

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081921\
 Data File : VL037505.D
 Acq On : 19 Aug 2021 19:15
 Operator : SY/AP
 Sample : M3480-04
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 20 00:22:27 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Aug 17 02:13:47 2021
 QLast Update : Tue Aug 17 02:13:47 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1410257	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.18	114	4063774	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.09	117	3351787	10.00	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	1222494	5.13	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	51.30%#

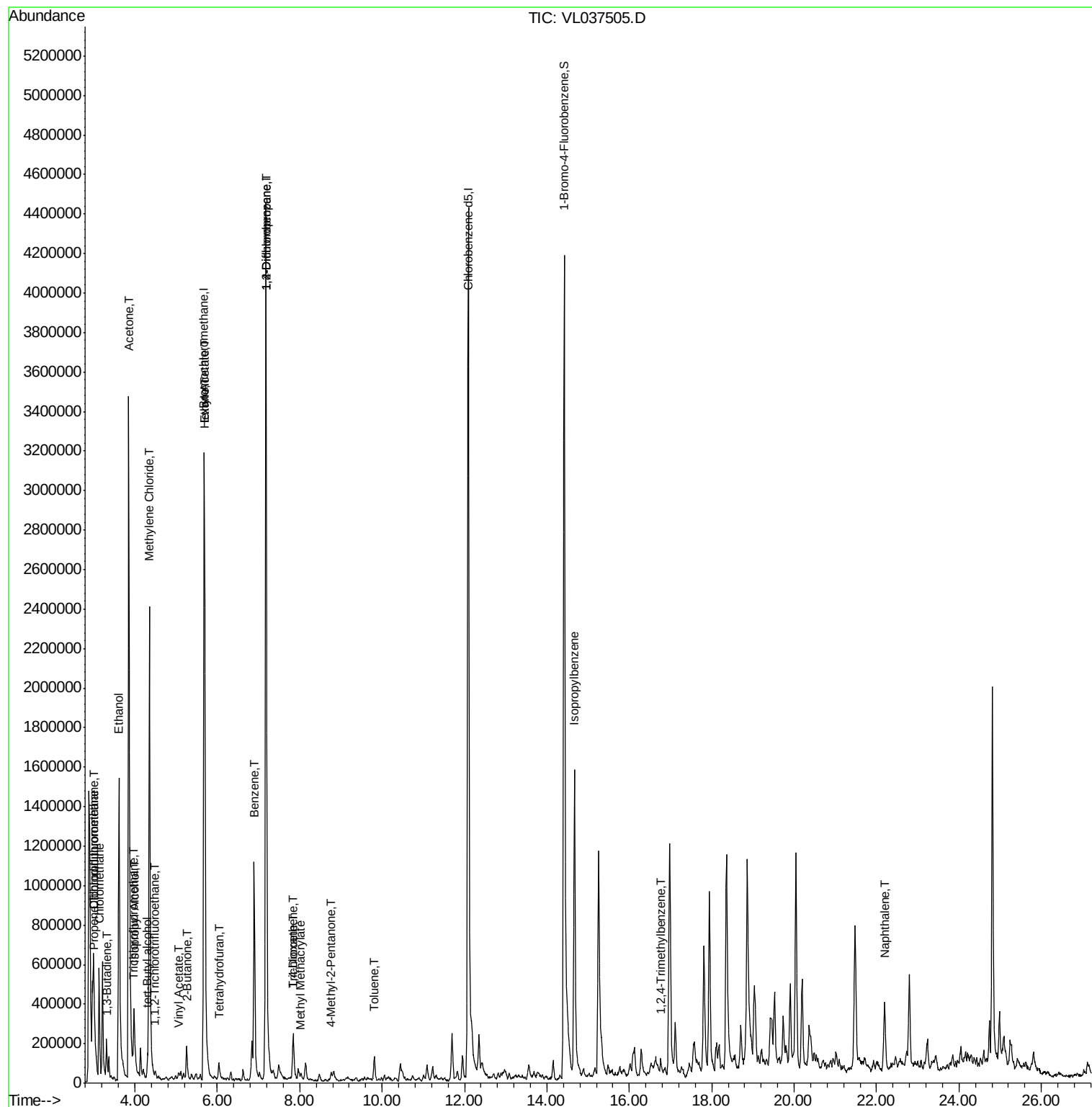
Target Compounds					Ovalue
2) Dichlorodifluoromethane	2.99	85	7781	0.034	ppbv 100
3) Chlorodifluoromethane	3.00	51	980804	3.632	ppbv # 84
4) Chloromethane	3.14	50	8062	0.084	ppbv # 78
9) Propene	3.02	41	90997	0.942	ppbv 98
11) Trichlorofluoromethane	3.96	101	38710	0.182	ppbv 90
12) 1,1,2-Trichlorotrifluoroet	4.49	101	5485	0.035	ppbv # 10
13) Ethanol	3.61	45	2112876	224.722	ppbv 97
15) Acetone	3.85	43	4392960	30.608	ppbv 97
16) 1,3-Butadiene	3.34	39	6026	0.065	ppbv 99
17) tert-Butyl alcohol	4.31	59	60094	0.458	ppbv # 55
19) Isopropyl Alcohol	3.98	45	406064	4.938	ppbv # 1
20) Methylene Chloride	4.35	84	952676	13.258	ppbv 93
23) Vinyl Acetate	5.08	43	6937	0.033	ppbv # 46
25) Ethyl Acetate	5.69	43	617374	1.694	ppbv # 81
26) Hexane	5.69	57	781756	4.388	ppbv # 49
34) 2-Butanone	5.25	43	223374	1.346	ppbv 98
36) Benzene	6.90	78	994673	2.912	ppbv 99
38) Trichloroethene	7.83	130	42788	0.305	ppbv 92
39) 1,2-Dichloropropane	7.18	63	947167	7.215	ppbv # 27
40) 1,4-Dioxane	7.84	88	2518	0.078	ppbv # 100
41) Tetrahydrofuran	6.05	42	5455	0.068	ppbv # 1
43) Methyl Methacrylate	8.02	69	4232	0.036	ppbv # 1
50) 4-Methyl-2-Pentanone	8.76	43	17464	0.081	ppbv # 32
53) Toluene	9.81	91	58365	0.150	ppbv # 20
62) Isopropylbenzene	14.67	105	1578190	2.971	ppbv 99
74) 1,2,4-Trimethylbenzene	16.77	105	18025	0.041	ppbv # 56
79) Naphthalene	22.19	128	399160	1.347	ppbv 98

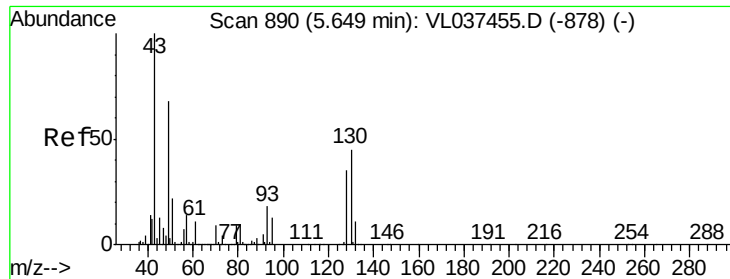
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. 0.03 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :

MSVOA_L

ClientSampled :

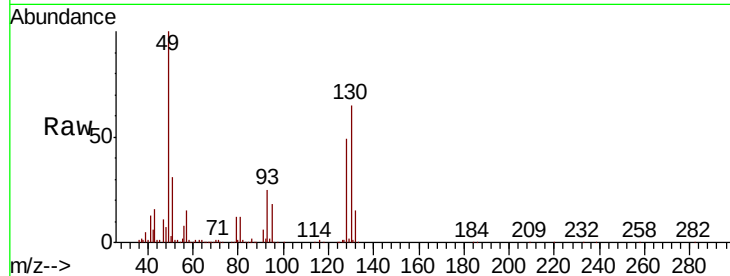
Tot Ion: 49 Resp: 1410257

Ion Ratio Lower Upper

49 100

128 52.3 27.5 82.4

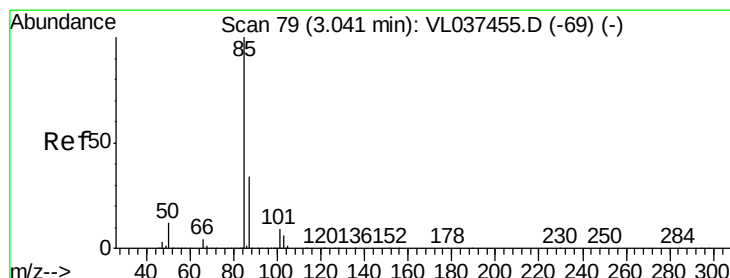
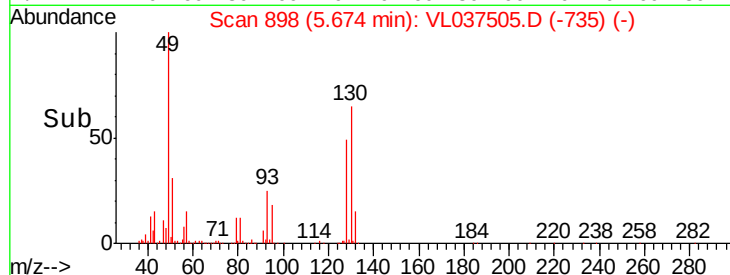
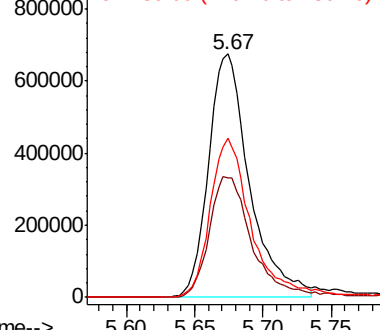
130 67.7 34.0 101.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.034 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.05 min

Lab File: VL037505.D

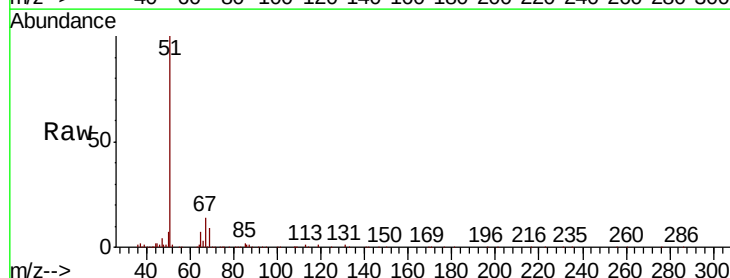
Acq: 19 Aug 2021 19:15

Tgt Ion: 85 Resp: 7781

Ion Ratio Lower Upper

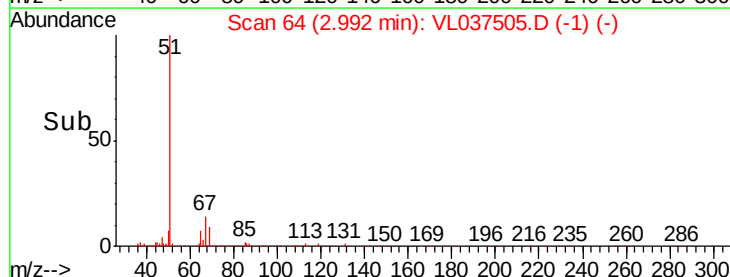
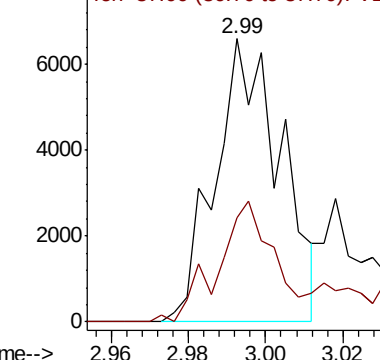
85 100

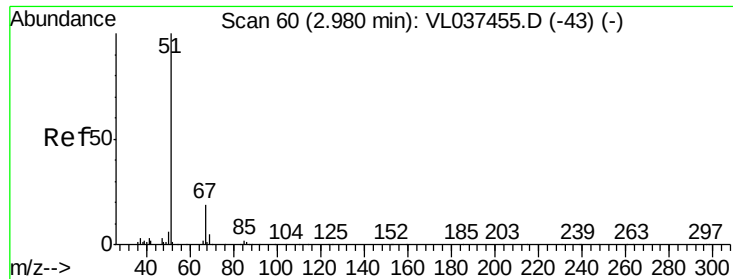
87 34.6 27.6 41.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

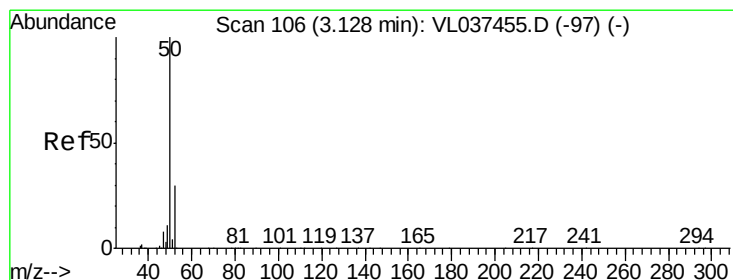
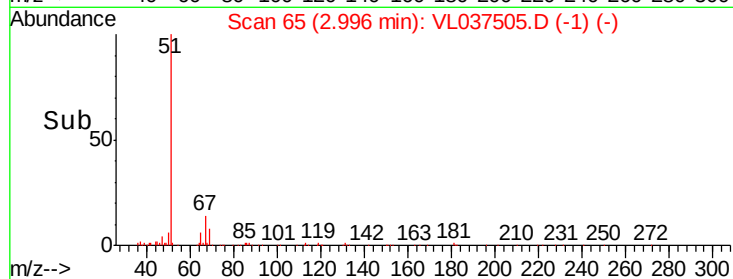
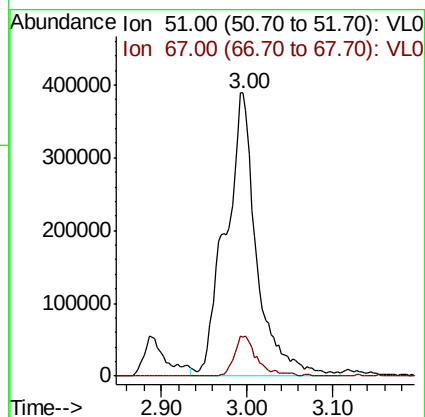
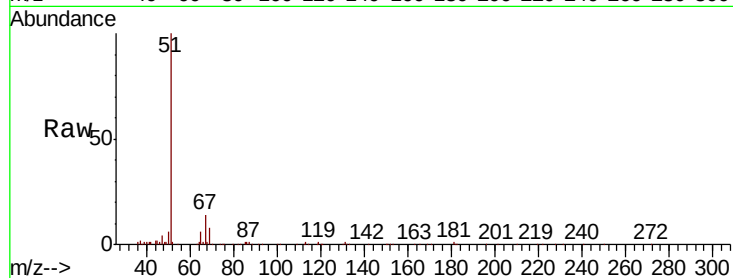




#3
 Chlorodifluoromethane
 Concen: 3.632 ppbv
 RT: 3.00 min Scan# 65
 Delta R.T. 0.02 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

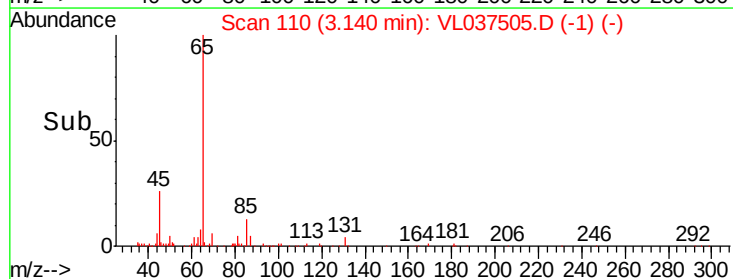
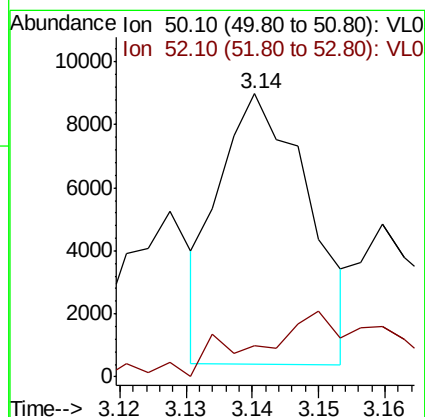
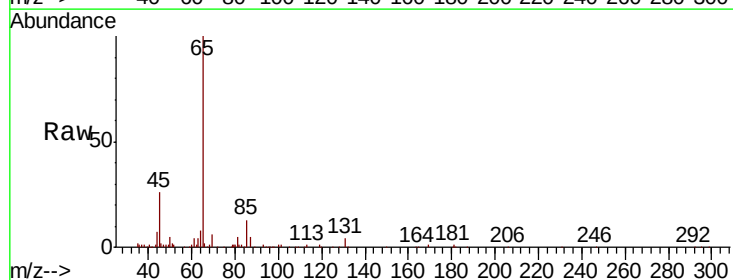
Instrument :
 MSVOA_L
 ClientSampleId :

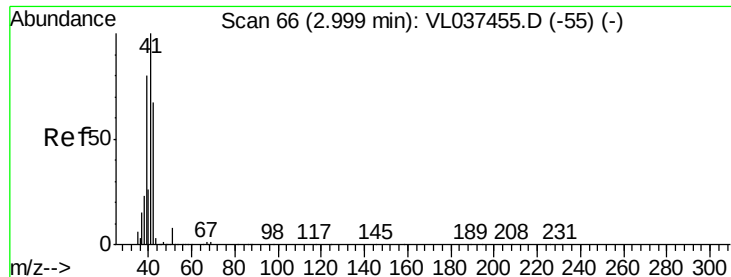
Tot Ion: 51 Resp: 980804
 Ion Ratio Lower Upper
 51 100
 67 10.8 14.2 21.2#



#4
 Chloromethane
 Concen: 0.084 ppbv
 RT: 3.14 min Scan# 110
 Delta R.T. 0.01 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Tgt Ion: 50 Resp: 8062
 Ion Ratio Lower Upper
 50 100
 52 17.8 24.0 36.0#





#9

Propene

Concen: 0.942 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.02 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :

MSVOA_L

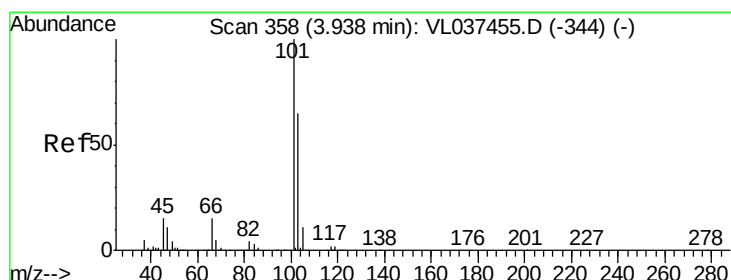
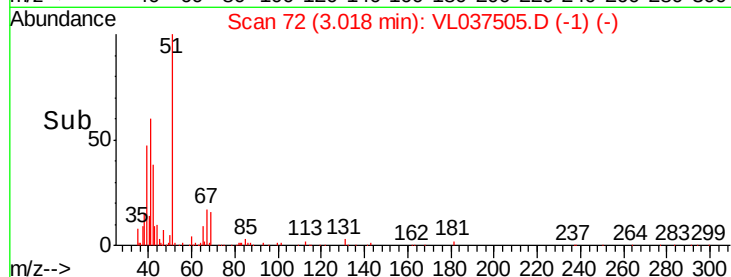
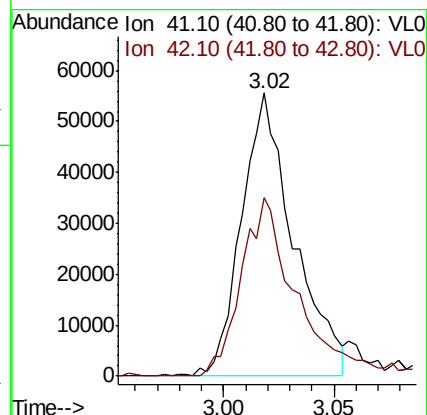
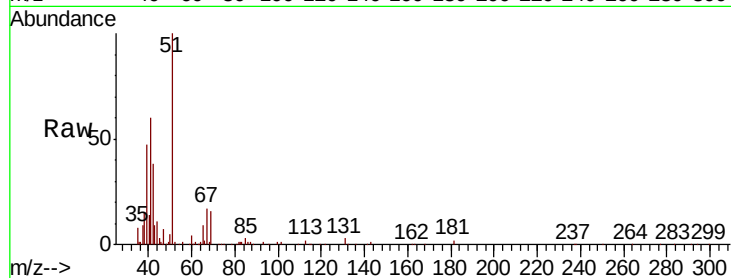
ClientSampleId :

Tot Ion: 41 Resp: 90997

Ion Ratio Lower Upper

41 100

42 68.9 53.7 80.5



#11

Trichlorofluoromethane

Concen: 0.182 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.02 min

Lab File: VL037505.D

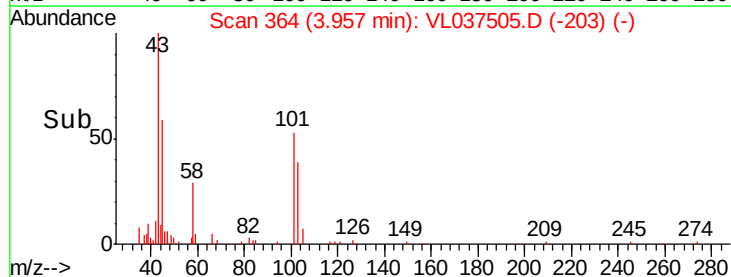
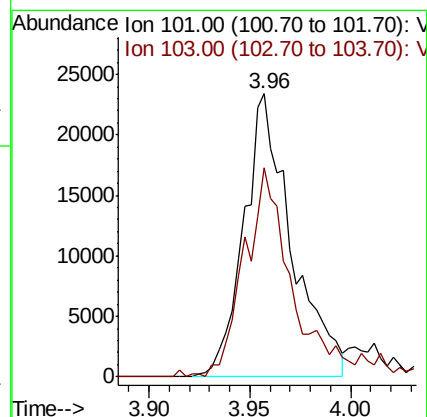
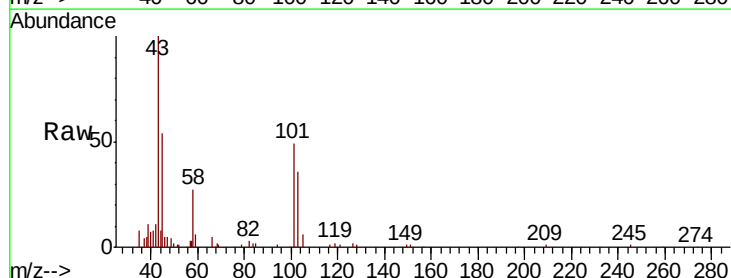
Acq: 19 Aug 2021 19:15

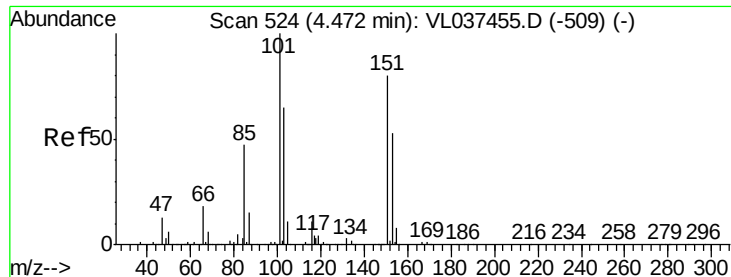
Tgt Ion: 101 Resp: 38710

Ion Ratio Lower Upper

101 100

103 72.7 51.8 77.6

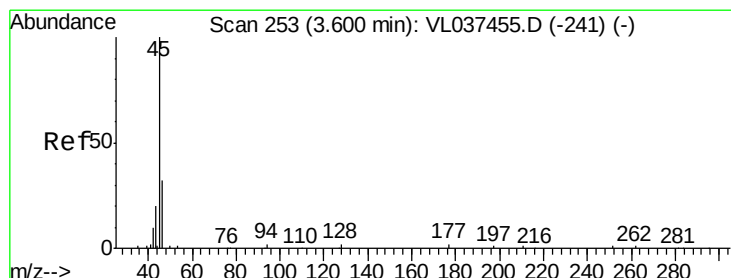
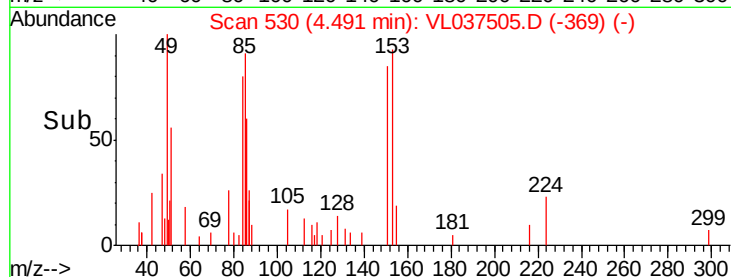
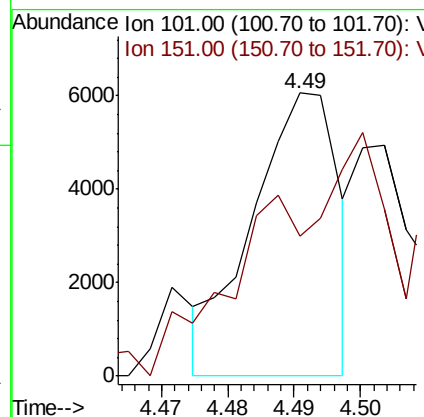
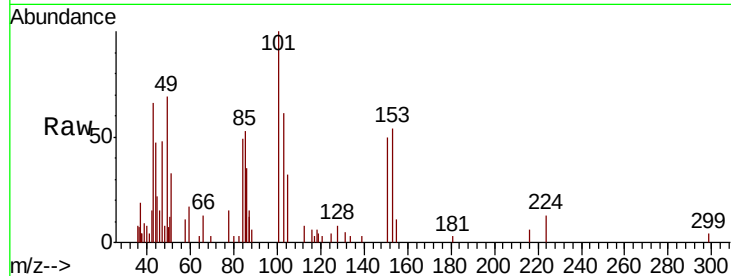




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.035 ppbv
 RT: 4.49 min Scan# 530
 Delta R.T. 0.02 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

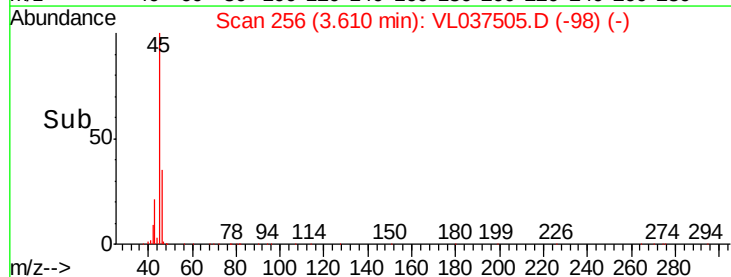
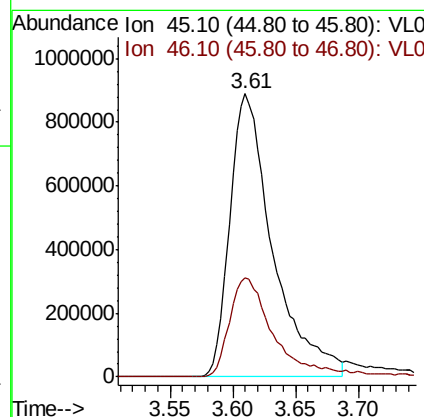
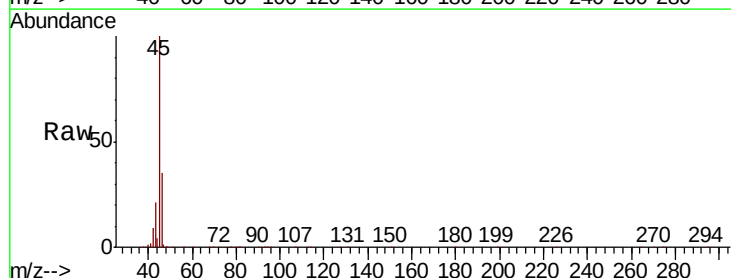
Instrument :
 MSVOA_L
 ClientSampleId :

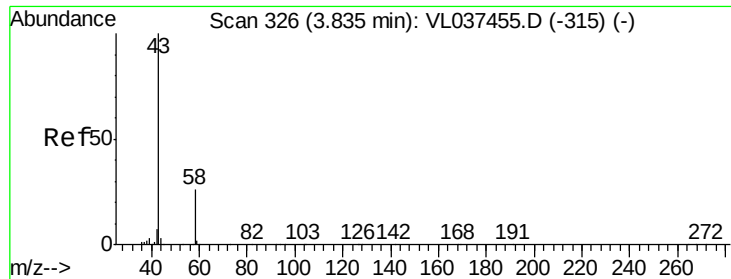
Tot Ion:101 Resp: 5485
 Ion Ratio Lower Upper
 101 100
 151 0.0 63.7 95.5#



#13
 Ethanol
 Concen: 224.722 ppbv
 RT: 3.61 min Scan# 256
 Delta R.T. 0.01 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Tgt Ion: 45 Resp: 2112876
 Ion Ratio Lower Upper
 45 100
 46 37.3 14.1 56.5

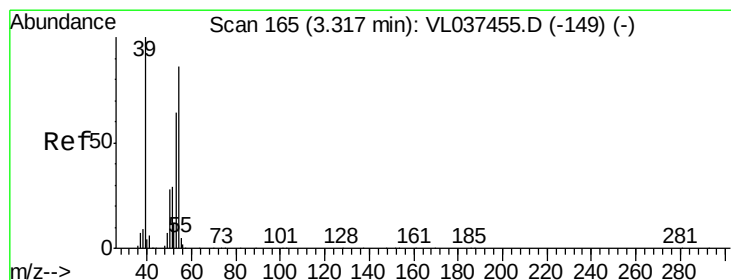
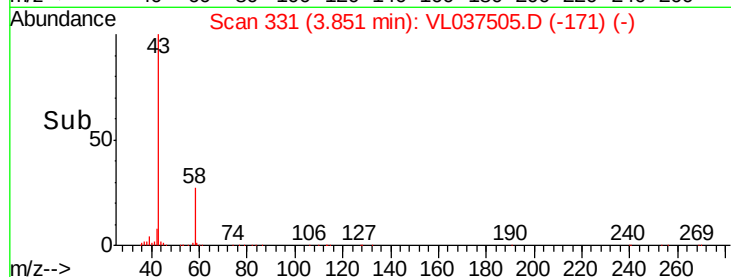
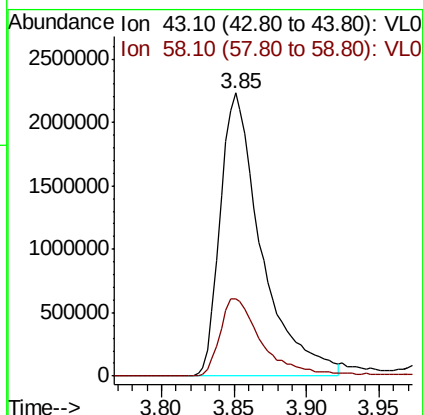
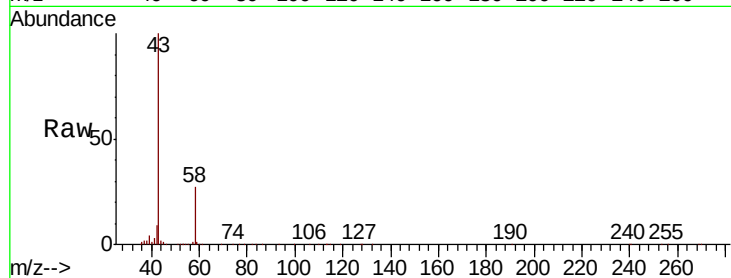




#15
Acetone
Concen: 30.608 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.02 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

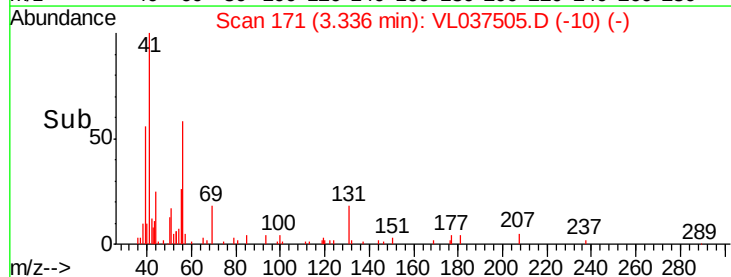
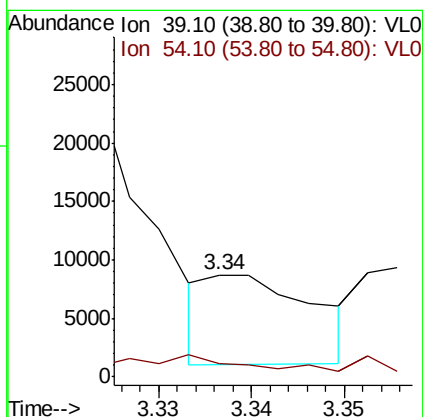
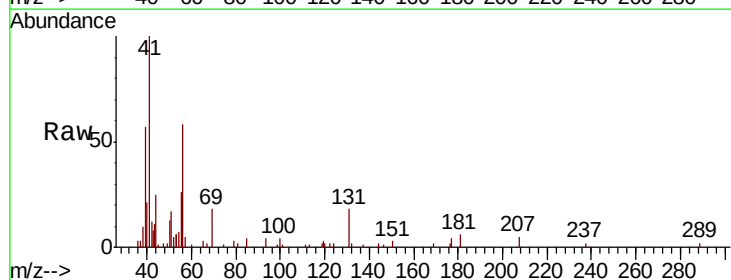
Instrument :
MSVOA_L
ClientSampleId :

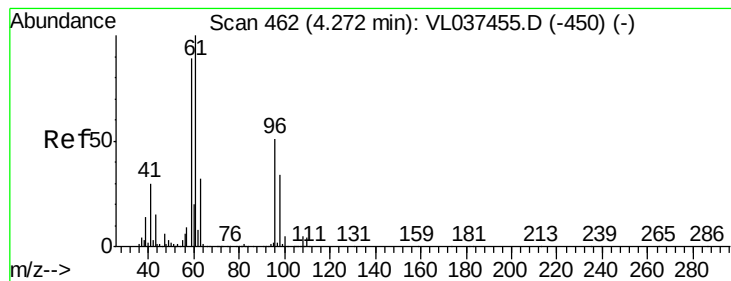
Tot Ion: 43 Resp: 4392960
Ion Ratio Lower Upper
43 100
58 29.3 24.8 37.2



#16
1,3-Butadiene
Concen: 0.065 ppbv
RT: 3.34 min Scan# 171
Delta R.T. 0.02 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

Tgt Ion: 39 Resp: 6026
Ion Ratio Lower Upper
39 100
54 78.4 63.7 95.5



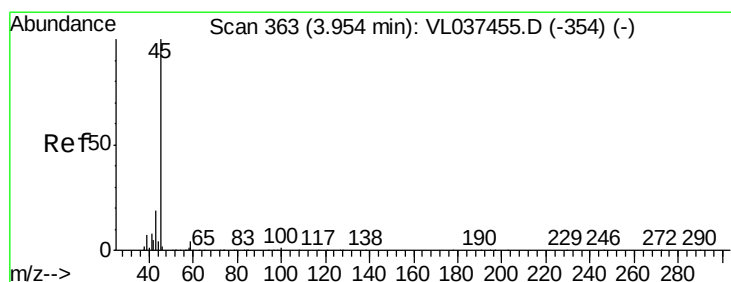
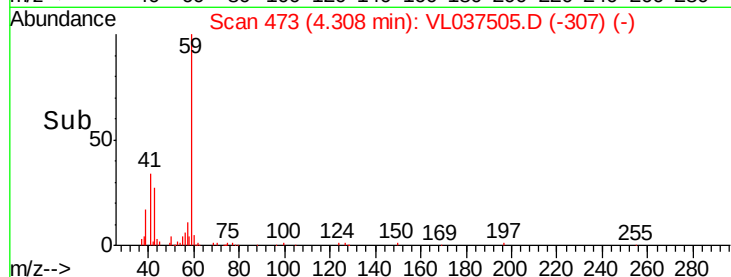
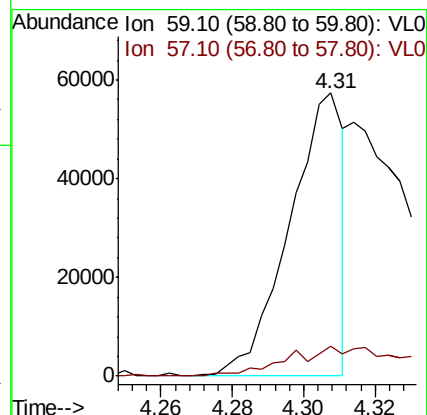
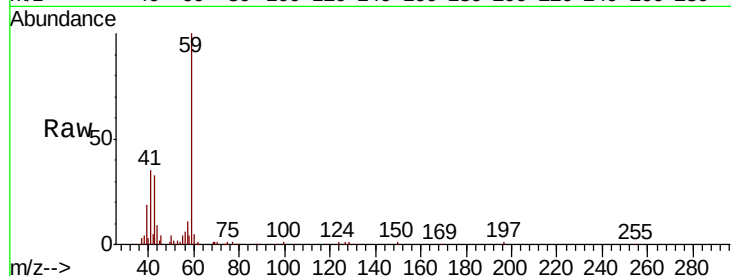


#17

tert-Butyl alcohol
 Concen: 0.458 ppbv
 RT: 4.31 min Scan# 473
 Delta R.T. 0.04 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Instrument :
 MSVOA_L
 ClientSampleId :

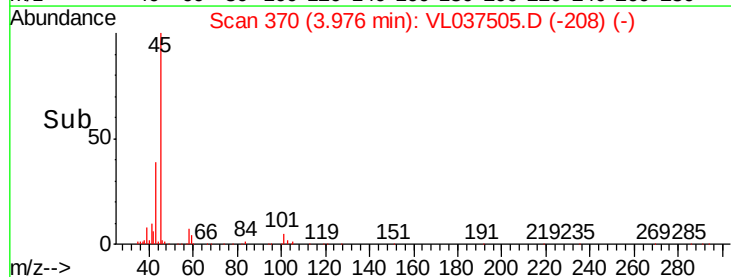
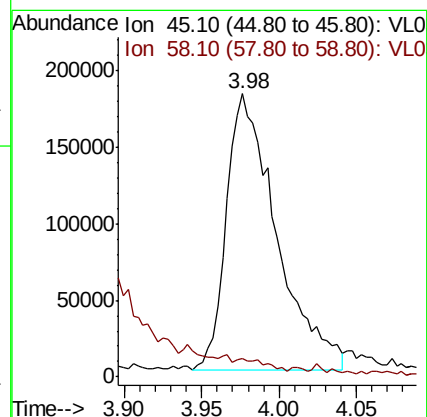
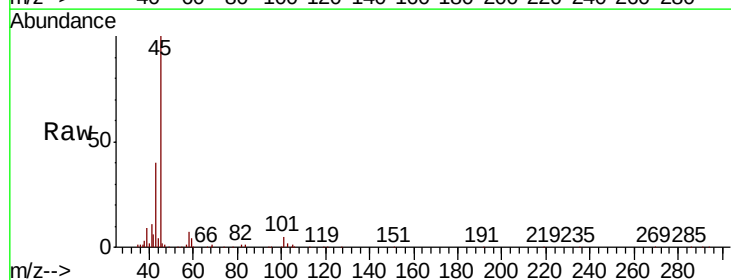
Tot Ion: 59 Resp: 60094
 Ion Ratio Lower Upper
 59 100
 57 27.2 8.3 12.5#

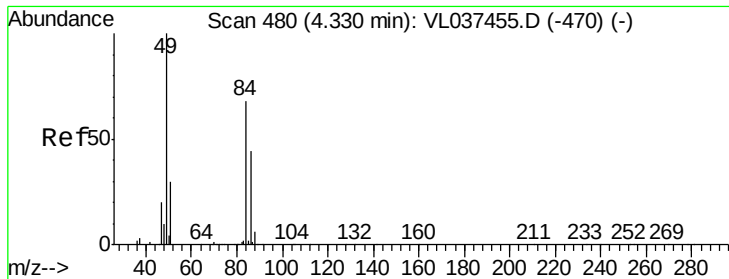


#19

Isopropyl Alcohol
 Concen: 4.938 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. 0.02 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Tgt Ion: 45 Resp: 406064
 Ion Ratio Lower Upper
 45 100
 58 320.5 1.4 2.2#

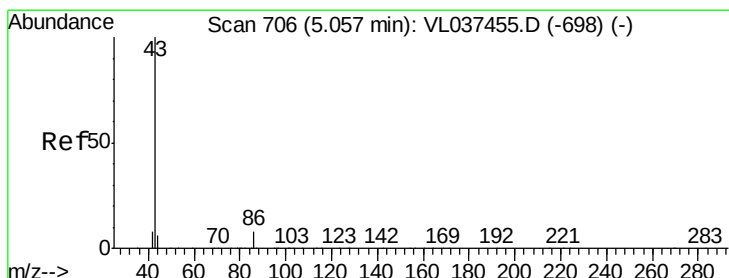
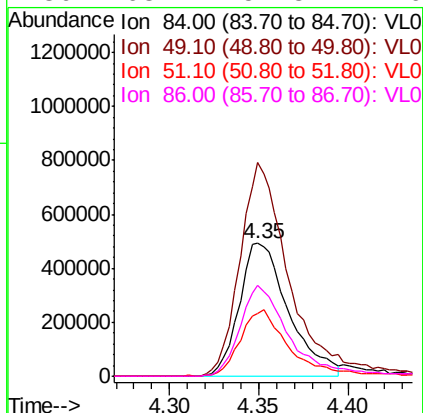
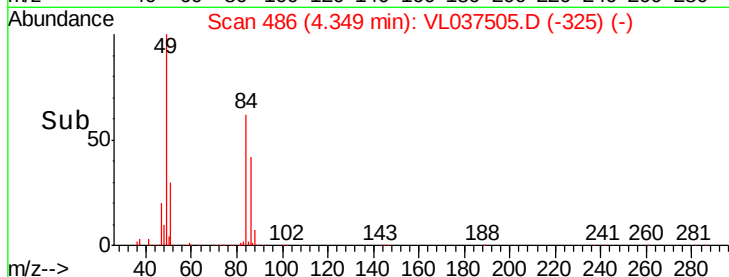
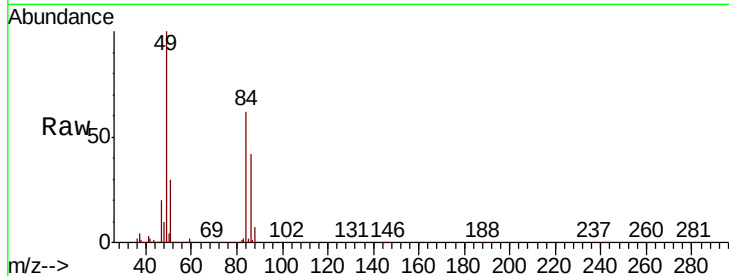




#20
Methylene Chloride
Concen: 13.258 ppbv
RT: 4.35 min Scan# 486
Delta R.T. 0.02 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

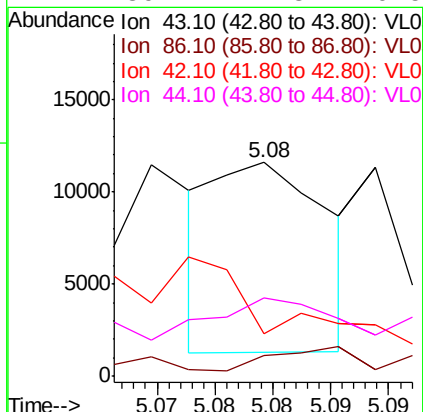
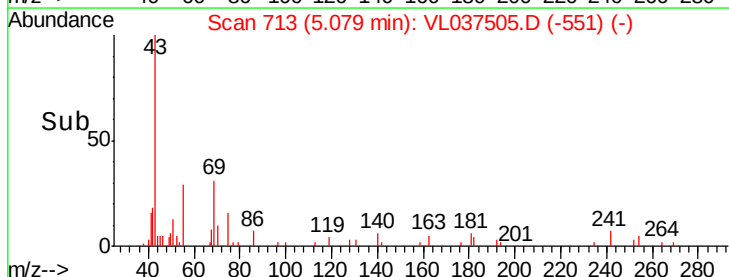
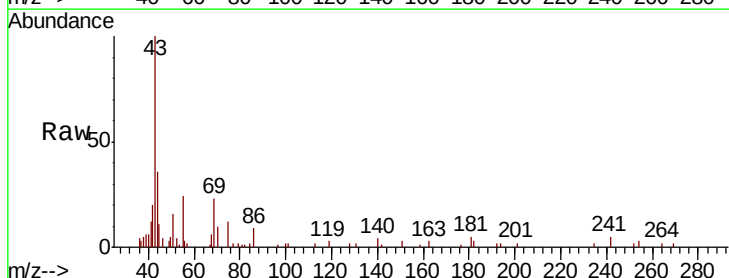
Instrument :
MSVOA_L
ClientSampled :

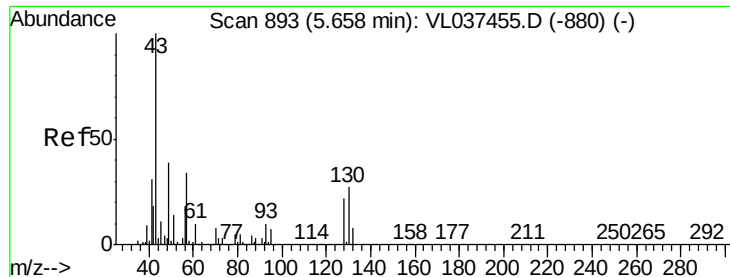
Tot Ion:	84	Resp:	952676
Ion	Ratio	Lower	Upper
84	100		
49	160.8	118.2	177.2
51	47.0	36.6	55.0
86	68.1	51.8	77.6



#23
Vinyl Acetate
Concen: 0.033 ppbv
RT: 5.08 min Scan# 713
Delta R.T. 0.02 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

Tgt Ion:	43	Resp:	6937
Ion	Ratio	Lower	Upper
43	100		
86	26.7	5.7	8.5#
42	0.0	7.4	11.2#
44	39.1	4.3	6.5#

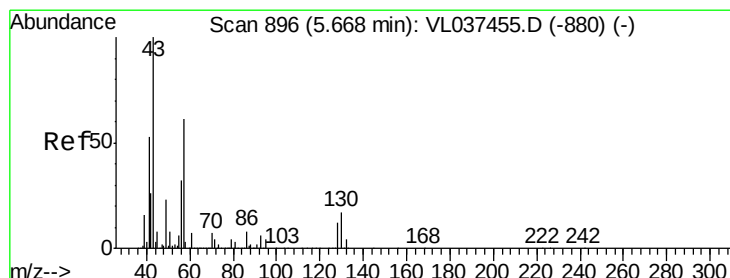
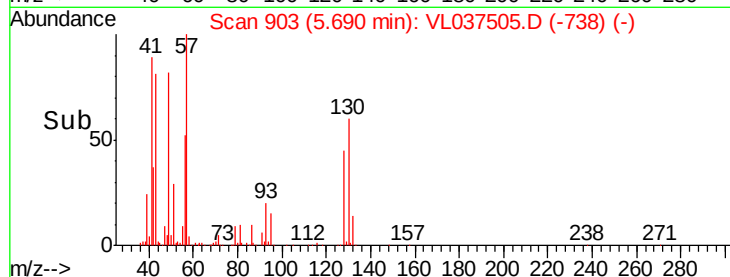
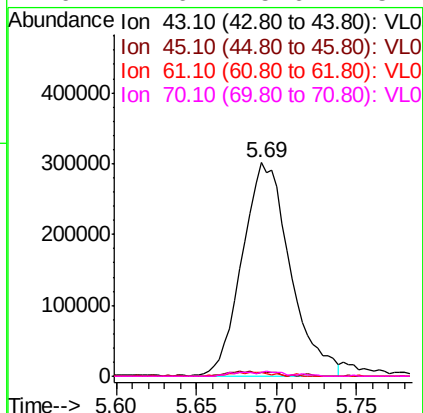
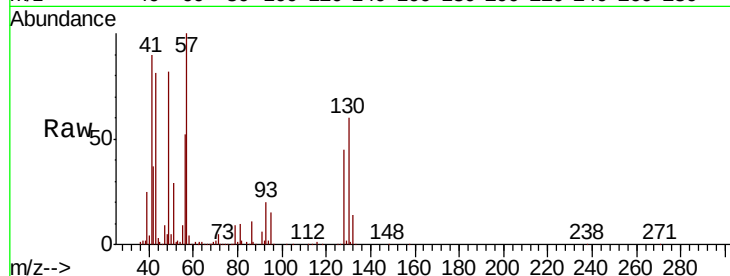




#25
Ethyl Acetate
Concen: 1.694 ppbv
RT: 5.69 min Scan# 903
Delta R.T. 0.03 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

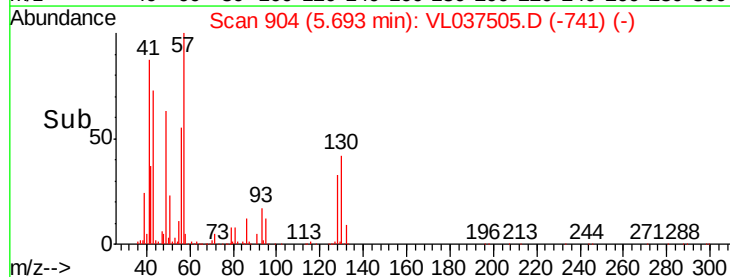
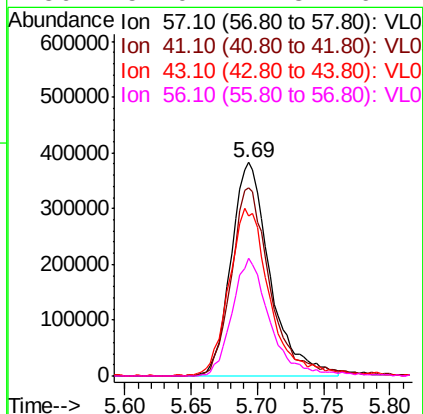
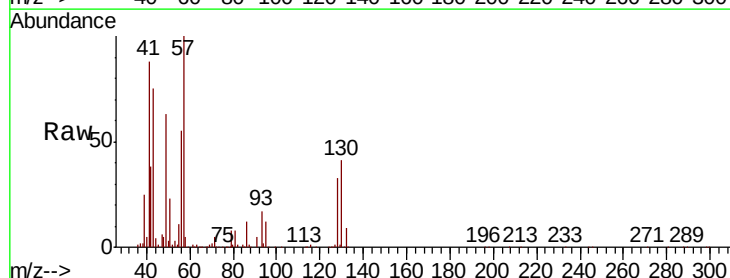
Instrument :
MSVOA_L
ClientSampleId :

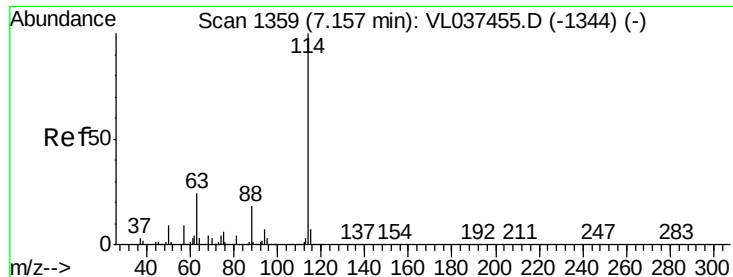
Tot Ion:	43	Resp:	617374
Ion	Ratio	Lower	Upper
43	100		
45	2.6	8.0	12.0#
61	1.9	8.0	12.0#
70	2.6	5.6	8.4#



#26
Hexane
Concen: 4.388 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.03 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

Tgt Ion:	57	Resp:	781756
Ion	Ratio	Lower	Upper
57	100		
41	90.1	72.3	108.5
43	81.4	172.3	258.5#
56	54.0	42.8	64.2

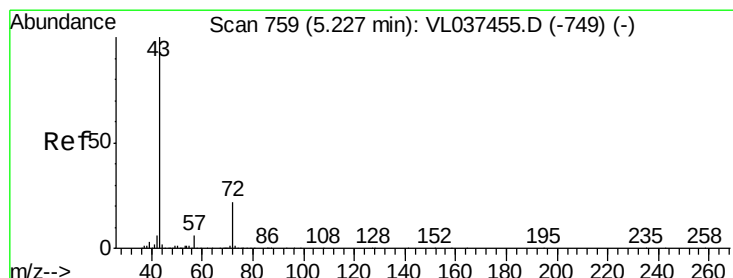
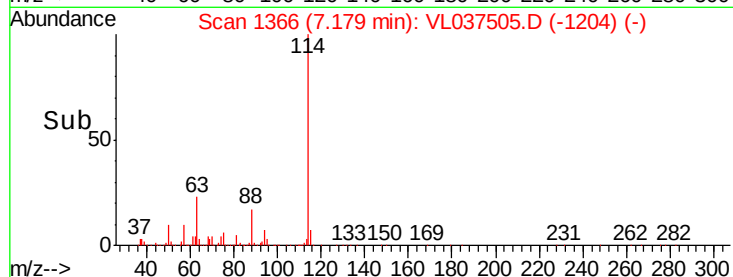
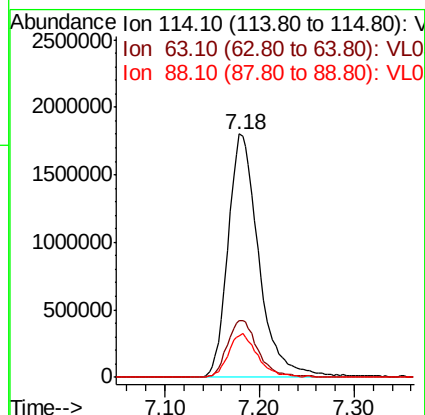
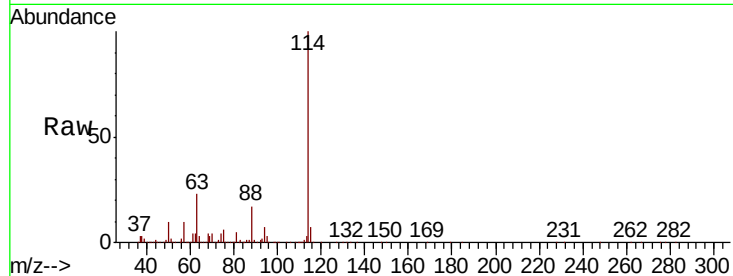




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1366
 Delta R.T. 0.02 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

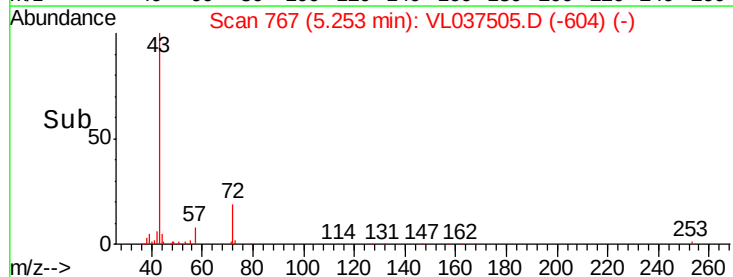
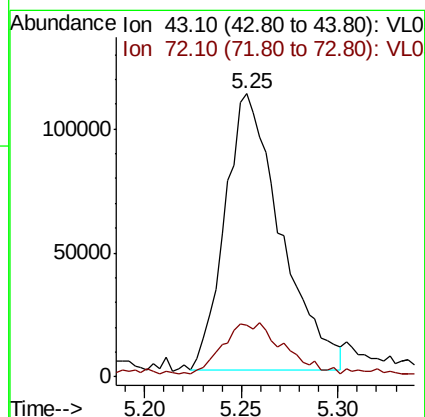
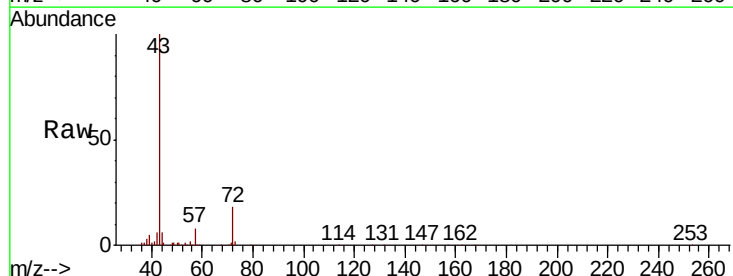
Instrument :
 MSVOA_L
 ClientSampleId :

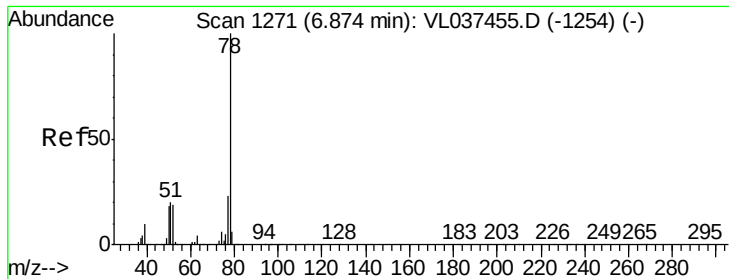
Tot Ion:114 Resp: 4063774
 Ion Ratio Lower Upper
 114 100
 63 23.8 19.3 28.9
 88 17.4 14.2 21.4



#34
 2-Butanone
 Concen: 1.346 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.03 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Tgt Ion: 43 Resp: 223374
 Ion Ratio Lower Upper
 43 100
 72 22.8 17.4 26.0





#36

Benzene

Concen: 2.912 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. 0.02 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :
MSVOA_L
ClientSampleId :

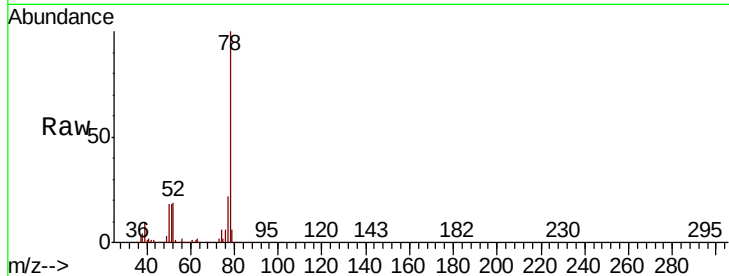
Tot Ion: 78 Resp: 994673

Ion Ratio Lower Upper

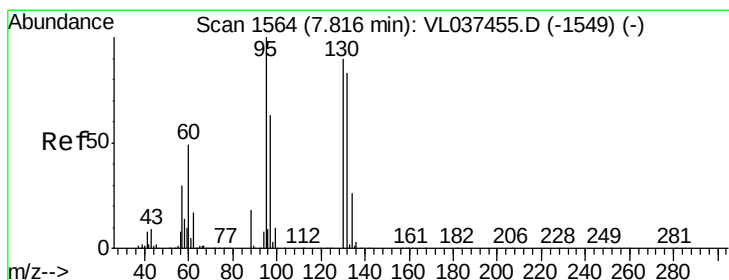
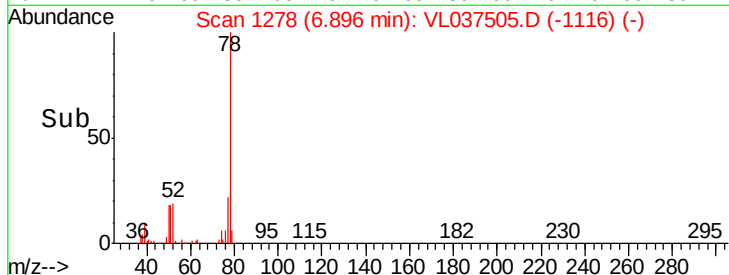
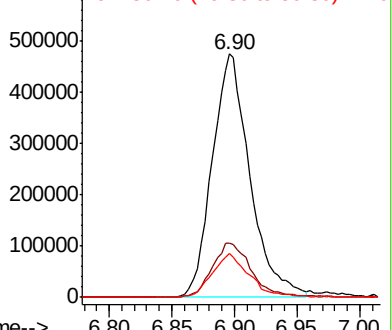
78 100

77 22.4 18.2 27.4

50 17.8 14.6 21.8



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#38

Trichloroethene

Concen: 0.305 ppbv

RT: 7.83 min Scan# 1570

Delta R.T. 0.02 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Tgt Ion: 130 Resp: 42788

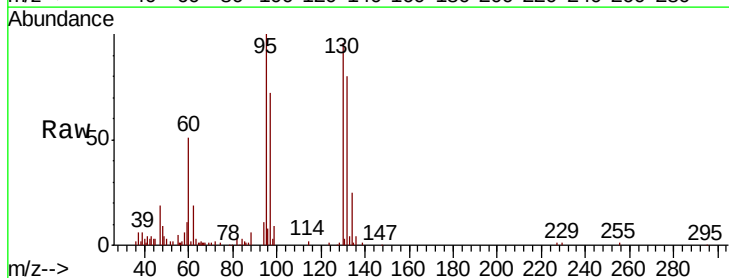
Ion Ratio Lower Upper

130 100

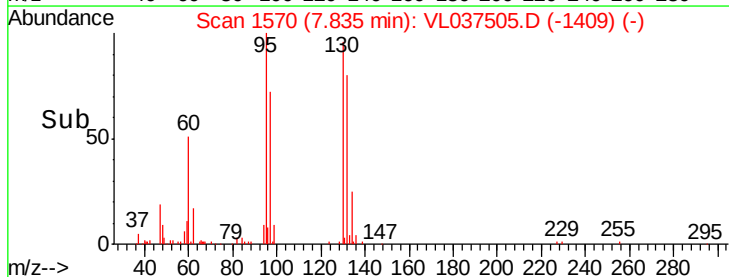
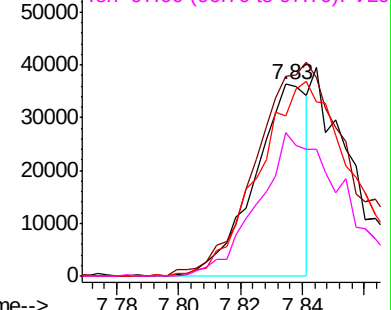
95 103.4 89.2 133.8

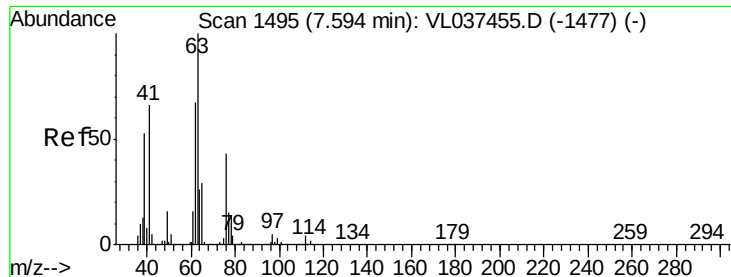
132 82.6 74.0 111.0

97 74.7 56.6 84.8



Abundance Ion 130.00 (129.70 to 130.70): V
Ion 95.00 (94.70 to 95.70): VL0
Ion 132.00 (131.70 to 132.70): V
Ion 97.00 (96.70 to 97.70): VL0

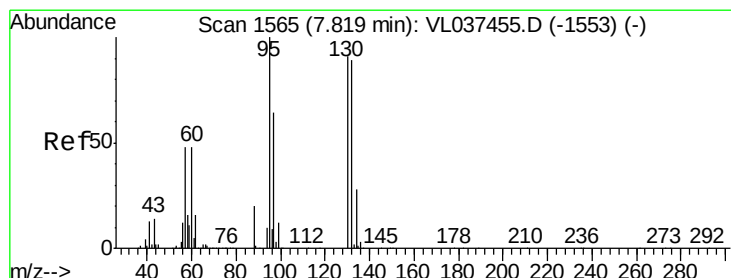
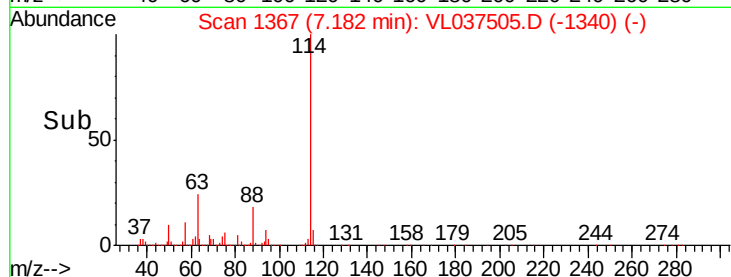
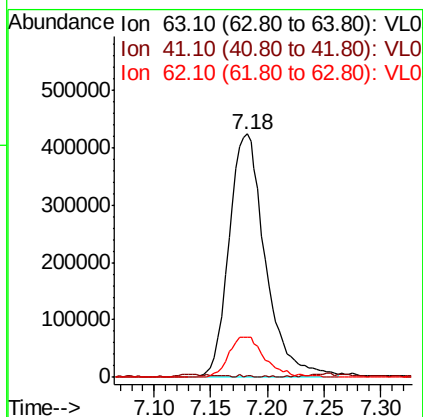
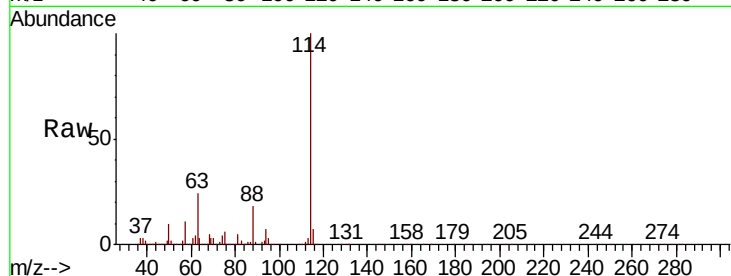




#39
 1,2-Dichloropropane
 Concen: 7.215 ppbv
 RT: 7.18 min Scan# 1367
 Delta R.T. -0.41 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

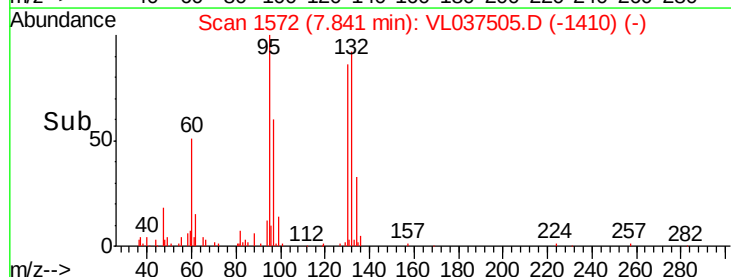
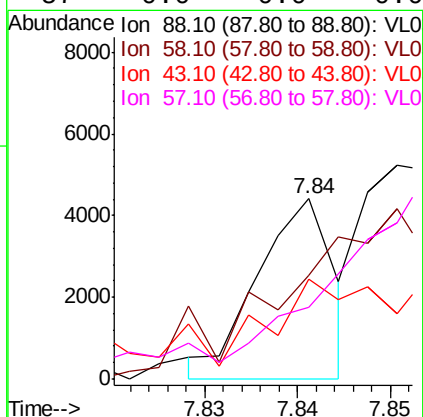
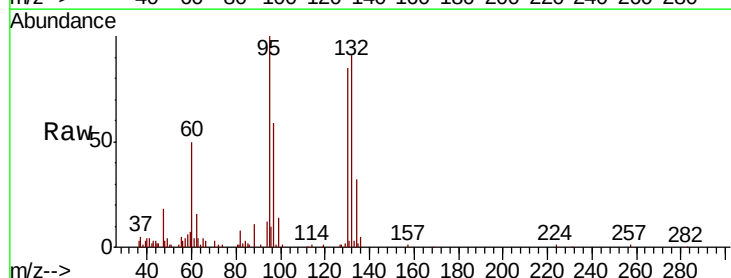
Instrument :
 MSVOA_L
 ClientSampleId :

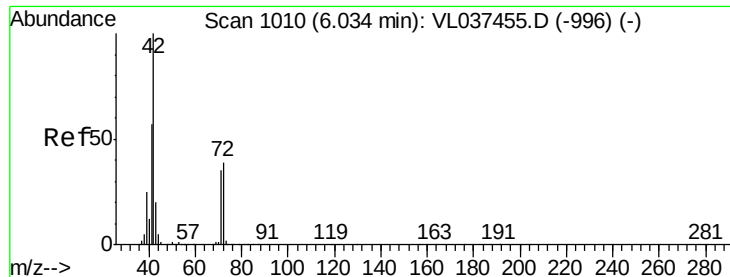
Tot Ion: 63 Resp: 947167
 Ion Ratio Lower Upper
 63 100
 41 0.0 52.4 78.6#
 62 16.1 53.6 80.4#



#40
 1,4-Dioxane
 Concen: 0.078 ppbv
 RT: 7.84 min Scan# 1572
 Delta R.T. 0.02 min
 Lab File: VL037505.D
 Acq: 19 Aug 2021 19:15

Tgt Ion: 88 Resp: 2518
 Ion Ratio Lower Upper
 88 100
 58 0.0 0.0 0.0
 43 0.0 0.0 0.0
 57 0.0 0.0 0.0





#41

Tetrahydrofuran

Concen: 0.068 ppbv

RT: 6.05 min Scan# 1014

Delta R.T. 0.01 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :

MSVOA_L

ClientSampleId :

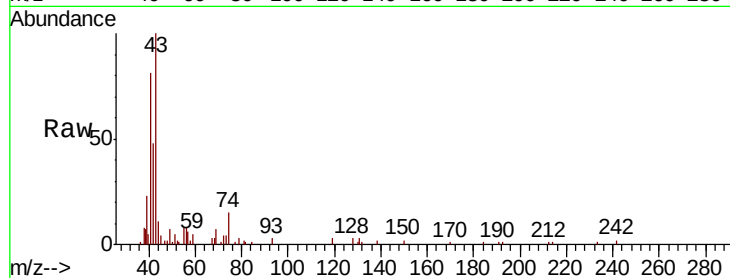
Tot Ion: 42 Resp: 5455

Ion Ratio Lower Upper

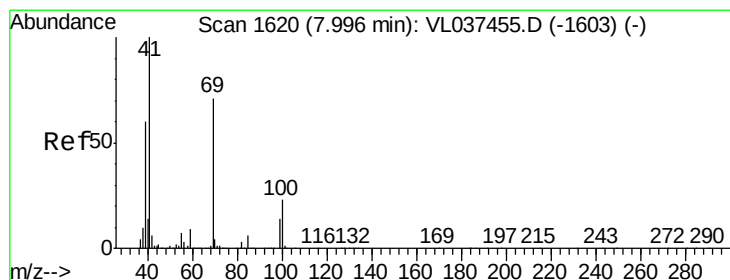
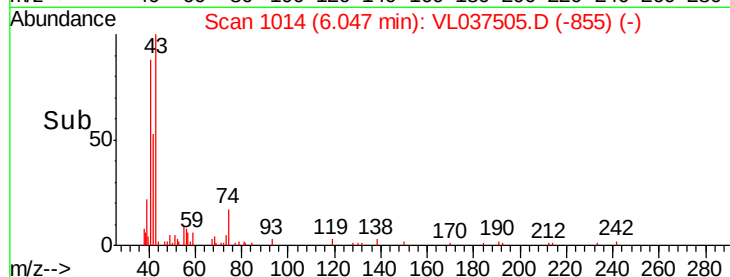
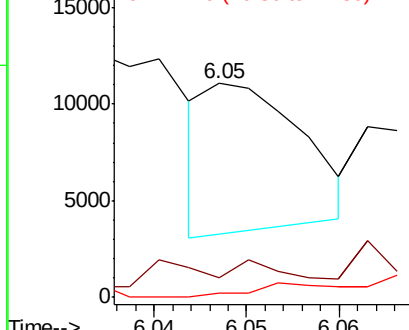
42 100

72 133.2 32.2 48.4#

71 0.0 30.5 45.7#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#43

Methyl Methacrylate

Concen: 0.036 ppbv

RT: 8.02 min Scan# 1627

Delta R.T. 0.02 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

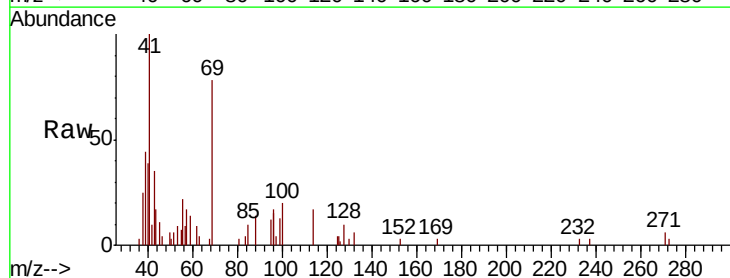
Tgt Ion: 69 Resp: 4232

Ion Ratio Lower Upper

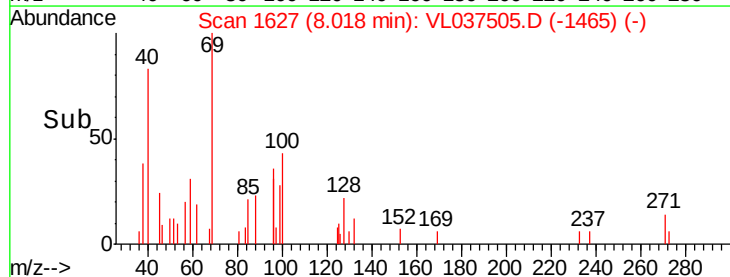
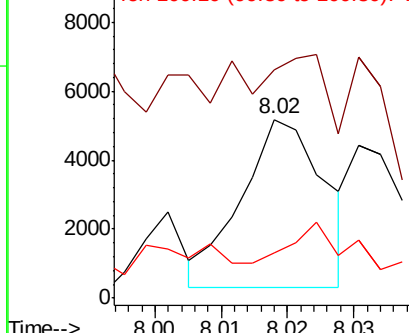
69 100

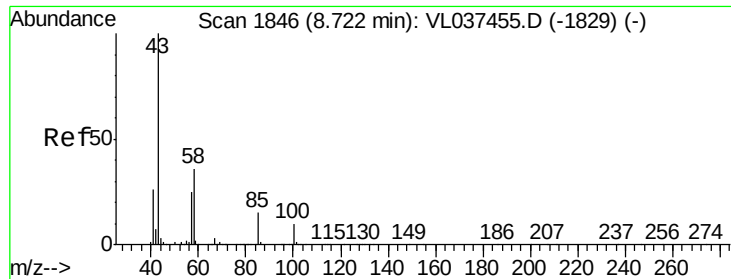
41 0.0 118.6 178.0#

100 0.0 27.4 41.0#



Abundance Ion 69.10 (68.80 to 69.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 100.10 (99.80 to 100.80): VL0

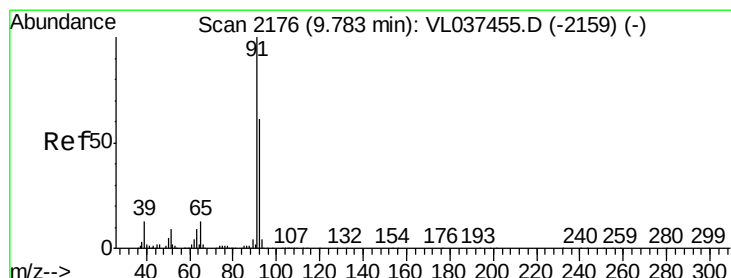
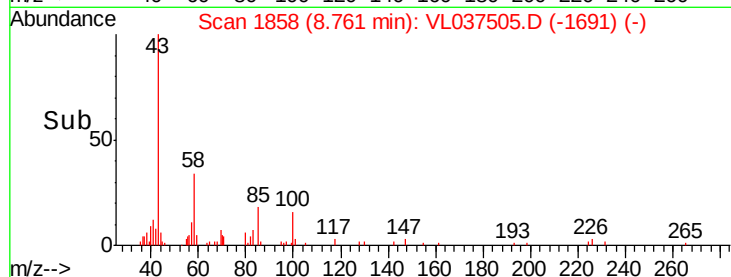
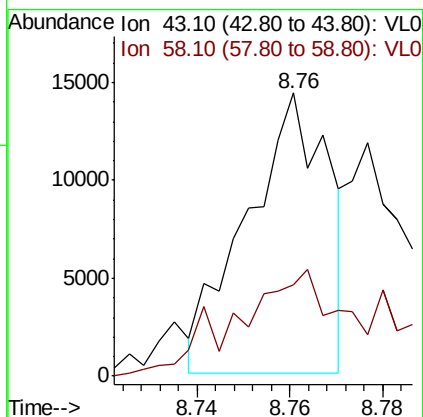
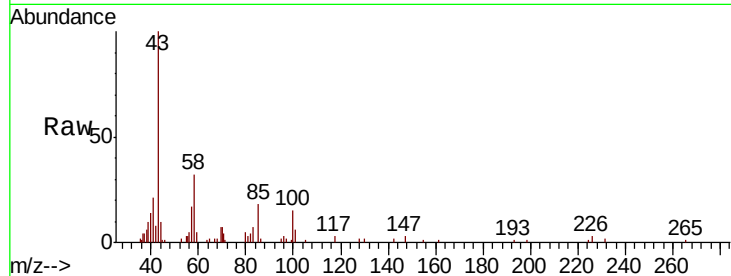




#50
4-Methyl-2-Pentanone
Concen: 0.081 ppbv
RT: 8.76 min Scan# 1858
Delta R.T. 0.04 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

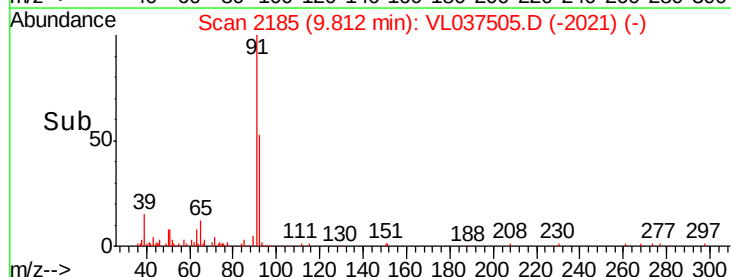
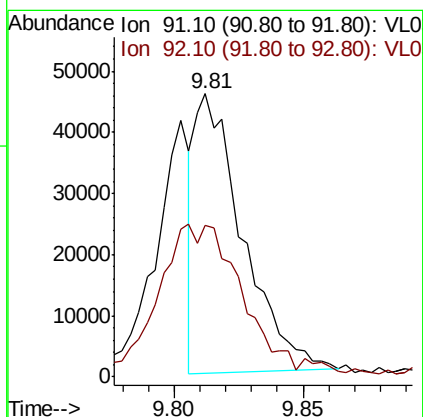
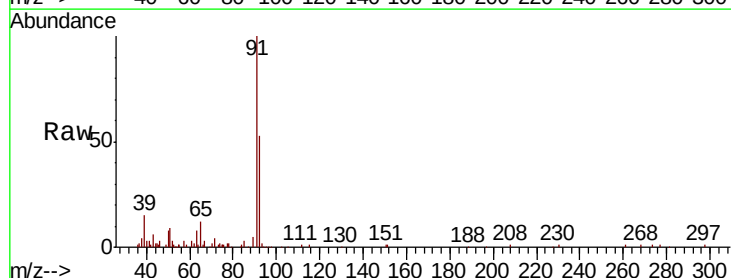
Instrument :
MSVOA_L
ClientSampleId :

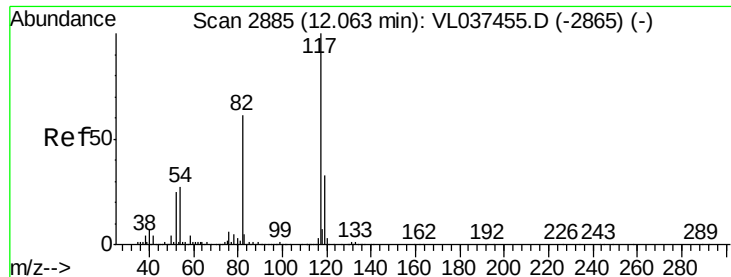
Tot Ion: 43 Resp: 17464
Ion Ratio Lower Upper
43 100
58 77.8 29.9 44.9#



#53
Toluene
Concen: 0.150 ppbv
RT: 9.81 min Scan# 2185
Delta R.T. 0.03 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

Tgt Ion: 91 Resp: 58365
Ion Ratio Lower Upper
91 100
92 0.0 48.8 73.2#

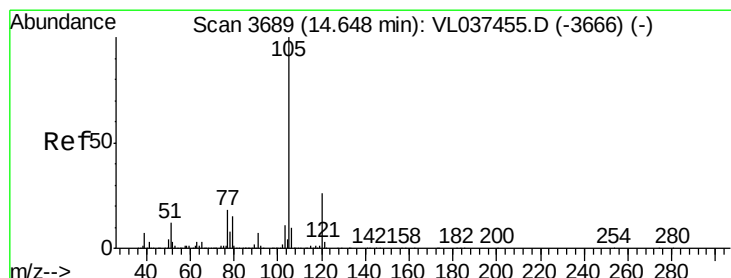
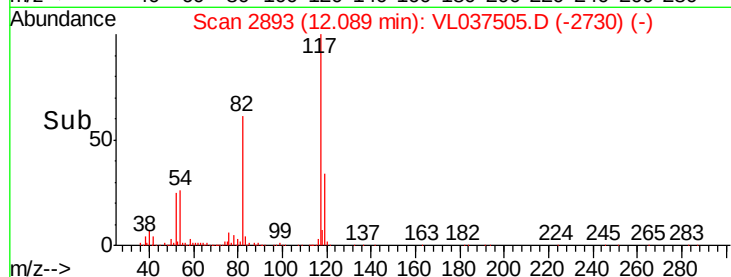
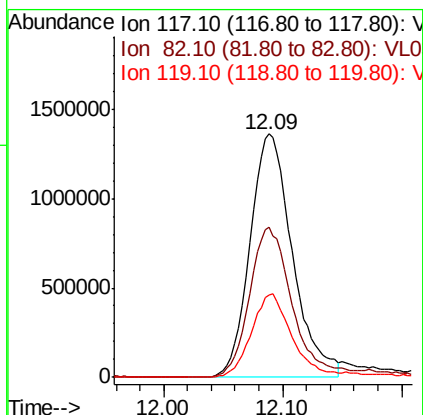
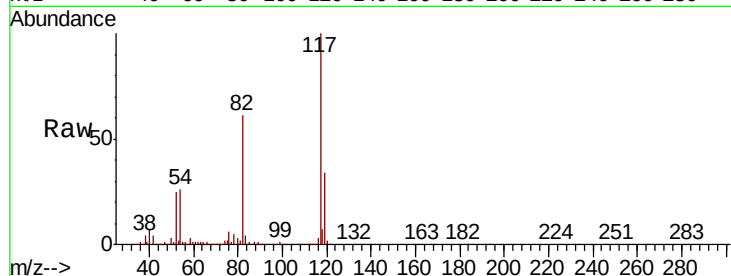




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2893
Delta R.T. 0.03 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

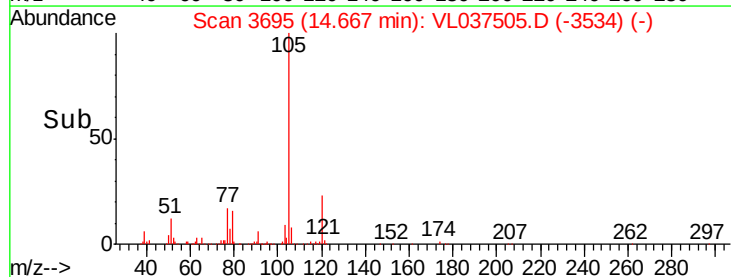
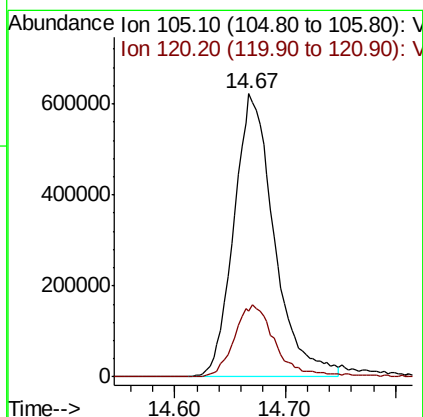
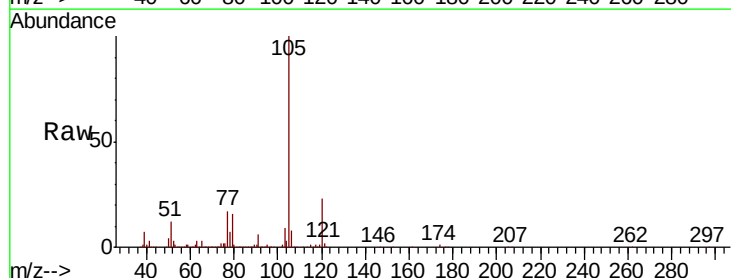
Instrument :
MSVOA_L
ClientSampleId :

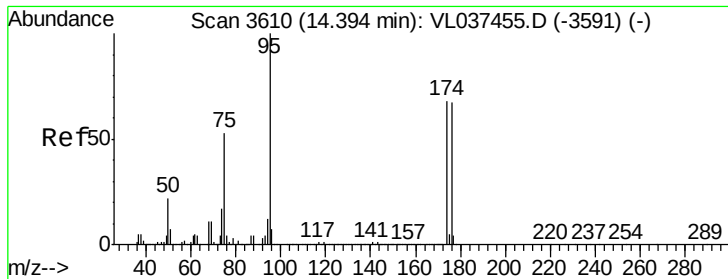
Tot Ion:117 Resp: 3351787
Ion Ratio Lower Upper
117 100
82 66.5 52.9 79.3
119 35.6 24.8 37.2



#62
Isopropylbenzene
Concen: 2.971 ppbv
RT: 14.67 min Scan# 3695
Delta R.T. 0.02 min
Lab File: VL037505.D
Acq: 19 Aug 2021 19:15

Tgt Ion:105 Resp: 1578190
Ion Ratio Lower Upper
105 100
120 26.5 21.5 32.3





#68

1-Bromo-4-Fluorobenzene

Concen: 5.134 ppbv

RT: 14.42 min Scan# 3617

Delta R.T. 0.02 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :

MSVOA_L

ClientSampled :

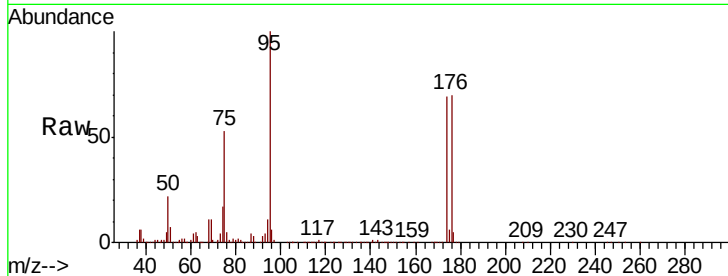
Tot Ion: 95 Resp: 1222494

Ion Ratio Lower Upper

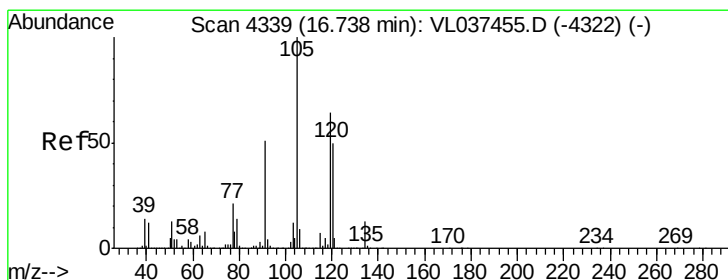
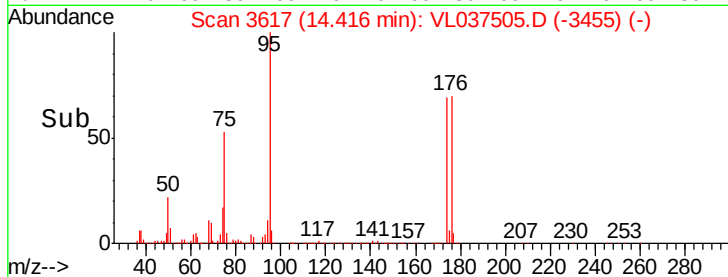
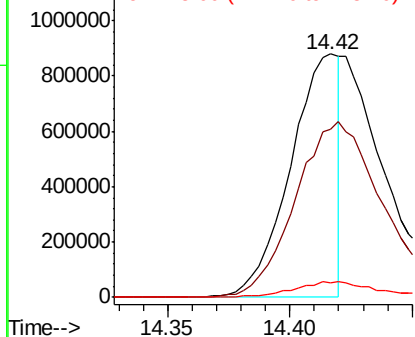
95 100

174 152.2 59.6 89.4#

175 11.7 4.6 7.0#



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



#74

1,2,4-Trimethylbenzene

Concen: 0.041 ppbv

RT: 16.77 min Scan# 4348

Delta R.T. 0.03 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Tgt Ion:105 Resp: 18025

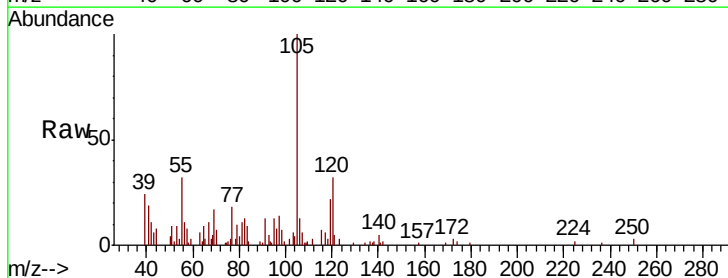
Ion Ratio Lower Upper

105 100

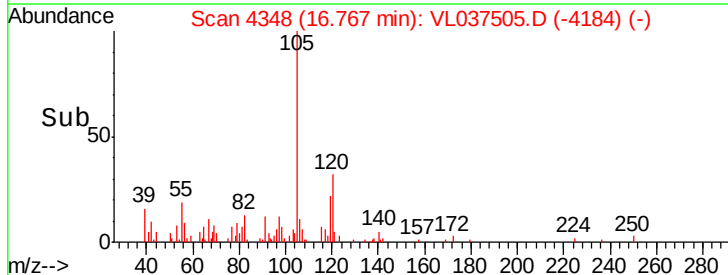
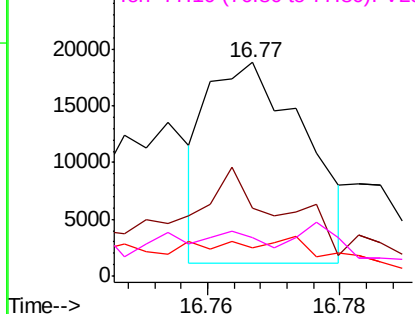
120 37.9 40.4 60.6#

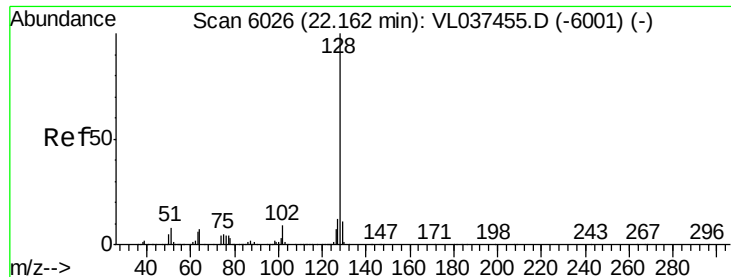
91 4.1 44.6 67.0#

77 5.2 17.8 26.6#



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): VL0
Ion 77.10 (76.80 to 77.80): VL0





#79

Naphthalene

Concen: 1.347 ppbv

RT: 22.19 min Scan# 6036

Delta R.T. 0.03 min

Lab File: VL037505.D

Acq: 19 Aug 2021 19:15

Instrument :

MSVOA_L

ClientSampleId :

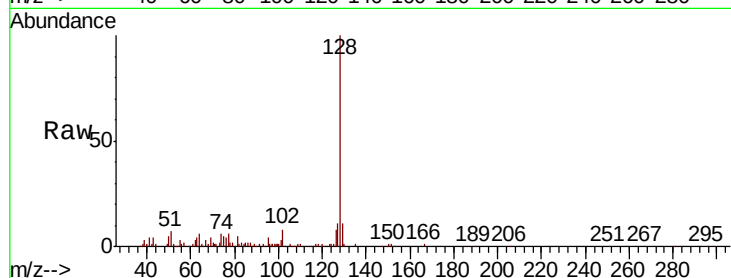
Tot Ion:128 Resp: 399160

Ion Ratio Lower Upper

128 100

127 10.9 9.4 14.2

129 10.7 8.8 13.2



Abundance Ion 128.10 (127.80 to 128.80): V
Ion 127.10 (126.80 to 127.80): V
Ion 129.10 (128.80 to 129.80): V

