

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080421\
 Data File : VL037336.D
 Acq On : 5 Aug 2021 9:57
 Operator : SY/AP
 Sample : M3239-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Manual Integrations
 APPROVED

MMDadoda
 8/5/2021 1:41:30 PM

Quant Time: Aug 05 10:32:31 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug 04 22:53:01 2021
 QLast Update : Wed Aug 04 22:53:01 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1021565	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3378453	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2848603	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1982158	10.19	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	46513	0.224	ppbv	100
3) Chlorodifluoromethane	2.99	51	197286	0.950	ppbv	94
4) Chloromethane	3.13	50	35398	0.476	ppbv	89
9) Propene	3.02	41	45931	0.612	ppbv #	80
10) Heptane	8.11	43	31676m	0.181	ppbv	
11) Trichlorofluoromethane	3.94	101	46411m	0.243	ppbv	
13) Ethanol	3.61	45	194230m	17.170	ppbv	
15) Acetone	3.84	43	890019	8.021	ppbv	97
17) tert-Butyl alcohol	4.30	59	15677m	0.141	ppbv	
19) Isopropyl Alcohol	3.97	45	150834	2.456	ppbv #	1
20) Methylene Chloride	4.34	84	969219	10.550	ppbv	98
26) Hexane	5.68	57	883186	5.470	ppbv #	48
29) Chloroform	5.74	83	98083	0.480	ppbv	98
30) Cyclohexane	7.11	84	14189m	0.114	ppbv	
34) 2-Butanone	5.24	43	91645m	0.782	ppbv	
35) Carbon Tetrachloride	7.02	117	9660m	0.048	ppbv	
36) Benzene	6.88	78	125947	0.414	ppbv	96
44) 2,2,4-Trimethylpentane	7.86	57	93499	0.186	ppbv #	81
50) 4-Methyl-2-Pentanone	8.75	43	18547m	0.103	ppbv	
51) 2-Hexanone	10.16	43	32378m	0.397	ppbv	
52) Tetrachloroethene	11.20	164	7177m	0.055	ppbv	
53) Toluene	9.79	91	551457	1.536	ppbv	100
58) Ethyl Benzene	12.70	91	53778m	0.129	ppbv	
59) m/p-Xylene	12.95	91	113365m	0.322	ppbv	
60) o-Xylene	13.68	91	37841m	0.118	ppbv	
61) Styrene	13.51	104	248032	1.413	ppbv	94
69) p-Isopropyltoluene	17.64	119	58080m	0.119	ppbv	
74) 1,2,4-Trimethylbenzene	16.75	105	60985	0.164	ppbv #	78

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

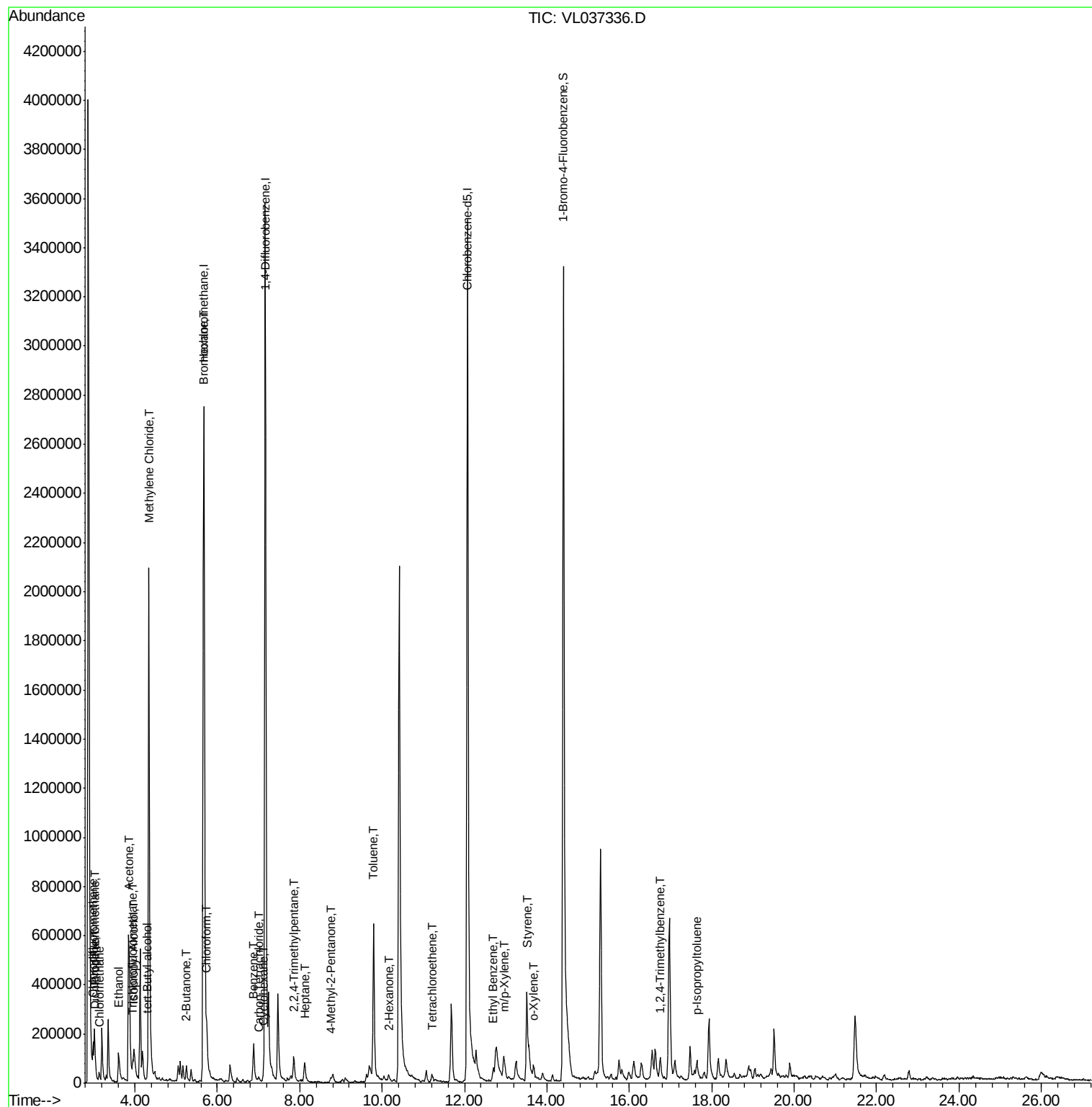
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL080421\
Data File : VL037336.D
Acq On : 5 Aug 2021 9:57
Operator : SY/AP
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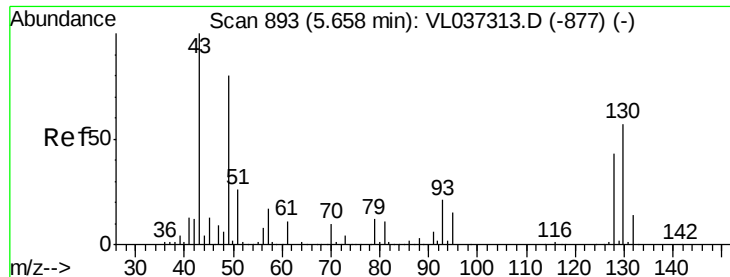
Instrument :
MSVOA_L
ClientSampleId :
IA1

Manual Integrations
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Quant Time: Aug 05 10:32:31 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL080421AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug
QLast Update : Wed Aug 04 22:53:01 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. 0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion: 49 Resp: 1021565

Ion Ratio Lower Upper

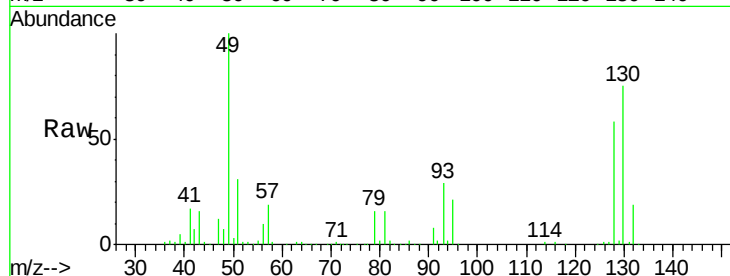
49 100

128 60.6 29.8 89.5

130 77.9 37.5 112.7

Manual Integrations
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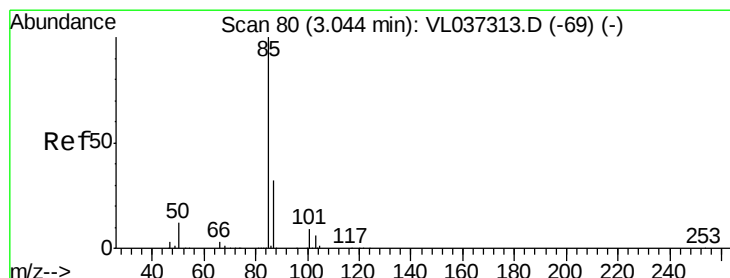
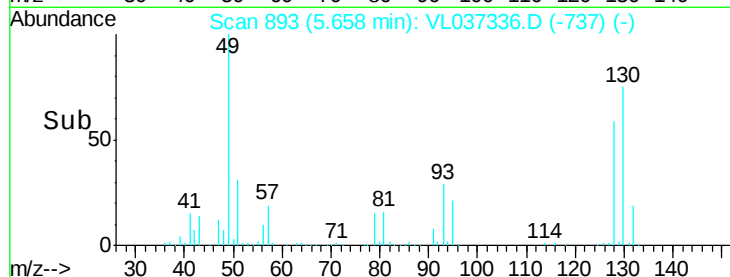
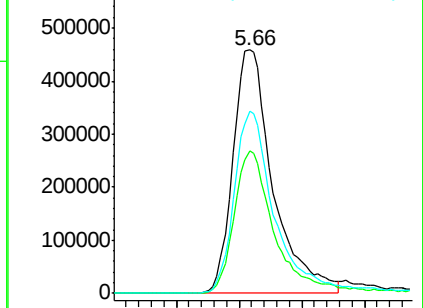
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.224 ppbv

RT: 3.04 min Scan# 80

Delta R.T. 0.00 min

Lab File: VL037336.D

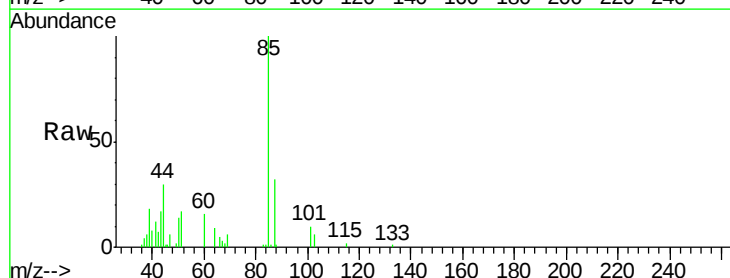
Acq: 5 Aug 2021 9:57

Tgt Ion: 85 Resp: 46513

Ion Ratio Lower Upper

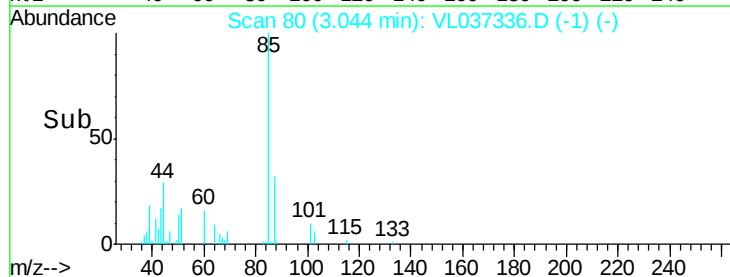
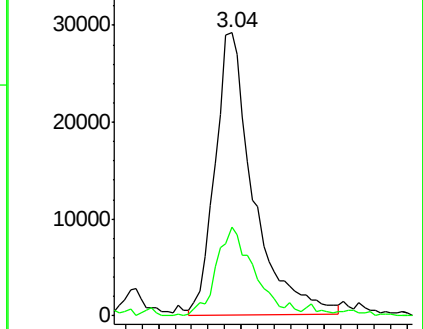
85 100

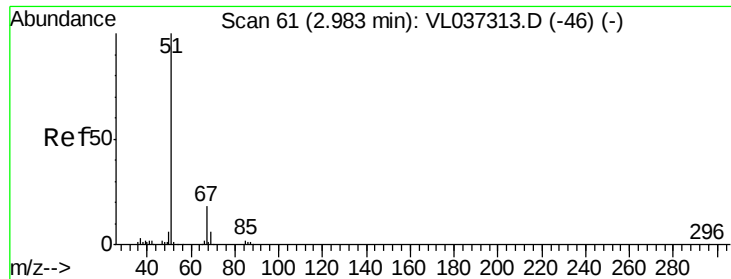
87 31.7 25.5 38.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.950 ppbv

RT: 2.99 min Scan# 62

Delta R.T. 0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion: 51 Resp: 197286

Ion Ratio Lower Upper

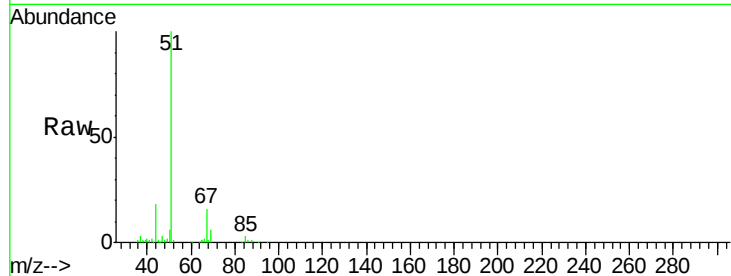
51 100

67 14.9 14.2 21.2

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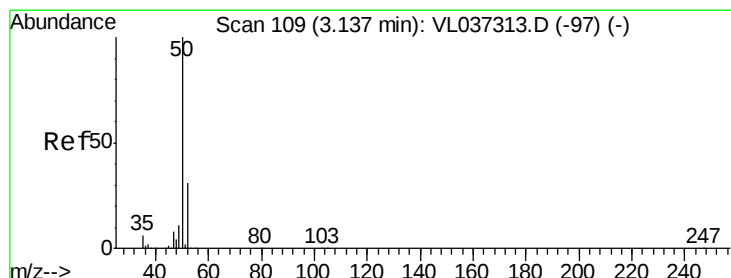
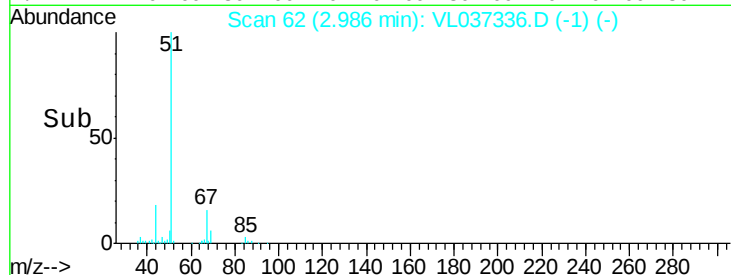
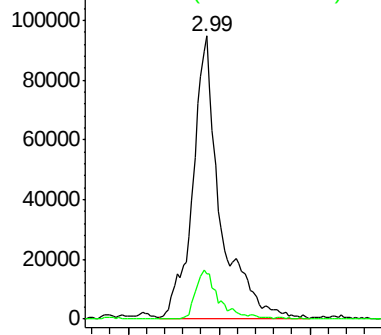
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.476 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.00 min

Lab File: VL037336.D

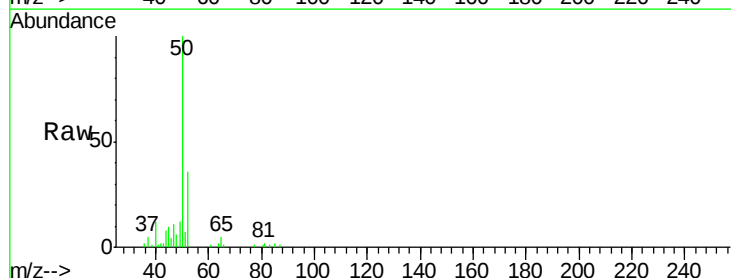
Acq: 5 Aug 2021 9:57

Tgt Ion: 50 Resp: 35398

Ion Ratio Lower Upper

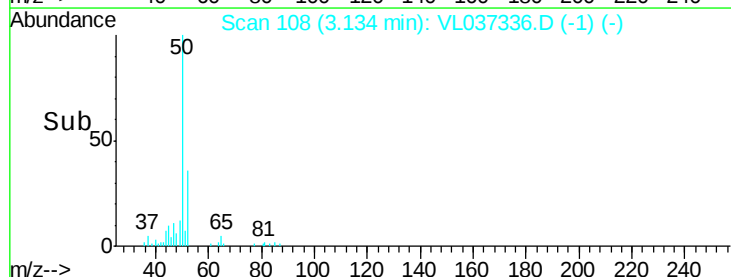
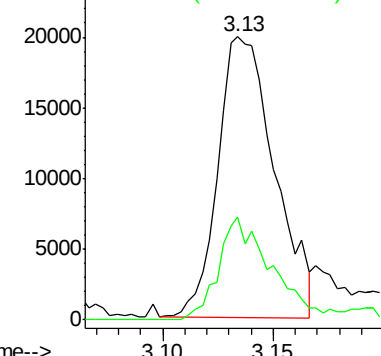
50 100

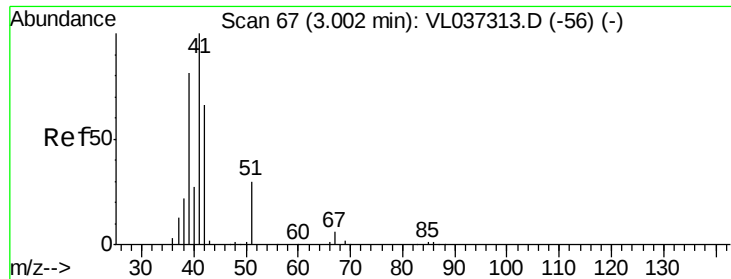
52 37.2 25.1 37.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.612 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.01 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion: 41 Resp: 45931

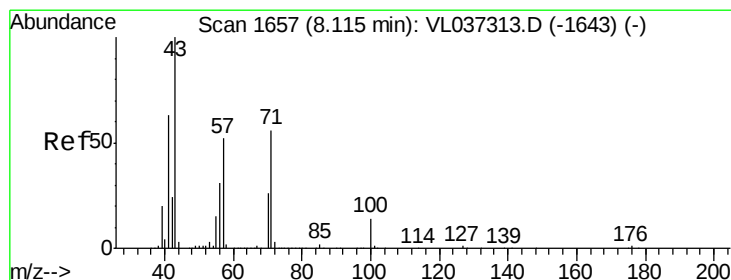
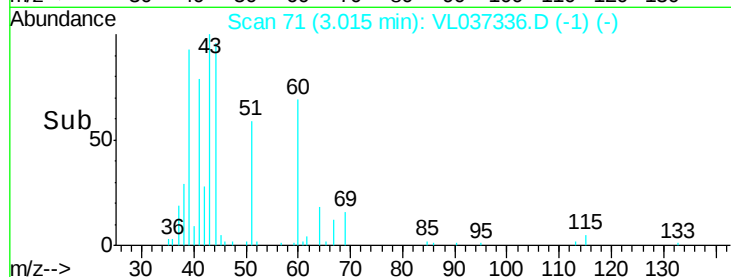
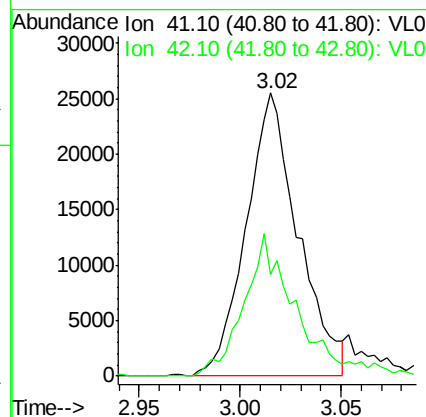
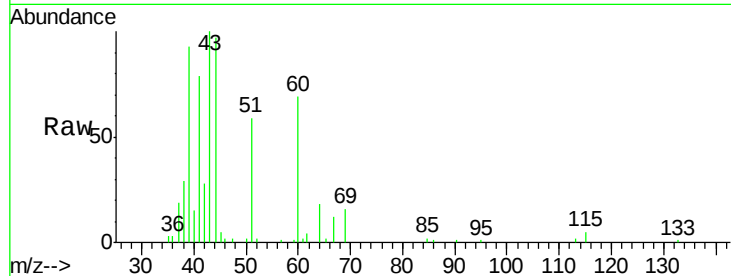
Ion Ratio Lower Upper

41 100

42 51.5 53.8 80.8#

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#10

Heptane

Concen: 0.181 ppbv m

RT: 8.11 min Scan# 1656

Delta R.T. -0.00 min

Lab File: VL037336.D

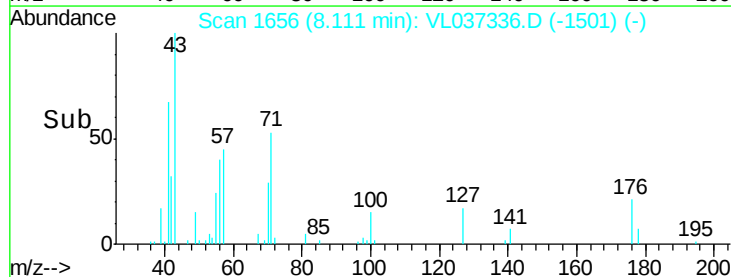
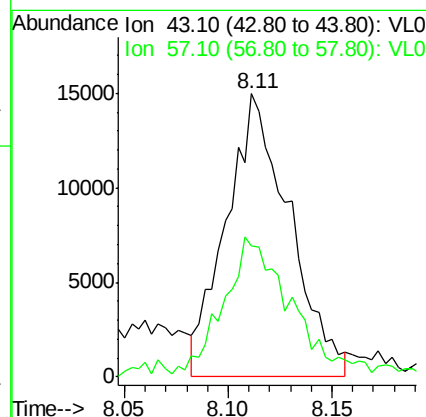
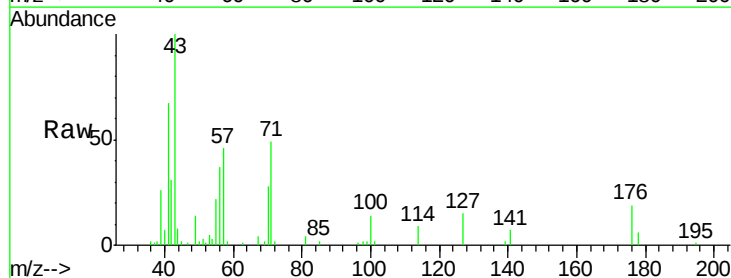
Acq: 5 Aug 2021 9:57

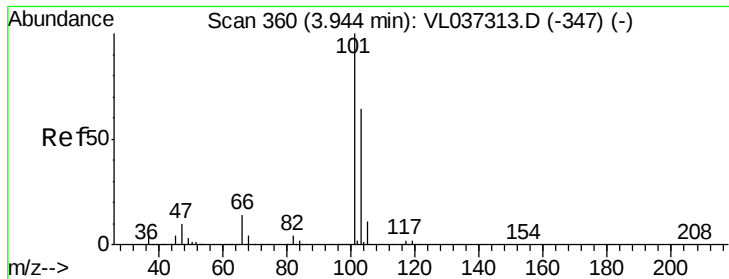
Tgt Ion: 43 Resp: 31676

Ion Ratio Lower Upper

43 100

57 58.4 42.4 63.6





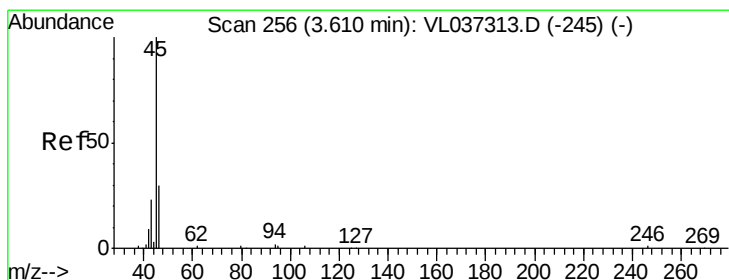
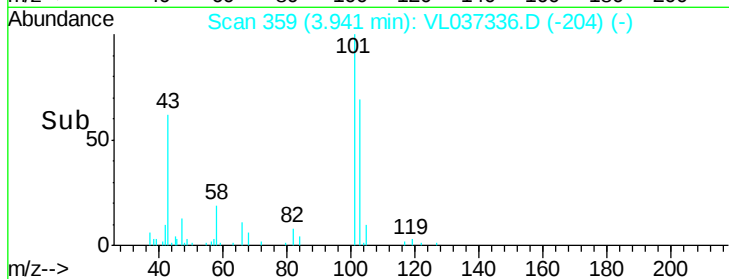
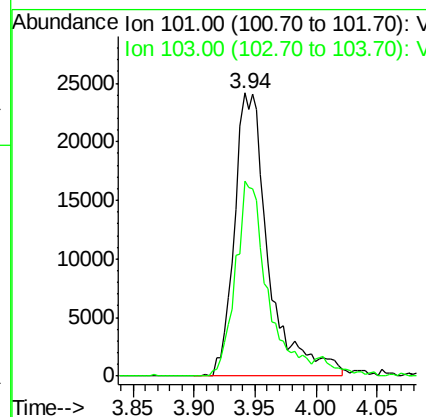
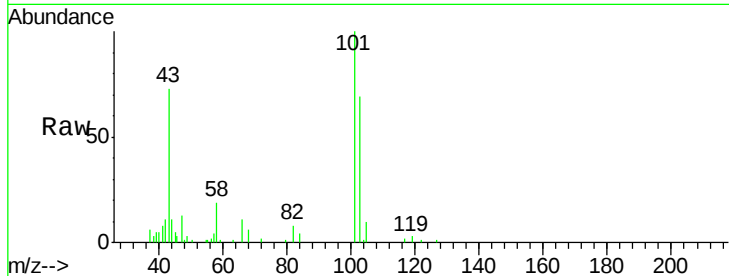
#11
 Trichlorofluoromethane
 Concen: 0.243 ppbv m
 RT: 3.94 min Scan# 359
 Delta R.T. -0.00 min
 Lab File: VL037336.D
 Acq: 5 Aug 2021 9:57

Instrument :
 MSVOA_L
 ClientSampled :
 IA1

Tot Ion	Ratio	Lower	Upper
101	100		
103	68.9	51.6	77.4

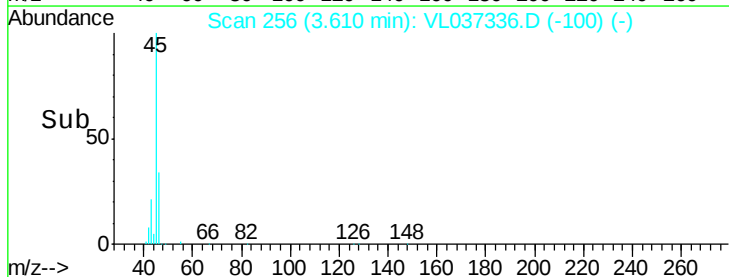
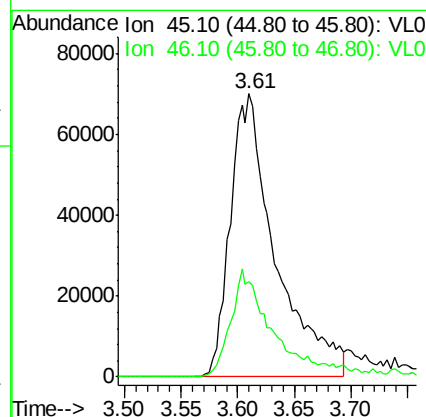
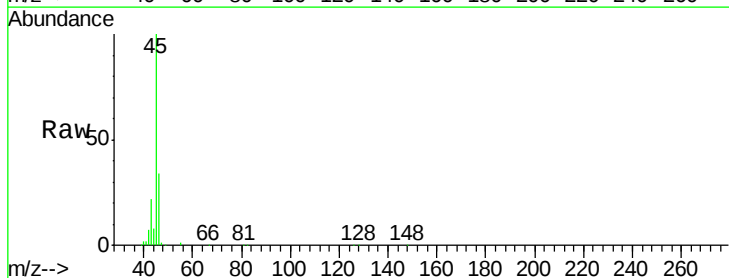
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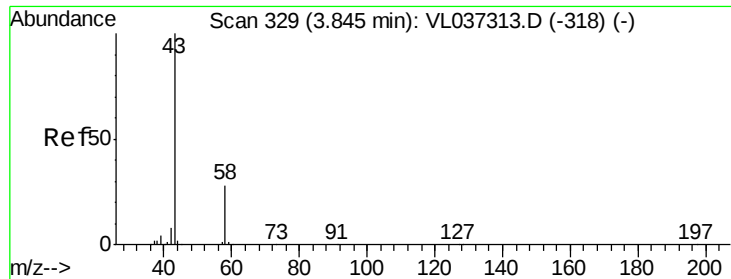
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#13
 Ethanol
 Concen: 17.170 ppbv m
 RT: 3.61 min Scan# 256
 Delta R.T. 0.00 min
 Lab File: VL037336.D
 Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
45	100		
46	0.0	16.6	66.4#





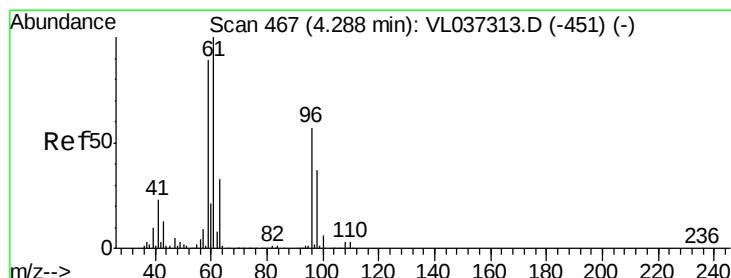
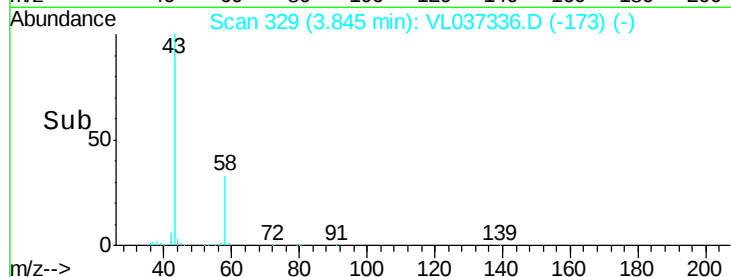
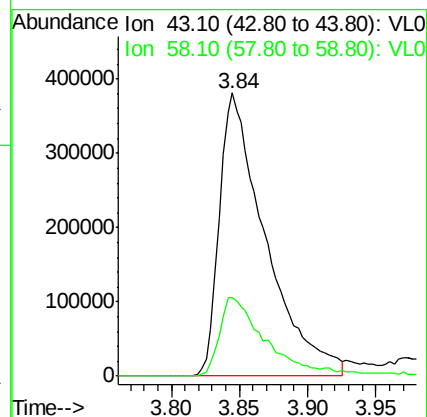
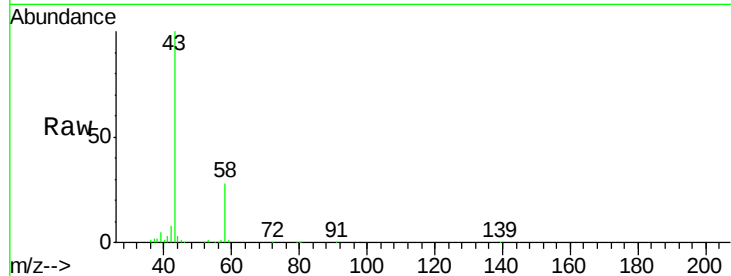
#15
Acetone
Concen: 8.021 ppbv
RT: 3.84 min Scan# 329
Delta R.T. 0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
43	100		
58	30.0	25.3	37.9

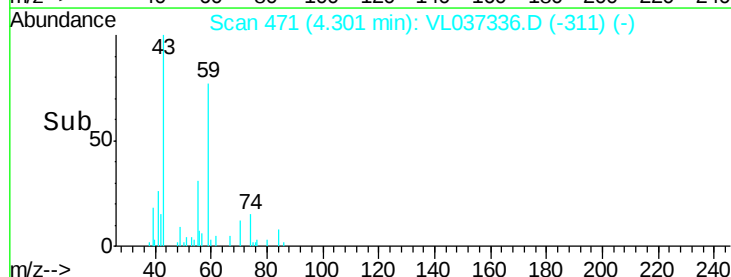
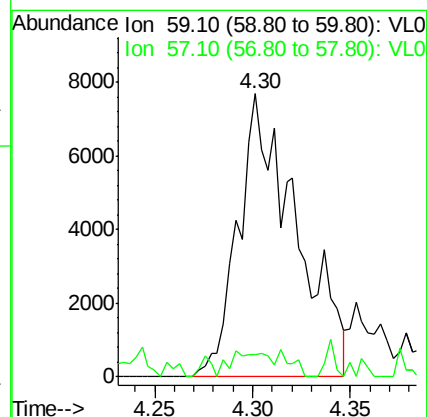
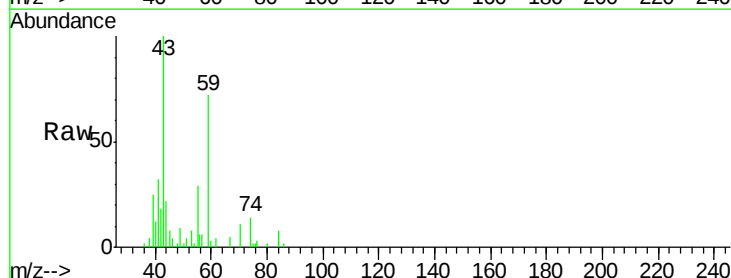
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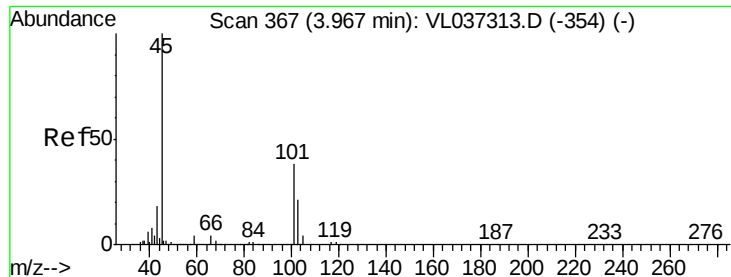
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#17
tert-Butyl alcohol
Concen: 0.141 ppbv m
RT: 4.30 min Scan# 471
Delta R.T. 0.01 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
59	100		
57	0.0	8.6	12.8#





#19

Isopropyl Alcohol

Concen: 2.456 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.01 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion: 45 Resp: 150834

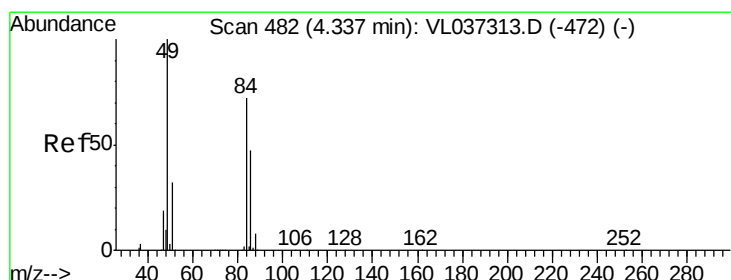
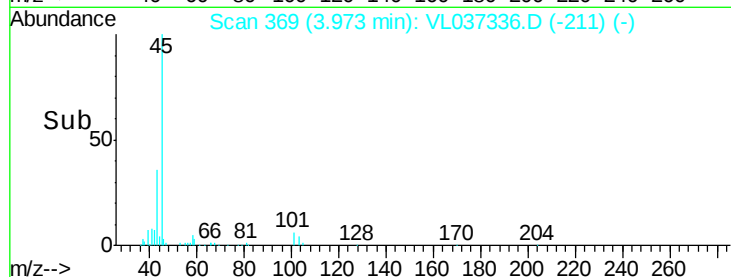
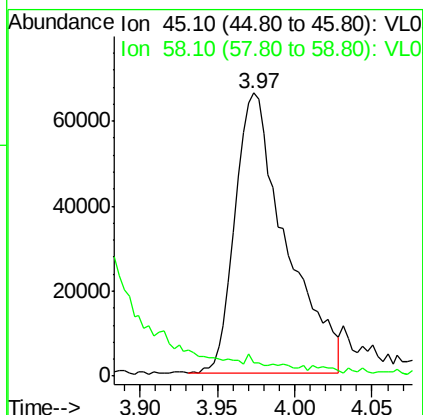
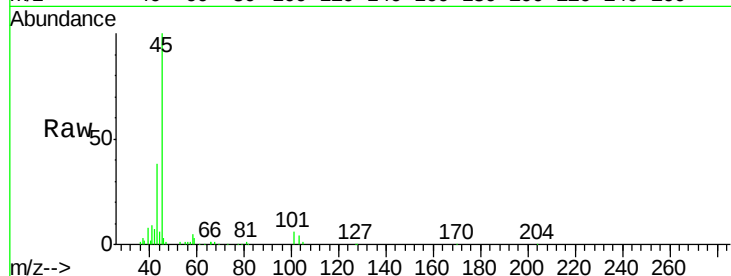
Ion Ratio Lower Upper

45 100

58 178.0 1.8 2.8#

Manual Integrations
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#20

Methylene Chloride

Concen: 10.550 ppbv

RT: 4.34 min Scan# 482

Delta R.T. 0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Tgt Ion: 84 Resp: 969219

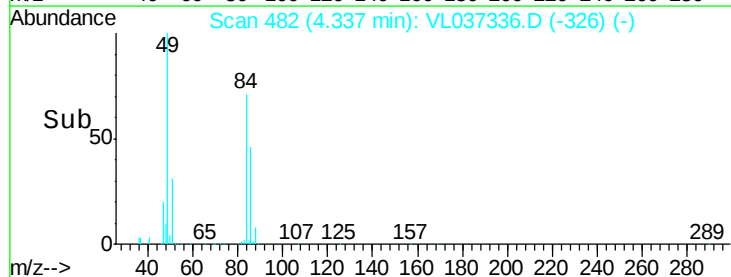
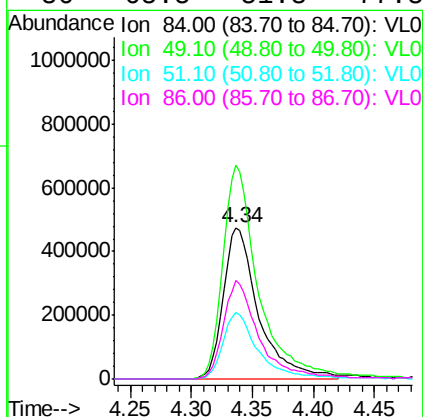
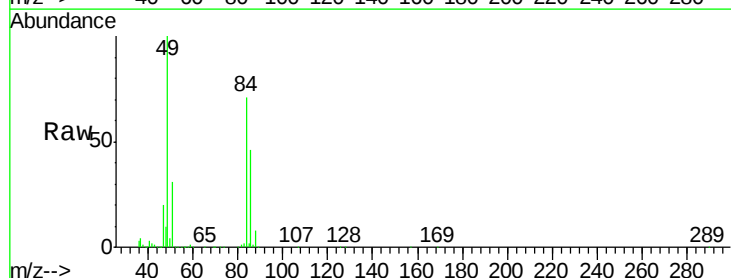
Ion Ratio Lower Upper

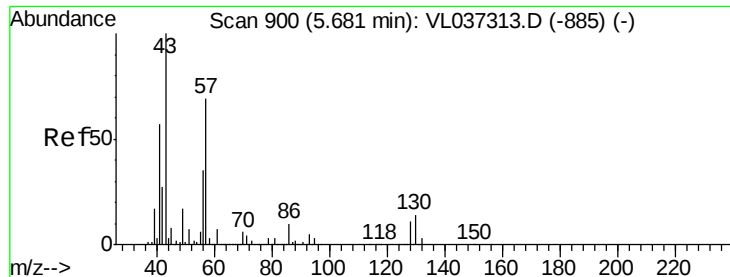
84 100

49 141.3 110.4 165.6

51 44.4 35.8 53.6

86 65.5 51.8 77.8





#26

Hexane

Concen: 5.470 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

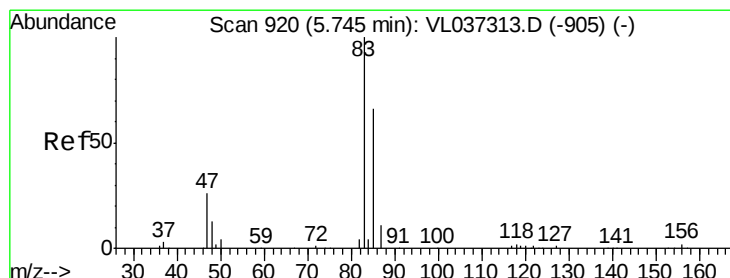
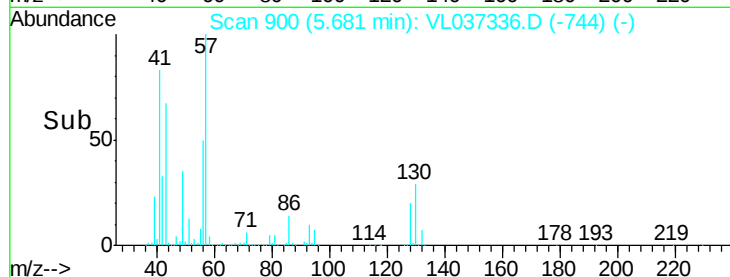
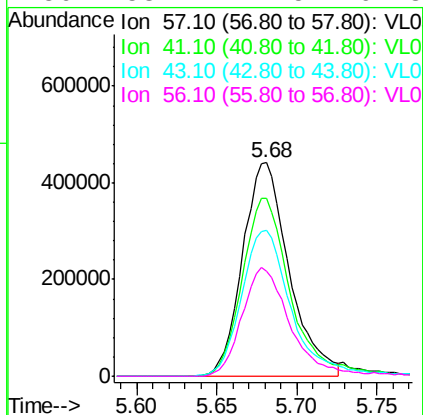
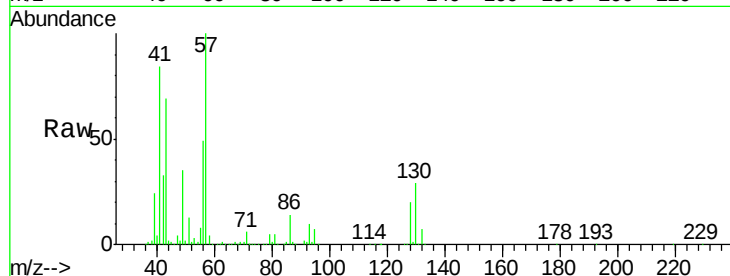
ClientSampleId :

IA1

Tot Ion:	57	Resp:	883186
Ion	Ratio	Lower	Upper
57	100		
41	87.3	67.5	101.3
43	73.9	163.0	244.4#
56	53.7	41.5	62.3

Manual Integrations
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#29

Chloroform

Concen: 0.480 ppbv

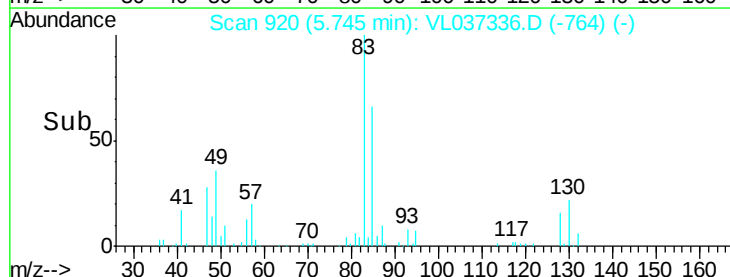
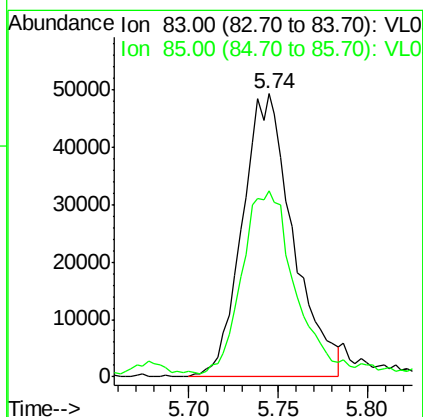
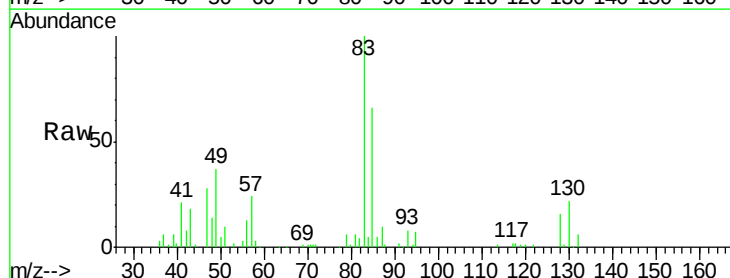
RT: 5.74 min Scan# 920

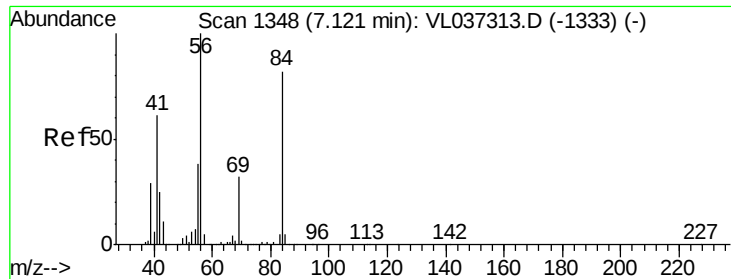
Delta R.T. 0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Tgt Ion:	83	Resp:	98083
Ion	Ratio	Lower	Upper
83	100		
85	63.9	52.6	79.0





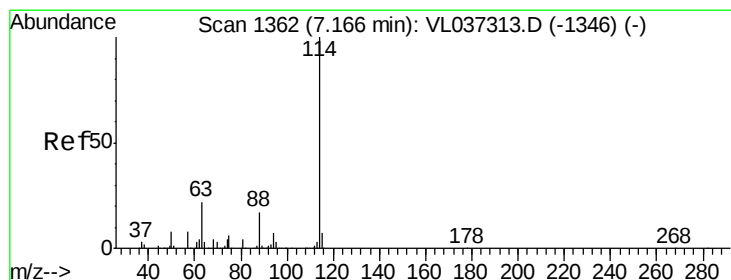
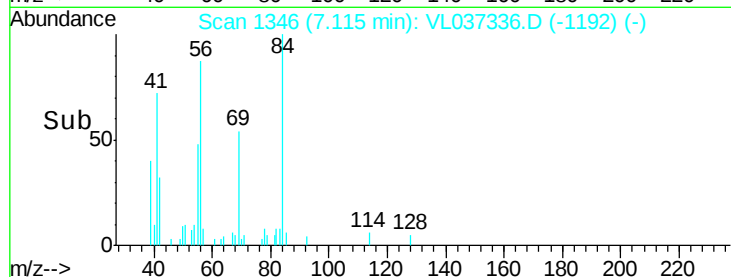
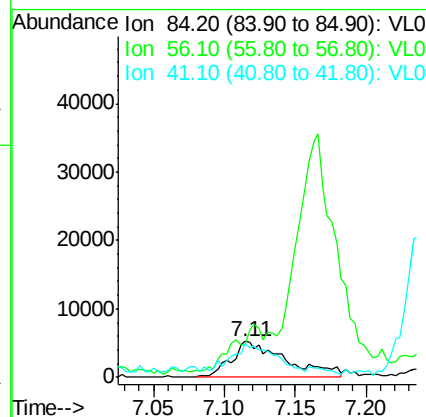
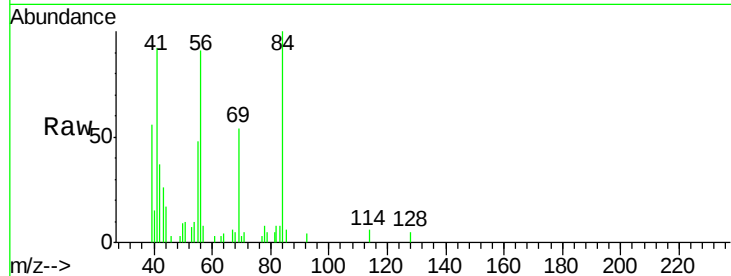
#30
Cvclohexane
Concen: 0.114 ppbv m
RT: 7.11 min Scan# 1346
Delta R.T. -0.01 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	105.2	157.8#
41	69.4	61.3	91.9

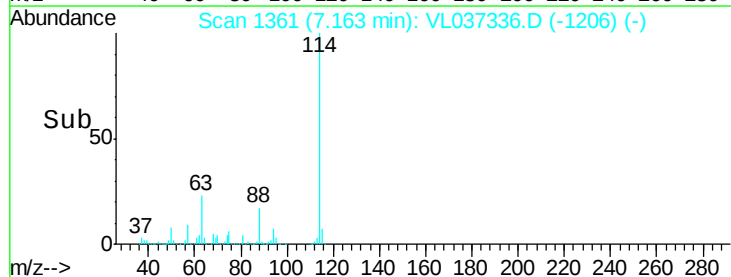
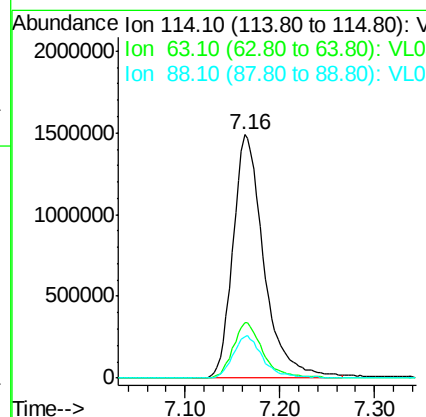
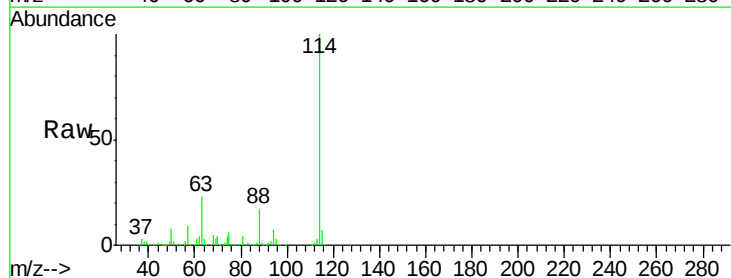
Manual Integrations
APPROVED

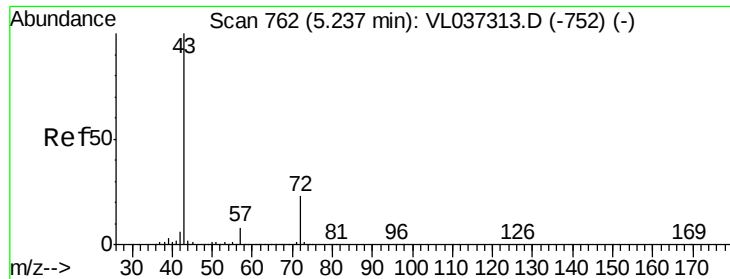
MMDadoda
8/5/2021 1:41:30 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1361
Delta R.T. -0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
114	100		
63	22.5	18.1	27.1
88	17.2	13.8	20.8





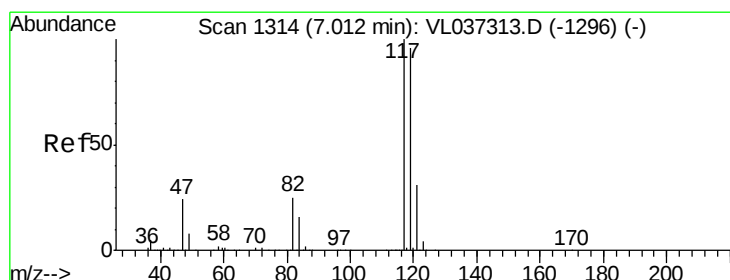
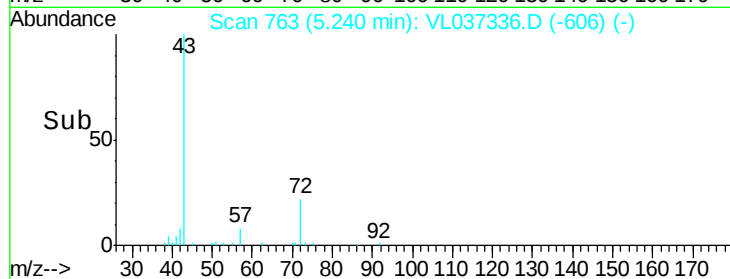
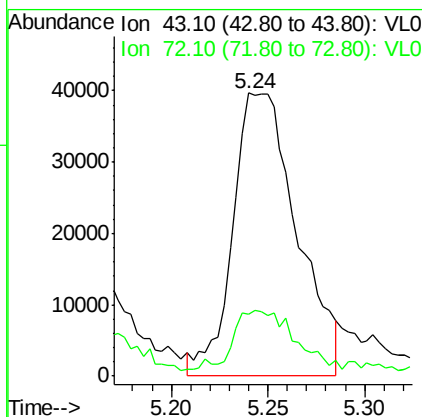
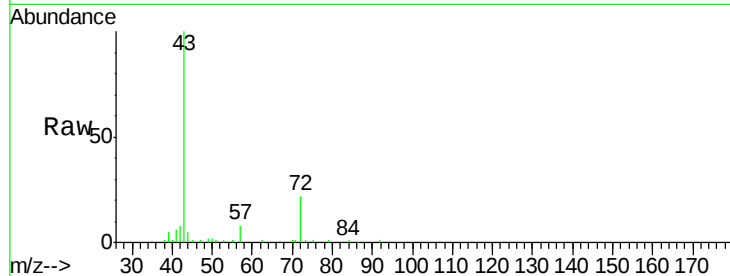
#34
2-Butanone
Concen: 0.782 ppbv m
RT: 5.24 min Scan# 763
Delta R.T. 0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
43	100		
72	26.5	20.3	30.5

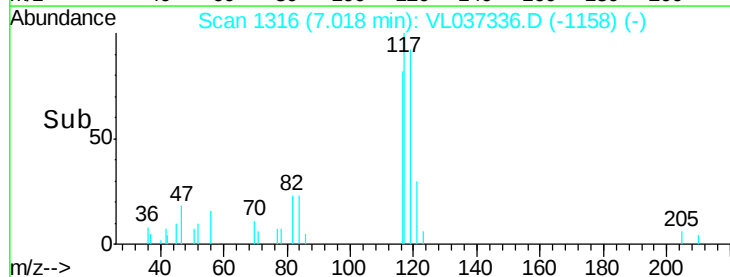
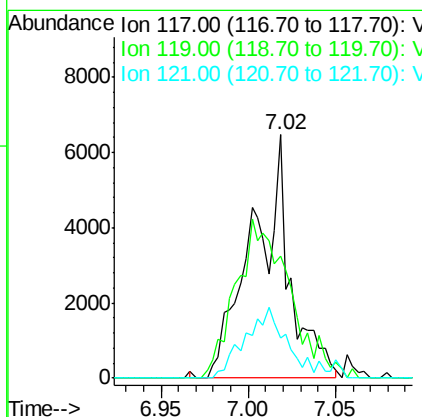
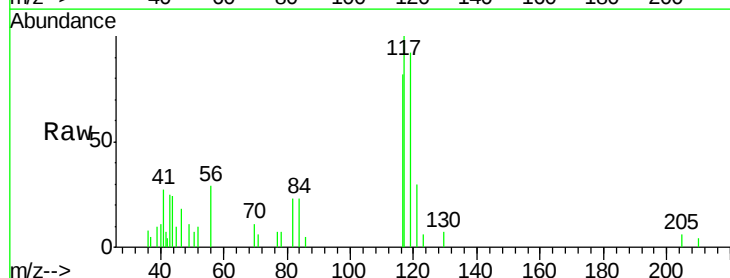
Manual Integrations
APPROVED

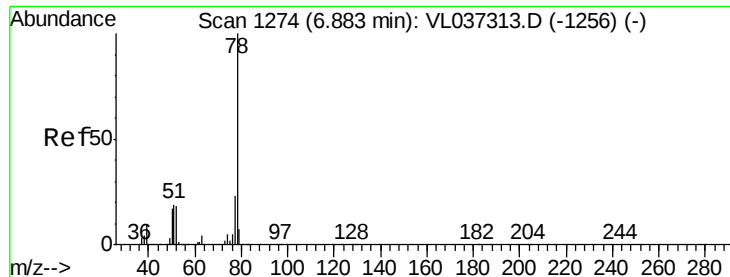
MMDadoda
8/5/2021 1:41:30 PM



#35
Carbon Tetrachloride
Concen: 0.048 ppbv m
RT: 7.02 min Scan# 1316
Delta R.T. 0.01 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
117	100		
119	91.6	76.6	114.8
121	30.3	24.9	37.3





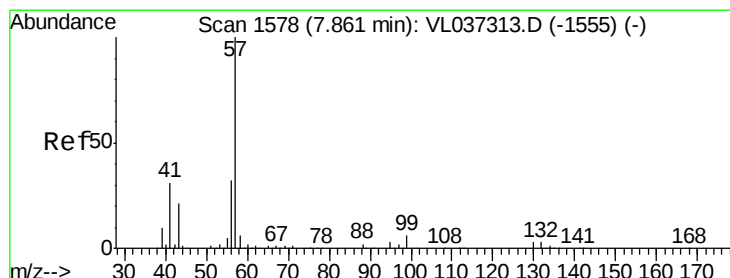
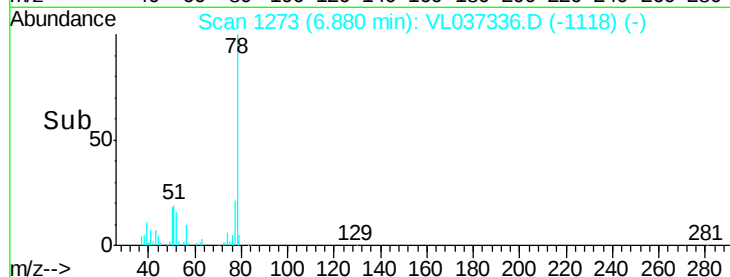
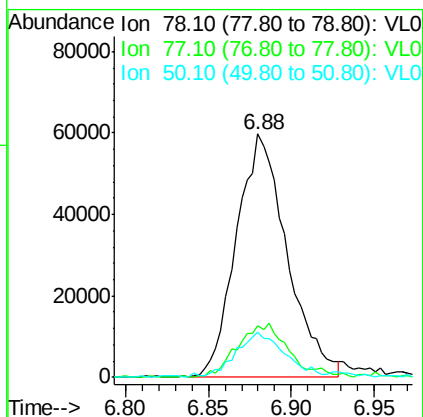
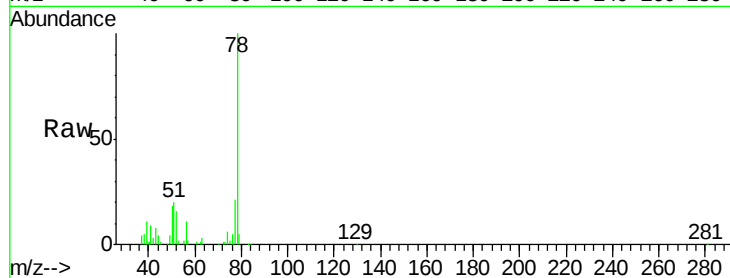
#36
Benzene
Concen: 0.414 ppbv
RT: 6.88 min Scan# 1273
Delta R.T. -0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
78	100		
77	21.3	18.7	28.1
50	18.1	13.7	20.5

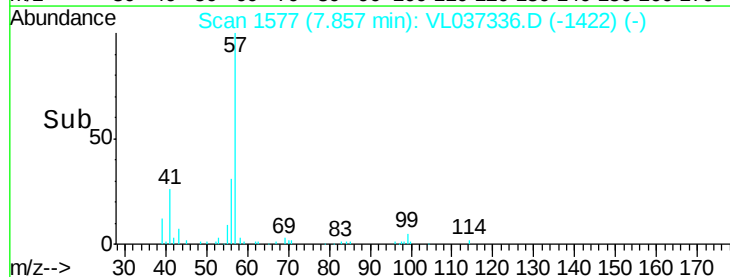
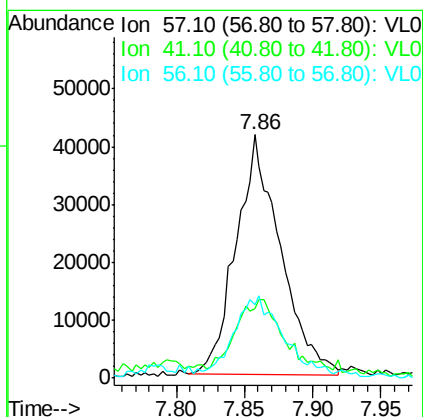
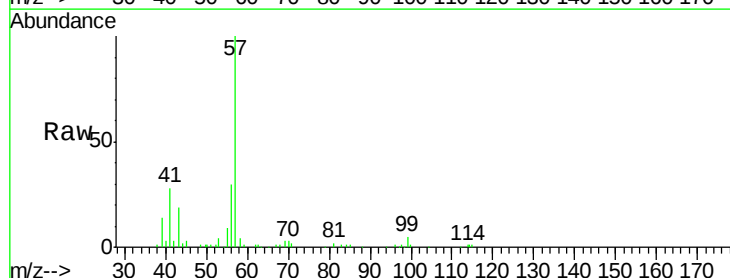
Manual Integrations
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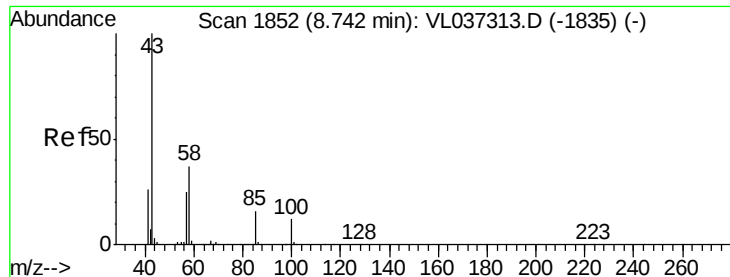
MMDadoda
8/5/2021 1:41:30 PM



#44
2,2,4-Trimethylpentane
Concen: 0.186 ppbv
RT: 7.86 min Scan# 1577
Delta R.T. -0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
57	100		
41	40.6	24.3	36.5#
56	42.3	25.0	37.6#





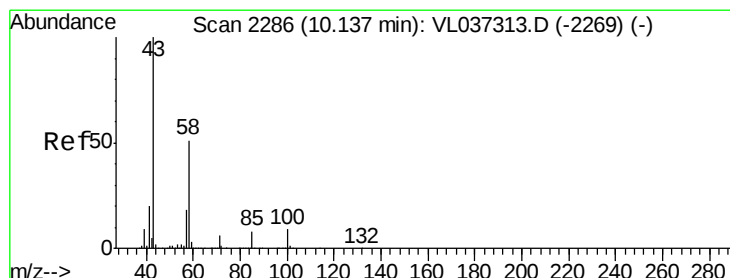
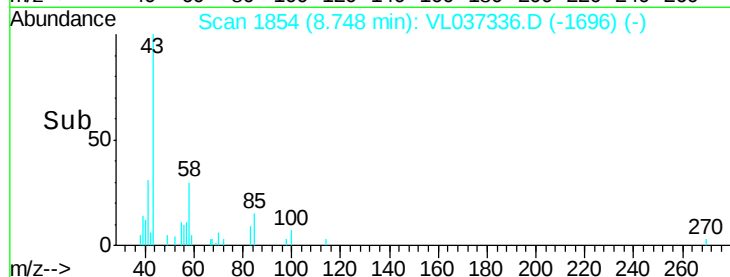
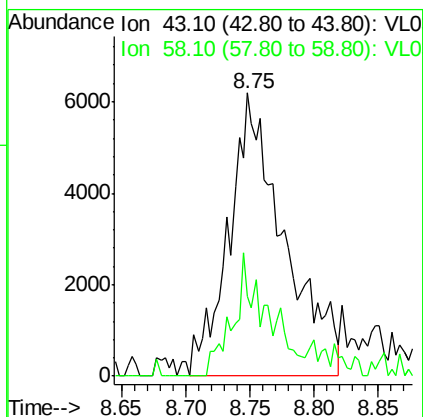
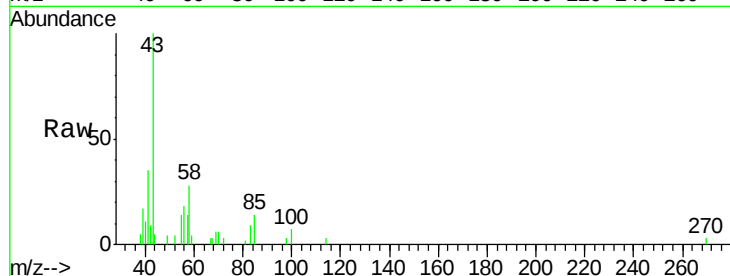
#50
4-Methyl-2-Pentanone
Concen: 0.103 ppbv m
RT: 8.75 min Scan# 1854
Delta R.T. 0.01 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
43	100		
58	0.0	31.0	46.4#

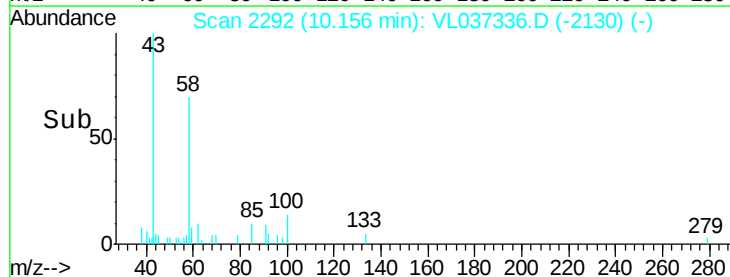
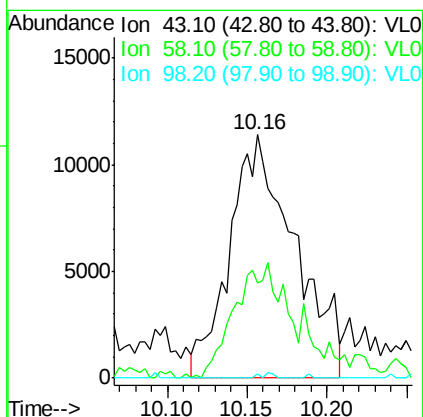
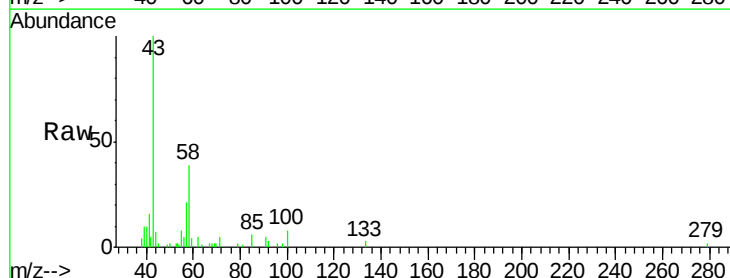
Manual Integrations
APPROVED

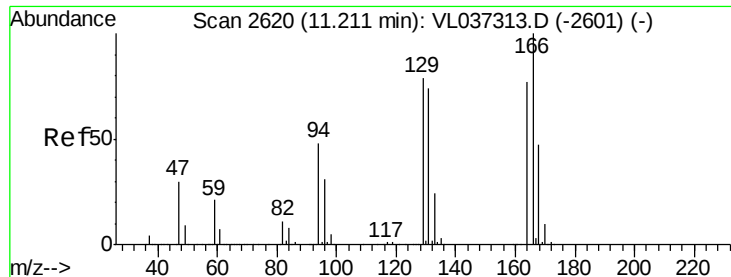
MMDadoda
8/5/2021 1:41:30 PM



#51
2-Hexanone
Concen: 0.397 ppbv m
RT: 10.16 min Scan# 2292
Delta R.T. 0.02 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
43	100		
58	49.6	40.9	61.3
98	0.4	0.1	0.1#





#52

Tetrachloroethene

Concen: 0.055 ppbv

RT: 11.20 min Scan# 2616

Delta R.T. -0.01 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tot Ion:164 Resp: 7177

Ion Ratio Lower Upper

164 100

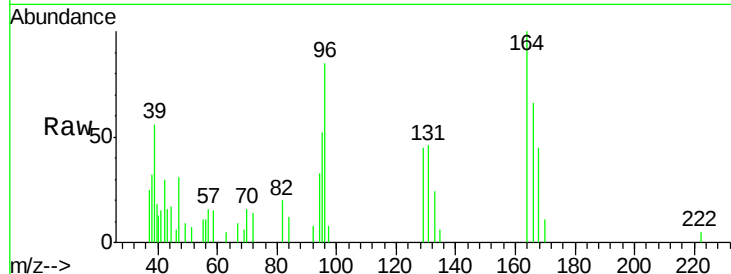
166 65.7 103.4 155.2#

129 44.9 82.2 123.2#

131 45.9 76.6 114.8#

Manual Integrations
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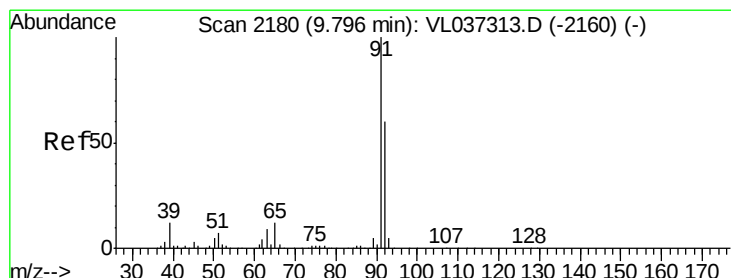
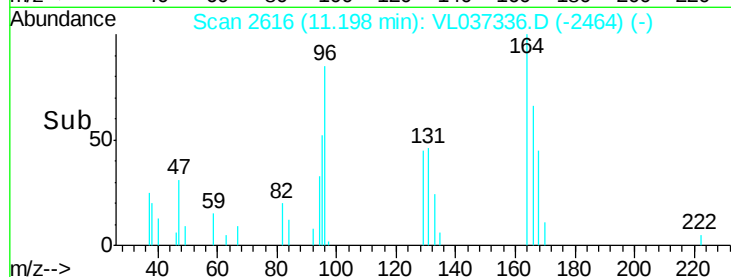
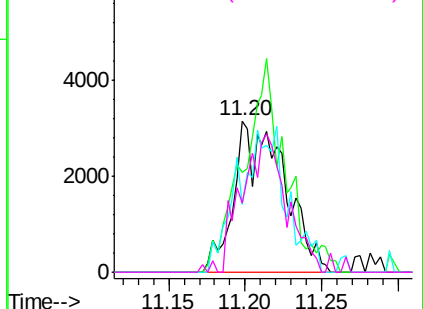


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 1.536 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL037336.D

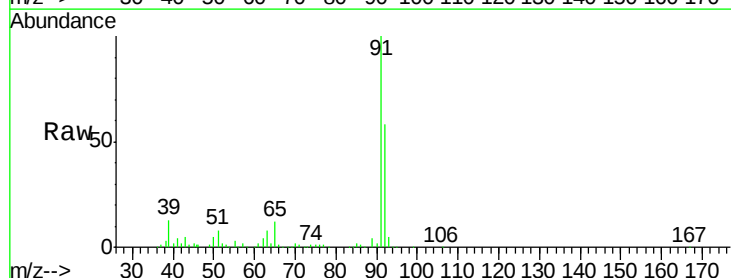
Acq: 5 Aug 2021 9:57

Tgt Ion: 91 Resp: 551457

Ion Ratio Lower Upper

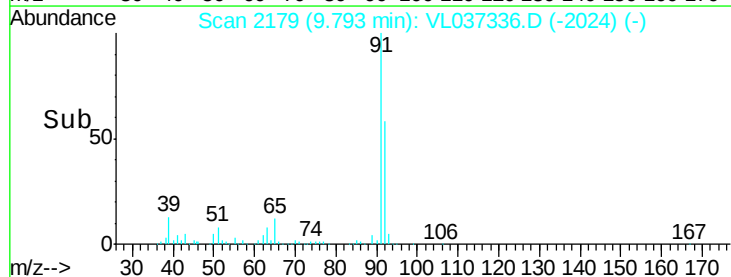
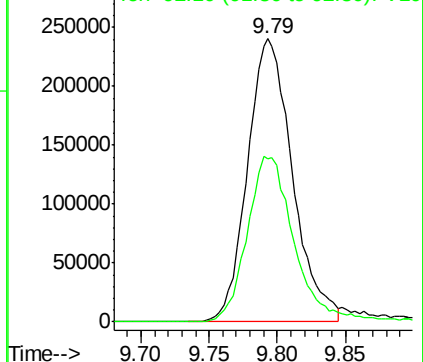
91 100

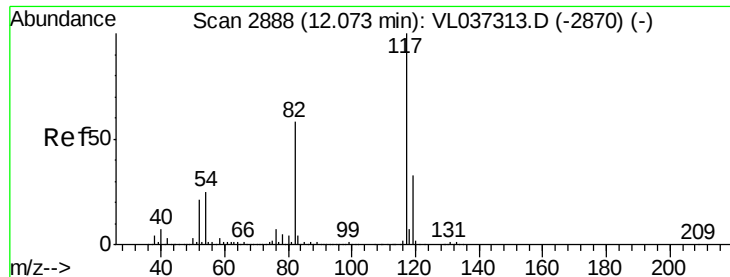
92 61.0 48.8 73.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





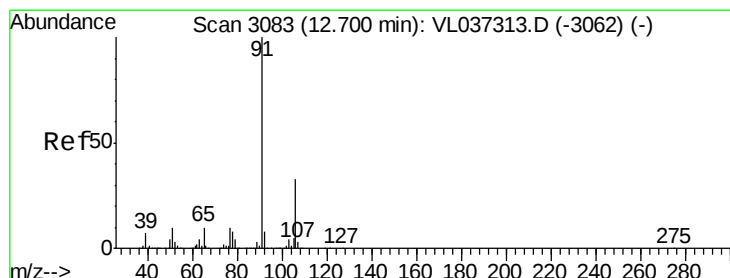
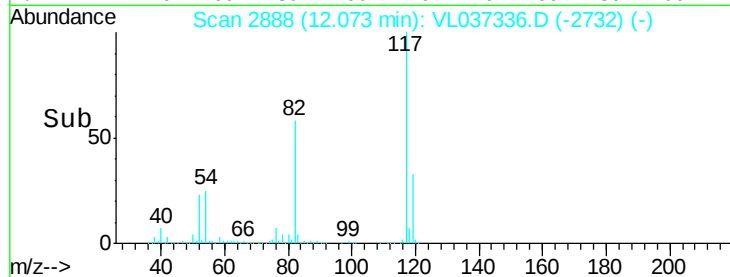
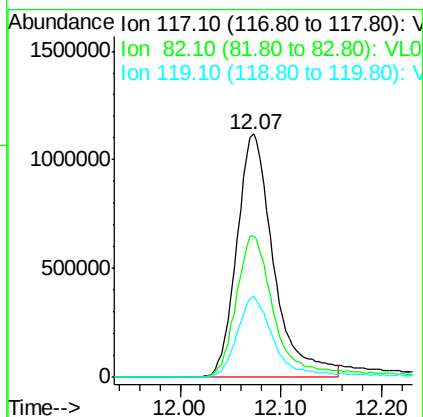
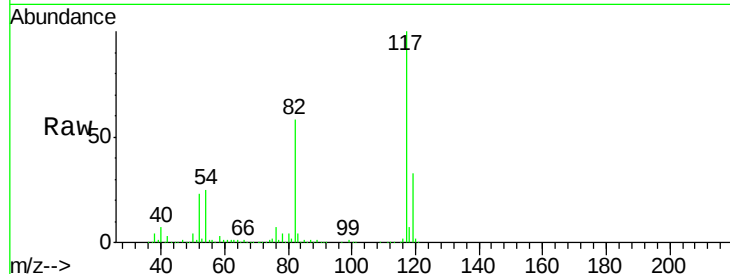
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2888
Delta R.T. 0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampled :
IA1

Tot Ion	Ratio	Lower	Upper
117	100		
82	64.6	50.3	75.5
119	35.2	48.2	72.2#

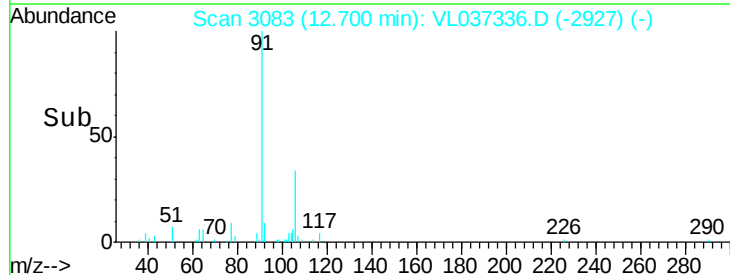
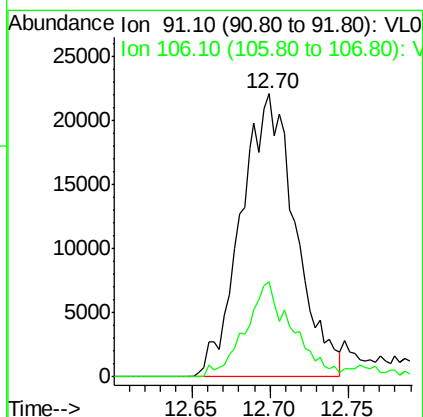
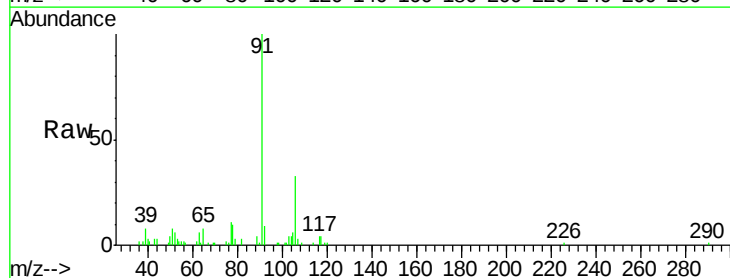
Manual Integrations
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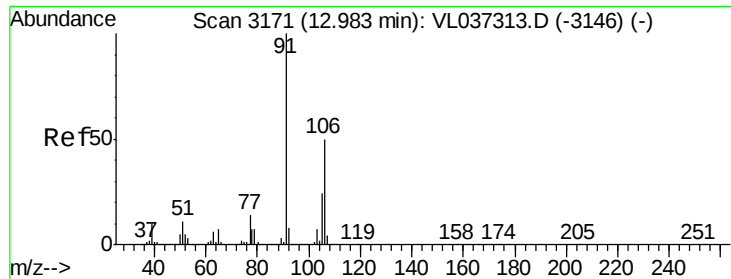
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#58
Ethyl Benzene
Concen: 0.129 ppbv m
RT: 12.70 min Scan# 3083
Delta R.T. 0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Lower	Upper
91	100		
106	33.5	26.2	39.2





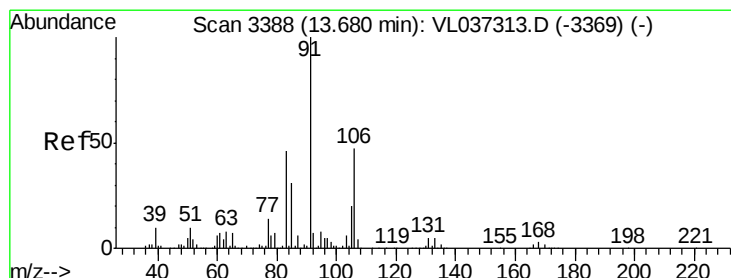
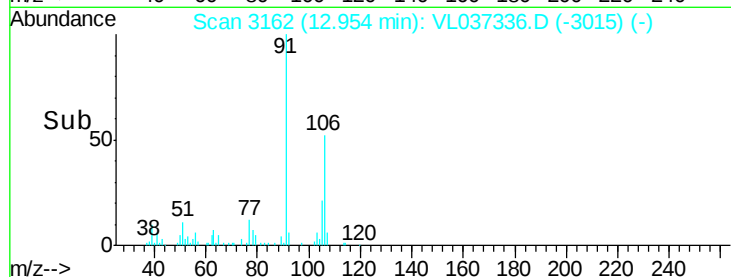
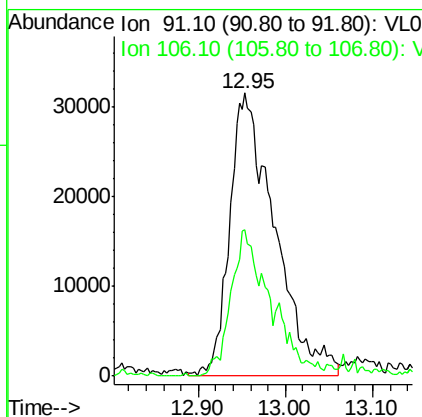
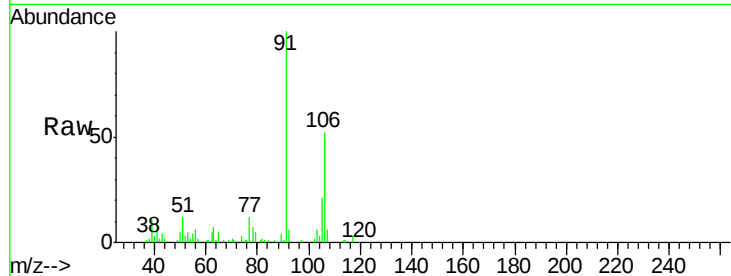
#59
m/p-Xylene
Concen: 0.322 ppbv m
RT: 12.95 min Scan# 3162
Delta R.T. -0.03 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Instrument :
MSVOA_L
ClientSampled :
IA1

Tot Ion: 91 Resp: 113365
Ion Ratio Lower Upper
91 100
106 45.9 37.8 56.8

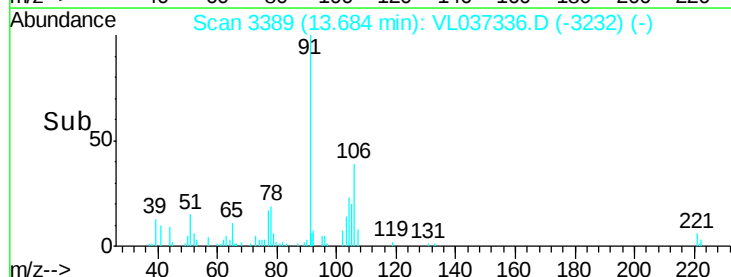
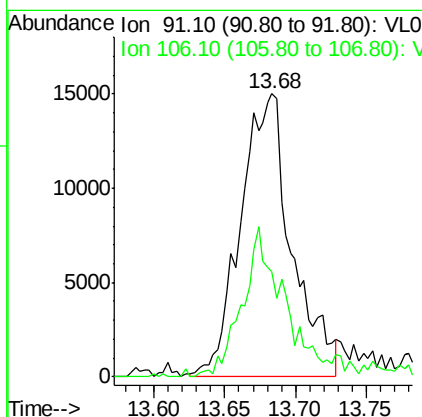
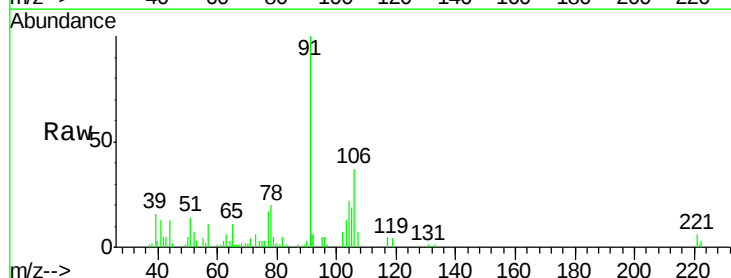
Manual Integrations
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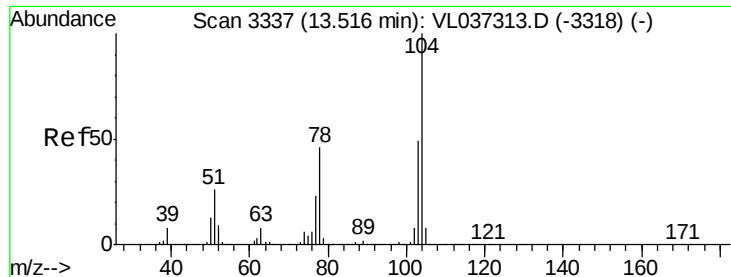
MMDadoda
8/5/2021 1:41:30 PM



#60
o-Xylene
Concen: 0.118 ppbv m
RT: 13.68 min Scan# 3389
Delta R.T. 0.00 min
Lab File: VL037336.D
Acq: 5 Aug 2021 9:57

Tgt Ion: 91 Resp: 37841
Ion Ratio Lower Upper
91 100
106 0.0 26.3 78.8#





#61

Stvrene

Concen: 1.413 ppbv

RT: 13.51 min Scan# 3336

Delta R.T. -0.00 min

Lab File: VL037336.D

Acq: 5 Aug 2021 9:57

Instrument :

MSVOA_L

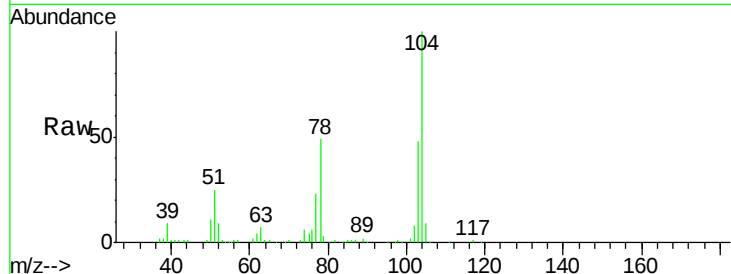
ClientSampled :

IA1

Tot Ion:	104	Resp:	248032
Ion Ratio	Lower	Upper	
104	100		
78	55.0	39.3	58.9
103	53.4	40.6	60.8

Manual Integrations
APPROVED

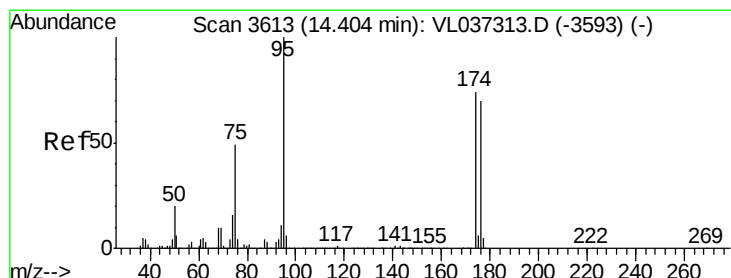
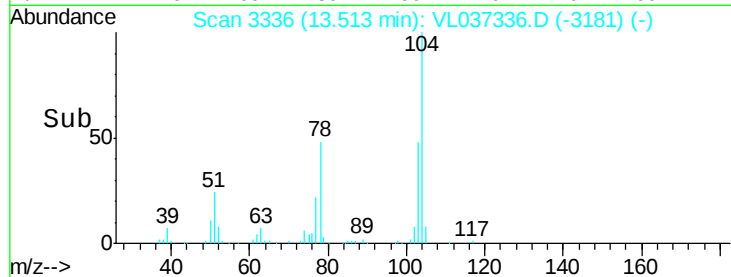
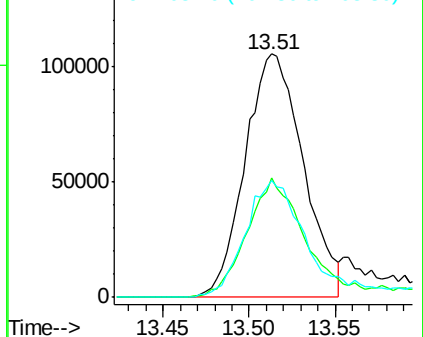
MMDadoda
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Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.187 ppbv

RT: 14.40 min Scan# 3612

Delta R.T. -0.00 min

Lab File: VL037336.D

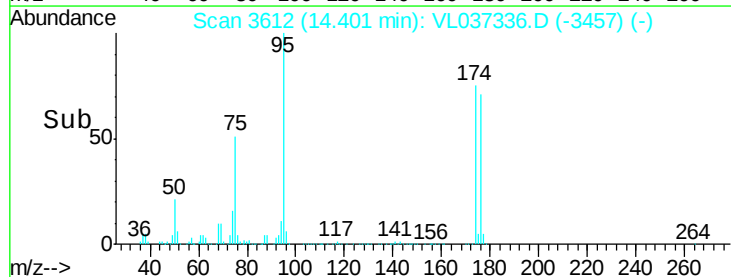
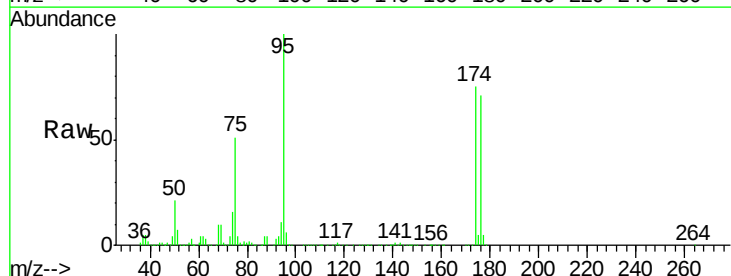
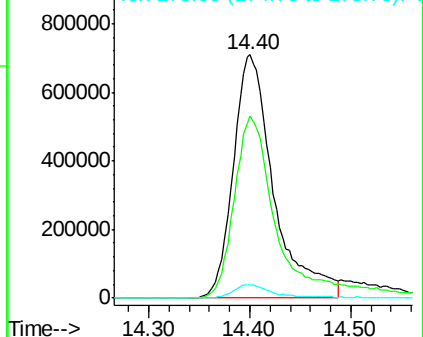
Acq: 5 Aug 2021 9:57

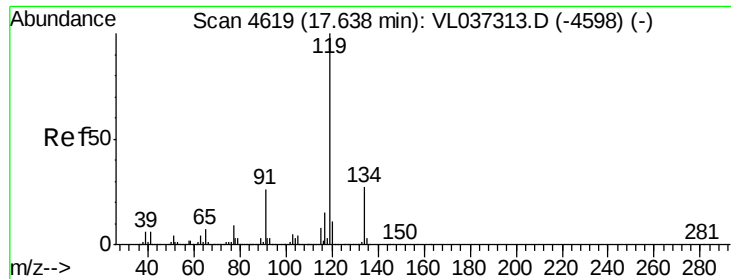
Tgt Ion:	95	Resp:	1982158
Ion Ratio	Lower	Upper	
95	100		
174	81.4	66.9	100.3
175	6.0	5.1	7.7

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





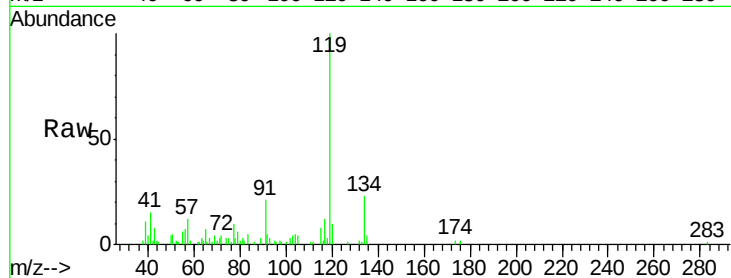
#69
 p-Isopropyltoluene
 Concen: 0.119 ppbv m
 RT: 17.64 min Scan# 4621
 Delta R.T. 0.01 min
 Lab File: VL037336.D
 Acq: 5 Aug 2021 9:57

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Tot Ion	Ratio	Resp Lower	Upper
119	100		
134	28.3	21.0	31.6
91	35.1	20.5	30.7#

Manual Integrations
 APPROVED

MMDadoda
 8/5/2021 1:41:30 PM

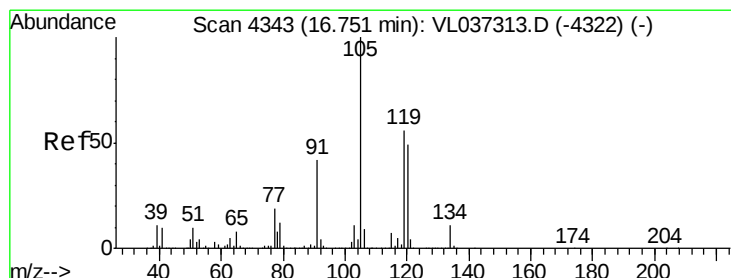
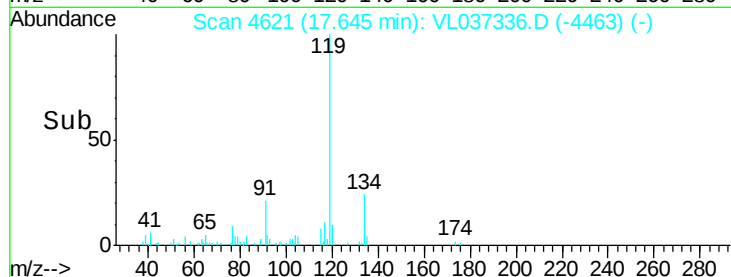
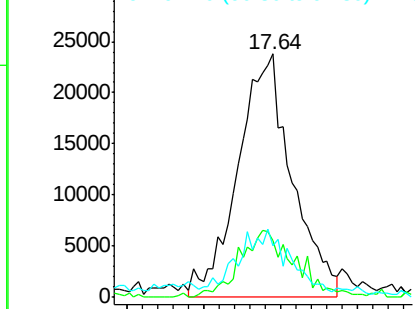


Abundance

Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): V



#74
 1,2,4-Trimethylbenzene
 Concen: 0.164 ppbv
 RT: 16.75 min Scan# 4342
 Delta R.T. -0.00 min
 Lab File: VL037336.D
 Acq: 5 Aug 2021 9:57

Tgt Ion	Ratio	Resp Lower	Upper
105	100		
120	48.1	39.6	59.4
91	8.7	34.5	51.7#
77	19.7	15.3	22.9

Abundance

Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): V

Ion 77.10 (76.80 to 77.80): V

