

Data File : VL033582.D  
Acq On : 11 Apr 2019 2:56  
Operator : SY/AP  
Sample : K2312-04DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
A-9DL

Quant Time: Apr 11 05:11:54 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL032519AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Mar 26 16:00:50 2019  
QLast Update : Tue Mar 26 16:00:50 2019  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 891979   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2043411  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2014819  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds  
68) 1-Bromo-4-Fluorobenzene 14.57 95 1611118 10.20 ppbv 0.00  
Spiked Amount 10.000 Range 65 - 135 Recovery = 102.00%

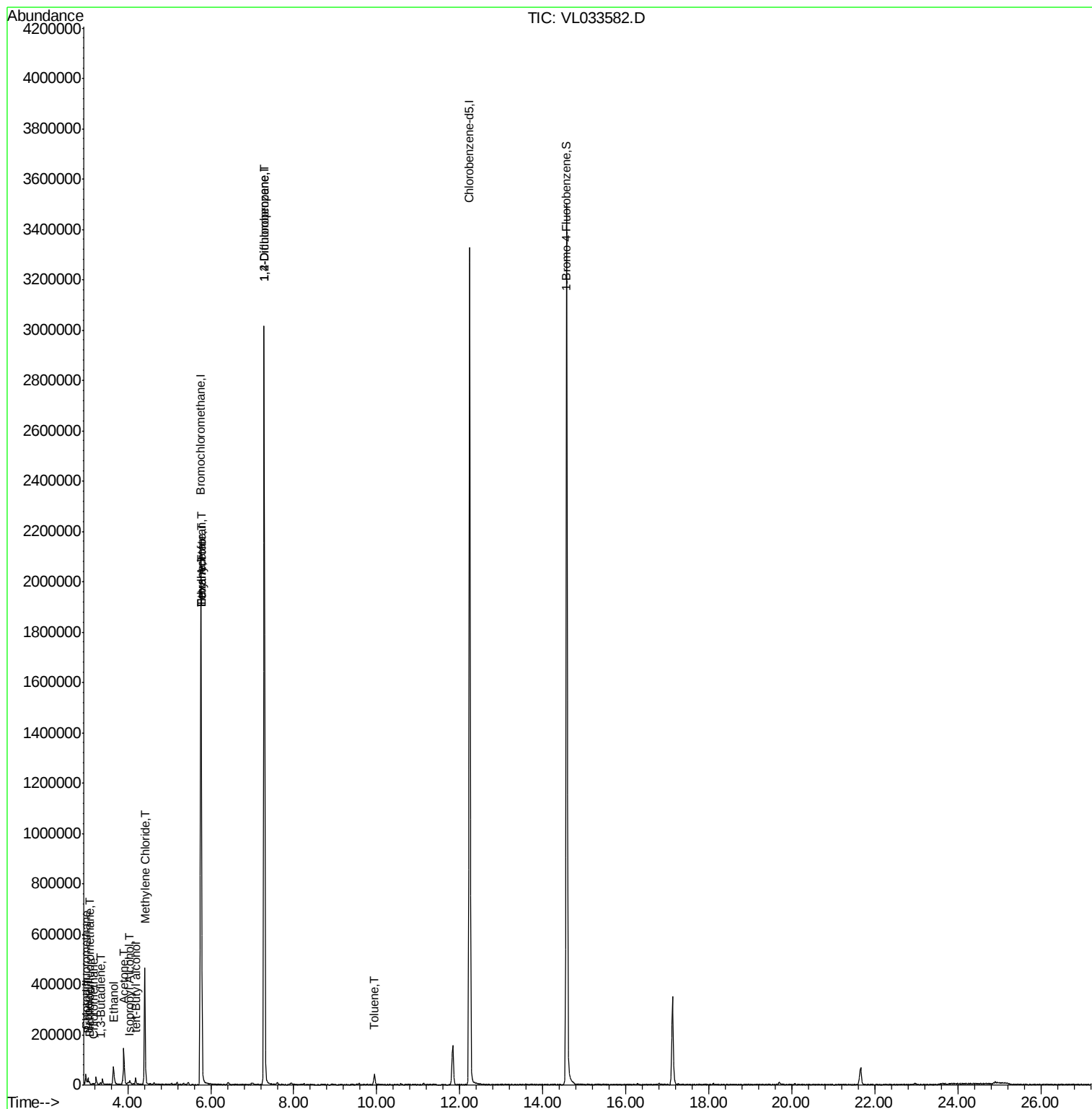
| Target Compounds           |      |    |        |              | Qvalue |
|----------------------------|------|----|--------|--------------|--------|
| 2) Dichlorodifluoromethane | 3.08 | 85 | 7176   | 0.055 ppbv   | 89     |
| 3) Chlorodifluoromethane   | 2.99 | 51 | 26705  | 0.260 ppbv # | 70     |
| 4) Chloromethane           | 3.17 | 50 | 1869   | 0.034 ppbv   | 95     |
| 9) Propene                 | 3.05 | 41 | 3545   | 0.082 ppbv   | 86     |
| 13) Ethanol                | 3.65 | 45 | 34385  | 3.081 ppbv # | 18     |
| 15) Acetone                | 3.90 | 43 | 137985 | 1.287 ppbv   | 99     |
| 16) 1,3-Butadiene          | 3.34 | 39 | 1556   | 0.037 ppbv # | 10     |
| 17) tert-Butyl alcohol     | 4.19 | 59 | 6239   | 0.316 ppbv   | 96     |
| 19) Isopropyl Alcohol      | 4.04 | 45 | 12717  | 0.187 ppbv # | 81     |
| 20) Methylene Chloride     | 4.41 | 84 | 162701 | 3.574 ppbv   | 98     |
| 25) Ethyl Acetate          | 5.78 | 43 | 159122 | 0.800 ppbv # | 83     |
| 26) Hexane                 | 5.78 | 57 | 190684 | 2.155 ppbv # | 44     |
| 39) 1,2-Dichloropropane    | 7.29 | 63 | 539017 | 8.025 ppbv # | 23     |
| 41) Tetrahydrofuran        | 5.78 | 42 | 79734  | 1.181 ppbv # | 50     |
| 53) Toluene                | 9.94 | 91 | 25974  | 0.130 ppbv   | 91     |

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

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QLast Update : Tue Mar 26 16:00:50 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

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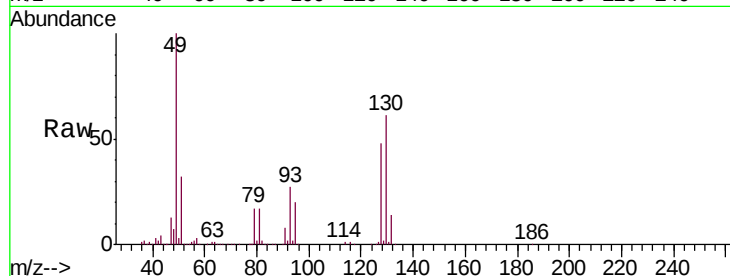
Tgt Ion: 49 Resp: 891979

Ion Ratio Lower Upper

49 100

128 48.5 24.0 72.0

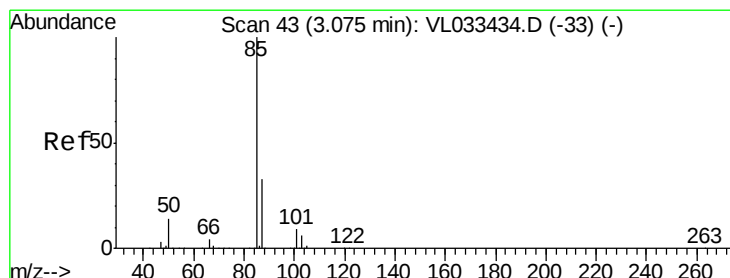
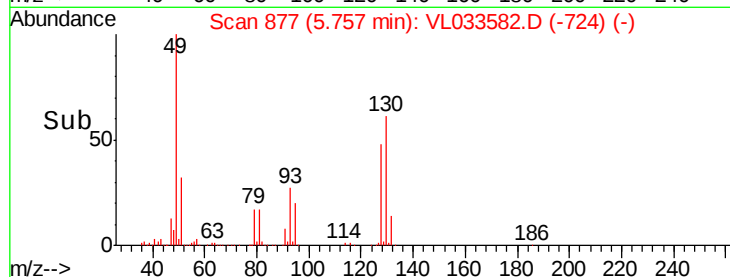
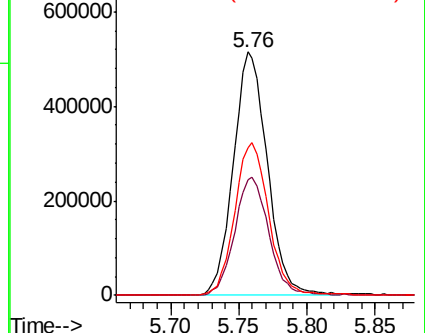
130 63.4 31.2 93.6



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



#2

Dichlorodifluoromethane

Concen: 0.055 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033582.D

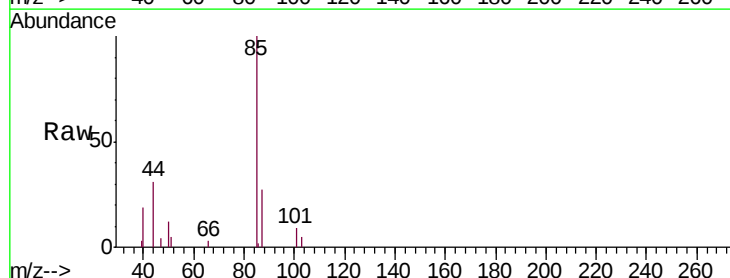
Acq: 11 Apr 2019 2:56

Tgt Ion: 85 Resp: 7176

Ion Ratio Lower Upper

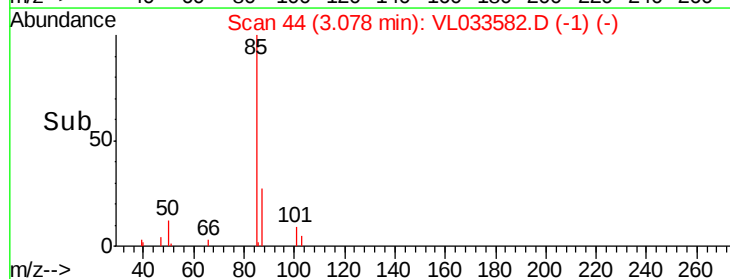
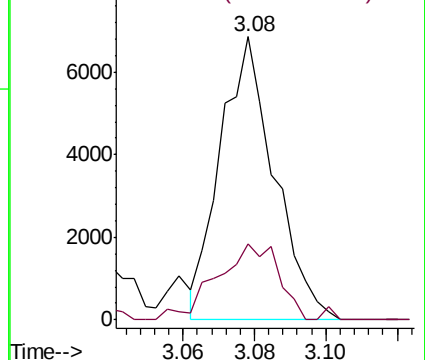
85 100

87 26.9 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.260 ppbv

RT: 2.99 min Scan# 17

Delta R.T. -0.02 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

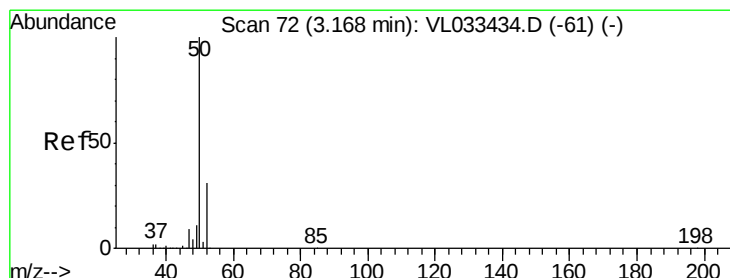
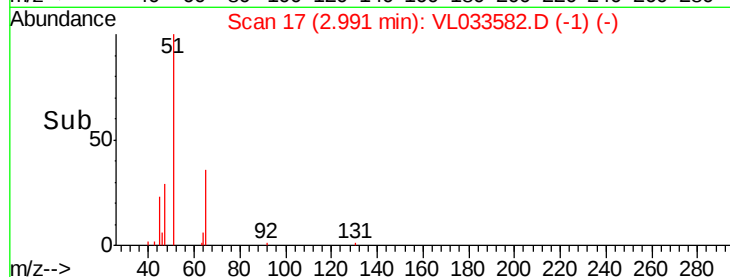
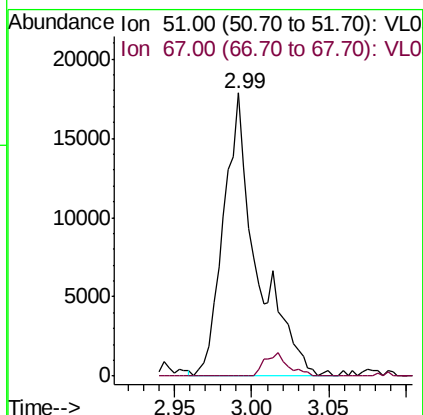
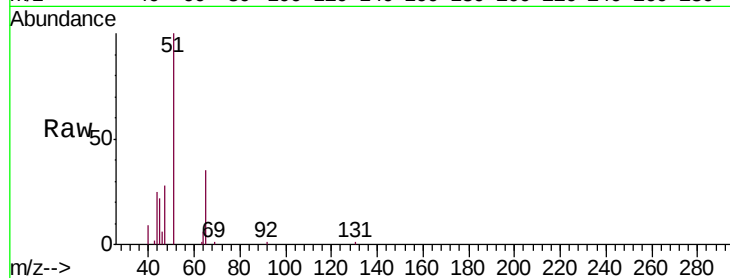
A-9DL

Tgt Ion: 51 Resp: 26705

Ion Ratio Lower Upper

51 100

67 5.8 15.7 23.5#



#4

Chloromethane

Concen: 0.034 ppbv

RT: 3.17 min Scan# 72

Delta R.T. -0.00 min

Lab File: VL033582.D

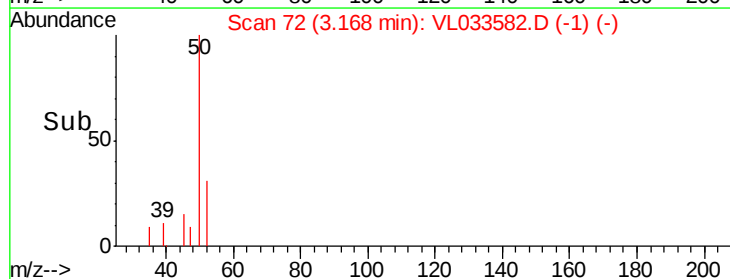
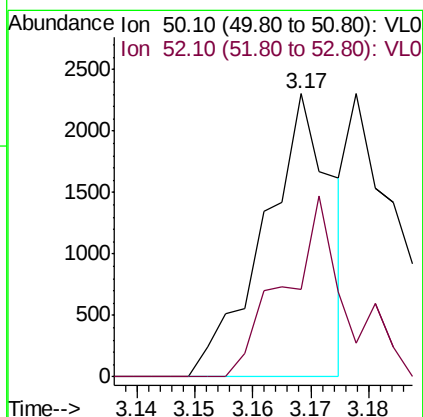
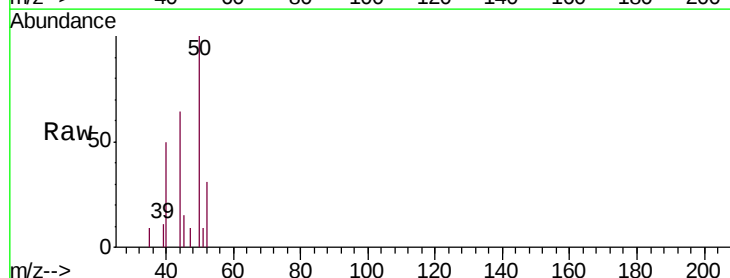
Acq: 11 Apr 2019 2:56

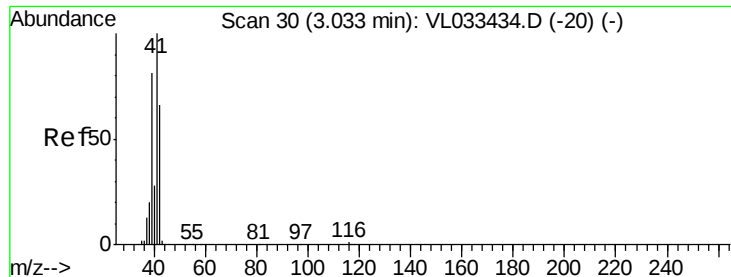
Tgt Ion: 50 Resp: 1869

Ion Ratio Lower Upper

50 100

52 28.5 25.0 37.6





#9

Propene

Concen: 0.082 ppbv

RT: 3.05 min Scan# 36

Delta R.T. 0.02 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

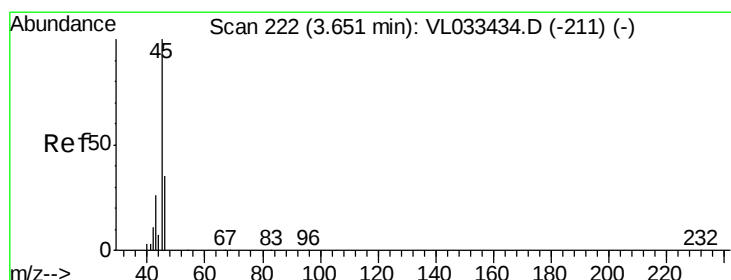
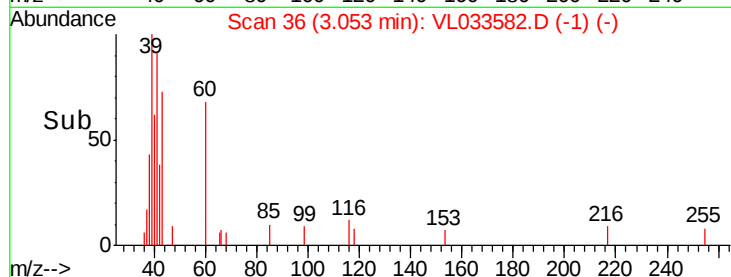
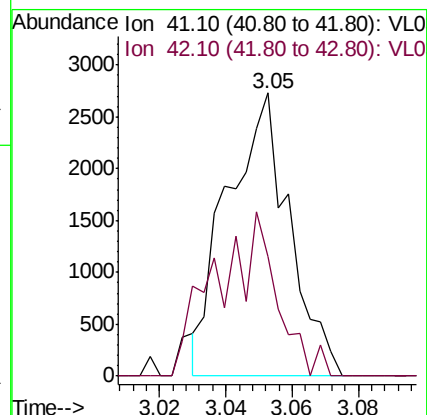
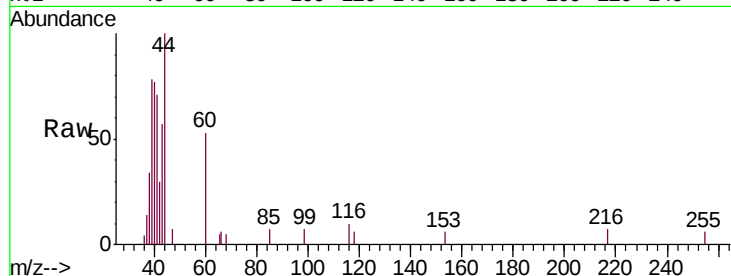
A-9DL

Tgt Ion: 41 Resp: 3545

Ion Ratio Lower Upper

41 100

42 56.4 53.9 80.9



#13

Ethanol

Concen: 3.081 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033582.D

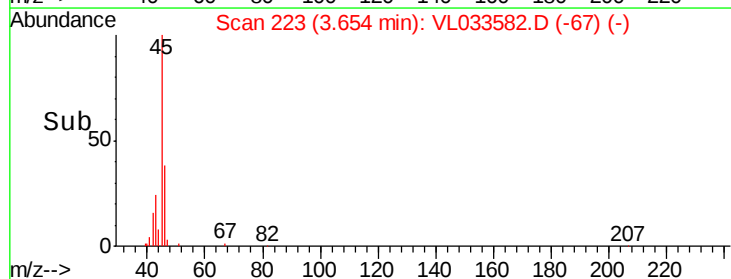
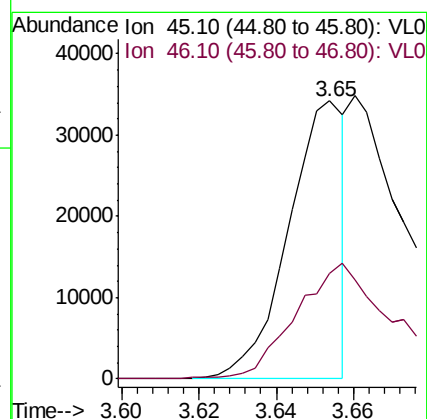
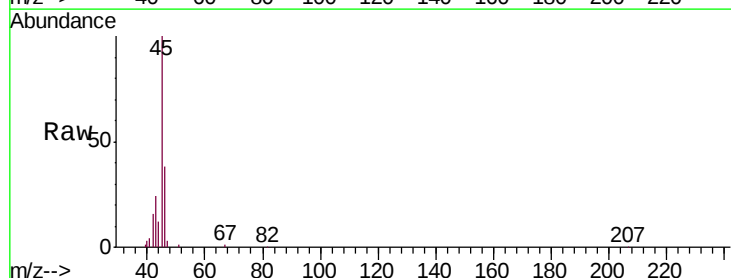
Acq: 11 Apr 2019 2:56

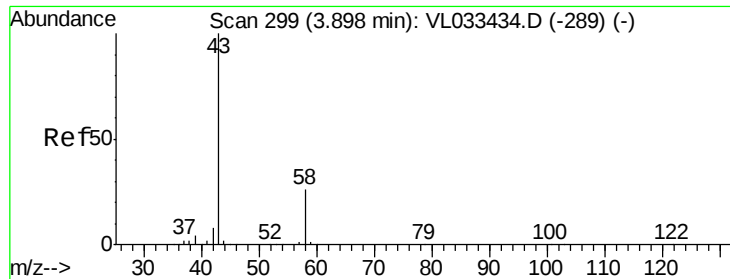
Tgt Ion: 45 Resp: 34385

Ion Ratio Lower Upper

45 100

46 0.0 25.4 101.8#





#15

Acetone

Concen: 1.287 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.01 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

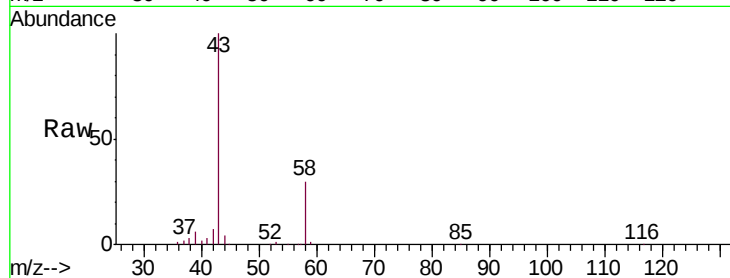
A-9DL

Tgt Ion: 43 Resp: 137985

Ion Ratio Lower Upper

43 100

58 26.3 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.90

100000

80000

60000

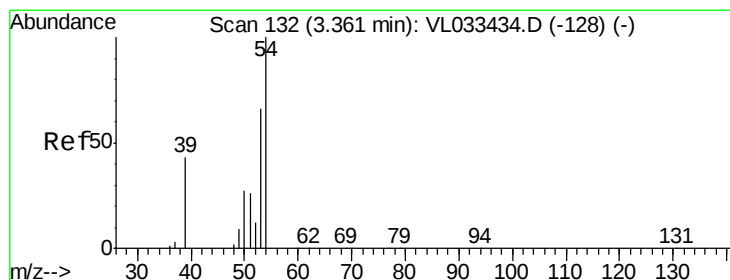
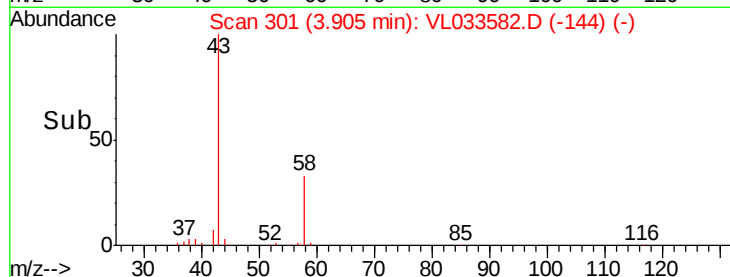
40000

20000

0

Time-->

3.85 3.90 3.95



#16

1,3-Butadiene

Concen: 0.037 ppbv

RT: 3.34 min Scan# 126

Delta R.T. -0.02 min

Lab File: VL033582.D

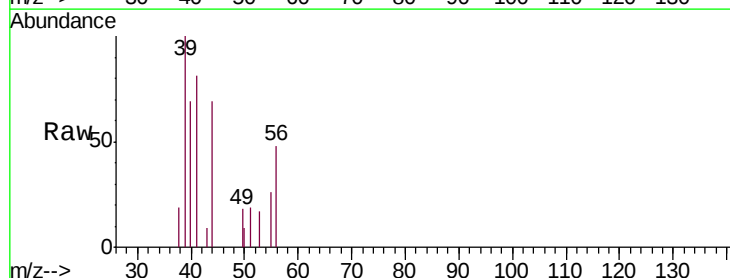
Acq: 11 Apr 2019 2:56

Tgt Ion: 39 Resp: 1556

Ion Ratio Lower Upper

39 100

54 3.3 69.4 104.2#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.34

2500

2000

1500

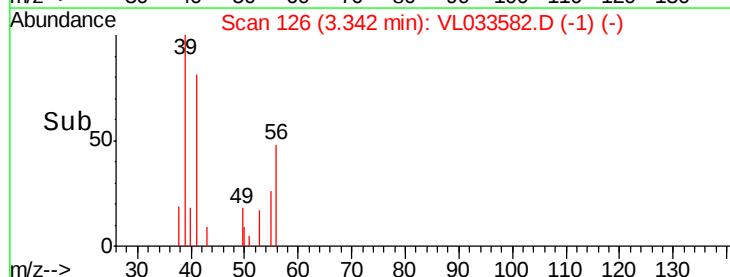
1000

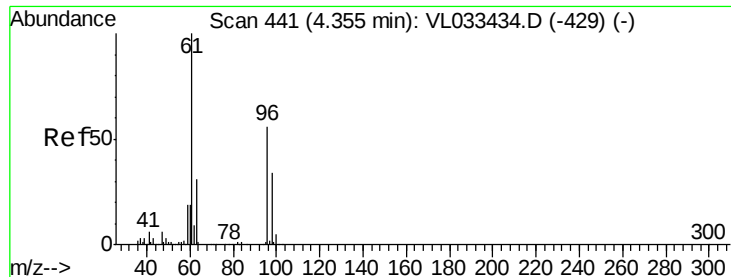
500

0

Time-->

3.32 3.34 3.36

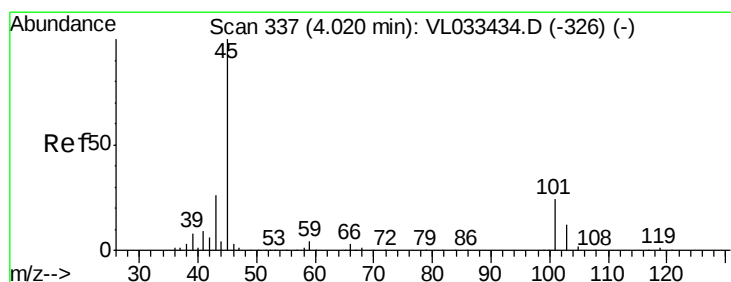
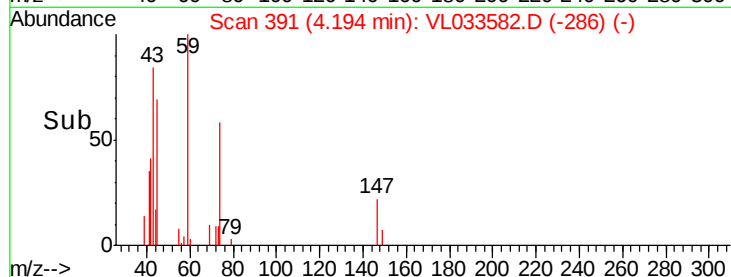
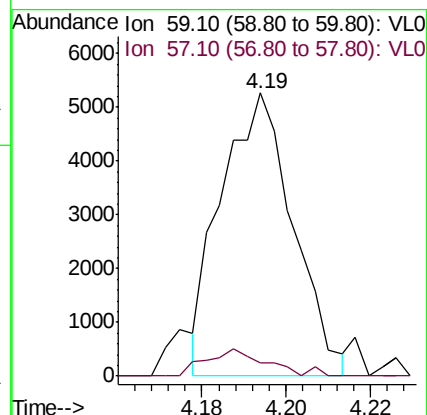
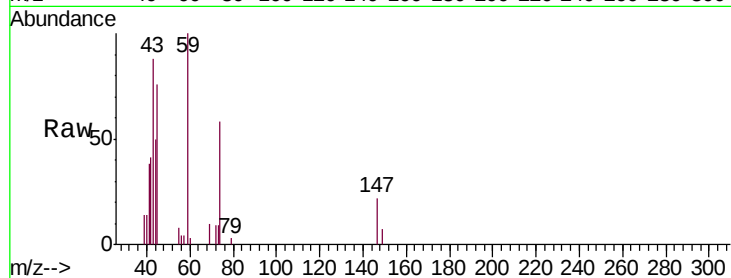




#17  
 tert-Butyl alcohol  
 Concen: 0.316 ppbv  
 RT: 4.19 min Scan# 391  
 Delta R.T. -0.16 min  
 Lab File: VL033582.D  
 Acq: 11 Apr 2019 2:56

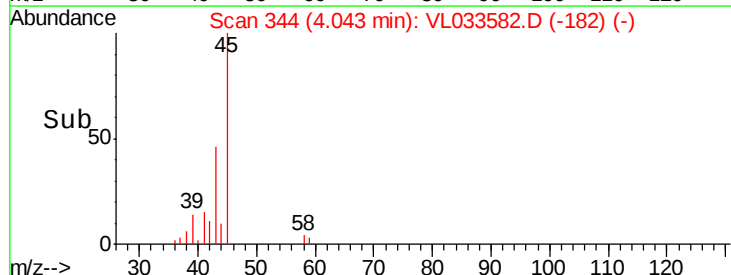
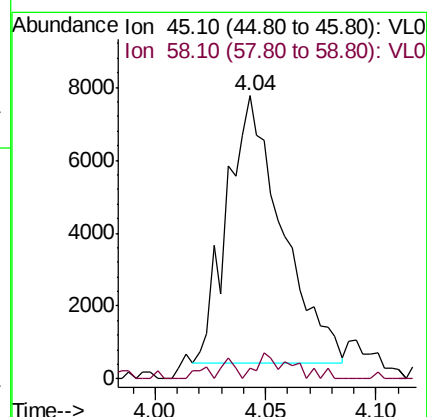
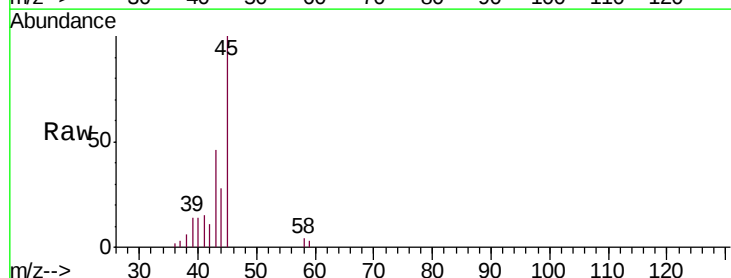
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 A-9DL

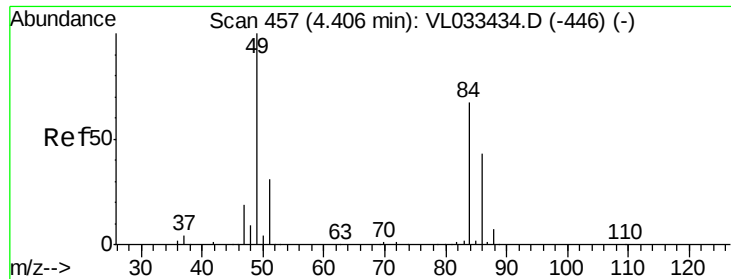
Tgt Ion: 59 Resp: 6239  
 Ion Ratio Lower Upper  
 59 100  
 57 8.2 7.8 11.8



#19  
 Isopropyl Alcohol  
 Concen: 0.187 ppbv  
 RT: 4.04 min Scan# 344  
 Delta R.T. 0.02 min  
 Lab File: VL033582.D  
 Acq: 11 Apr 2019 2:56

Tgt Ion: 45 Resp: 12717  
 Ion Ratio Lower Upper  
 45 100  
 58 8.8 1.4 2.2#

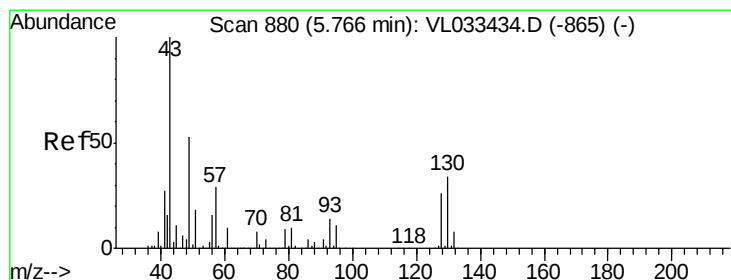
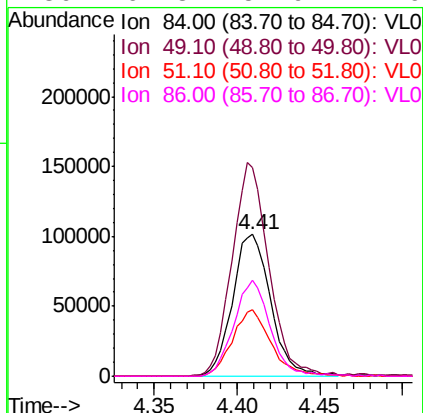
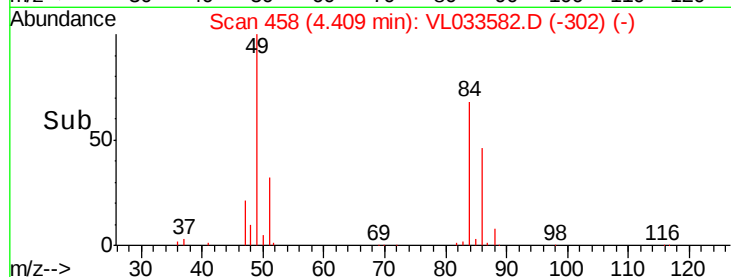
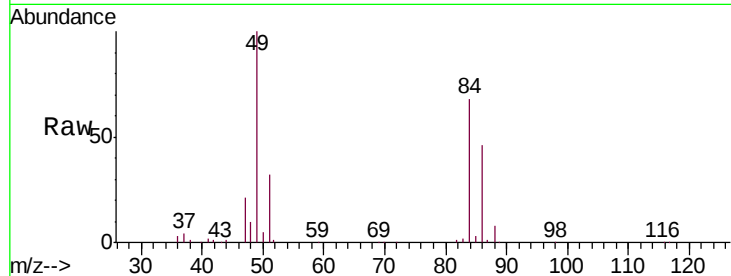




#20  
Methylene Chloride  
Concen: 3.574 ppbv  
RT: 4.41 min Scan# 458  
Delta R.T. 0.00 min  
Lab File: VL033582.D  
Acq: 11 Apr 2019 2:56

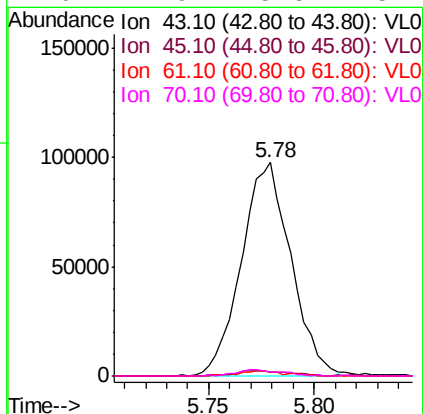
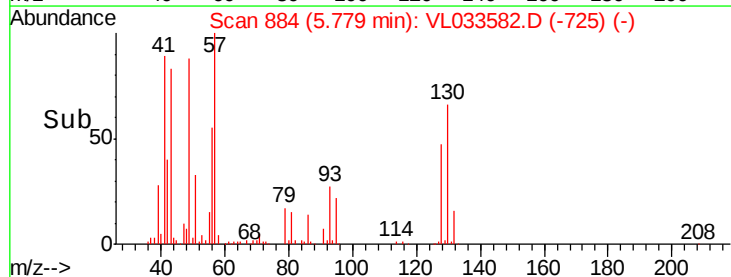
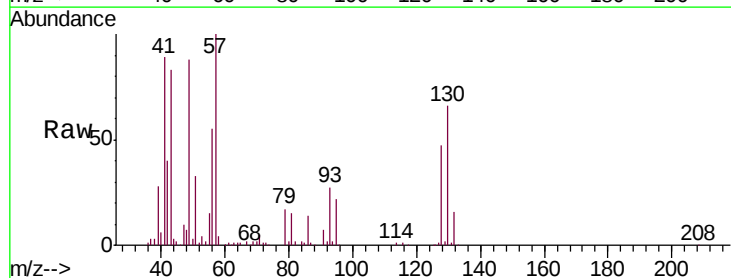
Instrument :  
MSVOA\_L  
ClientSampled :  
A-9DL

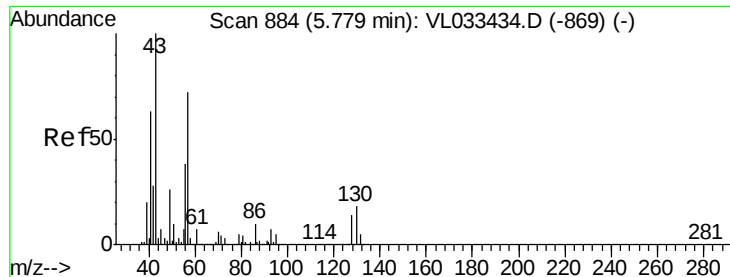
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 84    | Resp: | 162701 |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 147.6 | 120.0 | 180.0  |
| 51       | 47.5  | 36.7  | 55.1   |
| 86       | 67.8  | 51.9  | 77.9   |



#25  
Ethyl Acetate  
Concen: 0.800 ppbv  
RT: 5.78 min Scan# 884  
Delta R.T. 0.01 min  
Lab File: VL033582.D  
Acq: 11 Apr 2019 2:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 159122 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 3.0   | 7.8   | 11.6#  |
| 61       | 2.3   | 7.3   | 10.9#  |
| 70       | 2.9   | 5.6   | 8.4#   |

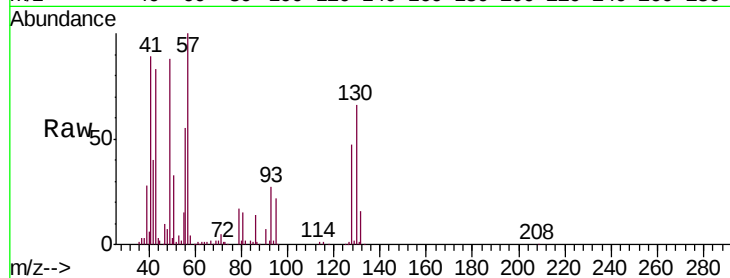




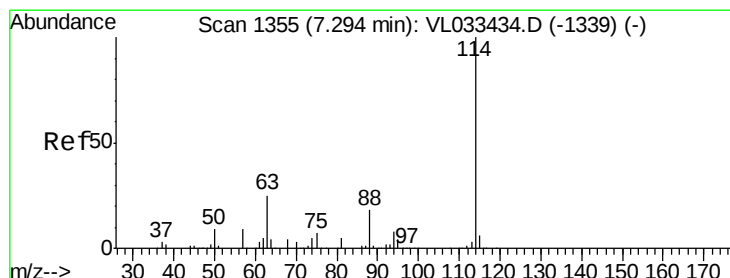
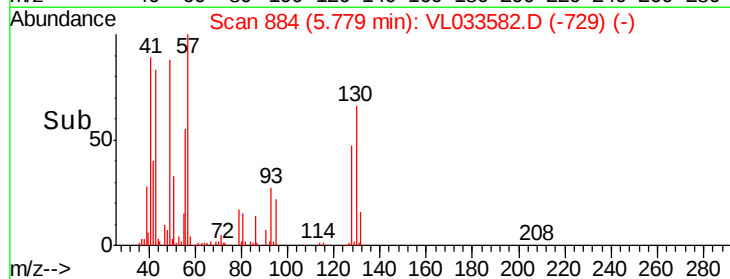
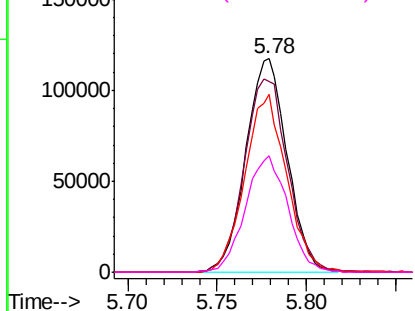
#26  
Hexane  
Concen: 2.155 ppbv  
RT: 5.78 min Scan# 884  
Delta R.T. -0.00 min  
Lab File: VL033582.D  
Acq: 11 Apr 2019 2:56

Instrument :  
MSVOA\_L  
ClientSampleID :  
A-9DL

Tgt Ion: 57 Resp: 190684  
Ion Ratio Lower Upper  
57 100  
41 95.6 70.7 106.1  
43 84.7 182.6 274.0#  
56 56.0 42.0 63.0

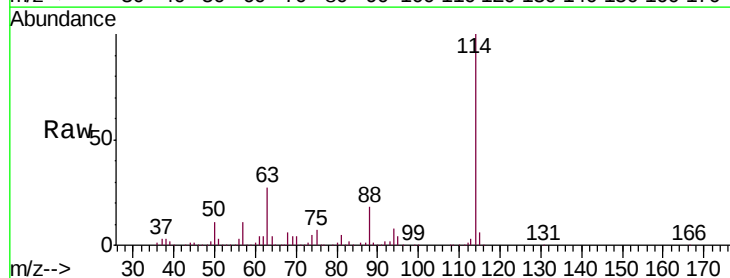


Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0

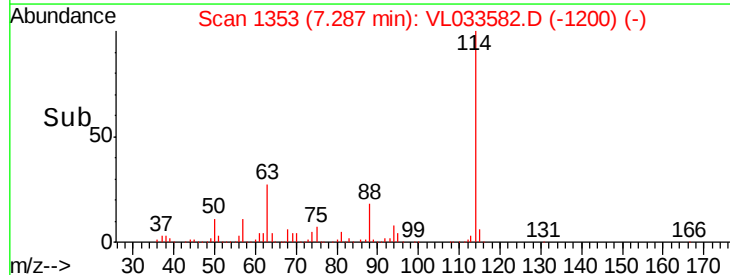
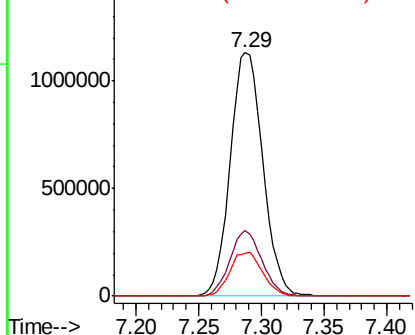


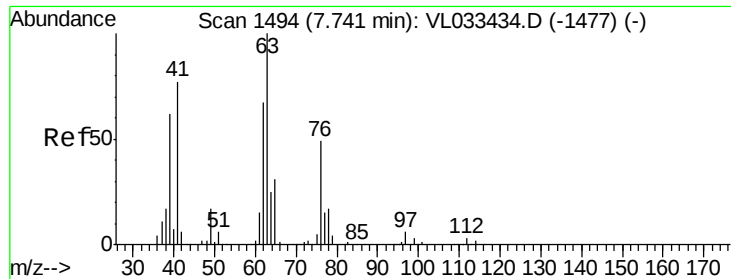
#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.29 min Scan# 1353  
Delta R.T. -0.01 min  
Lab File: VL033582.D  
Acq: 11 Apr 2019 2:56

Tgt Ion: 114 Resp: 2043411  
Ion Ratio Lower Upper  
114 100  
63 26.5 21.5 32.3  
88 18.3 14.5 21.7



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

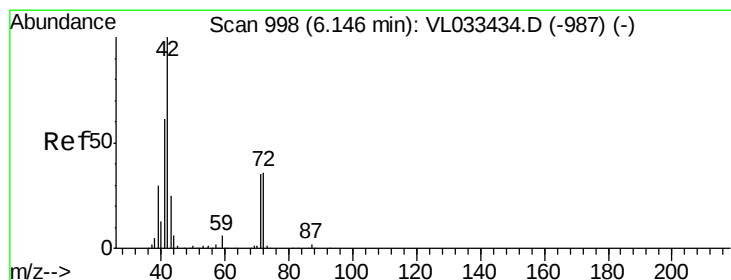
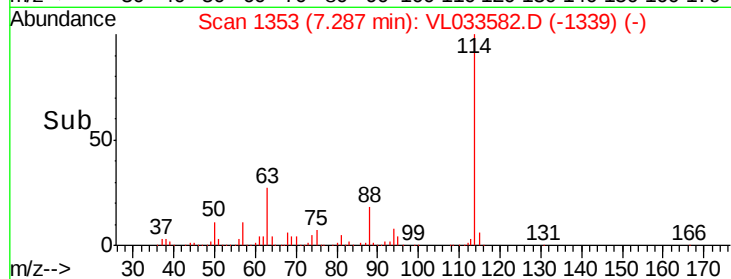
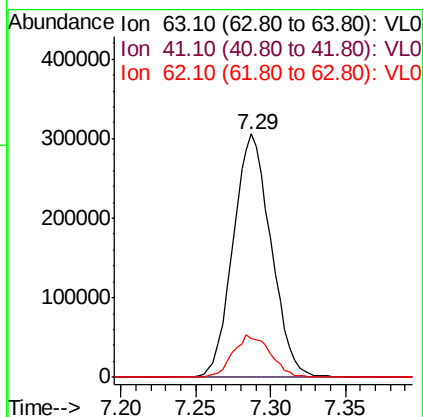
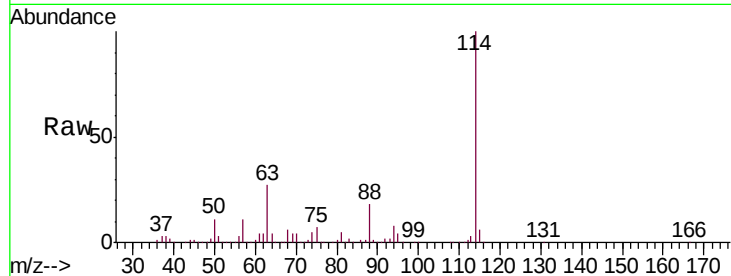




#39  
 1,2-Dichloropropane  
 Concen: 8.025 ppbv  
 RT: 7.29 min Scan# 1353  
 Delta R.T. -0.45 min  
 Lab File: VL033582.D  
 Acq: 11 Apr 2019 2:56

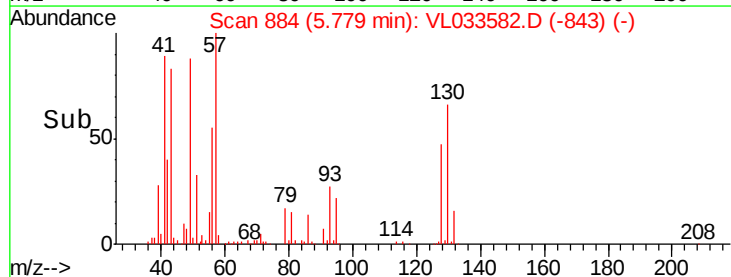
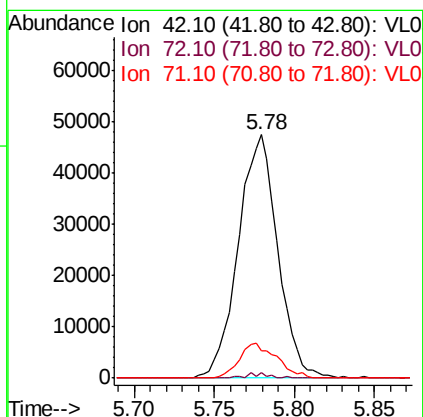
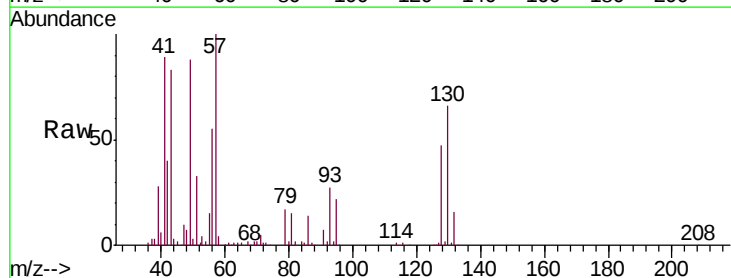
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 A-9DL

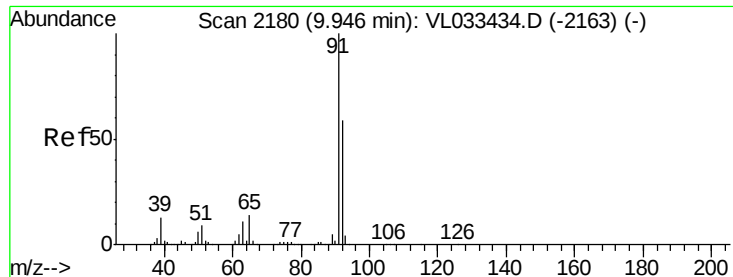
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 0.0   | 61.2  | 91.8# |
| 62      | 15.9  | 54.0  | 81.0# |



#41  
 Tetrahydrofuran  
 Concen: 1.181 ppbv  
 RT: 5.78 min Scan# 884  
 Delta R.T. -0.37 min  
 Lab File: VL033582.D  
 Acq: 11 Apr 2019 2:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 1.1   | 30.2  | 45.2# |
| 71      | 13.6  | 29.4  | 44.2# |





#53

Toluene

Concen: 0.130 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

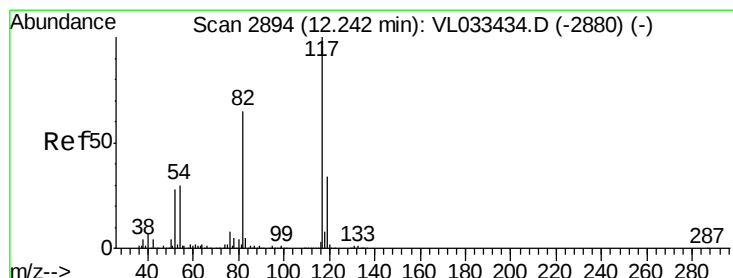
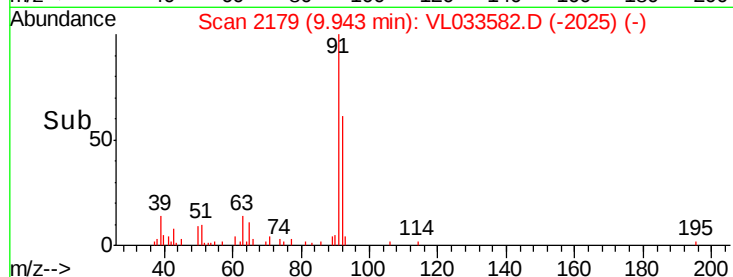
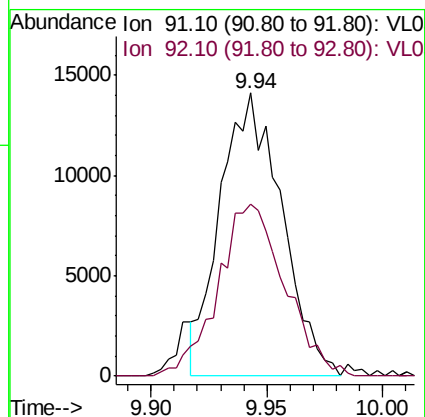
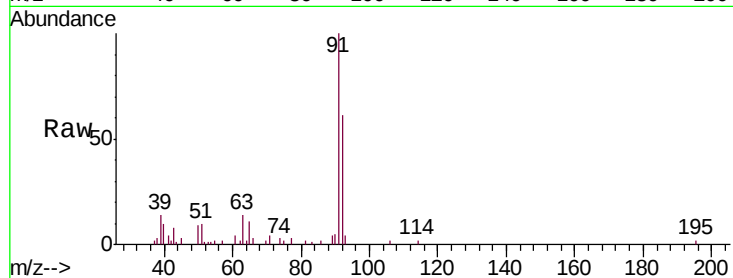
A-9DL

Tgt Ion: 91 Resp: 25974

Ion Ratio Lower Upper

91 100

92 66.1 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

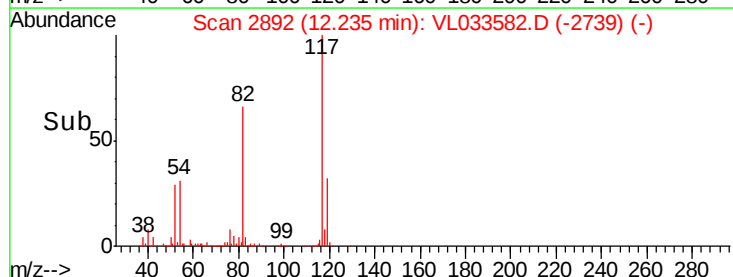
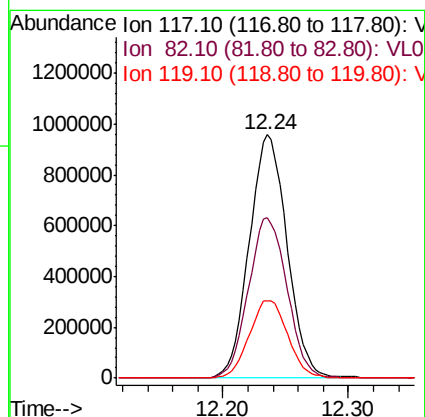
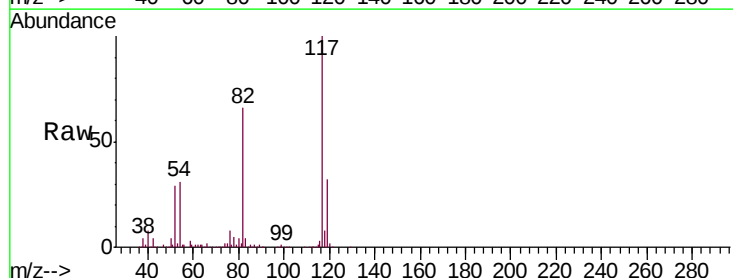
Tgt Ion: 117 Resp: 2014819

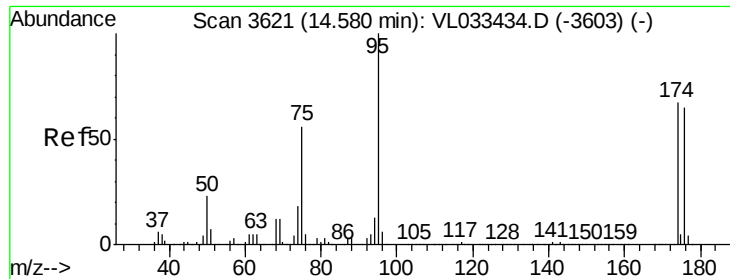
Ion Ratio Lower Upper

117 100

82 67.6 51.5 77.3

119 32.6 25.5 38.3





#68

1-Bromo-4-Fluorobenzene

Concen: 10.200 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL033582.D

Acq: 11 Apr 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

A-9DL

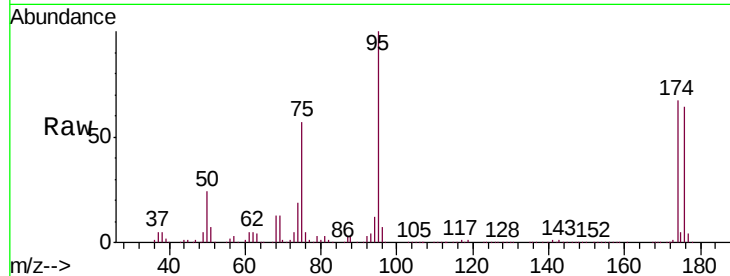
Tgt Ion: 95 Resp: 1611118

Ion Ratio Lower Upper

95 100

174 66.3 52.9 79.3

175 4.9 3.8 5.6



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

