

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120721\  
 Data File : VL038153.D  
 Acq On : 7 Dec 2021 16:48  
 Operator : SY/AP  
 Sample : M4897-03DUP  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA L  
 ClientSampleId :  
 IA-1DUP

Manual Integrations  
 APPROVED

Reviewed By :Amit Patel 12/08/2021  
 Supervised By :Semsettin Yesilyurt 12/08/2021

Quant Time: Dec 08 15:42:08 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821A  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
 QLast Update : Thu Nov 18 13:16:09 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 904181   | 10.00 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 2313278  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 2010061  | 10.00 | ppbv  | -0.01    |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.39  | 95    | 1558481  | 10.75    | ppbv | -0.02   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 107.50% |

## Target Compounds

|                            | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.05  | 85   | 39991    | 0.268   | ppbv   | 96     |
| 4) Chloromethane           | 3.14  | 50   | 44009m   | 0.681   | ppbv   |        |
| 9) Propene                 | 3.02  | 41   | 126406   | 1.808   | ppbv # | 73     |
| 11) Trichlorofluoromethane | 3.95  | 101  | 69681m   | 0.491   | ppbv   |        |
| 13) Ethanol                | 3.60  | 45   | 3273664  | 484.420 | ppbv   | 90     |
| 15) Acetone                | 3.84  | 43   | 1603976  | 20.460  | ppbv   | 100    |
| 19) Isopropyl Alcohol      | 3.96  | 45   | 3903474  | 68.914  | ppbv   | 99     |
| 20) Methylene Chloride     | 4.34  | 84   | 252733   | 5.756   | ppbv   | 99     |
| 25) Ethyl Acetate          | 5.67  | 43   | 361751   | 1.388   | ppbv # | 97     |
| 26) Hexane                 | 5.68  | 57   | 140406   | 1.118   | ppbv # | 78     |
| 29) Chloroform             | 5.74  | 83   | 45667m   | 0.247   | ppbv   |        |
| 34) 2-Butanone             | 5.24  | 43   | 128882   | 1.382   | ppbv   | 92     |
| 35) Carbon Tetrachloride   | 7.01  | 117  | 11990m   | 0.074   | ppbv   |        |
| 36) Benzene                | 6.88  | 78   | 58689    | 0.254   | ppbv   | 95     |
| 52) Tetrachloroethene      | 11.20 | 164  | 6687m    | 0.078   | ppbv   |        |
| 53) Toluene                | 9.79  | 91   | 353695   | 1.332   | ppbv   | 98     |
| 58) Ethyl Benzene          | 12.69 | 91   | 86036m   | 0.259   | ppbv   |        |
| 59) m/p-Xylene             | 12.95 | 91   | 321882   | 1.151   | ppbv   | 100    |
| 60) o-Xylene               | 13.67 | 91   | 161775m  | 0.624   | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.74 | 105  | 91317    | 0.323   | ppbv # | 72     |

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

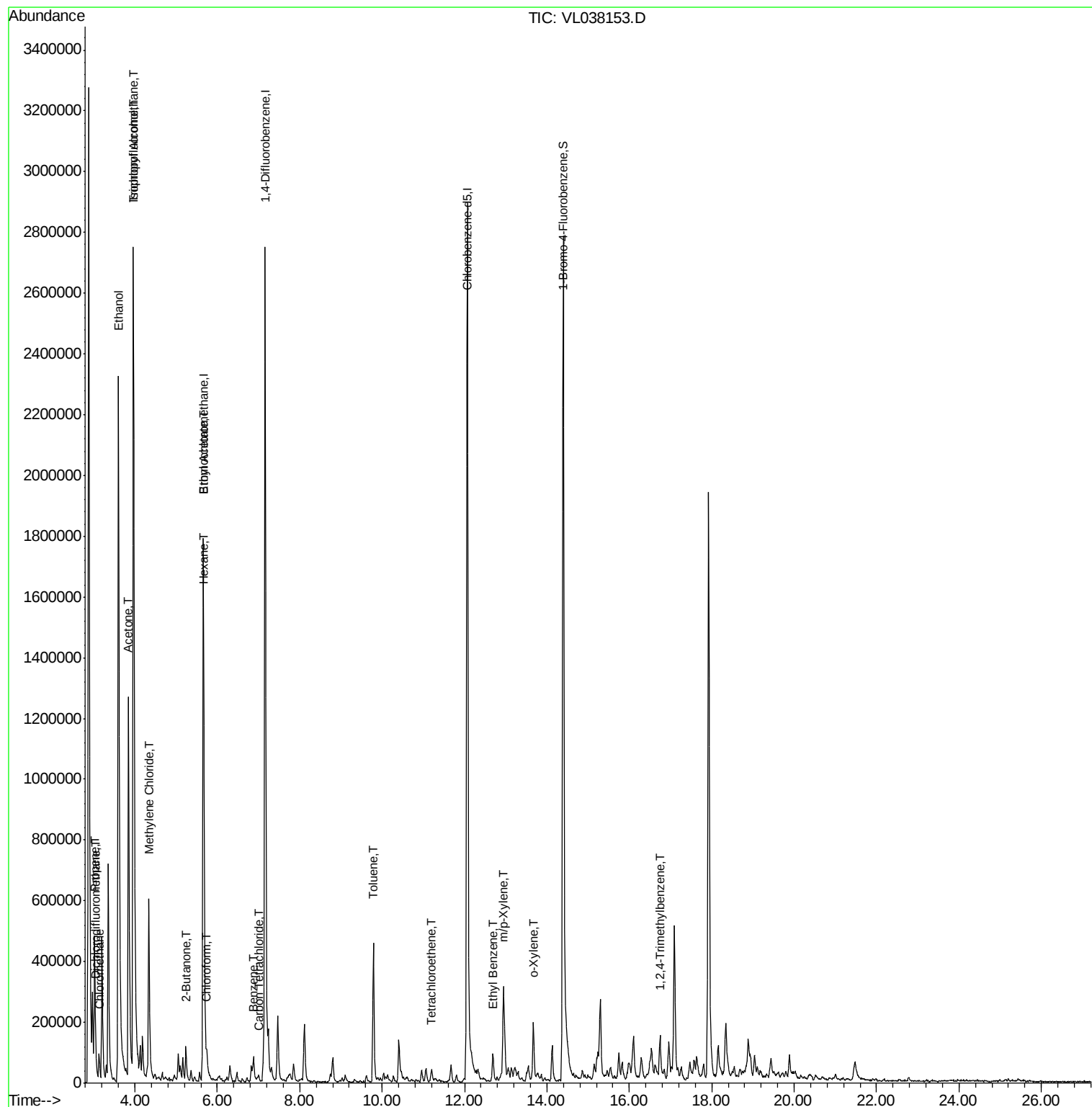
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120721\  
Data File : VL038153.D  
Acq On : 7 Dec 2021 16:48  
Operator : SY/AP  
Sample : M4897-03DUP  
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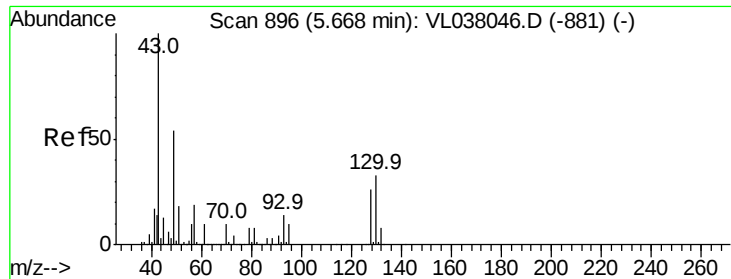
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA-1DUP

Quant Time: Dec 08 15:42:08 2021  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111821  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
QLast Update : Thu Nov 18 13:16:09 2021  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By :Amit Patel 12/08/2021  
Supervised By :Semsettin Yesilyurt 12/08/2021





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 7 Dec 2021 16:48

Tot Ion:

Ion Ratio

49 100

128 46.

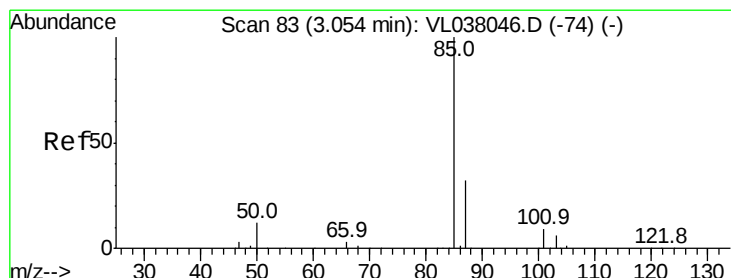
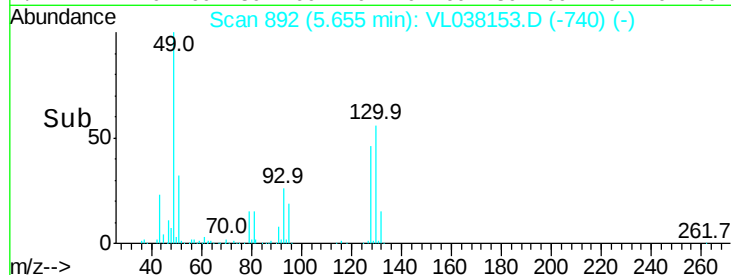
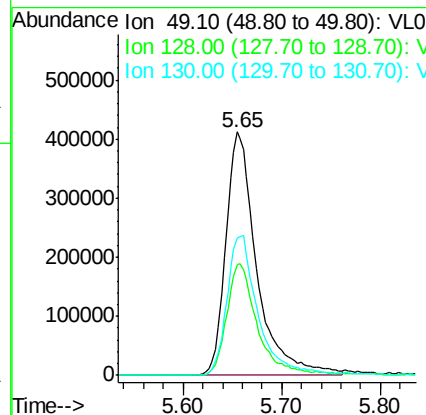
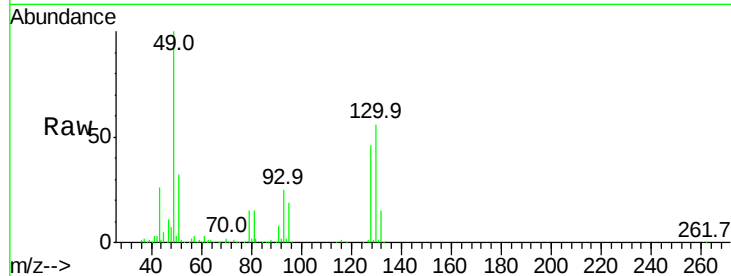
130 59.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/08/2021

Supervised By :Semsettin Yesilyurt 12/08/2021



#2

Dichlorodifluoromethane

Concen: 0.268 ppbv

RT: 3.05 min Scan# 82

Delta R.T. -0.00 min

Lab File: VL038153.D

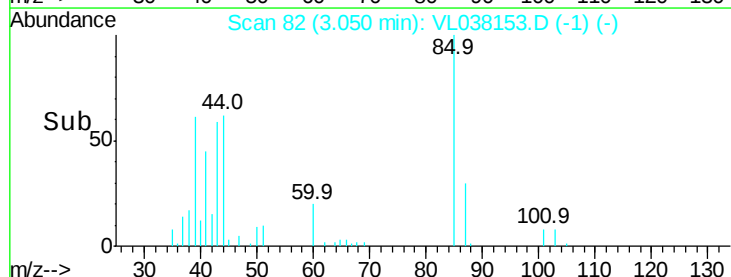
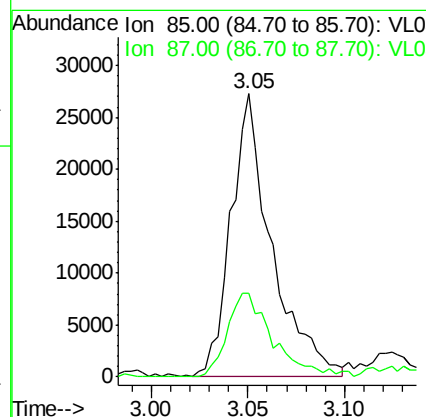
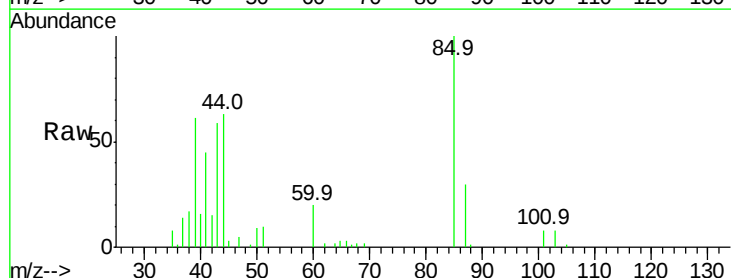
Acq: 7 Dec 2021 16:48

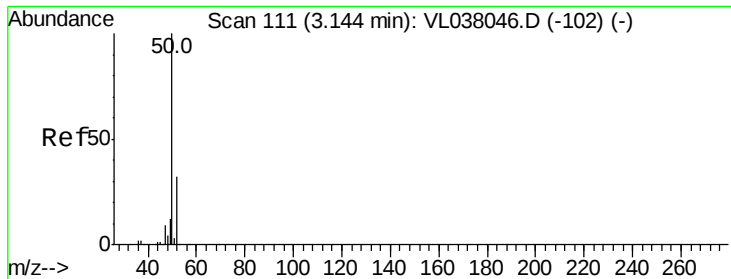
Tgt Ion: 85 Resp: 39991

Ion Ratio Lower Upper

85 100

87 29.7 25.8 38.6





#4

Chloromethane

Concen: 0.681 ppbv m

RT: 3.14 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 7 Dec 2021 16:48

Tot Ion:

Ion Ratio

50 100

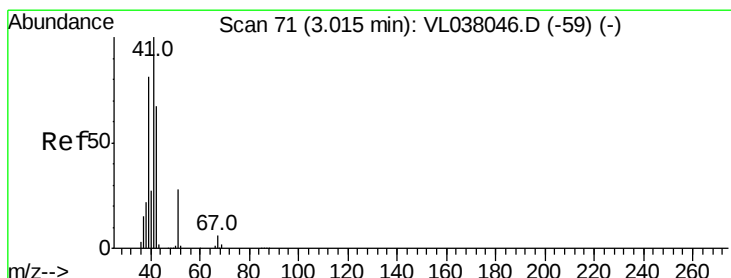
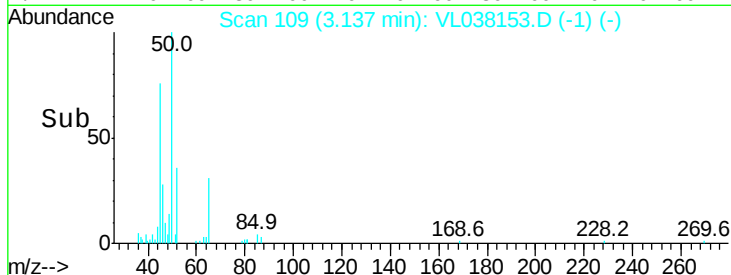
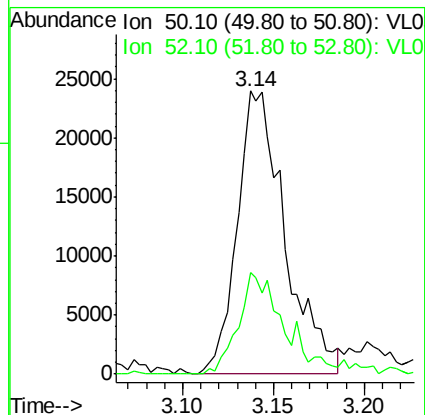
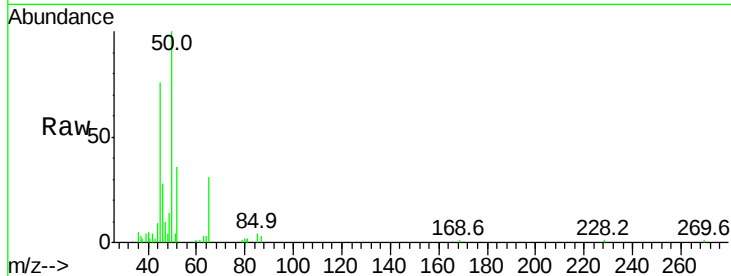
52 35.

Manual Integrations

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#9

Propene

Concen: 1.808 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL038153.D

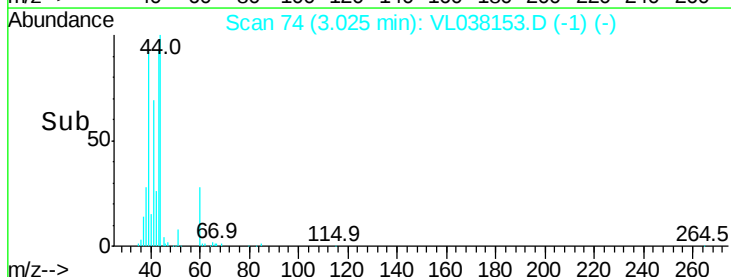
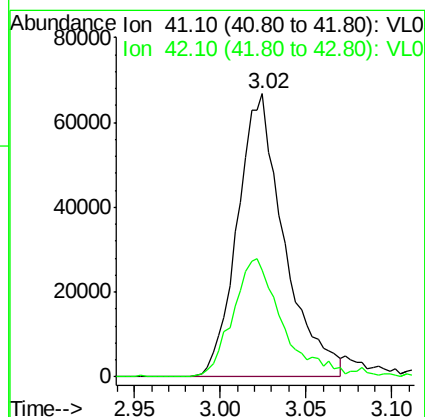
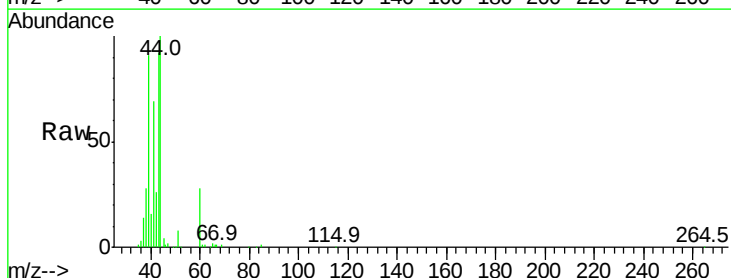
Acq: 7 Dec 2021 16:48

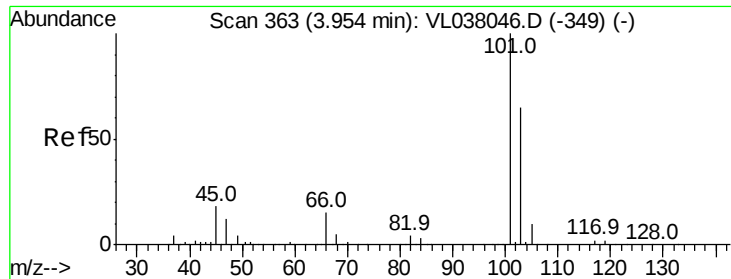
Tgt Ion: 41 Resp: 126406

Ion Ratio Lower Upper

41 100

42 45.5 53.8 80.8#



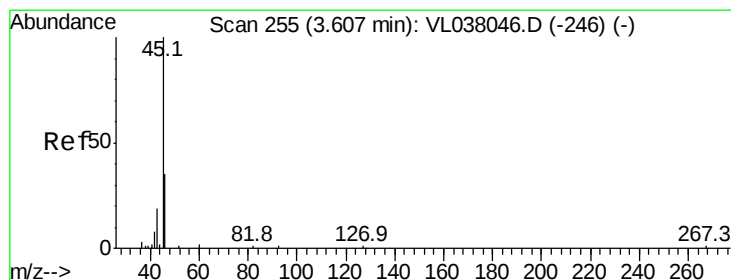
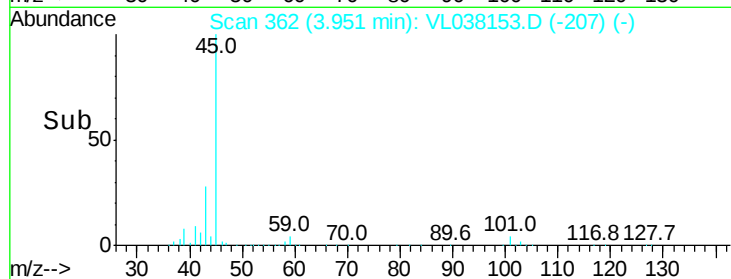
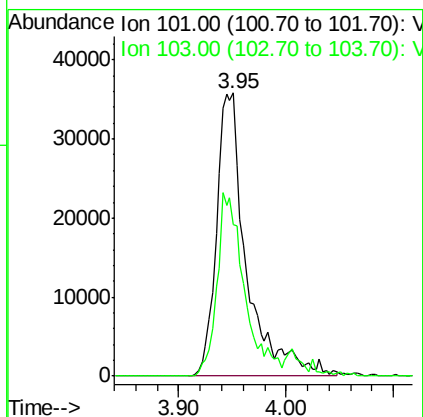
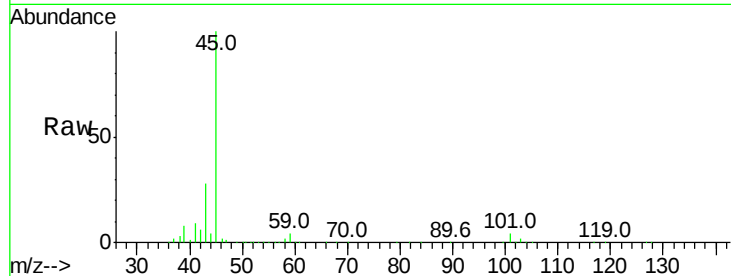


#11  
 Trichlorofluoromethane  
 Concen: 0.491 ppbv m  
 RT: 3.95 Instrument : MSVOA\_1  
 Delta R.T. :  
 Lab File: ClientSampleId :  
 Acq: 7 Dec 2021 16:48

Tot Ion:1  
 Ion Rati  
 101 100  
 103 53.

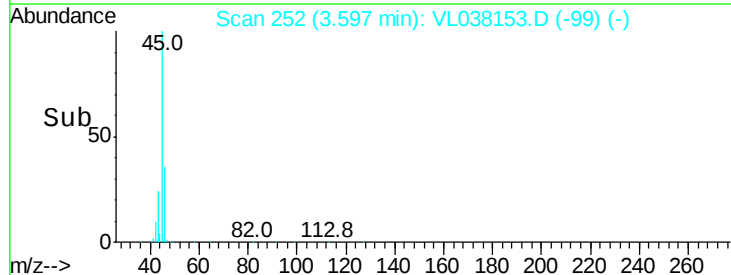
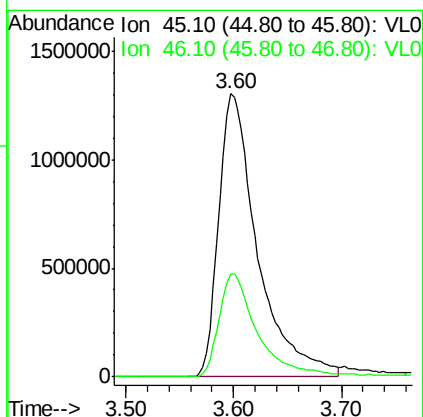
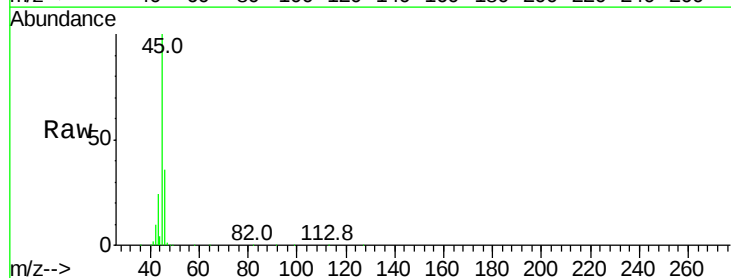
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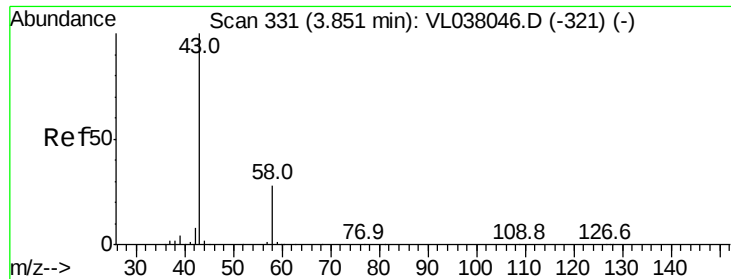
Reviewed By :Amit Patel 12/08/2021  
 Supervised By :Semsettin Yesilyurt 12/08/2021



#13  
 Ethanol  
 Concen: 484.420 ppbv  
 RT: 3.60 min Scan# 252  
 Delta R.T. -0.01 min  
 Lab File: VL038153.D  
 Acq: 7 Dec 2021 16:48

Tgt Ion: 45 Resp: 3273664  
 Ion Ratio Lower Upper  
 45 100  
 46 37.4 17.6 70.2





#15

Acetone

Concen: 20.460 ppbv

RT: 3.84 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 7 Dec 2021 16:48

Tot Ion:

Ion Ratio

43 100

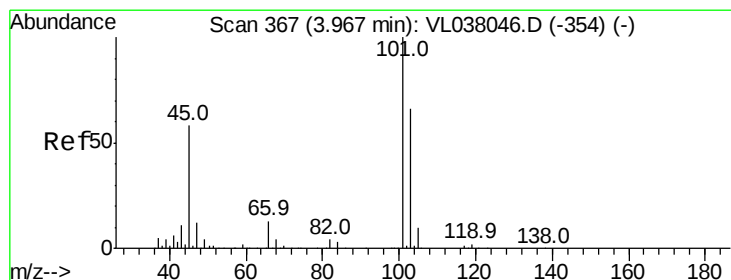
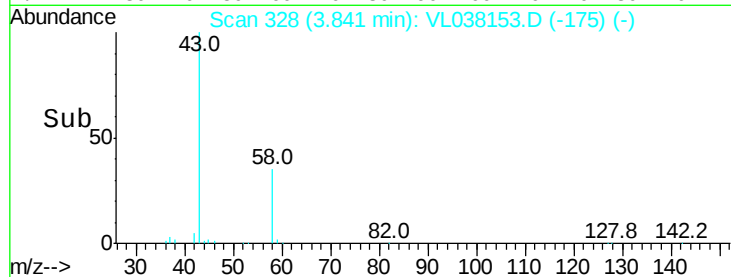
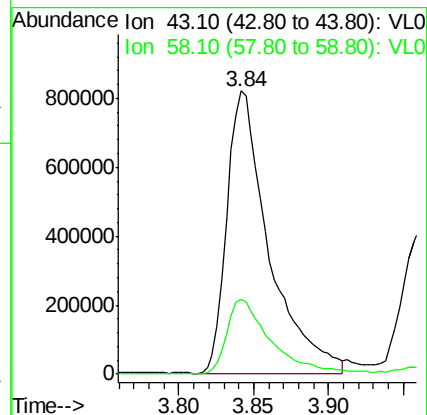
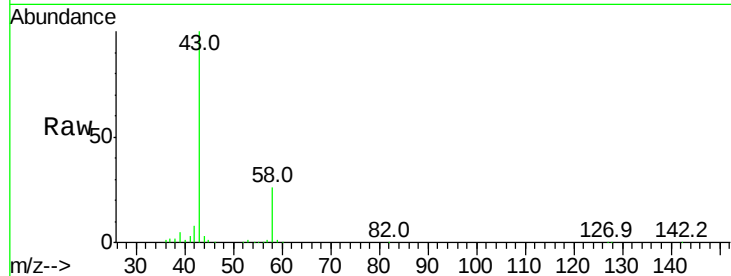
58 28.

Manual Integrations

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Reviewed By :Amit Patel 12/08/2021

Supervised By :Semsettin Yesilyurt 12/08/2021



#19

Isopropyl Alcohol

Concen: 68.914 ppbv

RT: 3.96 min Scan# 365

Delta R.T. -0.01 min

Lab File: VL038153.D

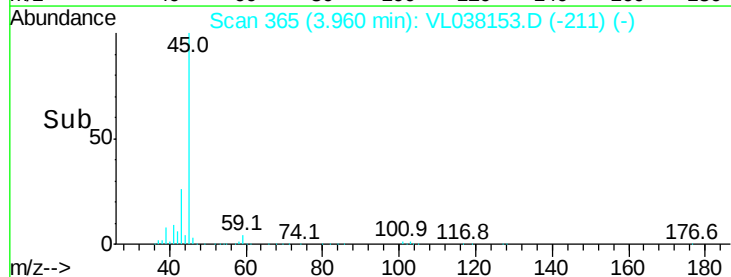
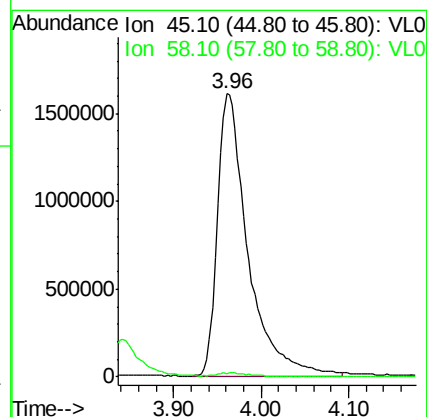
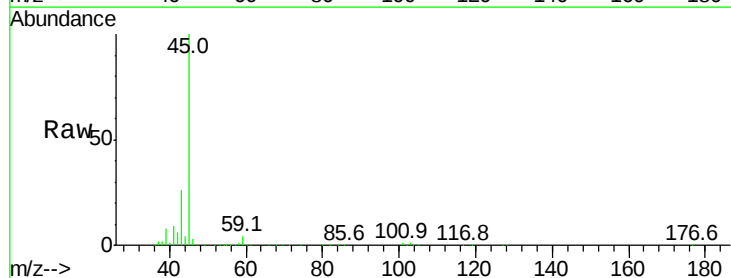
Acq: 7 Dec 2021 16:48

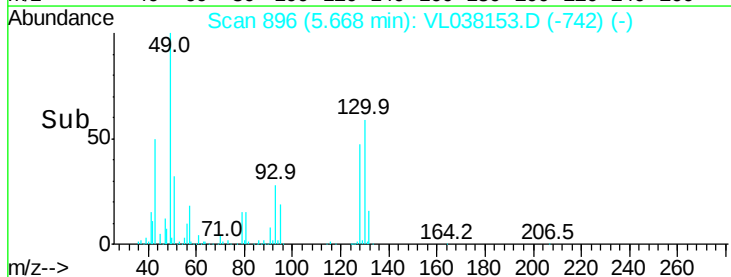
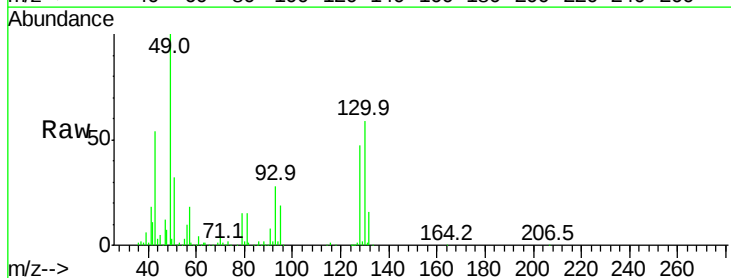
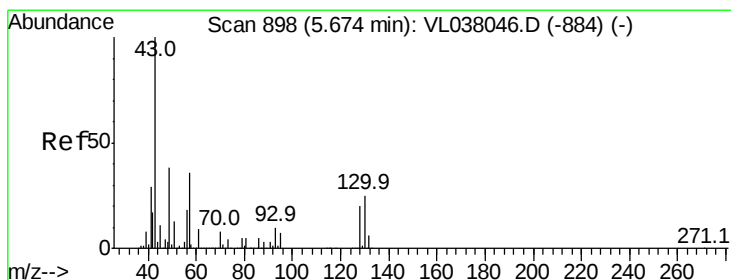
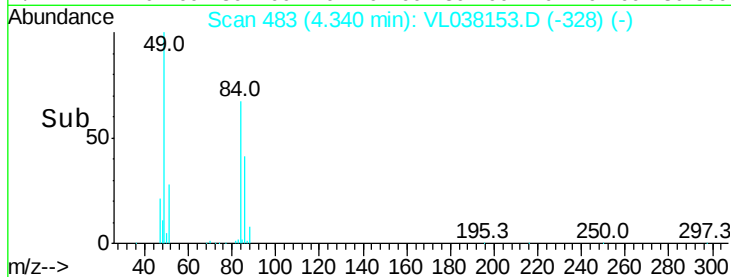
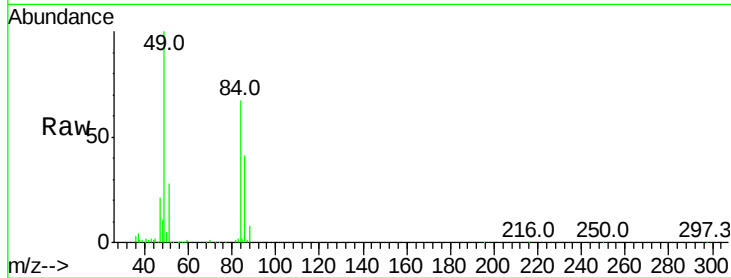
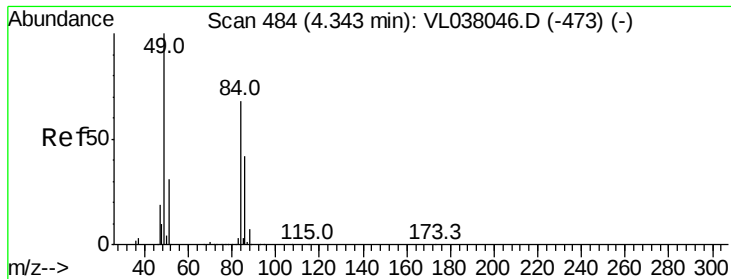
Tgt Ion: 45 Resp: 3903474

Ion Ratio Lower Upper

45 100

58 1.5 1.4 2.0



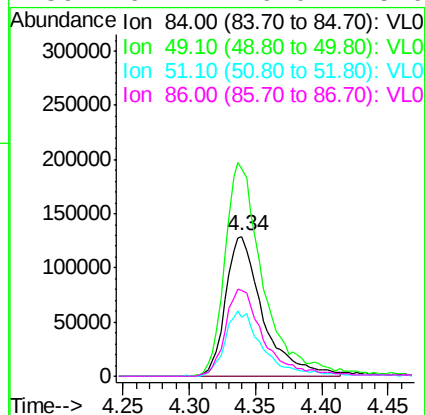


#20  
Methylene Chloride  
Concen: 5.756 ppbv  
RT: 4.34  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 7 Dec 2021 16:48

Tot Ion:  
Ion Ratio  
84 100  
49 148.  
51 42.  
86 61.1 49.0 73.6

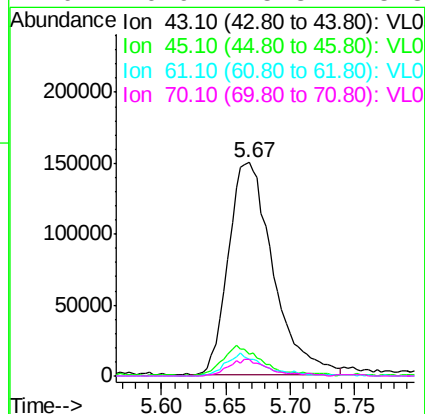
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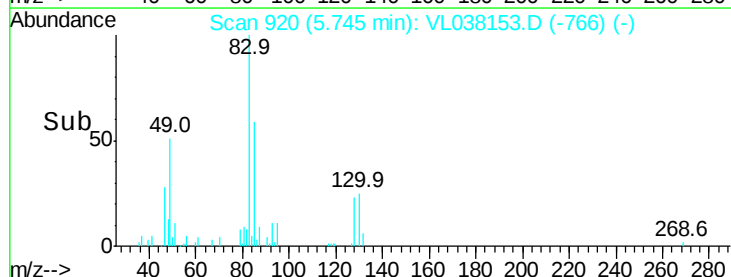
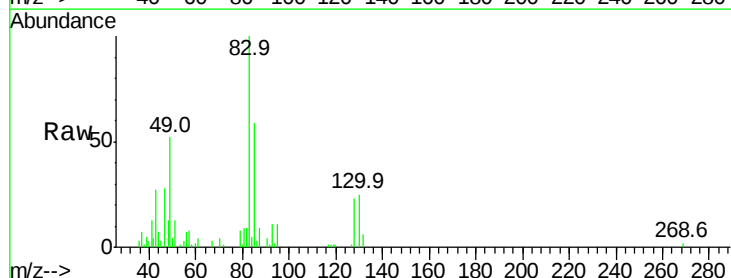
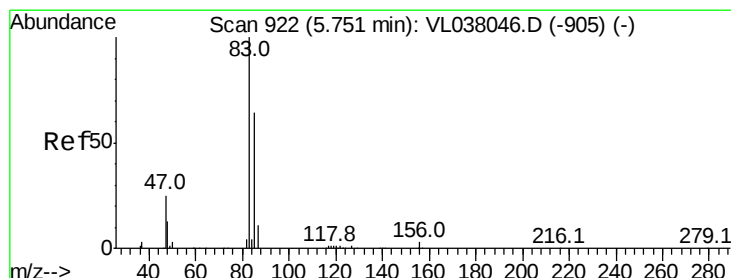
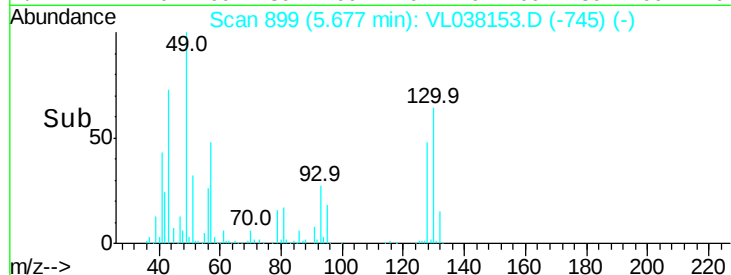
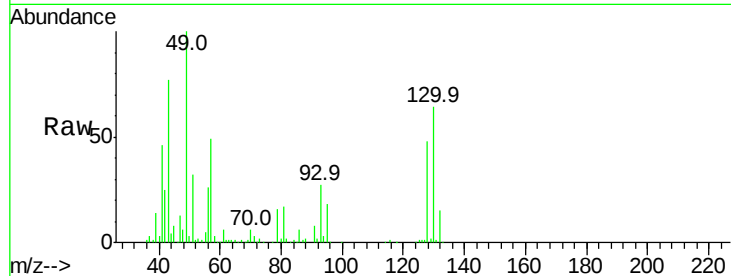
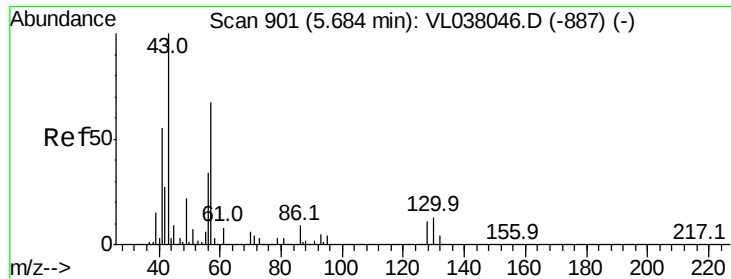
Reviewed By :Amit Patel 12/08/2021  
Supervised By :Semsettin Yesilyurt 12/08/2021



#25  
Ethyl Acetate  
Concen: 1.388 ppbv  
RT: 5.67 min Scan# 896  
Delta R.T. -0.01 min  
Lab File: VL038153.D  
Acq: 7 Dec 2021 16:48

Tgt Ion: 43 Resp: 361751  
Ion Ratio Lower Upper  
43 100  
45 12.3 7.9 11.9#  
61 9.4 7.8 11.6  
70 6.9 5.8 8.8



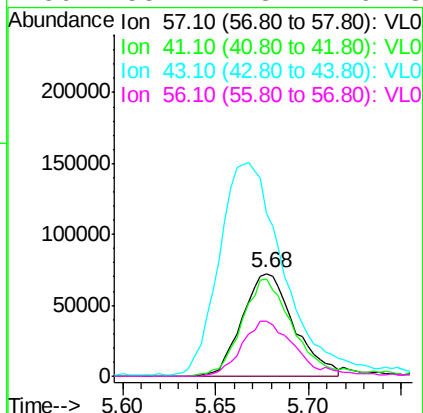


#26  
Hexane  
Concen: 1.118 ppbv  
RT: 5.68  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 7 Dec 2021 16:48

Tot Ion:  
Ion Ratio  
57 100  
41 99.  
43 267.  
56 58.2 43.2 64.8

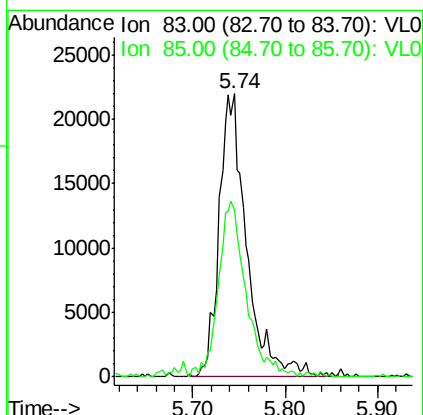
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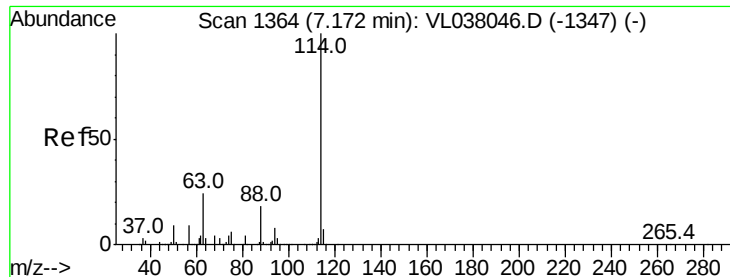
Reviewed By :Amit Patel 12/08/2021  
Supervised By :Semsettin Yesilyurt 12/08/2021



#29  
Chloroform  
Concen: 0.247 ppbv m  
RT: 5.74 min Scan# 920  
Delta R.T. -0.01 min  
Lab File: VL038153.D  
Acq: 7 Dec 2021 16:48

Tgt Ion: 83 Resp: 45667  
Ion Ratio Lower Upper  
83 100  
85 59.1 51.0 76.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16

Instrument: MSVOA\_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 7 Dec 2021 16:48

Tot Ion: 1

Ion Ratio

114 100

63 26.

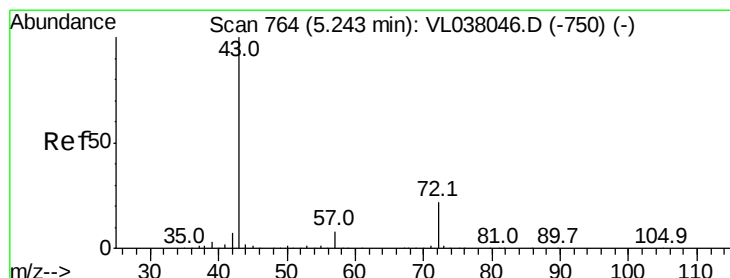
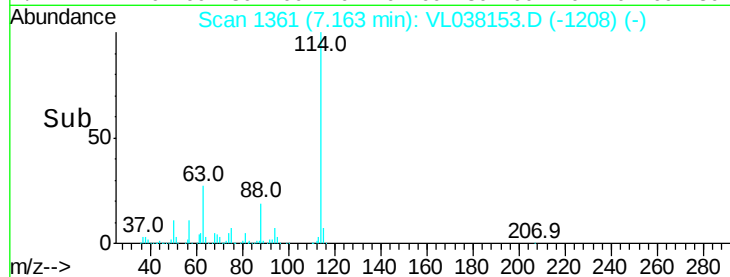
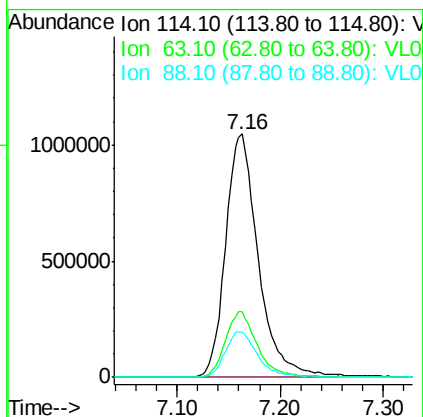
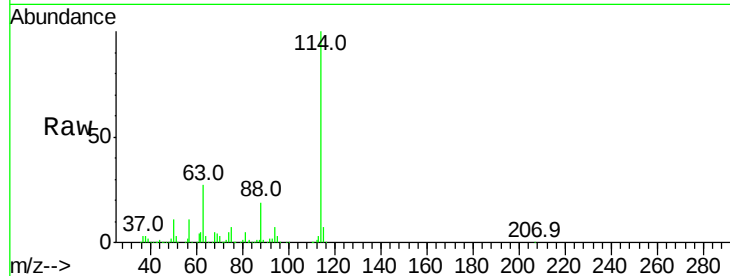
88 18.

Manual Integrations

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#34

2-Butanone

Concen: 1.382 ppbv

RT: 5.24 min Scan# 762

Delta R.T. -0.01 min

Lab File: VL038153.D

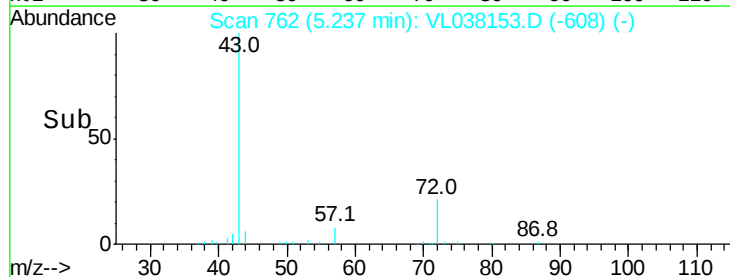
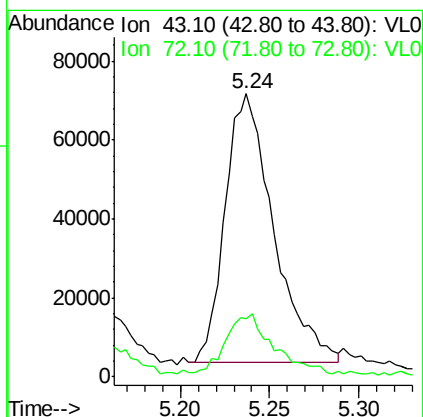
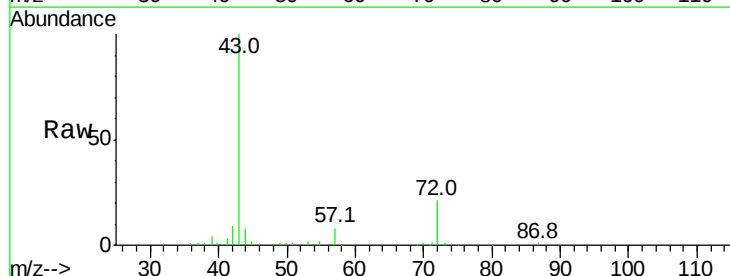
Acq: 7 Dec 2021 16:48

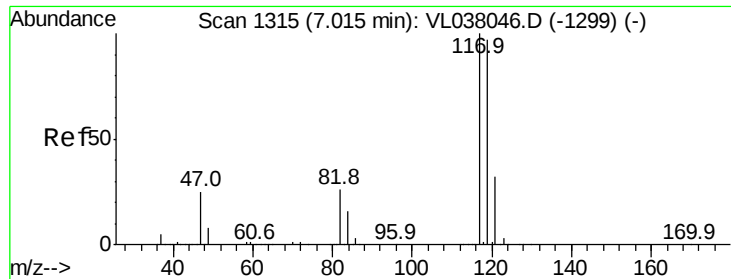
Tgt Ion: 43 Resp: 128882

Ion Ratio Lower Upper

43 100

72 27.6 18.8 28.2





#35

Carbon Tetrachloride

Concen: 0.074 ppbv m

RT: 7.01

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 7 Dec 2021 16:48

Tot Ion:1

Ion Ratio

117 100

119 71.

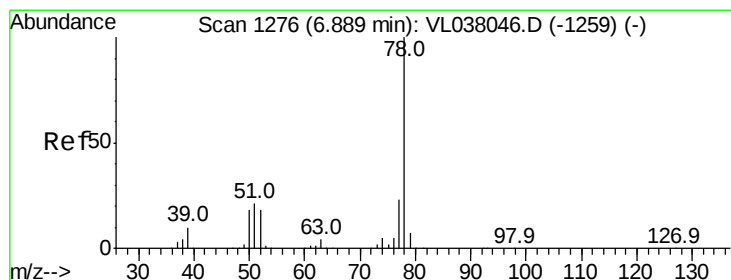
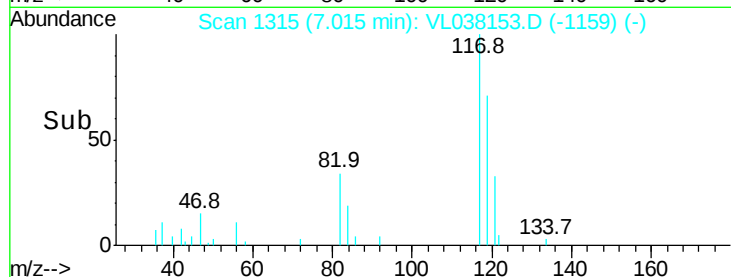
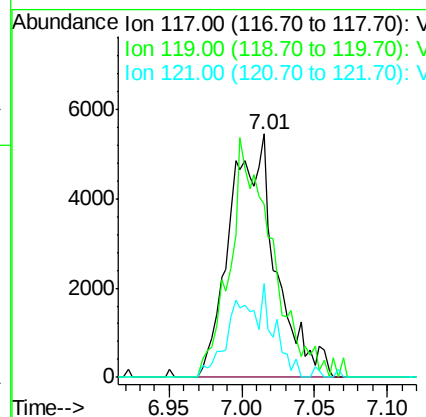
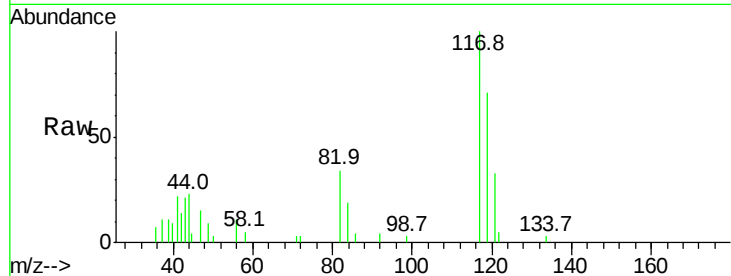
121 33.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/08/2021

Supervised By :Semsettin Yesilyurt 12/08/2021



#36

Benzene

Concen: 0.254 ppbv

RT: 6.88 min Scan# 1272

Delta R.T. -0.01 min

Lab File: VL038153.D

Acq: 7 Dec 2021 16:48

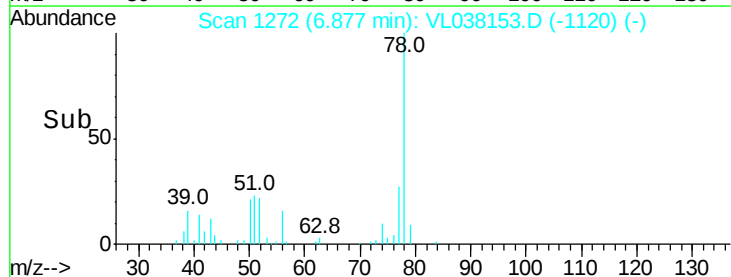
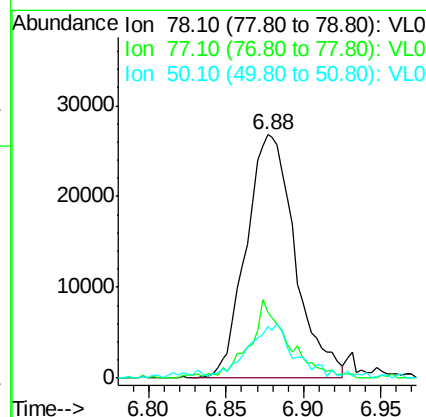
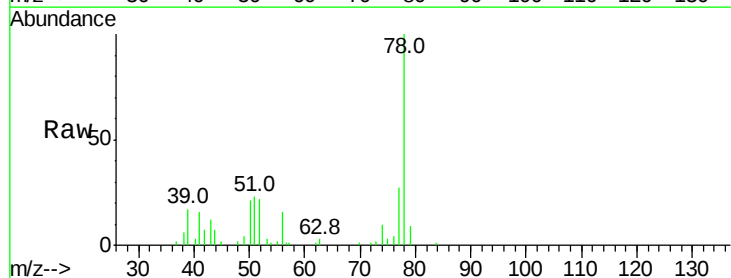
Tgt Ion: 78 Resp: 58689

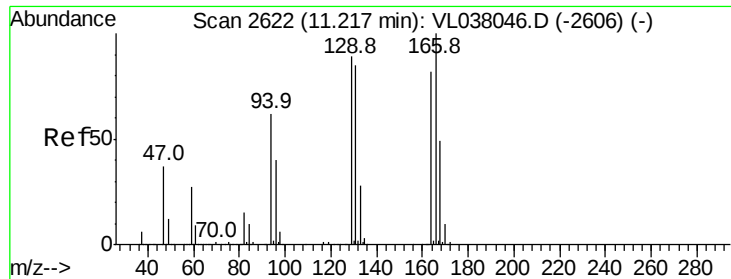
Ion Ratio Lower Upper

78 100

77 25.6 18.2 27.4

50 20.2 14.7 22.1





#52

Tetrachloroethene

Concen: 0.078 ppbv m

RT: 11.20

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 7 Dec 2021 16:48

Tot Ion:1

Ion Rati

164 100

166 96.

129 116.

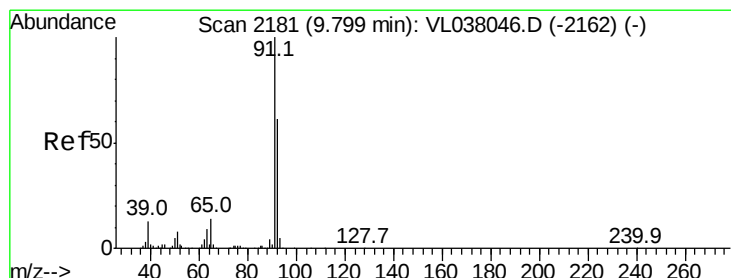
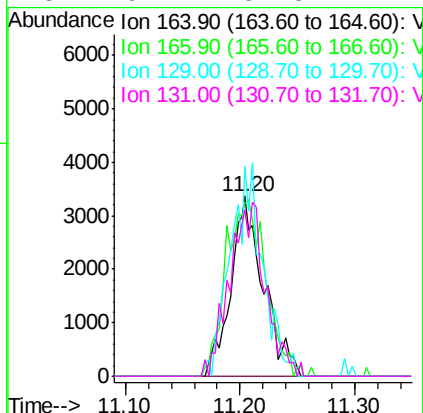
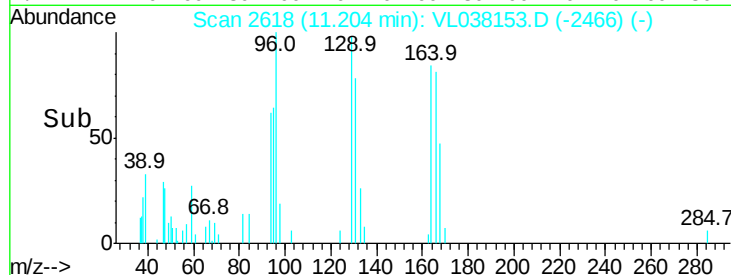
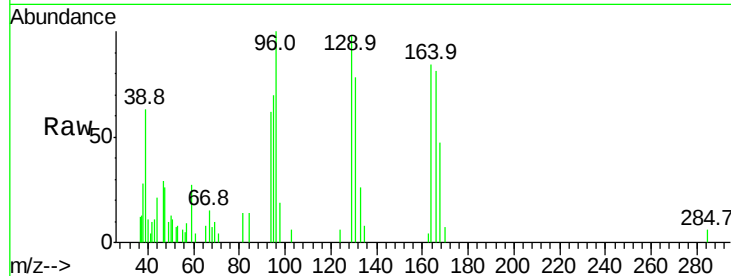
131 92.7 82.8 124.2

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/08/2021

Supervised By :Semsettin Yesilyurt 12/08/2021



#53

Toluene

Concen: 1.332 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL038153.D

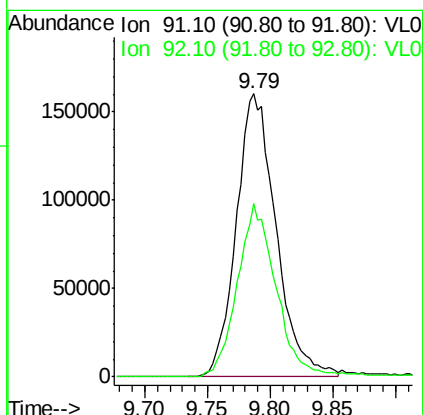
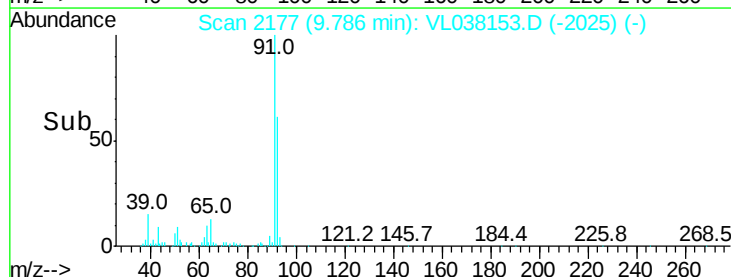
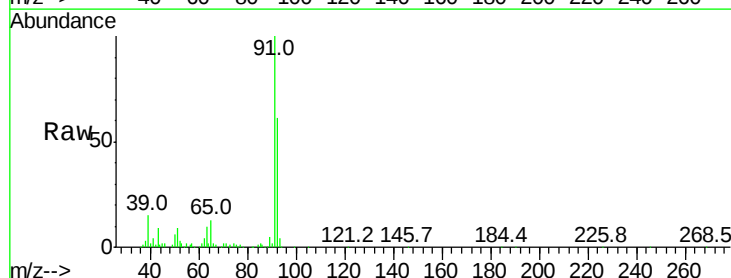
Acq: 7 Dec 2021 16:48

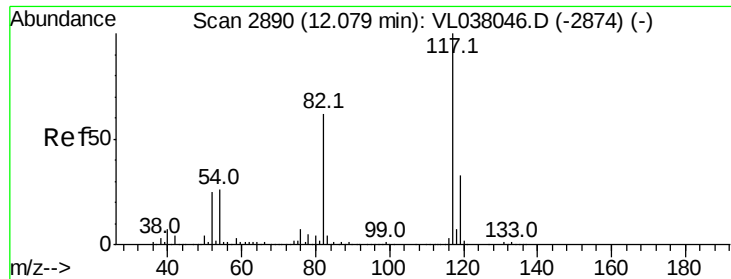
Tgt Ion: 91 Resp: 353695

Ion Ratio Lower Upper

91 100

92 60.5 49.7 74.5



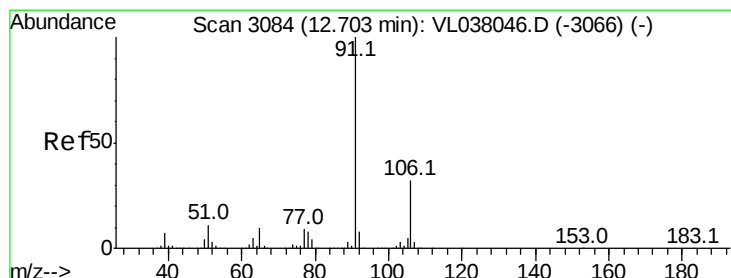
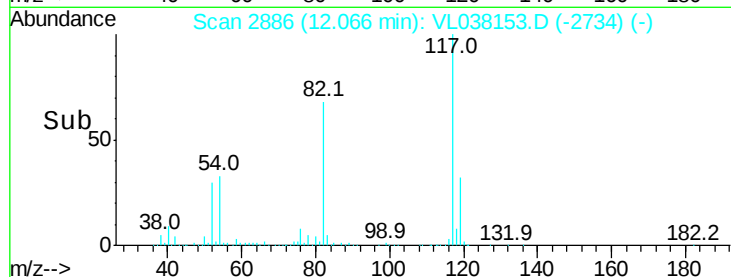
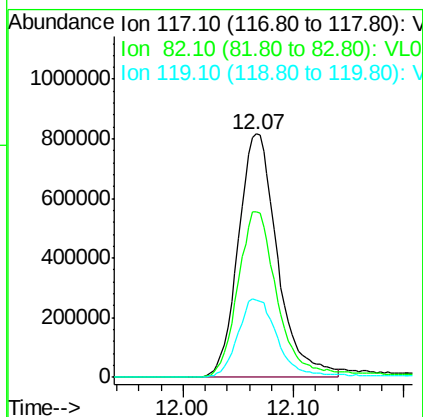
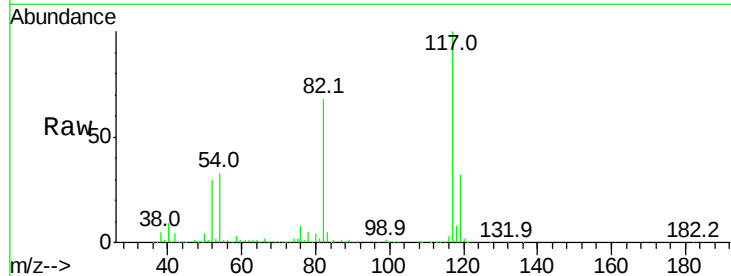


#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.07 min  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 7 Dec 2021 16:48

Tot Ion:1  
Ion Rati  
117 100  
82 72.  
119 34.

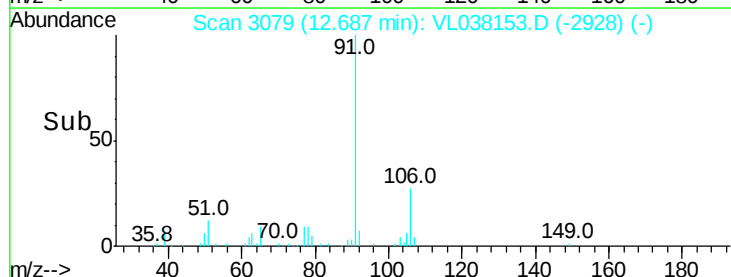
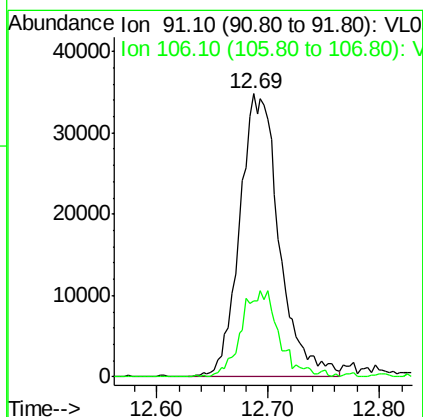
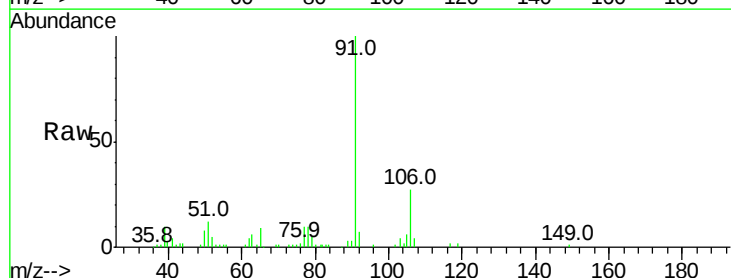
Manual Integrations  
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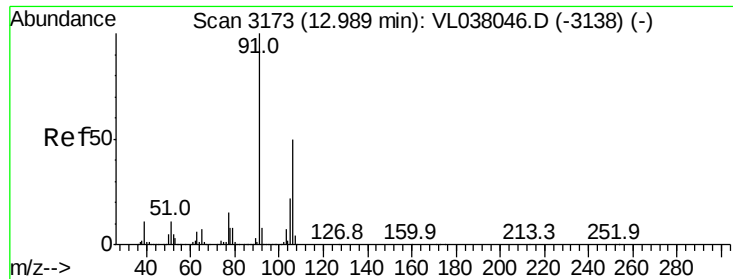
Reviewed By :Amit Patel 12/08/2021  
Supervised By :Semsettin Yesilyurt 12/08/2021



#58  
Ethyl Benzene  
Concen: 0.259 ppbv m  
RT: 12.69 min Scan# 3079  
Delta R.T. -0.02 min  
Lab File: VL038153.D  
Acq: 7 Dec 2021 16:48

Tgt Ion: 91 Resp: 86036  
Ion Ratio Lower Upper  
91 100  
106 26.9 25.8 38.6



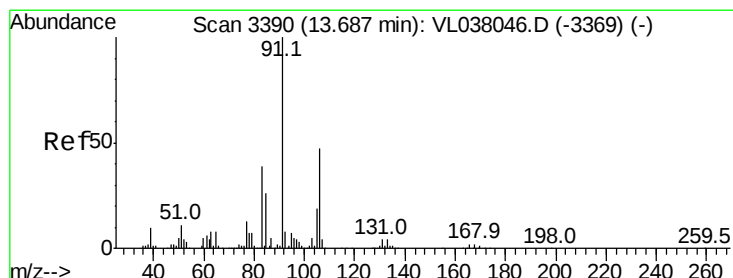
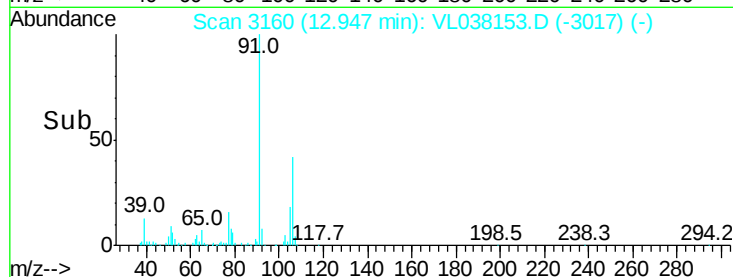
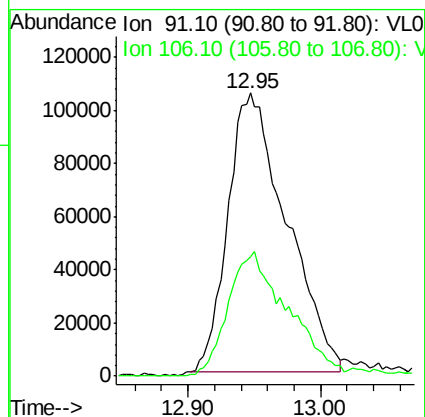
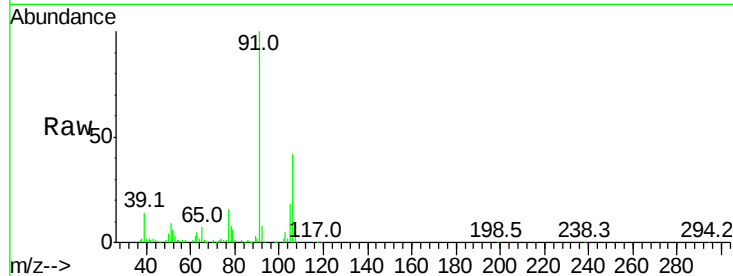


#59  
m/p-Xylene  
Concen: 1.151 ppbv  
RT: 12.95  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 7 Dec 2021 16:48

Tot Ion:  
Ion Ratio  
91 100  
106 47.

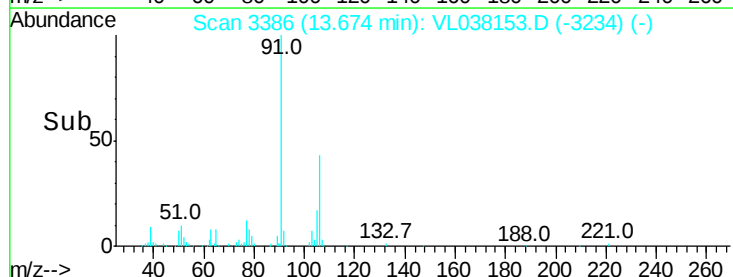
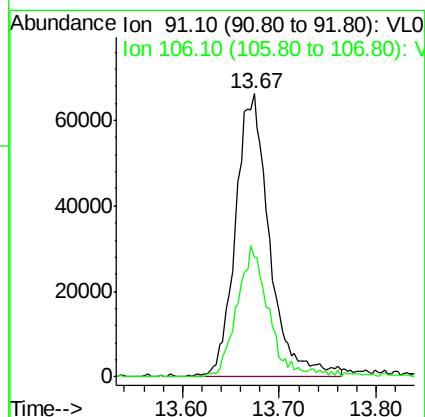
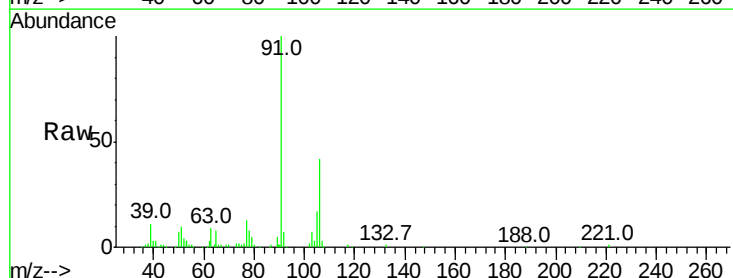
Manual Integrations  
APPROVED

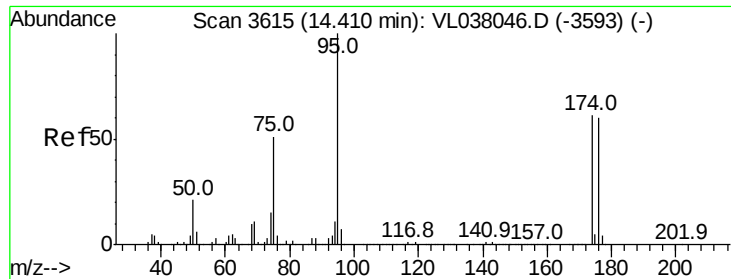
Reviewed By :Amit Patel 12/08/2021  
Supervised By :Semsettin Yesilyurt 12/08/2021



#60  
o-Xylene  
Concen: 0.624 ppbv m  
RT: 13.67 min Scan# 3386  
Delta R.T. -0.01 min  
Lab File: VL038153.D  
Acq: 7 Dec 2021 16:48

Tgt Ion: 91 Resp: 161775  
Ion Ratio Lower Upper  
91 100  
106 43.2 24.2 72.6





#68

1-Bromo-4-Fluorobenzene

Concen: 10.749 ppbv

RT: 14.39

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 7 Dec 2021 16:48

Tot Ion:

Ion Ratio

95 100

174 63.

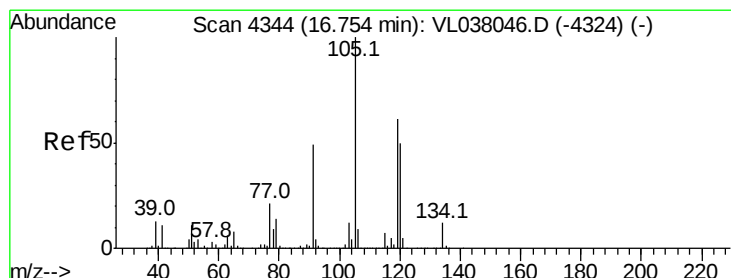
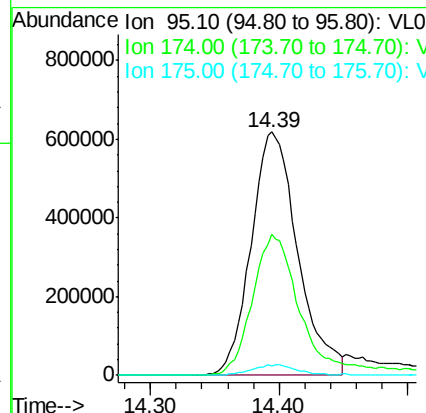
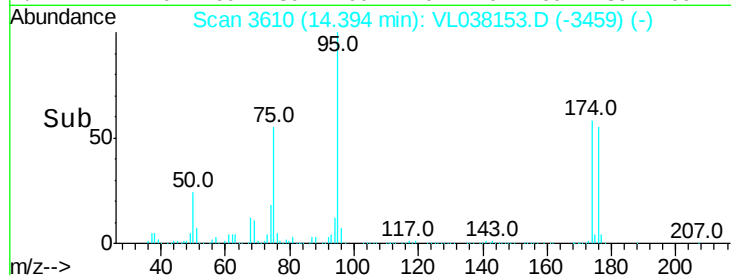
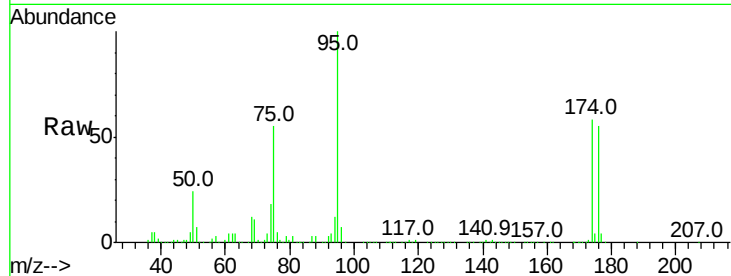
175 4.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/08/2021

Supervised By :Semsettin Yesilyurt 12/08/2021



#74

1,2,4-Trimethylbenzene

Concen: 0.323 ppbv

RT: 16.74 min Scan# 4340

Delta R.T. -0.01 min

Lab File: VL038153.D

Acq: 7 Dec 2021 16:48

Tgt Ion:105 Resp: 91317

Ion Ratio Lower Upper

105 100

120 42.1 40.1 60.1

91 13.3 39.8 59.8#

77 17.1 16.6 25.0

