

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121621\
 Data File : VL038187.D
 Acq On : 16 Dec 2021 13:24
 Operator : SY/AP
 Sample : M5117-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 IA-1

Manual Integrations
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Reviewed By :Amit Patel 12/20/2021
 Supervised By :Mahesh Dadoda 12/20/2021

Quant Time: Dec 17 05:45:50 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	5.67	49	1023887	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2695574	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2238545	10.00	ppbv	0.00

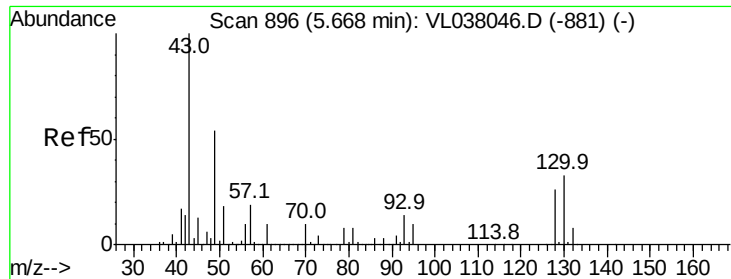
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1745074	10.81	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	108.10%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	43252	0.256	ppbv	98
3) Chlorodifluoromethane	3.00	51	257757m	1.199	ppbv	
4) Chloromethane	3.15	50	27693m	0.378	ppbv	
9) Propene	3.03	41	449761m	5.680	ppbv	
10) Heptane	8.12	43	42181m	0.216	ppbv	
11) Trichlorofluoromethane	3.96	101	32808m	0.204	ppbv	
13) Ethanol	3.61	45	1921389	251.077	ppbv	92
15) Acetone	3.85	43	390031	4.394	ppbv #	85
19) Isopropyl Alcohol	3.98	45	295810	4.612	ppbv #	98
20) Methylene Chloride	4.35	84	1844385	37.093	ppbv	98
26) Hexane	5.69	57	1277872	8.986	ppbv #	46
30) Cyclohexane	7.13	84	23395	0.181	ppbv #	20
34) 2-Butanone	5.25	43	49111	0.452	ppbv	97
35) Carbon Tetrachloride	7.02	117	11597m	0.061	ppbv	
36) Benzene	6.89	78	178931	0.665	ppbv	98
38) Trichloroethene	7.83	130	7267m	0.072	ppbv	
44) 2,2,4-Trimethylpentane	7.87	57	149898	0.333	ppbv #	78
52) Tetrachloroethene	11.22	164	4154m	0.042	ppbv	
53) Toluene	9.80	91	385107m	1.245	ppbv	
58) Ethyl Benzene	12.71	91	89077m	0.241	ppbv	
59) m/p-Xylene	12.97	91	229586m	0.737	ppbv	
60) o-Xylene	13.69	91	80392	0.278	ppbv	95
61) Styrene	13.53	104	18364m	0.119	ppbv	
74) 1,2,4-Trimethylbenzene	16.76	105	75594m	0.240	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

49 100

128 47.

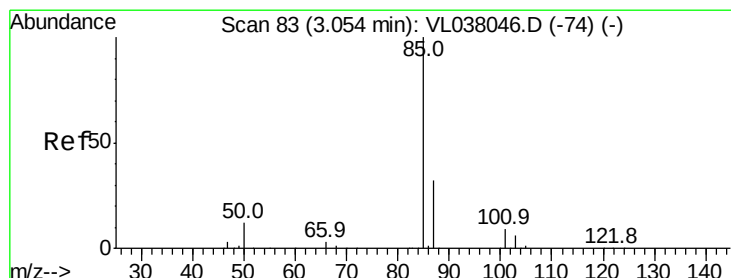
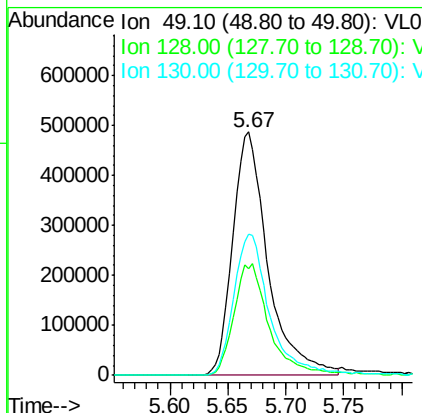
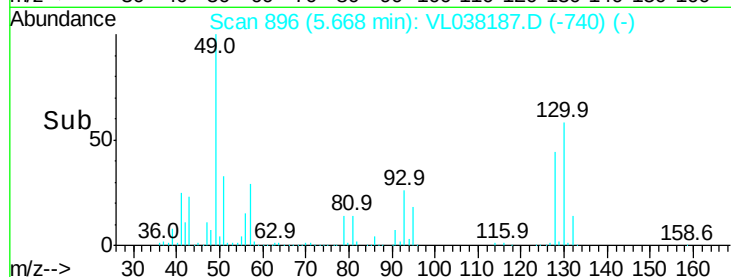
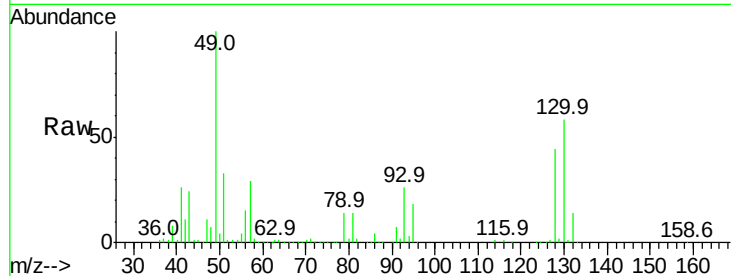
130 60.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#2

Dichlorodifluoromethane

Concen: 0.256 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL038187.D

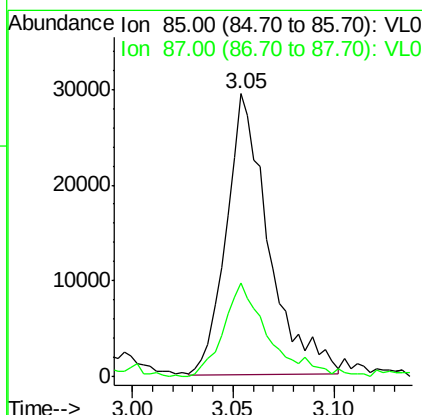
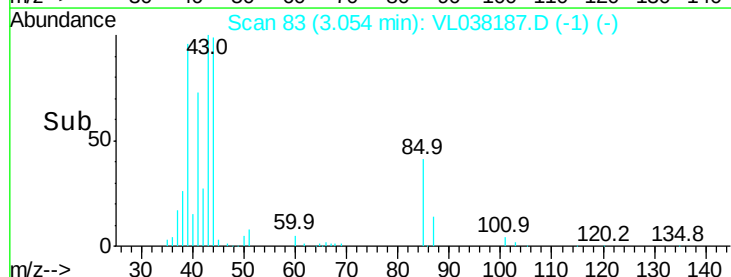
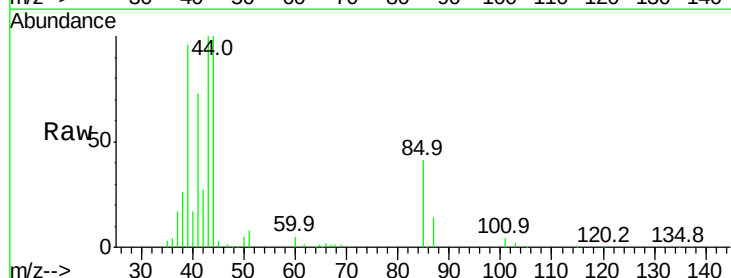
Acq: 16 Dec 2021 13:24

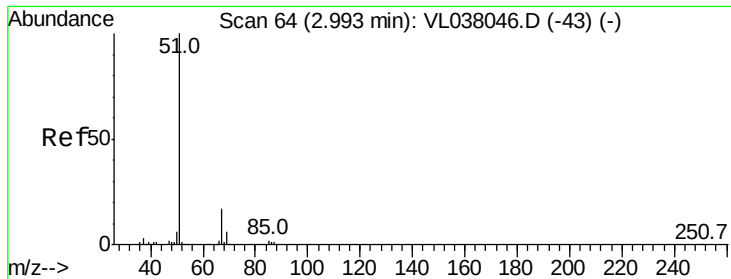
Tgt Ion: 85 Resp: 43252

Ion Ratio Lower Upper

85 100

87 33.6 25.8 38.6





#3

Chlorodifluoromethane

Concen: 1.199 ppbv m

RT: 3.00 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

51 100

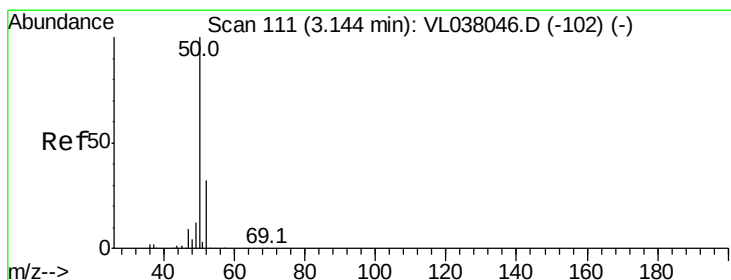
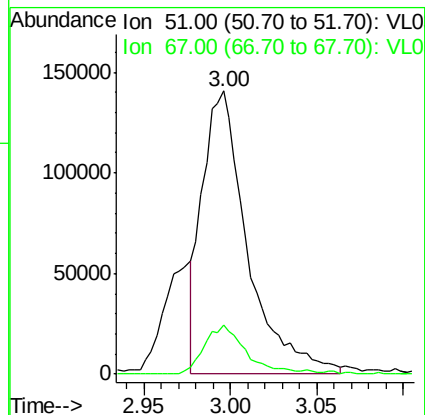
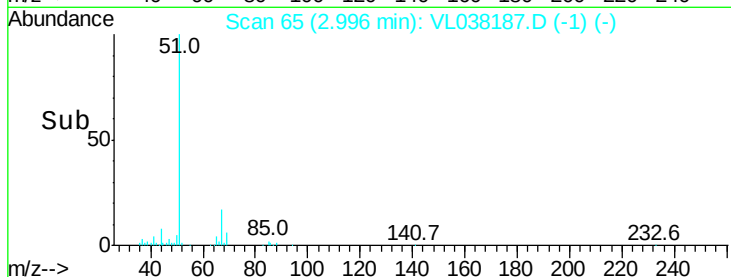
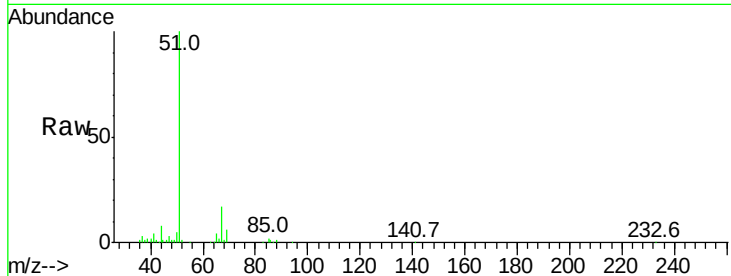
67 16.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#4

Chloromethane

Concen: 0.378 ppbv m

RT: 3.15 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL038187.D

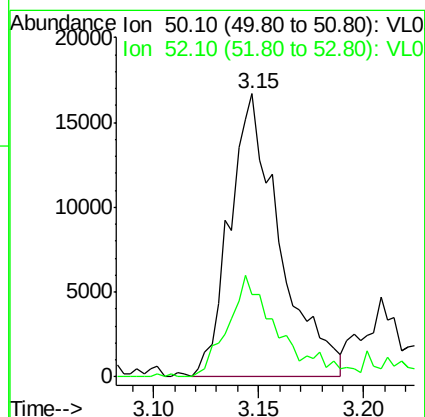
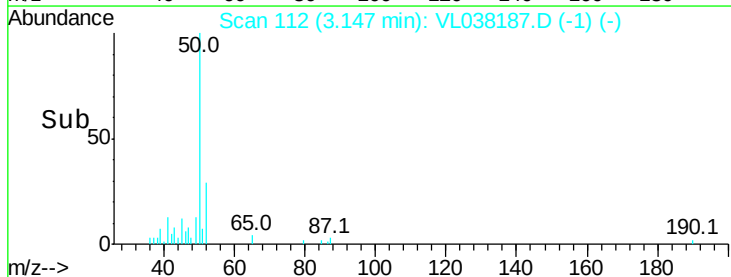
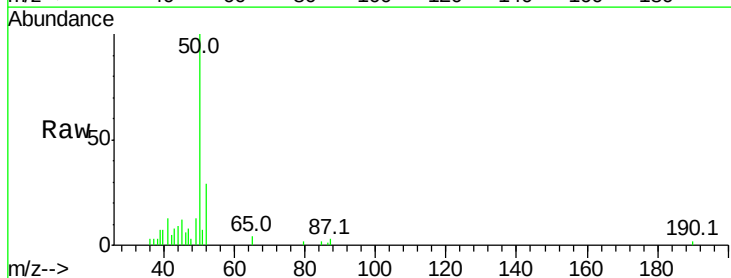
Acq: 16 Dec 2021 13:24

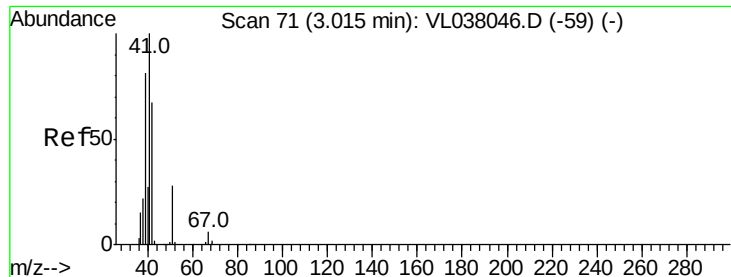
Tgt Ion: 50 Resp: 27693

Ion Ratio Lower Upper

50 100

52 29.3 25.4 38.0





#9

Propene

Concen: 5.680 ppbv m

RT: 3.03

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

41 100

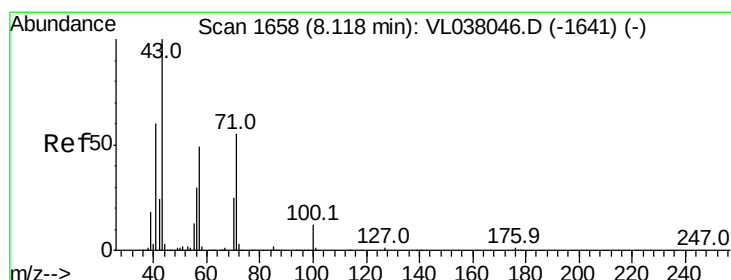
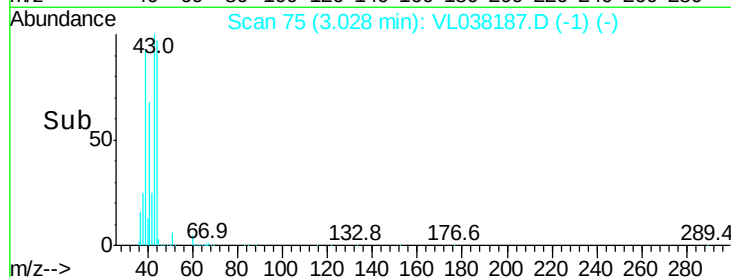
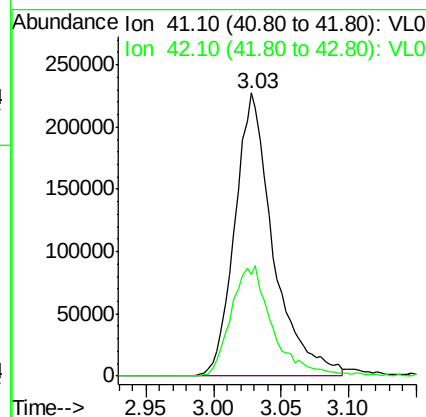
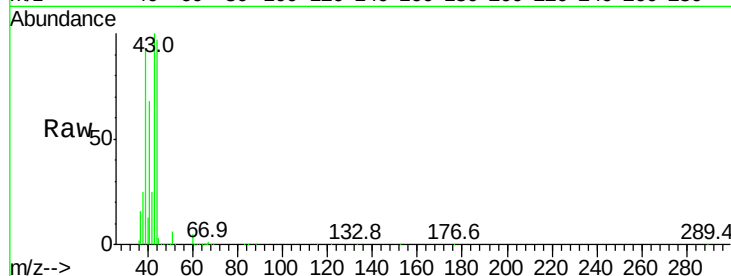
42 28.

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#10

Heptane

Concen: 0.216 ppbv m

RT: 8.12 min Scan# 1658

Delta R.T. 0.00 min

Lab File: VL038187.D

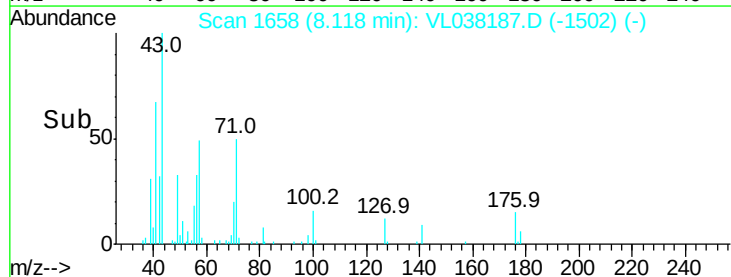
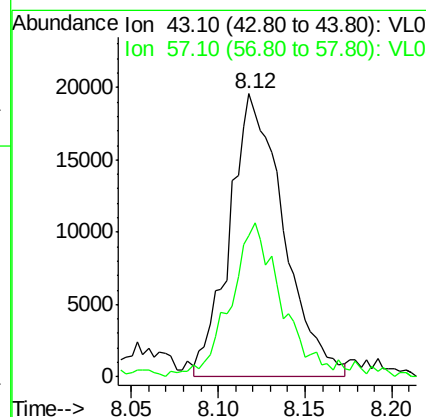
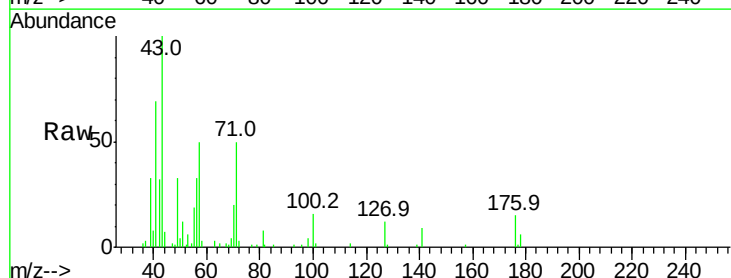
Acq: 16 Dec 2021 13:24

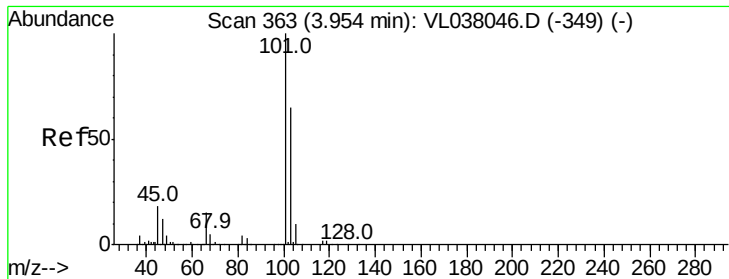
Tgt Ion: 43 Resp: 42181

Ion Ratio Lower Upper

43 100

57 54.9 40.4 60.6



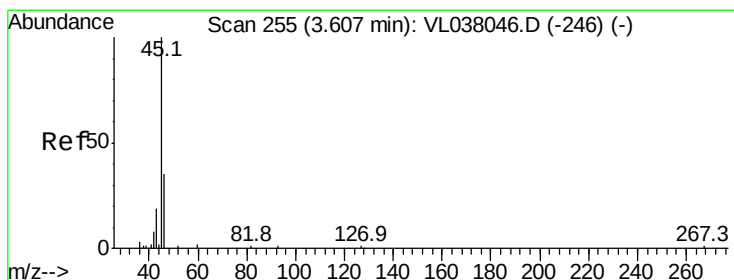
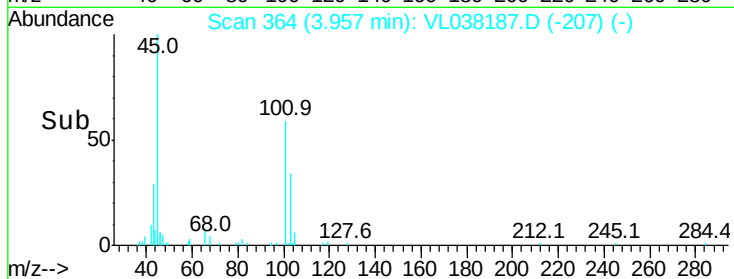
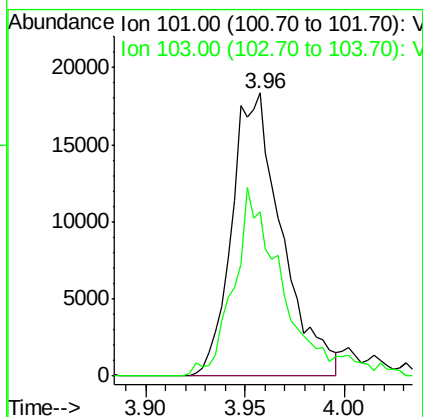
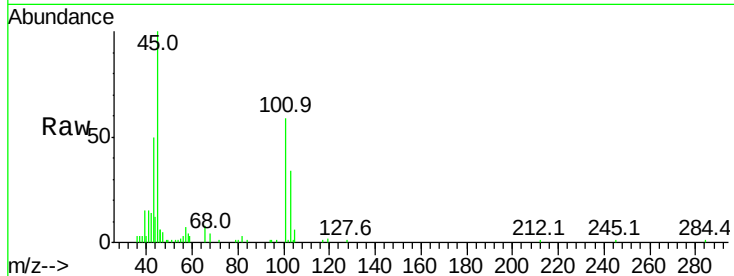


#11
 Trichlorofluoromethane
 Concen: 0.204 ppbv m
 RT: 3.96
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 13:24

Tot Ion:1
 Ion Rati
 101 100
 103 58.

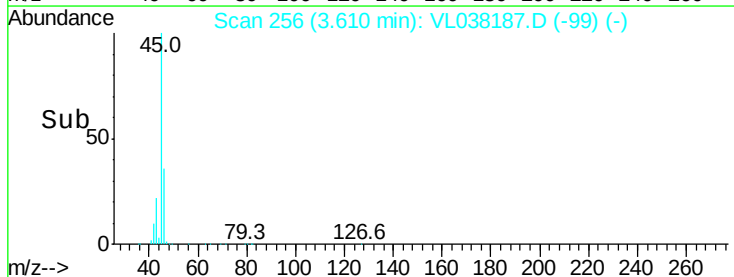
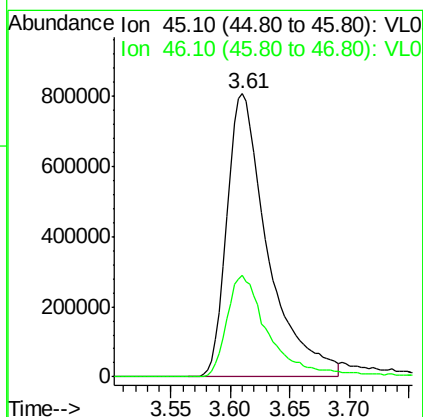
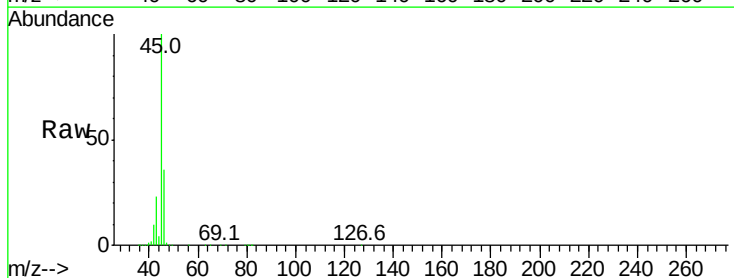
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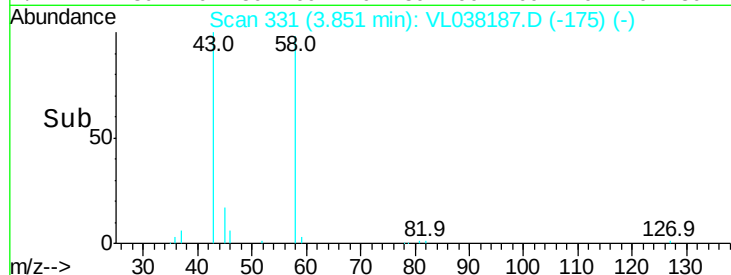
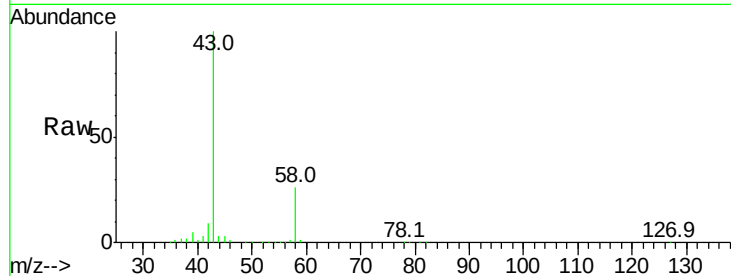
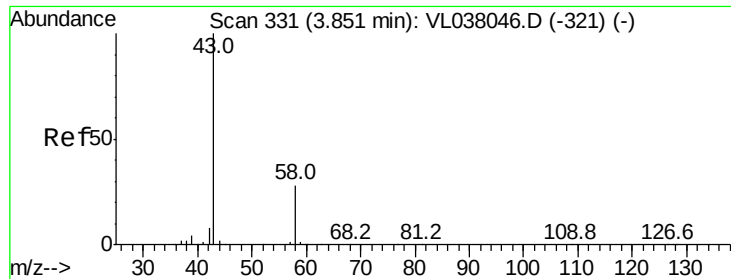
Reviewed By :Amit Patel 12/20/2021
 Supervised By :Mahesh Dadoda 12/20/2021



#13
 Ethanol
 Concen: 251.077 ppbv
 RT: 3.61 min Scan# 256
 Delta R.T. 0.00 min
 Lab File: VL038187.D
 Acq: 16 Dec 2021 13:24

Tgt Ion: 45 Resp: 1921389
 Ion Ratio Lower Upper
 45 100
 46 38.5 17.6 70.2





#15

Acetone

Concen: 4.394 ppbv

RT: 3.85

Delta R.T. MSVOA_L

Lab File:

Acq: 16 Dec 2021 13:24

Instrument :
ClientSampleId :

Tot Ion:

Ion Ratio

43 100

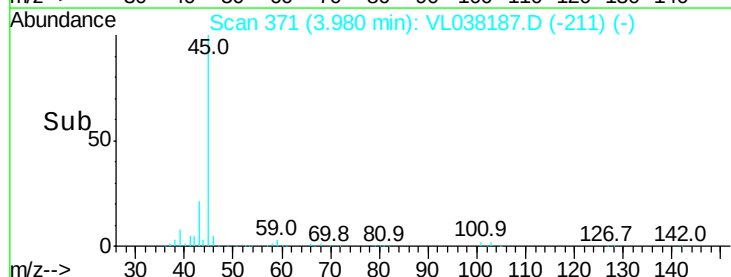
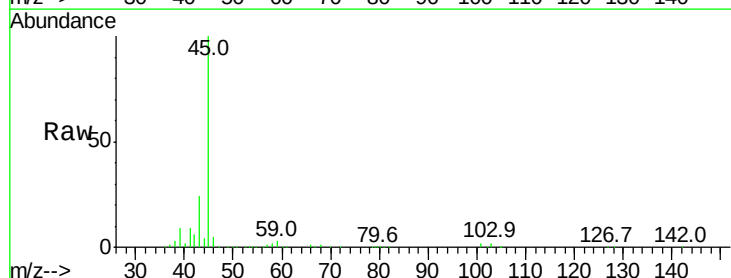
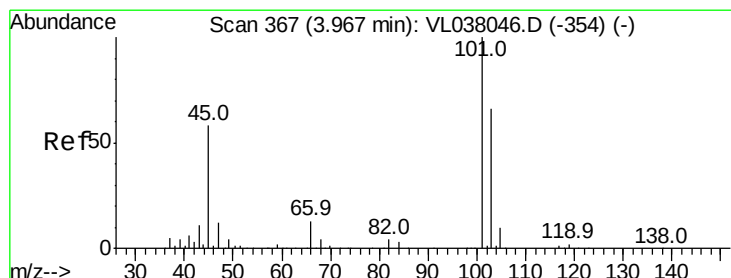
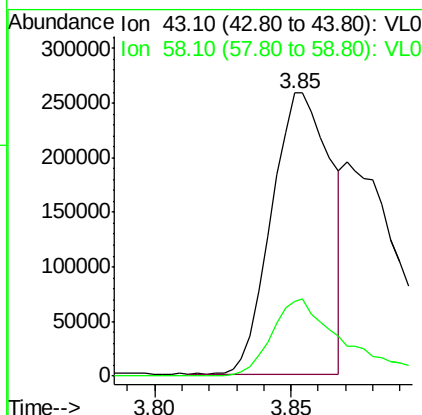
58 35.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#19

Isopropyl Alcohol

Concen: 4.612 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL038187.D

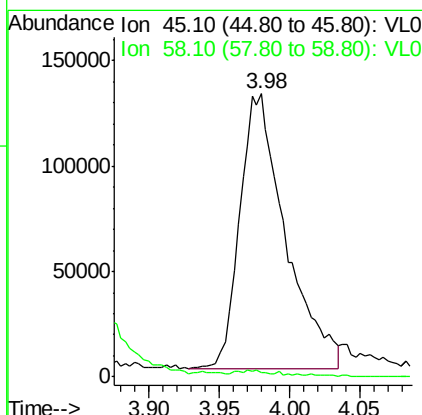
Acq: 16 Dec 2021 13:24

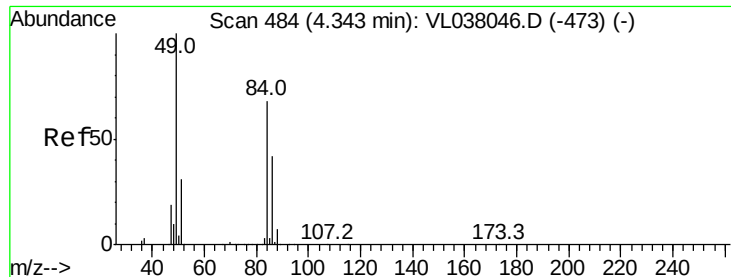
Tgt Ion: 45 Resp: 295810

Ion Ratio Lower Upper

45 100

58 2.3 1.4 2.0#





#20

Methylene Chloride

Concen: 37.093 ppbv

RT: 4.35 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

84 100

49 150.

51 46.

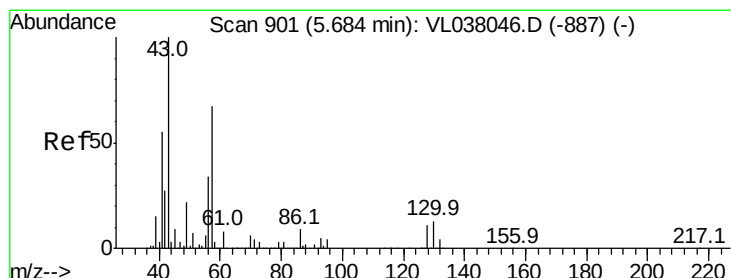
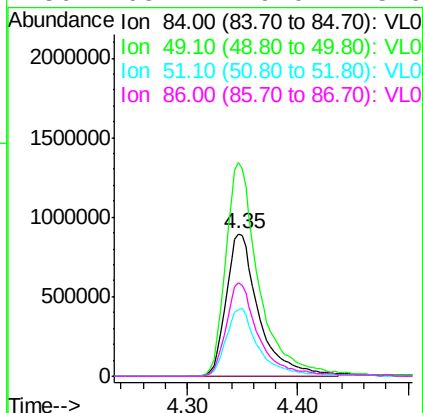
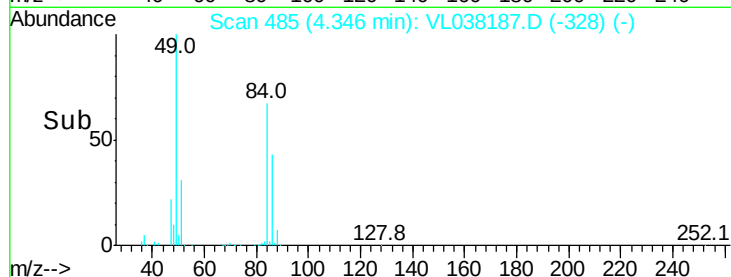
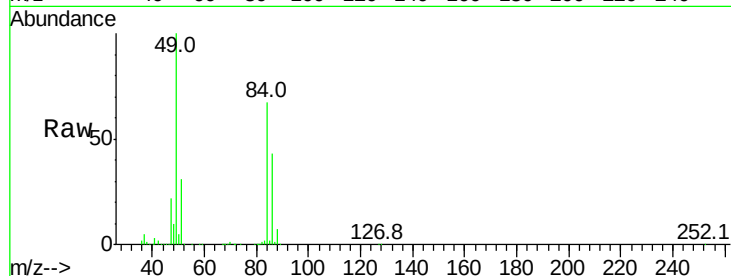
86 65.2 49.0 73.6

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#26

Hexane

Concen: 8.986 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.01 min

Lab File: VL038187.D

Acq: 16 Dec 2021 13:24

Tgt Ion: 57 Resp: 1277872

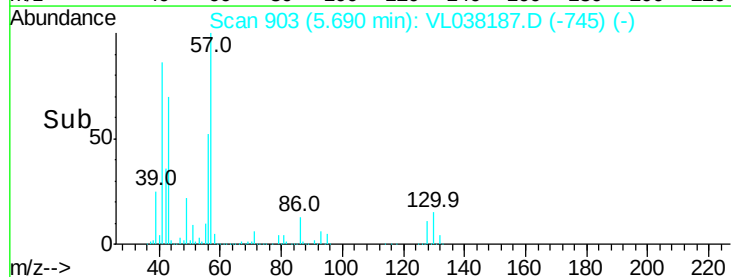
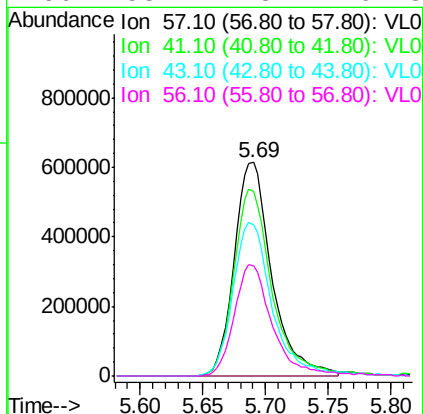
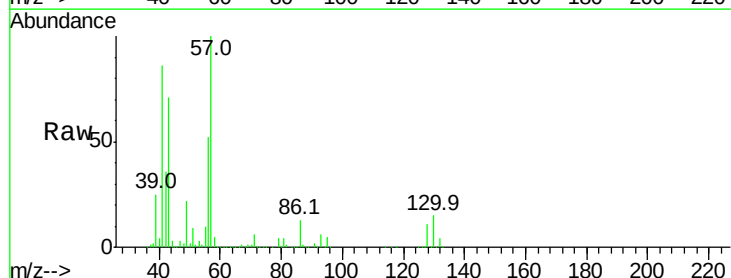
Ion Ratio Lower Upper

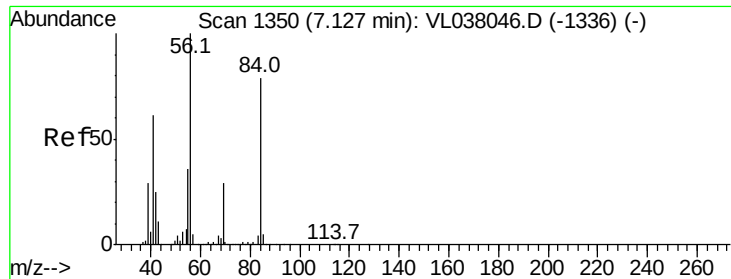
57 100

41 89.9 71.4 107.2

43 75.8 174.6 261.8#

56 53.7 43.2 64.8



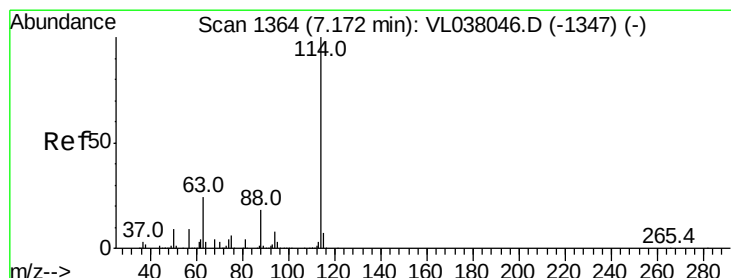
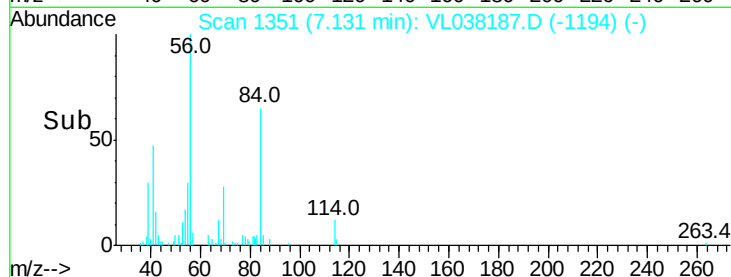
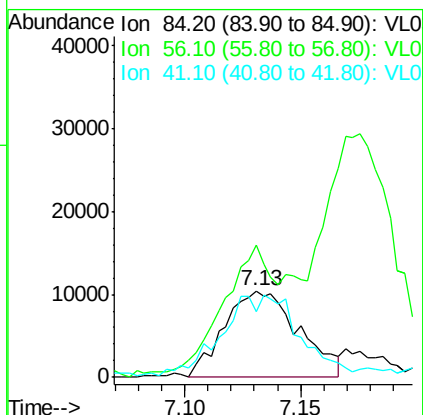
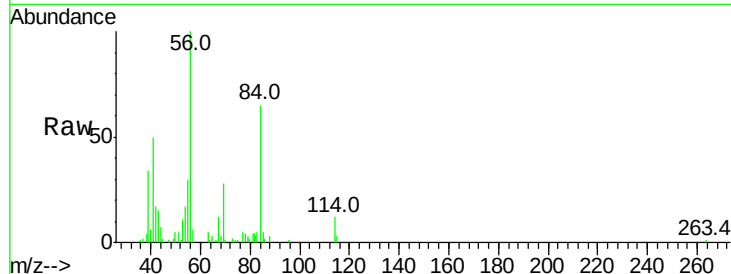


#30
Cvclohexane
Concen: 0.181 ppbv
RT: 7.13
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Dec 2021 13:24

Tot Ion:
Ion Ratio
84 100
56 0.
41 102.

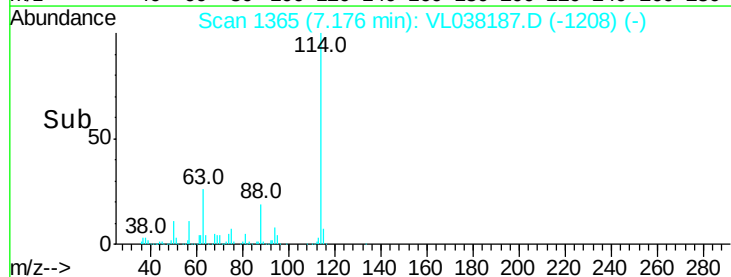
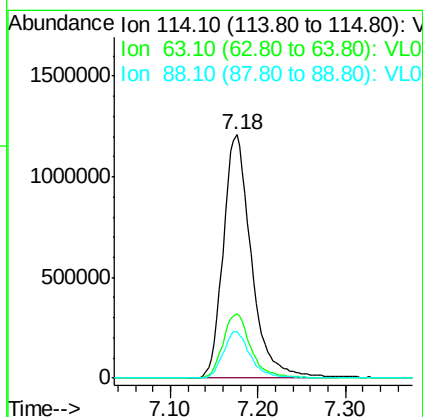
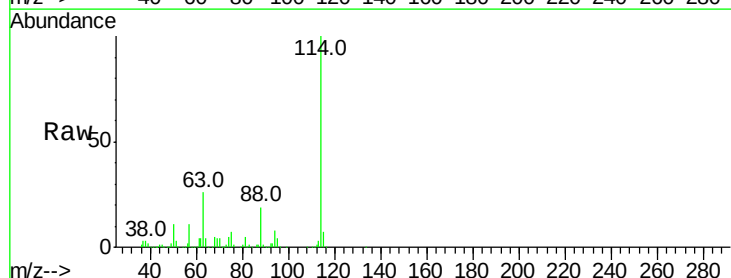
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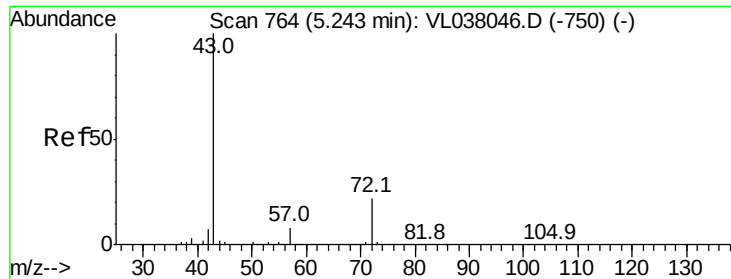
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VL038187.D
Acq: 16 Dec 2021 13:24

Tgt Ion:114 Resp: 2695574
Ion Ratio Lower Upper
114 100
63 26.4 19.7 29.5
88 18.8 14.4 21.6



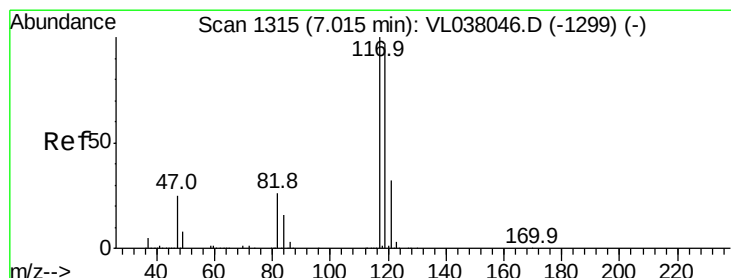
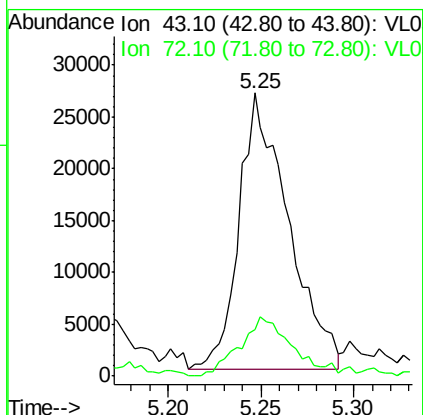
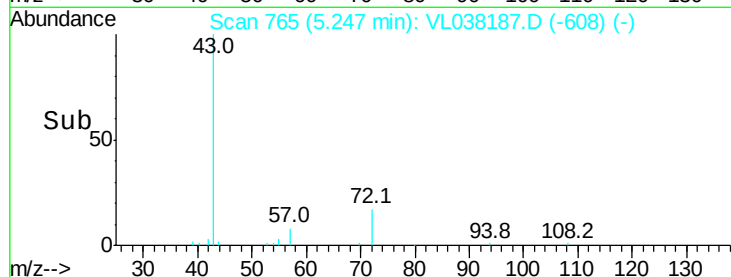
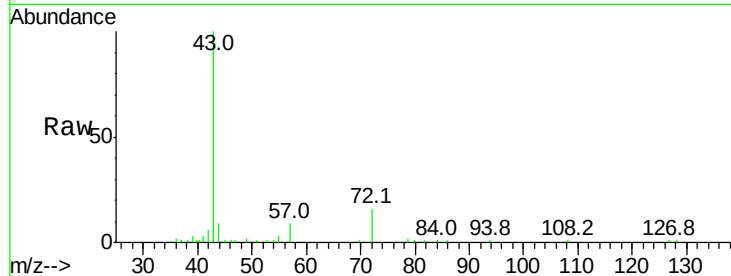


#34
2-Butanone
Concen: 0.452 ppbv
RT: 5.25
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Dec 2021 13:24

Tot Ion:
Ion Ratio
43 100
72 25.

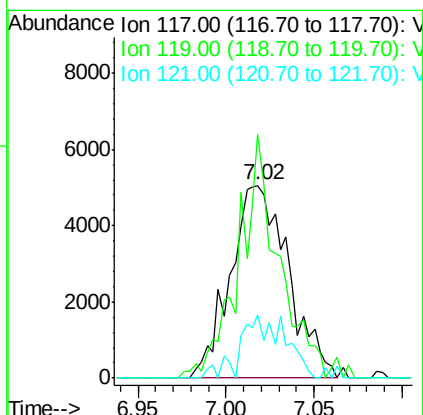
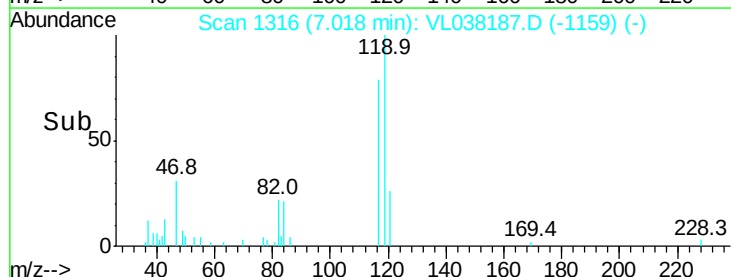
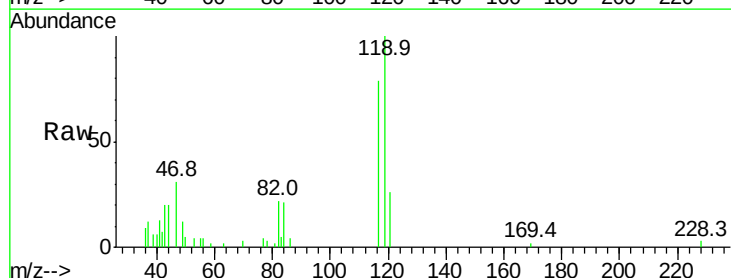
Manual Integrations
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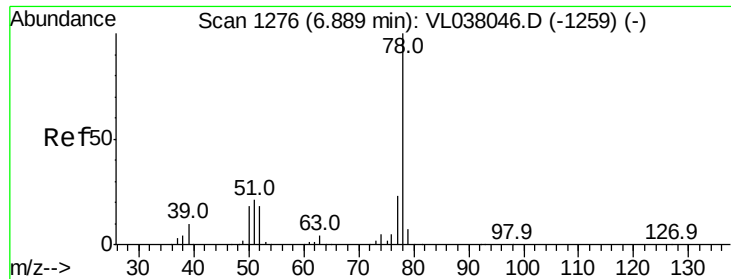
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#35
Carbon Tetrachloride
Concen: 0.061 ppbv m
RT: 7.02 min Scan# 1316
Delta R.T. 0.00 min
Lab File: VL038187.D
Acq: 16 Dec 2021 13:24

Tgt Ion:117 Resp: 11597
Ion Ratio Lower Upper
117 100
119 126.5 77.7 116.5#
121 32.5 25.6 38.4



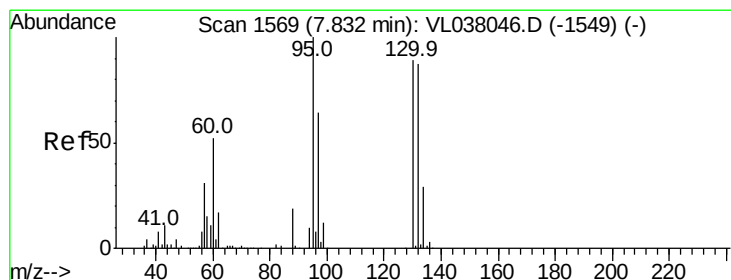
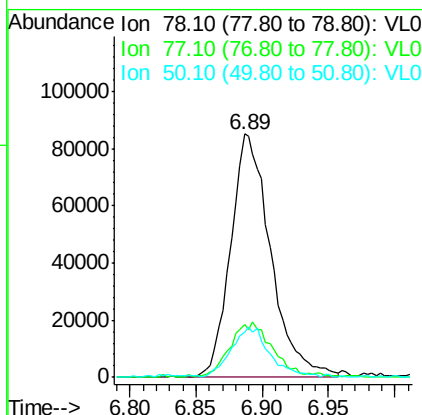
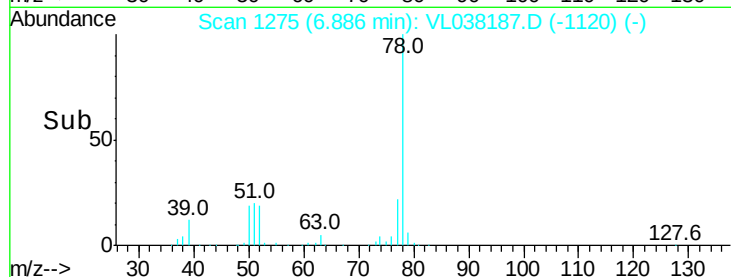
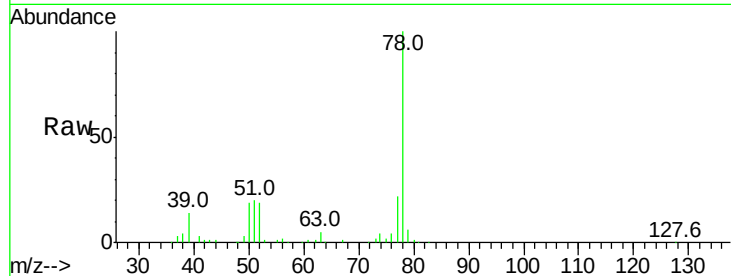


#36
Benzene
Concen: 0.665 ppbv
RT: 6.89
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 16 Dec 2021 13:24

Tot Ion:
Ion Ratio
78 100
77 20.
50 18.

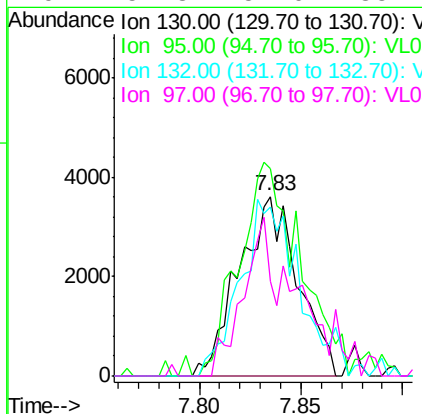
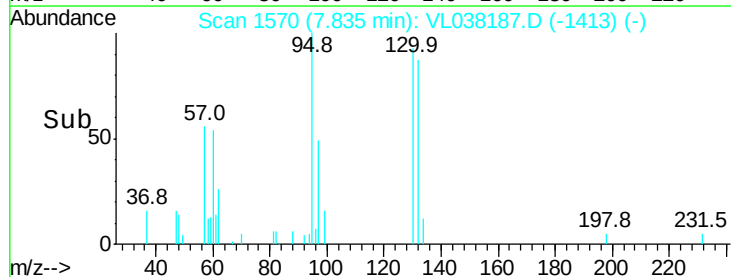
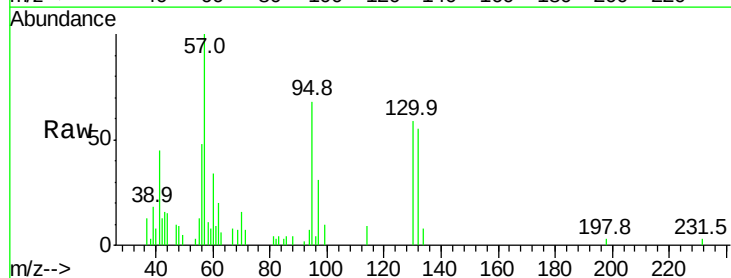
Manual Integrations
APPROVED

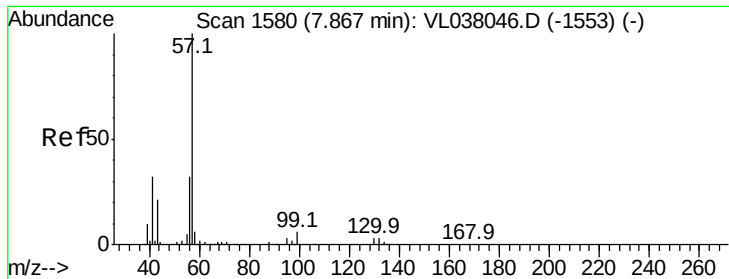
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#38
Trichloroethene
Concen: 0.072 ppbv m
RT: 7.83 min Scan# 1570
Delta R.T. 0.00 min
Lab File: VL038187.D
Acq: 16 Dec 2021 13:24

Tgt Ion:130 Resp: 7267
Ion Ratio Lower Upper
130 100
95 115.4 89.4 134.2
132 93.9 78.2 117.2
97 52.8 57.0 85.4#



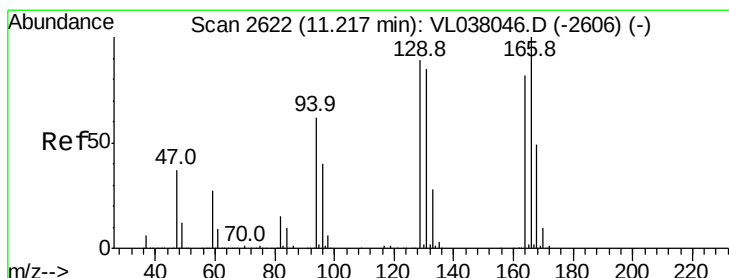
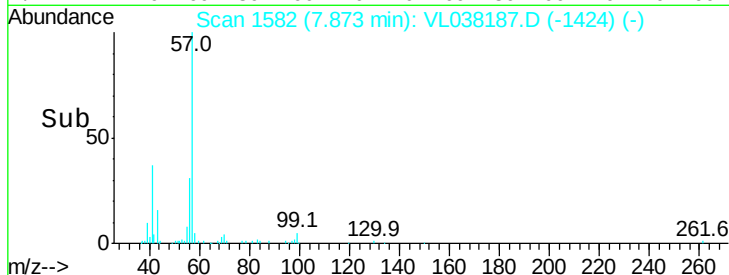
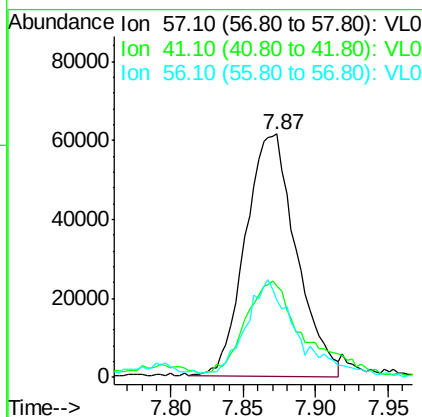
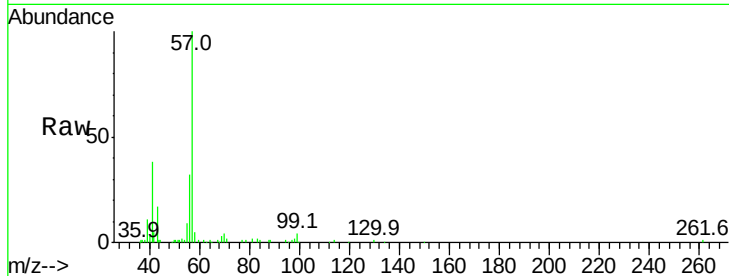


#44
 2,2,4-Trimethylpentane
 Concen: 0.333 ppbv
 RT: 7.87
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 13:24

Tot Ion:
 Ion Ratio
 57 100
 41 47.
 56 41.

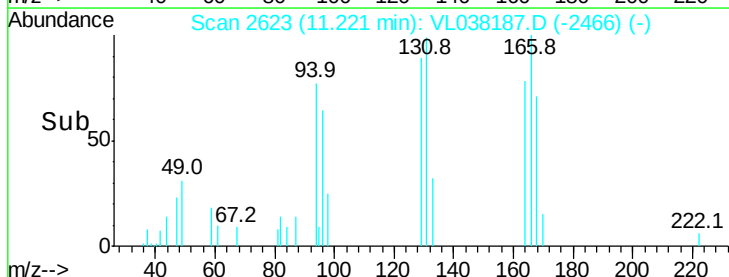
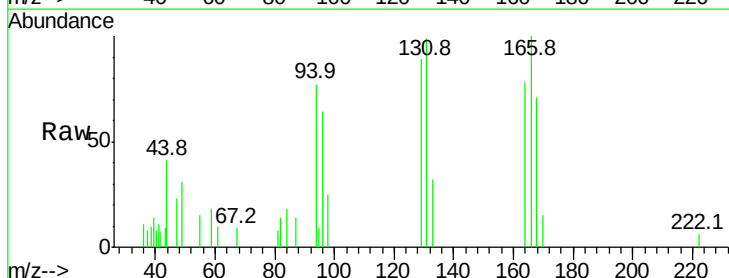
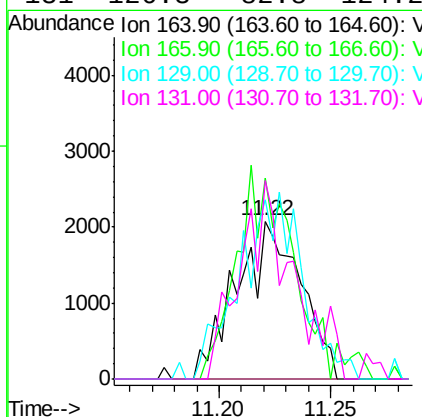
Manual Integrations
 APPROVED

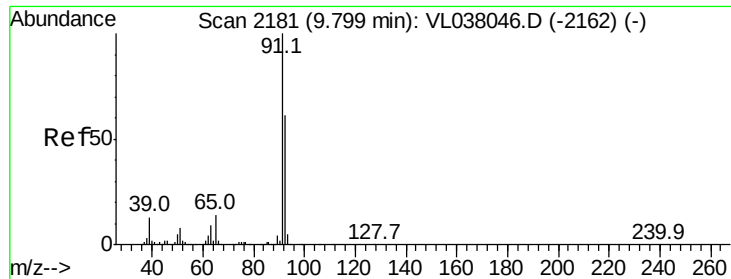
Reviewed By :Amit Patel 12/20/2021
 Supervised By :Mahesh Dadoda 12/20/2021



#52
 Tetrachloroethene
 Concen: 0.042 ppbv m
 RT: 11.22 min Scan# 2623
 Delta R.T. 0.00 min
 Lab File: VL038187.D
 Acq: 16 Dec 2021 13:24

Tgt Ion:164 Resp: 4154
 Ion Ratio Lower Upper
 164 100
 166 127.8 97.2 145.8
 129 114.1 86.9 130.3
 131 126.3 82.8 124.2#





#53

Toluene

Concen: 1.245 ppbv m

RT: 9.80 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampled:

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

91 100

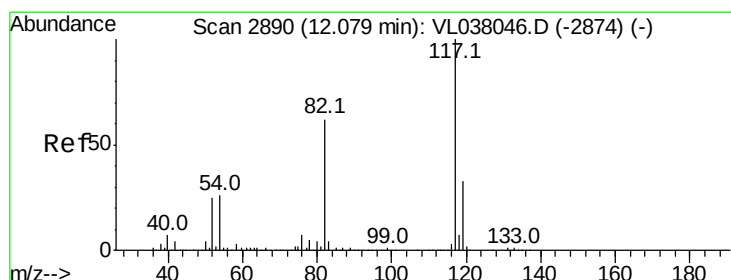
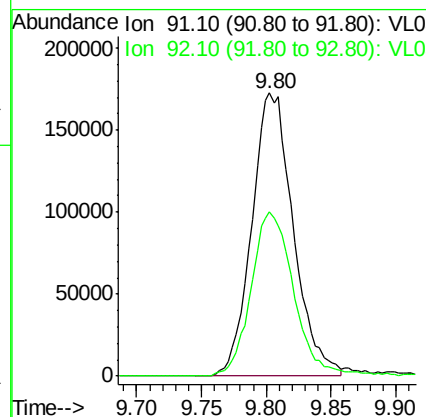
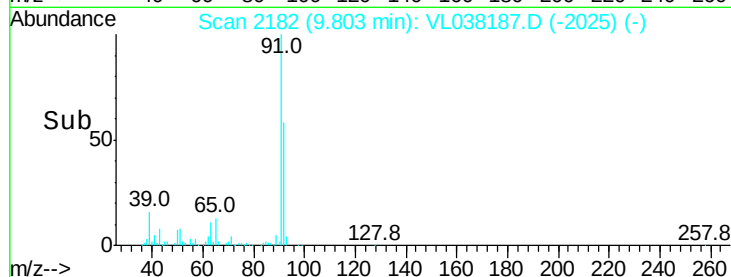
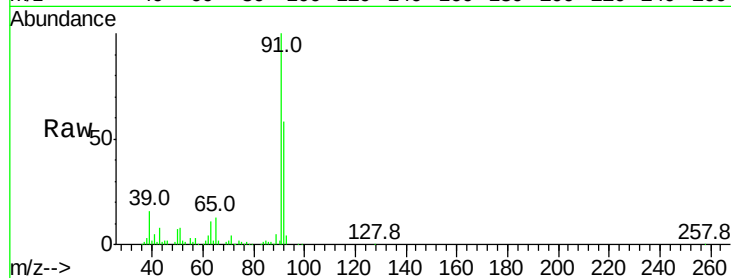
92 60.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2891

Delta R.T. 0.00 min

Lab File: VL038187.D

Acq: 16 Dec 2021 13:24

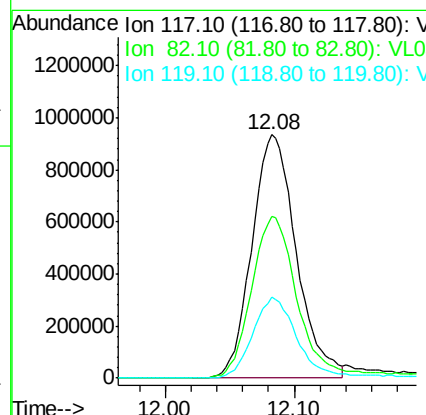
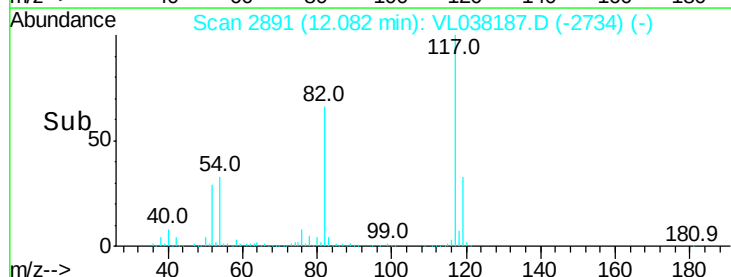
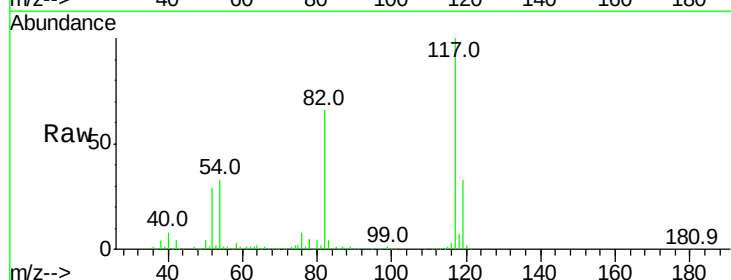
Tgt Ion:117 Resp: 2238545

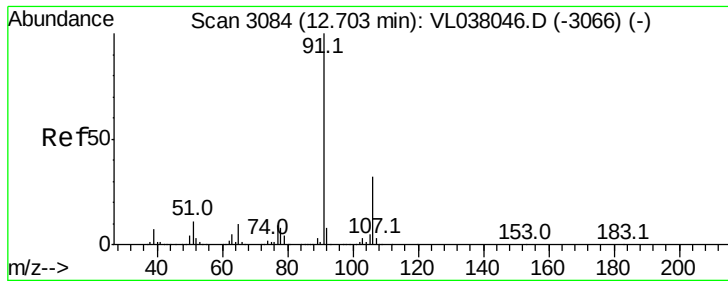
Ion Ratio Lower Upper

117 100

82 72.3 52.8 79.2

119 35.1 26.8 40.2



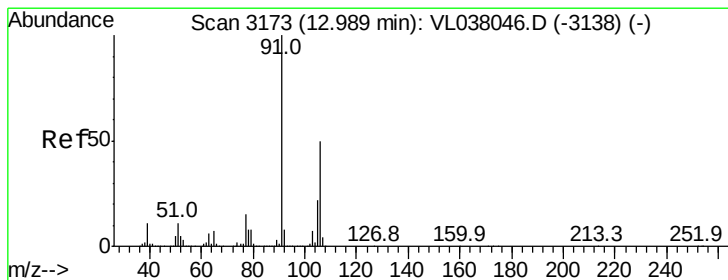
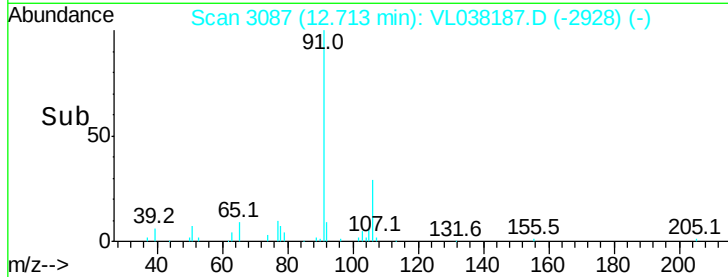
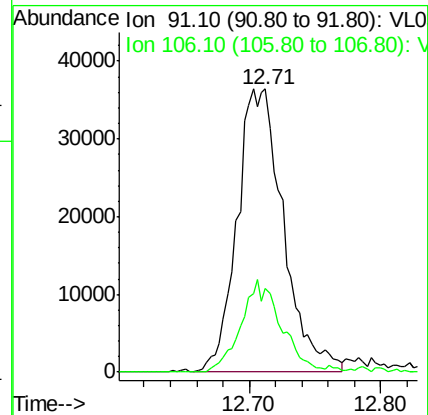
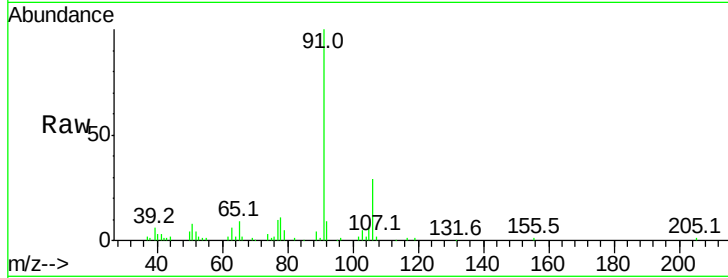


#58
Ethyl Benzene
Concen: 0.241 ppbv m
RT: 12.71 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Dec 2021 13:24

Tot Ion:
Ion Ratio
91 100
106 29.1

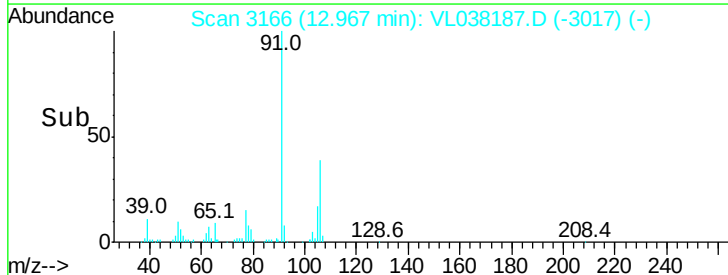
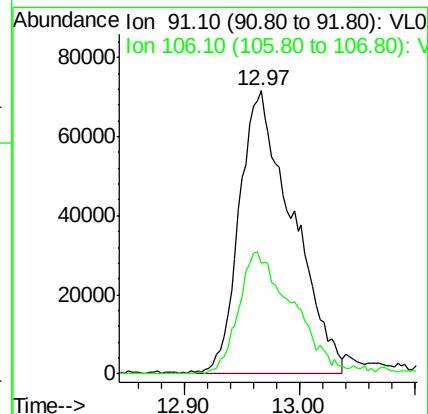
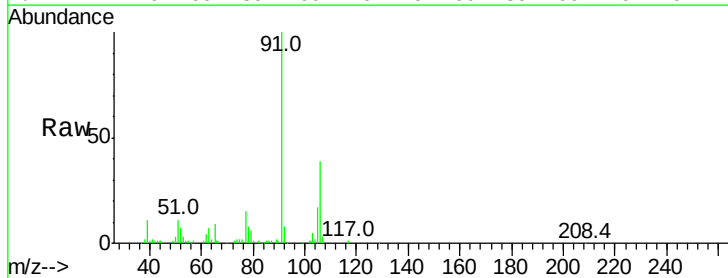
Manual Integrations
APPROVED

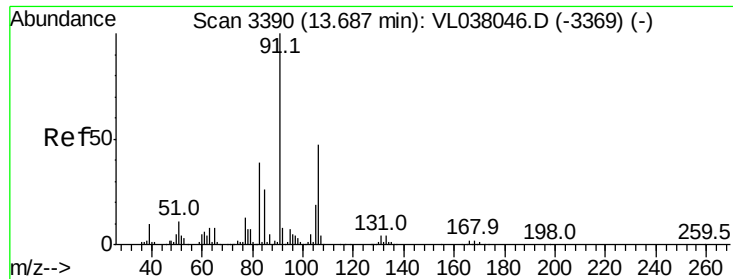
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#59
m/p-Xylene
Concen: 0.737 ppbv m
RT: 12.97 min Scan# 3166
Delta R.T. -0.02 min
Lab File: VL038187.D
Acq: 16 Dec 2021 13:24

Tgt Ion: 91 Resp: 229586
Ion Ratio Lower Upper
91 100
106 0.0 38.1 57.1#





#60

o-Xylene

Concen: 0.278 ppbv

RT: 13.69

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

91 100

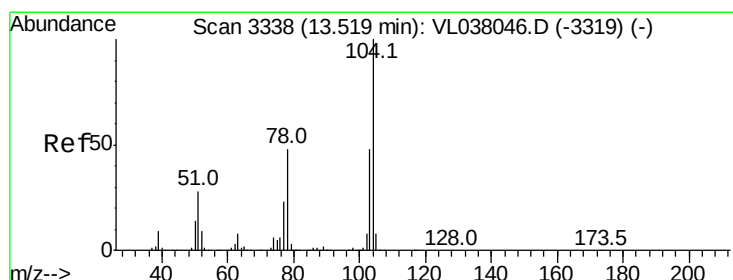
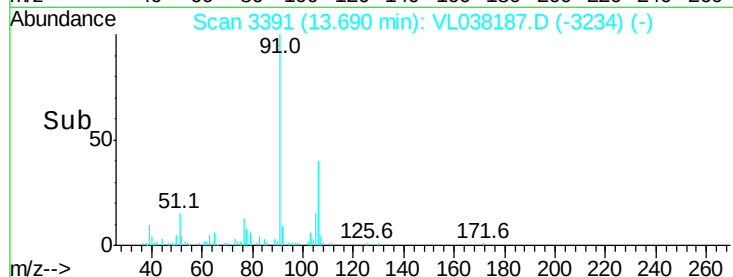
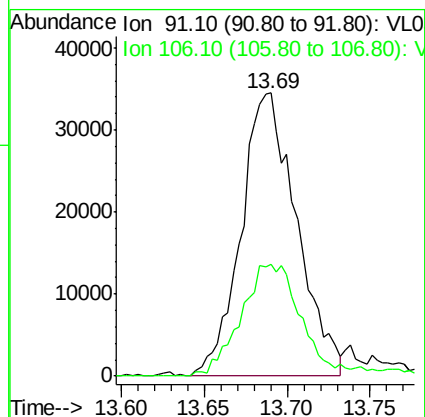
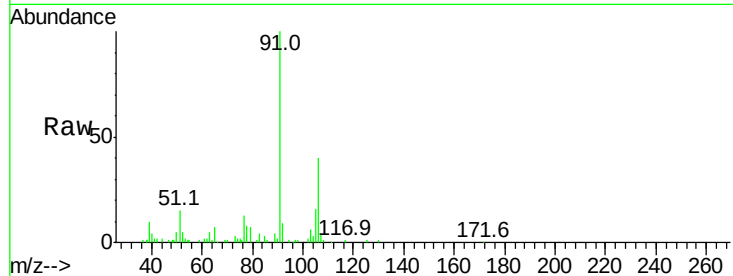
106 44.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#61

Styrene

Concen: 0.119 ppbv m

RT: 13.53 min Scan# 3341

Delta R.T. 0.01 min

Lab File: VL038187.D

Acq: 16 Dec 2021 13:24

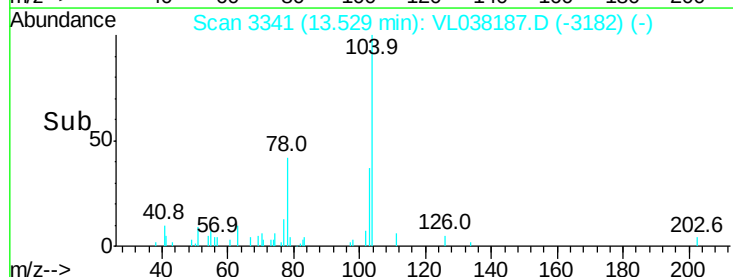
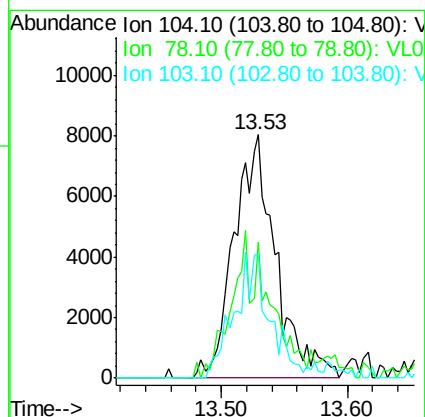
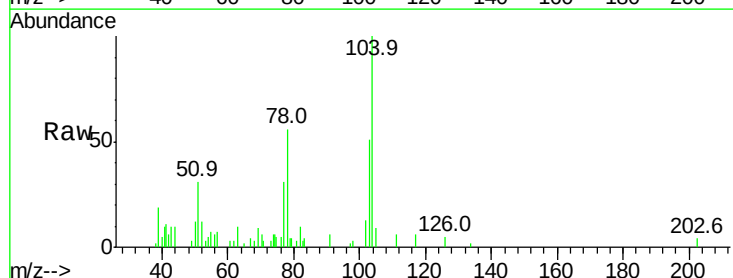
Tgt Ion:104 Resp: 18364

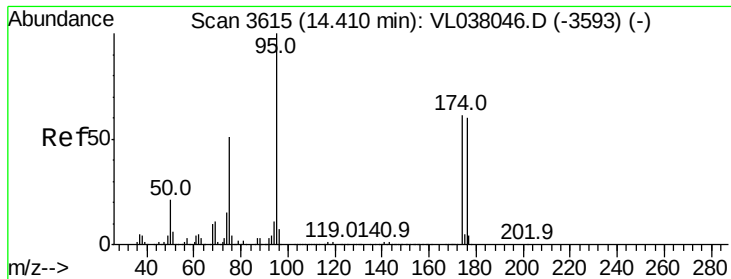
Ion Ratio Lower Upper

104 100

78 61.9 39.8 59.6#

103 43.2 38.2 57.2





#68

1-Bromo-4-Fluorobenzene

Concen: 10.807 ppbv

RT: 14.41 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 13:24

Tot Ion:

Ion Ratio

95 100

174 64.

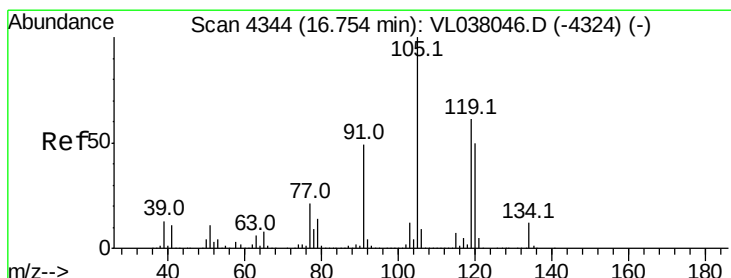
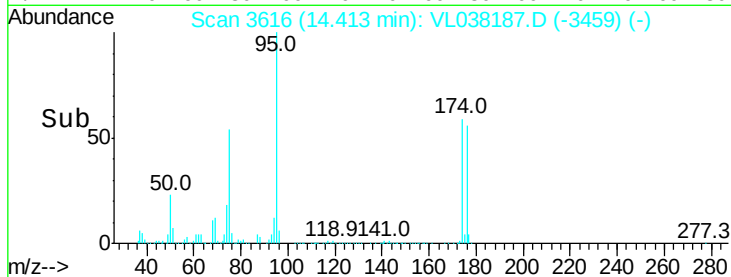
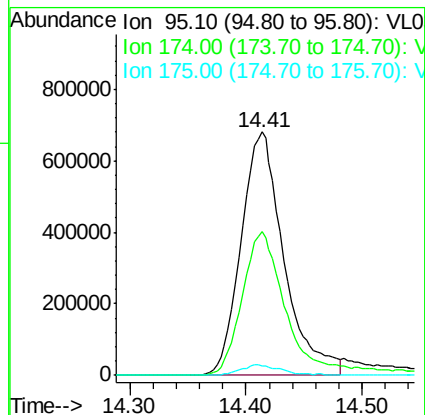
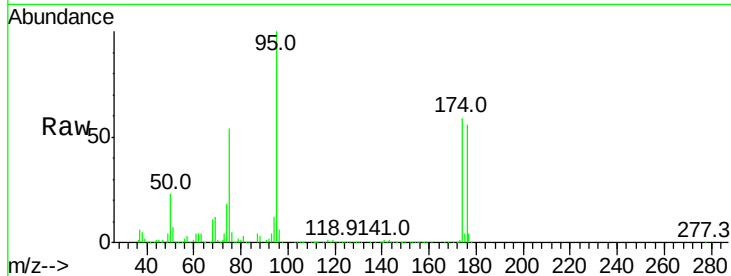
175 4.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#74

1,2,4-Trimethylbenzene

Concen: 0.240 ppbv m

RT: 16.76 min Scan# 4346

Delta R.T. 0.01 min

Lab File: VL038187.D

Acq: 16 Dec 2021 13:24

Tgt Ion:105 Resp: 75594

Ion Ratio Lower Upper

105 100

120 49.6 40.1 60.1

91 12.7 39.8 59.8#

77 18.3 16.6 25.0

