

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051920\  
 Data File : VL035057.D  
 Acq On : 19 May 2020 23:34  
 Operator : SY/AP  
 Sample : L2683-06DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: May 20 04:48:38 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed May 06 14:49:39 2020  
 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.64  | 49   | 1147965  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 2601568  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2516891  | 10.00 | ppbv  | -0.03    |

| System Monitoring Compounds |        | R.T.  | QIon     | Response | Conc | Units   | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|------|---------|----------|
| 68) 1-Bromo-4-Fluorobenzene | 14.43  | 95    | 2118948  | 10.40    | ppbv | -0.03   |          |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.00% |          |

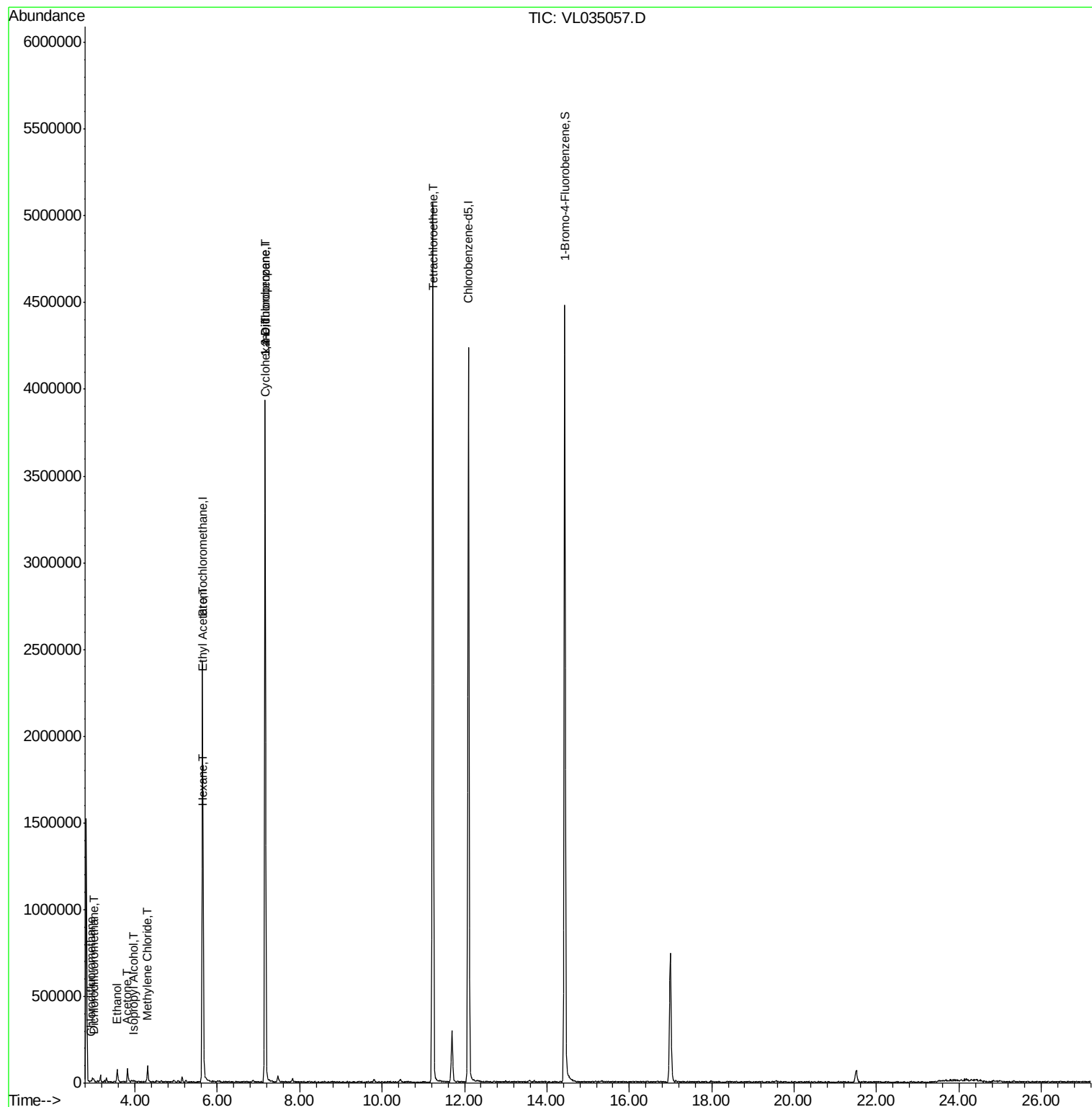
| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.00  | 85   | 10718    | 0.066  | ppbv   | 94     |
| 3) Chlorodifluoromethane   | 2.94  | 51   | 7678     | 0.059  | ppbv   | 99     |
| 13) Ethanol                | 3.57  | 45   | 73579    | 3.921  | ppbv   | 99     |
| 15) Acetone                | 3.82  | 43   | 69007    | 0.455  | ppbv # | 84     |
| 19) Isopropyl Alcohol      | 3.95  | 45   | 5494     | 0.054  | ppbv # | 66     |
| 20) Methylene Chloride     | 4.30  | 84   | 28648    | 0.570  | ppbv   | 84     |
| 25) Ethyl Acetate          | 5.66  | 43   | 8800     | 0.035  | ppbv # | 80     |
| 26) Hexane                 | 5.66  | 57   | 8164     | 0.074  | ppbv # | 36     |
| 30) Cyclohexane            | 7.15  | 84   | 3499     | 0.041  | ppbv # | 6      |
| 39) 1,2-Dichloropropane    | 7.16  | 63   | 733782   | 8.534  | ppbv # | 25     |
| 52) Tetrachloroethene      | 11.23 | 164  | 1209878  | 15.863 | ppbv   | 97     |

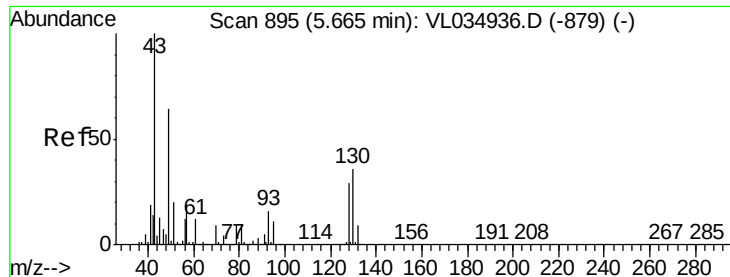
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 20 04:48:38 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed May 06 14:49:39 2020  
QLast Update : Wed May 06 14:49:39 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.02 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

Instrument :

MSVOA\_L

ClientSampleId :

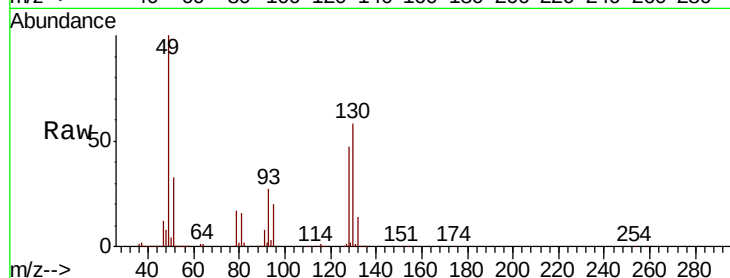
Tot Ion: 49 Resp: 1147965

Ion Ratio Lower Upper

49 100

128 45.9 22.1 66.5

130 58.0 29.1 87.3



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

5.64

800000

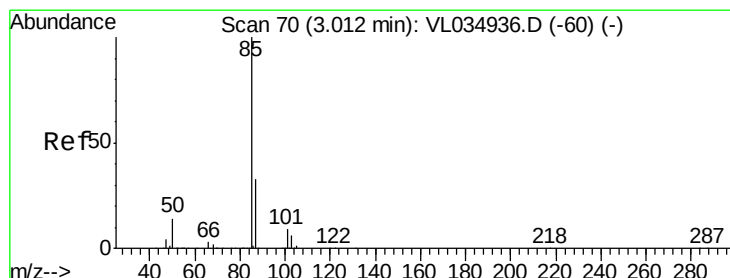
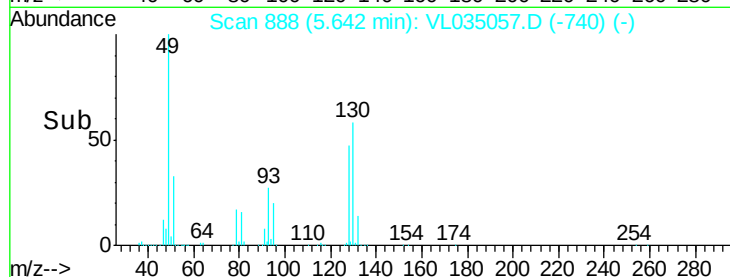
600000

400000

200000

0

Time--> 5.55 5.60 5.65 5.70



#2

Dichlorodifluoromethane

Concen: 0.066 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL035057.D

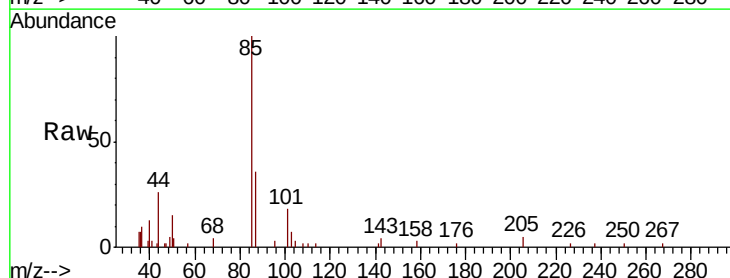
Acq: 19 May 2020 23:34

Tgt Ion: 85 Resp: 10718

Ion Ratio Lower Upper

85 100

87 36.3 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

10000

8000

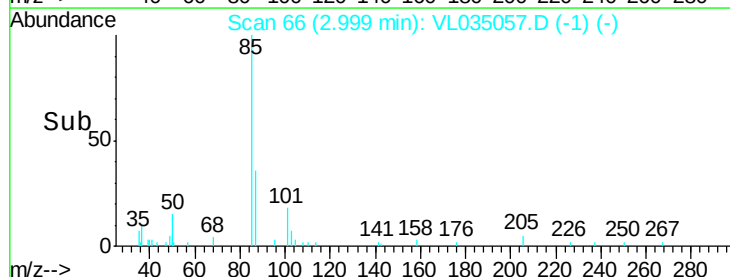
6000

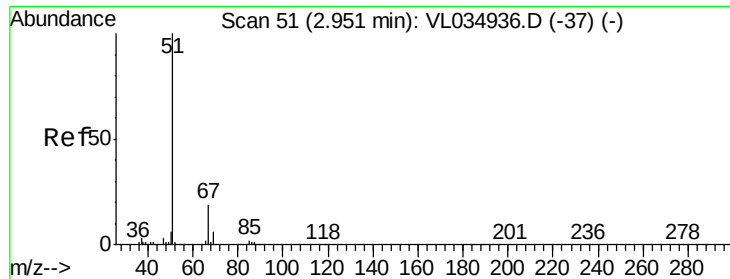
4000

2000

0

Time--> 2.96 2.98 3.00 3.02 3.04

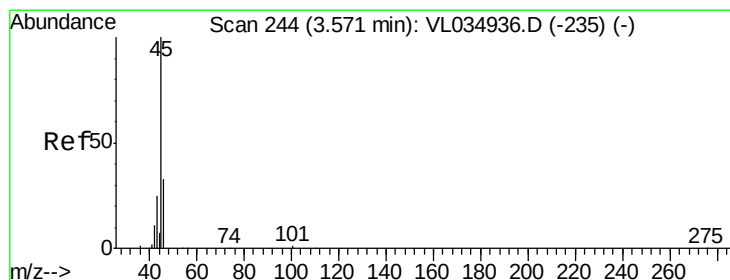
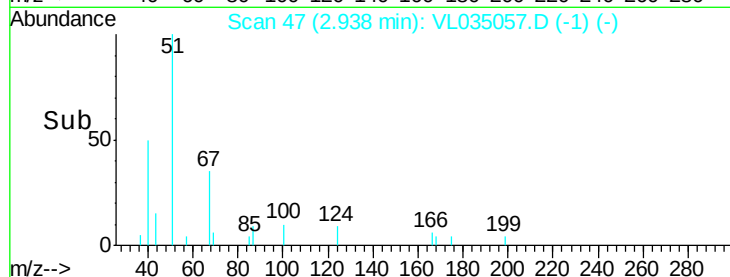
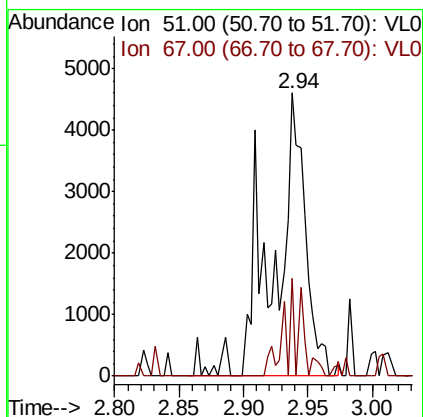
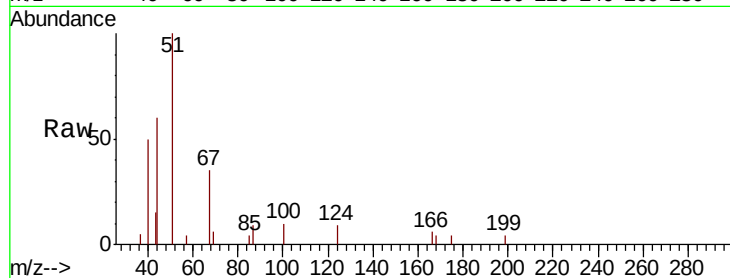




#3  
 Chlorodifluoromethane  
 Concen: 0.059 ppbv  
 RT: 2.94 min Scan# 47  
 Delta R.T. -0.01 min  
 Lab File: VL035057.D  
 Acq: 19 May 2020 23:34

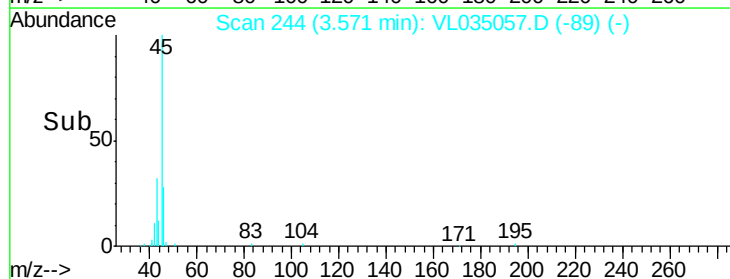
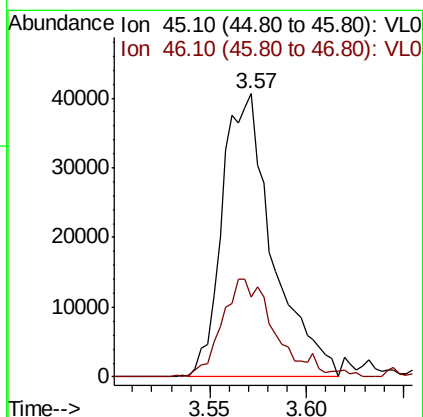
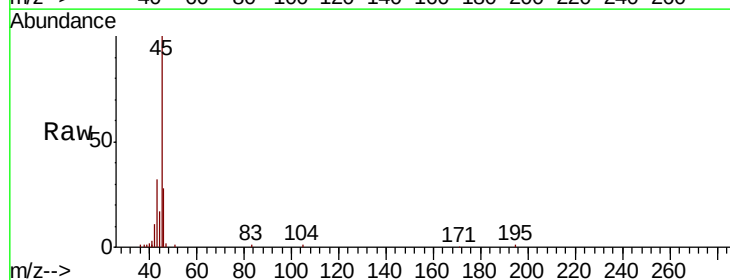
Instrument :  
 MSVOA\_L  
 ClientSampleId :

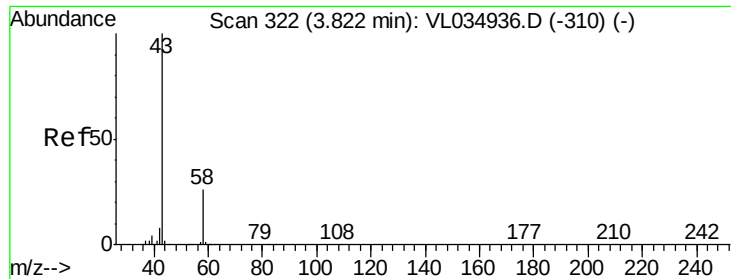
Tot Ion: 51 Resp: 7678  
 Ion Ratio Lower Upper  
 51 100  
 67 18.5 15.0 22.6



#13  
 Ethanol  
 Concen: 3.921 ppbv  
 RT: 3.57 min Scan# 244  
 Delta R.T. -0.00 min  
 Lab File: VL035057.D  
 Acq: 19 May 2020 23:34

Tgt Ion: 45 Resp: 73579  
 Ion Ratio Lower Upper  
 45 100  
 46 36.6 14.3 57.3





#15

Acetone

Concen: 0.455 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.01 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

Instrument :

MSVOA\_L

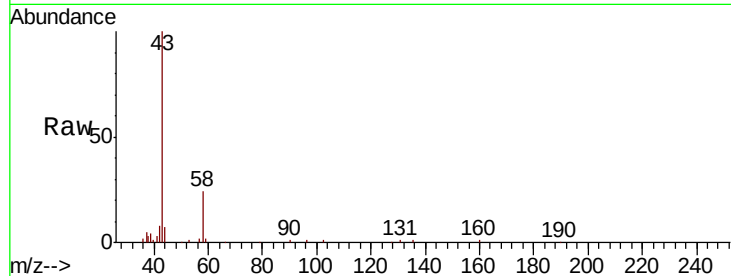
ClientSampleId :

Tot Ion: 43 Resp: 69007

Ion Ratio Lower Upper

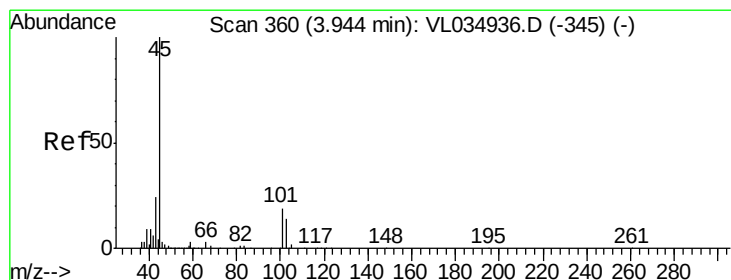
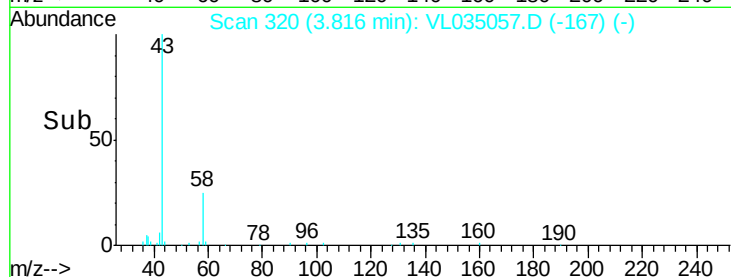
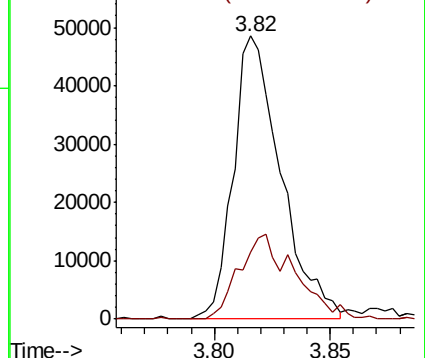
43 100

58 35.5 21.7 32.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 0.054 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.00 min

Lab File: VL035057.D

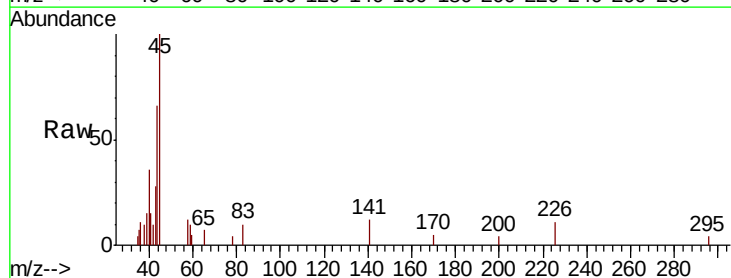
Acq: 19 May 2020 23:34

Tgt Ion: 45 Resp: 5494

Ion Ratio Lower Upper

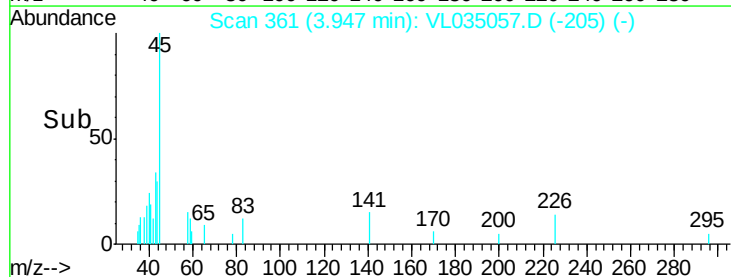
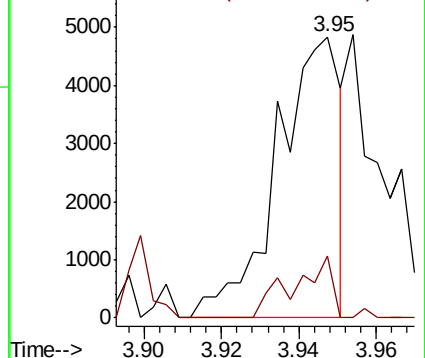
45 100

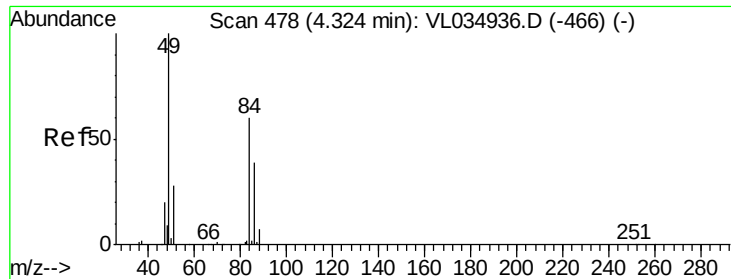
58 14.0 1.7 2.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

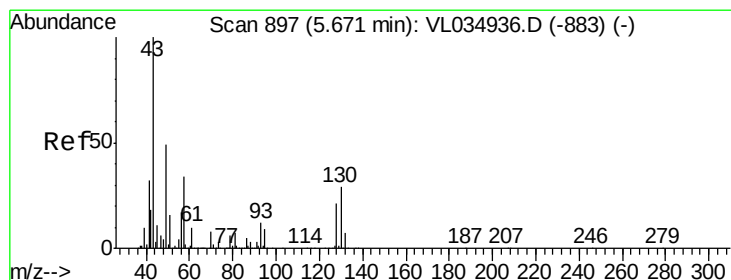
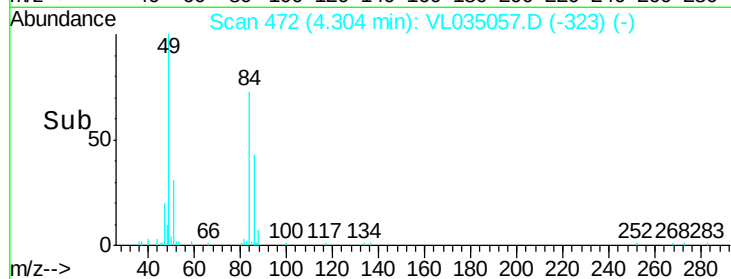
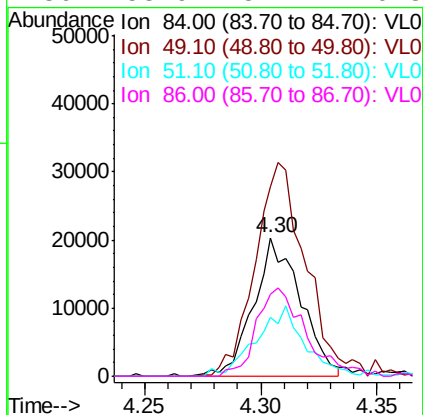
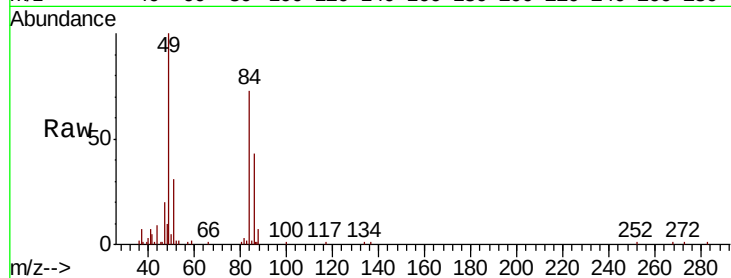




#20  
Methylene Chloride  
Concen: 0.570 ppbv  
RT: 4.30 min Scan# 472  
Delta R.T. -0.02 min  
Lab File: VL035057.D  
Acq: 19 May 2020 23:34

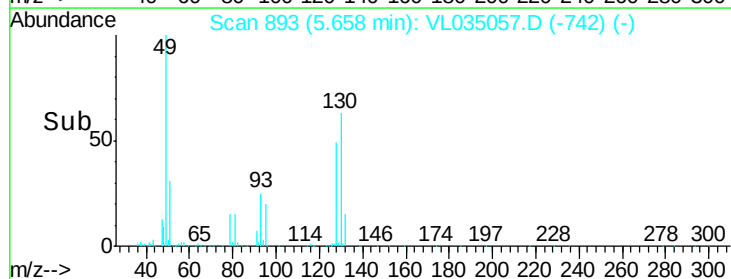
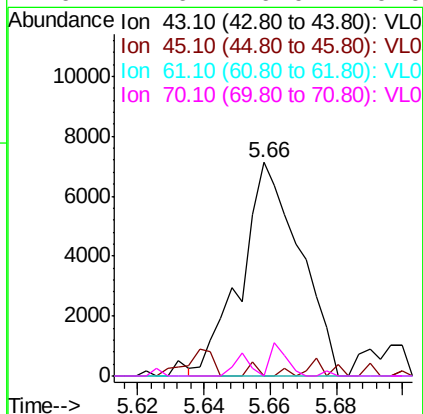
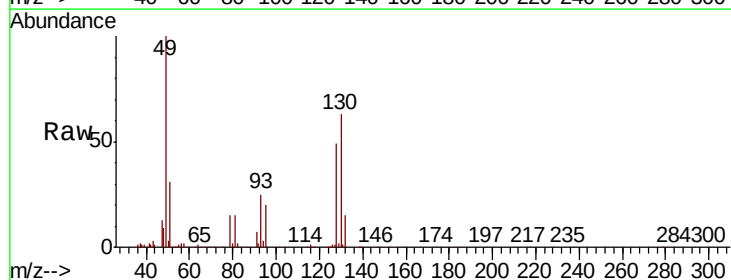
Instrument :  
MSVOA\_L  
ClientSampleId :

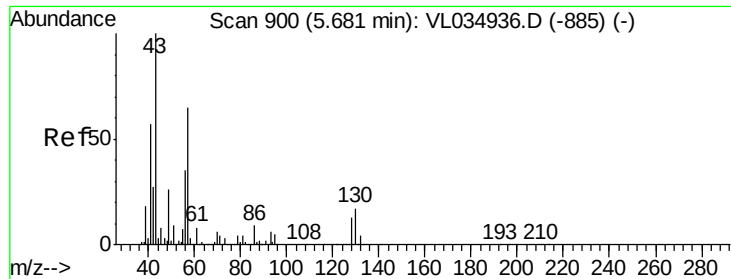
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 28648 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 136.8 | 132.5 | 198.7 |
| 51       | 42.7  | 38.4  | 57.6  |
| 86       | 58.9  | 51.2  | 76.8  |



#25  
Ethyl Acetate  
Concen: 0.035 ppbv  
RT: 5.66 min Scan# 893  
Delta R.T. -0.01 min  
Lab File: VL035057.D  
Acq: 19 May 2020 23:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 8800  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 0.0   | 8.1   | 12.1# |
| 61       | 0.0   | 7.8   | 11.8# |
| 70       | 7.6   | 6.0   | 9.0   |





#26

Hexane

Concen: 0.074 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.02 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

Instrument :  
MSVOA\_L  
ClientSampled :

Tot Ion: 57 Resp: 8164

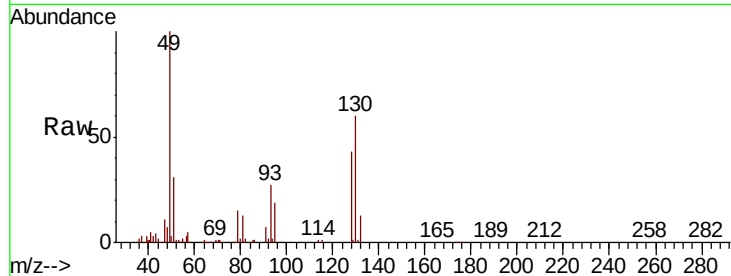
Ion Ratio Lower Upper

57 100

41 151.9 72.7 109.1#

43 121.8 182.1 273.1#

56 96.1 42.2 63.2#

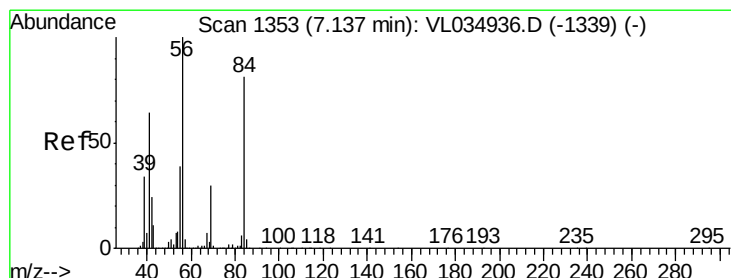
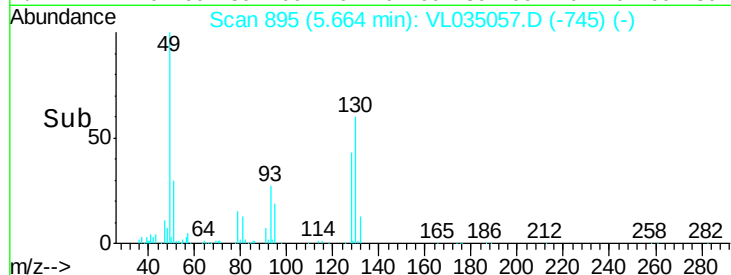
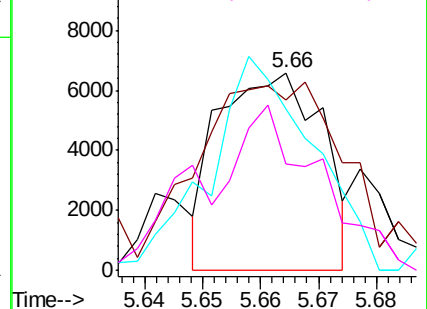


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#30

Cyclohexane

Concen: 0.041 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. 0.01 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

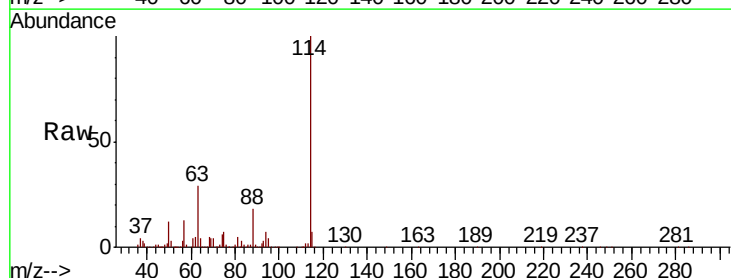
Tgt Ion: 84 Resp: 3499

Ion Ratio Lower Upper

84 100

56 0.0 111.4 167.2#

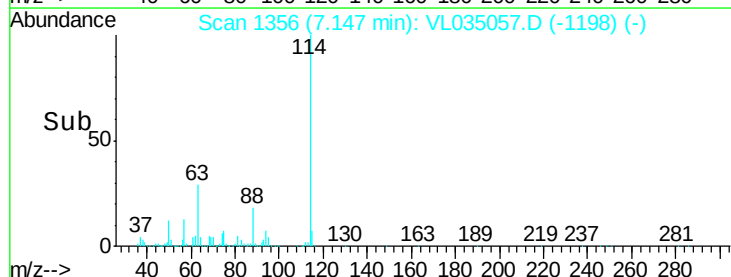
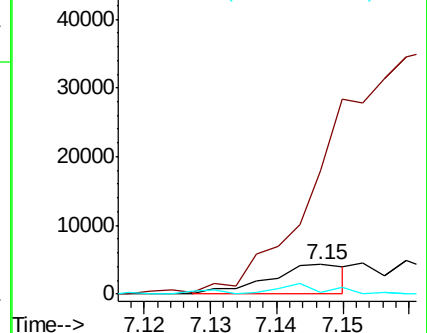
41 29.3 66.7 100.1#

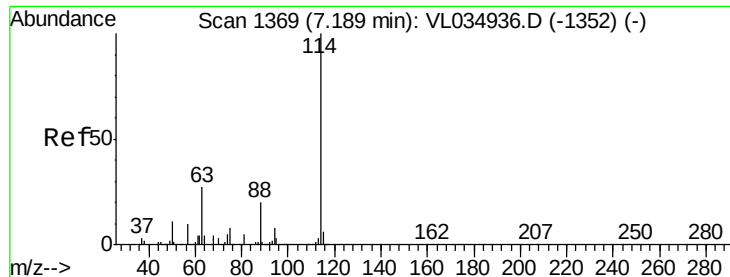


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0



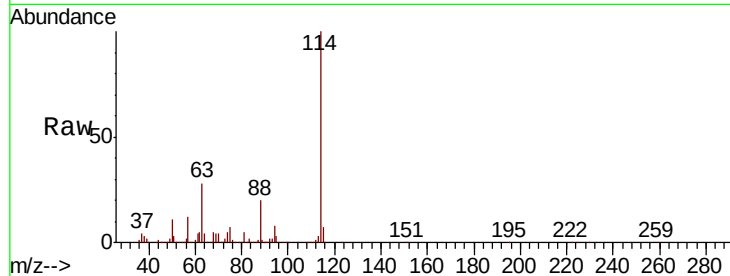


#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.16 min Scan# 1361  
 Delta R.T. -0.03 min  
 Lab File: VL035057.D  
 Acq: 19 May 2020 23:34

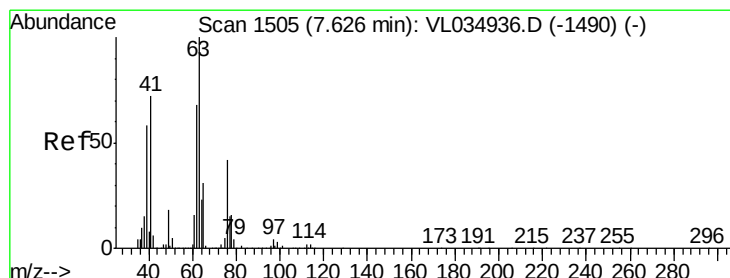
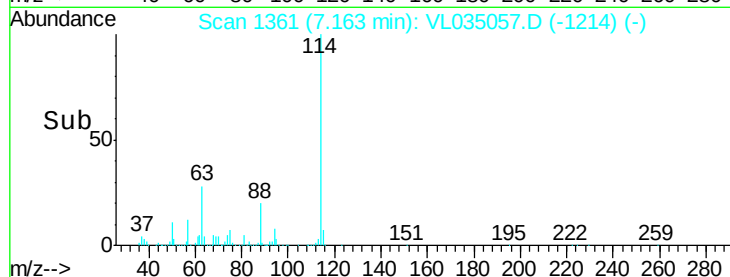
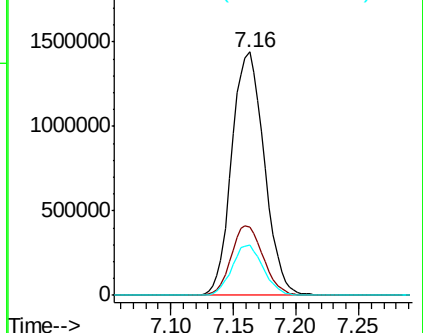
Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 2601568  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 28.3  | 22.2  | 33.4  |
| 88  | 19.7  | 15.5  | 23.3  |



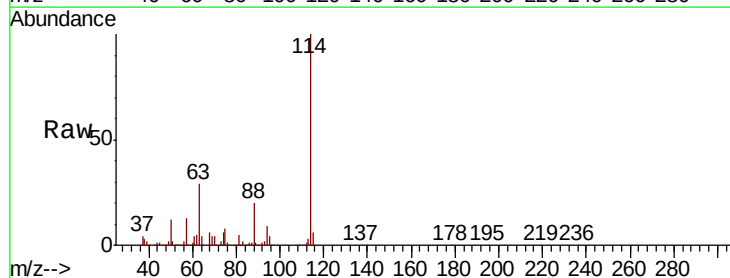
Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0



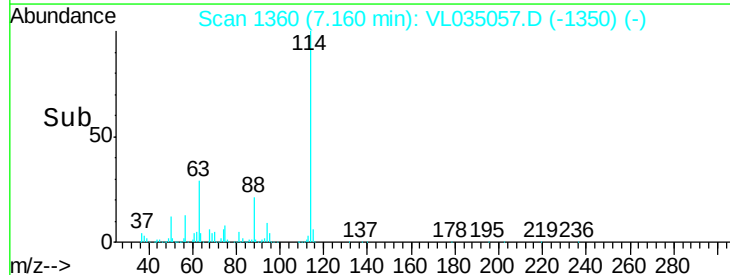
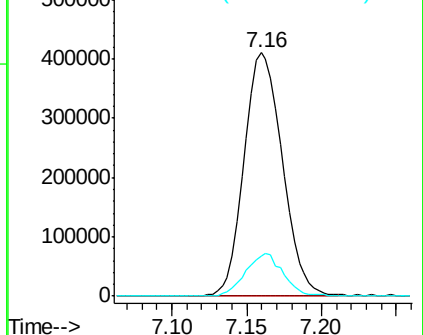
#39  
 1,2-Dichloropropane  
 Concen: 8.534 ppbv  
 RT: 7.16 min Scan# 1360  
 Delta R.T. -0.47 min  
 Lab File: VL035057.D  
 Acq: 19 May 2020 23:34

Tgt Ion: 63 Resp: 733782  

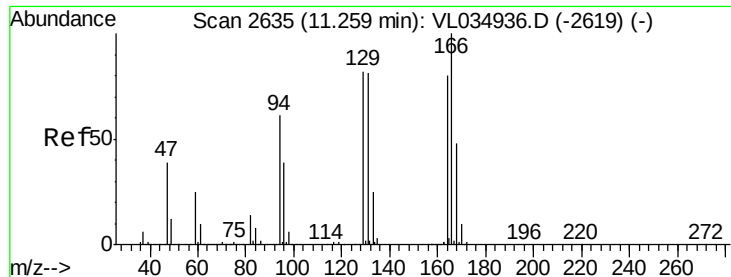
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 41  | 0.0   | 57.8  | 86.8# |
| 62  | 16.6  | 54.2  | 81.2# |



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







#52

Tetrachloroethene

Concen: 15.863 ppbv

RT: 11.23 min Scan# 2626

Delta R.T. -0.03 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion:164 Resp: 1209878

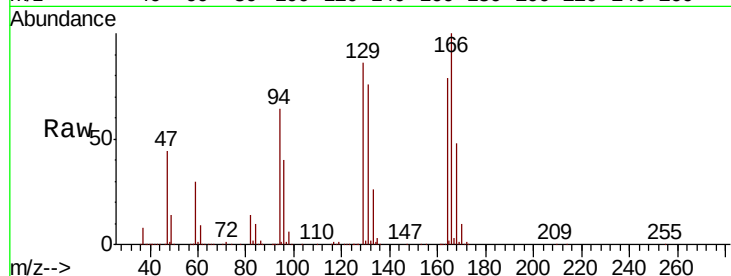
Ion Ratio Lower Upper

164 100

166 125.9 100.7 151.1

129 108.7 83.0 124.4

131 96.3 81.0 121.4

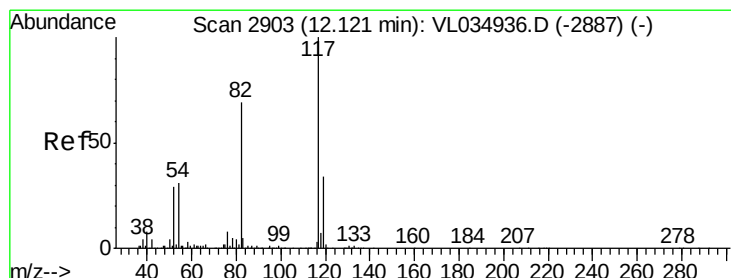
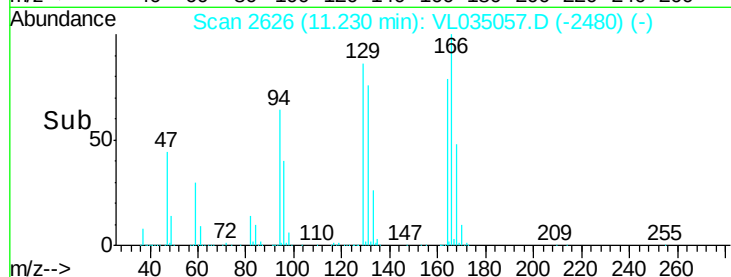
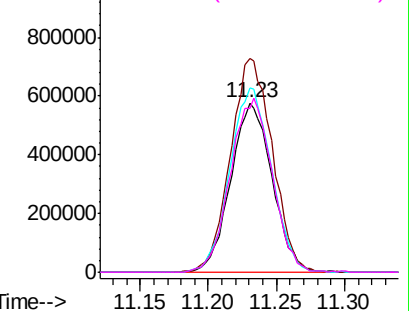


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2895

Delta R.T. -0.03 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

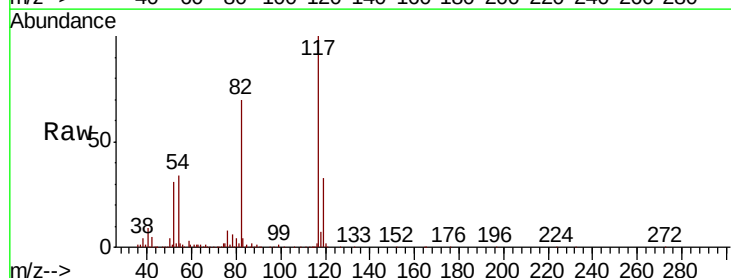
Tgt Ion:117 Resp: 2516891

Ion Ratio Lower Upper

117 100

82 69.9 53.1 79.7

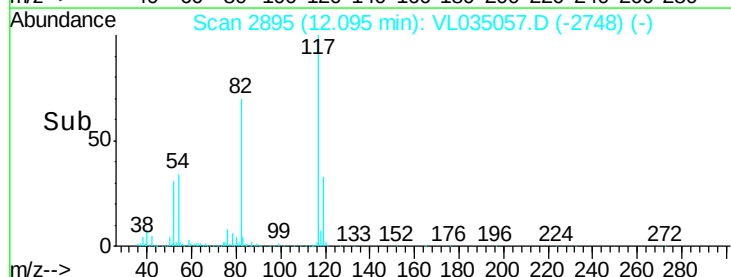
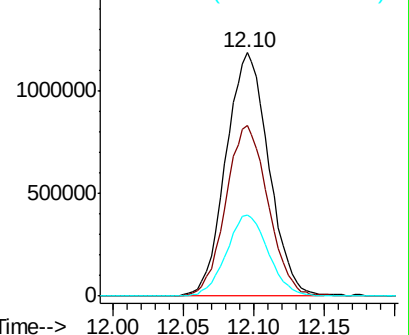
119 32.8 26.7 40.1

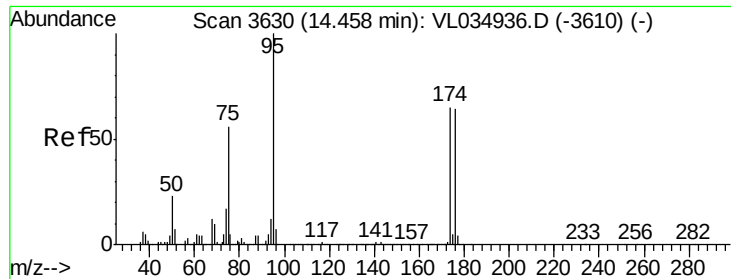


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.401 ppbv

RT: 14.43 min Scan# 3622

Delta R.T. -0.03 min

Lab File: VL035057.D

Acq: 19 May 2020 23:34

Instrument :

MSVOA\_L

ClientSampleId :

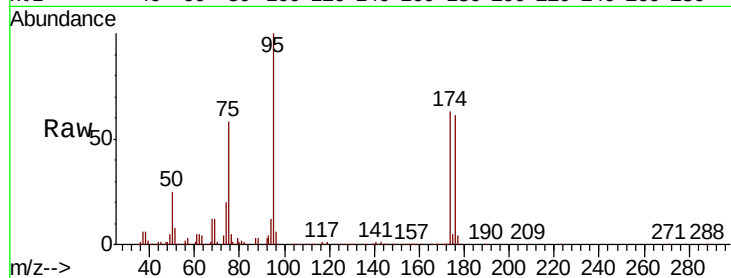
Tot Ion: 95 Resp: 2118948

Ion Ratio Lower Upper

95 100

174 63.7 51.5 77.3

175 4.7 3.8 5.8



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

