

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL030122\
 Data File : VL038450.D
 Acq On : 1 Mar 2022 14:21
 Operator : SY/AP
 Sample : N1702-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-2

Quant Time: Mar 02 03:04:06 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

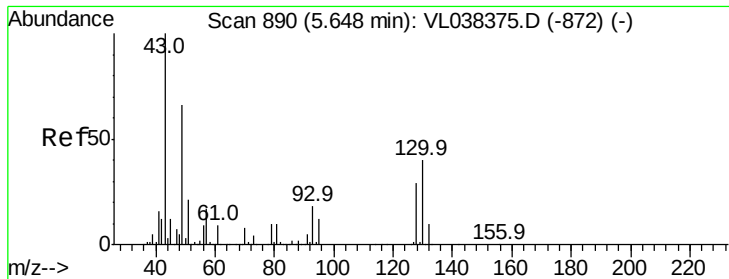
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	869156	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.17	114	2014612	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.08	117	1843561	10.00	ppbv	0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1429141	9.37	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.06	85	10215	0.07	ppbv	96
3) Chlorodifluoromethane	2.97	51	228439	1.49	ppbv #	60
8) Dichlorotetrafluoroethane	3.19	85	6912	0.05	ppbv	86
9) Propene	3.02	41	22978	0.45	ppbv	89
10) Heptane	8.12	43	4435	0.04	ppbv #	28
13) Ethanol	3.61	45	184788	36.54	ppbv	98
15) Acetone	3.85	43	836029	11.31	ppbv	97
16) 1,3-Butadiene	3.32	39	2435	0.05	ppbv #	72
17) tert-Butyl alcohol	4.30	59	99559	1.35	ppbv #	94
19) Isopropyl Alcohol	3.98	45	24170	0.56	ppbv #	1
20) Methylene Chloride	4.35	84	35259	0.96	ppbv	93
23) Vinyl Acetate	5.06	43	3621	0.04	ppbv #	25
25) Ethyl Acetate	5.68	43	42566	0.21	ppbv #	81
26) Hexane	5.68	57	64406	0.72	ppbv #	36
27) Carbon Disulfide	4.56	76	4547	0.05	ppbv #	1
34) 2-Butanone	5.25	43	58907	0.93	ppbv #	87
36) Benzene	6.89	78	24421	0.14	ppbv #	85
39) 1,2-Dichloropropane	7.17	63	541829	7.67	ppbv #	26
51) 2-Hexanone	10.15	43	1583	0.03	ppbv #	1
52) Tetrachloroethene	11.22	164	105712	1.80	ppbv	95
53) Toluene	9.80	91	527023	2.74	ppbv	100
60) o-Xylene	13.69	91	16644	0.08	ppbv	96
69) p-Isopropyltoluene	17.64	119	9416	0.04	ppbv #	60
74) 1,2,4-Trimethylbenzene	16.75	105	9696	0.04	ppbv #	62

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 1 Mar 2022 14:21 SVP-2

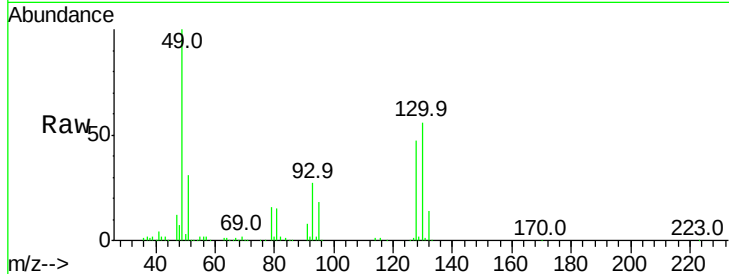
Tgt Ion: 49 Resp: 869156

Ion Ratio Lower Upper

49 100

128 46.1 24.3 72.9

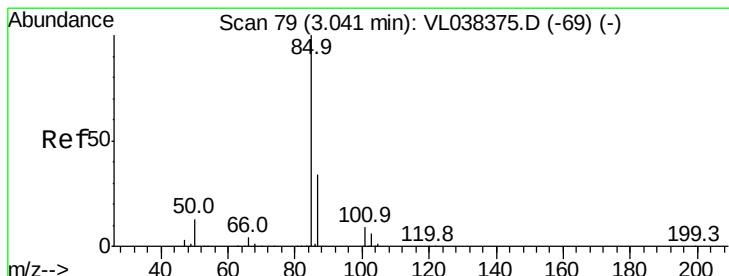
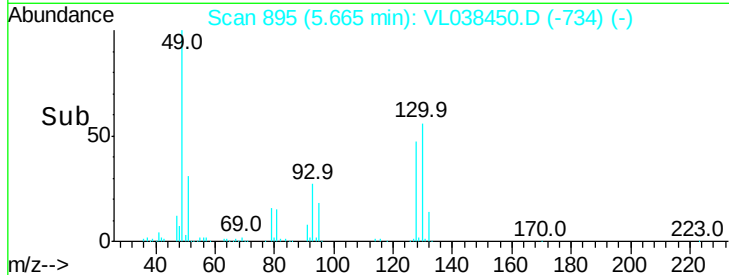
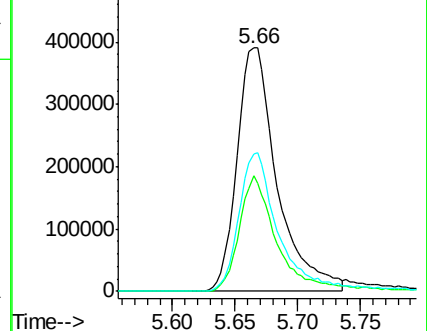
130 58.4 30.1 90.5



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: 0.07 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.02 min

Lab File: VL038450.D

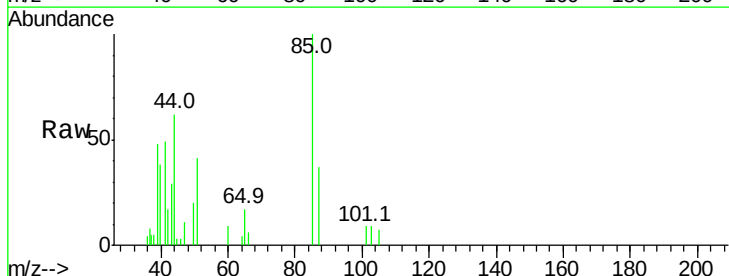
Acq: 1 Mar 2022 14:21

Tgt Ion: 85 Resp: 10215

Ion Ratio Lower Upper

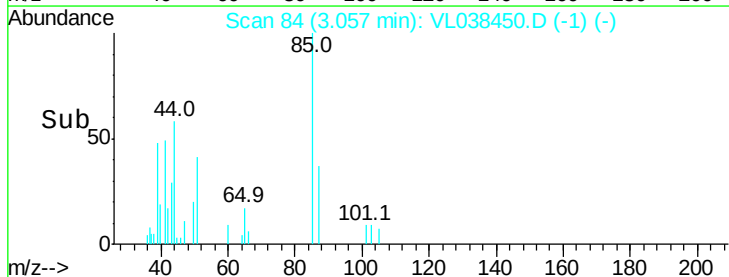
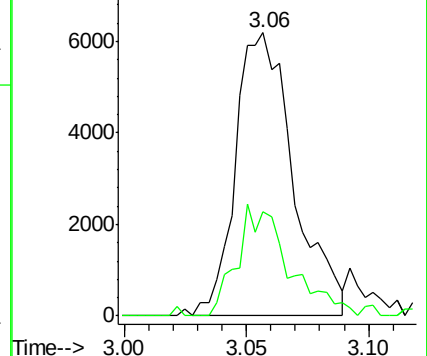
85 100

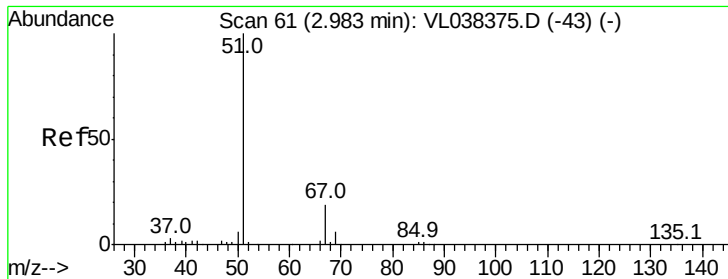
87 36.8 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.49 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

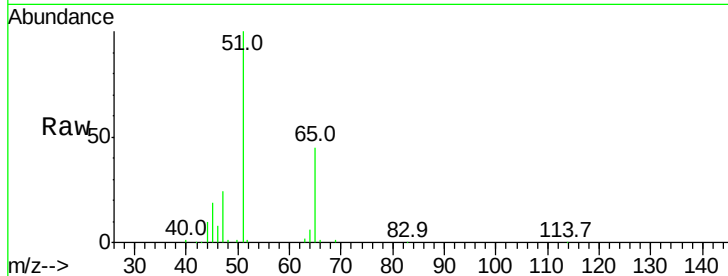
Acq: 1 Mar 2022 14:21 SVP-2

Tgt Ion: 51 Resp: 228439

Ion Ratio Lower Upper

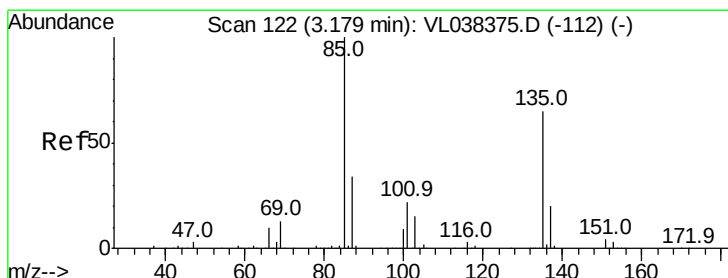
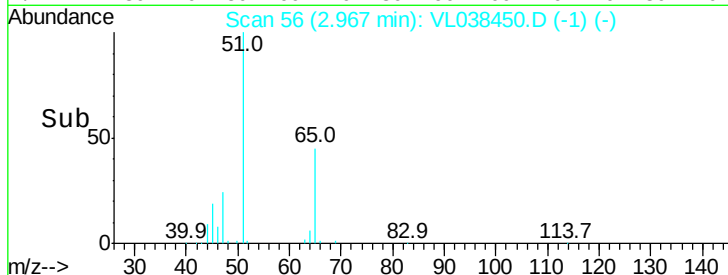
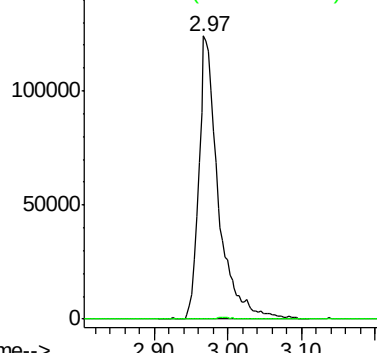
51 100

67 0.5 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.05 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.01 min

Lab File: VL038450.D

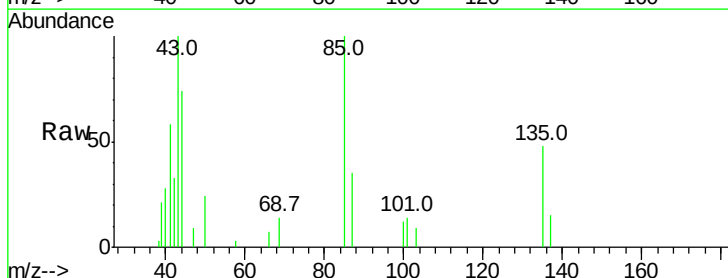
Acq: 1 Mar 2022 14:21

Tgt Ion: 85 Resp: 6912

Ion Ratio Lower Upper

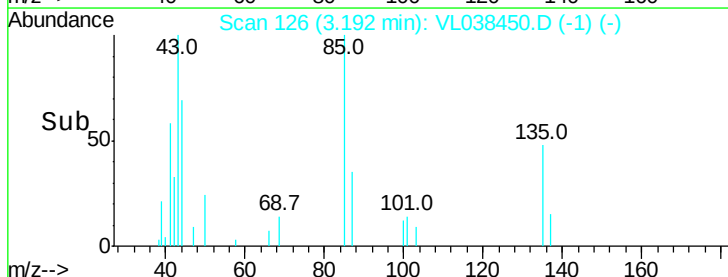
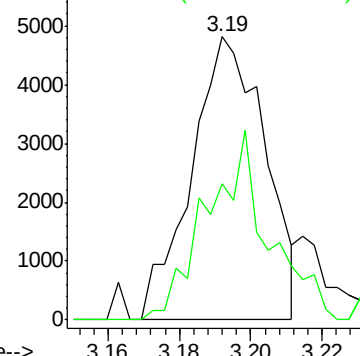
85 100

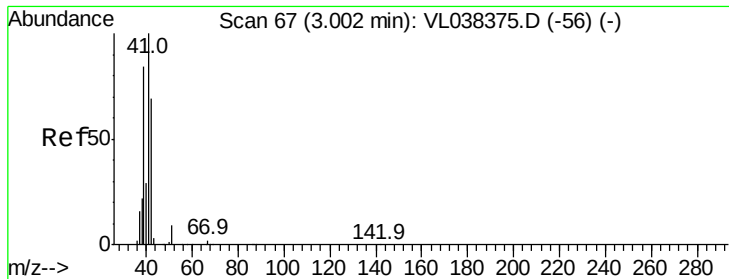
135 56.6 54.1 81.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.45 ppbv

RT: 3.02 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SVP-2

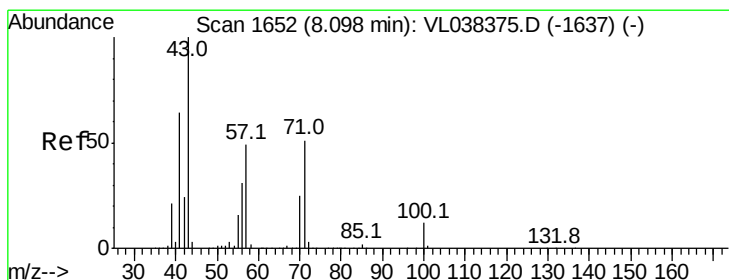
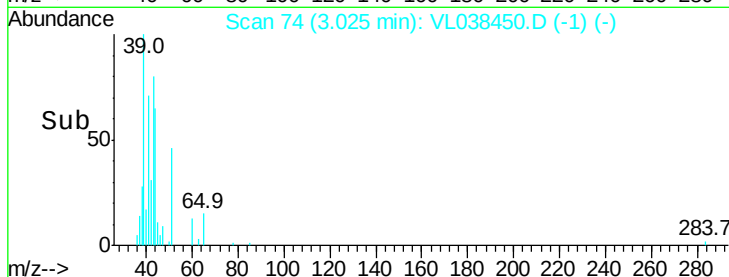
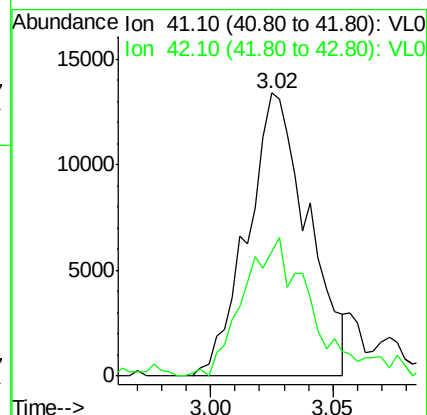
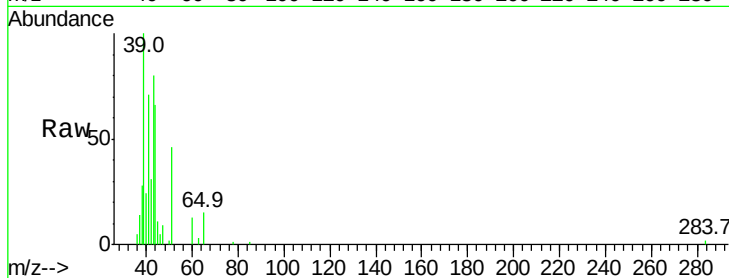
Acq: 1 Mar 2022 14:21

Tgt Ion: 41 Resp: 22978

Ion Ratio Lower Upper

41 100

42 59.4 54.6 82.0



#10

Heptane

Concen: 0.04 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. 0.02 min

Lab File: VL038450.D

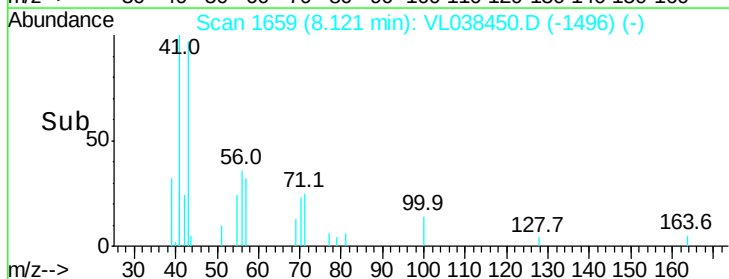
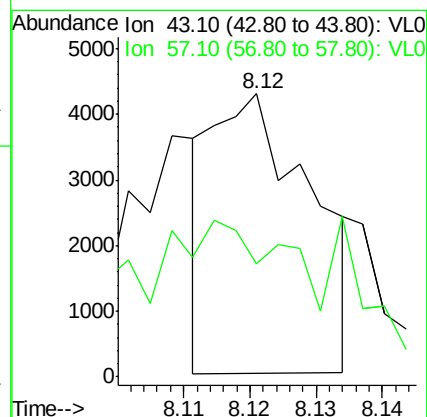
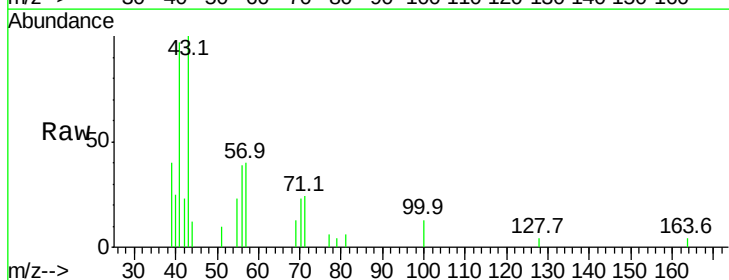
Acq: 1 Mar 2022 14:21

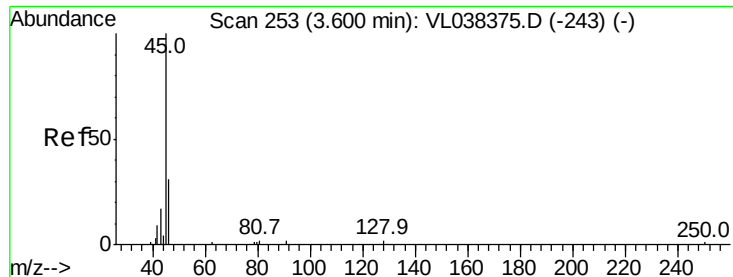
Tgt Ion: 43 Resp: 4435

Ion Ratio Lower Upper

43 100

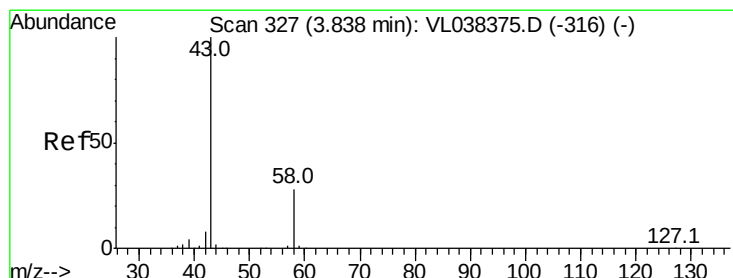
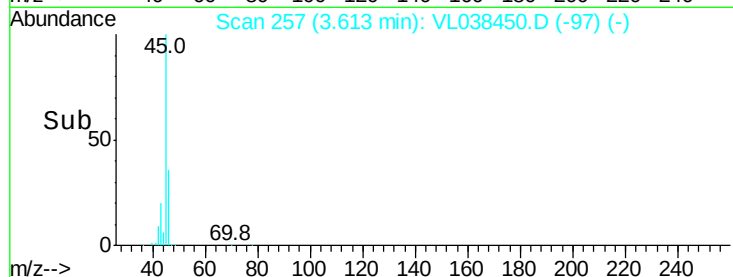
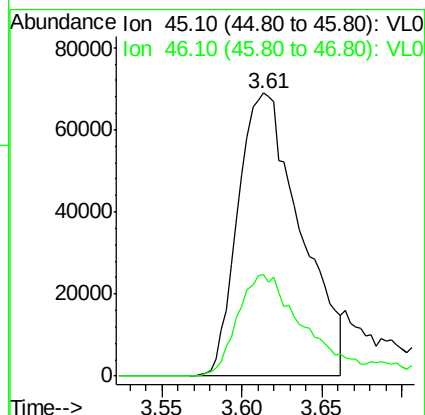
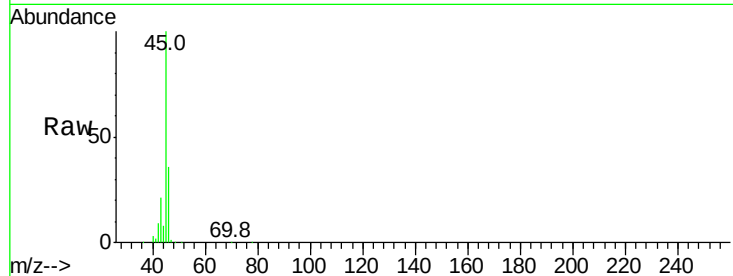
57 0.0 39.8 59.8#





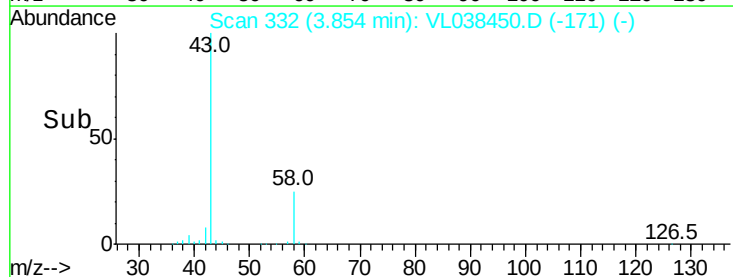
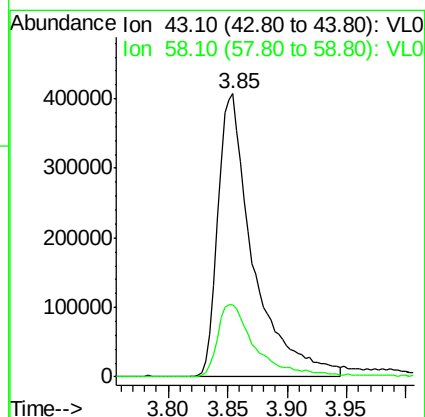
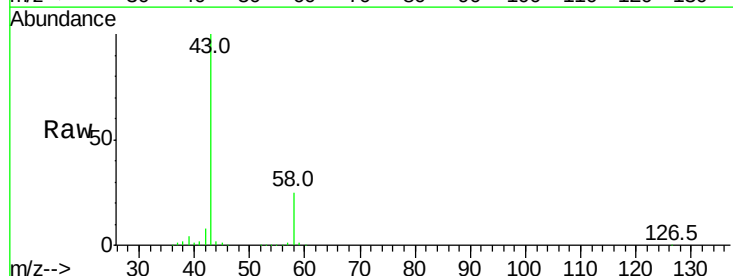
#13
Ethanol
Concen: 36.54 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 1 Mar 2022 14:21

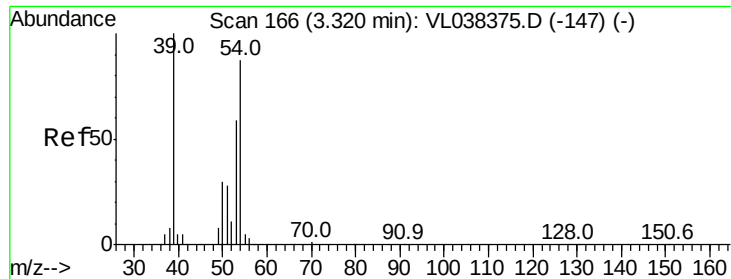
Tgt Ion: 45 Resp: 184788
Ion Ratio Lower Upper
45 100
46 44.4 18.2 72.8



#15
Acetone
Concen: 11.31 ppbv
RT: 3.85 min Scan# 332
Delta R.T. 0.02 min
Lab File: VL038450.D
Acq: 1 Mar 2022 14:21

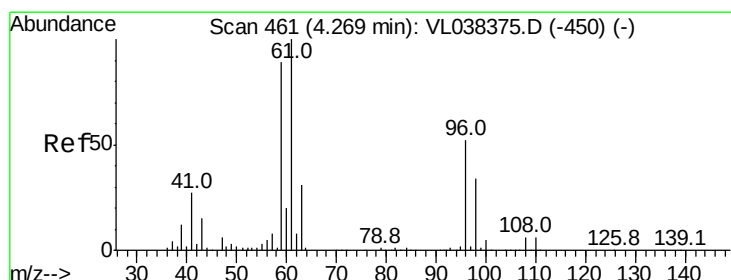
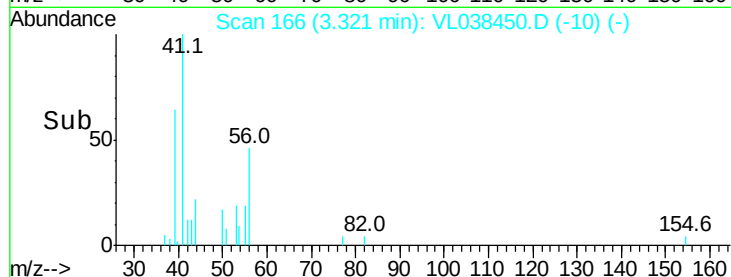
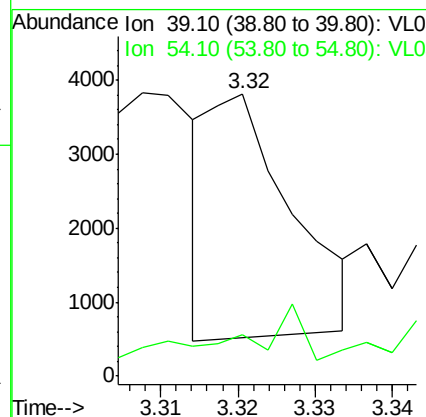
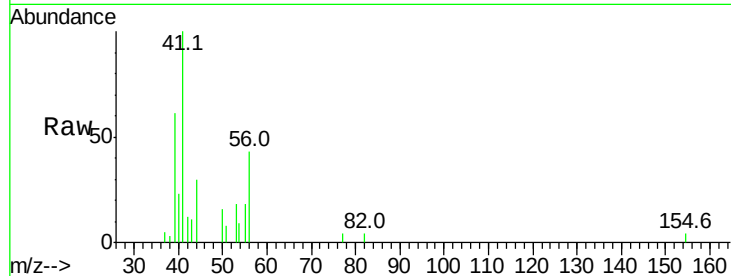
Tgt Ion: 43 Resp: 836029
Ion Ratio Lower Upper
43 100
58 28.7 21.7 32.5





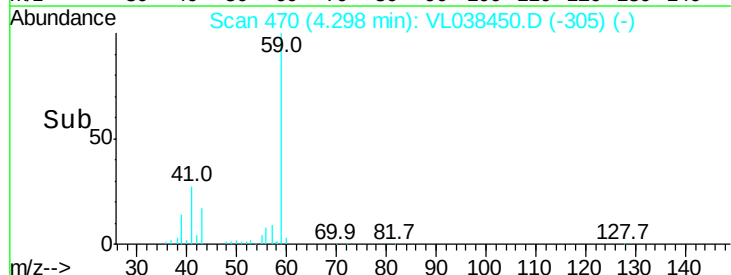
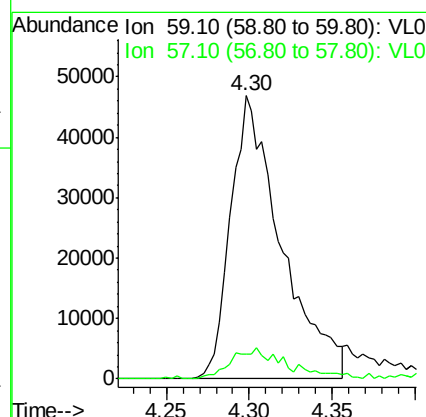
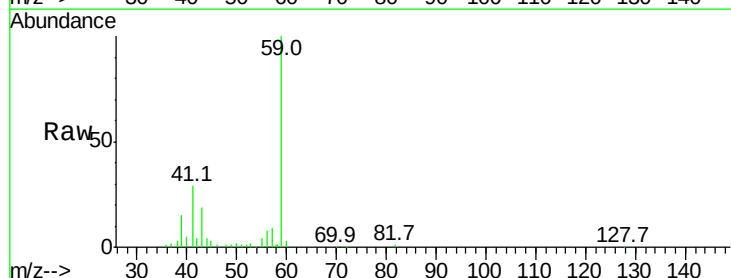
#16
 1,3-Butadiene
 Concen: 0.05 ppbv
 RT: 3.32
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId:
 SVP-2
 Acq: 1 Mar 2022 14:21

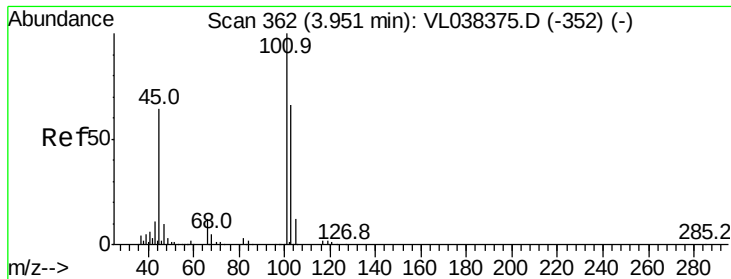
Tgt Ion: 39 Resp: 2435
 Ion Ratio Lower Upper
 39 100
 54 51.5 60.3 90.5#



#17
 tert-Butyl alcohol
 Concen: 1.35 ppbv
 RT: 4.30 min Scan# 470
 Delta R.T. 0.03 min
 Lab File: VL038450.D
 Acq: 1 Mar 2022 14:21

Tgt Ion: 59 Resp: 99559
 Ion Ratio Lower Upper
 59 100
 57 12.8 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 0.56 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

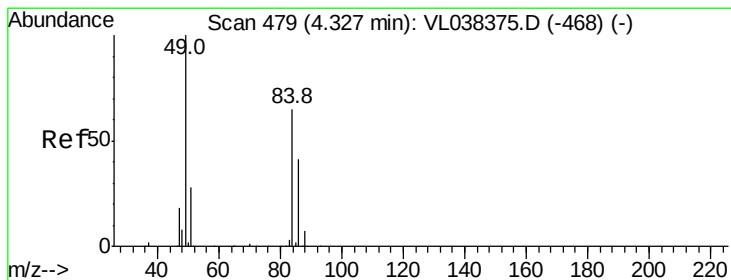
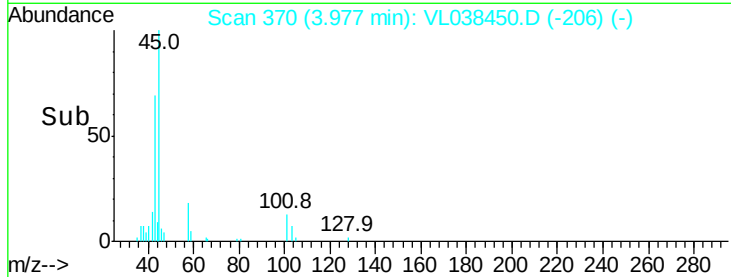
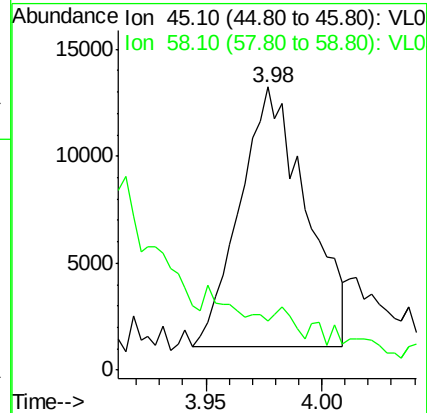
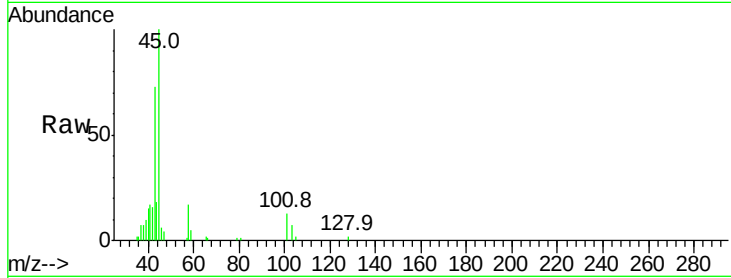
Acq: 1 Mar 2022 14:21 SVP-2

Tgt Ion: 45 Resp: 24170

Ion Ratio Lower Upper

45 100

58 993.2 1.8 2.8#



#20

Methylene Chloride

Concen: 0.96 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.02 min

Lab File: VL038450.D

Acq: 1 Mar 2022 14:21

Tgt Ion: 84 Resp: 35259

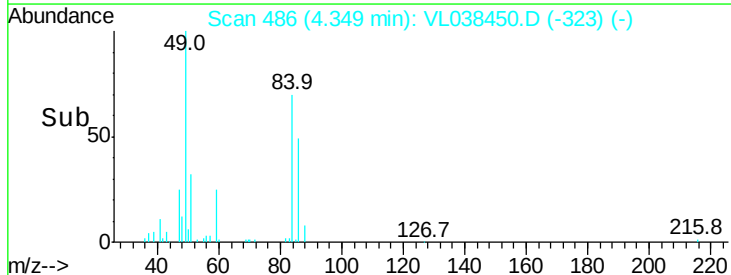
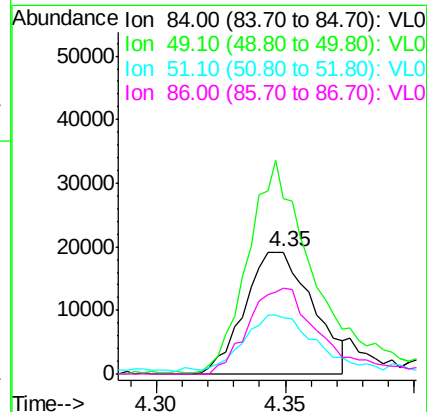
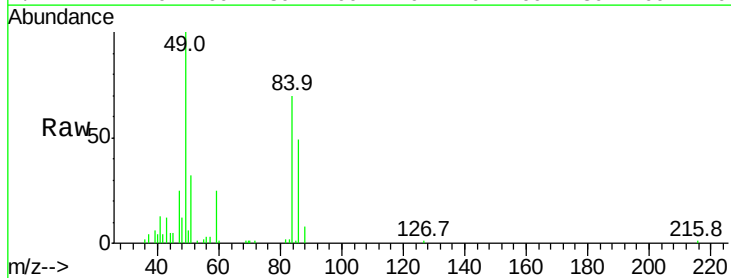
Ion Ratio Lower Upper

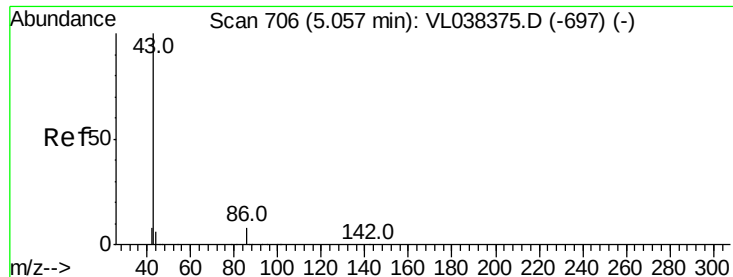
84 100

49 141.9 122.4 183.6

51 41.4 33.3 49.9

86 70.2 50.7 76.1





#23

Vinyl Acetate

Concen: 0.04 ppbv

RT: 5.06 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 1 Mar 2022 14:21

Tgt Ion: 43 Resp: 3621

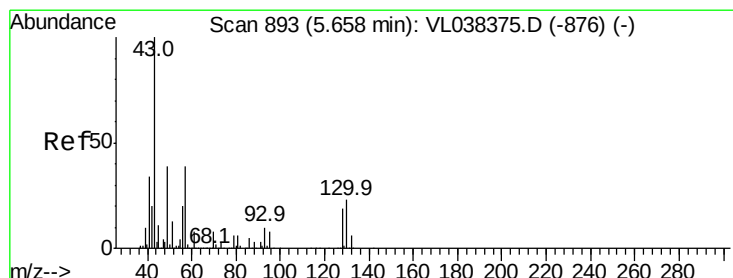
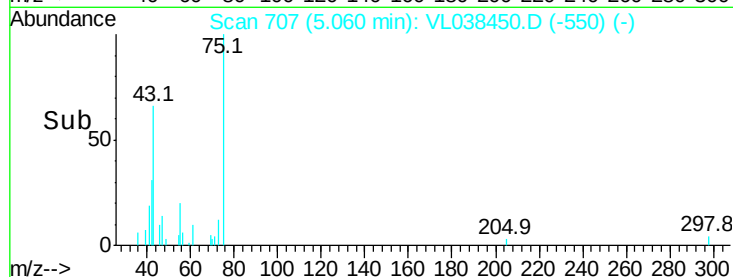
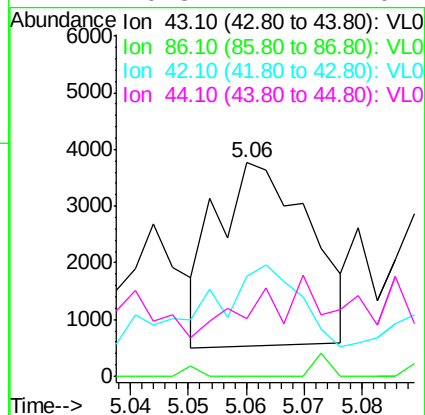
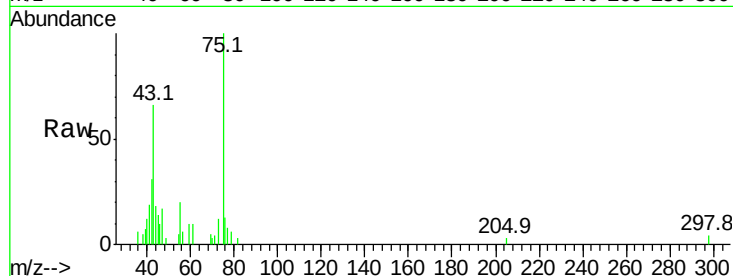
Ion Ratio Lower Upper

43 100

86 0.0 5.8 8.6#

42 60.6 7.4 11.0#

44 16.3 4.2 6.2#



#25

Ethyl Acetate

Concen: 0.21 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.03 min

Lab File: VL038450.D

Acq: 1 Mar 2022 14:21

Tgt Ion: 43 Resp: 42566

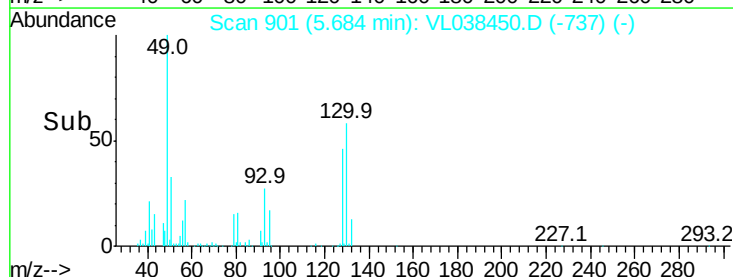
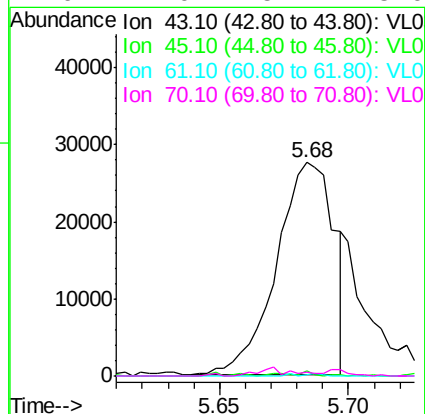
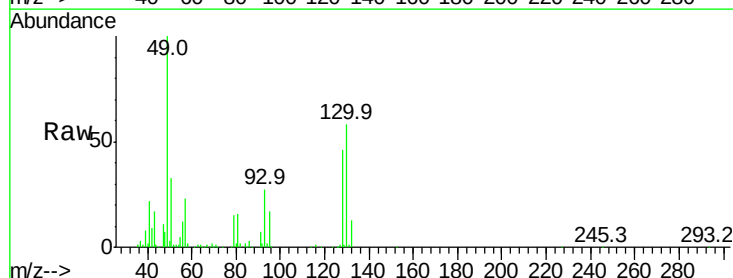
Ion Ratio Lower Upper

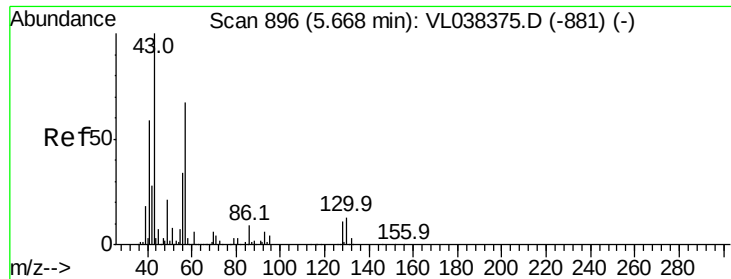
43 100

45 2.2 7.8 11.6#

61 0.5 7.5 11.3#

70 4.0 5.4 8.0#





#26

Hexane

Concen: 0.72 ppbv

RT: 5.68

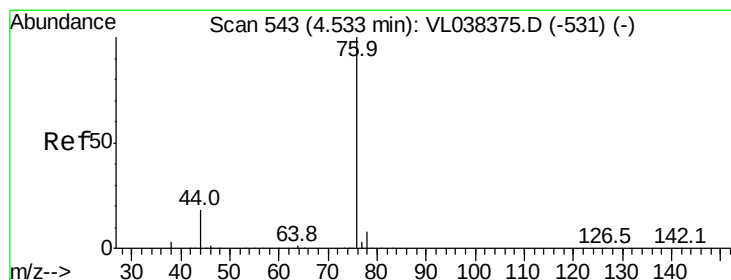
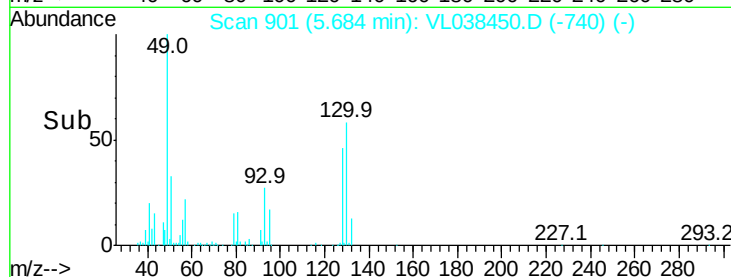
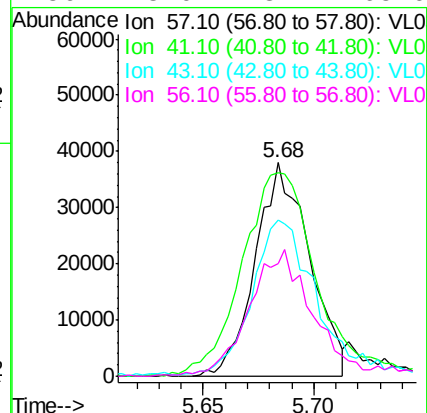
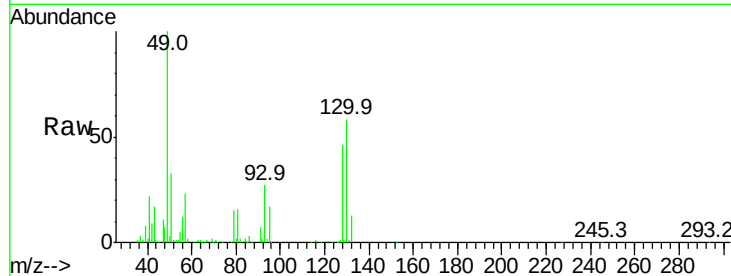
Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 1 Mar 2022 14:21

Tgt Ion: 57 Resp: 64406

Ion	Ratio	Lower	Upper
57	100		
41	136.4	73.1	109.7#
43	94.5	181.0	271.4#
56	73.0	43.4	65.0#



#27

Carbon Disulfide

Concen: 0.05 ppbv

RT: 4.56 min Scan# 552

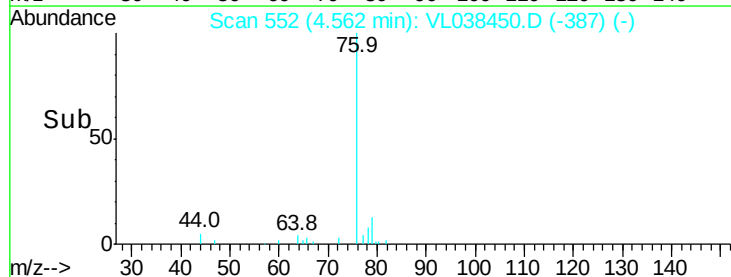
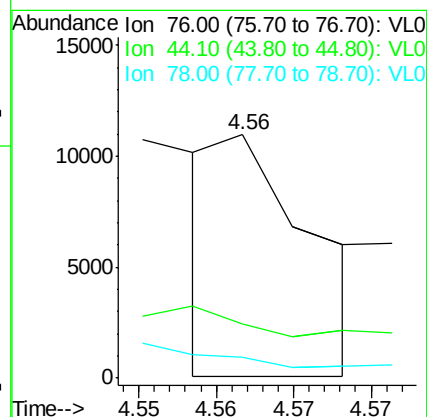
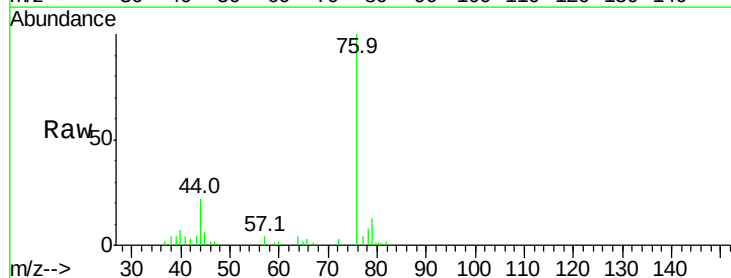
Delta R.T. 0.03 min

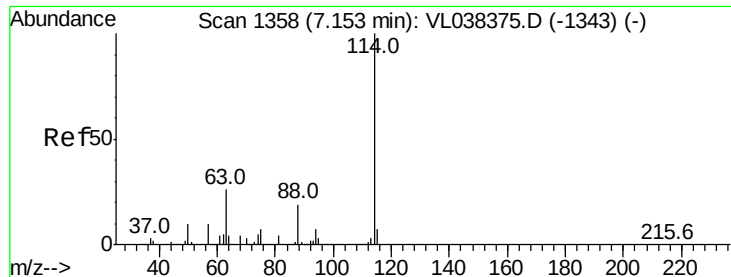
Lab File: VL038450.D

Acq: 1 Mar 2022 14:21

Tgt Ion: 76 Resp: 4547

Ion	Ratio	Lower	Upper
76	100		
44	148.1	14.2	21.2#
78	0.0	7.8	11.6#

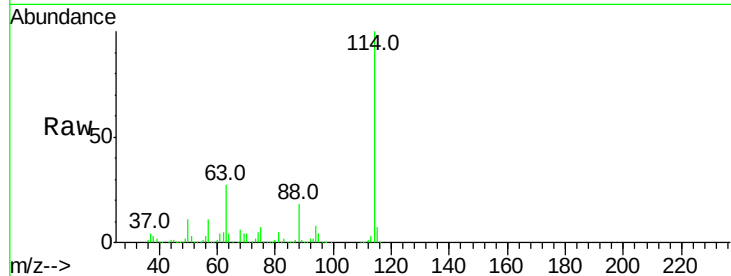




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 1 Mar 2022 14:21

Tgt Ion: 114 Resp: 2014612

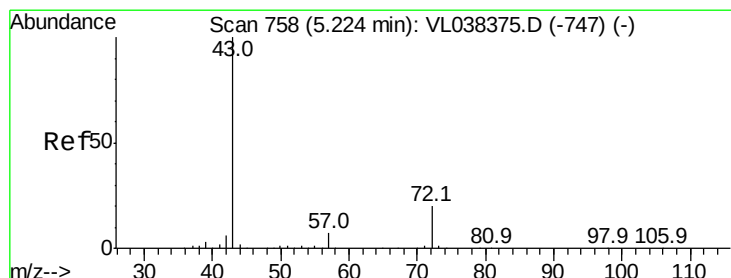
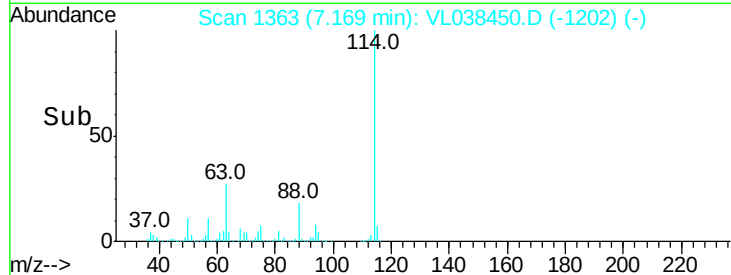
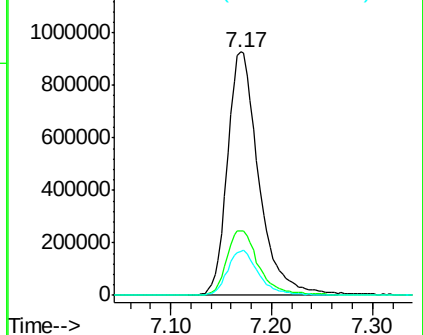
Ion	Ratio	Lower	Upper
114	100		
63	27.3	22.2	33.2
88	18.7	15.2	22.8



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

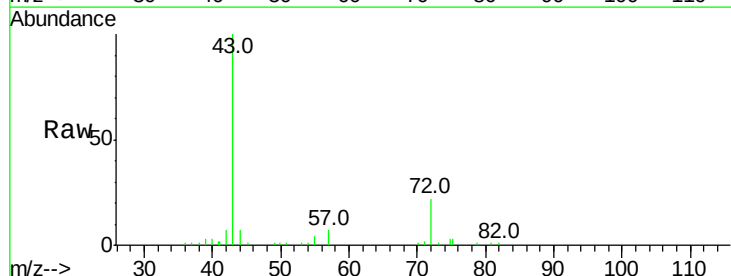
Ion 88.10 (87.80 to 88.80): VL0



#34
 2-Butanone
 Concen: 0.93 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. 0.03 min
 Lab File: VL038450.D
 Acq: 1 Mar 2022 14:21

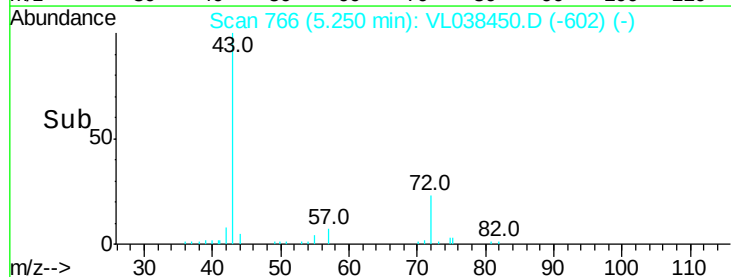
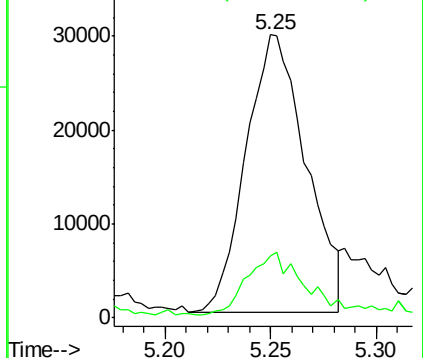
Tgt Ion: 43 Resp: 58907

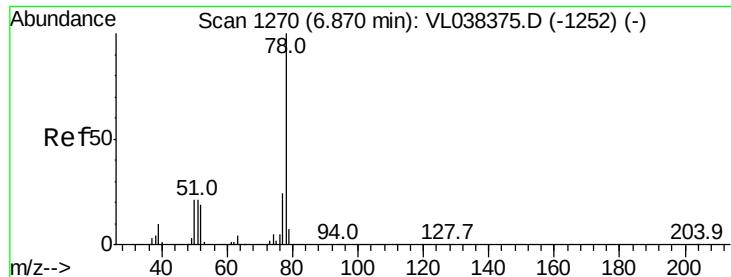
Ion	Ratio	Lower	Upper
43	100		
72	28.0	17.4	26.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

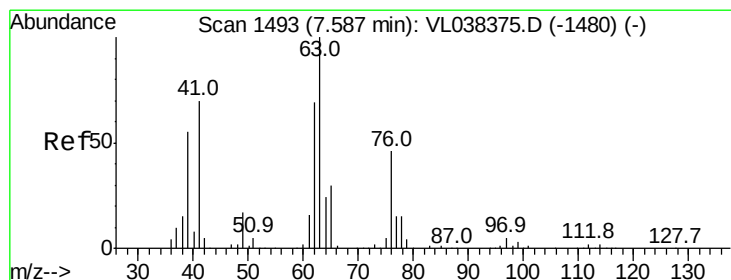
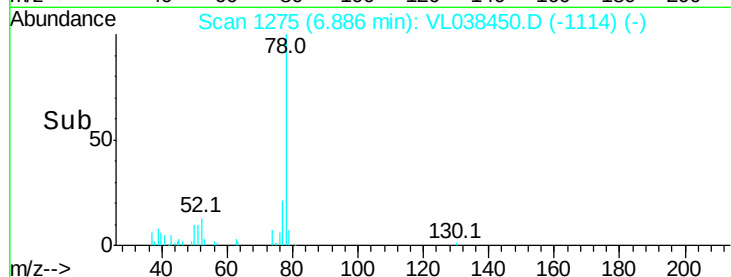
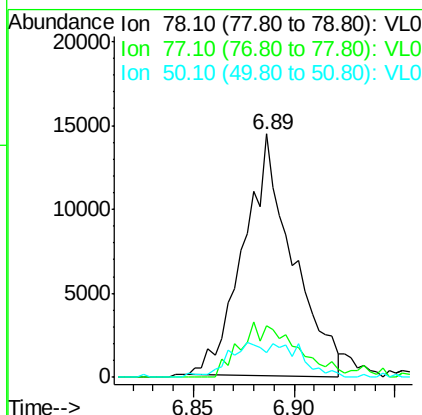
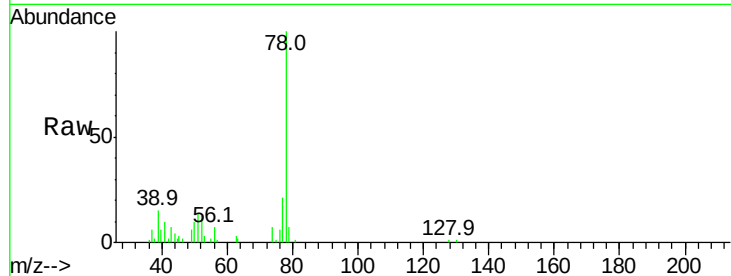
Ion 72.10 (71.80 to 72.80): VL0





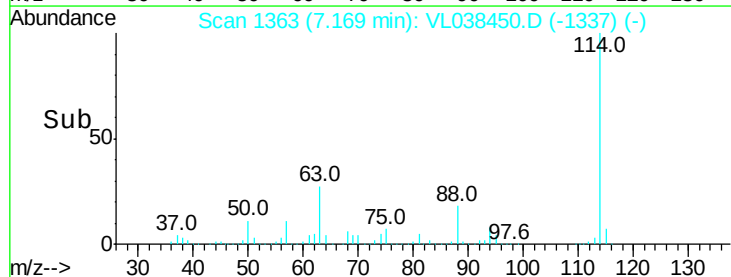
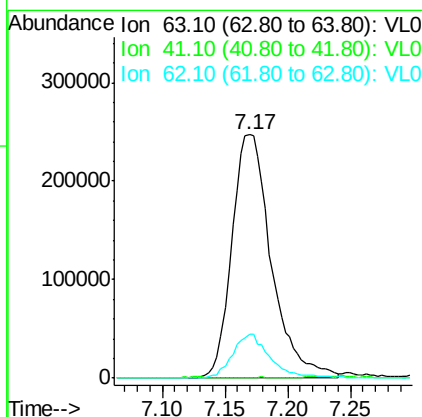
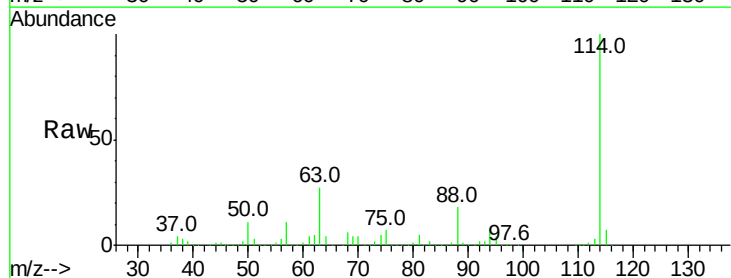
#36
Benzene
Concen: 0.14 ppbv
RT: 6.89
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 1 Mar 2022 14:21

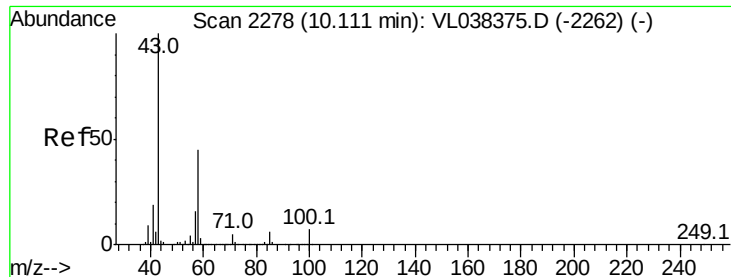
Tgt Ion: 78 Resp: 24421
Ion Ratio Lower Upper
78 100
77 21.3 19.0 28.6
50 8.1 16.6 24.8#



#39
1,2-Dichloropropane
Concen: 7.67 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.42 min
Lab File: VL038450.D
Acq: 1 Mar 2022 14:21

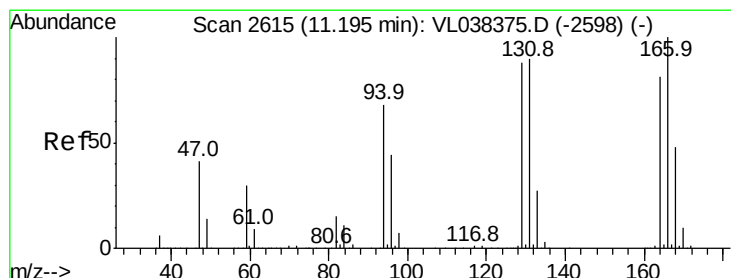
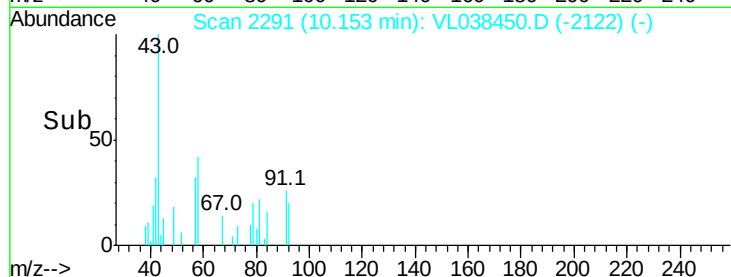
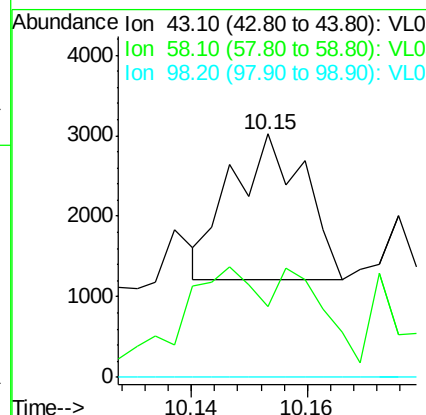
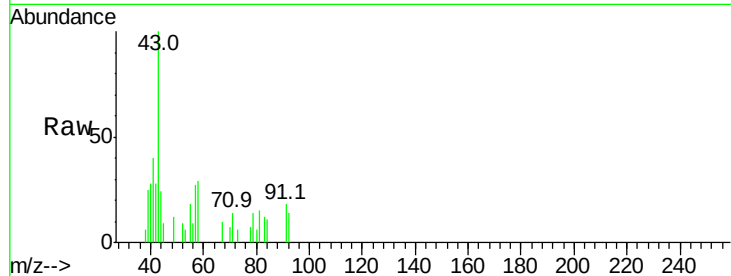
Tgt Ion: 63 Resp: 541829
Ion Ratio Lower Upper
63 100
41 0.0 56.1 84.1#
62 17.8 55.5 83.3#





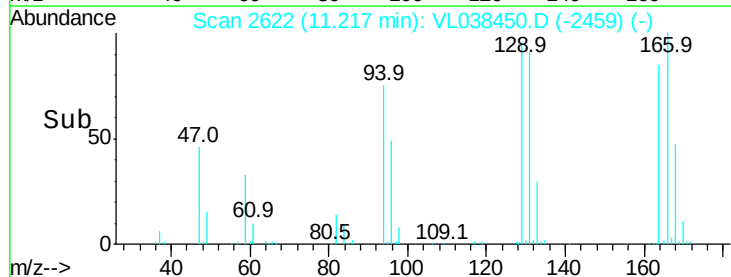
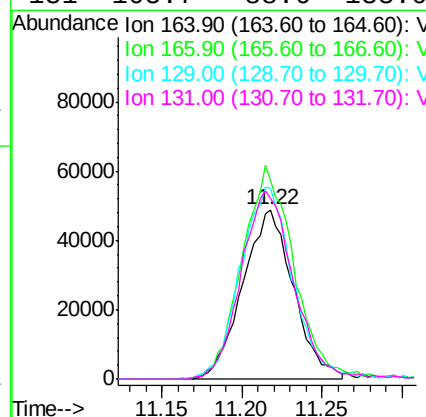
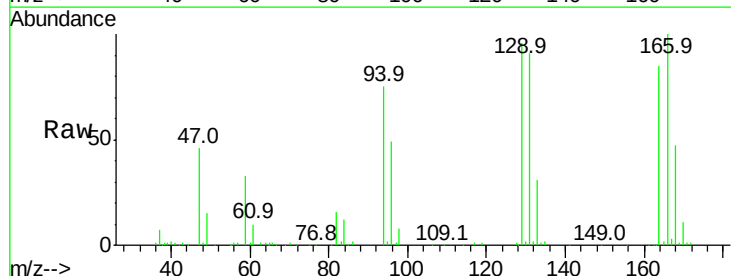
#51
 2-Hexanone
 Concen: 0.03 ppbv
 RT: 10.15 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 1 Mar 2022 14:21

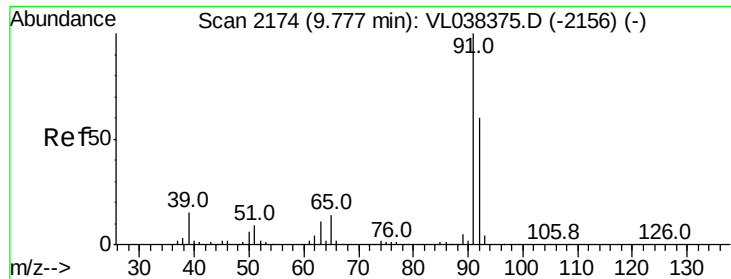
Tgt Ion: 43 Resp: 1583
 Ion Ratio Lower Upper
 43 100
 58 213.3 37.4 56.0#
 98 0.0 0.1 0.1#



#52
 Tetrachloroethene
 Concen: 1.80 ppbv
 RT: 11.22 min Scan# 2622
 Delta R.T. 0.02 min
 Lab File: VL038450.D
 Acq: 1 Mar 2022 14:21

Tgt Ion: 164 Resp: 105712
 Ion Ratio Lower Upper
 164 100
 166 116.3 98.6 148.0
 129 112.0 86.9 130.3
 131 105.7 88.6 133.0





#53

Toluene

Concen: 2.74 ppbv

RT: 9.80

Delta R.T.

Lab File:

Acq: 1 Mar 2022 14:21

Instrument:

MSVOA_1

ClientSampleId:

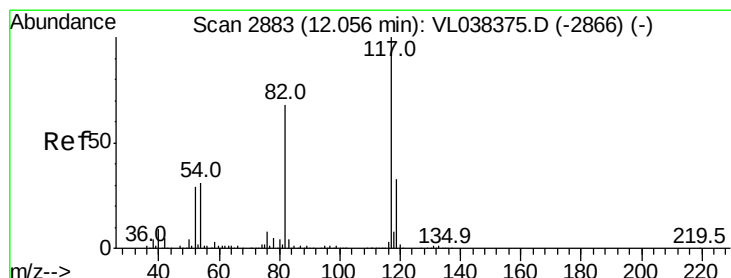
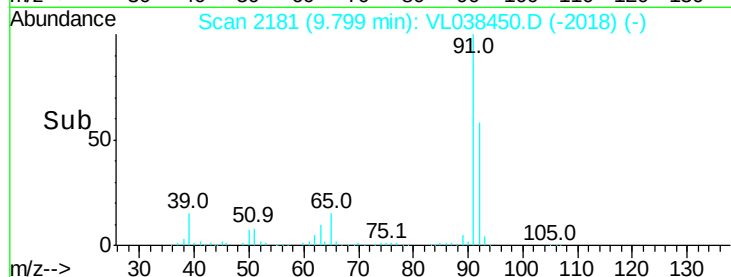
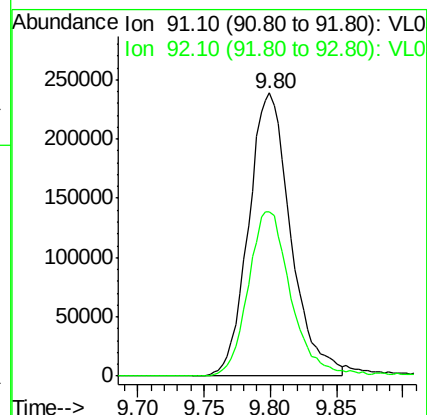
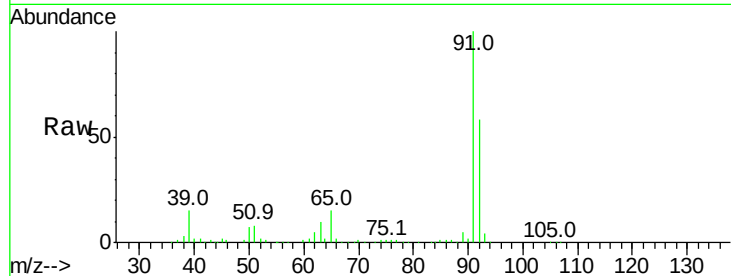
SVP-2

Tgt Ion: 91 Resp: 527023

Ion Ratio Lower Upper

91 100

92 60.4 48.2 72.4



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. 0.02 min

Lab File: VL038450.D

Acq: 1 Mar 2022 14:21

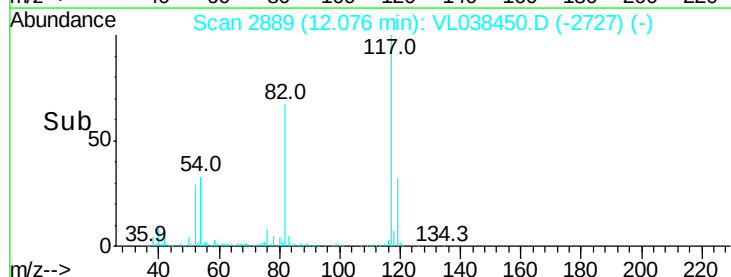
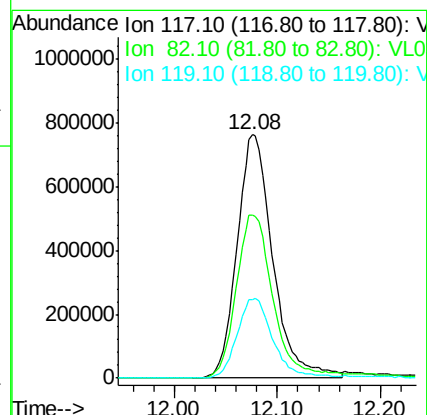
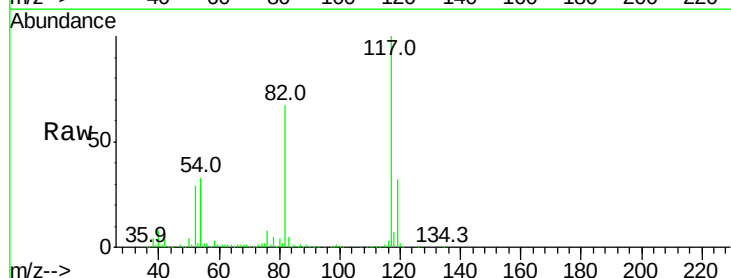
Tgt Ion: 117 Resp: 1843561

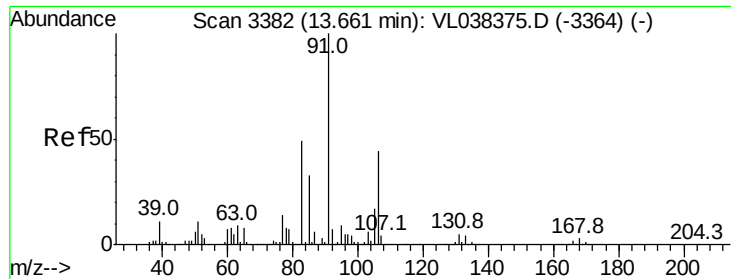
Ion Ratio Lower Upper

117 100

82 72.7 54.9 82.3

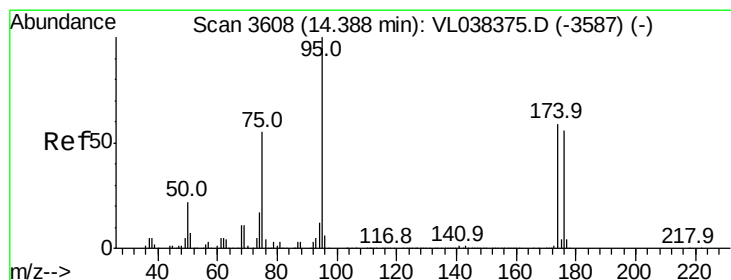
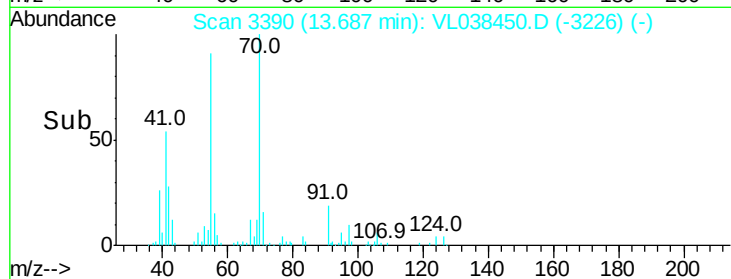
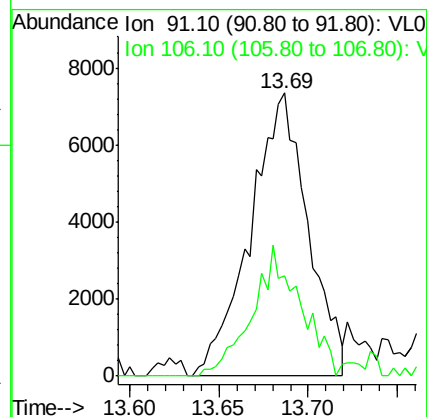
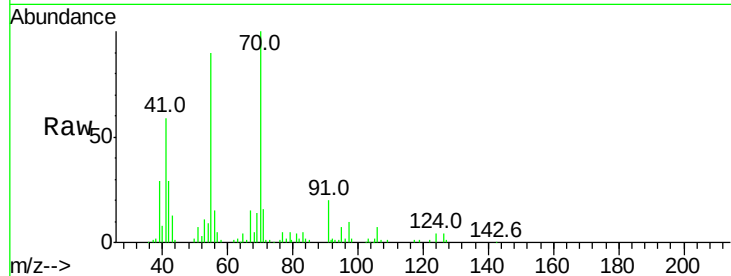
119 33.5 46.1 69.1#





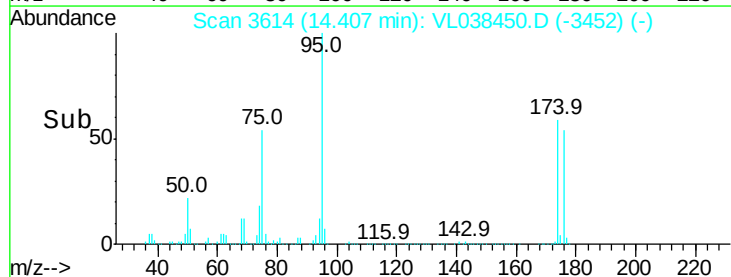
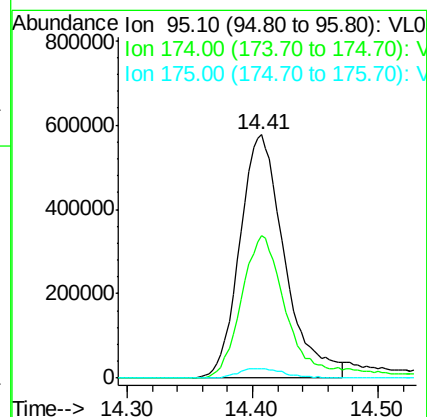
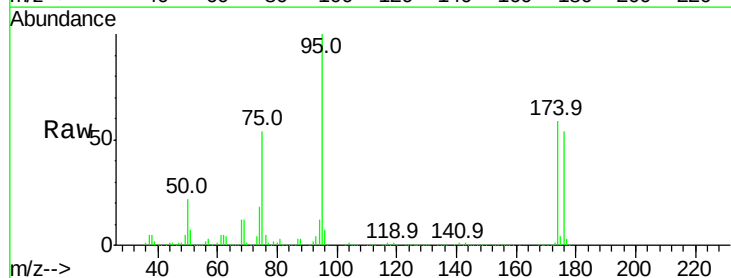
#60
o-Xylene
Concen: 0.08 ppbv
RT: 13.69
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 1 Mar 2022 14:21

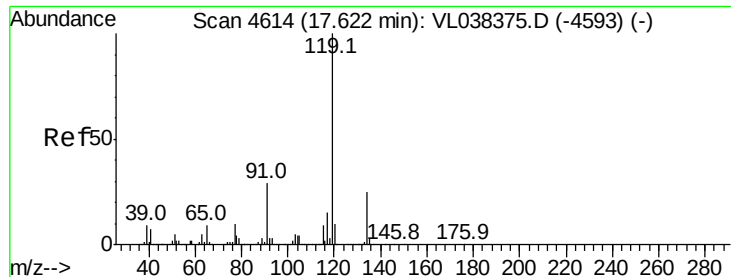
Tgt Ion: 91 Resp: 16644
Ion Ratio Lower Upper
91 100
106 41.4 21.9 65.5



#68
1-Bromo-4-Fluorobenzene
Concen: 9.37 ppbv
RT: 14.41 min Scan# 3614
Delta R.T. 0.02 min
Lab File: VL038450.D
Acq: 1 Mar 2022 14:21

Tgt Ion: 95 Resp: 1429141
Ion Ratio Lower Upper
95 100
174 63.2 49.0 73.4
175 4.5 3.6 5.4





#69

p-Isopropyltoluene

Concen: 0.04 ppbv

RT: 17.64

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 1 Mar 2022 14:21

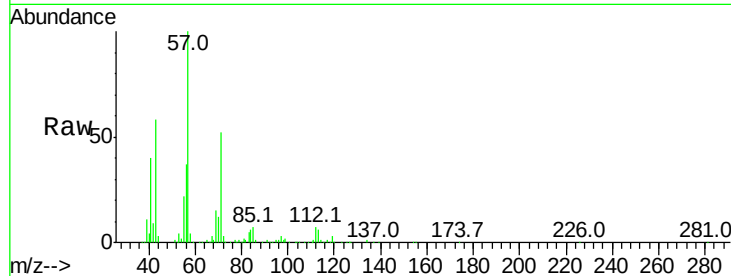
Tgt Ion:119 Resp: 9416

Ion Ratio Lower Upper

119 100

134 14.0 20.4 30.6#

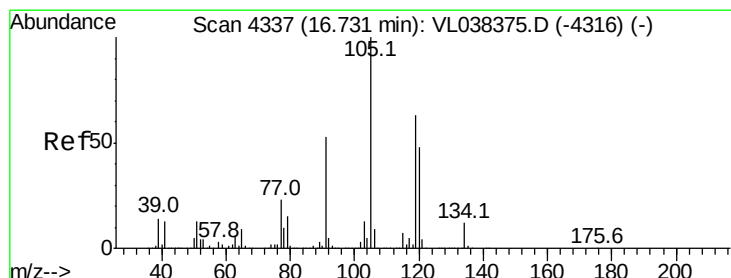
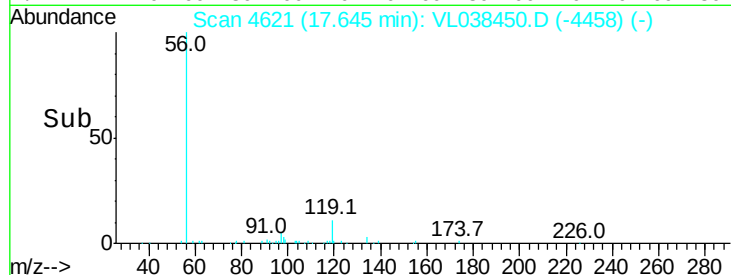
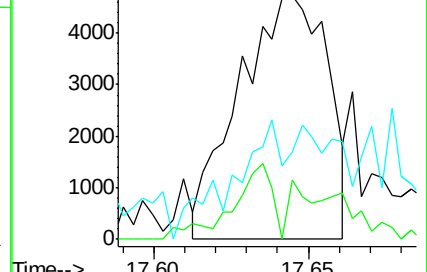
91 0.0 23.8 35.8#



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): VL0



#74

1,2,4-Trimethylbenzene

Concen: 0.04 ppbv

RT: 16.75 min Scan# 4344

Delta R.T. 0.02 min

Lab File: VL038450.D

Acq: 1 Mar 2022 14:21

Tgt Ion:105 Resp: 9696

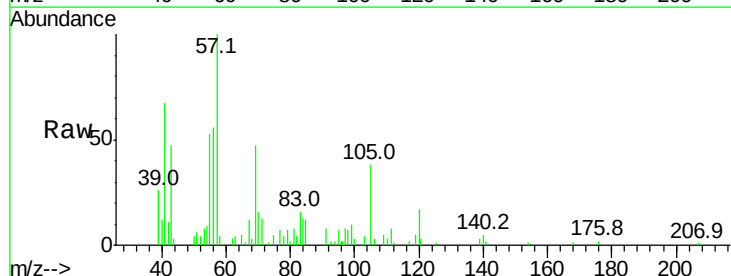
Ion Ratio Lower Upper

105 100

120 55.4 38.2 57.4

91 11.4 42.7 64.1#

77 0.0 18.5 27.7#



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

