

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122121\
 Data File : VL038223.D
 Acq On : 21 Dec 2021 21:38
 Operator : SY/AP
 Sample : M5118-01DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 22 08:29:05 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL122121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Dec 21 17:47:08 2021
 QLast Update : Tue Dec 21 17:47:08 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	629200	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	1844320	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1571691	10.00	ppbv	0.00

System Monitoring Compounds

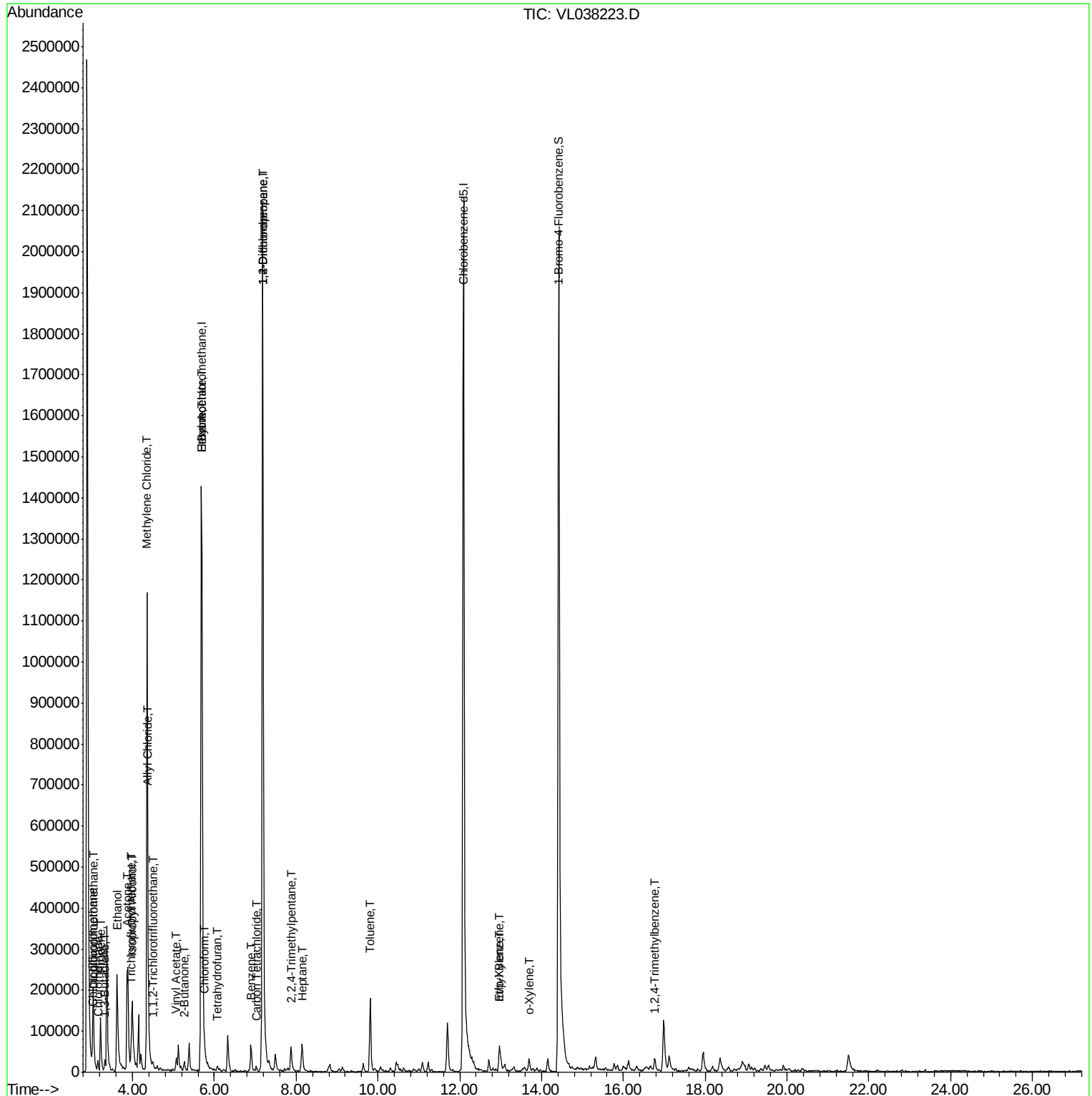
68) 1-Bromo-4-Fluorobenzene	14.42	95	1213788	10.02	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

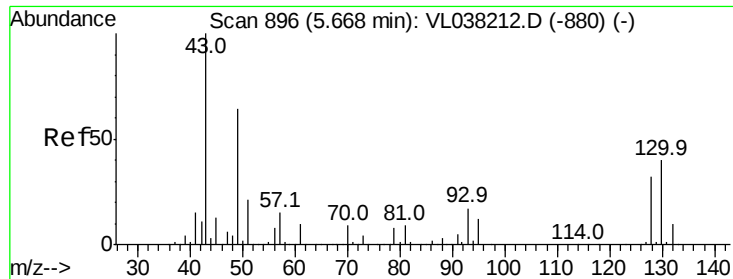
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	20565	0.173	ppbv	92
3) Chlorodifluoromethane	3.01	51	47834	0.362	ppbv #	88
4) Chloromethane	3.16	50	22035	0.481	ppbv #	88
9) Propene	3.22	41	36910	0.804	ppbv	84
10) Heptane	8.13	43	6399	0.055	ppbv #	27
11) Trichlorofluoromethane	3.96	101	27372	0.251	ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.50	101	4929	0.060	ppbv	95
13) Ethanol	3.62	45	343440	44.126	ppbv #	100
15) Acetone	3.86	43	354090	5.607	ppbv	90
16) 1,3-Butadiene	3.33	39	1887	0.044	ppbv #	1
19) Isopropyl Alcohol	3.99	45	261834	6.648	ppbv #	39
20) Methylene Chloride	4.36	84	522600	14.658	ppbv	93
21) Allyl Chloride	4.38	41	1627	0.030	ppbv #	1
23) Vinyl Acetate	5.08	43	7684	0.090	ppbv #	47
25) Ethyl Acetate	5.70	43	272476	1.593	ppbv #	78
26) Hexane	5.70	57	389882	4.542	ppbv #	45
29) Chloroform	5.76	83	5400	0.042	ppbv	99
34) 2-Butanone	5.26	43	26109	0.471	ppbv #	88
35) Carbon Tetrachloride	7.02	117	4689	0.041	ppbv #	82
36) Benzene	6.90	78	56299	0.327	ppbv	98
39) 1,2-Dichloropropane	7.18	63	459220	6.936	ppbv #	25
41) Tetrahydrofuran	6.08	42	3627	0.089	ppbv #	59
44) 2,2,4-Trimethylpentane	7.87	57	55024	0.188	ppbv #	71
53) Toluene	9.81	91	142742	0.719	ppbv	97
58) Ethyl Benzene	12.97	91	26332	0.108	ppbv	95
59) m/p-Xylene	12.98	91	37498	0.180	ppbv #	36
60) o-Xylene	13.70	91	17469	0.090	ppbv	81
74) 1,2,4-Trimethylbenzene	16.77	105	13211	0.063	ppbv #	79

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

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Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LTue Dec 21 17:47:08 2021
QLast Update : Tue Dec 21 17:47:08 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_L

Lab File:

Acq: 21 Dec 2021 21:38

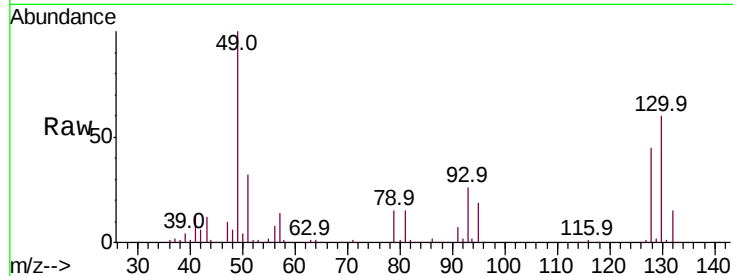
Tot Ion: 49 Resp: 629200

Ion Ratio Lower Upper

49 100

128 51.0 26.9 80.6

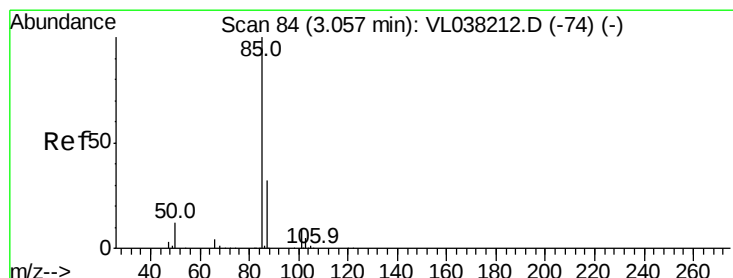
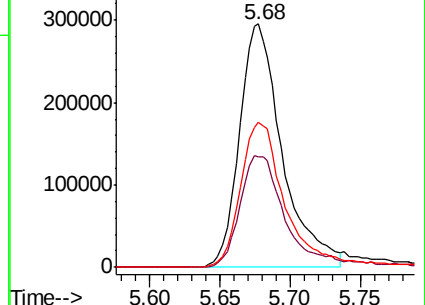
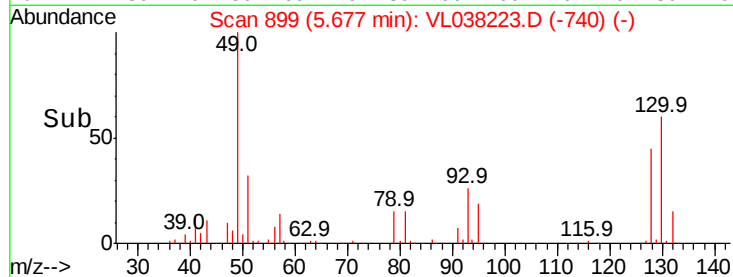
130 64.1 32.3 96.9



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: 0.173 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.01 min

Lab File: VL038223.D

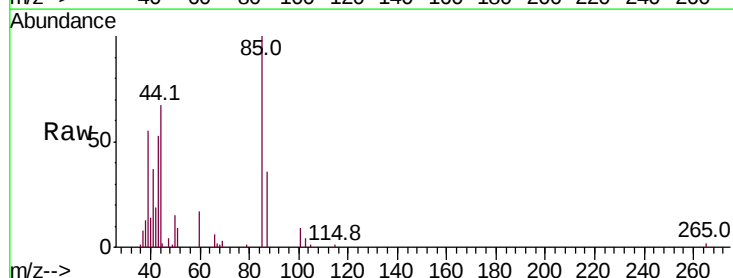
Acq: 21 Dec 2021 21:38

Tgt Ion: 85 Resp: 20565

Ion Ratio Lower Upper

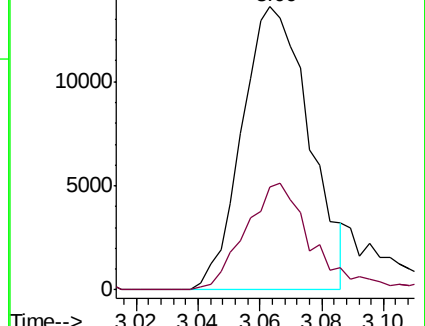
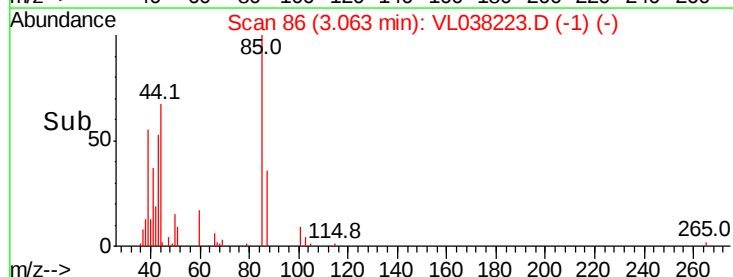
85 100

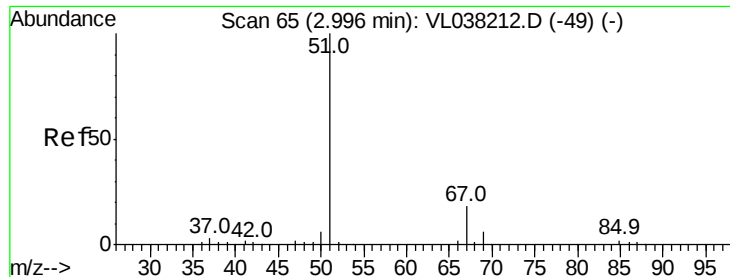
87 36.4 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

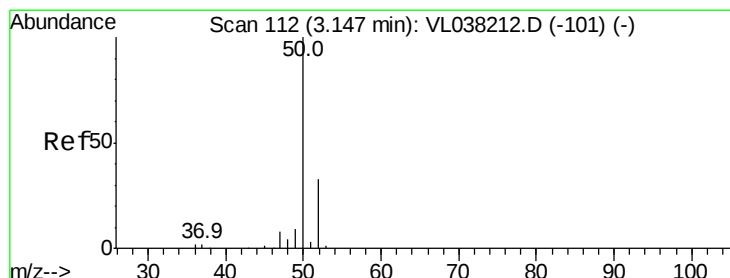
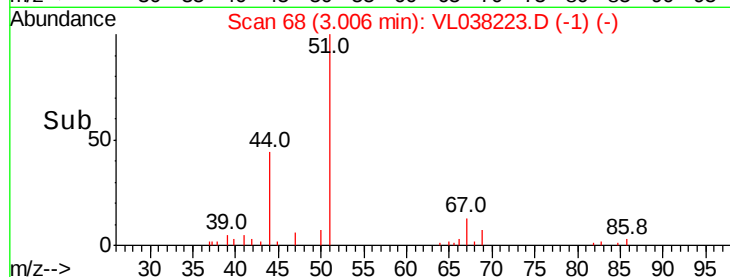
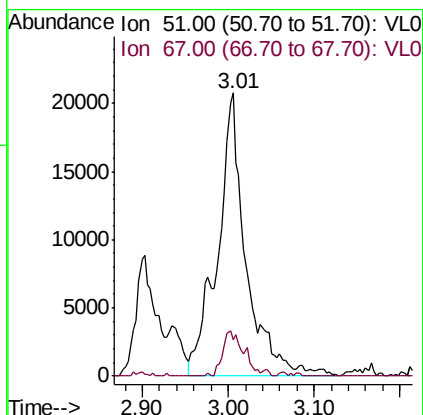
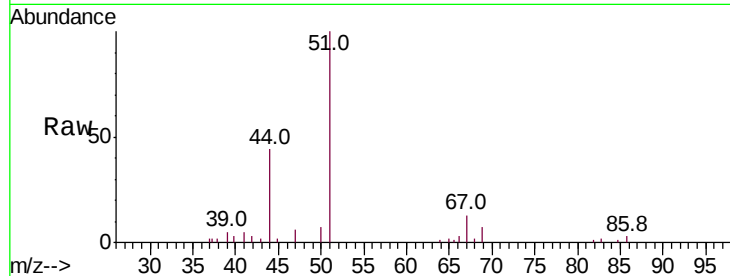
Ion 87.00 (86.70 to 87.70): VL0





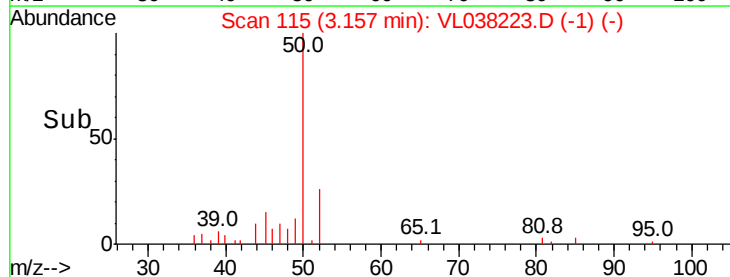
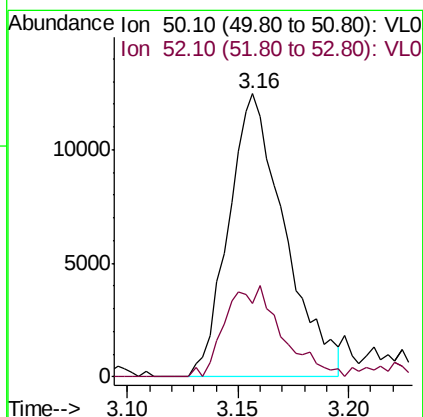
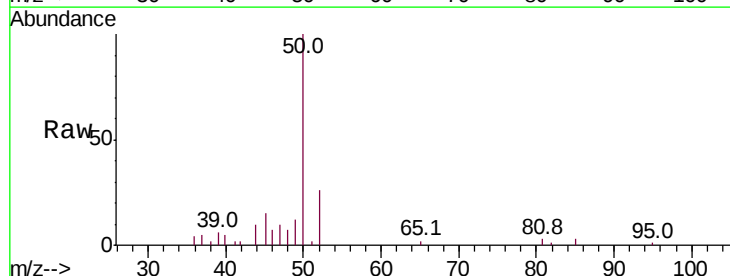
#3
 Chlorodifluoromethane
 Concen: 0.362 ppbv
 RT: 3.01 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 21:38

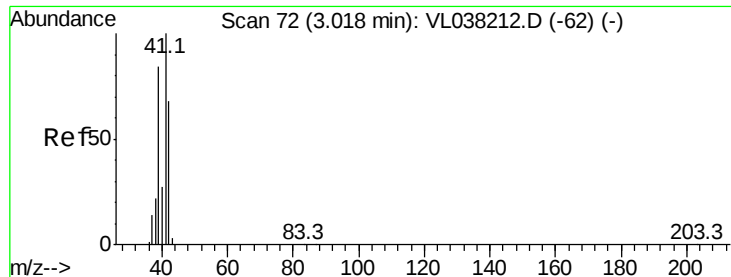
Tot Ion: 51 Resp: 47834
 Ion Ratio Lower Upper
 51 100
 67 12.3 14.0 21.0#



#4
 Chloromethane
 Concen: 0.481 ppbv
 RT: 3.16 min Scan# 115
 Delta R.T.: 0.01 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

Tgt Ion: 50 Resp: 22035
 Ion Ratio Lower Upper
 50 100
 52 26.0 26.2 39.2#





#9

Propene

Concen: 0.804 ppbv

RT: 3.22 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

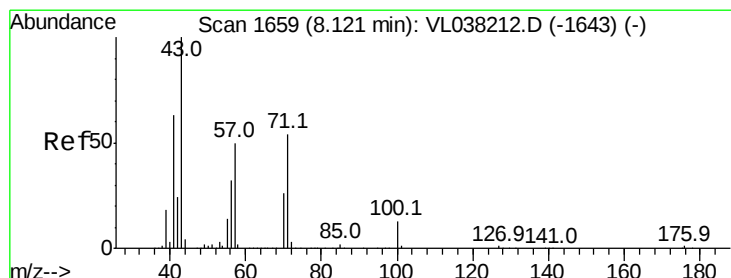
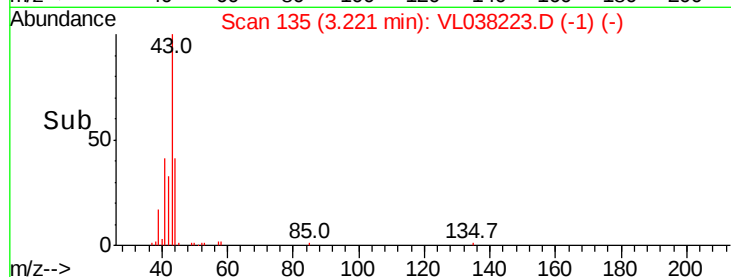
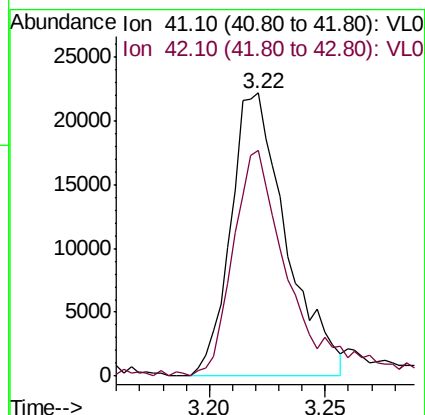
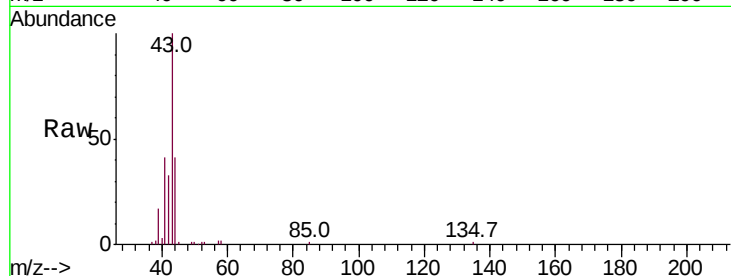
Acq: 21 Dec 2021 21:38

Tot Ion: 41 Resp: 36910

Ion Ratio Lower Upper

41 100

42 82.4 55.5 83.3



#10

Heptane

Concen: 0.055 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. 0.01 min

Lab File: VL038223.D

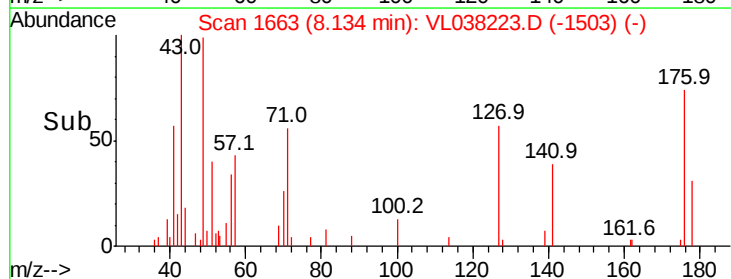
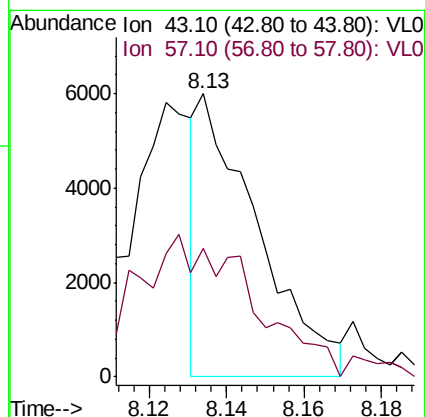
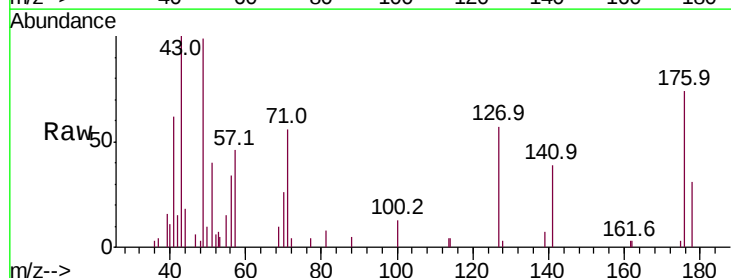
Acq: 21 Dec 2021 21:38

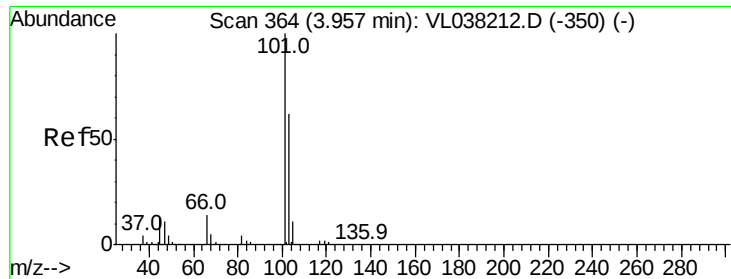
Tgt Ion: 43 Resp: 6399

Ion Ratio Lower Upper

43 100

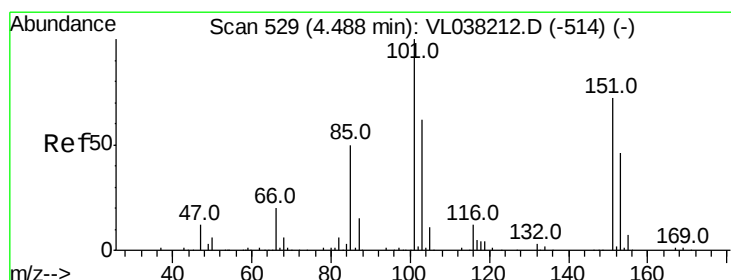
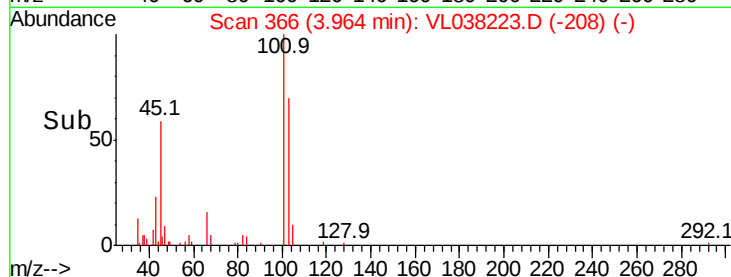
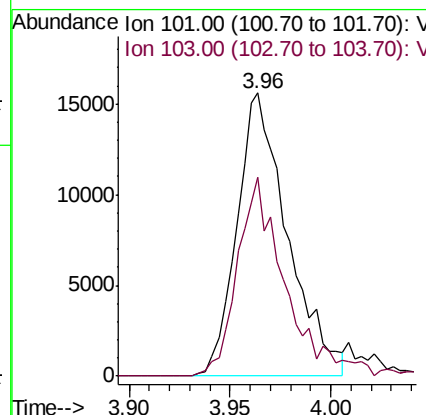
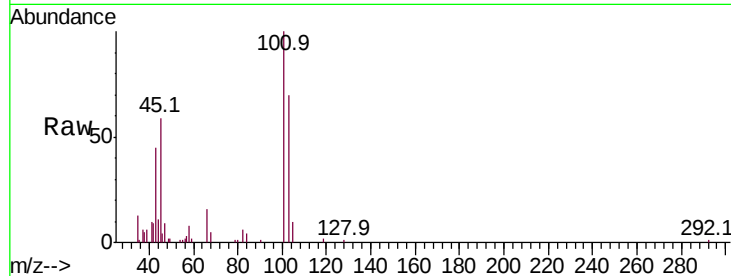
57 0.0 40.3 60.5#





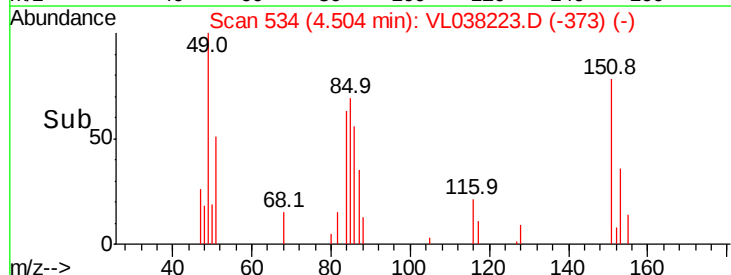
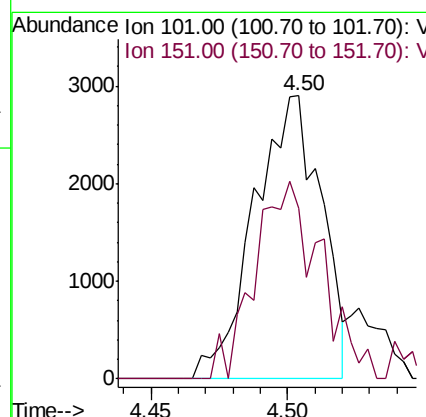
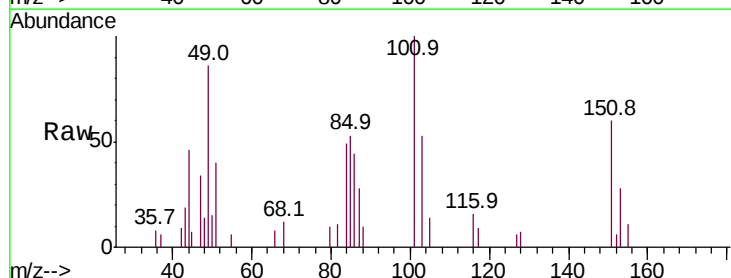
#11
 Trichlorofluoromethane
 Concen: 0.251 ppbv
 RT: 3.96
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 21:38

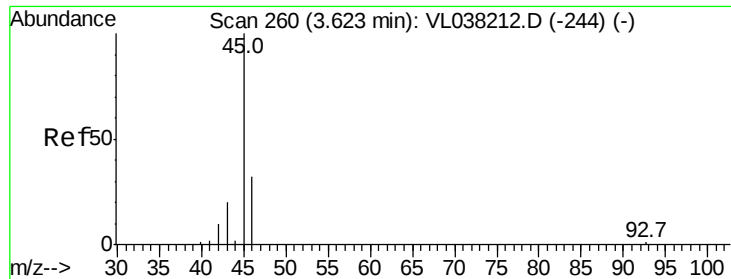
Tot Ion:101 Resp: 27372
 Ion Ratio Lower Upper
 101 100
 103 70.3 49.9 74.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.060 ppbv
 RT: 4.50 min Scan# 534
 Delta R.T. 0.02 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

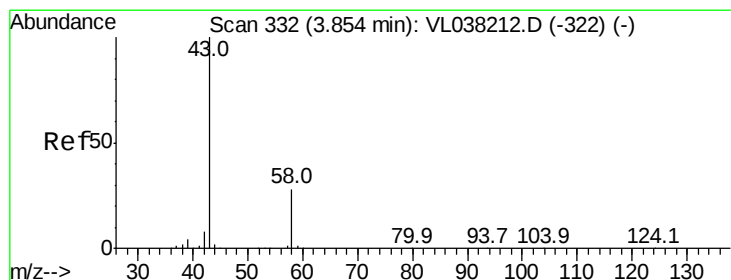
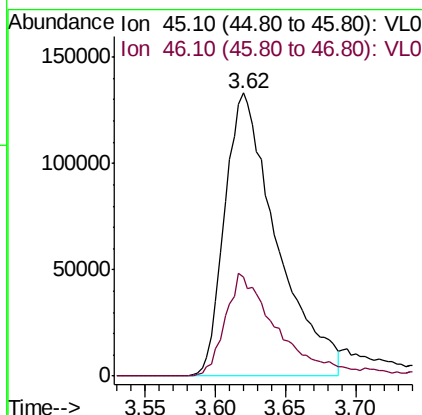
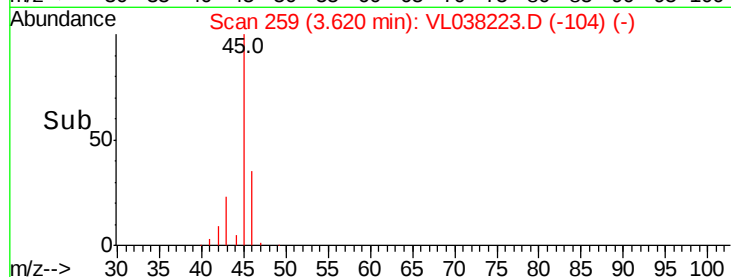
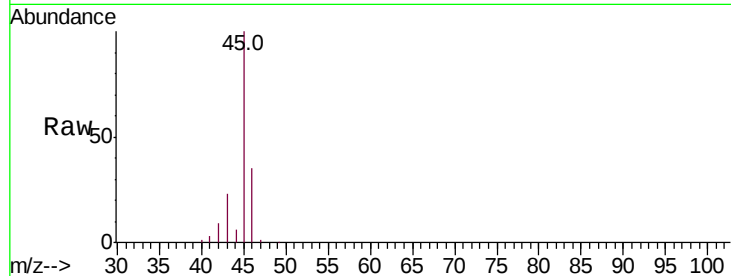
Tgt Ion:101 Resp: 4929
 Ion Ratio Lower Upper
 101 100
 151 69.1 58.6 87.8





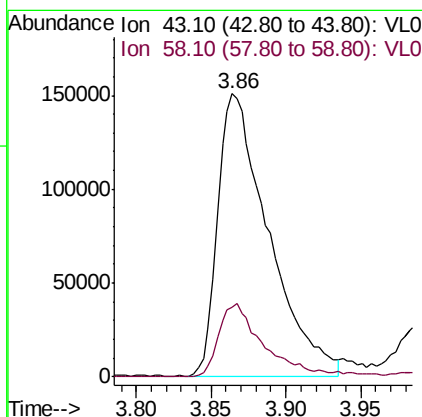
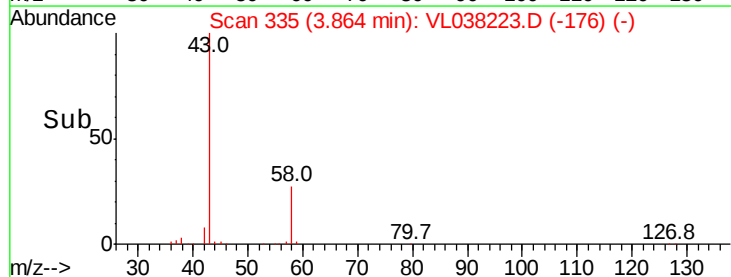
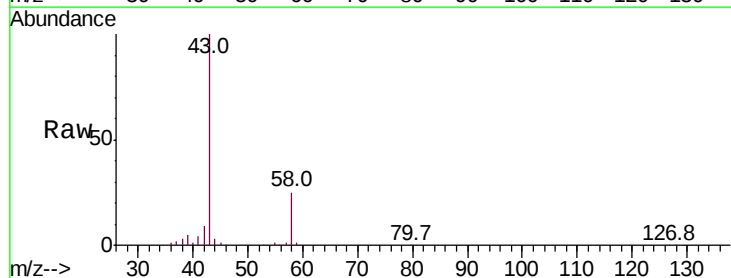
#13
Ethanol
Concen: 44.126 ppbv
RT: 3.62
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 21 Dec 2021 21:38

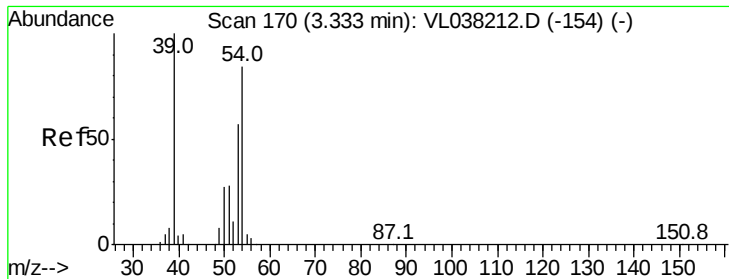
Tot Ion: 45 Resp: 343440
Ion Ratio Lower Upper
45 100
46 37.7 0.0 0.0#



#15
Acetone
Concen: 5.607 ppbv
RT: 3.86 min Scan# 335
Delta R.T. 0.01 min
Lab File: VL038223.D
Acq: 21 Dec 2021 21:38

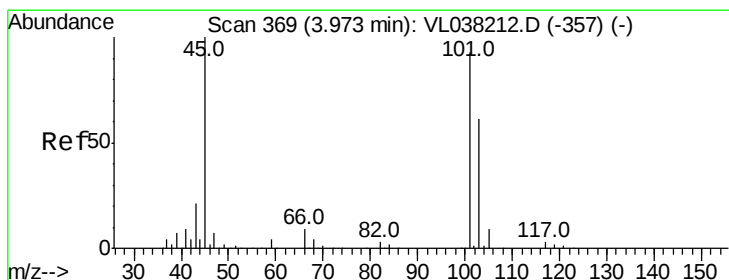
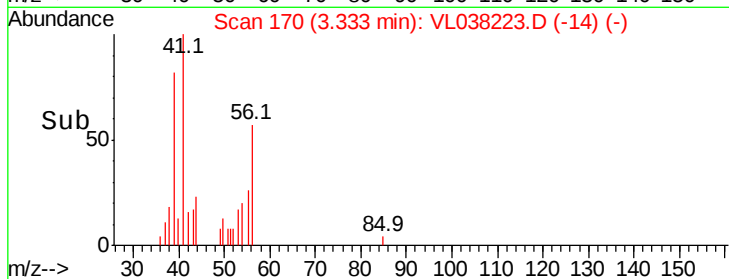
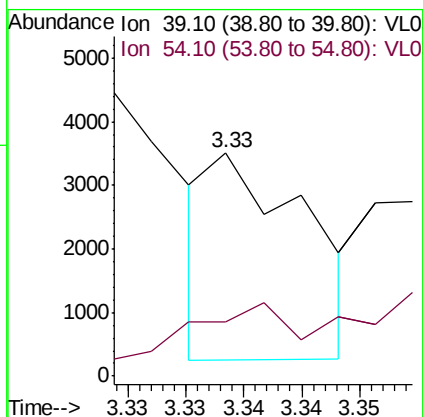
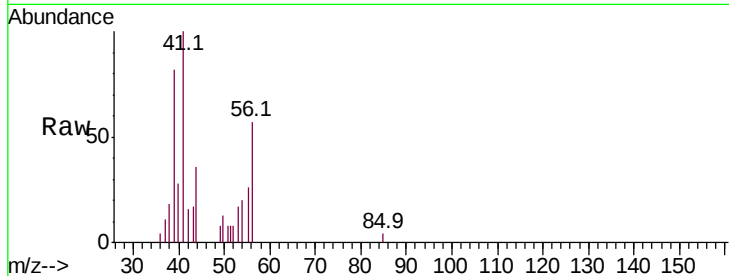
Tgt Ion: 43 Resp: 354090
Ion Ratio Lower Upper
43 100
58 23.7 23.3 34.9





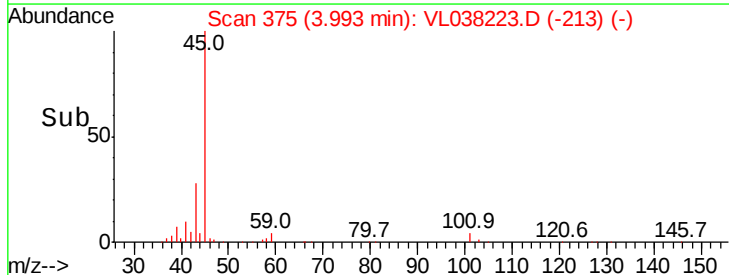
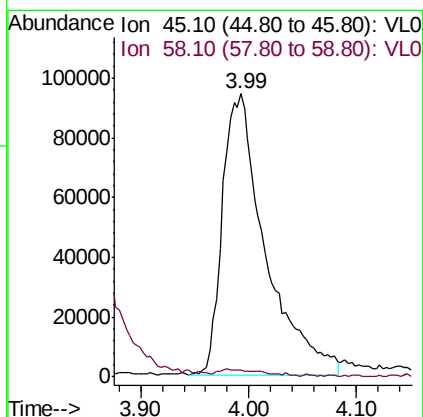
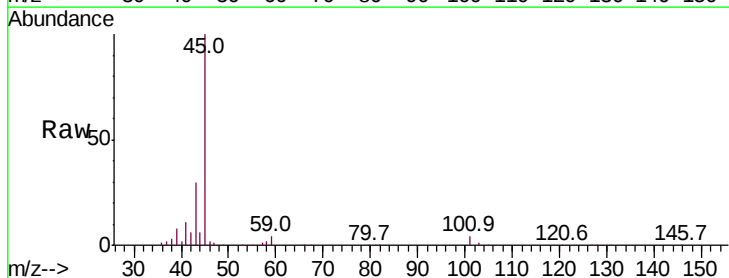
#16
 1,3-Butadiene
 Concen: 0.044 ppbv
 RT: 3.33 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 21:38

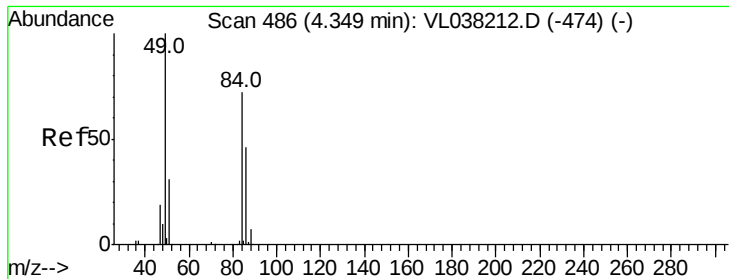
Tot Ion: 39 Resp: 1887
 Ion Ratio Lower Upper
 39 100
 54 166.6 62.9 94.3#



#19
 Isopropyl Alcohol
 Concen: 6.648 ppbv
 RT: 3.99 min Scan# 375
 Delta R.T. 0.02 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

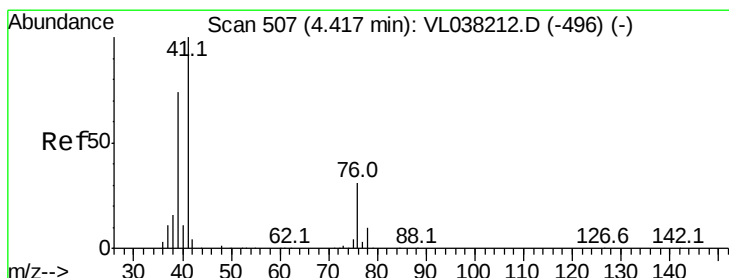
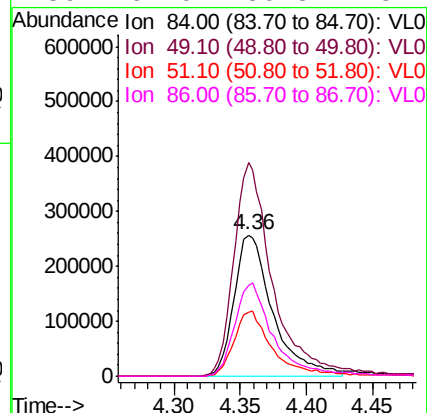
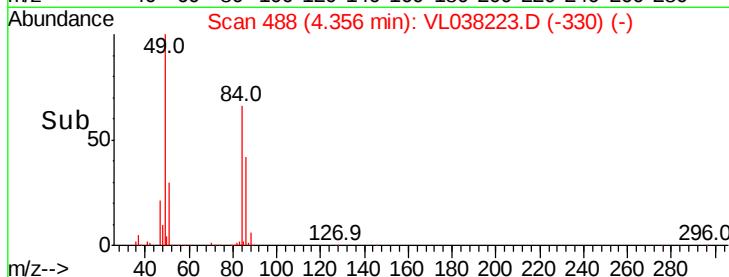
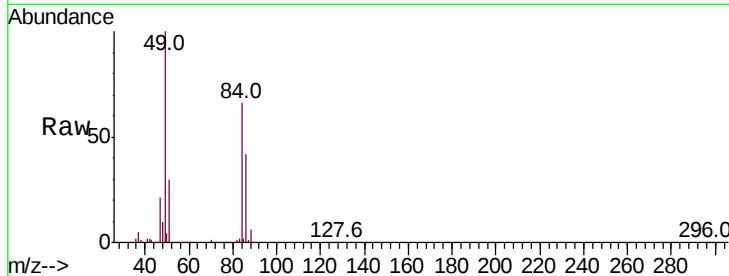
Tgt Ion: 45 Resp: 261834
 Ion Ratio Lower Upper
 45 100
 58 2.6 32.4 48.6#





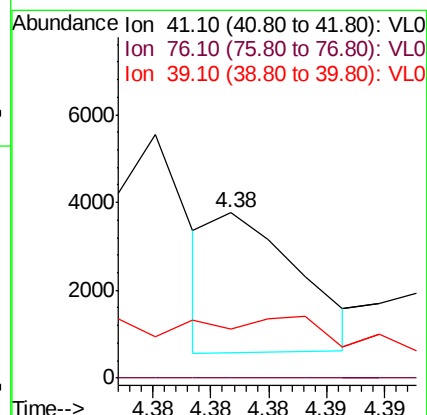
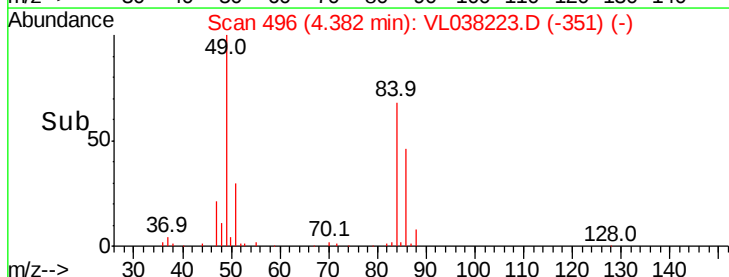
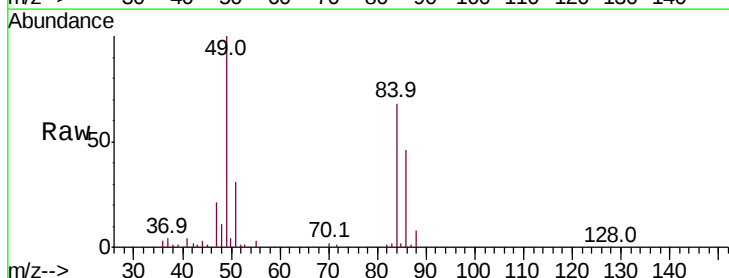
#20
Methylene Chloride
Concen: 14.658 ppbv
RT: 4.36 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 21 Dec 2021 21:38

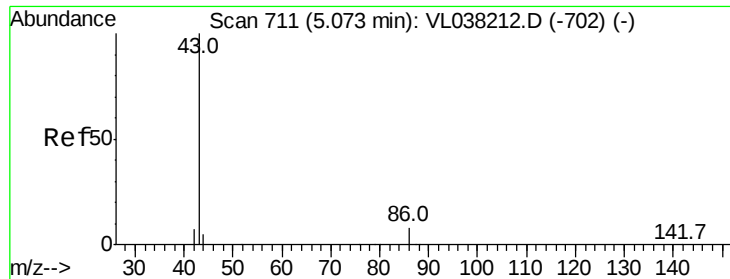
Tot Ion:	84	Resp:	522600
Ion	Ratio	Lower	Upper
84	100		
49	151.3	110.6	166.0
51	45.0	34.2	51.2
86	64.0	50.5	75.7



#21
Allyl Chloride
Concen: 0.030 ppbv
RT: 4.38 min Scan# 496
Delta R.T. -0.04 min
Lab File: VL038223.D
Acq: 21 Dec 2021 21:38

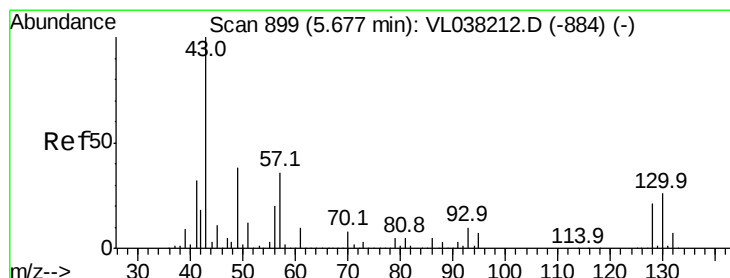
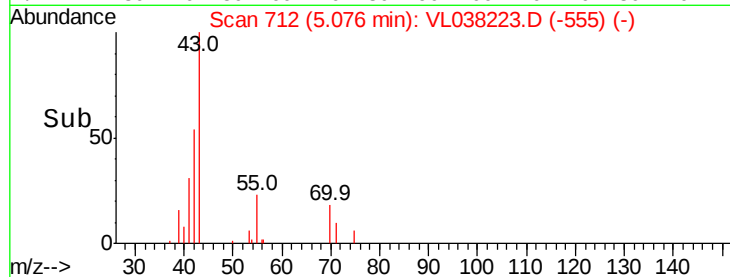
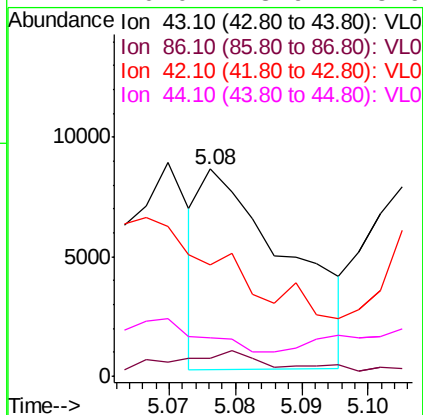
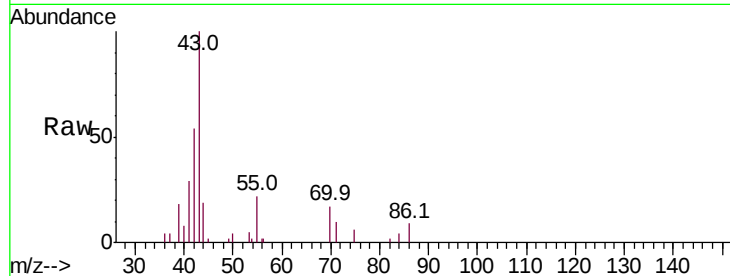
Tgt Ion:	41	Resp:	1627
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.2	37.8#
39	258.2	66.1	99.1#





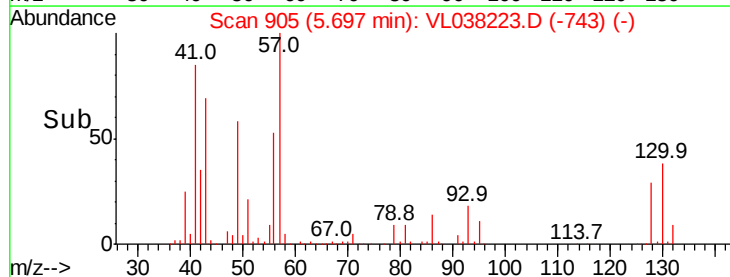
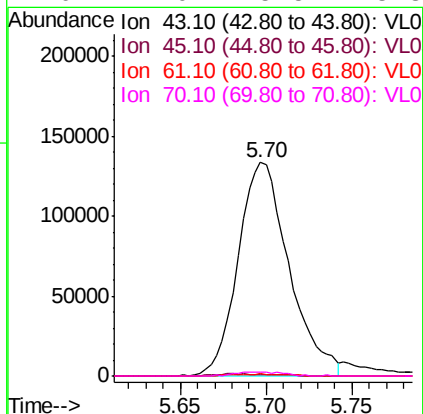
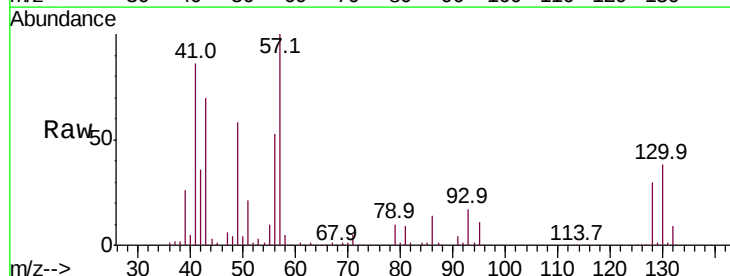
#23
 Vinyl Acetate
 Concen: 0.090 ppbv
 RT: 5.08
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 21:38

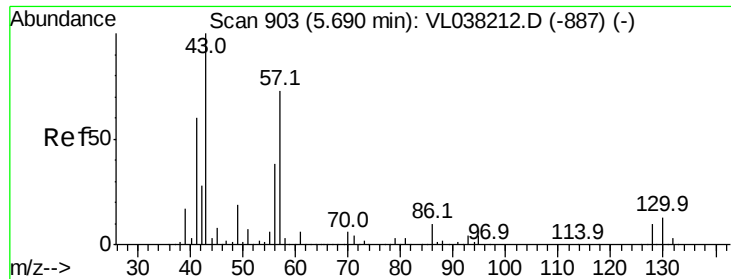
Tot Ion:	43	Resp:	7684
Ion	Ratio	Lower	Upper
43	100		
86	6.6	5.6	8.4
42	50.5	7.0	10.4#
44	0.0	3.9	5.9#



#25
 Ethyl Acetate
 Concen: 1.593 ppbv
 RT: 5.70 min Scan# 905
 Delta R.T.: 0.02 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

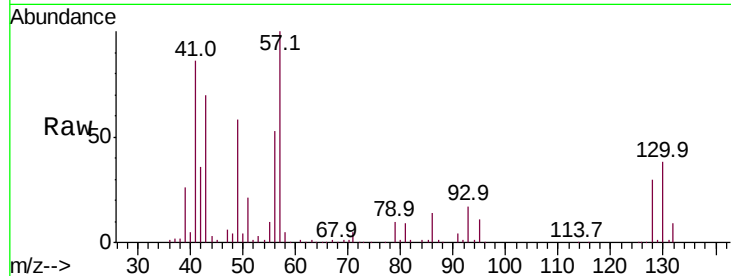
Tgt Ion:	43	Resp:	272476
Ion	Ratio	Lower	Upper
43	100		
45	1.3	7.9	11.9#
61	0.8	8.1	12.1#
70	2.0	5.5	8.3#





#26
Hexane
Concen: 4.542 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 21 Dec 2021 21:38

Tot Ion	57	Resp	389882
Ion Ratio	Lower	Upper	
57	100		
41	89.4	69.0	103.6
43	74.8	171.2	256.8#
56	53.5	41.5	62.3



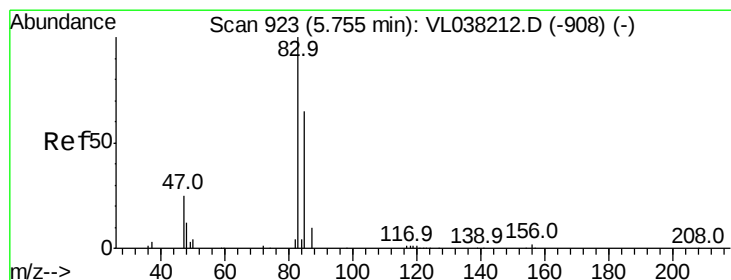
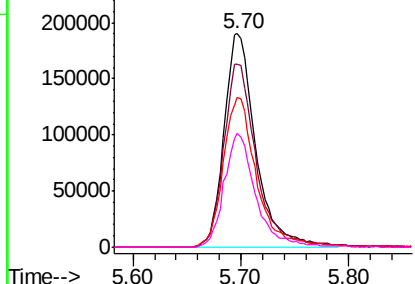
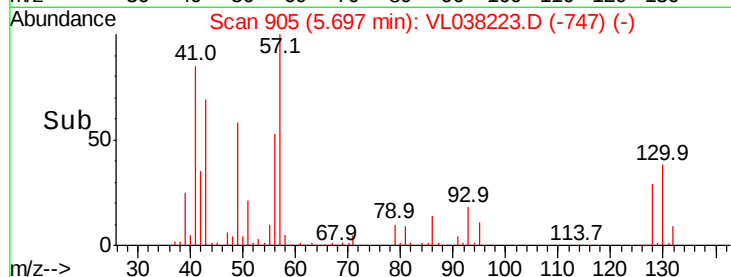
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

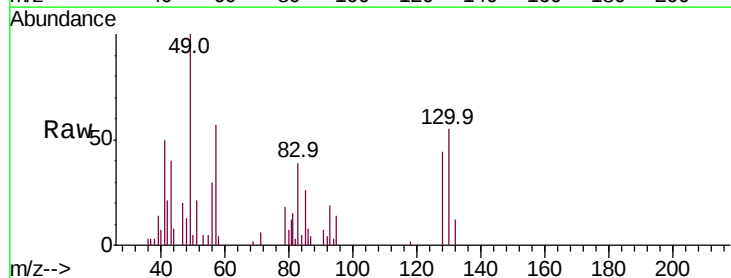
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29
Chloroform
Concen: 0.042 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.01 min
Lab File: VL038223.D
Acq: 21 Dec 2021 21:38

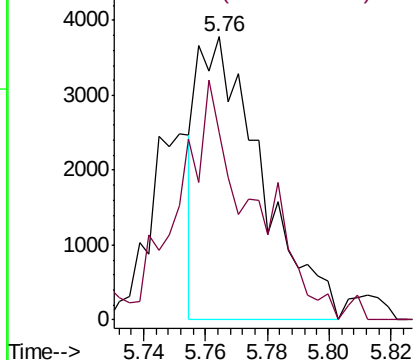
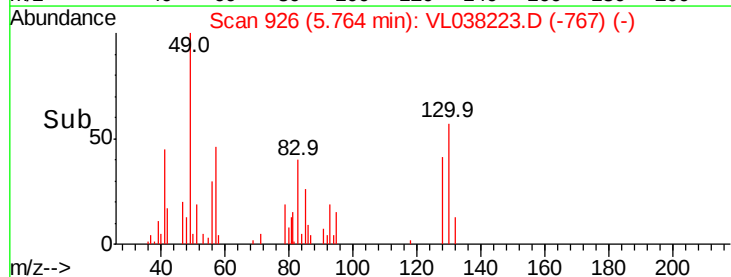
Tgt Ion	83	Resp	5400
Ion Ratio	Lower	Upper	
83	100		
85	66.3	52.2	78.4

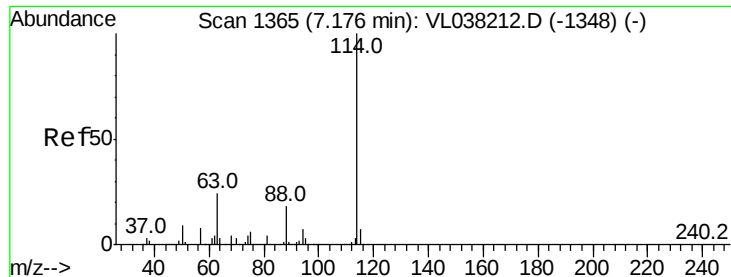


Abundance

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18

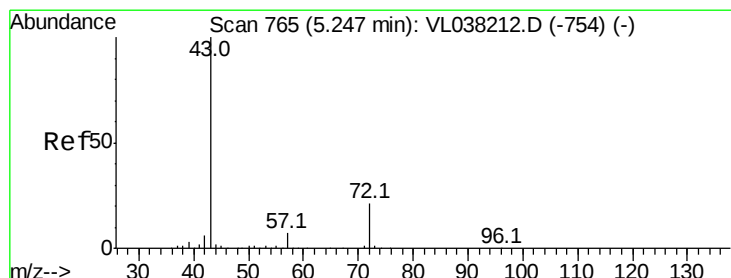
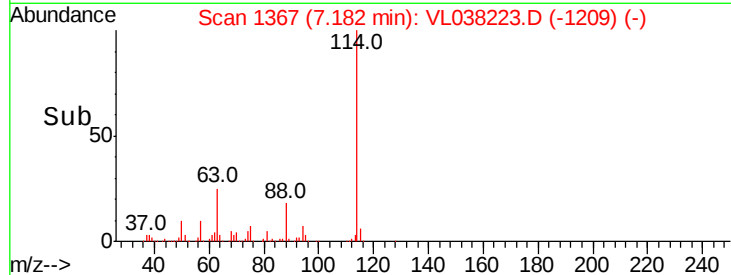
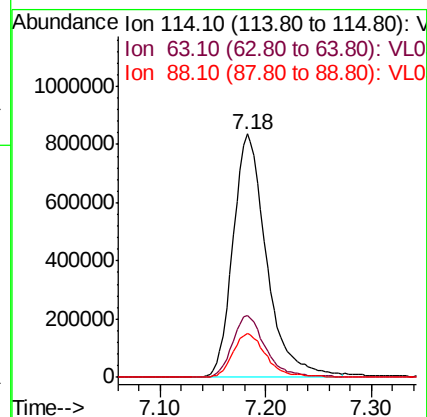
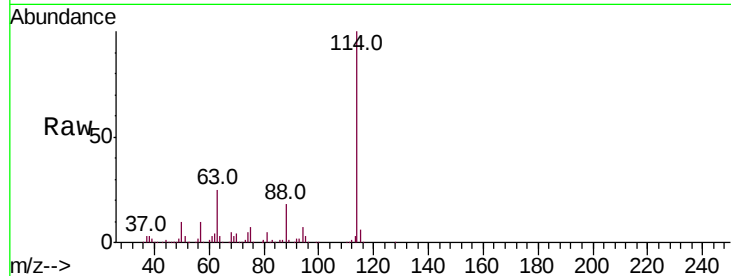
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 21:38

Tot Ion:114 Resp: 1844320

Ion	Ratio	Lower	Upper
114	100		
63	25.6	19.7	29.5
88	18.5	14.3	21.5



#34

2-Butanone

Concen: 0.471 ppbv

RT: 5.26 min Scan# 770

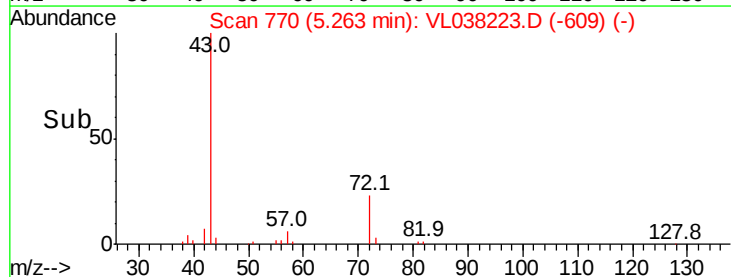
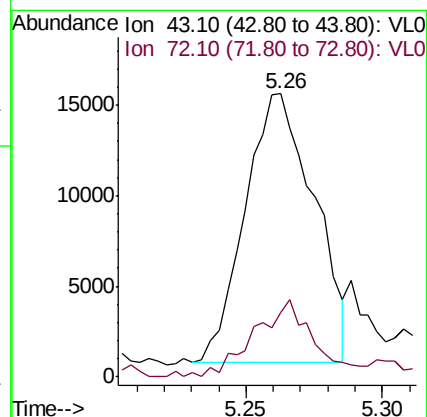
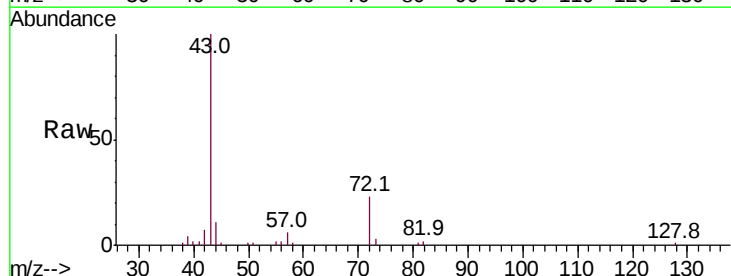
Delta R.T. 0.02 min

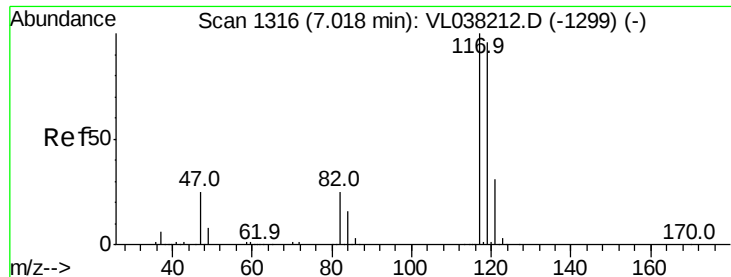
Lab File: VL038223.D

Acq: 21 Dec 2021 21:38

Tgt Ion: 43 Resp: 26109

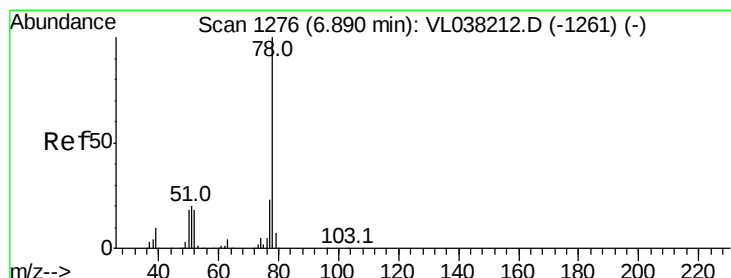
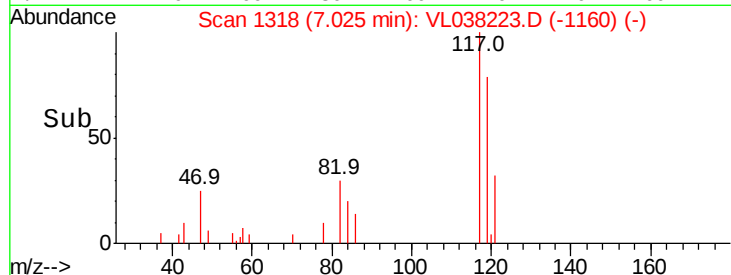
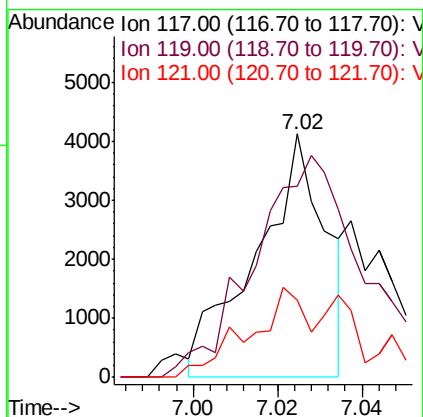
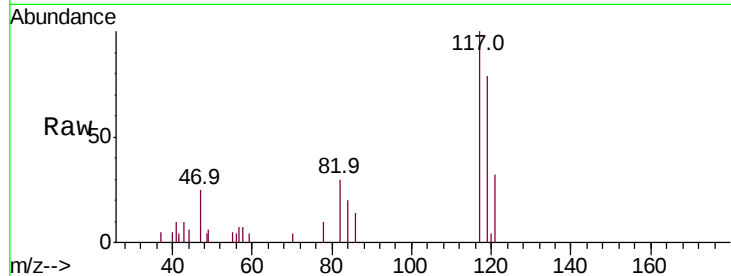
Ion	Ratio	Lower	Upper
43	100		
72	28.8	18.3	27.5#





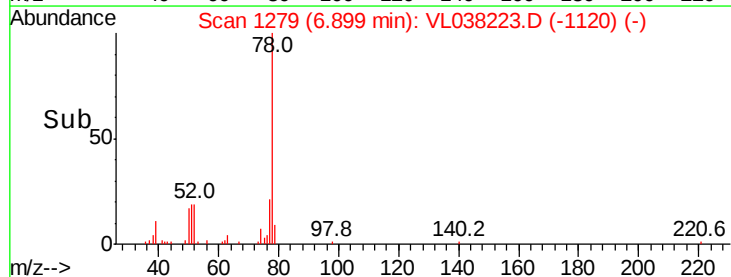
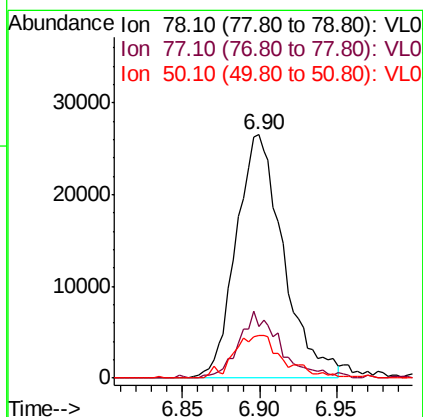
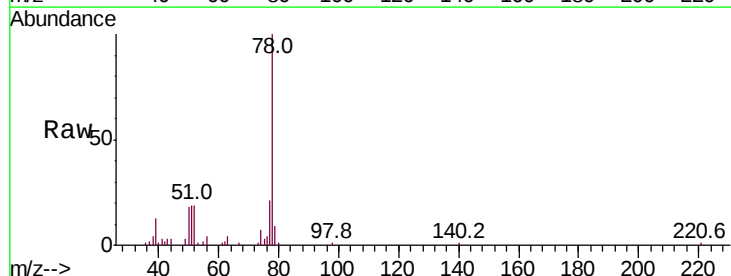
#35
 Carbon Tetrachloride
 Concen: 0.041 ppbv
 RT: 7.02 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 21 Dec 2021 21:38

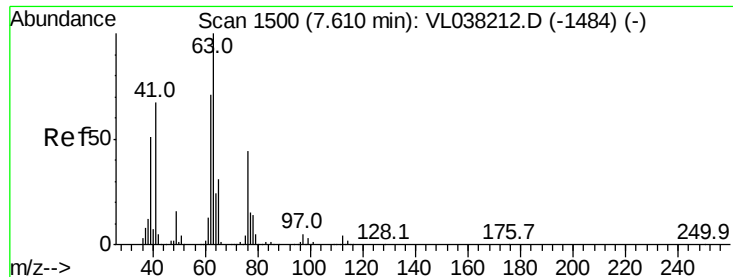
Tot Ion: 117 Resp: 4689
 Ion Ratio Lower Upper
 117 100
 119 73.7 76.7 115.1#
 121 29.0 25.0 37.4



#36
 Benzene
 Concen: 0.327 ppbv
 RT: 6.90 min Scan# 1279
 Delta R.T. 0.01 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

Tgt Ion: 78 Resp: 56299
 Ion Ratio Lower Upper
 78 100
 77 21.1 18.2 27.4
 50 17.6 14.3 21.5





#39

1,2-Dichloropropane

Concen: 6.936 ppbv

RT: 7.18

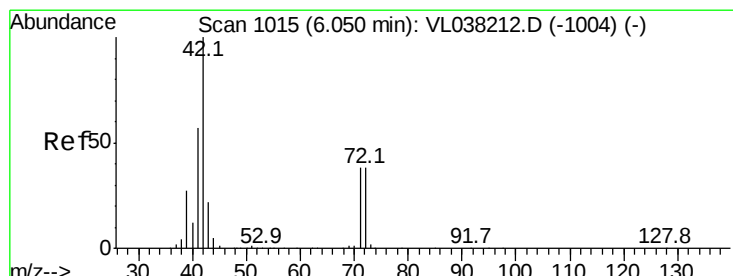
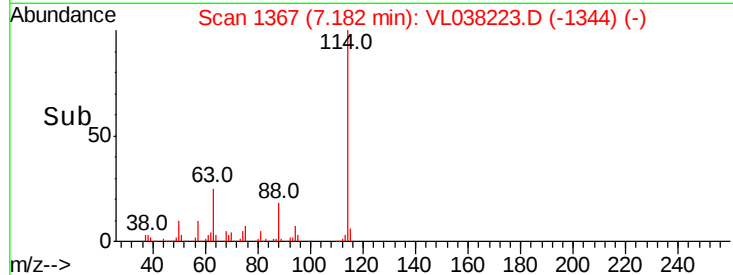
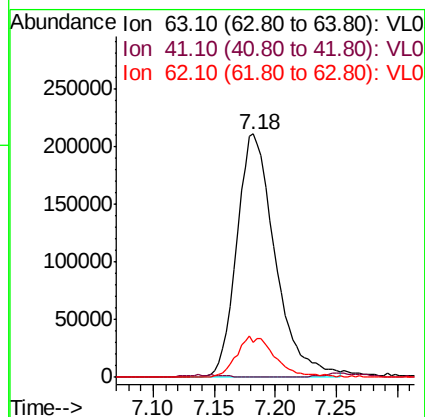
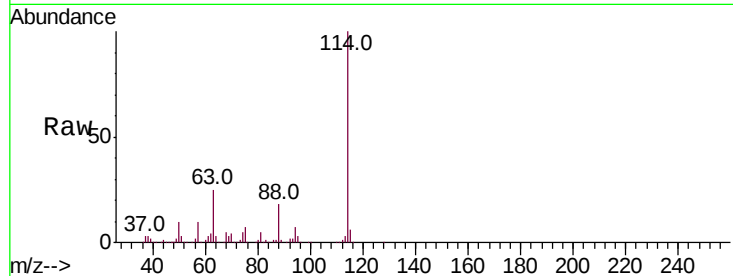
Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 21 Dec 2021 21:38

Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.4	80.2#
62	14.6	56.5	84.7#



#41

Tetrahydrofuran

Concen: 0.089 ppbv

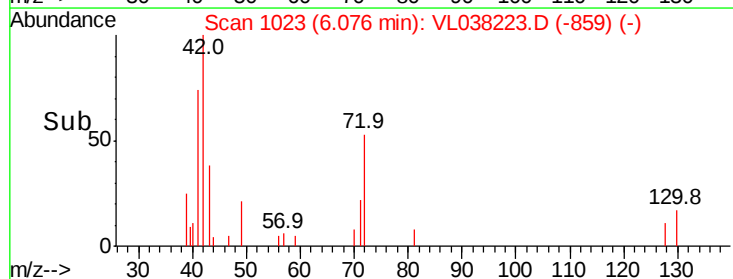
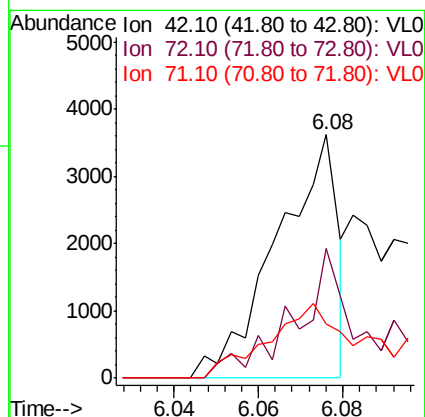
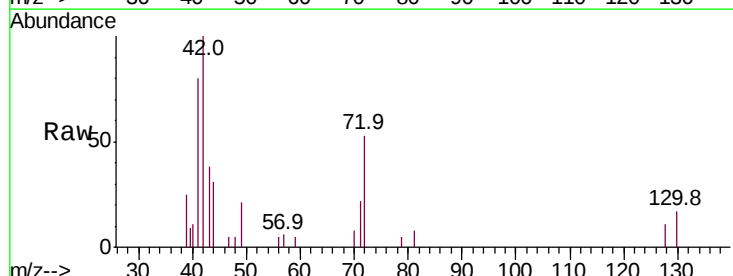
RT: 6.08 min Scan# 1023

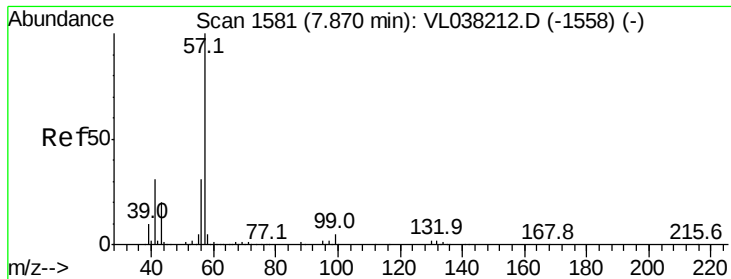
Delta R.T. 0.03 min

Lab File: VL038223.D

Acq: 21 Dec 2021 21:38

Tgt Ion	Ratio	Lower	Upper
42	100		
72	72.5	31.4	47.0#
71	53.7	30.0	45.0#





#44

2,2,4-Trimethylpentane

Concen: 0.188 ppbv

RT: 7.87 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 21:38

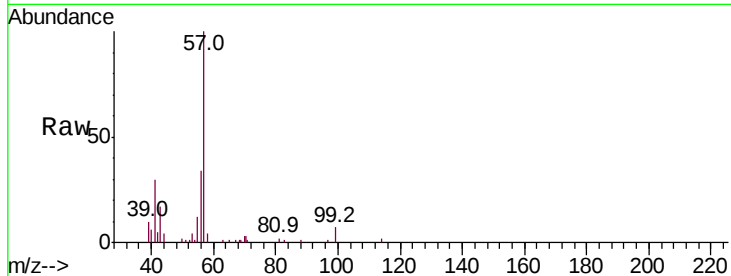
Tot Ion: 57 Resp: 55024

Ion Ratio Lower Upper

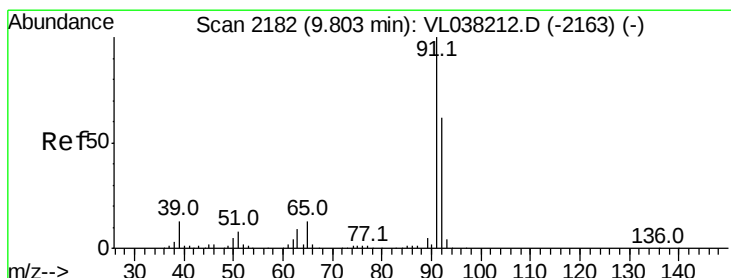
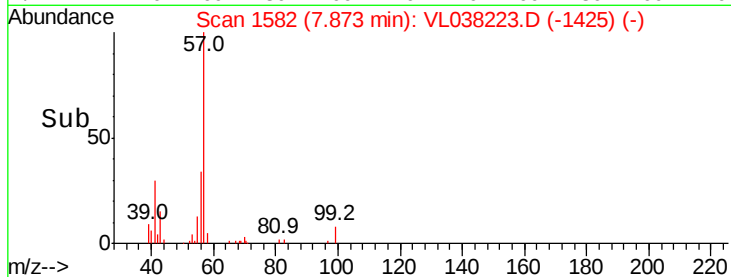
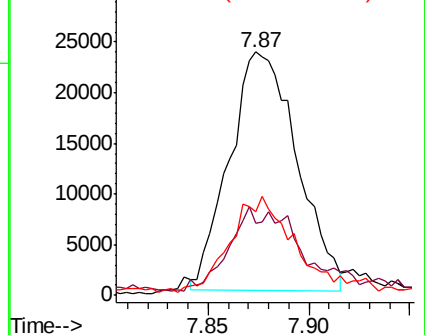
57 100

41 45.6 24.9 37.3#

56 48.3 24.8 37.2#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#53

Toluene

Concen: 0.719 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. 0.01 min

Lab File: VL038223.D

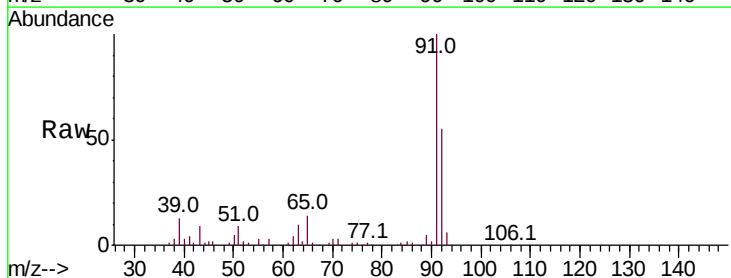
Acq: 21 Dec 2021 21:38

Tgt Ion: 91 Resp: 142742

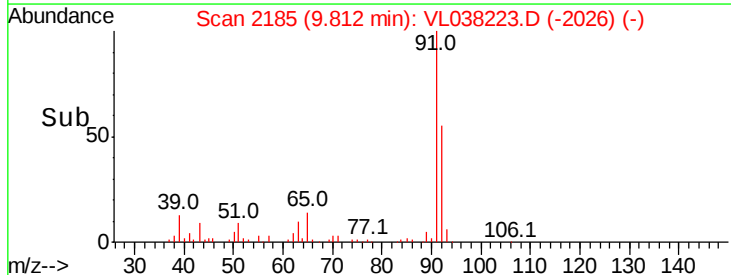
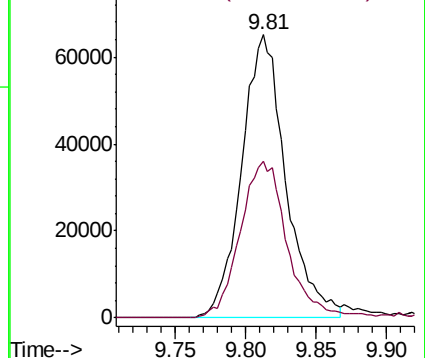
Ion Ratio Lower Upper

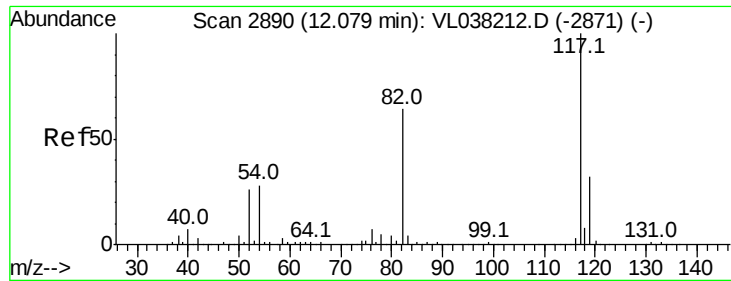
91 100

92 58.9 48.9 73.3



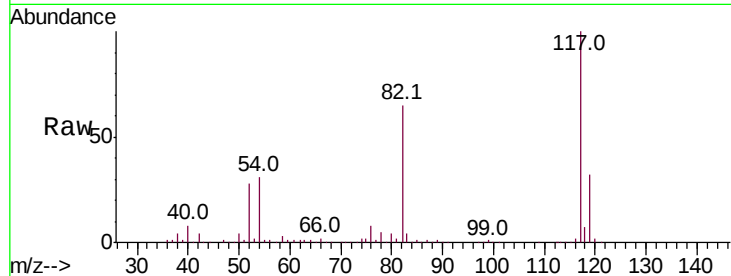
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0



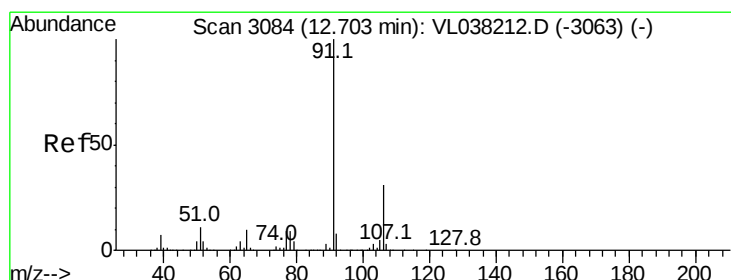
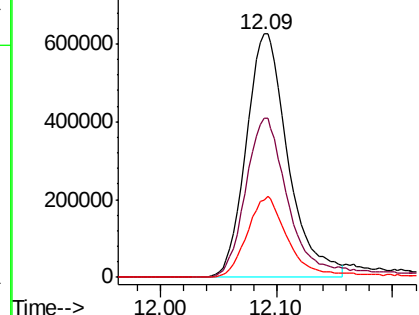
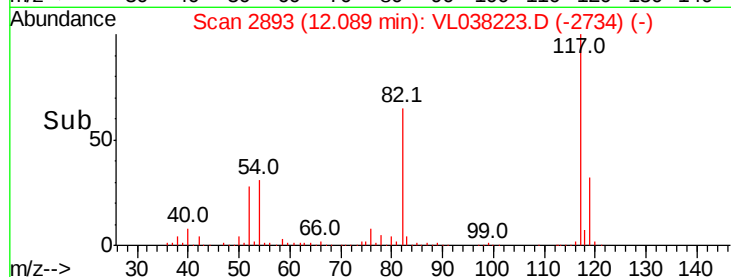


#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.09 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 21 Dec 2021 21:38

Tot Ion:117 Resp: 1571691
 Ion Ratio Lower Upper
 117 100
 82 72.8 53.3 79.9
 119 34.9 25.5 38.3

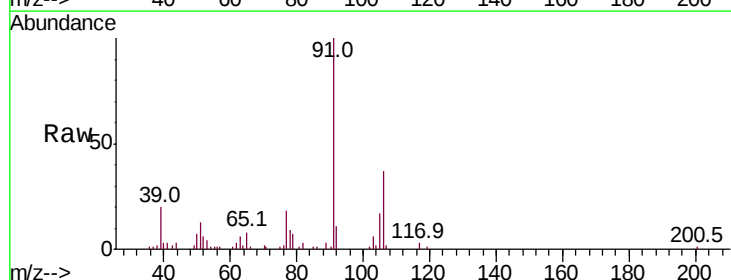


Abundance Ion 117.10 (116.80 to 117.80): V
 Ion 82.10 (81.80 to 82.80): VL0
 Ion 119.10 (118.80 to 119.80): V

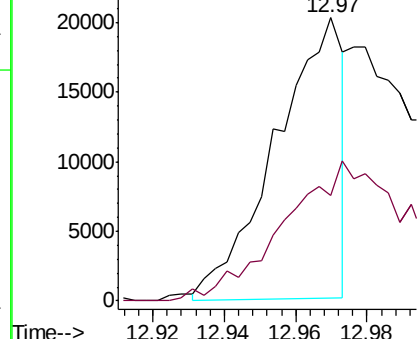
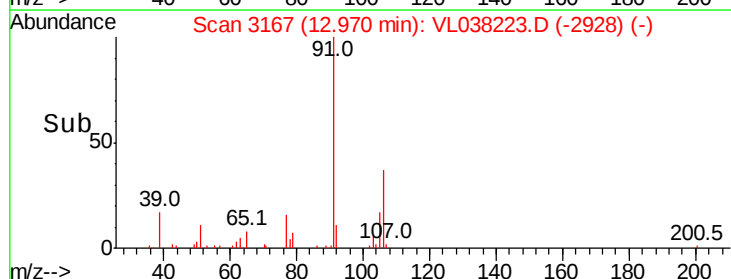


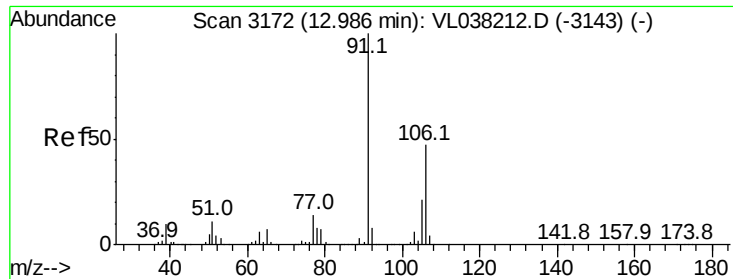
#58
 Ethyl Benzene
 Concen: 0.108 ppbv
 RT: 12.97 min Scan# 3167
 Delta R.T. 0.27 min
 Lab File: VL038223.D
 Acq: 21 Dec 2021 21:38

Tgt Ion: 91 Resp: 26332
 Ion Ratio Lower Upper
 91 100
 106 34.1 25.0 37.4



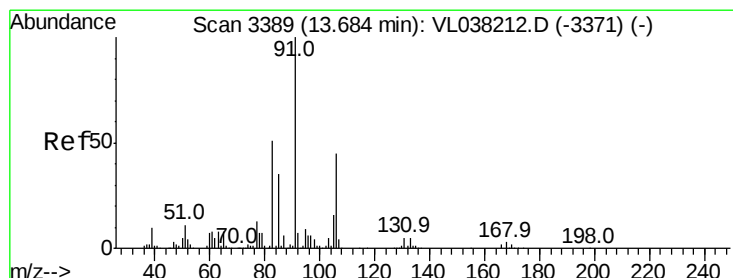
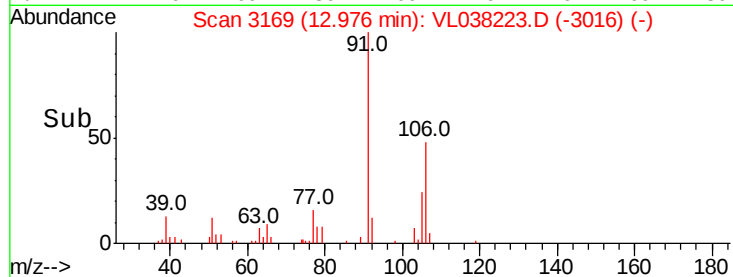
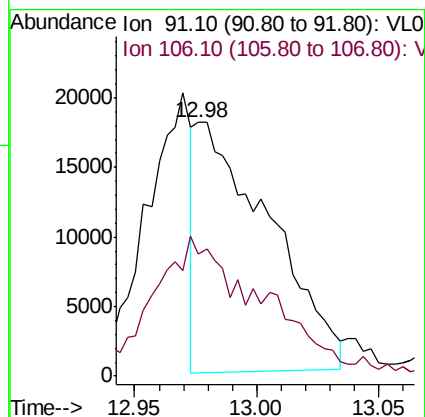
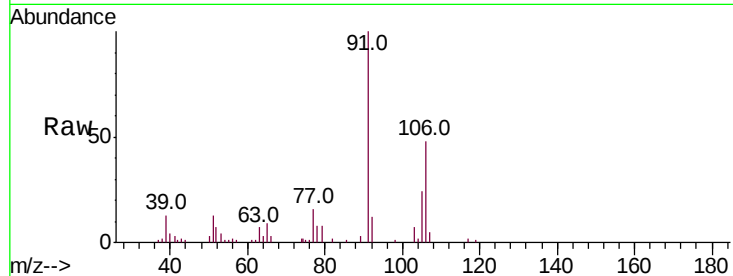
Abundance Ion 91.10 (90.80 to 91.80): VL0
 Ion 106.10 (105.80 to 106.80): V





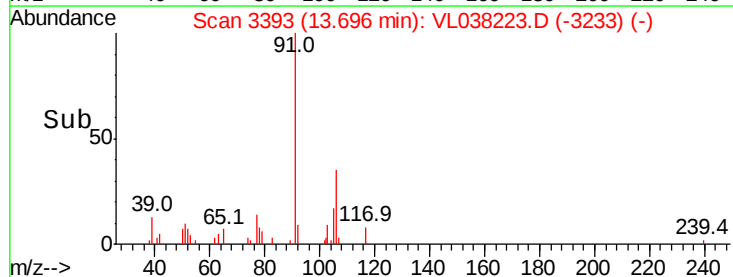
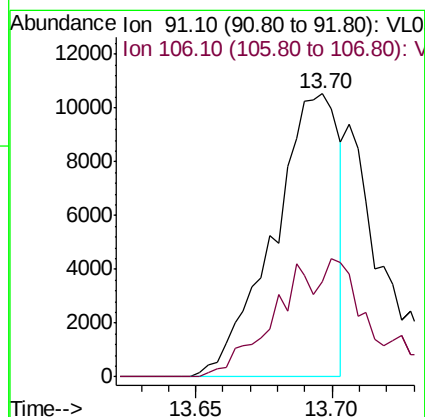
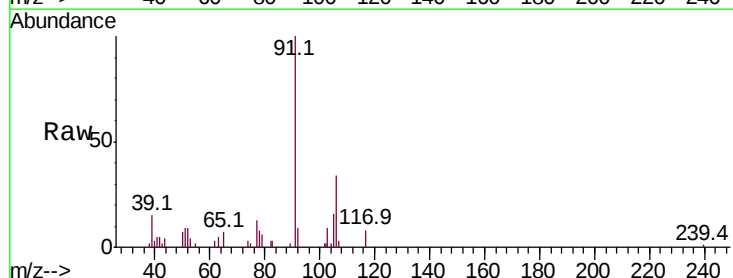
#59
m/p-Xylene
Concen: 0.180 ppbv
RT: 12.98 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 21 Dec 2021 21:38

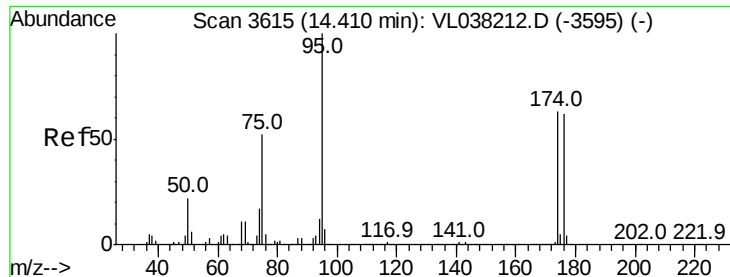
Tot Ion: 91 Resp: 37498
Ion Ratio Lower Upper
91 100
106 88.2 36.9 55.3#



#60
o-Xylene
Concen: 0.090 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. 0.01 min
Lab File: VL038223.D
Acq: 21 Dec 2021 21:38

Tgt Ion: 91 Resp: 17469
Ion Ratio Lower Upper
91 100
106 60.0 23.5 70.5





#68

1-Bromo-4-Fluorobenzene

Concen: 10.022 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 21:38

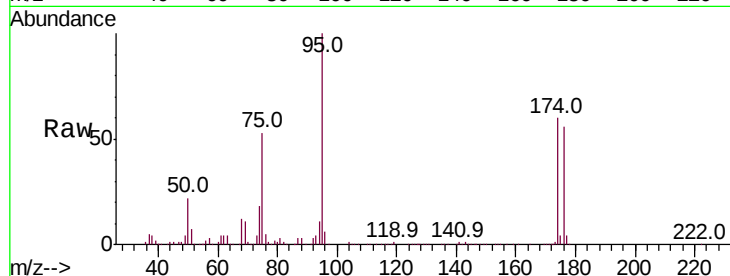
Tot Ion: 95 Resp: 1213788

Ion Ratio Lower Upper

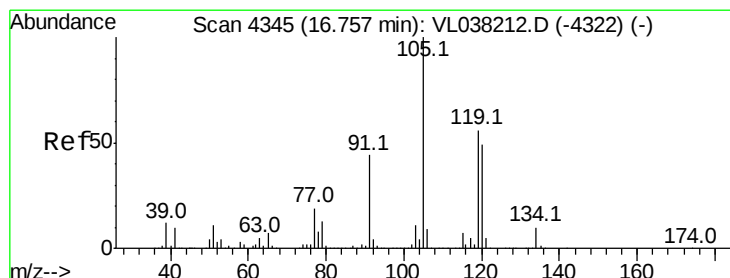
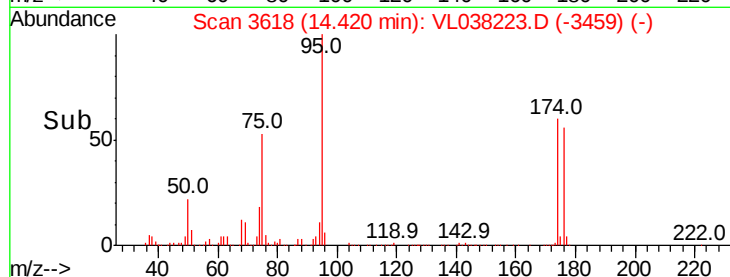
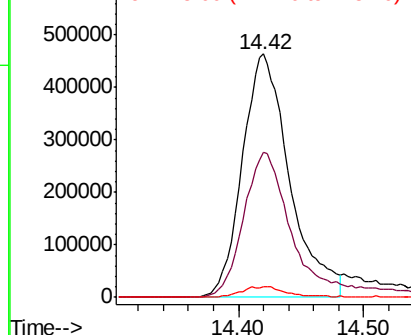
95 100

174 65.4 54.6 81.8

175 4.5 4.1 6.1



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: 0.063 ppbv

RT: 16.77 min Scan# 4349

Delta R.T. 0.01 min

Lab File: VL038223.D

Acq: 21 Dec 2021 21:38

Tgt Ion: 105 Resp: 13211

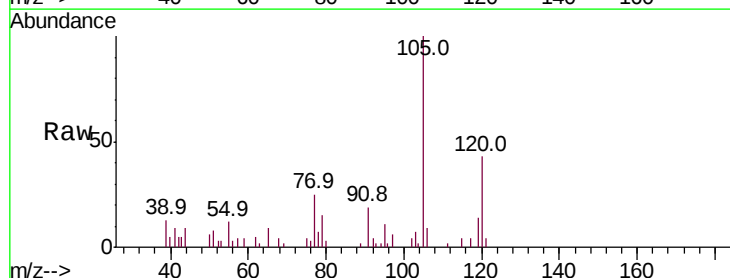
Ion Ratio Lower Upper

105 100

120 43.1 39.4 59.2

91 19.2 35.0 52.4#

77 24.9 15.6 23.4#



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

