

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL100719\  
 Data File : VL034230.D  
 Acq On : 7 Oct 2019 20:16  
 Operator : SY/AP  
 Sample : K5225-02DL 10X  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA3DL

Quant Time: Oct 09 02:21:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL091719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep 18 12:53:31 2019  
 QLast Update : Wed Sep 18 12:53:31 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.69  | 49   | 1140565  | 10.00 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 7.21  | 114  | 1869836  | 10.00 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 12.15 | 117  | 1918242  | 10.00 | ppbv  | -0.02    |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.49  | 95    | 1718734  | 10.31    | ppbv | -0.02   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 103.10% |

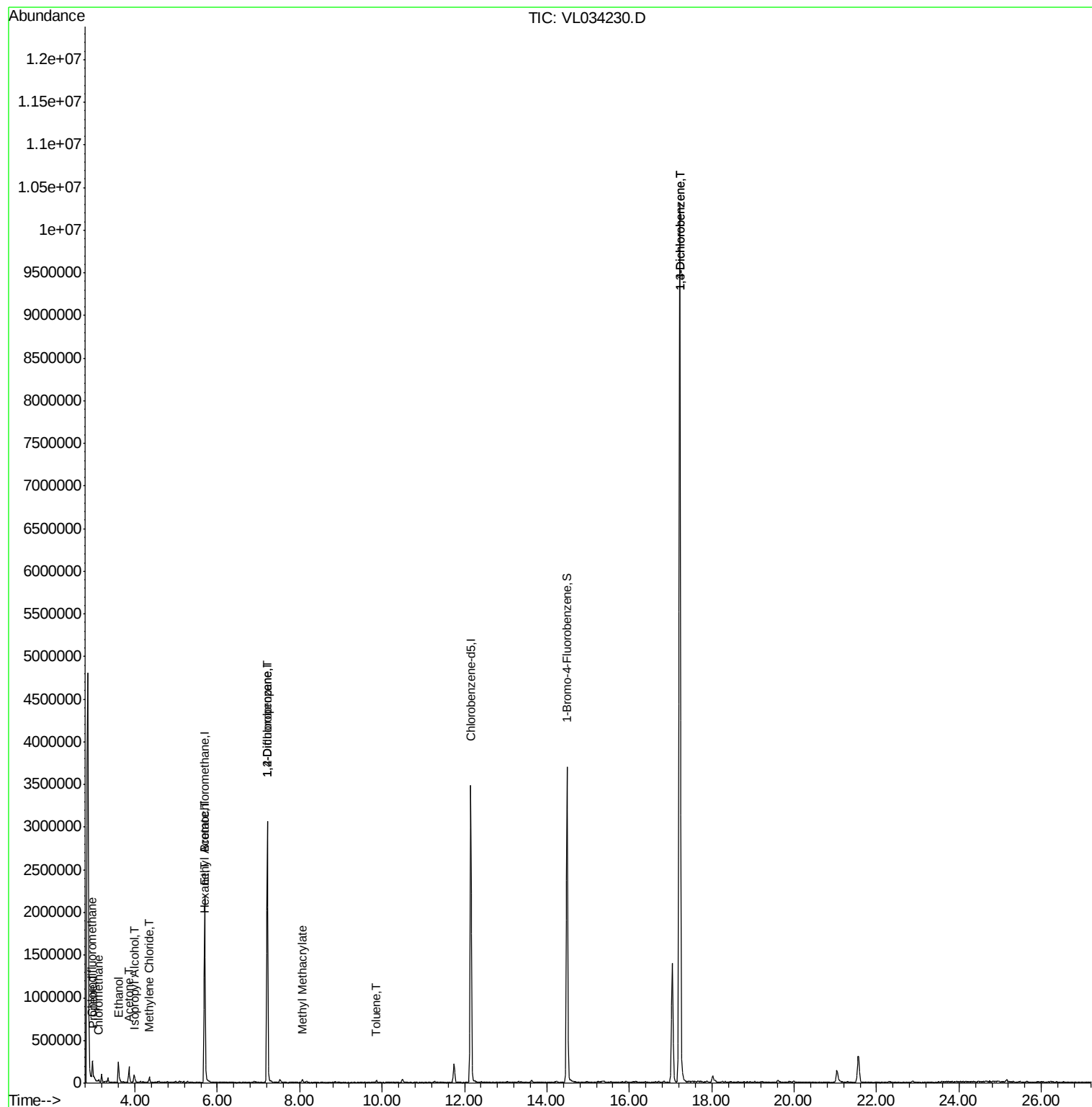
| Target Compounds         | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------|-------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane | 2.97  | 51   | 195757   | 1.464  | ppbv   | 97     |
| 4) Chloromethane         | 3.12  | 50   | 5104     | 0.065  | ppbv # | 80     |
| 9) Propene               | 2.99  | 41   | 6155     | 0.093  | ppbv # | 61     |
| 13) Ethanol              | 3.59  | 45   | 240291   | 15.040 | ppbv   | 97     |
| 15) Acetone              | 3.85  | 43   | 172456   | 1.128  | ppbv   | 96     |
| 19) Isopropyl Alcohol    | 3.98  | 45   | 100322   | 1.067  | ppbv # | 97     |
| 20) Methylene Chloride   | 4.35  | 84   | 18773    | 0.426  | ppbv # | 78     |
| 25) Ethyl Acetate        | 5.71  | 43   | 26252    | 0.091  | ppbv # | 92     |
| 26) Hexane               | 5.71  | 57   | 13997    | 0.116  | ppbv # | 78     |
| 39) 1,2-Dichloropropane  | 7.21  | 63   | 624182   | 6.727  | ppbv # | 20     |
| 43) Methyl Methacrylate  | 8.06  | 69   | 6877     | 0.081  | ppbv # | 1      |
| 53) Toluene              | 9.85  | 91   | 8571     | 0.038  | ppbv # | 20     |
| 75) 1,3-Dichlorobenzene  | 17.23 | 146  | 4880540  | 30.619 | ppbv   | 98     |
| 76) 1,4-Dichlorobenzene  | 17.23 | 146  | 4880540  | 29.898 | ppbv   | 96     |

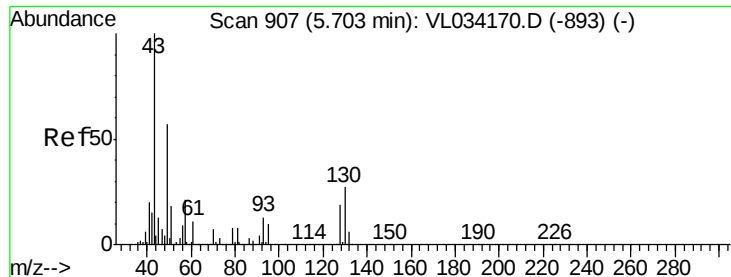
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_L\METHODS\VL091719AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep 18 12:53:31 2019  
QLast Update : Wed Sep 18 12:53:31 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Instrument :

MSVOA\_L

ClientSampleId :

IA3DL

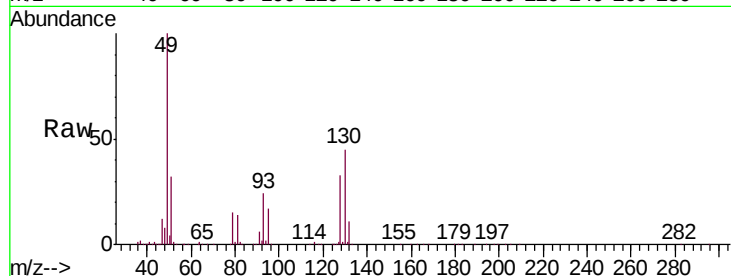
Tgt Ion: 49 Resp: 1140565

Ion Ratio Lower Upper

49 100

128 34.8 17.6 52.9

130 45.8 22.3 66.9



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

800000

600000

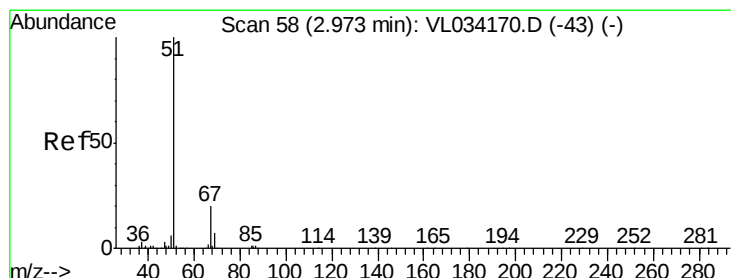
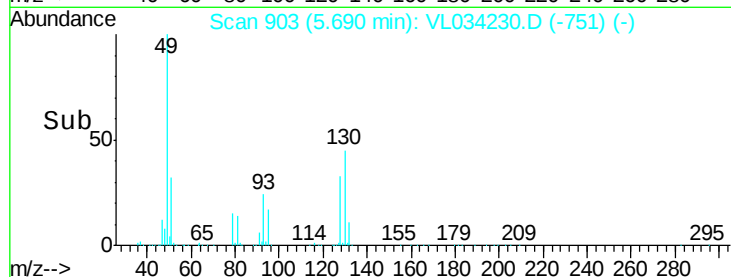
400000

200000

0

5.60 5.65 5.70 5.75

Time-->



#3

Chlorodifluoromethane

Concen: 1.464 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL034230.D

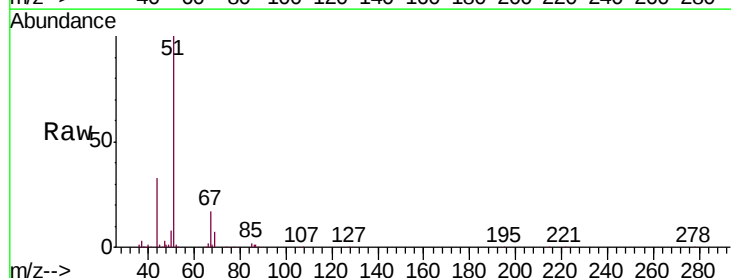
Acq: 7 Oct 2019 20:16

Tgt Ion: 51 Resp: 195757

Ion Ratio Lower Upper

51 100

67 16.9 14.8 22.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

150000

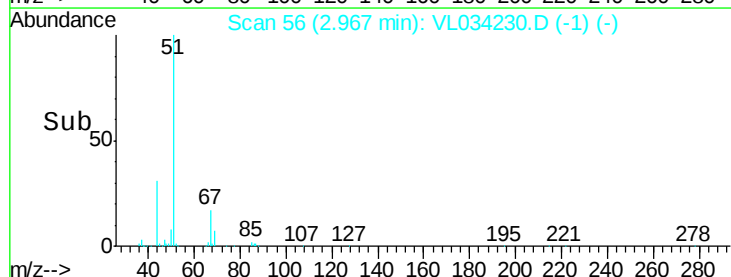
100000

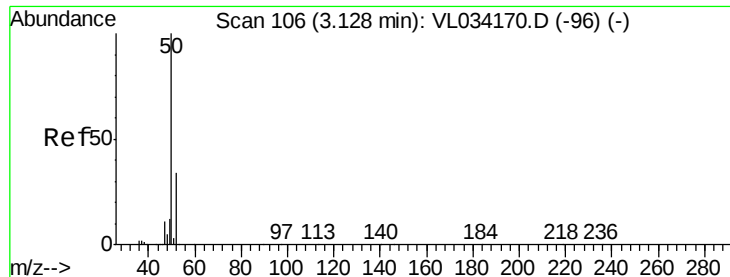
50000

0

2.90 2.95 3.00 3.10

Time-->





#4

Chloromethane

Concen: 0.065 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.00 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Instrument :

MSVOA\_L

ClientSampleId :

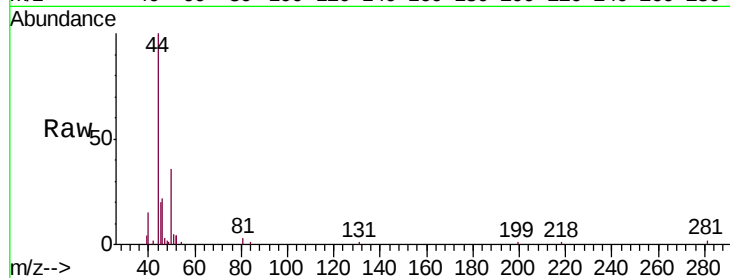
IA3DL

Tgt Ion: 50 Resp: 5104

Ion Ratio Lower Upper

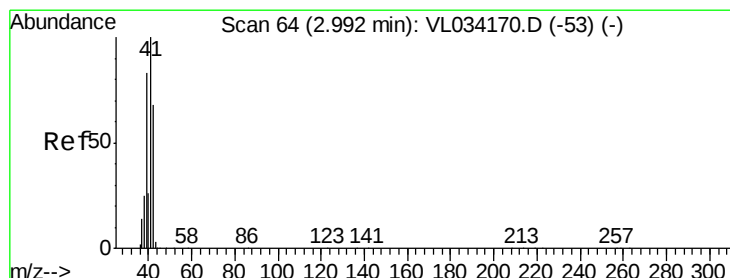
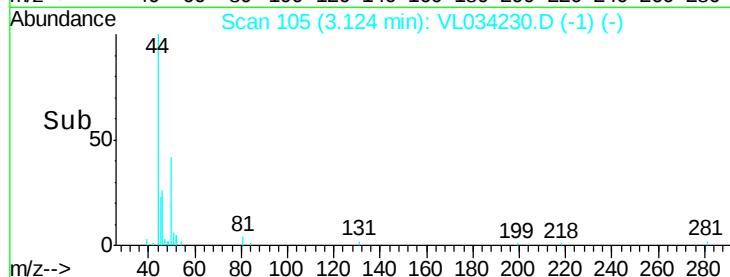
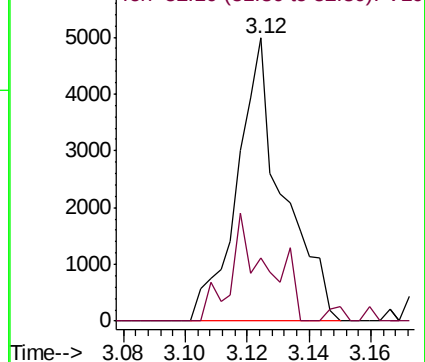
50 100

52 22.2 27.1 40.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.093 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.00 min

Lab File: VL034230.D

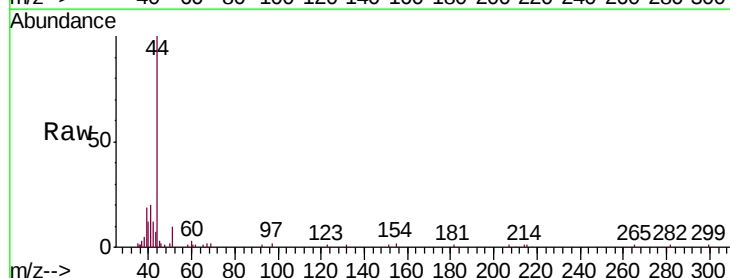
Acq: 7 Oct 2019 20:16

Tgt Ion: 41 Resp: 6155

Ion Ratio Lower Upper

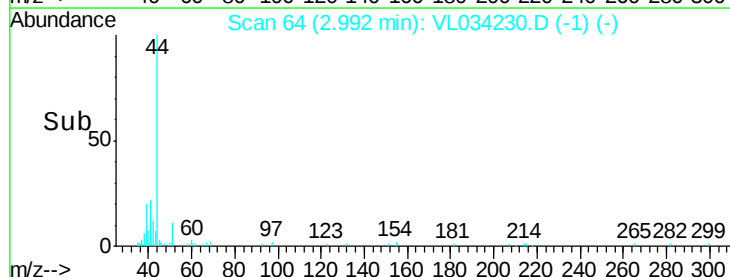
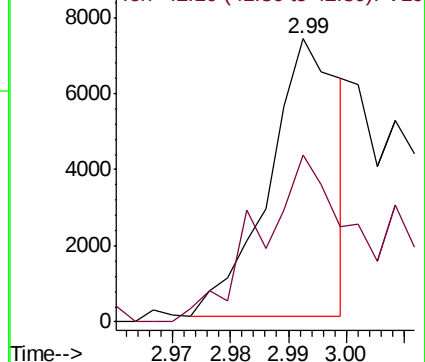
41 100

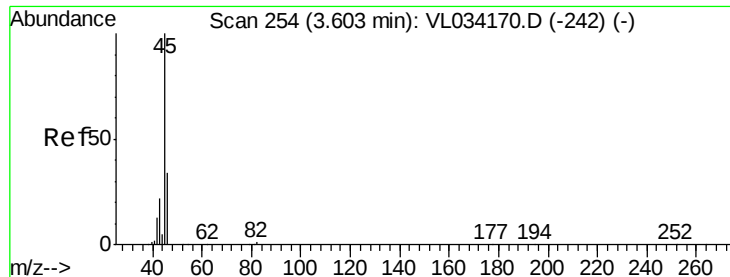
42 101.8 55.8 83.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#13

Ethanol

Concen: 15.040 ppbv

RT: 3.59 min Scan# 251

Delta R.T. -0.01 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Instrument :

MSVOA\_L

ClientSampleId :

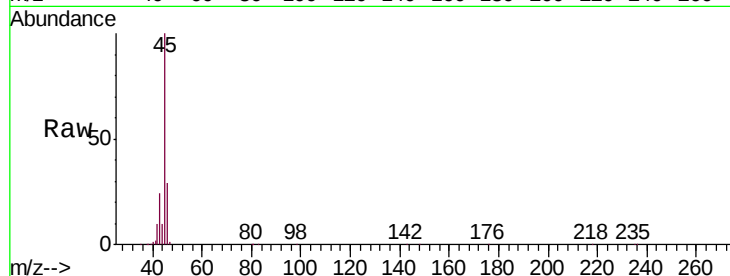
IA3DL

Tgt Ion: 45 Resp: 240291

Ion Ratio Lower Upper

45 100

46 36.7 15.5 61.9



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.59

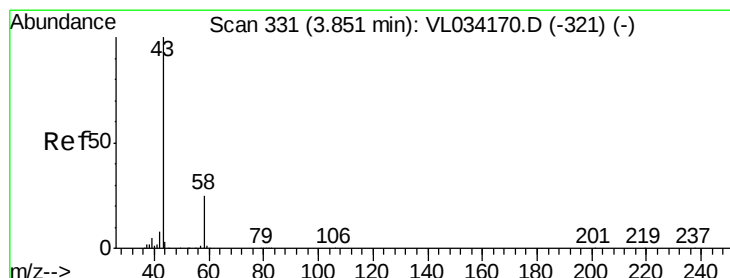
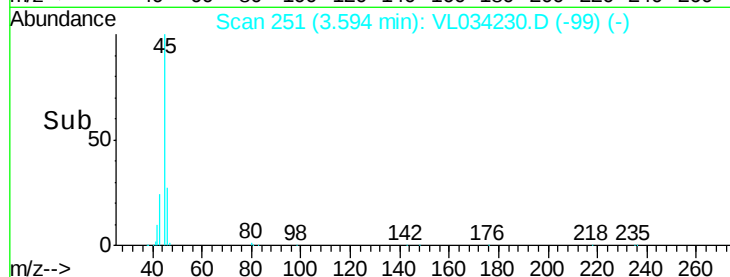
150000

100000

50000

0

Time-->



#15

Acetone

Concen: 1.128 ppbv

RT: 3.85 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL034230.D

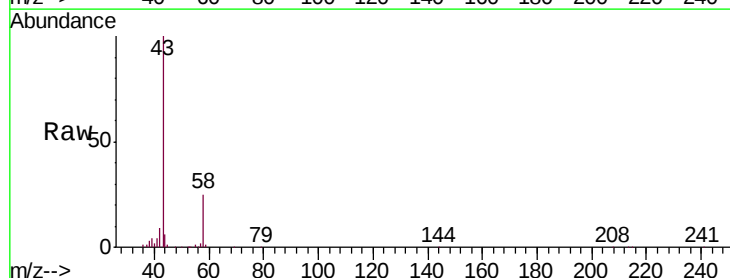
Acq: 7 Oct 2019 20:16

Tgt Ion: 43 Resp: 172456

Ion Ratio Lower Upper

43 100

58 23.7 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

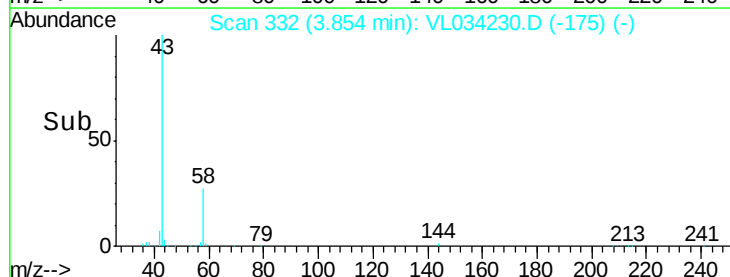
3.85

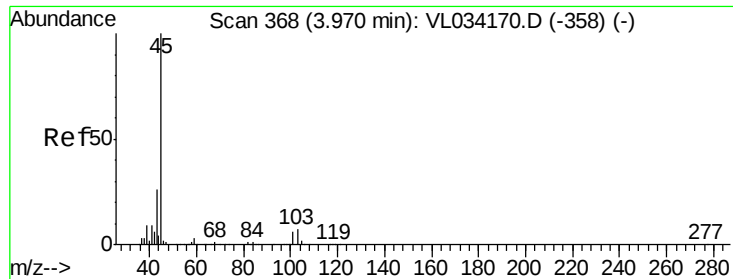
100000

50000

0

Time-->





#19

Isopropyl Alcohol

Concen: 1.067 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Instrument :

MSVOA\_L

ClientSampleId :

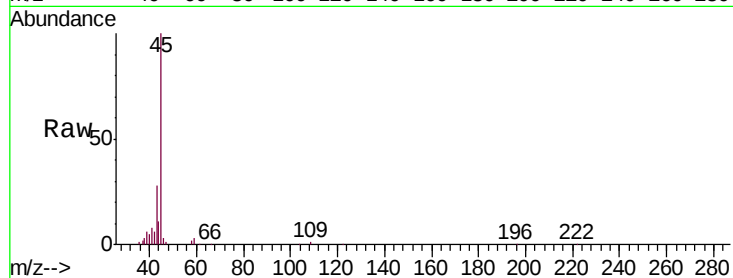
IA3DL

Tgt Ion: 45 Resp: 100322

Ion Ratio Lower Upper

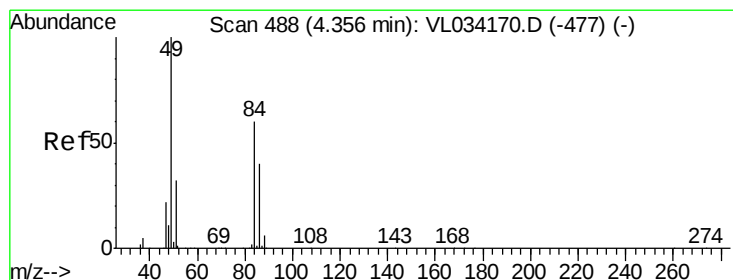
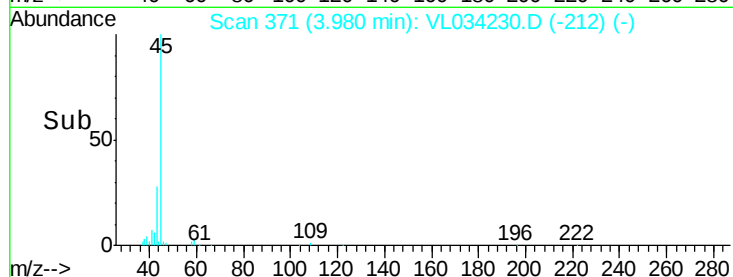
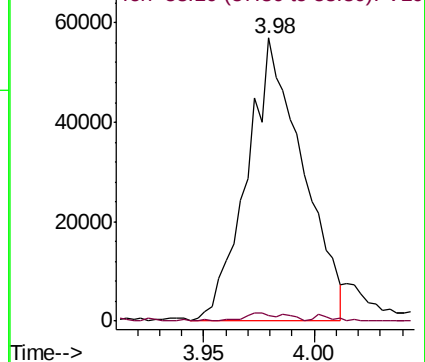
45 100

58 2.9 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.426 ppbv

RT: 4.35 min Scan# 485

Delta R.T. -0.01 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Tgt Ion: 84 Resp: 18773

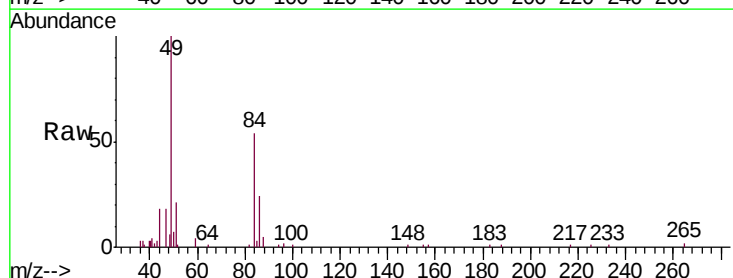
Ion Ratio Lower Upper

84 100

49 194.0 133.8 200.8

51 39.5 43.6 65.4#

86 44.0 53.1 79.7#

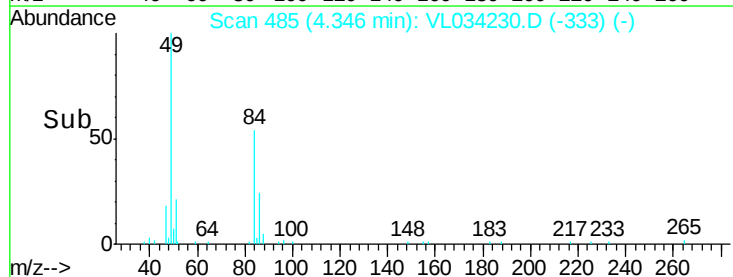
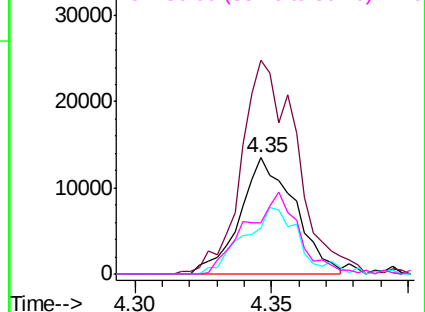


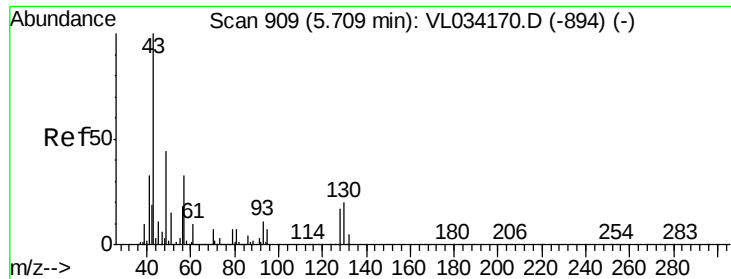
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

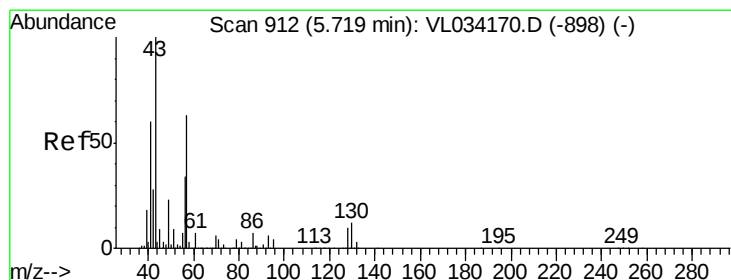
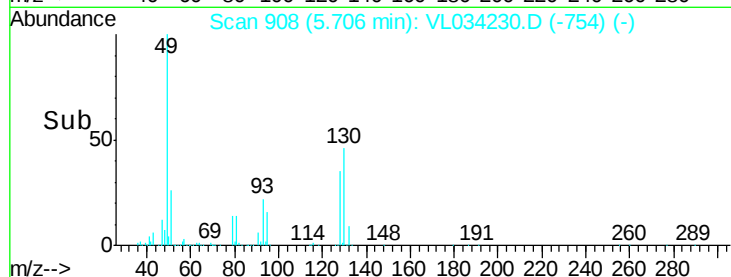
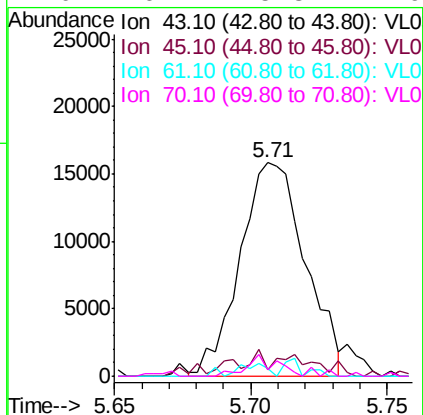
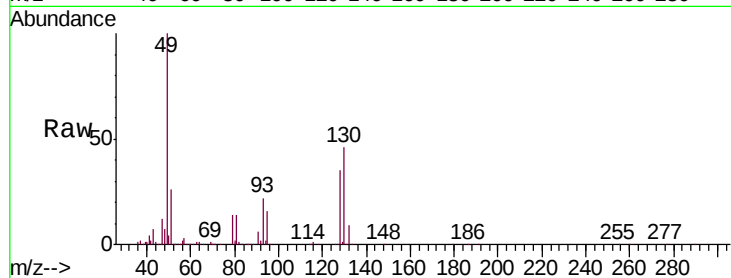




#25  
Ethyl Acetate  
Concen: 0.091 ppbv  
RT: 5.71 min Scan# 908  
Delta R.T. -0.00 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

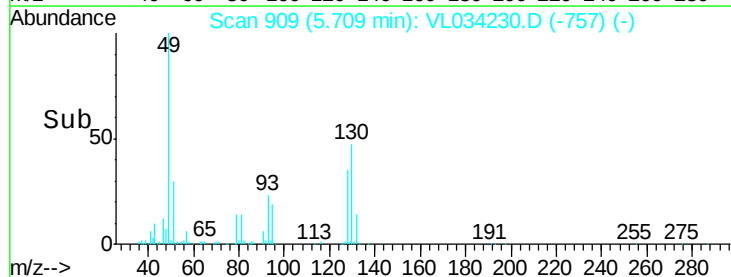
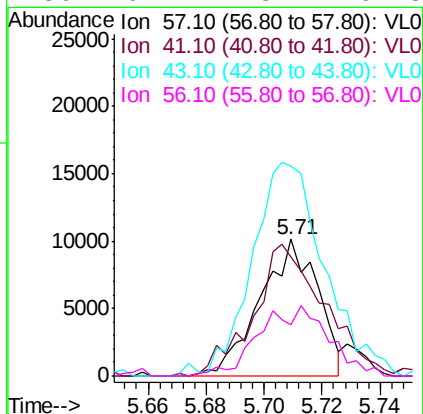
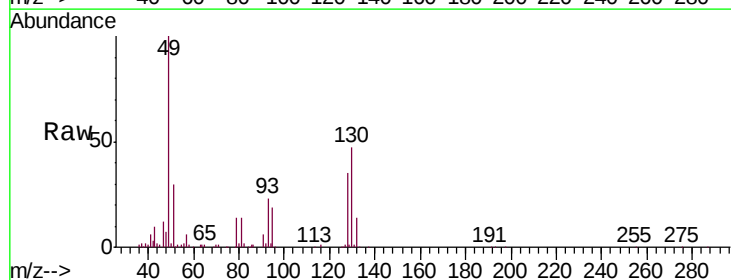
Instrument :  
MSVOA\_L  
ClientSampleID :  
IA3DL

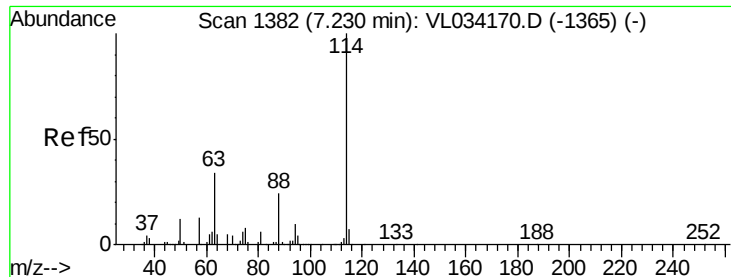
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 26252 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 13.4  | 8.4   | 12.6# |
| 61       | 4.7   | 7.2   | 10.8# |
| 70       | 6.2   | 5.3   | 7.9   |



#26  
Hexane  
Concen: 0.116 ppbv  
RT: 5.71 min Scan# 909  
Delta R.T. -0.01 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 13997  |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 121.2 | 78.5  | 117.7# |
| 43       | 197.6 | 189.5 | 284.3  |
| 56       | 64.1  | 43.2  | 64.8   |

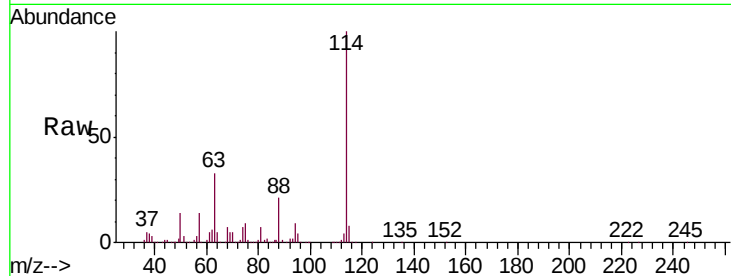




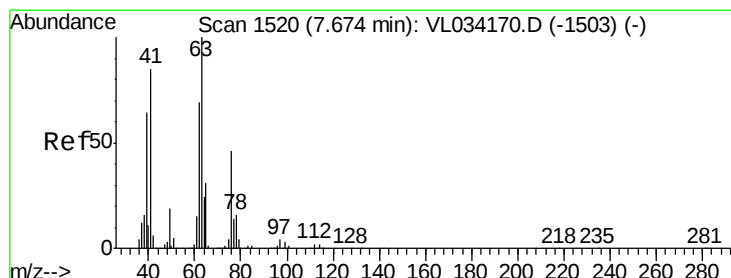
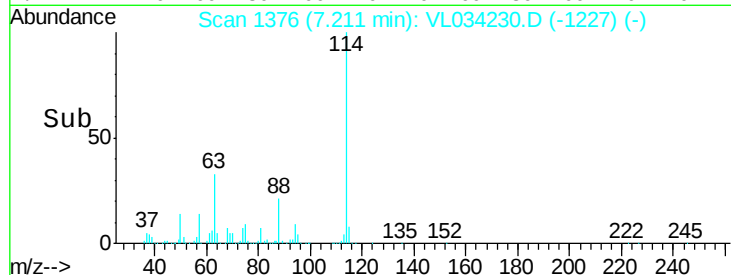
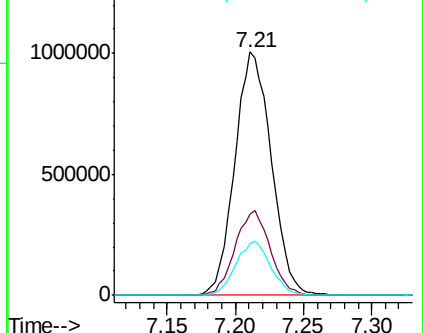
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.21 min Scan# 1376  
 Delta R.T. -0.02 min  
 Lab File: VL034230.D  
 Acq: 7 Oct 2019 20:16

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA3DL

Tgt Ion: 114 Resp: 1869836  
 Ion Ratio Lower Upper  
 114 100  
 63 33.8 27.8 41.6  
 88 21.4 17.1 25.7

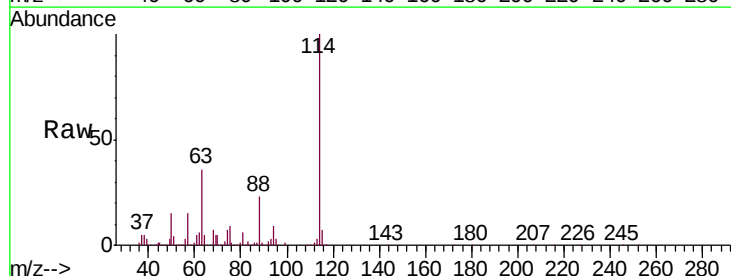


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

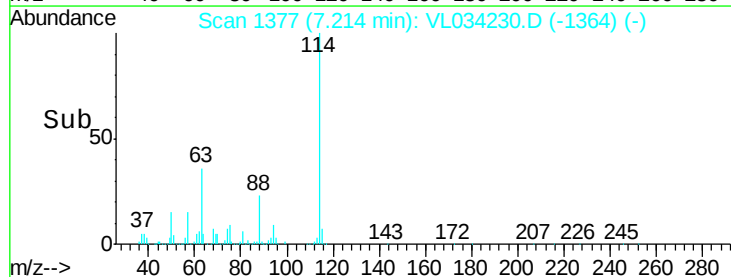
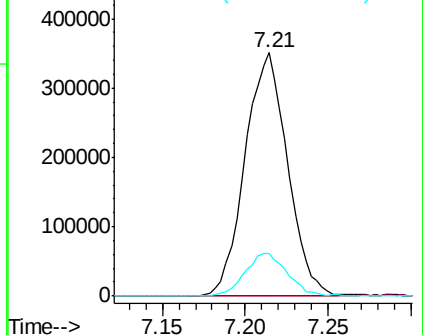


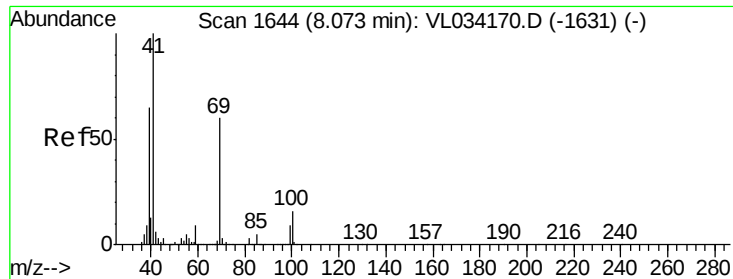
#39  
 1,2-Dichloropropane  
 Concen: 6.727 ppbv  
 RT: 7.21 min Scan# 1377  
 Delta R.T. -0.46 min  
 Lab File: VL034230.D  
 Acq: 7 Oct 2019 20:16

Tgt Ion: 63 Resp: 624182  
 Ion Ratio Lower Upper  
 63 100  
 41 0.1 68.4 102.6#  
 62 17.5 55.4 83.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0  
 Ion 41.10 (40.80 to 41.80): VL0  
 Ion 62.10 (61.80 to 62.80): VL0

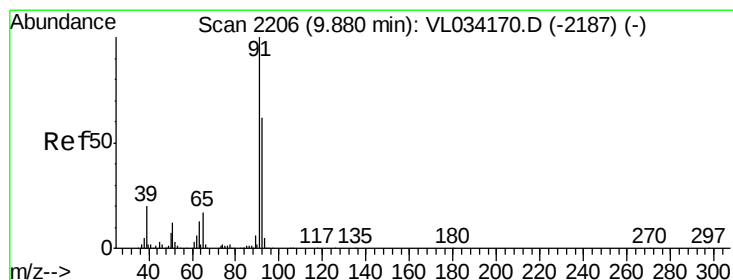
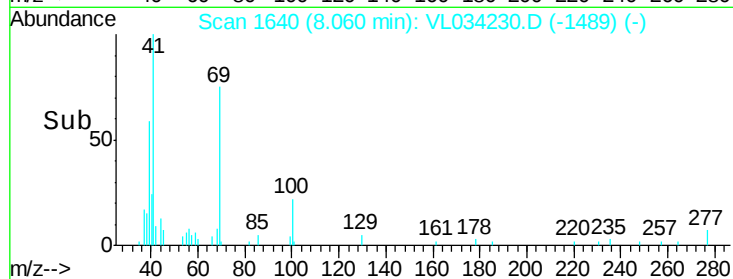
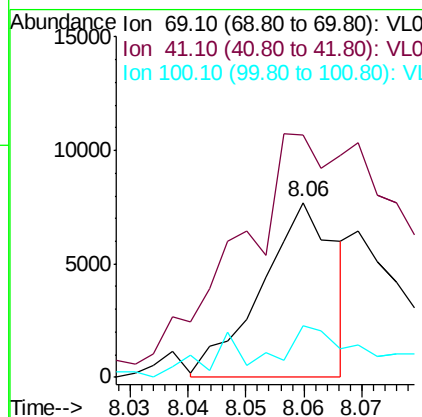
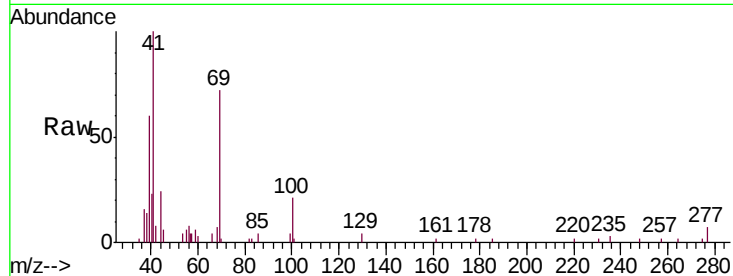




#43  
Methyl Methacrylate  
Concen: 0.081 ppbv  
RT: 8.06 min Scan# 1640  
Delta R.T. -0.01 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

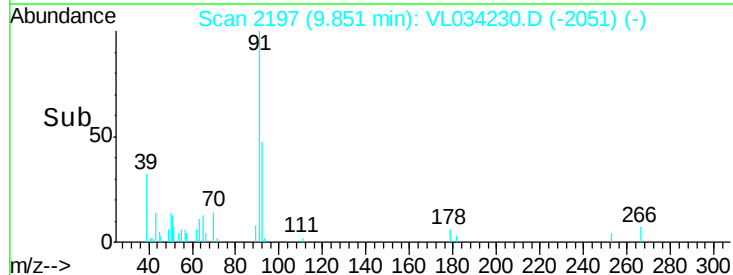
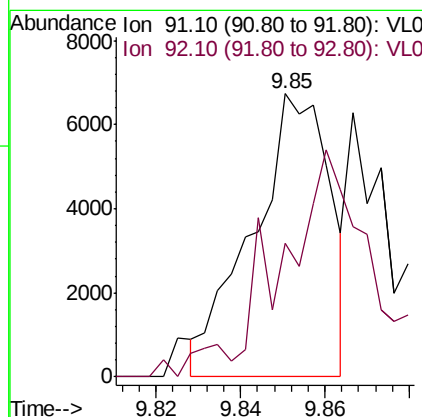
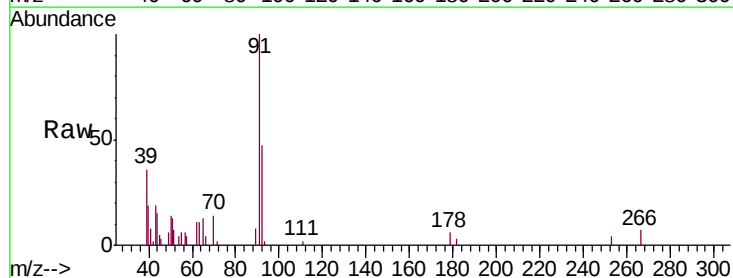
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA3DL

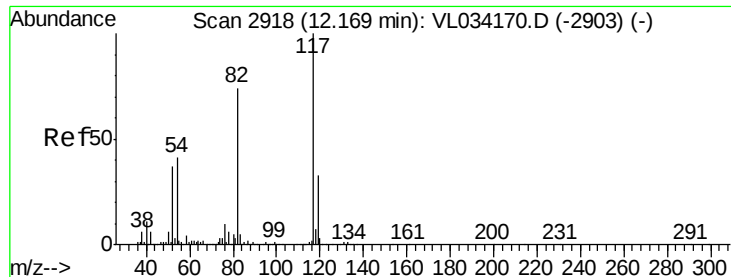
Tgt Ion: 69 Resp: 6877  
Ion Ratio Lower Upper  
69 100  
41 341.5 140.4 210.6#  
100 54.5 21.9 32.9#



#53  
Toluene  
Concen: 0.038 ppbv  
RT: 9.85 min Scan# 2197  
Delta R.T. -0.03 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

Tgt Ion: 91 Resp: 8571  
Ion Ratio Lower Upper  
91 100  
92 0.0 49.0 73.6#

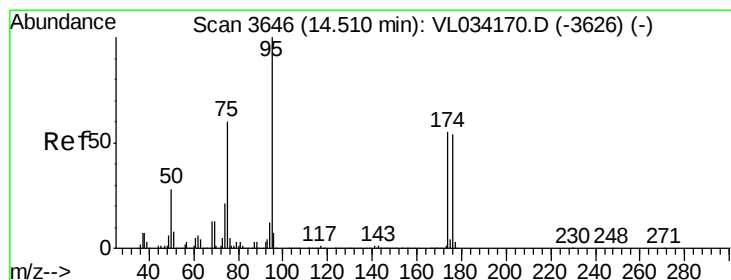
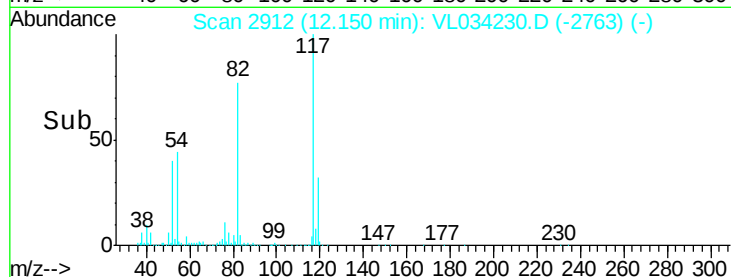
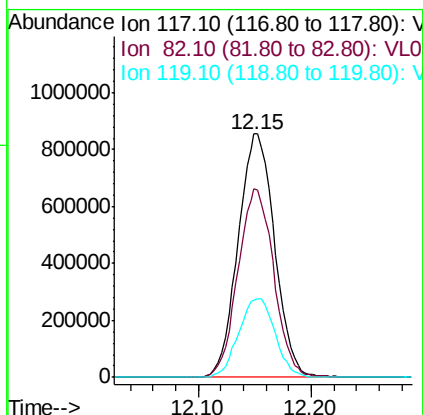
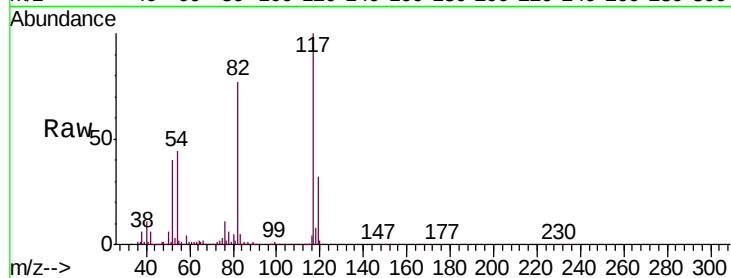




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.15 min Scan# 2912  
Delta R.T. -0.02 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

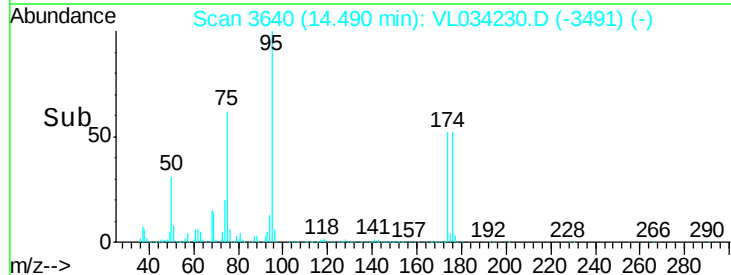
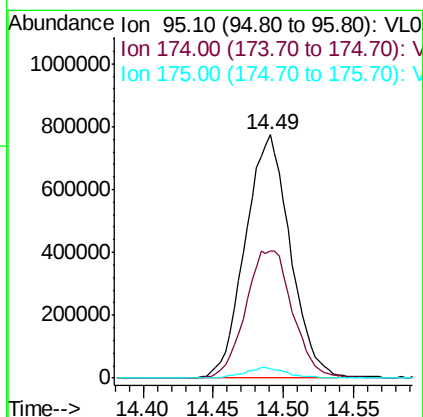
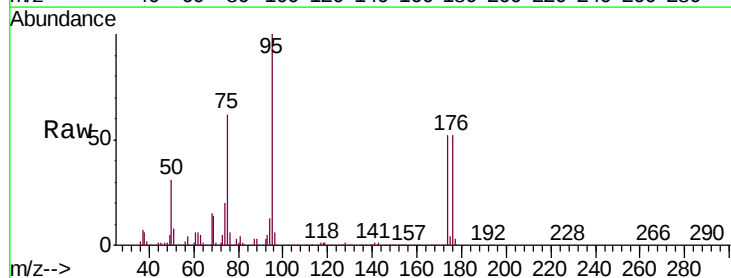
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA3DL

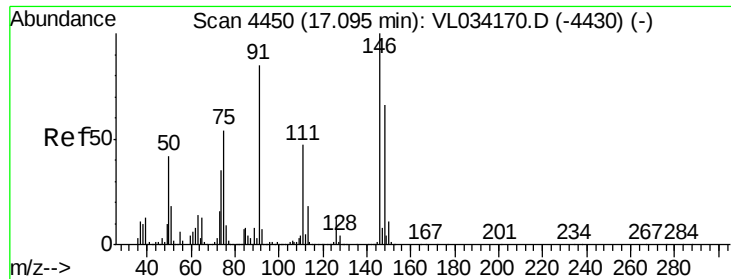
Tgt Ion: 117 Resp: 1918242  
Ion Ratio Lower Upper  
117 100  
82 76.2 58.2 87.4  
119 32.4 23.7 35.5



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.311 ppbv  
RT: 14.49 min Scan# 3640  
Delta R.T. -0.02 min  
Lab File: VL034230.D  
Acq: 7 Oct 2019 20:16

Tgt Ion: 95 Resp: 1718734  
Ion Ratio Lower Upper  
95 100  
174 55.2 45.1 67.7  
175 4.1 3.3 4.9





#75

1,3-Dichlorobenzene

Concen: 30.619 ppbv

RT: 17.23 min Scan# 4491

Delta R.T. 0.13 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

Instrument :

MSVOA\_L

ClientSampleId :

IA3DL

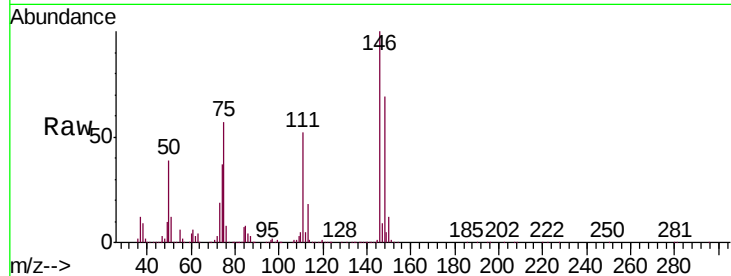
Tgt Ion:146 Resp: 4880540

Ion Ratio Lower Upper

146 100

111 52.4 25.9 77.8

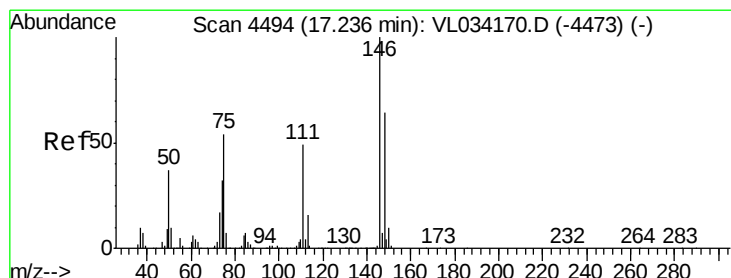
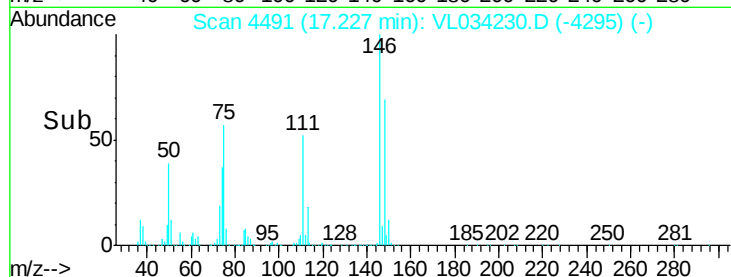
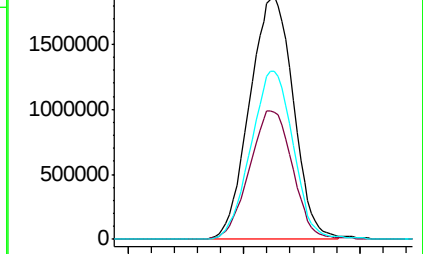
148 67.6 32.6 97.7



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: 29.898 ppbv

RT: 17.23 min Scan# 4491

Delta R.T. -0.01 min

Lab File: VL034230.D

Acq: 7 Oct 2019 20:16

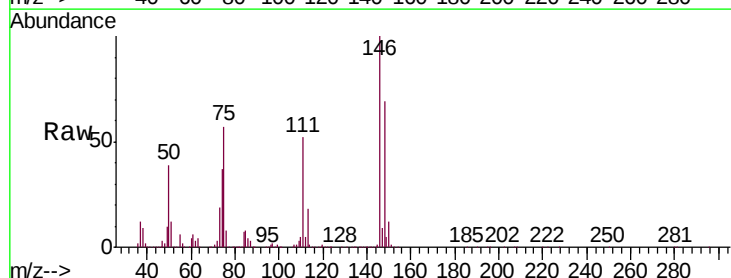
Tgt Ion:146 Resp: 4880540

Ion Ratio Lower Upper

146 100

111 52.4 24.6 74.0

148 67.7 32.4 97.0



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

