

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL033022\
 Data File : VL038803.D
 Acq On : 30 Mar 2022 20:42
 Operator : SY/AP
 Sample : N2169-02DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 SV2DL

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 04/02/2022
 Supervised By : Mahesh Dadoda 04/04/2022

Quant Time: Mar 31 05:00:43 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122A
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	882332	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2586399	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2331694	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1616301	9.04	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	90.40%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	119102	1.004	ppbv	99
4) Chloromethane	3.14	50	30448	0.595	ppbv	91
5) Vinyl Chloride	3.26	62	1640m	0.032	ppbv	
7) Chloroethane	3.55	64	3339m	0.194	ppbv	
9) Propene	3.02	41	271522	6.035	ppbv #	83
10) Heptane	8.12	43	355548	3.306	ppbv	98
13) Ethanol	3.60	45	159636	32.166	ppbv	100
15) Acetone	3.84	43	944909	12.411	ppbv	99
17) tert-Butyl alcohol	4.30	59	72148m	1.085	ppbv	
19) Isopropyl Alcohol	3.96	45	28668m	0.679	ppbv	
20) Methylene Chloride	4.34	84	15166m	0.473	ppbv	
26) Hexane	5.68	57	748574	8.724	ppbv #	34
27) Carbon Disulfide	4.55	76	77566	0.922	ppbv #	95
28) Methyl tert-Butyl Ether	5.04	73	11326m	0.177	ppbv	
30) Cyclohexane	7.12	84	12569m	0.168	ppbv	
32) 1,1,1-Trichloroethane	6.51	97	14932	0.113	ppbv	98
34) 2-Butanone	5.24	43	443665	4.334	ppbv	98
36) Benzene	6.88	78	71243	0.357	ppbv	96
44) 2,2,4-Trimethylpentane	7.86	57	121137	0.361	ppbv #	59
51) 2-Hexanone	10.13	43	288359m	2.109	ppbv	
52) Tetrachloroethene	11.21	164	72558	0.993	ppbv	90
53) Toluene	9.80	91	127676	0.595	ppbv	98
58) Ethyl Benzene	12.70	91	41209	0.151	ppbv	95
59) m/p-Xylene	12.96	91	100354	0.421	ppbv	95
60) o-Xylene	13.68	91	45372m	0.200	ppbv	
62) Isopropylbenzene	14.66	105	46879m	0.138	ppbv	
74) 1,2,4-Trimethylbenzene	16.75	105	49626	0.187	ppbv #	70

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

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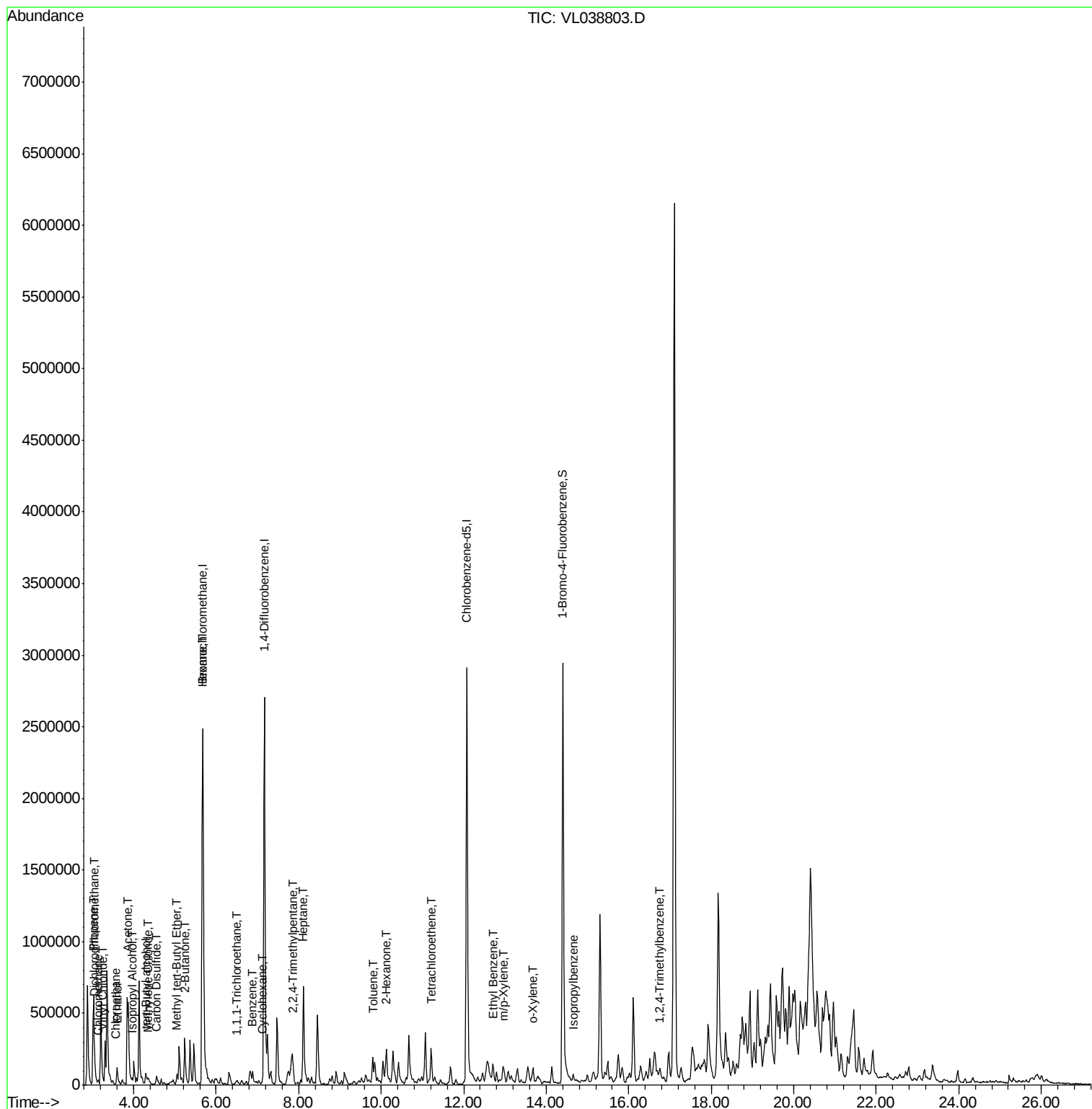
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122

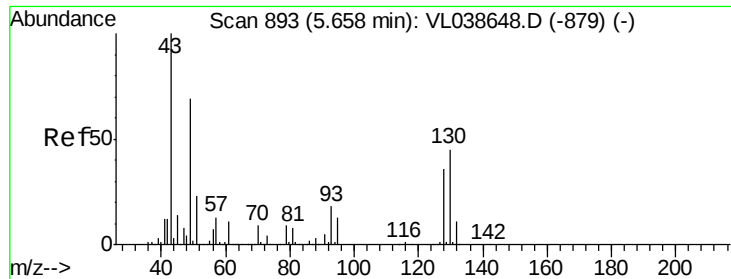
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:

QLast Update : Mon Mar 21 17:09:26 2022

Response via : Initial Calibration

Reviewed By :Semsettin Yesilyurt 04/02/2022
Supervised By :Mahesh Dadoda 04/04/2022





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

SV2DL Acq: 30 Mar 2022 20:42

Tot Ion:

Ion Ratio

49 100

128 57.

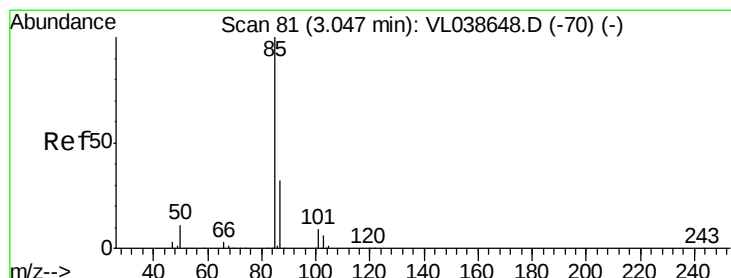
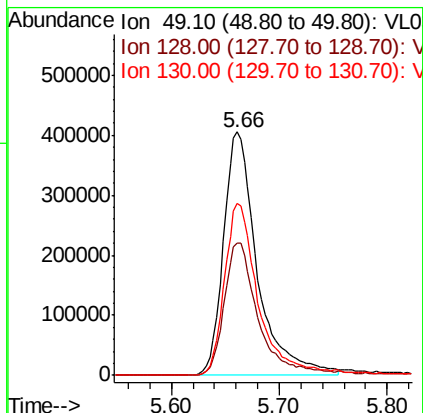
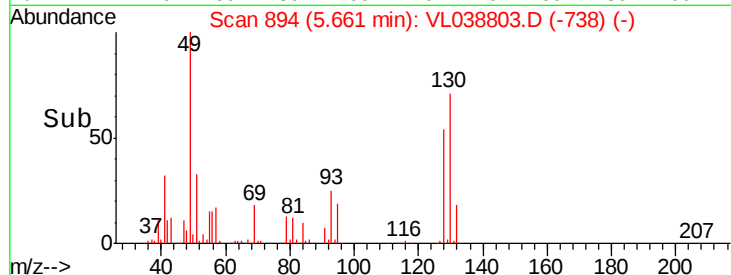
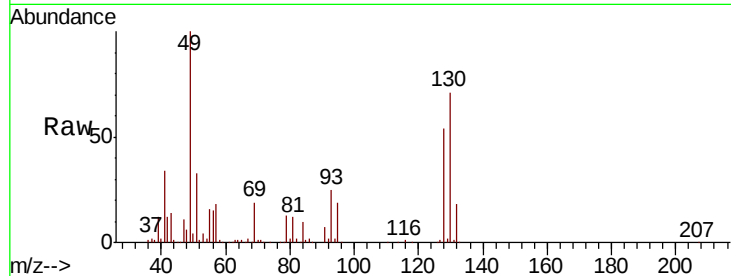
130 73.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#2

Dichlorodifluoromethane

Concen: 1.004 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL038803.D

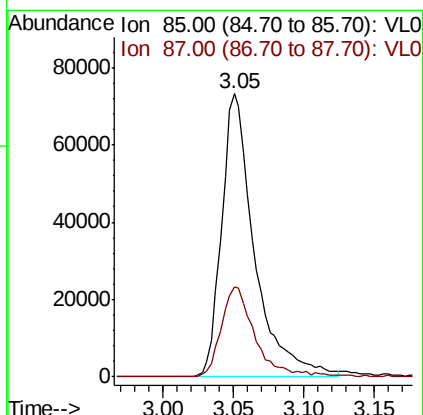
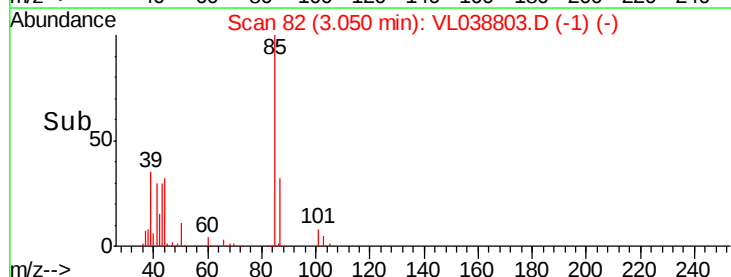
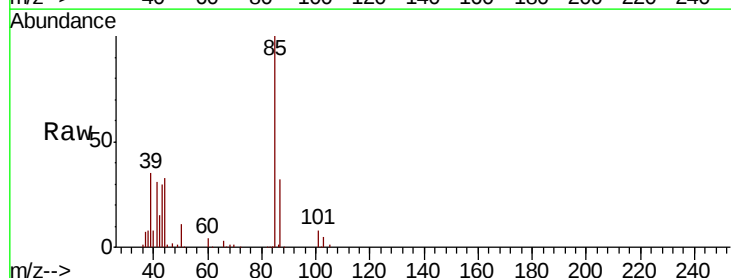
Acq: 30 Mar 2022 20:42

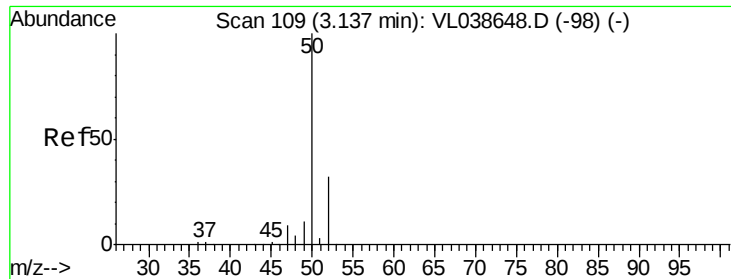
Tgt Ion: 85 Resp: 119102

Ion Ratio Lower Upper

85 100

87 31.9 26.0 39.0





#4

Chloromethane

Concen: 0.595 ppbv

RT: 3.14 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Mar 2022 20:42 SV2DL

Tot Ion:

Ion Ratio

50 100

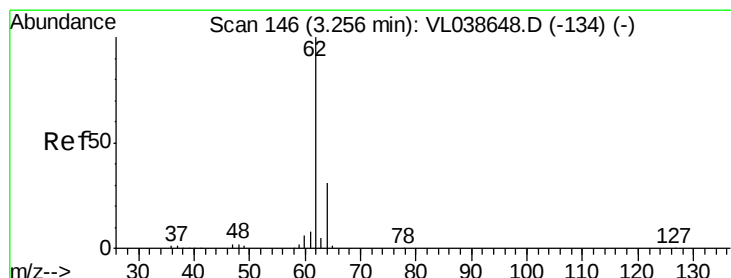
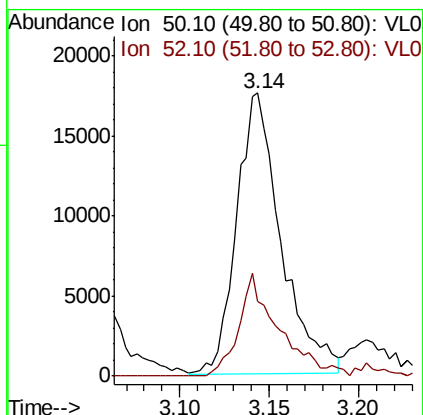
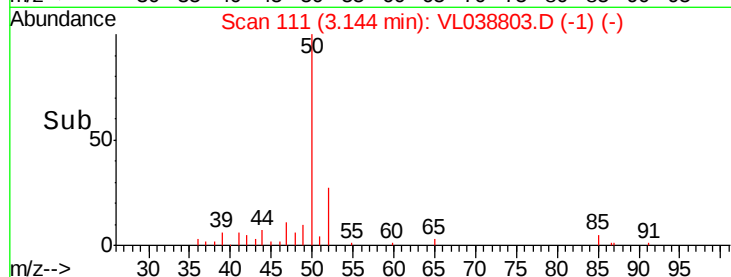
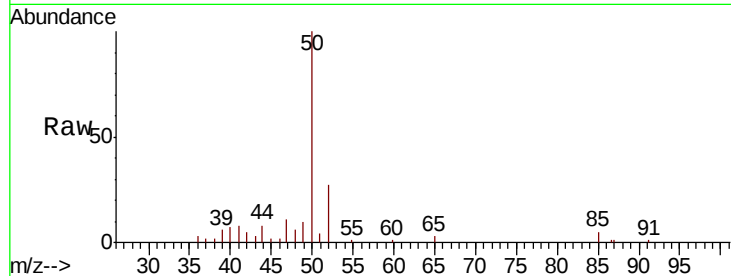
52 26.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/02/2022

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#5

Vinyl Chloride

Concen: 0.032 ppbv m

RT: 3.26 min Scan# 146

Delta R.T. -0.00 min

Lab File: VL038803.D

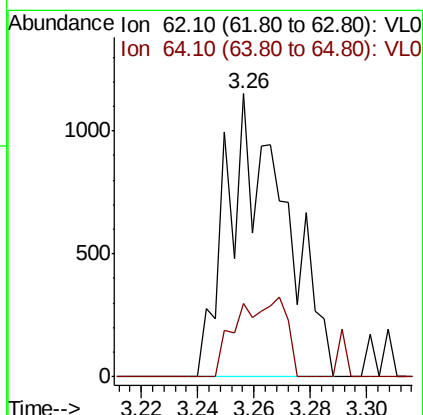
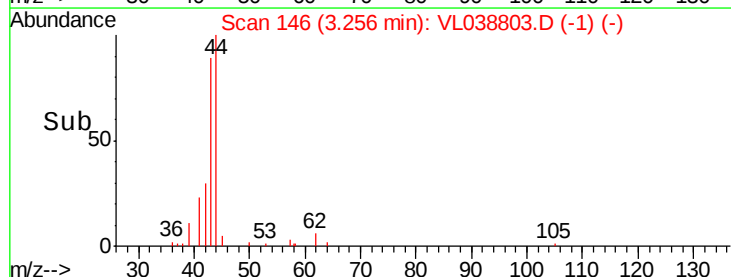
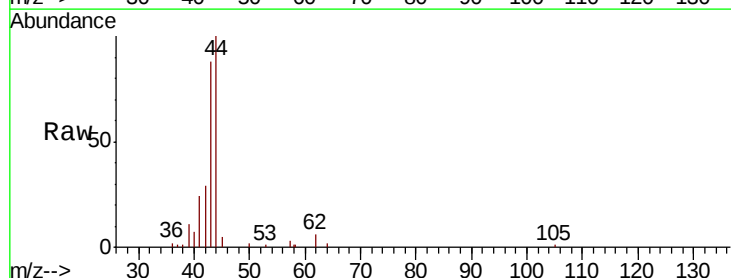
Acq: 30 Mar 2022 20:42

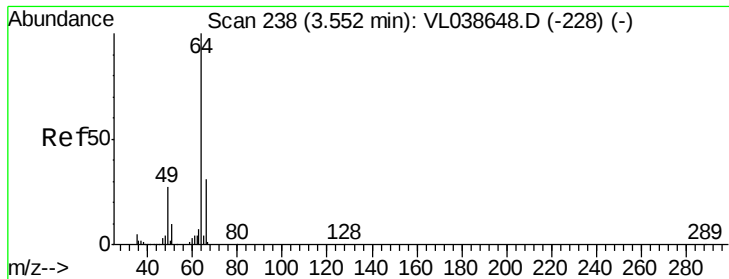
Tgt Ion: 62 Resp: 1640

Ion Ratio Lower Upper

62 100

64 25.8 25.0 37.4





#7

Chloroethane

Concen: 0.194 ppbv m

RT: 3.55 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 30 Mar 2022 20:42 SV2DL

Tot Ion:

Ion Ratio

64 100

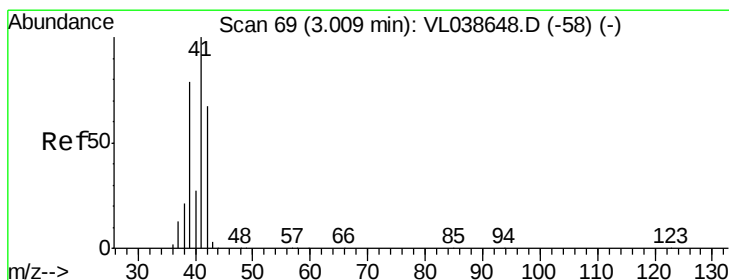
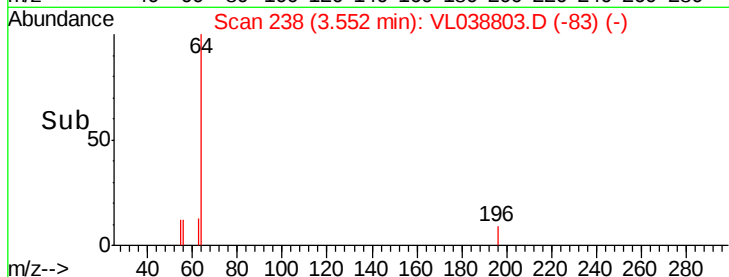
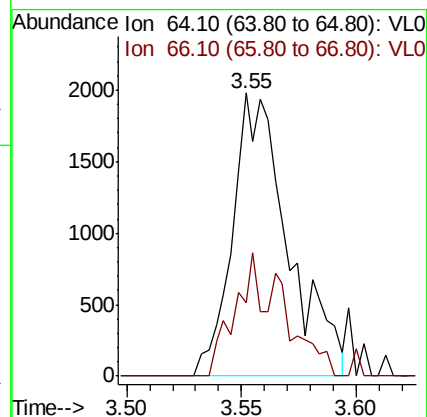
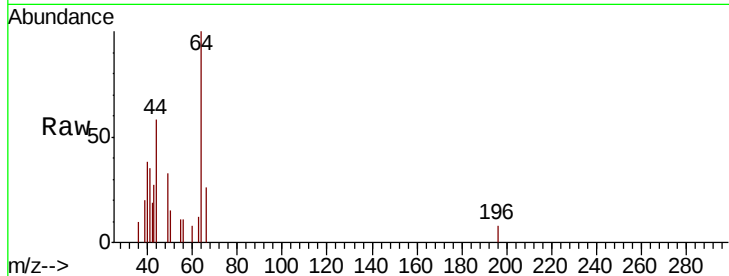
66 25.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/02/2022

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#9

Propene

Concen: 6.035 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL038803.D

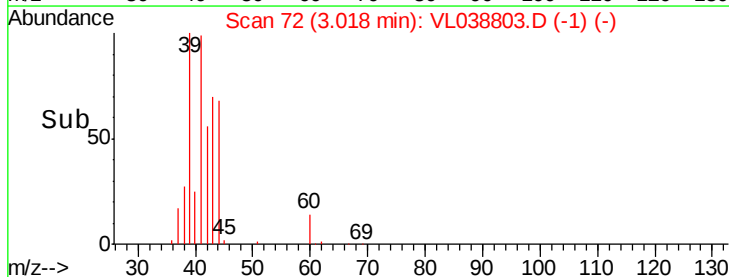
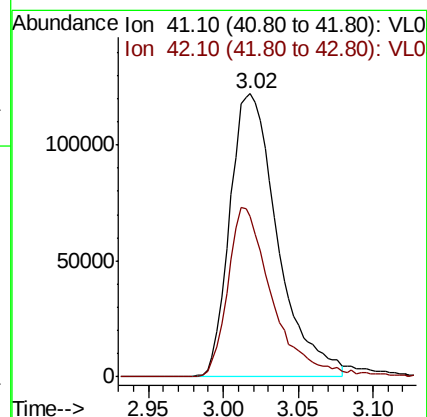
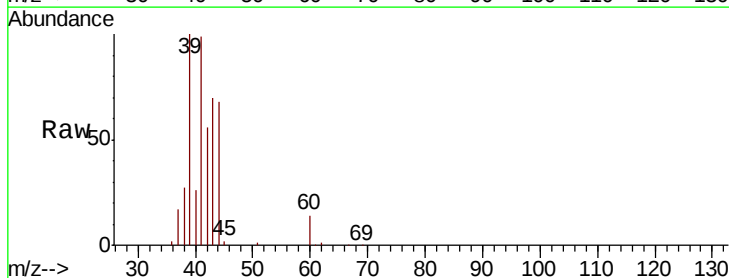
Acq: 30 Mar 2022 20:42

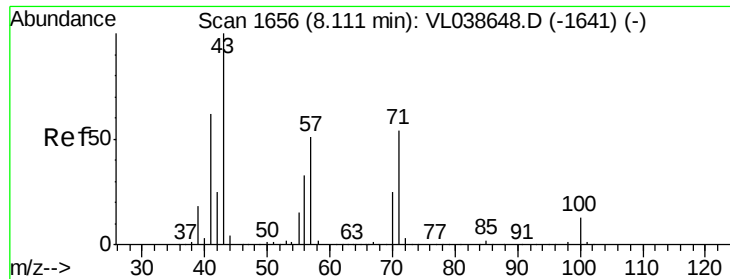
Tgt Ion: 41 Resp: 271522

Ion Ratio Lower Upper

41 100

42 56.1 56.2 84.4#



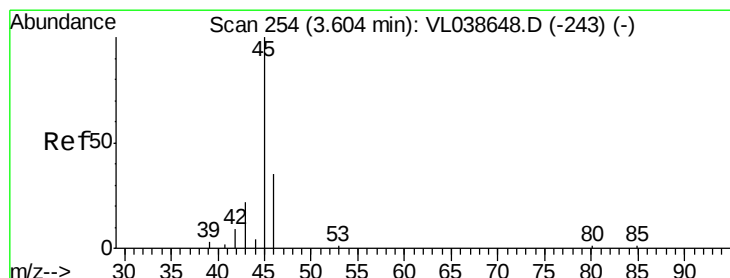
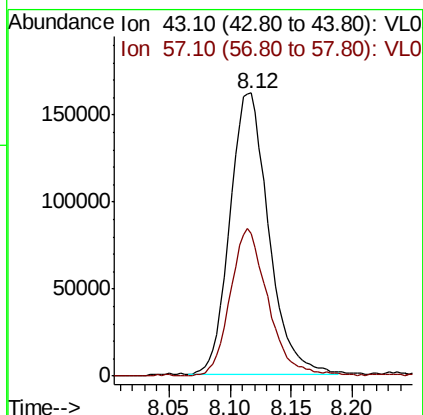
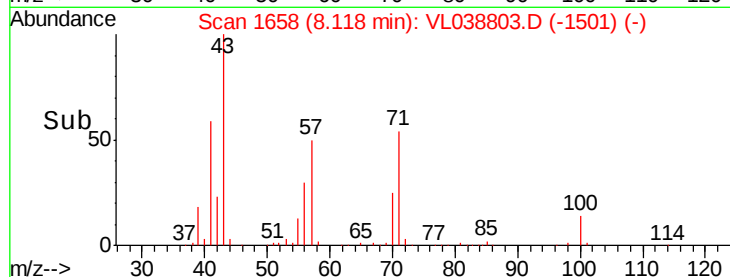
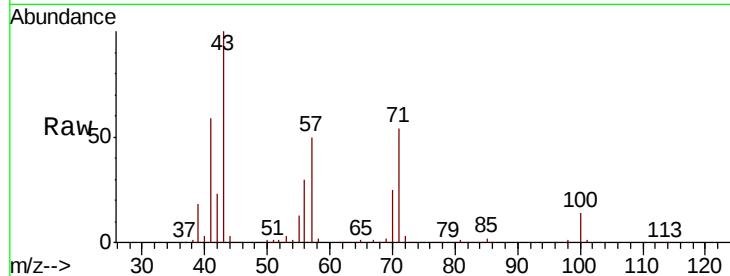


#10
Heptane
Concen: 3.306 ppbv
RT: 8.12
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV2DL
Acq: 30 Mar 2022 20:42

Tot Ion:
Ion Ratio
43 100
57 50.

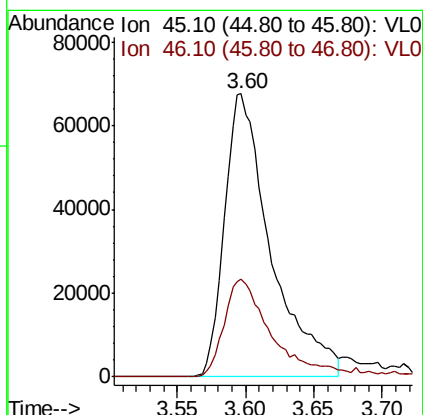
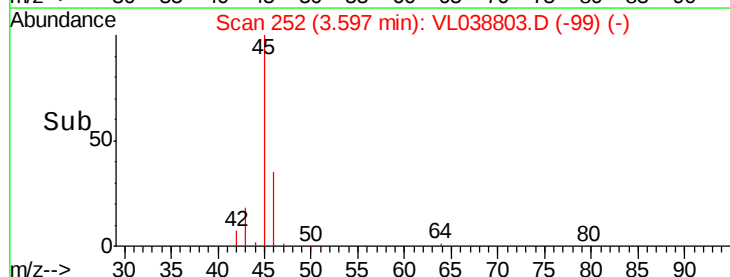
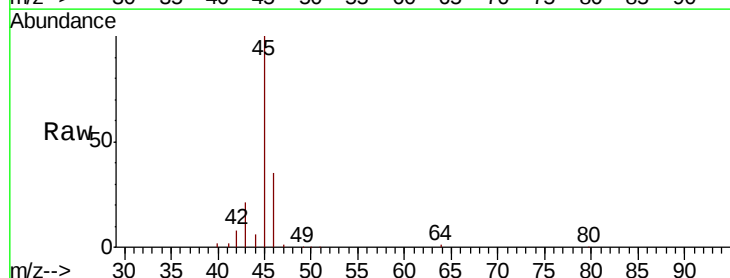
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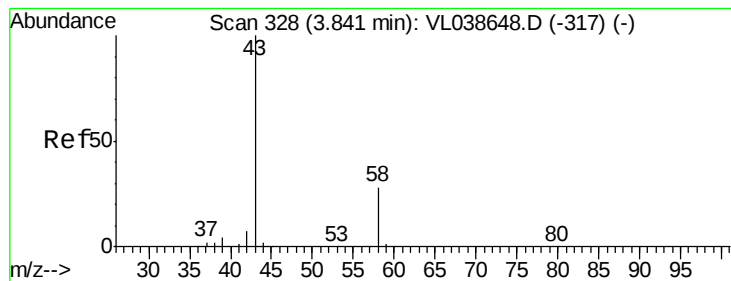
Reviewed By :Semsettin Yesilyurt 04/02/2022
Supervised By :Mahesh Dadoda 04/04/2022



#13
Ethanol
Concen: 32.166 ppbv
RT: 3.60 min Scan# 252
Delta R.T. -0.01 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42

Tgt Ion: 45 Resp: 159636
Ion Ratio Lower Upper
45 100
46 37.7 15.1 60.5





#15

Acetone

Concen: 12.411 ppbv

RT: 3.84 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Mar 2022 20:42 SV2DL

Tot Ion:

Ion Ratio

43 100

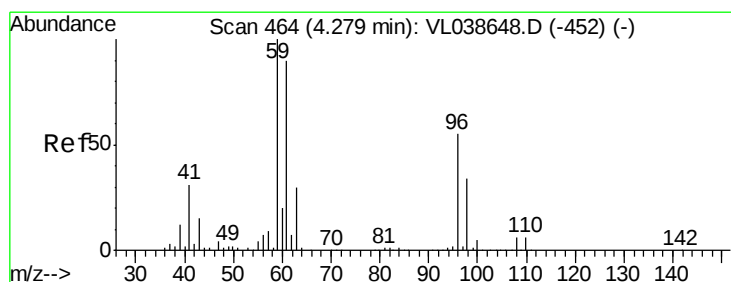
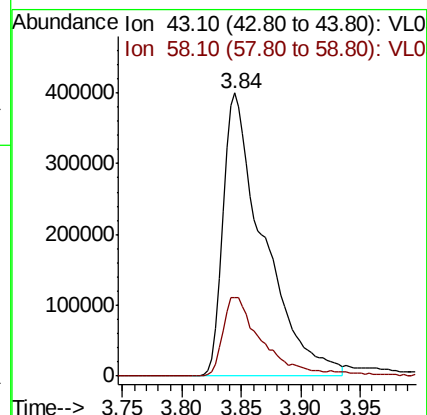
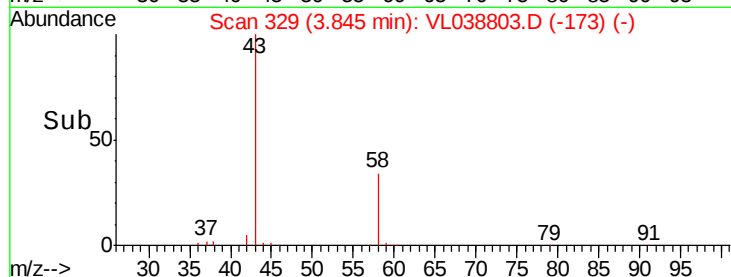
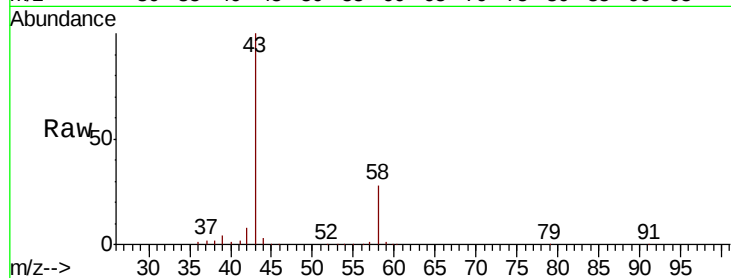
58 28.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#17

tert-Butyl alcohol

Concen: 1.085 ppbv m

RT: 4.30 min Scan# 470

Delta R.T. 0.02 min

Lab File: VL038803.D

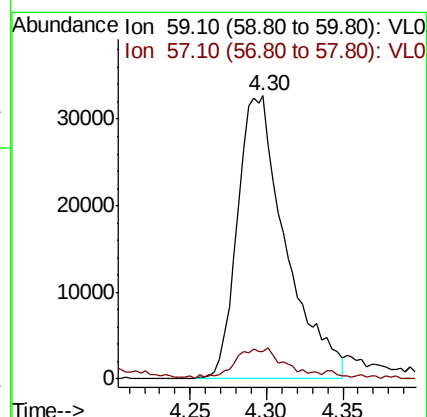
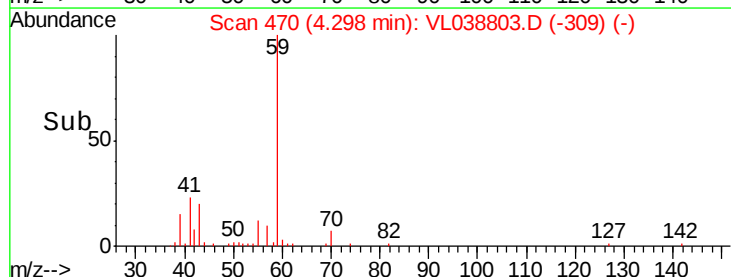
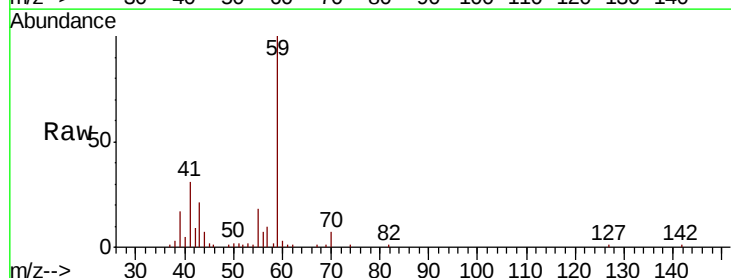
Acq: 30 Mar 2022 20:42

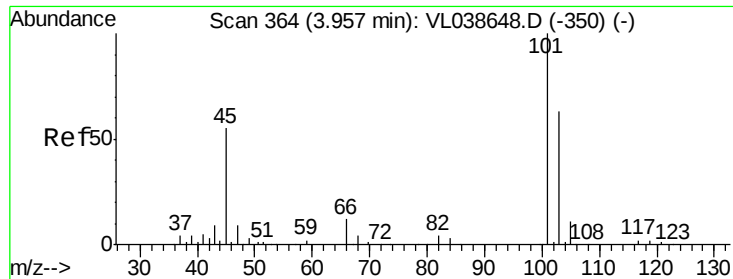
Tgt Ion: 59 Resp: 72148

Ion Ratio Lower Upper

59 100

57 12.9 8.2 12.2#





#19

Isopropyl Alcohol

Concen: 0.679 ppbv m

RT: 3.96

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Mar 2022 20:42

Tot Ion:

Ion Ratio

45 100

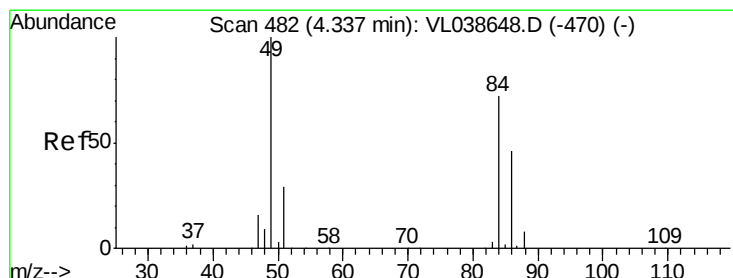
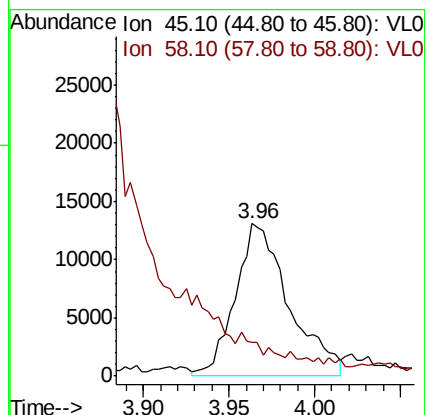
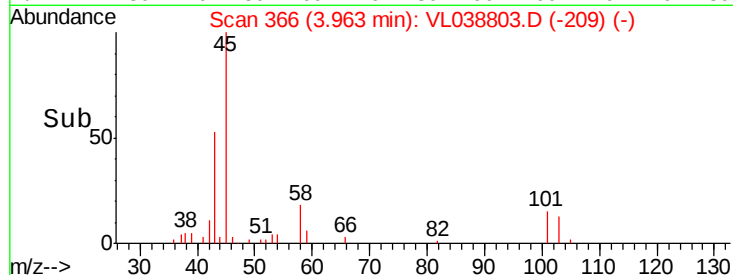
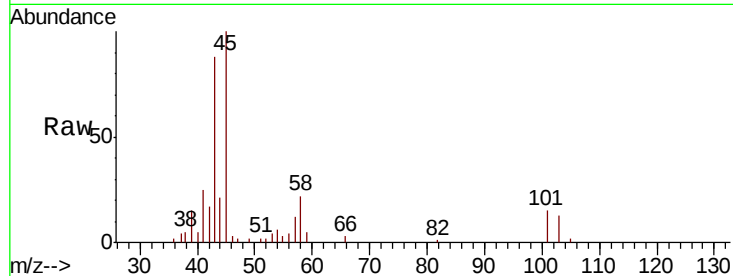
58 946.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#20

Methylene Chloride

Concen: 0.473 ppbv m

RT: 4.34 min Scan# 484

Delta R.T. 0.01 min

Lab File: VL038803.D

Acq: 30 Mar 2022 20:42

Tgt Ion: 84 Resp: 15166

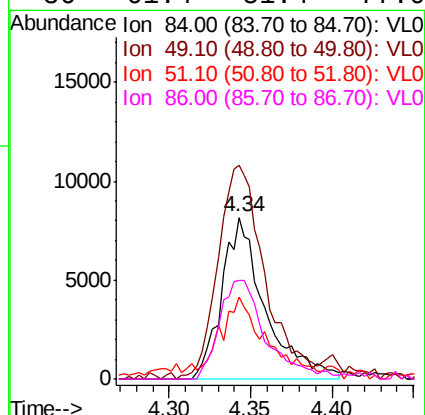
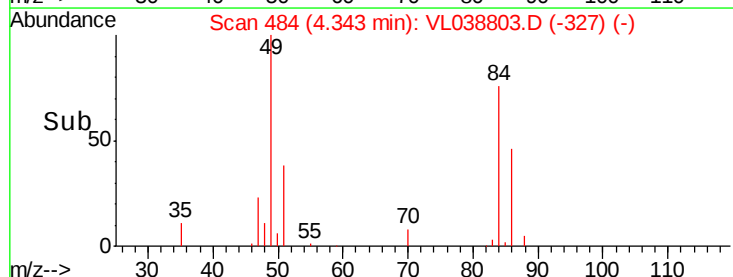
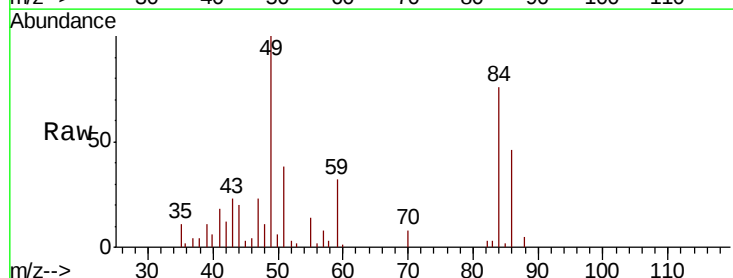
Ion Ratio Lower Upper

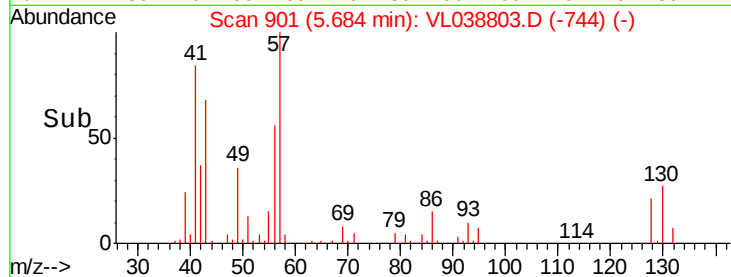
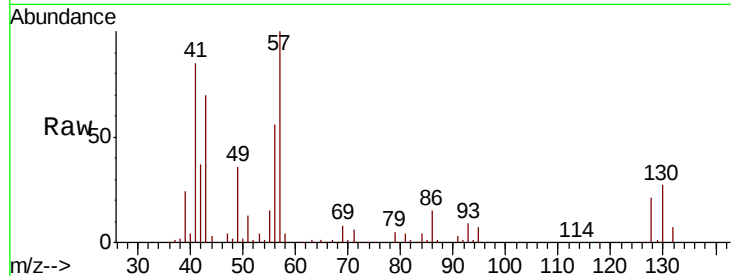
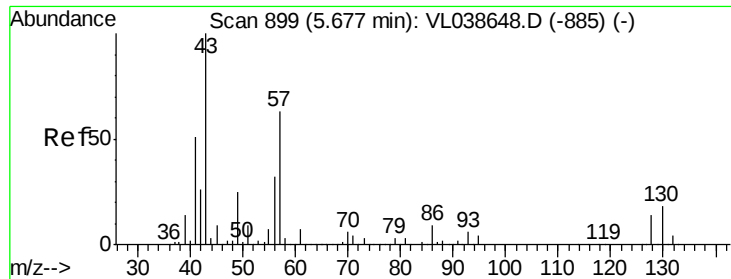
84 100

49 132.4 111.2 166.8

51 50.6 32.8 49.2#

86 61.4 51.4 77.0



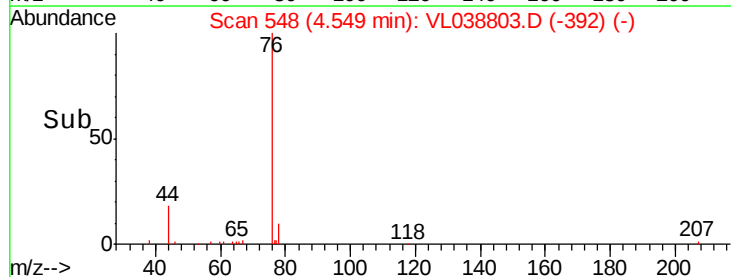
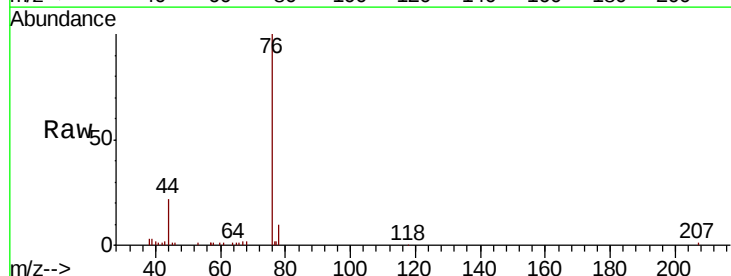
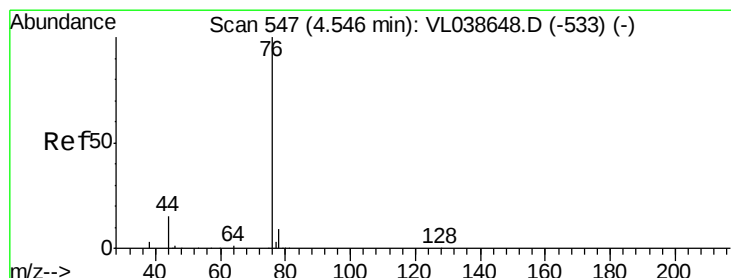
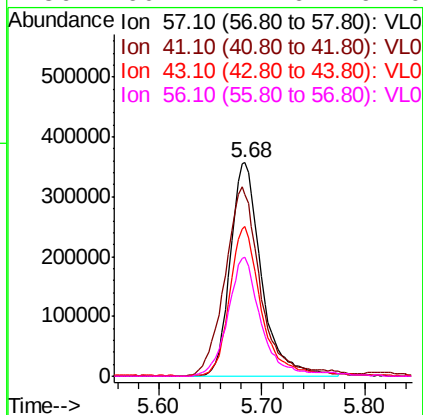


#26
Hexane
Concen: 8.724 ppbv
RT: 5.68
Delta R.T.: MSVOA_L
Lab File: ClientSampleId :
Acq: 30 Mar 2022 20:42

Tot Ion:
Ion Ratio
57 100
41 102.
43 71.
56 60.4 42.6 64.0

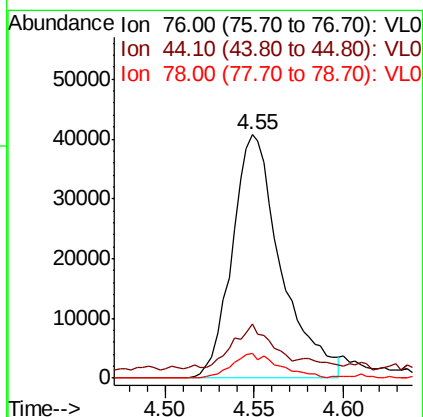
Manual Integrations
APPROVED

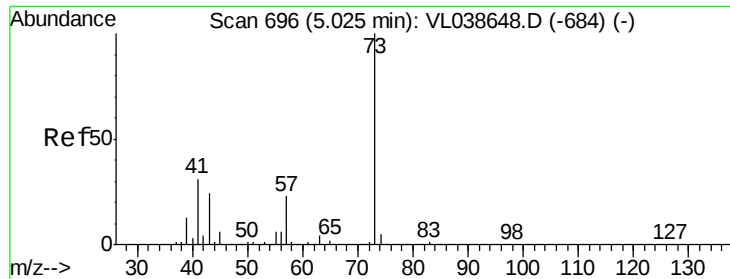
Reviewed By :Semsettin Yesilyurt 04/02/2022
Supervised By :Mahesh Dadoda 04/04/2022



#27
Carbon Disulfide
Concen: 0.922 ppbv
RT: 4.55 min Scan# 548
Delta R.T. 0.00 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42

Tgt Ion: 76 Resp: 77566
Ion Ratio Lower Upper
76 100
44 19.2 12.4 18.6#
78 9.9 7.8 11.8



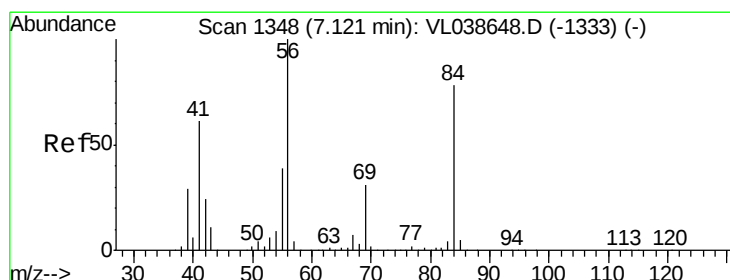
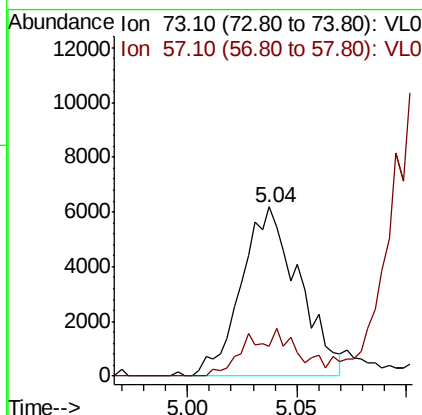
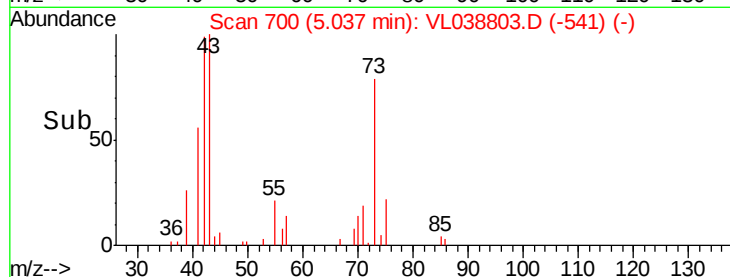
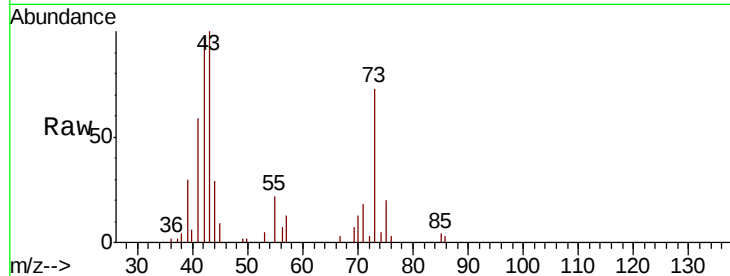


#28
Methvl tert-Butvl Ether
Concen: 0.177 ppbv m
RT: 5.04
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId:
SV2DL
Acq: 30 Mar 2022 20:42

Tot Ion:
Ion Ratio
73 100
57 0.

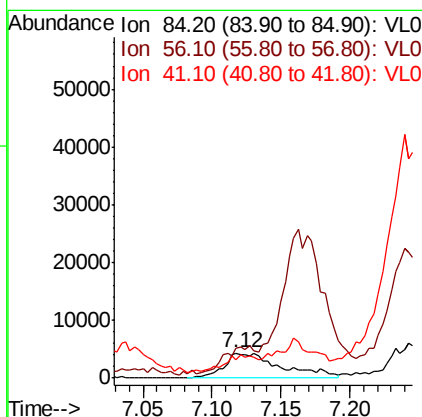
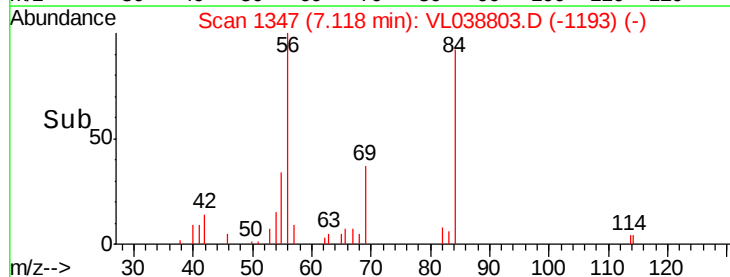
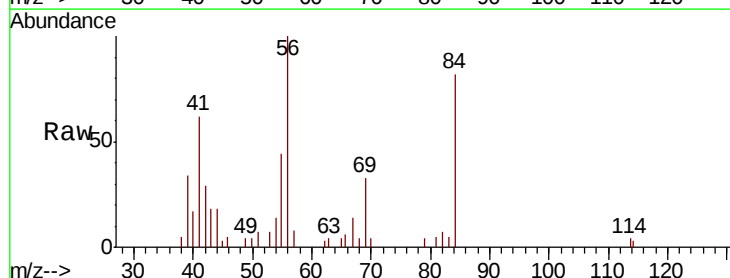
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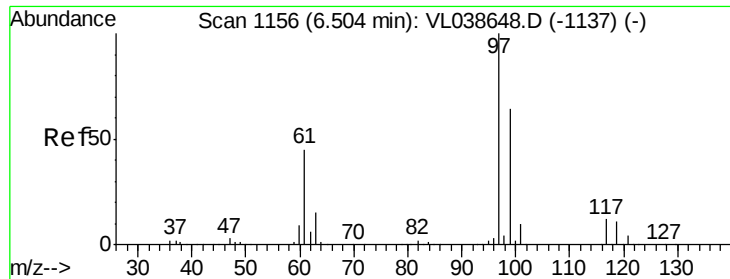
Reviewed By :Semsettin Yesilyurt 04/02/2022
Supervised By :Mahesh Dadoda 04/04/2022



#30
Cyclohexane
Concen: 0.168 ppbv m
RT: 7.12 min Scan# 1347
Delta R.T. -0.00 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42

Tgt Ion: 84 Resp: 12569
Ion Ratio Lower Upper
84 100
56 0.0 108.2 162.4#
41 0.0 61.8 92.6#





#32

1,1,1-Trichloroethane

Concen: 0.113 ppbv

RT: 6.51 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 30 Mar 2022 20:42 SV2DL

Tot Ion:

Ion Ratio

97 100

99 62.

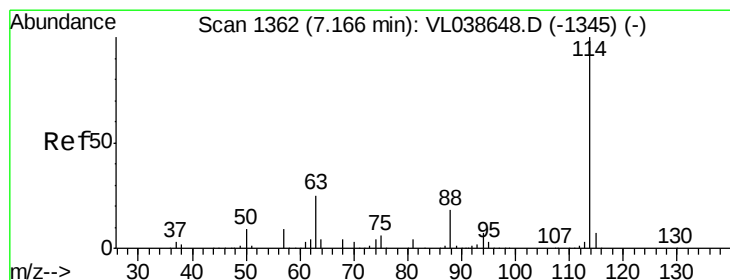
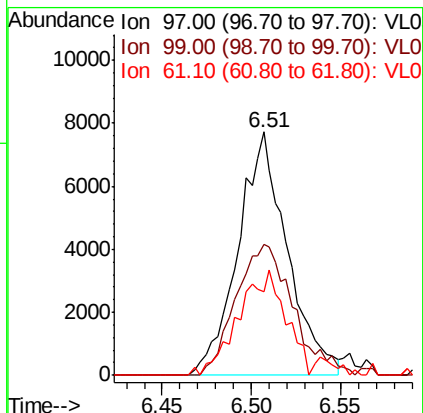
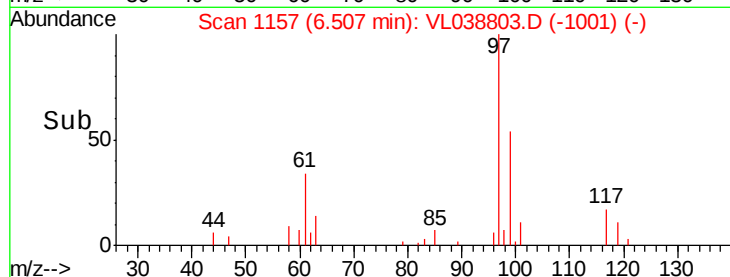
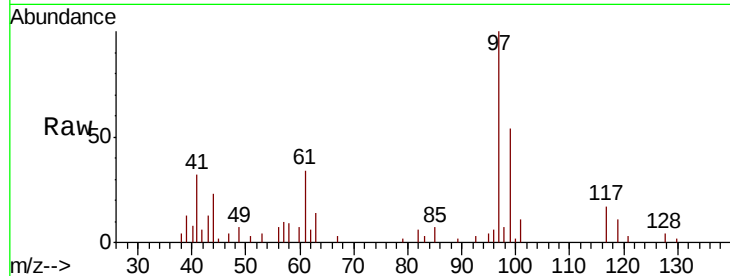
61 44.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. 0.00 min

Lab File: VL038803.D

Acq: 30 Mar 2022 20:42

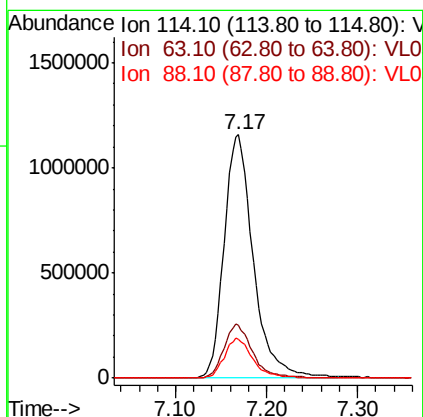
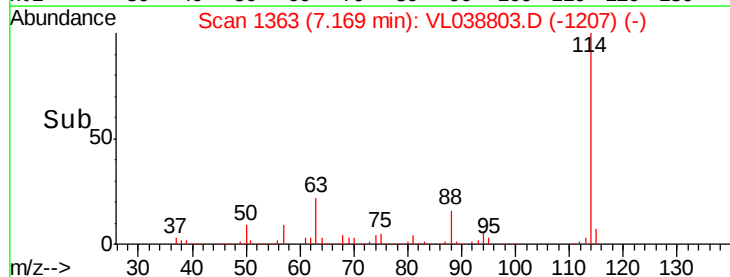
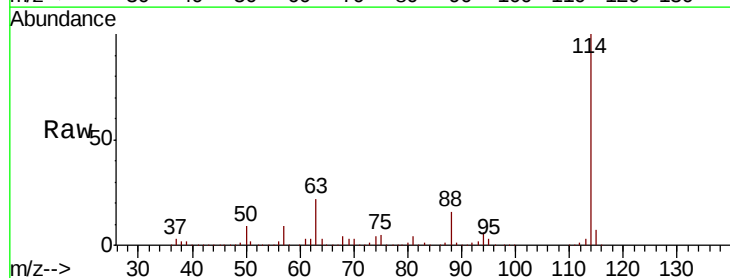
Tgt Ion:114 Resp: 2586399

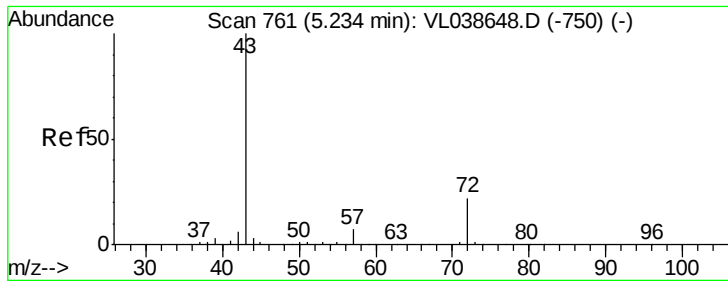
Ion Ratio Lower Upper

114 100

63 22.0 19.4 29.0

88 16.0 13.9 20.9





#34

2-Butanone

Concen: 4.334 ppbv

RT: 5.24 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Mar 2022 20:42 SV2DL

Tot Ion:

Ion Ratio

43 100

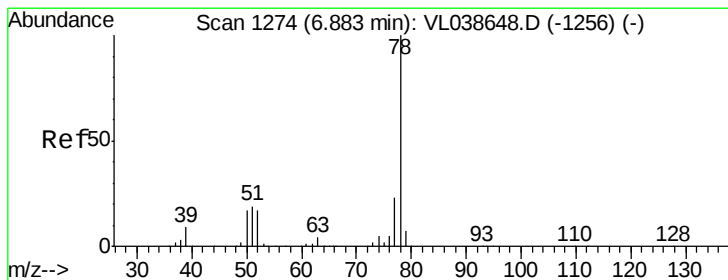
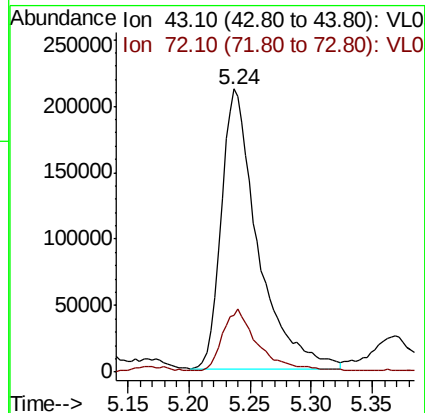
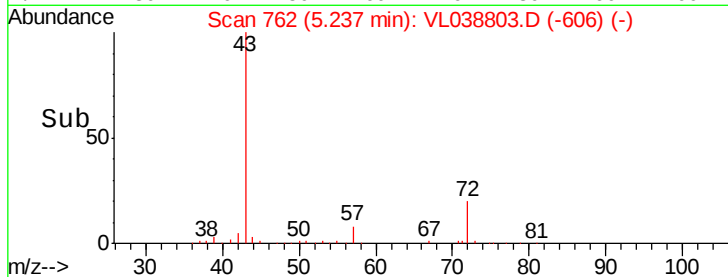
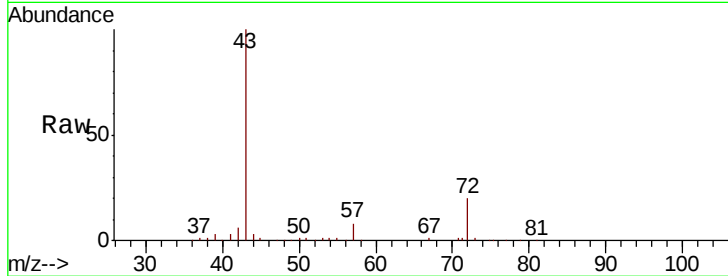
72 21.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#36

Benzene

Concen: 0.357 ppbv

RT: 6.88 min Scan# 1273

Delta R.T. -0.00 min

Lab File: VL038803.D

Acq: 30 Mar 2022 20:42

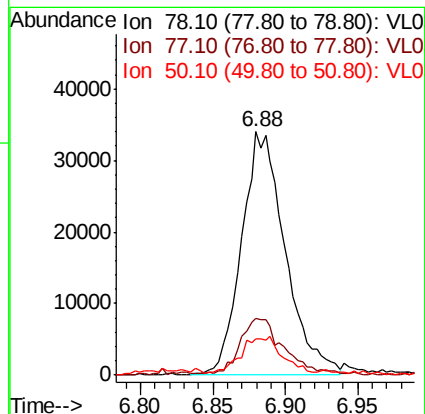
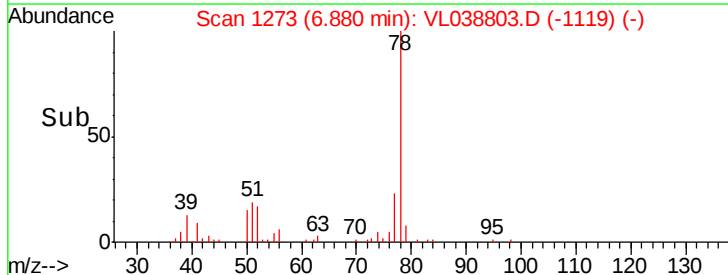
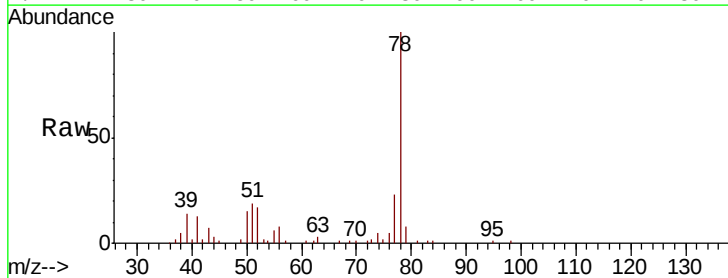
Tgt Ion: 78 Resp: 71243

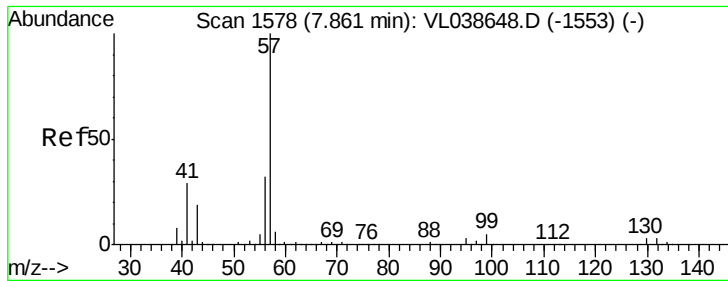
Ion Ratio Lower Upper

78 100

77 22.9 18.1 27.1

50 13.7 13.6 20.4



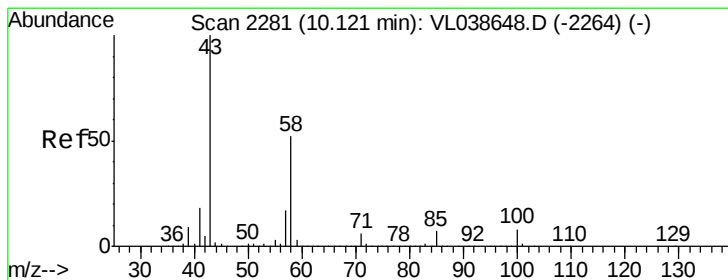
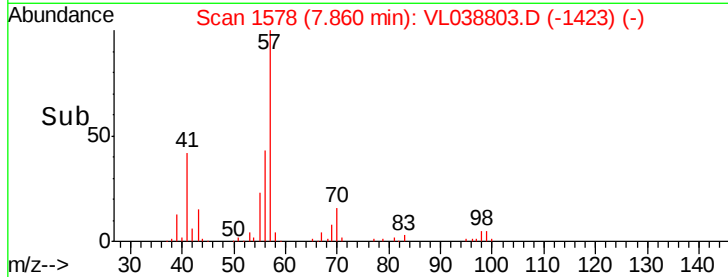
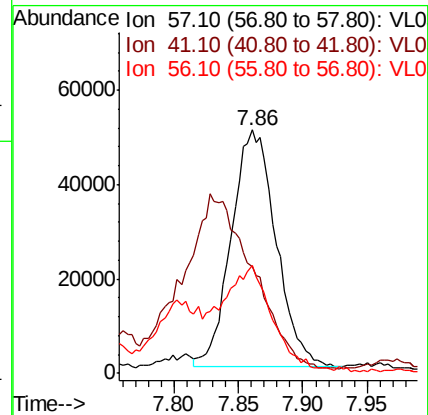
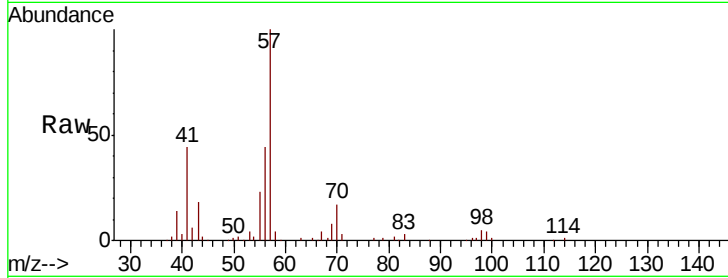


#44
 2,2,4-Trimethylpentane
 Concen: 0.361 ppbv
 RT: 7.86 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV2DL
 Acq: 30 Mar 2022 20:42

Tot Ion:
 Ion Ratio
 57 100
 41 0.
 56 48.

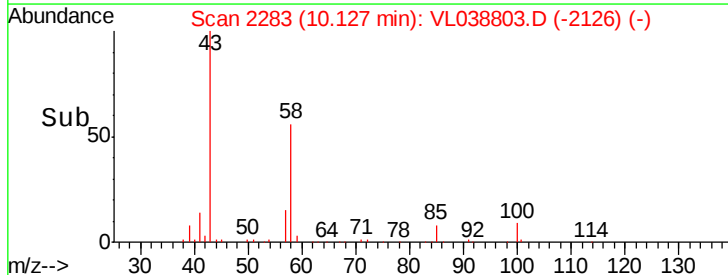
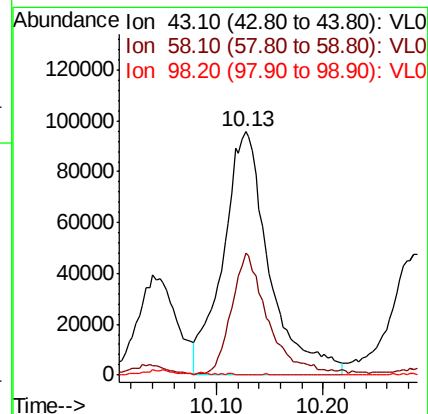
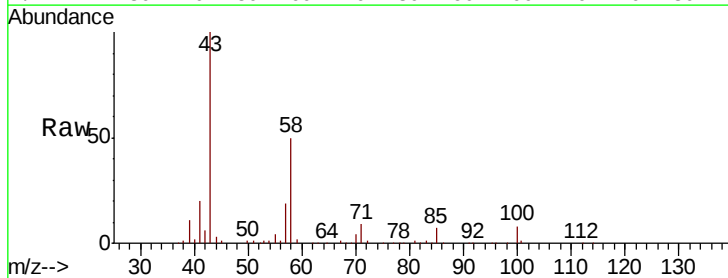
Manual Integrations
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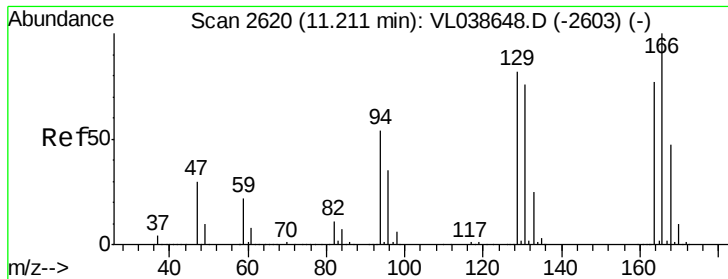
Reviewed By :Semsettin Yesilyurt 04/02/2022
 Supervised By :Mahesh Dadoda 04/04/2022



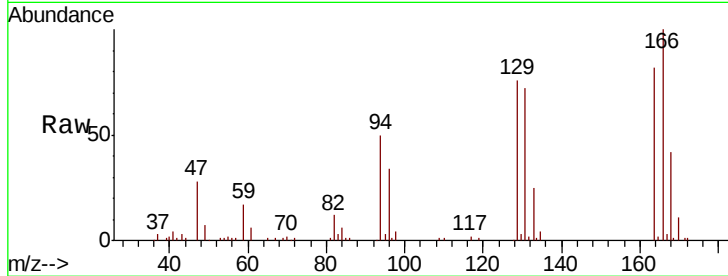
#51
 2-Hexanone
 Concen: 2.109 ppbv m
 RT: 10.13 min Scan# 2283
 Delta R.T. 0.01 min
 Lab File: VL038803.D
 Acq: 30 Mar 2022 20:42

Tgt Ion: 43 Resp: 288359
 Ion Ratio Lower Upper
 43 100
 58 39.8 41.2 61.8#
 98 0.2 0.2 0.4#





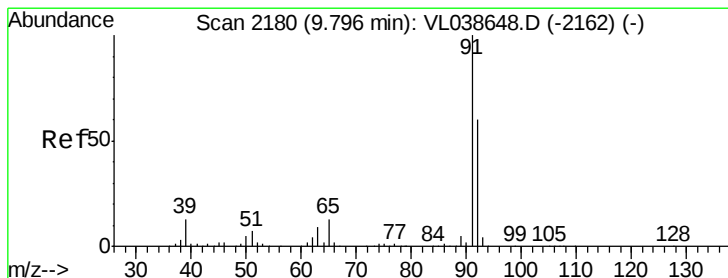
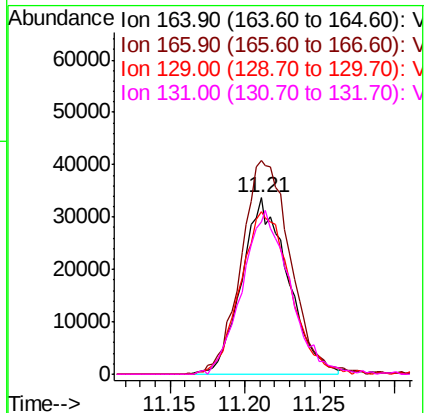
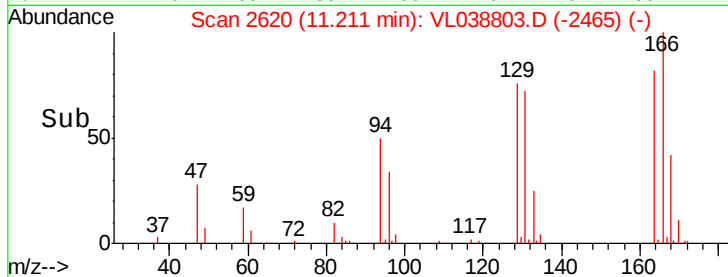
#52
Tetrachloroethene
Concen: 0.993 ppbv
RT: 11.21 min
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId :
SV2DL
Acq: 30 Mar 2022 20:42



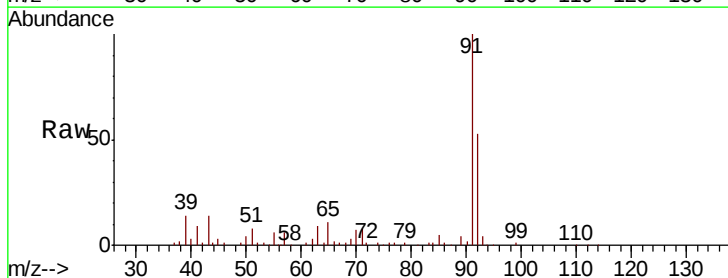
Tot Ion: 1
Ion Ratio
164 100
166 120.
129 95.
131 86.8 78.3 117.5

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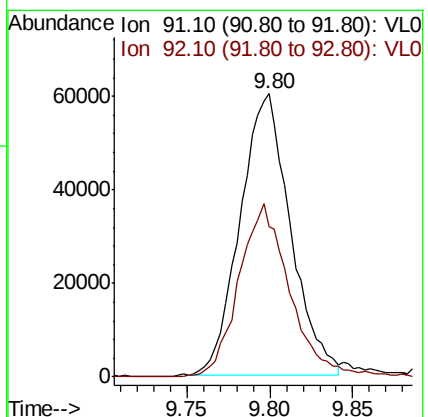
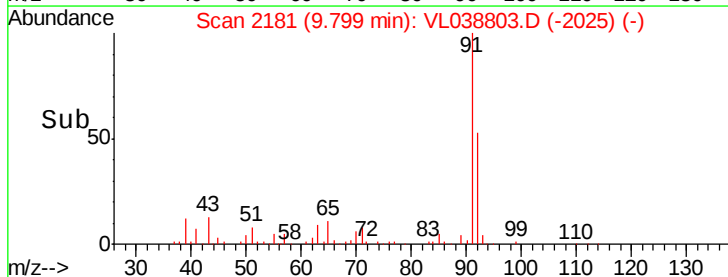
Reviewed By : Semsettin Yesilyurt 04/02/2022
Supervised By : Mahesh Dadoda 04/04/2022

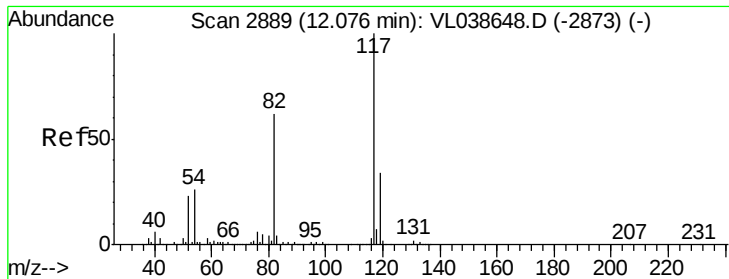


#53
Toluene
Concen: 0.595 ppbv
RT: 9.80 min Scan# 2181
Delta R.T.: 0.00 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42



Tgt Ion: 91 Resp: 127676
Ion Ratio Lower Upper
91 100
92 62.8 48.7 73.1



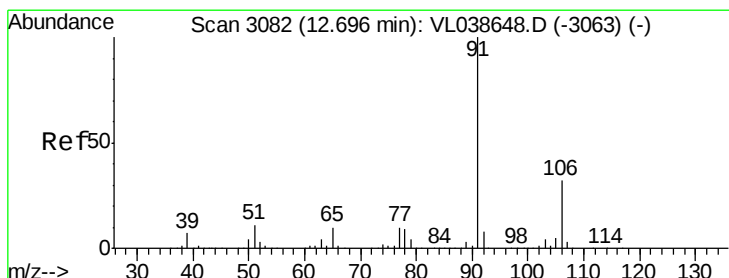
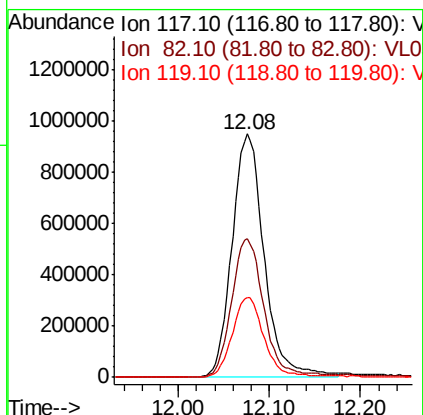
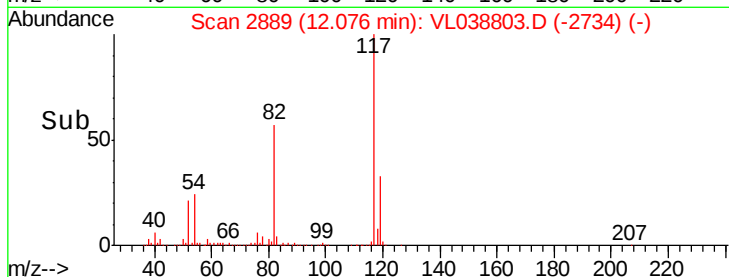
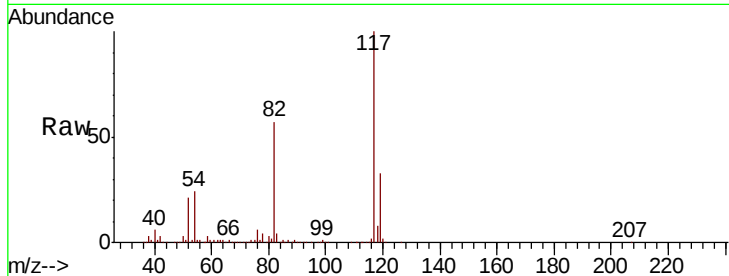


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
SV2DL
Acq: 30 Mar 2022 20:42

Tot Ion: 1
Ion Ratio
117 100
82 59.
119 33.

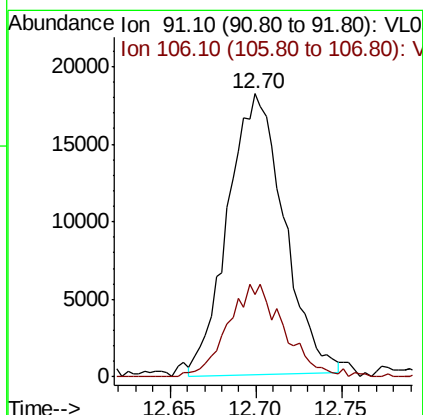
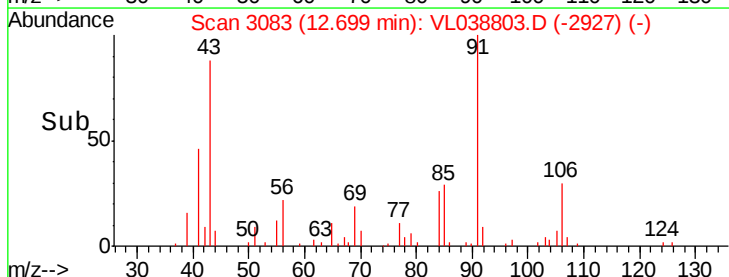
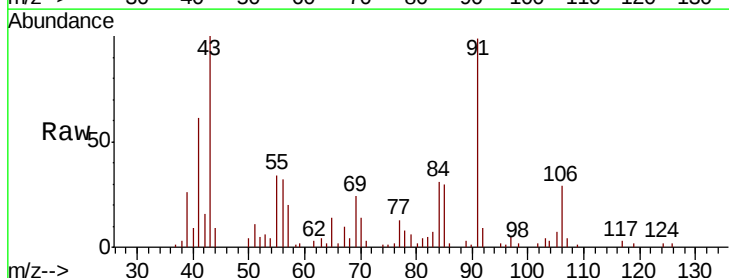
Manual Integrations
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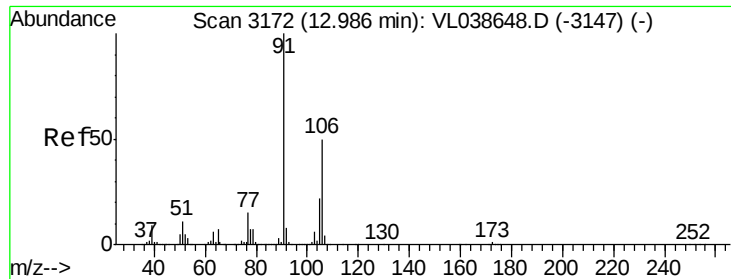
Reviewed By : Semsettin Yesilyurt 04/02/2022
Supervised By : Mahesh Dadoda 04/04/2022



#58
Ethyl Benzene
Concen: 0.151 ppbv
RT: 12.70 min Scan# 3083
Delta R.T.: 0.00 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42

Tgt Ion: 91 Resp: 41209
Ion Ratio Lower Upper
91 100
106 28.9 25.4 38.0





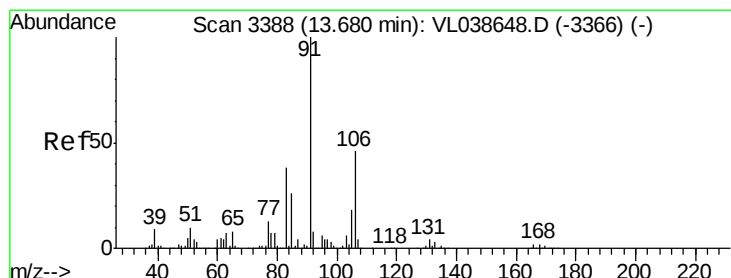
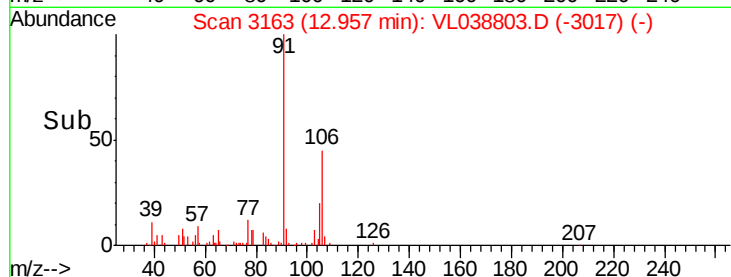
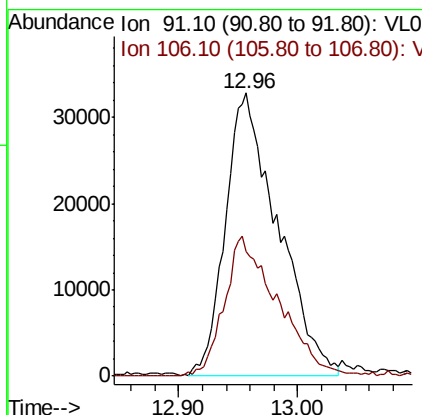
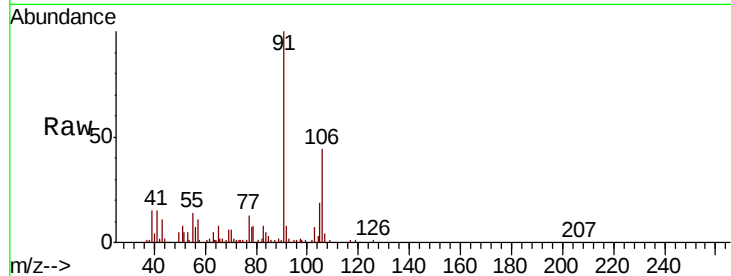
#59
m/p-Xylene
Concen: 0.421 ppbv
RT: 12.96 min
Delta R.T.: 0.00 min
Lab File: VL038648.D
Acq: 30 Mar 2022 20:42

Instrument : MSVOA_1
Client Sample Id : SV2DL

Tot Ion:
Ion Ratio
91 100
106 50.

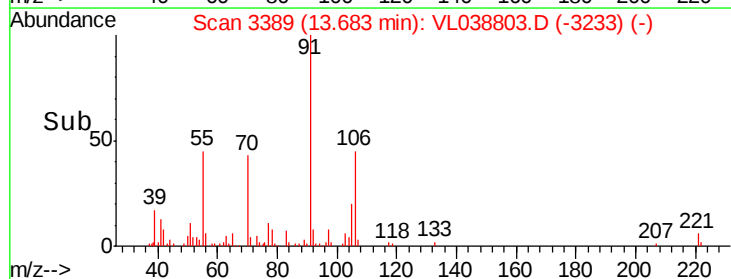
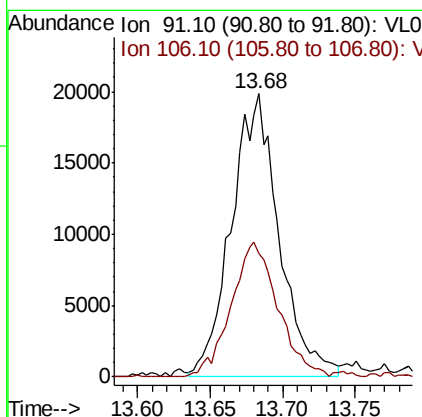
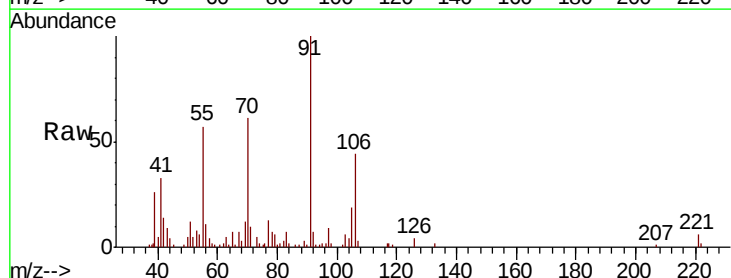
Manual Integrations
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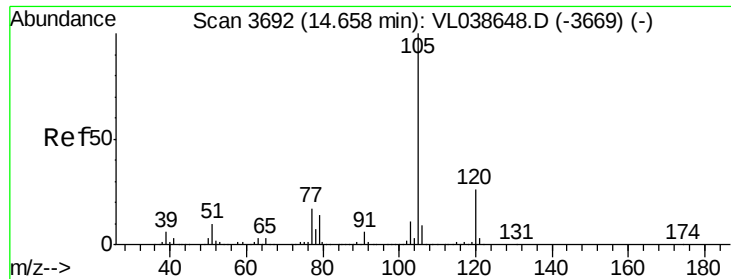
Reviewed By : Semsettin Yesilyurt 04/02/2022
Supervised By : Mahesh Dadoda 04/04/2022



#60
o-Xylene
Concen: 0.200 ppbv m
RT: 13.68 min Scan# 3389
Delta R.T.: 0.00 min
Lab File: VL038803.D
Acq: 30 Mar 2022 20:42

Tgt Ion: 91 Resp: 45372
Ion Ratio Lower Upper
91 100
106 47.5 23.5 70.5





#62

Isopropylbenzene

Concen: 0.138 ppbv m

RT: 14.66

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Mar 2022 20:42

Tot Ion:1

Ion Ratio

105 100

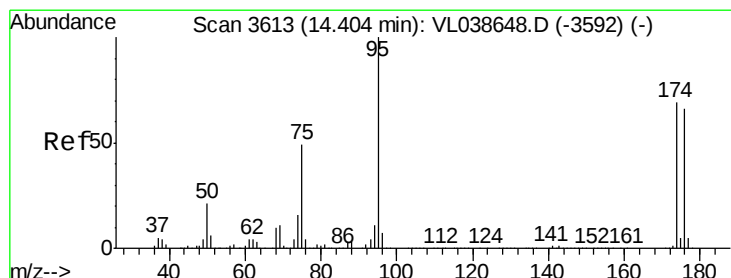
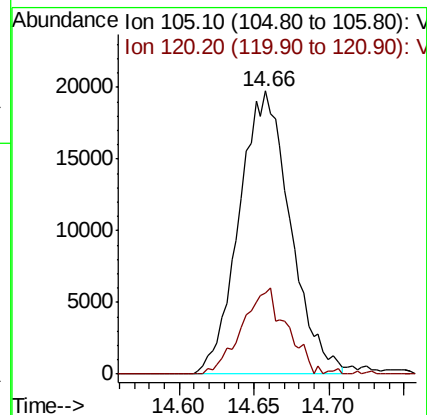
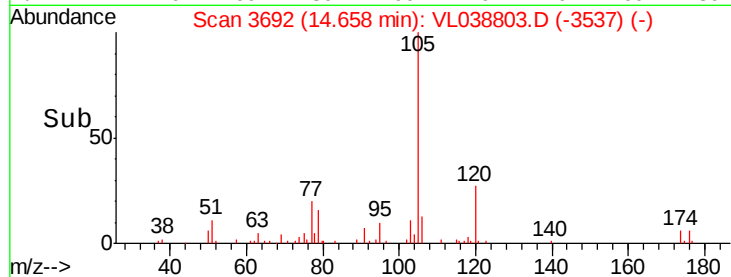
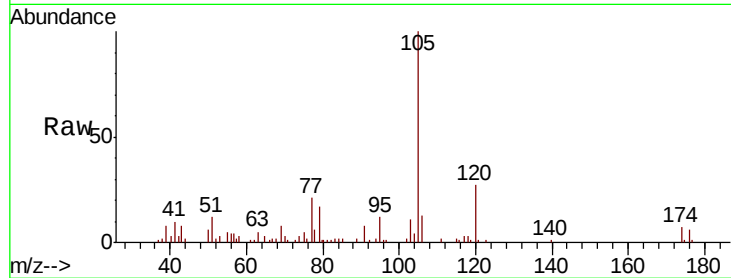
120 26.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/02/2022

Supervised By :Mahesh Dadoda 04/04/2022



#68

1-Bromo-4-Fluorobenzene

Concen: 9.041 ppbv

RT: 14.40 min Scan# 3613

Delta R.T. -0.00 min

Lab File: VL038803.D

Acq: 30 Mar 2022 20:42

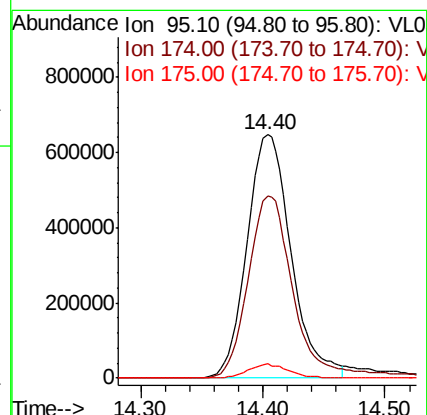
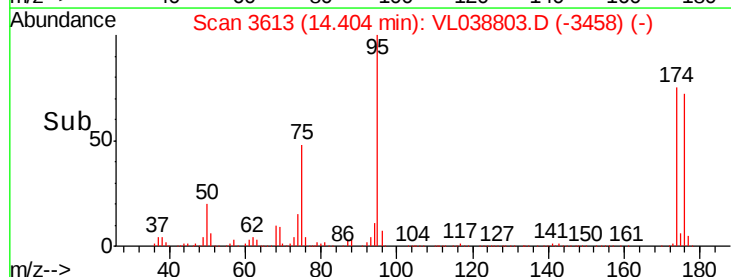
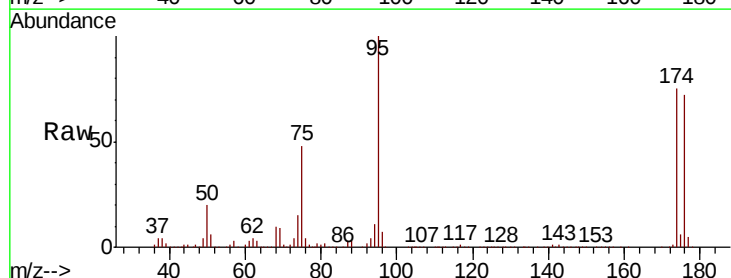
Tgt Ion: 95 Resp: 1616301

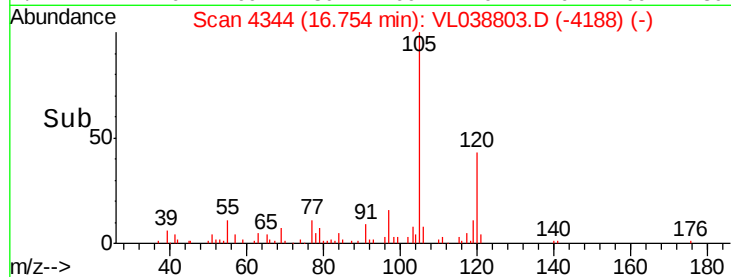
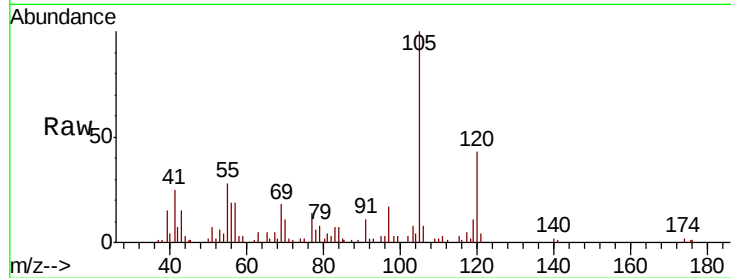
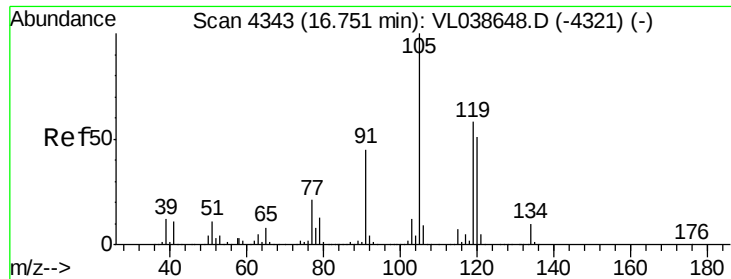
Ion Ratio Lower Upper

95 100

174 78.8 56.1 84.1

175 5.8 4.2 6.2





#74
 1,2,4-Trimethylbenzene
 Concen: 0.187 ppbv
 RT: 16.75
 Delta R.T
 Lab File:
 Acq: 30 Mar 2022 20.42

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 04/02/2022
 Supervised By :Mahesh Dadoda 04/04/2022

Tot Ion	Ion	Ratio
105	100	
120	42.	
91	9.	
77	11.5	
	16.6	
	25.0	

