

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050522\  
 Data File : VL038974.D  
 Acq On : 5 May 2022 16:00  
 Operator : SY/AP  
 Sample : N2698-02DL 5X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: May 06 07:28:40 2022  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu May 05 07:41:27 2022  
 QLast Update : Thu May 05 07:41:27 2022  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1303402  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3375865  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 2915078  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2254261  | 9.76     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.60% |

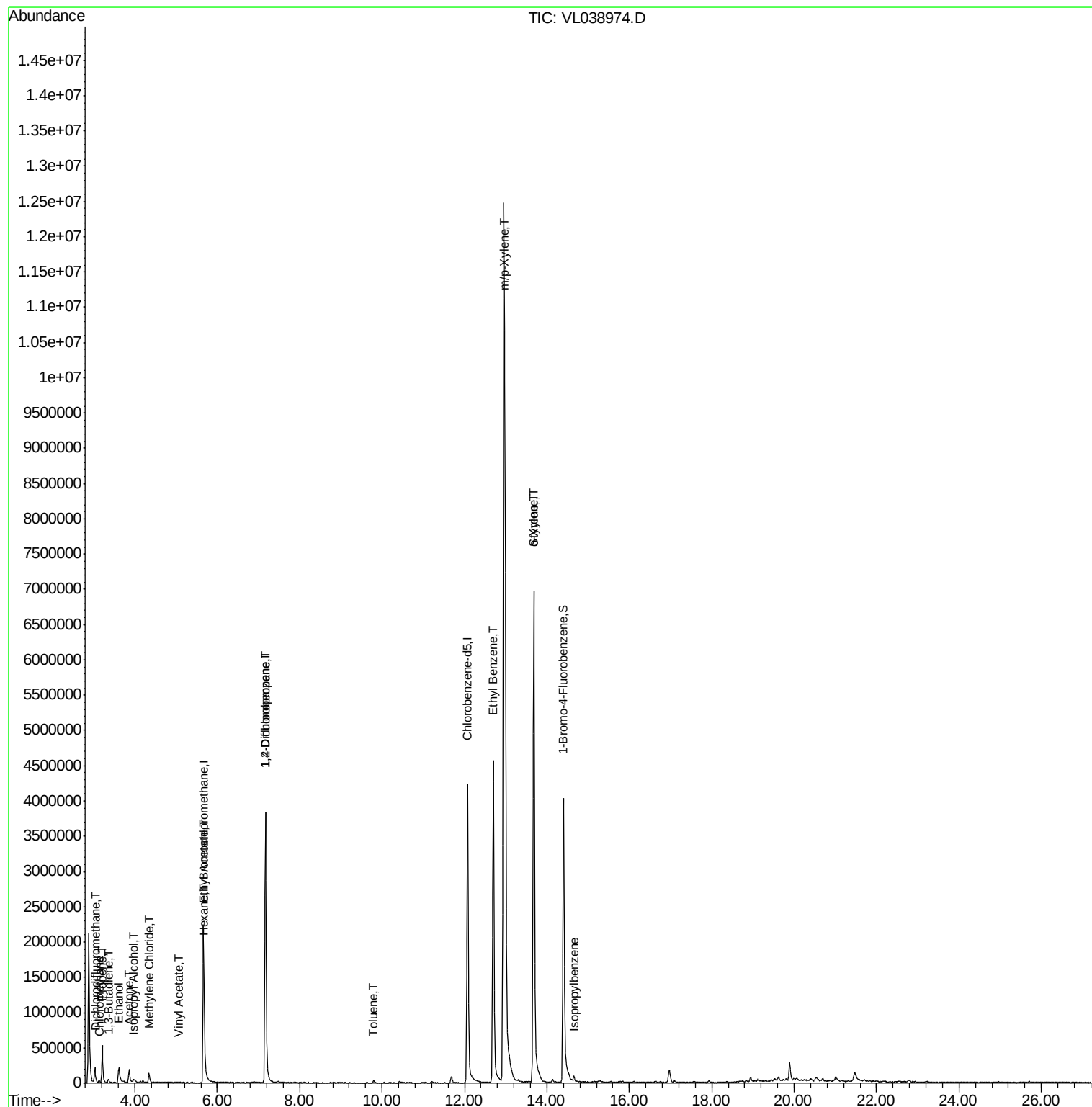
| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.05  | 85   | 19599    | 0.096  | ppbv   | 98     |
| 4) Chloromethane           | 3.14  | 50   | 7480     | 0.092  | ppbv # | 79     |
| 9) Propene                 | 3.21  | 41   | 189785   | 2.687  | ppbv   | 93     |
| 13) Ethanol                | 3.61  | 45   | 318625   | 57.768 | ppbv   | 92     |
| 15) Acetone                | 3.85  | 43   | 221530   | 1.802  | ppbv   | 92     |
| 16) 1,3-Butadiene          | 3.35  | 39   | 4298     | 0.061  | ppbv # | 26     |
| 19) Isopropyl Alcohol      | 3.98  | 45   | 10116    | 0.173  | ppbv # | 95     |
| 20) Methylene Chloride     | 4.35  | 84   | 49565    | 1.070  | ppbv   | 94     |
| 23) Vinyl Acetate          | 5.06  | 43   | 3610     | 0.037  | ppbv # | 1      |
| 25) Ethyl Acetate          | 5.68  | 43   | 57057    | 0.194  | ppbv # | 79     |
| 26) Hexane                 | 5.69  | 57   | 78081    | 0.597  | ppbv # | 41     |
| 39) 1,2-Dichloropropane    | 7.17  | 63   | 852311   | 7.582  | ppbv # | 25     |
| 53) Toluene                | 9.79  | 91   | 12552    | 0.039  | ppbv # | 21     |
| 58) Ethyl Benzene          | 12.70 | 91   | 4712080  | 11.232 | ppbv   | 100    |
| 59) m/p-Xylene             | 12.96 | 91   | 15198715 | 42.438 | ppbv   | 88     |
| 60) o-Xylene               | 13.68 | 91   | 6220336  | 18.454 | ppbv   | 96     |
| 61) Styrene                | 13.68 | 104  | 128564   | 0.714  | ppbv # | 1      |
| 62) Isopropylbenzene       | 14.65 | 105  | 59801    | 0.139  | ppbv   | 94     |

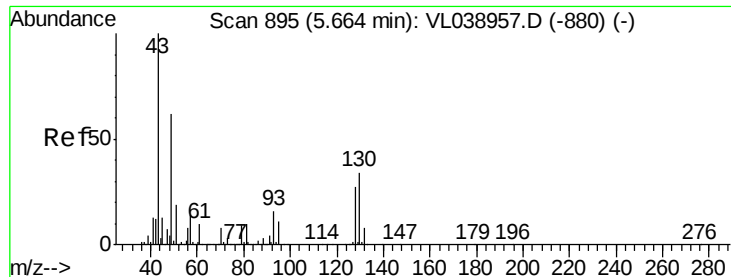
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_L  
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Quant Time: May 06 07:28:40 2022  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu May 05 07:41:27 2022  
QLast Update : Thu May 05 07:41:27 2022  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 5 May 2022 16:00

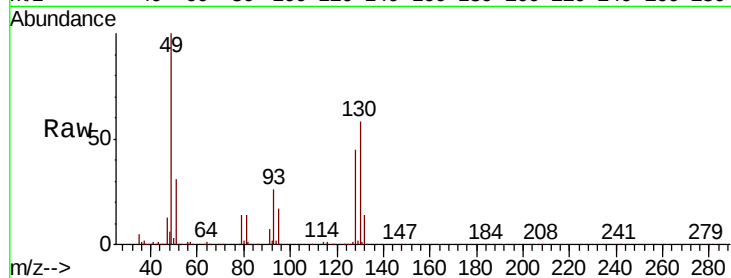
Tot Ion: 49 Resp: 1303402

Ion Ratio Lower Upper

49 100

128 47.9 23.3 69.8

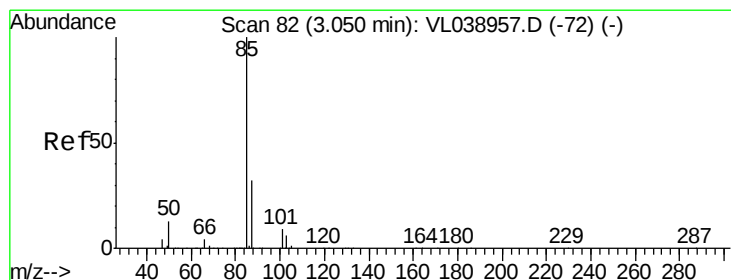
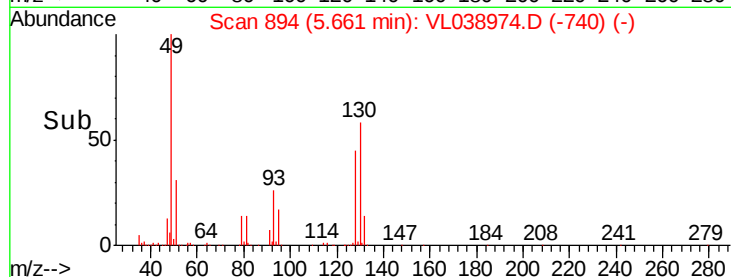
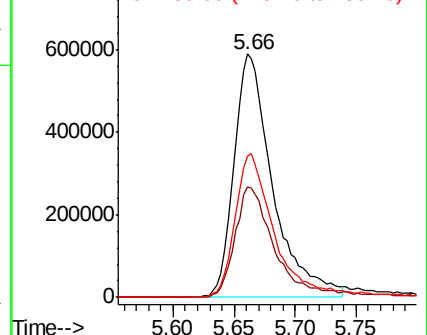
130 62.0 29.8 89.3



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



#2

Dichlorodifluoromethane

Concen: 0.096 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL038974.D

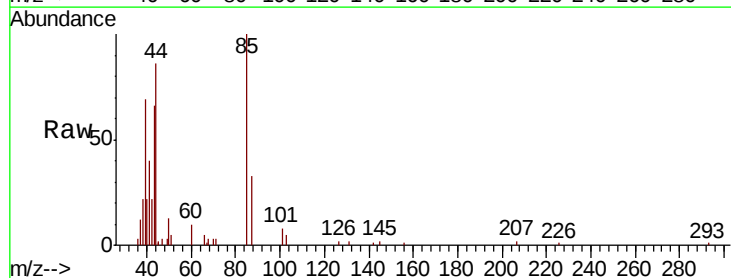
Acq: 5 May 2022 16:00

Tgt Ion: 85 Resp: 19599

Ion Ratio Lower Upper

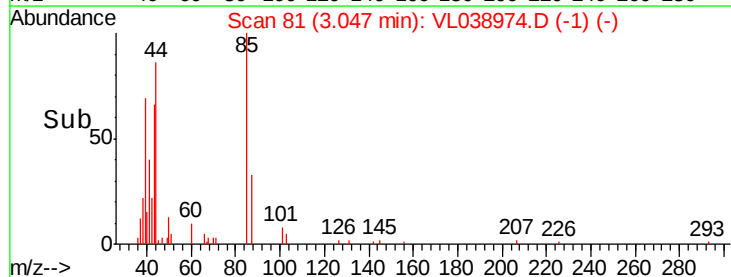
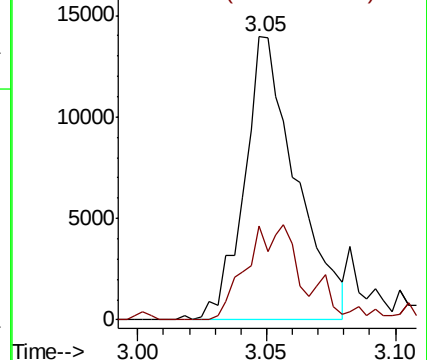
85 100

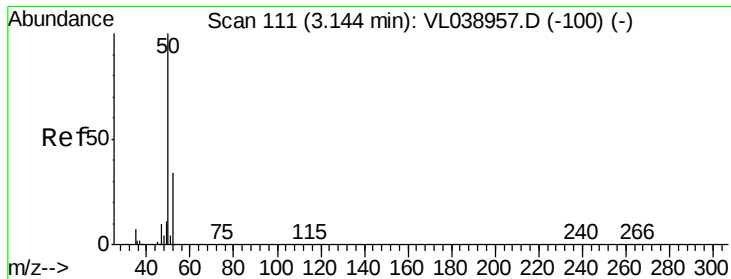
87 33.4 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.092 ppbv

RT: 3.14 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

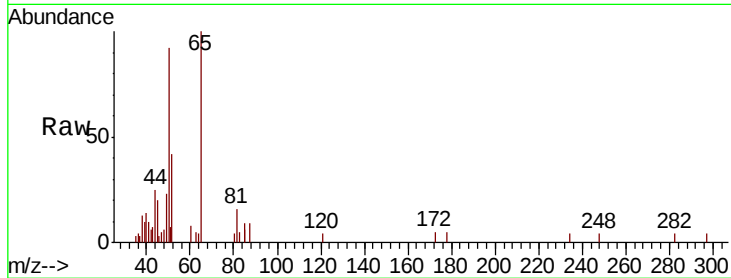
Acq: 5 May 2022 16:00

Tot Ion: 50 Resp: 7480

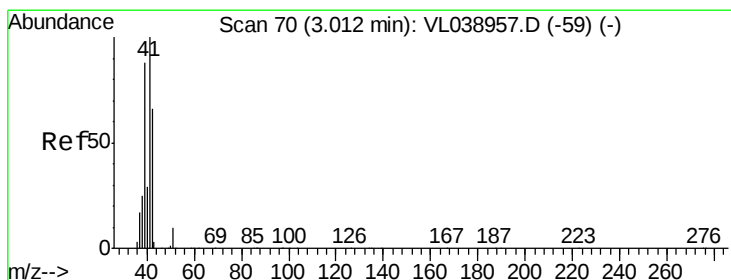
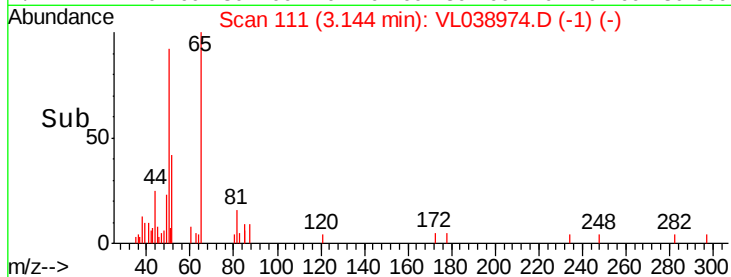
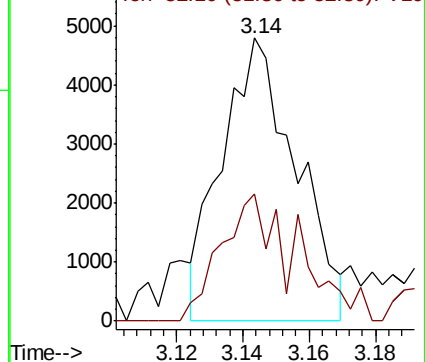
Ion Ratio Lower Upper

50 100

52 46.3 27.3 40.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0  
Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 2.687 ppbv

RT: 3.21 min Scan# 131

Delta R.T. 0.20 min

Lab File: VL038974.D

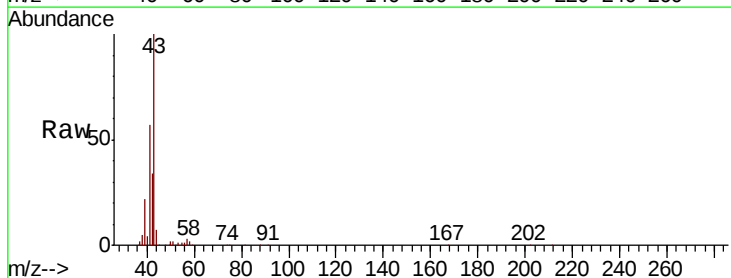
Acq: 5 May 2022 16:00

Tgt Ion: 41 Resp: 189785

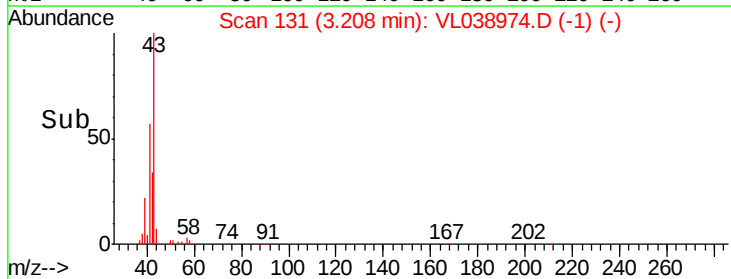
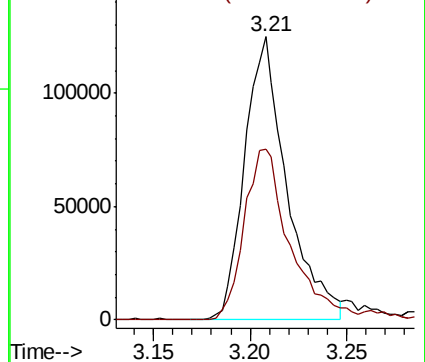
Ion Ratio Lower Upper

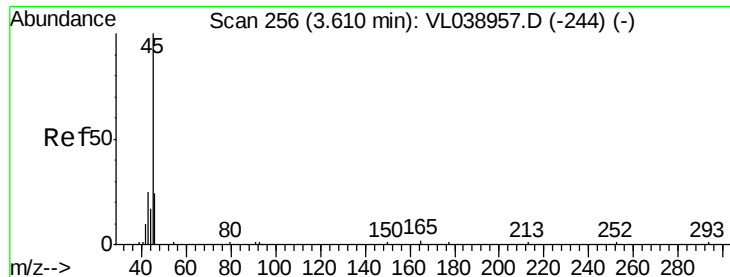
41 100

42 66.8 58.3 87.5



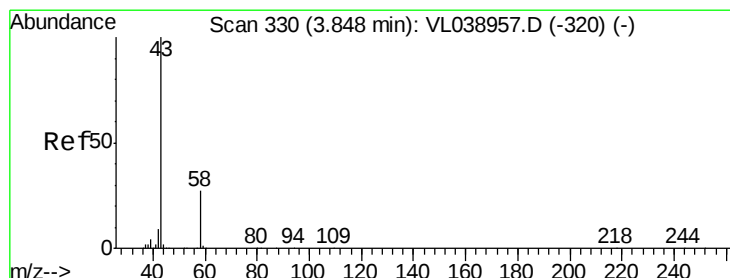
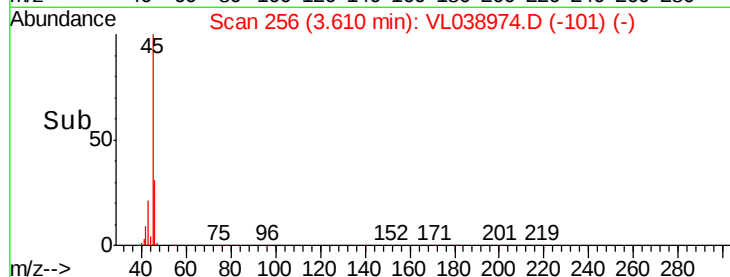
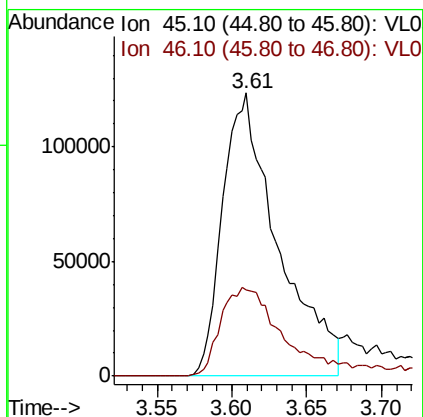
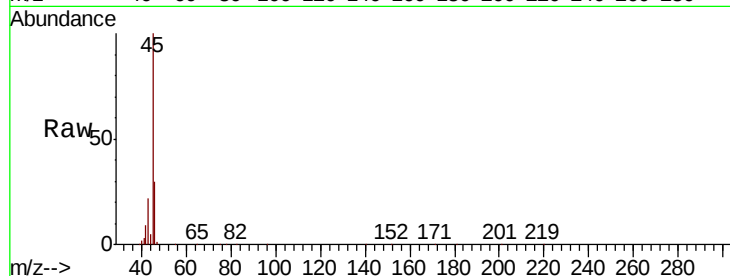
Abundance Ion 41.10 (40.80 to 41.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0





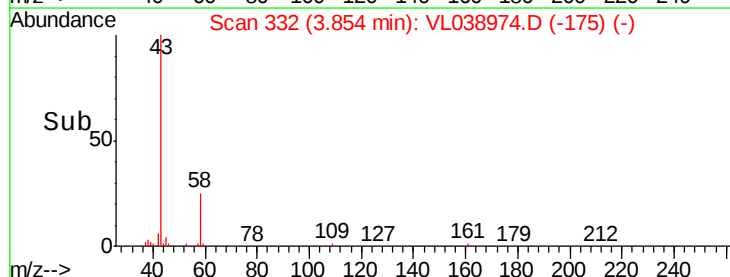
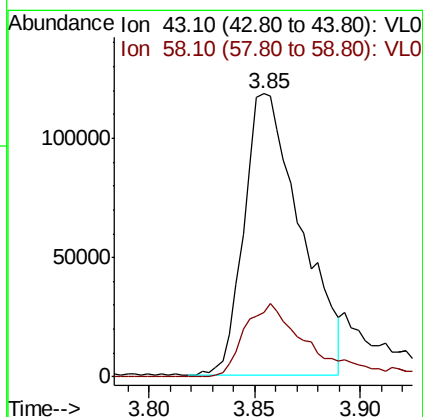
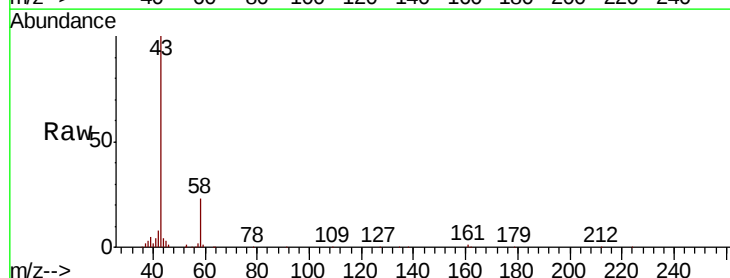
#13  
Ethanol  
Concen: 57.768 ppbv  
RT: 3.61  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 5 May 2022 16:00

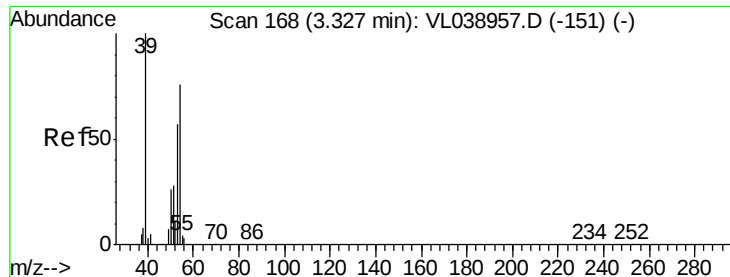
Tot Ion: 45 Resp: 318625  
Ion Ratio Lower Upper  
45 100  
46 39.7 18.0 72.2



#15  
Acetone  
Concen: 1.802 ppbv  
RT: 3.85 min Scan# 332  
Delta R.T. 0.01 min  
Lab File: VL038974.D  
Acq: 5 May 2022 16:00

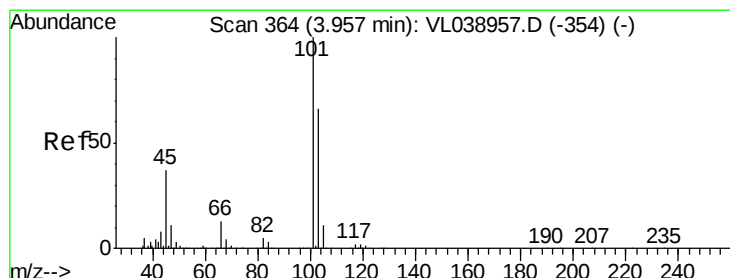
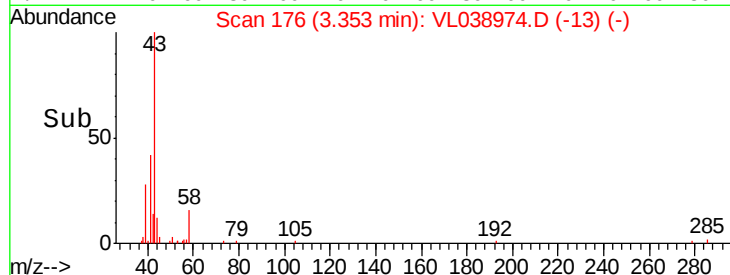
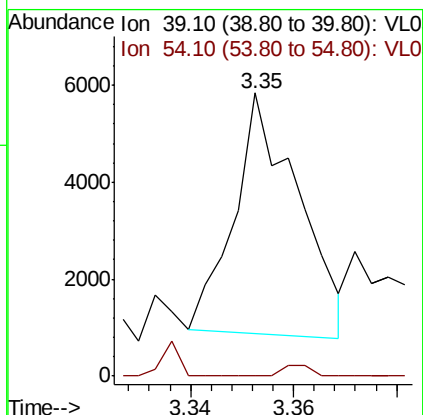
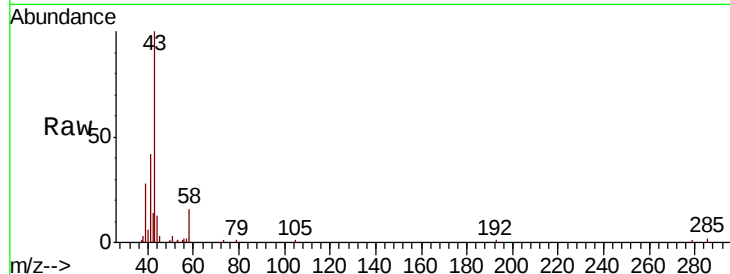
Tgt Ion: 43 Resp: 221530  
Ion Ratio Lower Upper  
43 100  
58 30.9 21.3 31.9





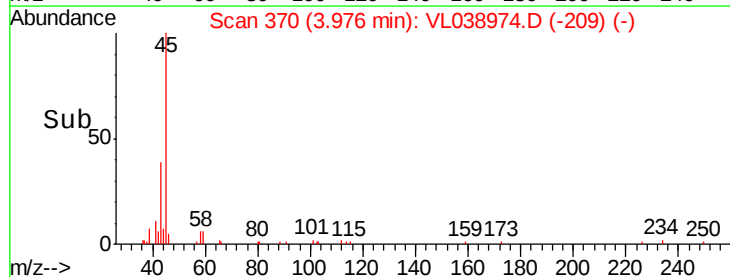
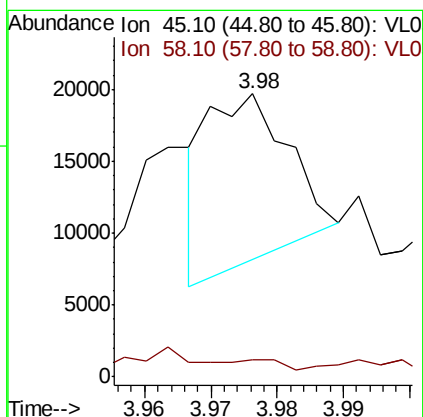
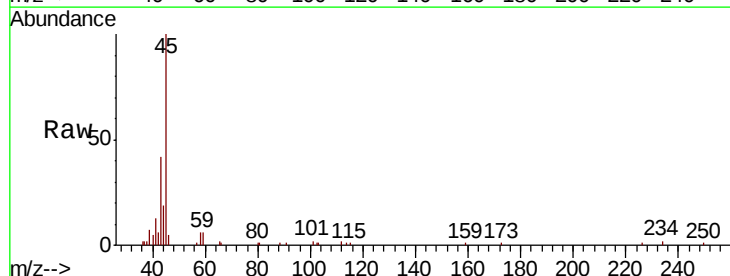
#16  
 1,3-Butadiene  
 Concen: 0.061 ppbv  
 RT: 3.35 Instrument: MSVOA\_1  
 Delta R.T.:  
 Lab File: ClientSampleId:  
 Acq: 5 May 2022 16:00

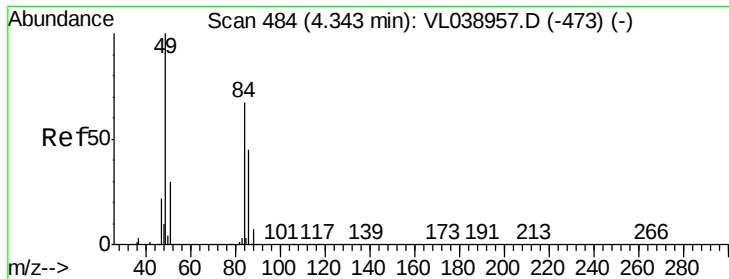
Tot Ion: 39 Resp: 4298  
 Ion Ratio Lower Upper  
 39 100  
 54 15.2 65.2 97.8#



#19  
 Isopropyl Alcohol  
 Concen: 0.173 ppbv  
 RT: 3.98 min Scan# 370  
 Delta R.T. 0.02 min  
 Lab File: VL038974.D  
 Acq: 5 May 2022 16:00

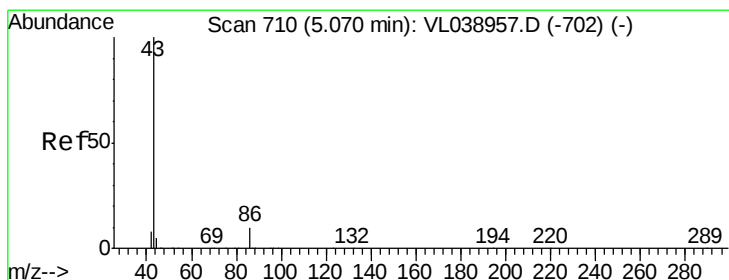
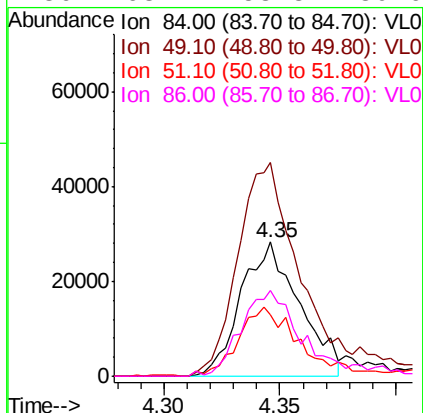
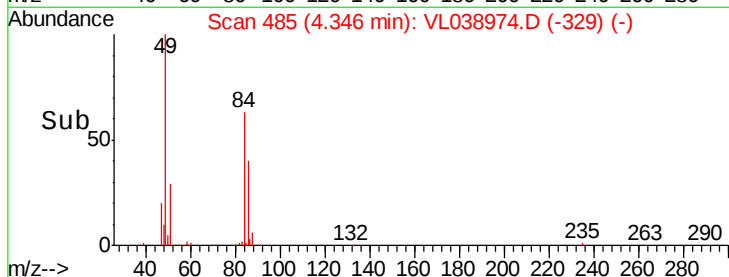
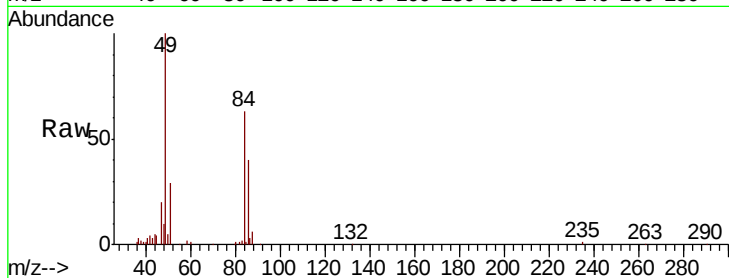
Tgt Ion: 45 Resp: 10116  
 Ion Ratio Lower Upper  
 45 100  
 58 0.0 1.4 2.2#





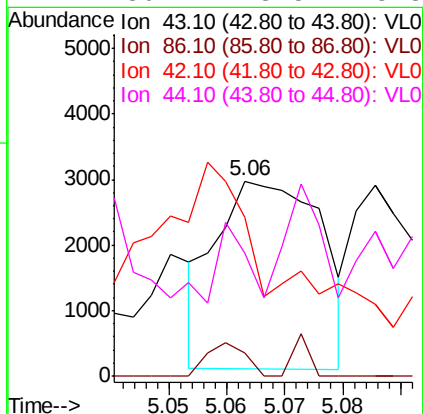
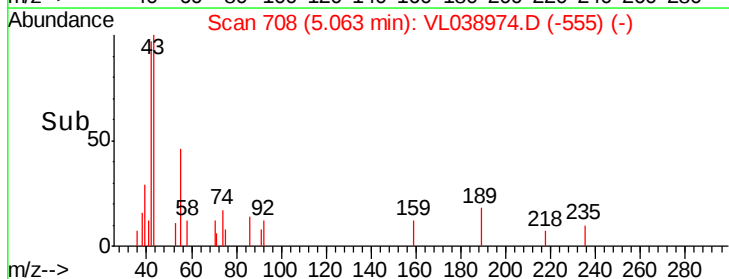
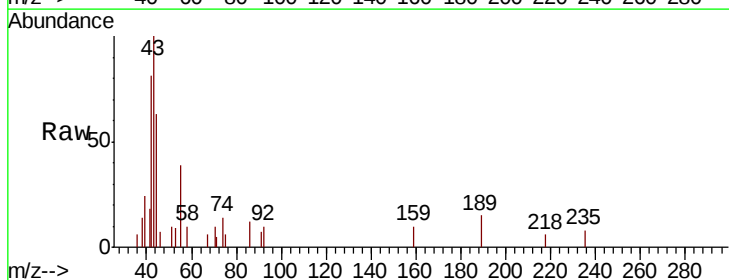
#20  
Methvlene Chloride  
Concen: 1.070 ppbv  
RT: 4.35 Instrument :  
Delta R.T. MSVOA\_1  
Lab File: ClientSampleId :  
Acq: 5 May 2022 16:00

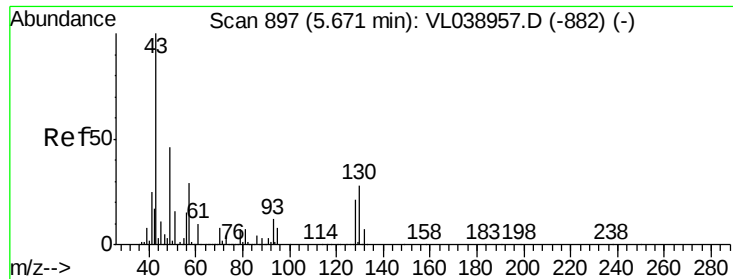
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 49565 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 159.1 | 119.9 | 179.9 |
| 51       | 45.3  | 35.7  | 53.5  |
| 86       | 63.1  | 53.8  | 80.6  |



#23  
Vinyl Acetate  
Concen: 0.037 ppbv  
RT: 5.06 min Scan# 708  
Delta R.T. -0.01 min  
Lab File: VL038974.D  
Acq: 5 May 2022 16:00

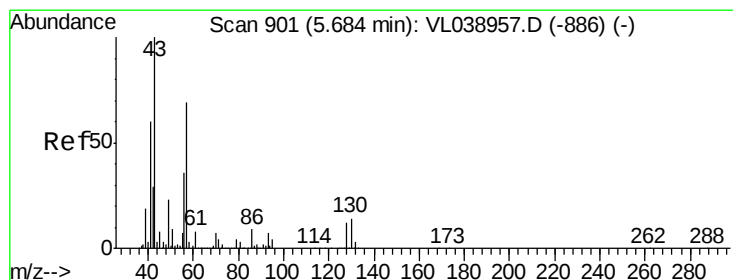
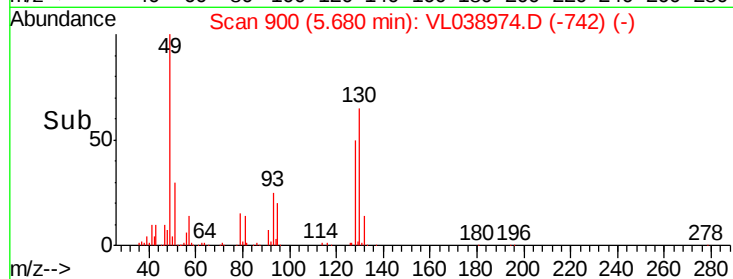
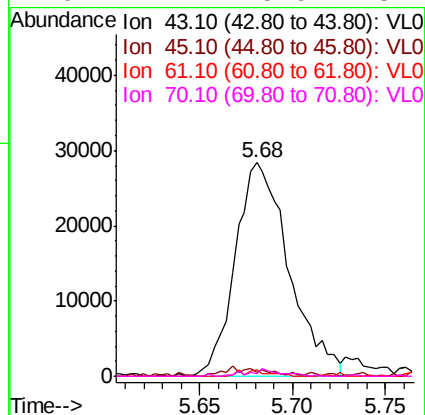
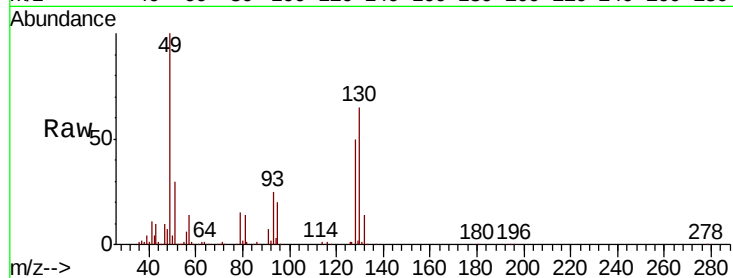
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 3610  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 23.8  | 6.6   | 9.8#  |
| 42       | 68.5  | 8.1   | 12.1# |
| 44       | 30.7  | 3.5   | 5.3#  |





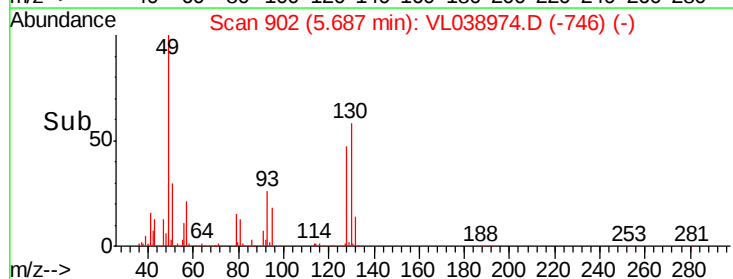
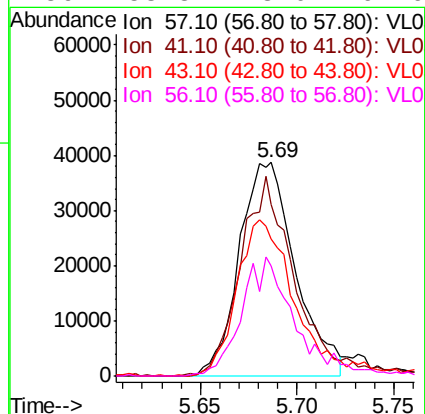
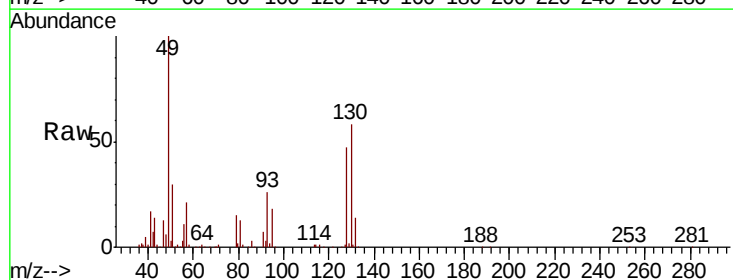
#25  
Ethyl Acetate  
Concen: 0.194 ppbv  
RT: 5.68 min  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId:  
Acq: 5 May 2022 16:00

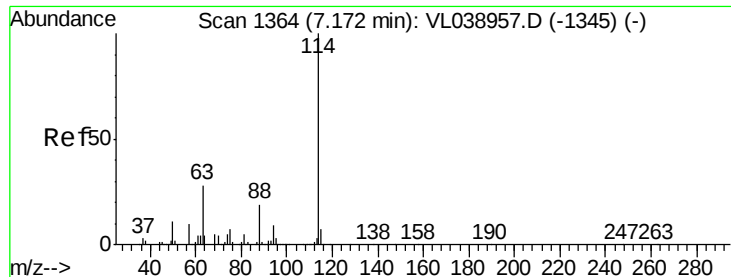
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 57057 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 2.2   | 8.1   | 12.1# |
| 61       | 0.0   | 7.8   | 11.6# |
| 70       | 2.2   | 5.6   | 8.4#  |



#26  
Hexane  
Concen: 0.597 ppbv  
RT: 5.69 min Scan# 902  
Delta R.T.: 0.00 min  
Lab File: VL038974.D  
Acq: 5 May 2022 16:00

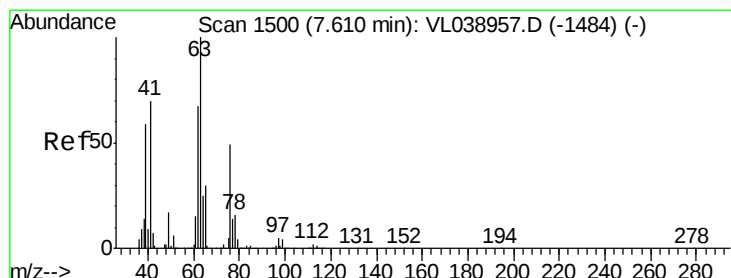
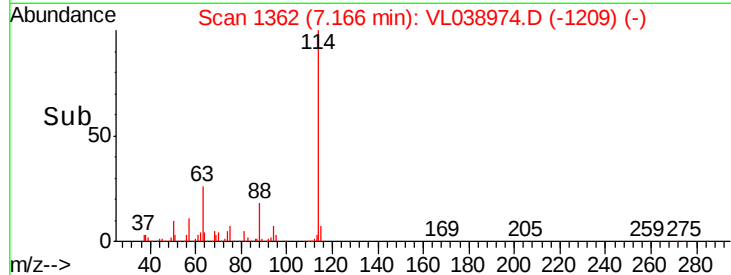
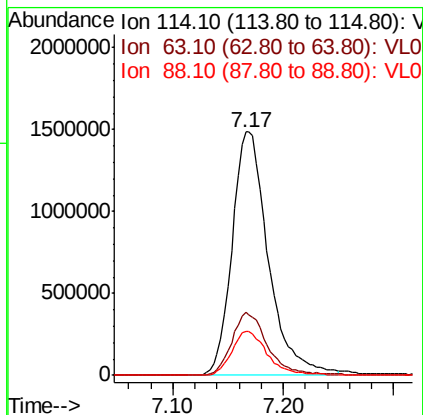
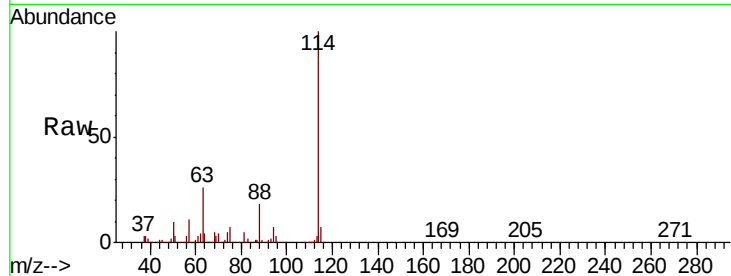
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 78081  |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 91.9  | 75.2  | 112.8  |
| 43       | 79.1  | 190.8 | 286.2# |
| 56       | 53.8  | 43.0  | 64.6   |





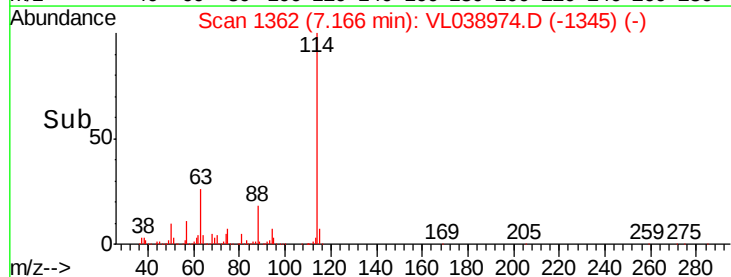
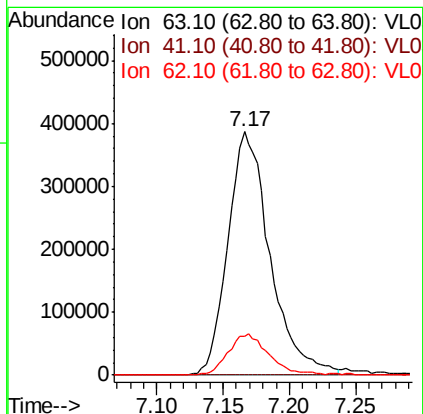
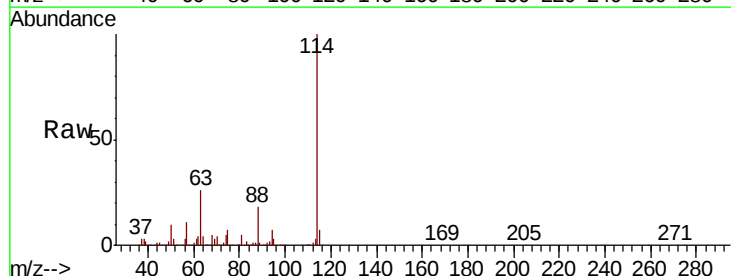
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.17 min  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 5 May 2022 16:00

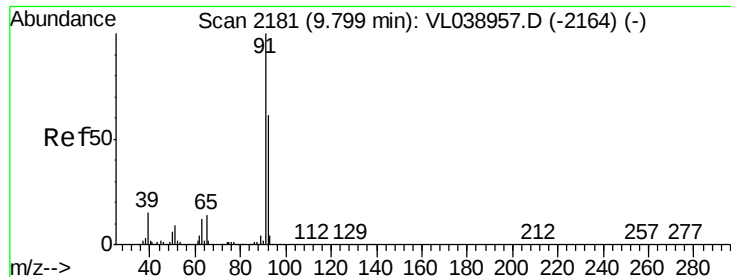
|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 114   | Resp: | 3375865 |
| Ion      | Ratio | Lower | Upper   |
| 114      | 100   |       |         |
| 63       | 25.9  | 22.6  | 33.8    |
| 88       | 18.4  | 15.4  | 23.0    |



#39  
 1,2-Dichloropropane  
 Concen: 7.582 ppbv  
 RT: 7.17 min Scan# 1362  
 Delta R.T. -0.44 min  
 Lab File: VL038974.D  
 Acq: 5 May 2022 16:00

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 63    | Resp: | 852311 |
| Ion      | Ratio | Lower | Upper  |
| 63       | 100   |       |        |
| 41       | 0.0   | 55.9  | 83.9#  |
| 62       | 15.8  | 53.8  | 80.6#  |





#53

Toluene

Concen: 0.039 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

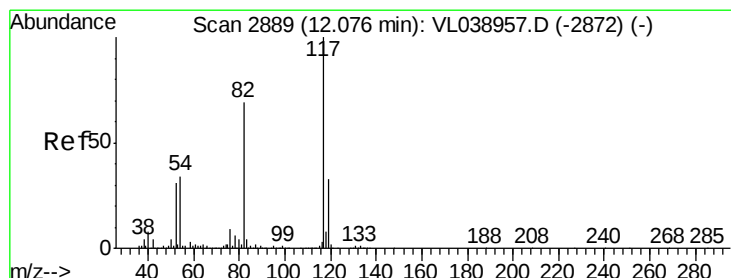
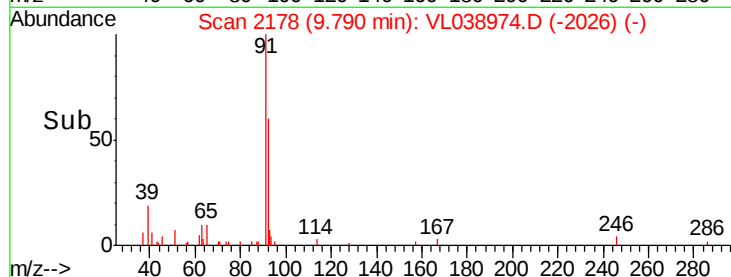
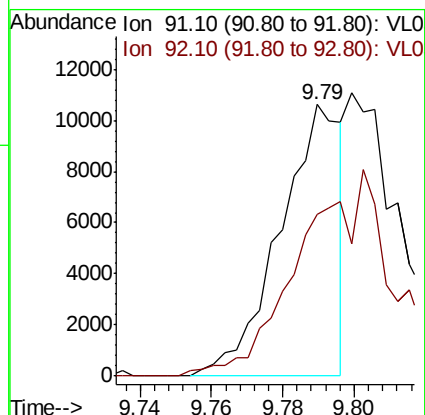
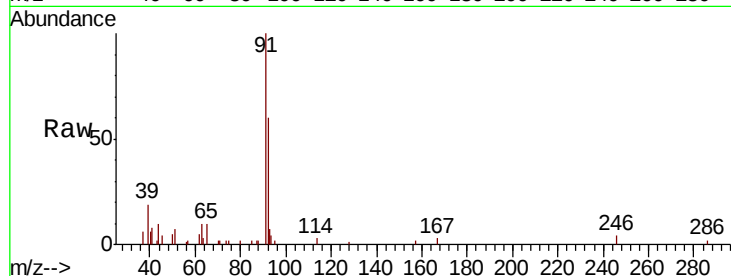
Acq: 5 May 2022 16:00

Tot Ion: 91 Resp: 12552

Ion Ratio Lower Upper

91 100

92 0.0 48.2 72.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.00 min

Lab File: VL038974.D

Acq: 5 May 2022 16:00

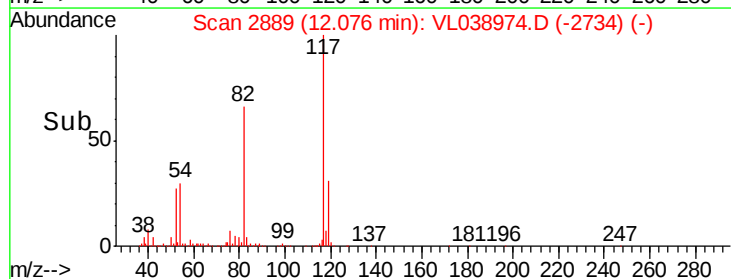
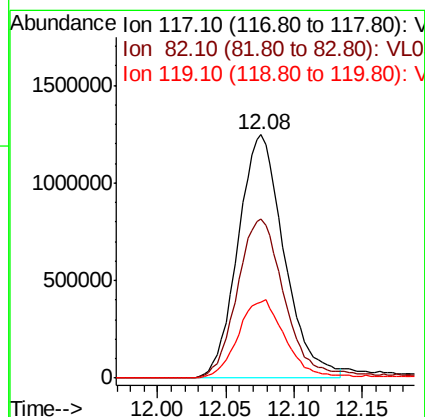
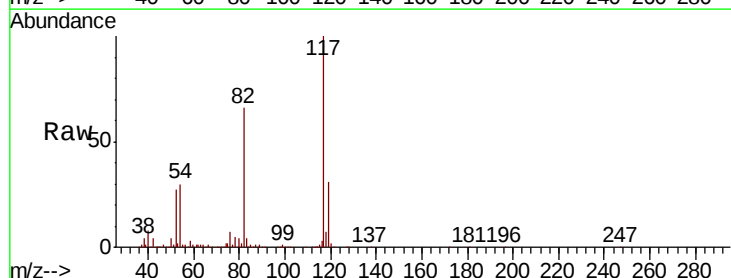
Tgt Ion: 117 Resp: 2915078

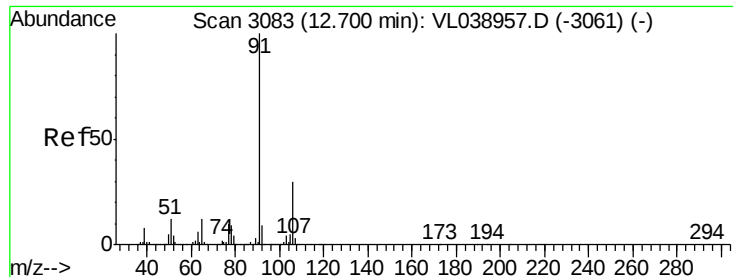
Ion Ratio Lower Upper

117 100

82 70.4 57.0 85.6

119 34.3 27.2 40.8





#58

Ethyl Benzene

Concen: 11.232 ppbv

RT: 12.70

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

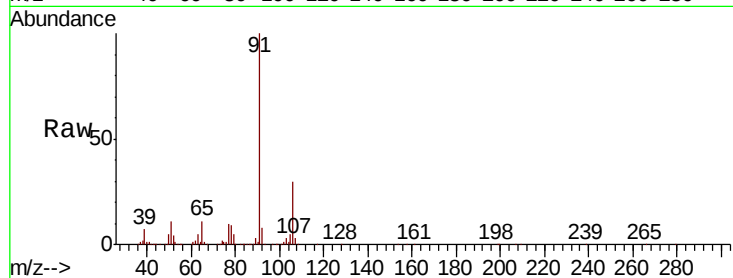
Acq: 5 May 2022 16:00

Tot Ion: 91 Resp: 4712080

Ion Ratio Lower Upper

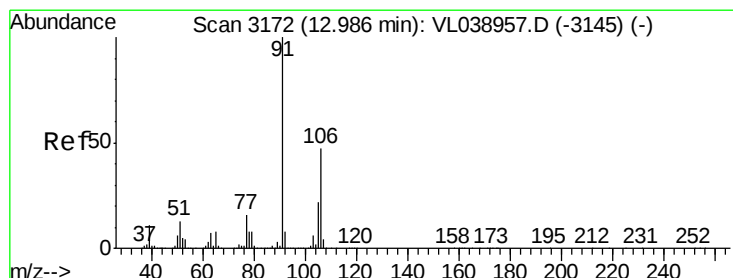
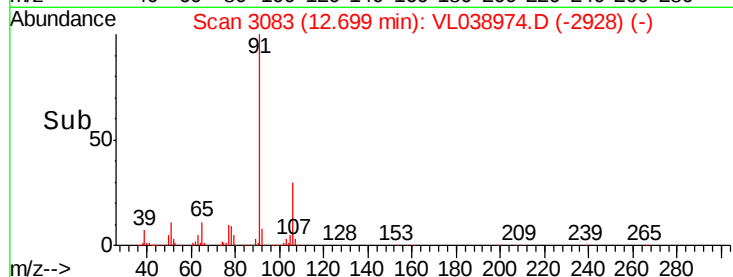
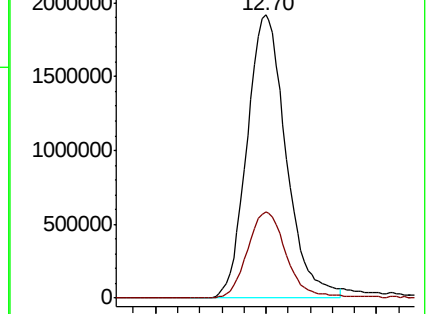
91 100

106 30.3 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 42.438 ppbv

RT: 12.96 min Scan# 3164

Delta R.T. -0.03 min

Lab File: VL038974.D

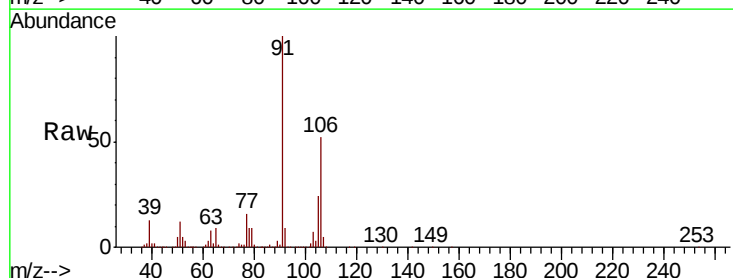
Acq: 5 May 2022 16:00

Tgt Ion: 91 Resp: 15198715

Ion Ratio Lower Upper

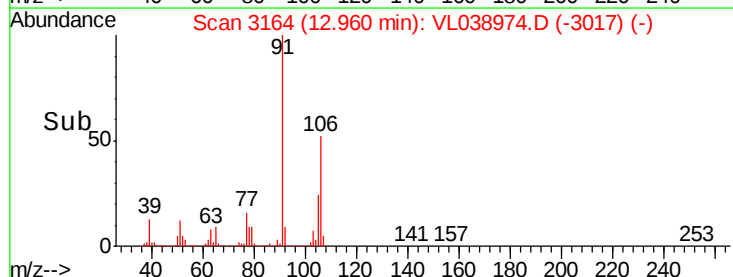
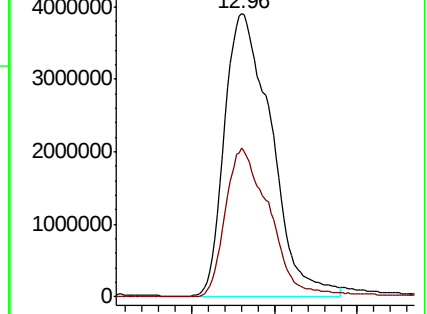
91 100

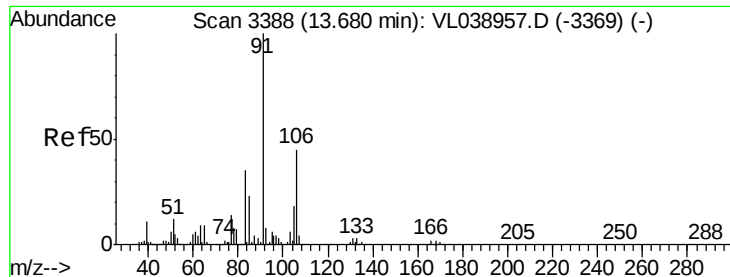
106 50.9 34.6 52.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

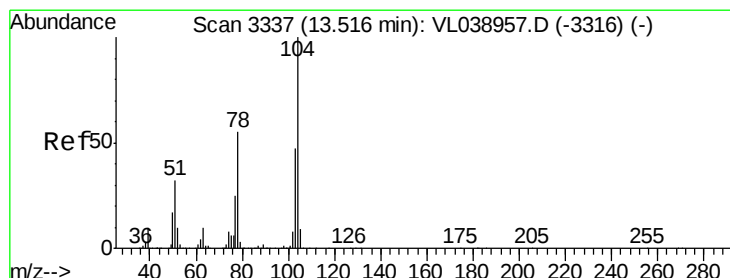
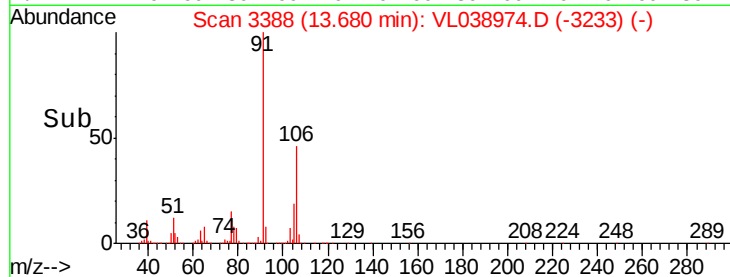
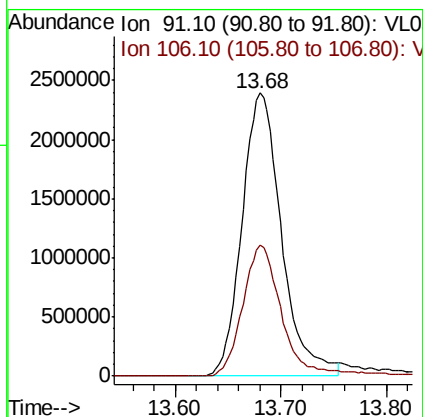
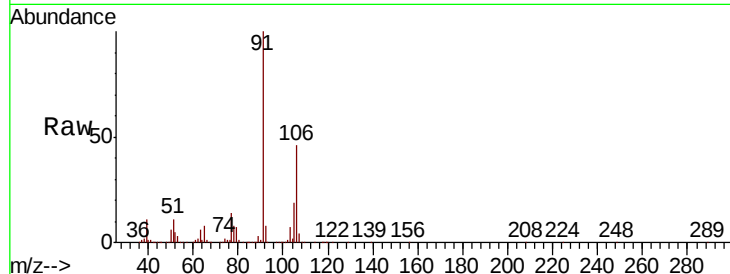
Ion 106.10 (105.80 to 106.80): V





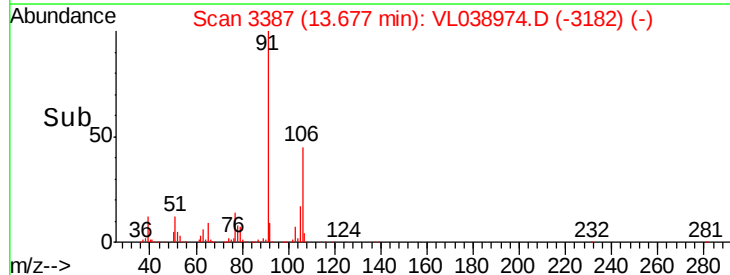
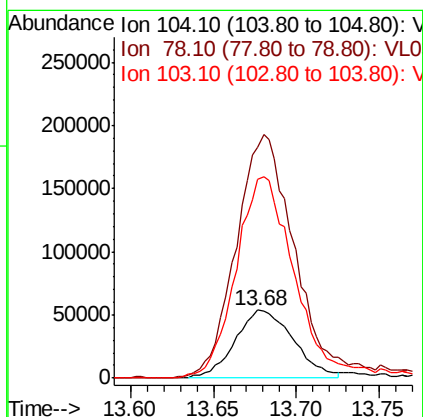
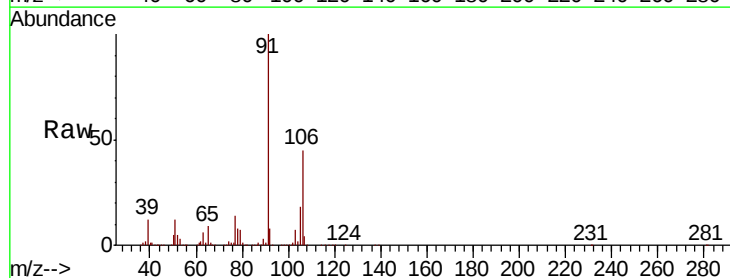
#60  
o-Xylene  
Concen: 18.454 ppbv  
RT: 13.68 min  
Delta R.T. 0.16 min  
Lab File: VL038974.D  
Acq: 5 May 2022 16:00

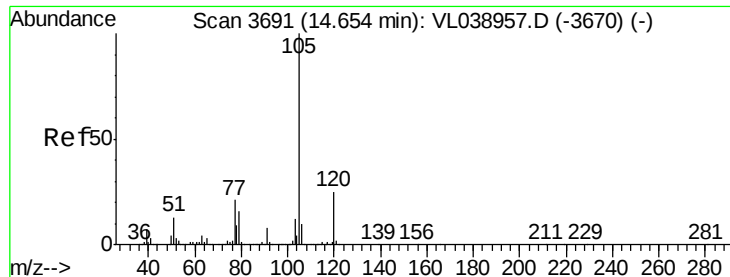
Tot Ion: 91 Resp: 6220336  
Ion Ratio Lower Upper  
91 100  
106 46.9 22.2 66.6



#61  
Styrene  
Concen: 0.714 ppbv  
RT: 13.68 min Scan# 3387  
Delta R.T. 0.16 min  
Lab File: VL038974.D  
Acq: 5 May 2022 16:00

Tgt Ion: 104 Resp: 128564  
Ion Ratio Lower Upper  
104 100  
78 393.1 46.4 69.6#  
103 304.9 39.3 58.9#





#62

Isopropylbenzene

Concen: 0.139 ppbv

RT: 14.65

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

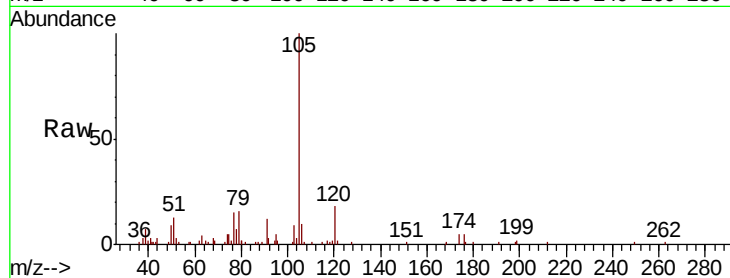
Acq: 5 May 2022 16:00

Tot Ion: 105 Resp: 59801

Ion Ratio Lower Upper

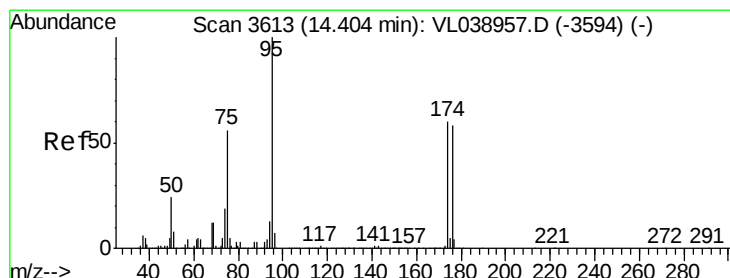
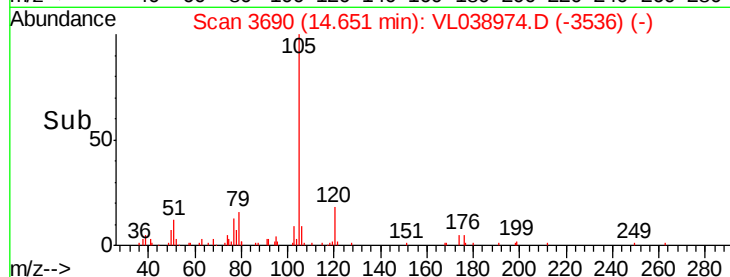
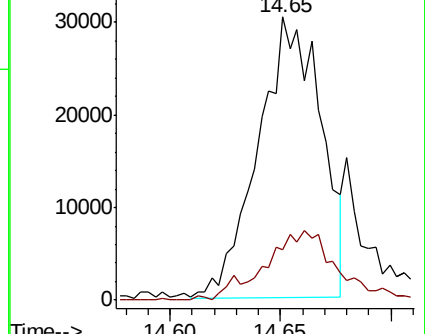
105 100

120 28.6 20.5 30.7



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.765 ppbv

RT: 14.40 min Scan# 3613

Delta R.T. -0.00 min

Lab File: VL038974.D

Acq: 5 May 2022 16:00

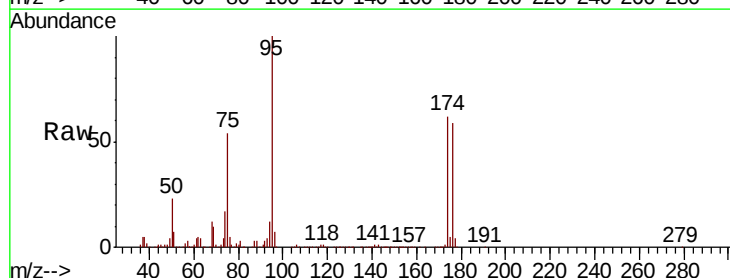
Tgt Ion: 95 Resp: 2254261

Ion Ratio Lower Upper

95 100

174 67.0 50.8 76.2

175 4.7 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

