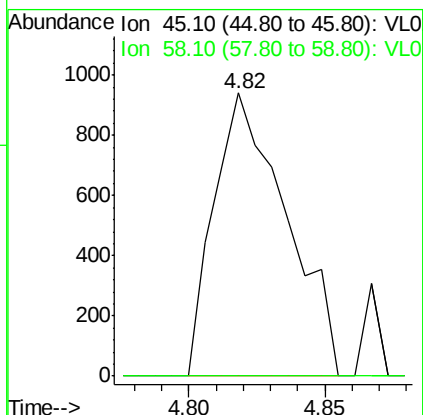
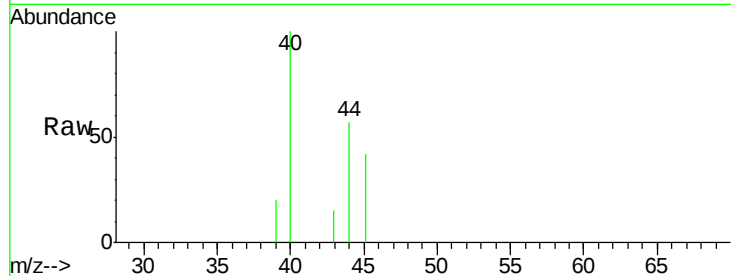


#19

Isopropyl Alcohol  
 Concen: 0.04 ppbv  
 RT: 4.82 min Scan# 284  
 Delta R.T. 0.07 min  
 Lab File: VL026180.D  
 Acq: 9 Oct 2015 17:33

Instrument :  
 MSVOA\_L  
 ClientSampled :

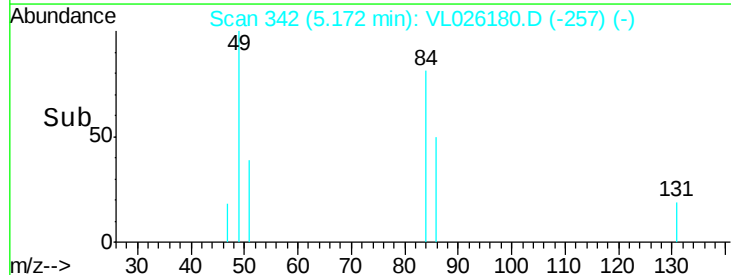
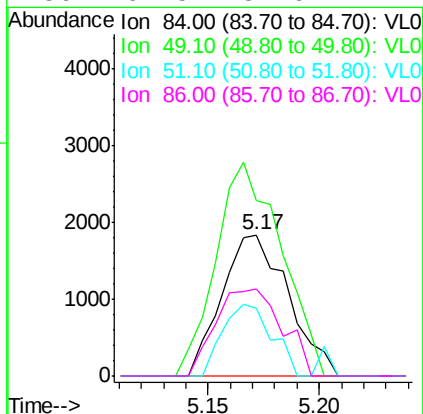
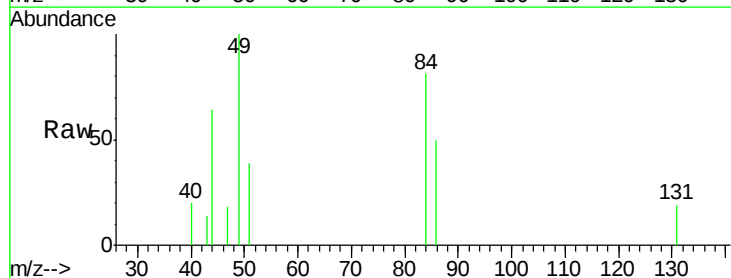
Tot Ion: 45 Resp: 1736  
 Ion Ratio Lower Upper  
 45 100  
 58 2045.7 1.7 2.5#

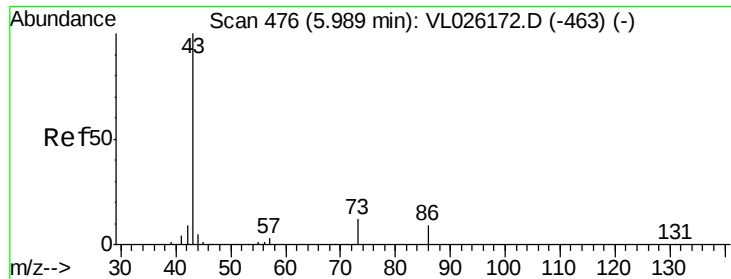


#20

Methylene Chloride  
 Concen: 0.08 ppbv  
 RT: 5.17 min Scan# 342  
 Delta R.T. 0.02 min  
 Lab File: VL026180.D  
 Acq: 9 Oct 2015 17:33

Tgt Ion: 84 Resp: 3823  
 Ion Ratio Lower Upper  
 84 100  
 49 123.8 111.3 166.9  
 51 48.4 33.0 49.6  
 86 61.5 51.6 77.4





#23

Vinyl Acetate

Concen: 0.03 ppbv

RT: 6.02 min Scan# 481

Delta R.T. 0.03 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 6263

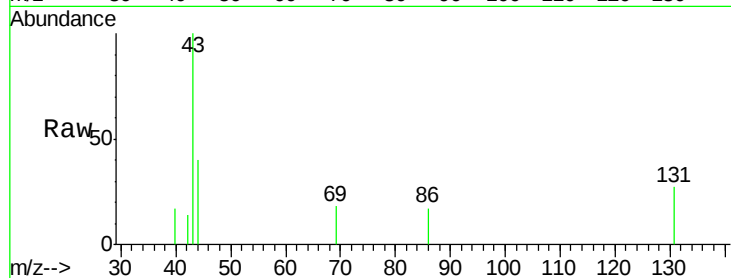
Ion Ratio Lower Upper

43 100

86 16.9 7.2 10.8#

42 14.4 7.4 11.2#

44 2.6 3.9 5.9#

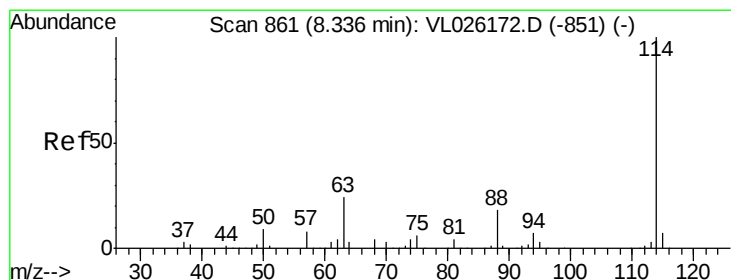
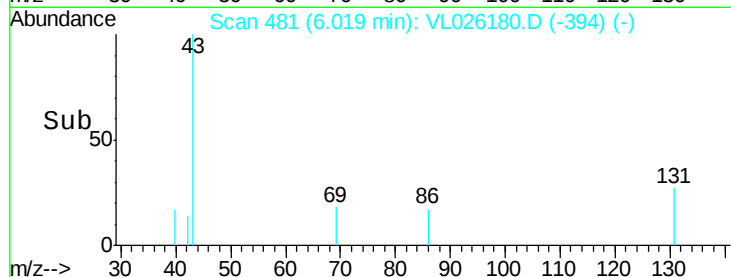
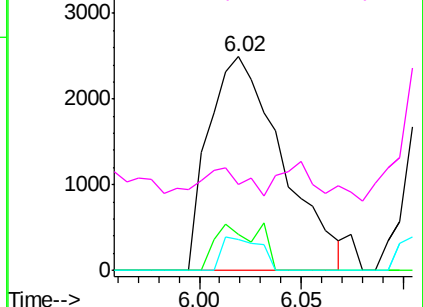


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 8.35 min Scan# 863

Delta R.T. 0.01 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

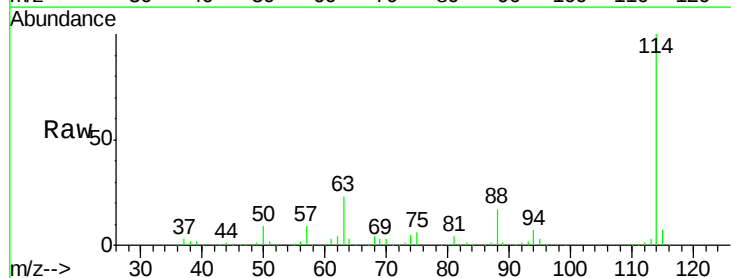
Tgt Ion: 114 Resp: 2387384

Ion Ratio Lower Upper

114 100

63 23.6 19.0 28.6

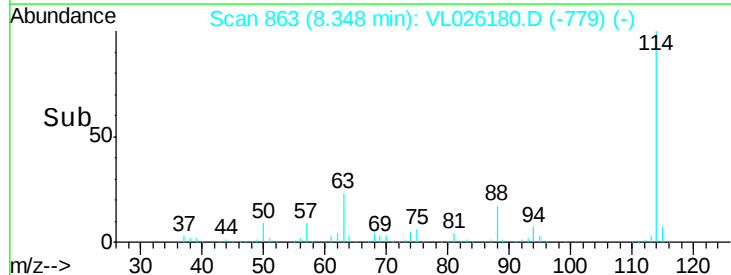
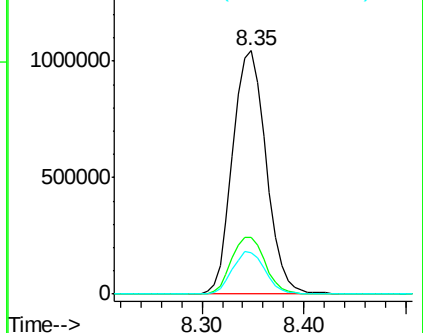
88 17.2 13.8 20.8

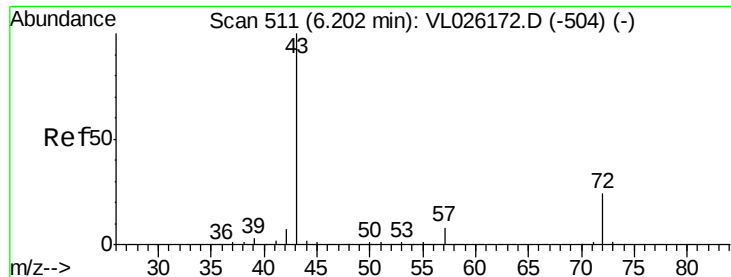


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 0.09 ppbv

RT: 6.26 min Scan# 520

Delta R.T. 0.05 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :

MSVOA\_L

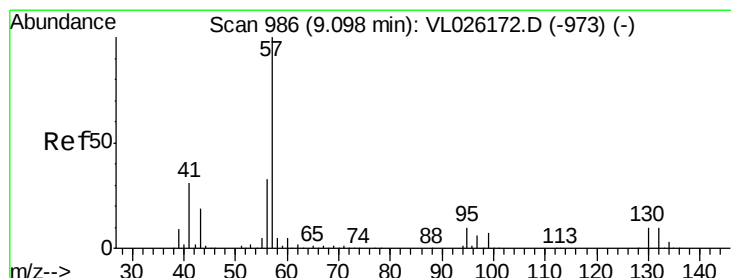
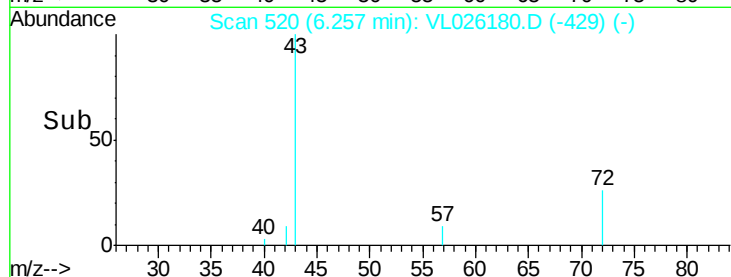
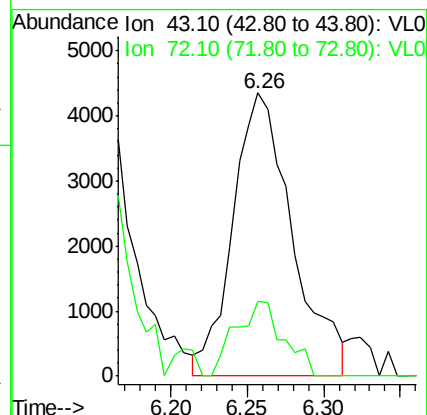
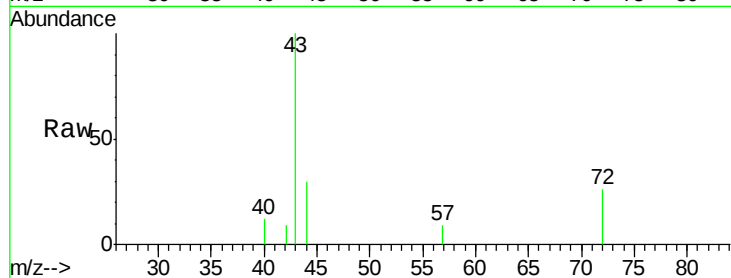
ClientSampleId :

Tot Ion: 43 Resp: 11738

Ion Ratio Lower Upper

43 100

72 21.1 19.6 29.4



#44

2,2,4-Trimethylpentane

Concen: 0.15 ppbv

RT: 8.71 min Scan# 922

Delta R.T. -0.39 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

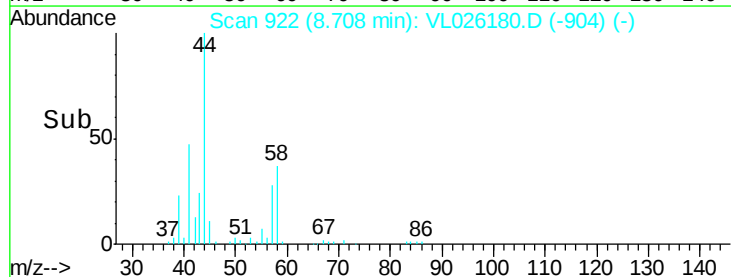
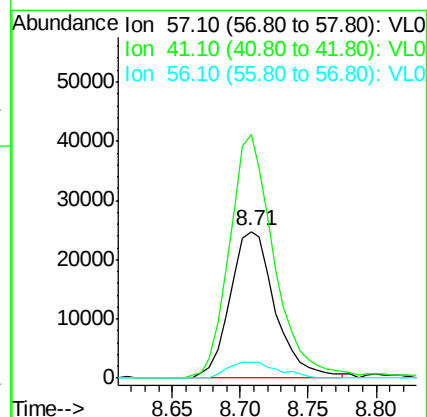
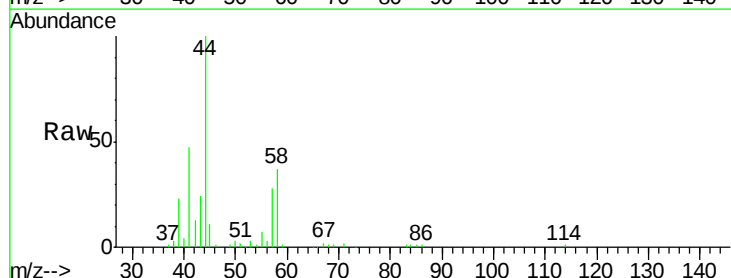
Tgt Ion: 57 Resp: 57050

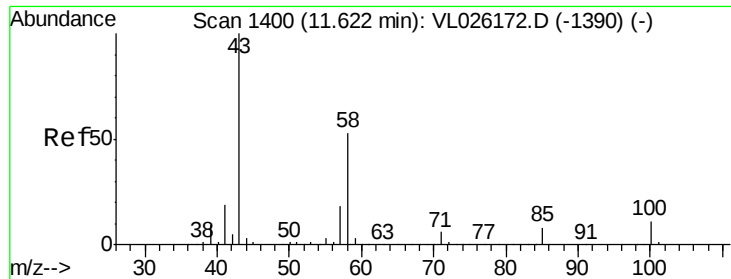
Ion Ratio Lower Upper

57 100

41 168.6 23.7 35.5#

56 12.2 26.4 39.6#





#51

2-Hexanone

Concen: 0.82 ppbv

RT: 11.94 min Scan# 1453

Delta R.T. 0.32 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :

MSVOA\_L

ClientSampleId :

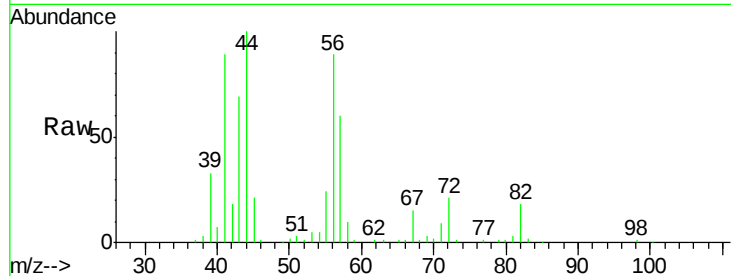
Tot Ion: 43 Resp: 128948

Ion Ratio Lower Upper

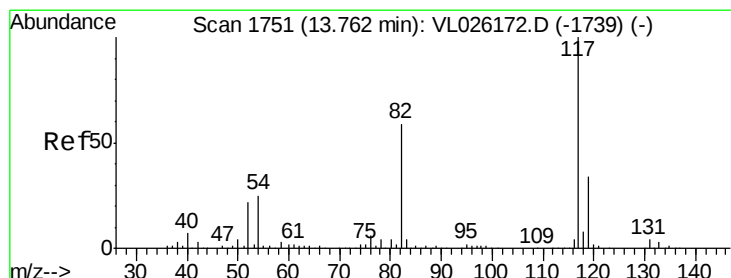
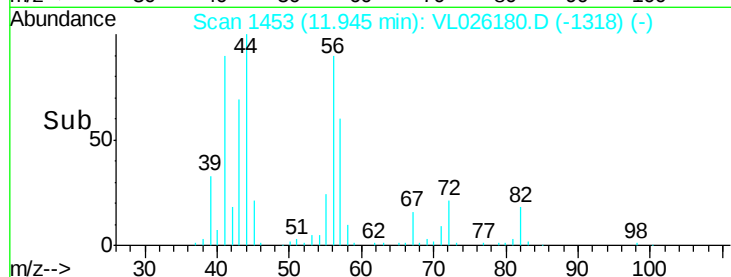
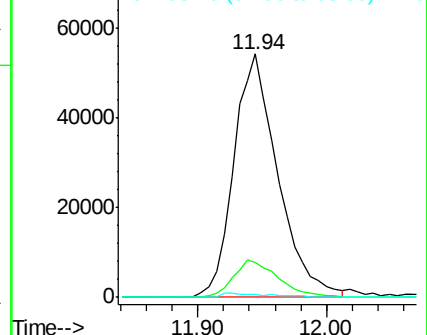
43 100

58 15.7 42.2 63.4#

98 1.8 0.2 0.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0  
Ion 98.20 (97.90 to 98.90): VL0



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.77 min Scan# 1752

Delta R.T. 0.01 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

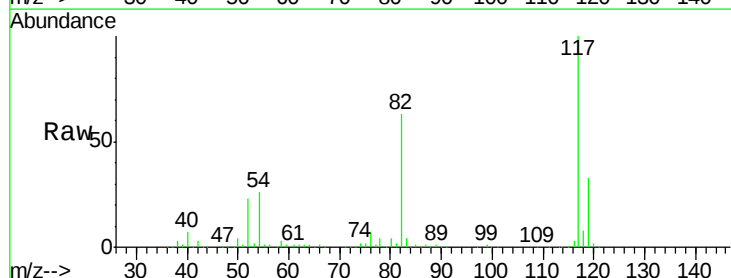
Tgt Ion: 117 Resp: 2807421

Ion Ratio Lower Upper

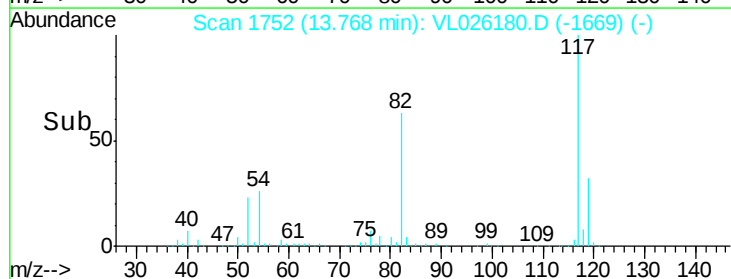
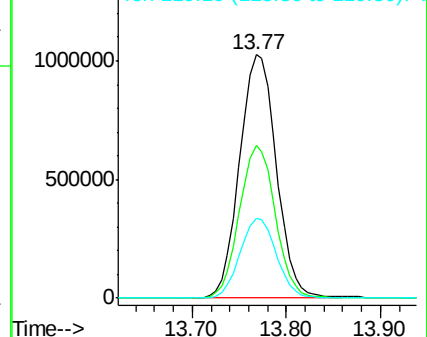
117 100

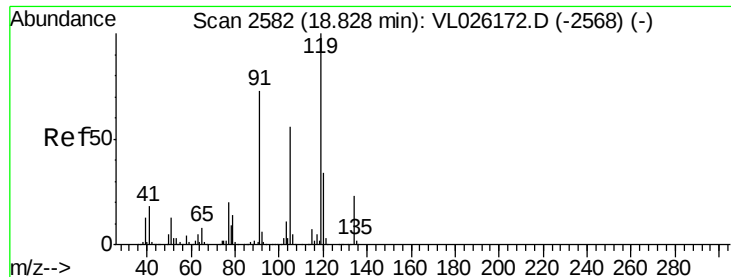
82 62.1 47.7 71.5

119 32.7 43.7 65.5#



Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V

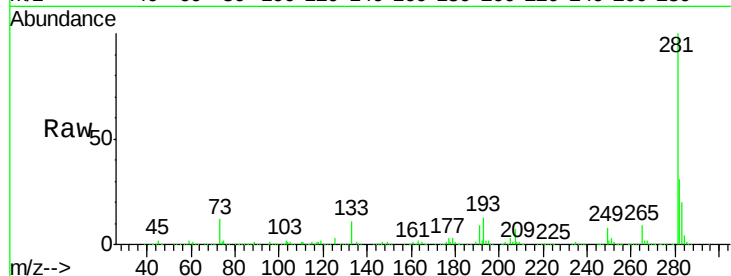




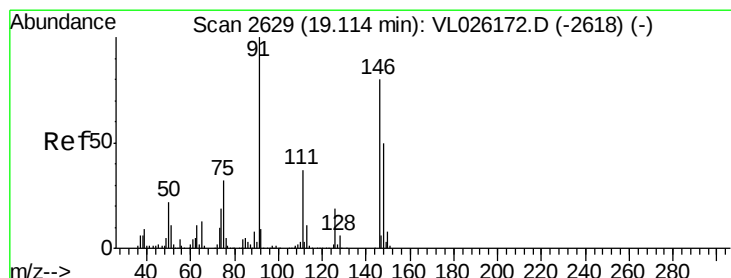
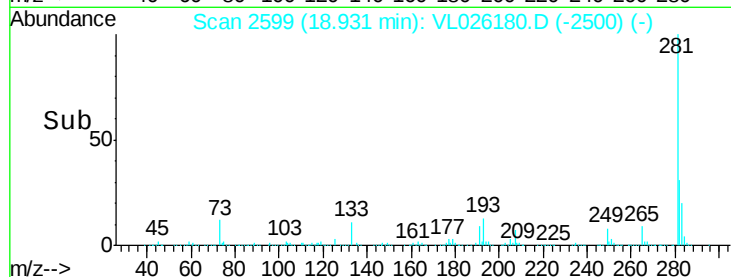
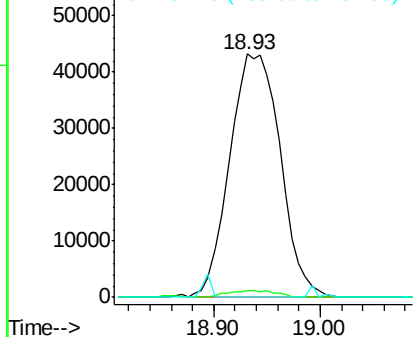
#65  
tert-Butylbenzene  
Concen: 0.36 ppbv  
RT: 18.93 min Scan# 2599  
Delta R.T. 0.10 min  
Lab File: VL026180.D  
Acq: 9 Oct 2015 17:33

Instrument :  
MSVOA\_L  
ClientSampleID :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 2.9   | 58.5  | 87.7# |
| 134     | 0.8   | 18.0  | 27.0# |

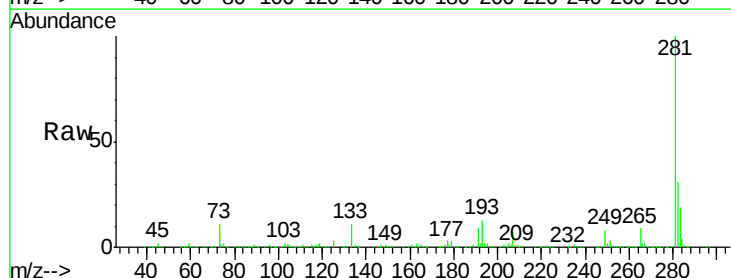


Abundance Ion 119.20 (118.90 to 119.90): V  
Ion 91.10 (90.80 to 91.80): VL0  
Ion 134.20 (133.90 to 134.90): V

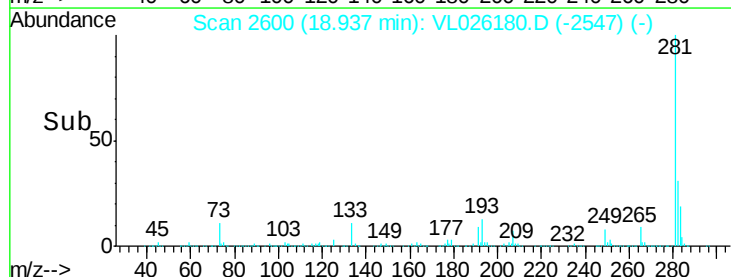
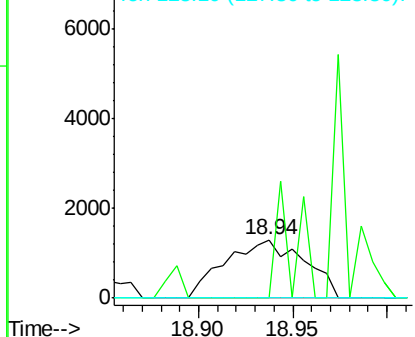


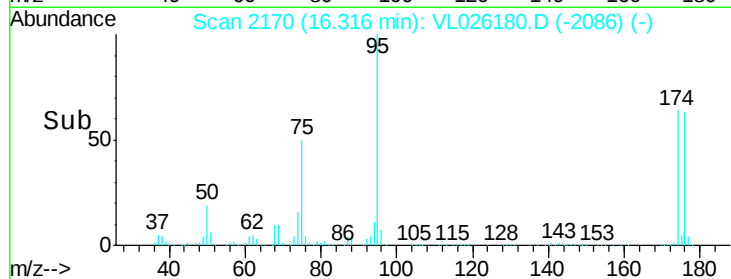
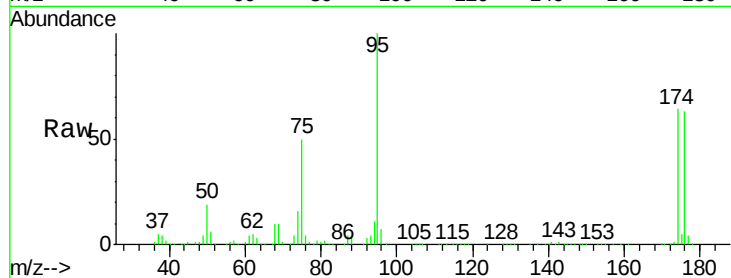
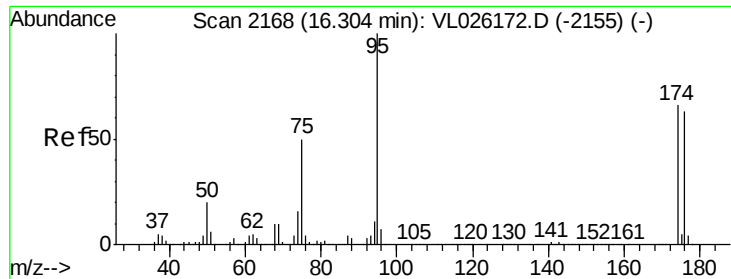
#66  
Benzyl Chloride  
Concen: 0.03 ppbv  
RT: 18.94 min Scan# 2600  
Delta R.T. -0.18 min  
Lab File: VL026180.D  
Acq: 9 Oct 2015 17:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 100.9 | 15.2  | 22.8# |
| 128     | 0.0   | 4.8   | 7.2#  |



Abundance Ion 91.10 (90.80 to 91.80): VL0  
Ion 126.10 (125.80 to 126.80): V  
Ion 128.10 (127.80 to 128.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.12 ppbv

RT: 16.32 min Scan# 2170

Delta R.T. 0.01 min

Lab File: VL026180.D

Acq: 9 Oct 2015 17:33

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 95 Resp: 2180321

Ion Ratio Lower Upper

95 100

174 65.0 52.2 78.4

175 4.8 3.9 5.9

