

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL071222\
 Data File : VL039448.D
 Acq On : 12 Jul 2022 14:31
 Operator : SY/AP
 Sample : N3614-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-18E

Quant Time: Jul 13 01:32:31 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

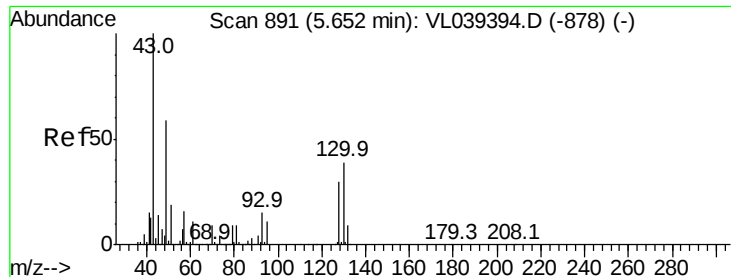
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1256212	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3414002	10.00	ppbv	0.04
55) Chlorobenzene-d5	12.10	117	3041849	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2391494	10.60	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.00%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.06	85	108385	0.60	ppbv	90
3) Chlorodifluoromethane	2.98	51	186613	1.17	ppbv #	68
4) Chloromethane	3.15	50	52069	0.60	ppbv #	84
9) Propene	3.22	41	13406746	186.27	ppbv	97
10) Heptane	8.14	43	13053	0.08	ppbv #	16
11) Trichlorofluoromethane	3.97	101	39883	0.20	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.50	101	7346	0.05	ppbv #	59
13) Ethanol	3.64	45	29591747	7086.54	ppbv	88
15) Acetone	3.86	43	3011577	20.26	ppbv	94
16) 1,3-Butadiene	3.37	39	170964	2.22	ppbv #	20
17) tert-Butyl alcohol	4.33	59	113427	0.90	ppbv	95
19) Isopropyl Alcohol	4.00	45	529649	6.68	ppbv #	96
20) Methylene Chloride	4.36	84	337089	5.69	ppbv	97
21) Allyl Chloride	4.35	41	9060	0.09	ppbv #	1
23) Vinyl Acetate	5.08	43	112580	1.13	ppbv #	80
25) Ethyl Acetate	5.69	43	5059628	16.60	ppbv #	95
26) Hexane	5.70	57	860960	7.01	ppbv #	1
29) Chloroform	5.77	83	489684	2.29	ppbv	90
30) Cyclohexane	7.15	84	5736	0.05	ppbv #	4
31) cis-1,2-Dichloroethene	5.68	61	578134	4.44	ppbv #	23
34) 2-Butanone	5.26	43	157584	0.92	ppbv	94
36) Benzene	6.91	78	61879	0.23	ppbv #	91
39) 1,2-Dichloropropane	7.19	63	851229	8.62	ppbv #	27
41) Tetrahydrofuran	6.04	42	6540	0.07	ppbv #	50
42) Bromodichloromethane	7.81	83	8455	0.04	ppbv #	48
44) 2,2,4-Trimethylpentane	7.89	57	56710	0.13	ppbv #	78
53) Toluene	9.83	91	151609	0.50	ppbv	97
58) Ethyl Benzene	13.01	91	28080	0.07	ppbv	91
59) m/p-Xylene	13.01	91	28080	0.08	ppbv #	32
60) o-Xylene	13.71	91	36730	0.11	ppbv	68
69) p-Isopropyltoluene	17.67	119	112061	0.21	ppbv #	90
81) 1,2,4-Trichlorobenzene	21.52	180	261199	1.49	ppbv #	19

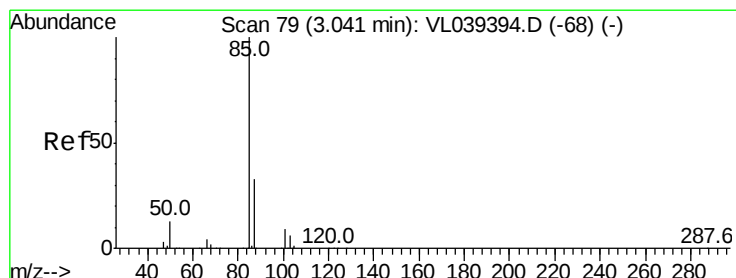
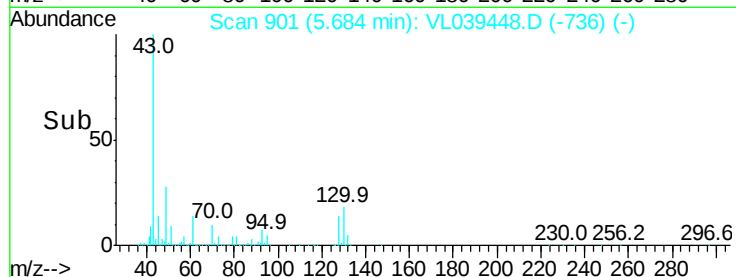
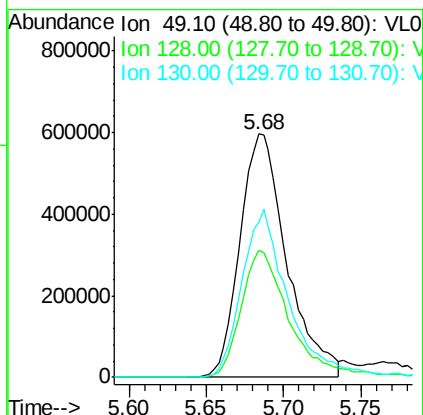
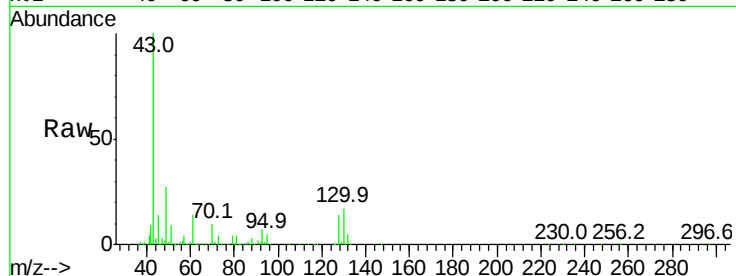
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.68
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 14:31

Tgt Ion: 49 Resp: 1256212

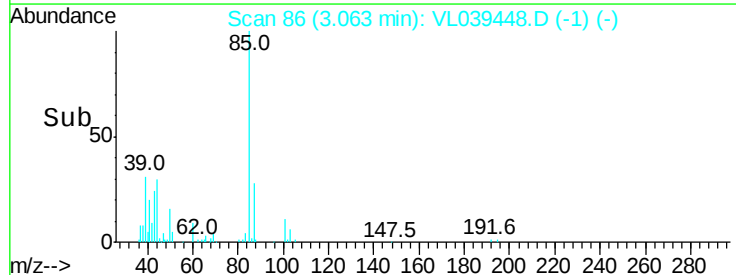
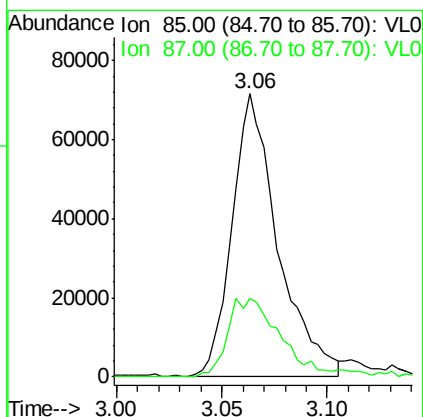
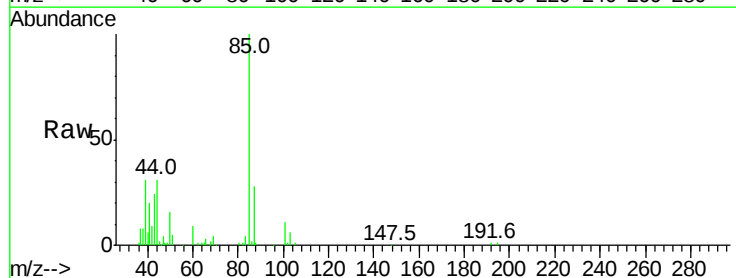
Ion	Ratio	Lower	Upper
49	100		
128	54.8	26.7	80.0
130	70.1	34.3	102.8

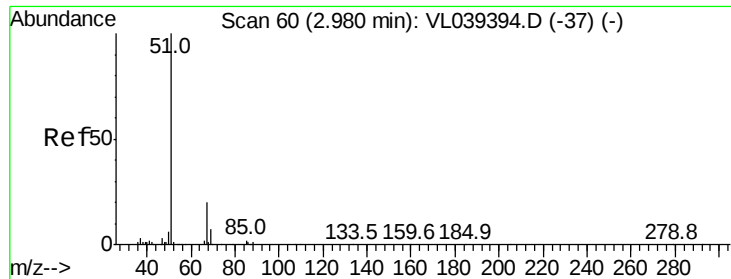


#2
 Dichlorodifluoromethane
 Concen: 0.60 ppbv
 RT: 3.06 min Scan# 86
 Delta R.T. 0.02 min
 Lab File: VL039448.D
 Acq: 12 Jul 2022 14:31

Tgt Ion: 85 Resp: 108385

Ion	Ratio	Lower	Upper
85	100		
87	27.9	26.7	40.1





#3

Chlorodifluoromethane

Concen: 1.17 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

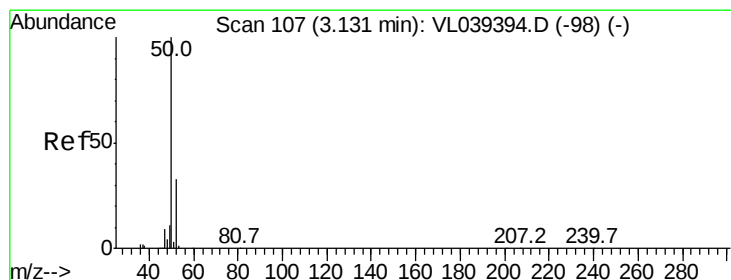
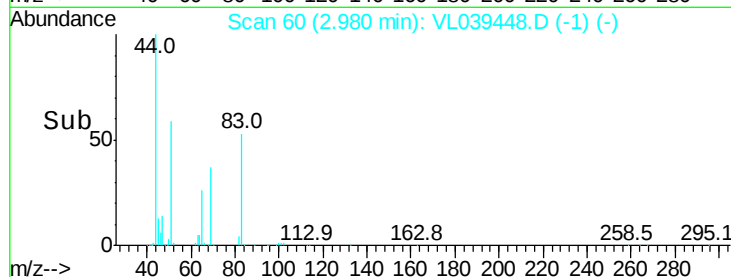
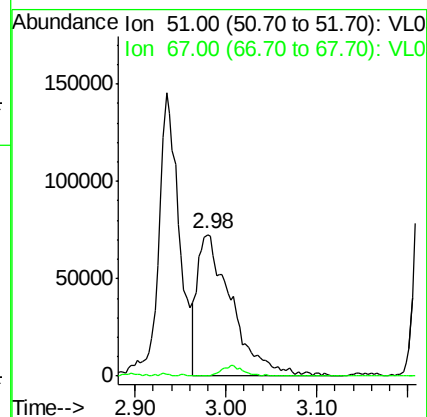
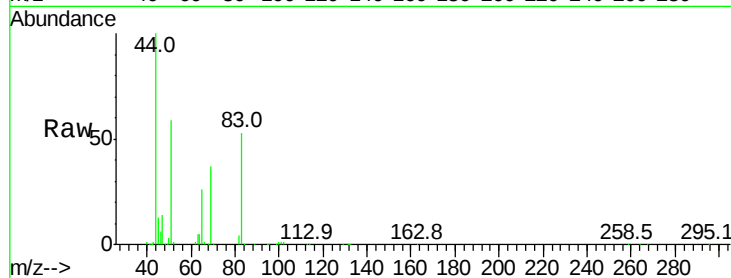
Acq: 12 Jul 2022 14:31

Tgt Ion: 51 Resp: 186613

Ion Ratio Lower Upper

51 100

67 5.2 15.7 23.5#



#4

Chloromethane

Concen: 0.60 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.02 min

Lab File: VL039448.D

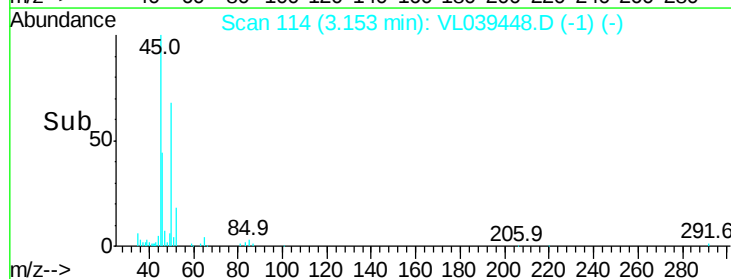
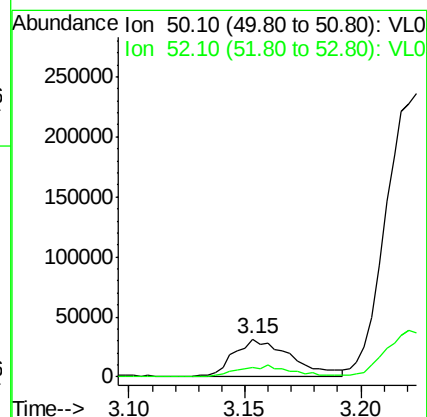
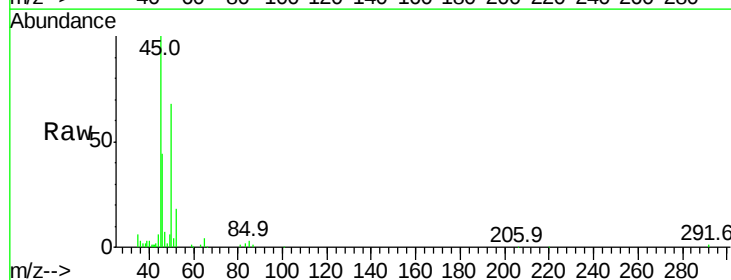
Acq: 12 Jul 2022 14:31

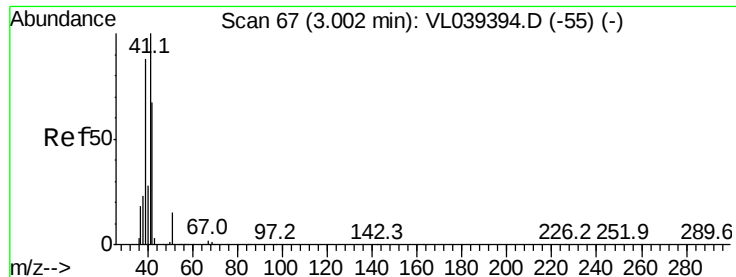
Tgt Ion: 50 Resp: 52069

Ion Ratio Lower Upper

50 100

52 24.3 26.5 39.7#





#9

Propene

Concen: 186.27 ppbv

RT: 3.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

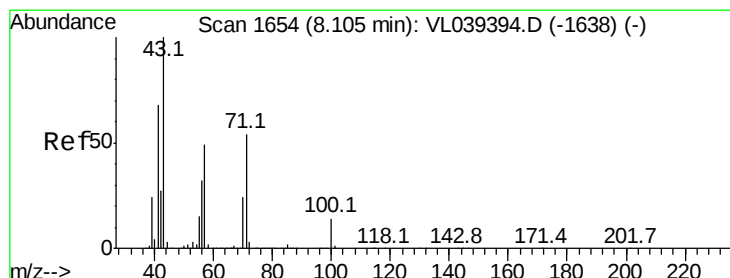
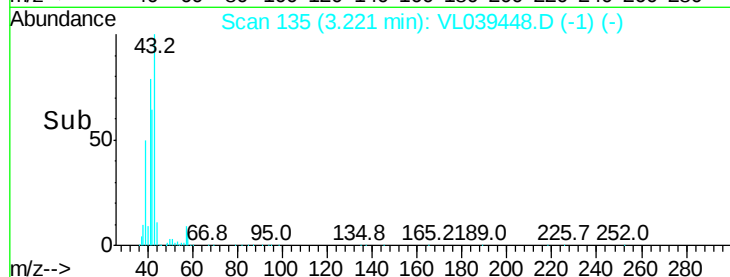
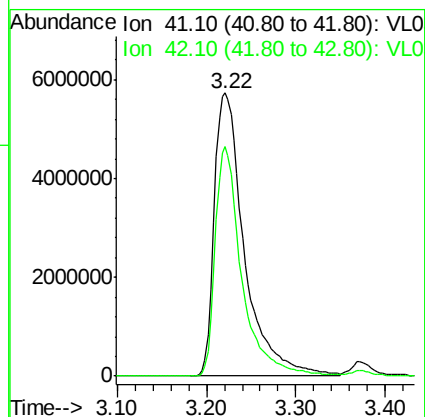
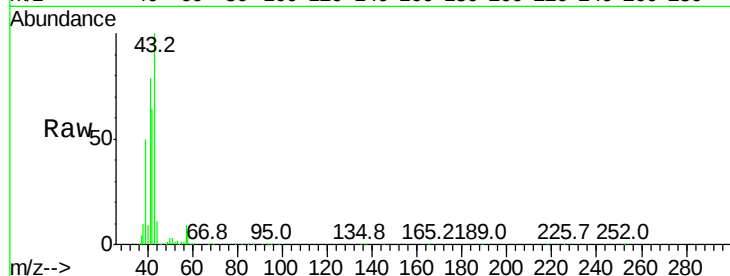
Acq: 12 Jul 2022 14:31

Tgt Ion: 41 Resp: 13406746

Ion Ratio Lower Upper

41 100

42 71.6 55.2 82.8



#10

Heptane

Concen: 0.08 ppbv

RT: 8.14 min Scan# 1666

Delta R.T. 0.04 min

Lab File: VL039448.D

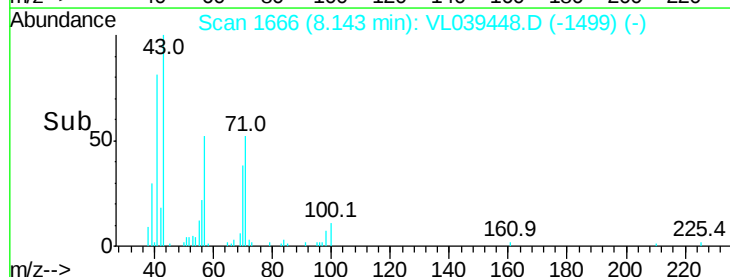
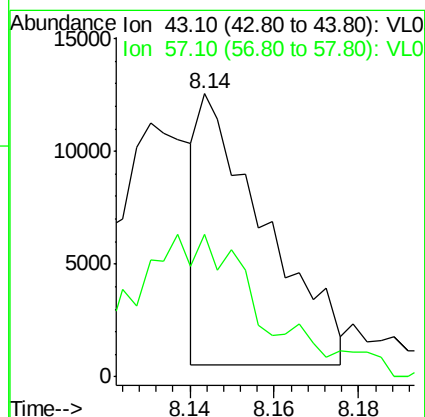
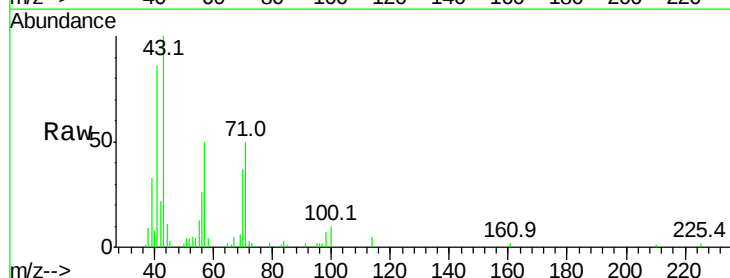
Acq: 12 Jul 2022 14:31

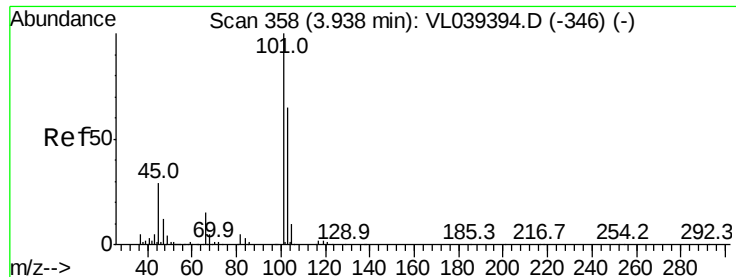
Tgt Ion: 43 Resp: 13053

Ion Ratio Lower Upper

43 100

57 108.7 40.5 60.7#





#11

Trichlorofluoromethane

Concen: 0.20 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

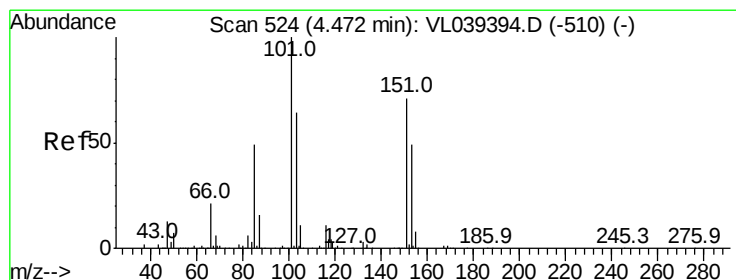
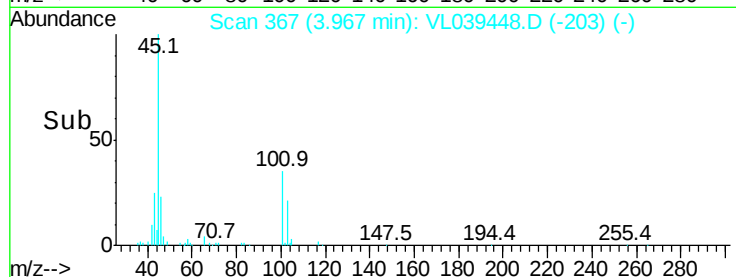
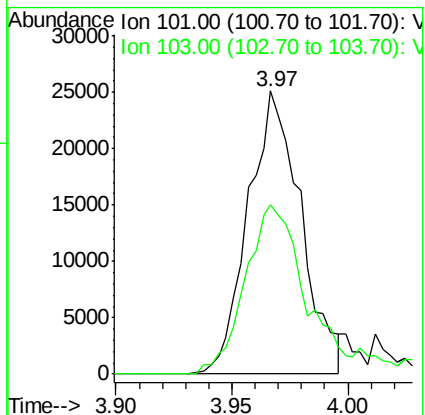
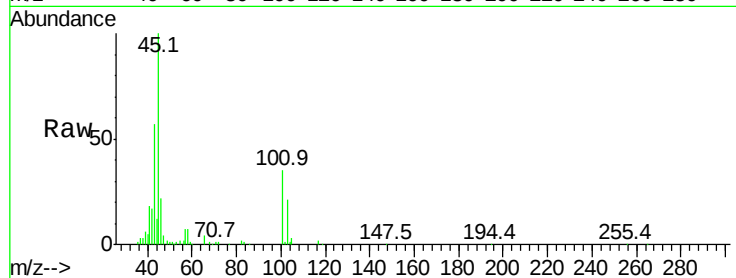
Acq: 12 Jul 2022 14:31

Tgt Ion:101 Resp: 39883

Ion Ratio Lower Upper

101 100

103 59.7 51.8 77.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.05 ppbv

RT: 4.50 min Scan# 533

Delta R.T. 0.03 min

Lab File: VL039448.D

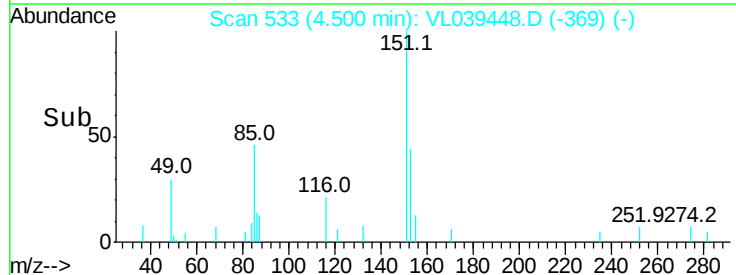
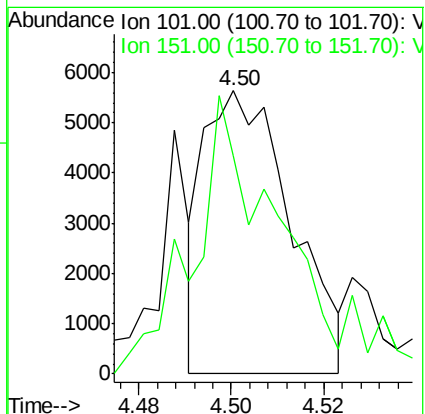
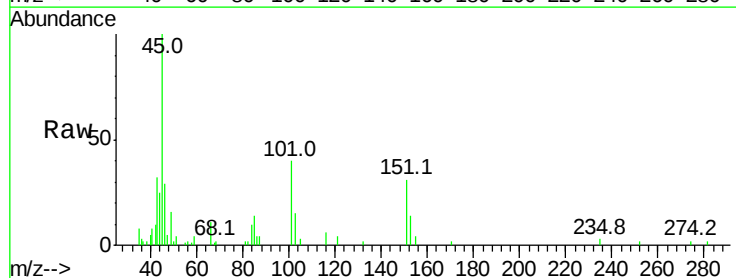
Acq: 12 Jul 2022 14:31

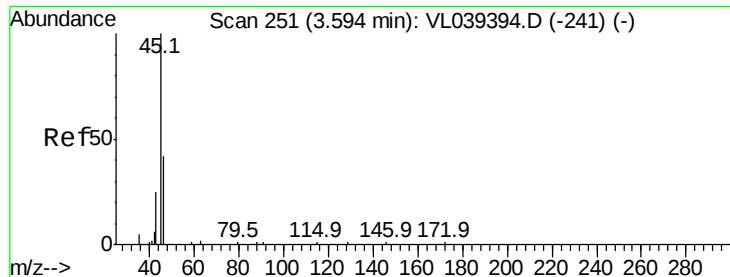
Tgt Ion:101 Resp: 7346

Ion Ratio Lower Upper

101 100

151 108.2 58.9 88.3#





#13

Ethanol

Concen: 7086.54 ppbv

RT: 3.64

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

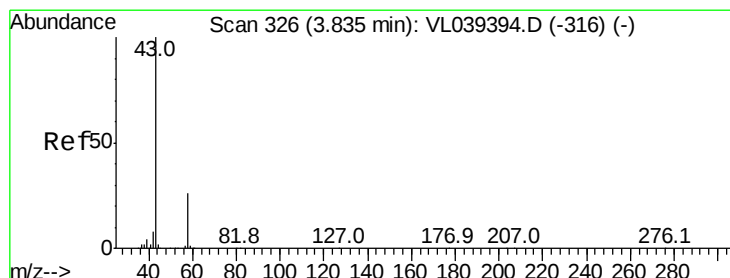
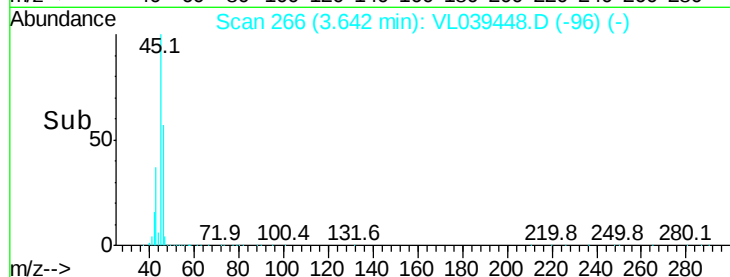
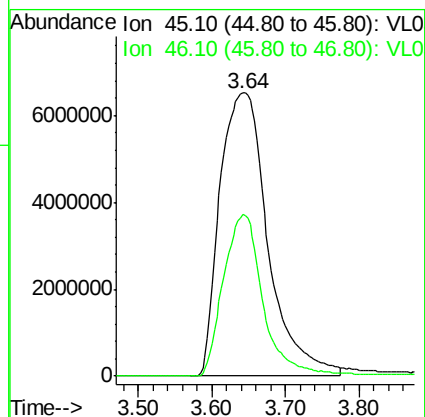
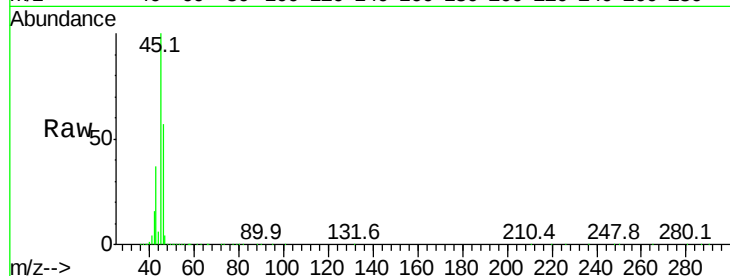
Acq: 12 Jul 2022 14:31

Tgt Ion: 45 Resp: 29591747

Ion Ratio Lower Upper

45 100

46 47.9 22.8 91.2



#15

Acetone

Concen: 20.26 ppbv

RT: 3.86 min Scan# 334

Delta R.T. 0.03 min

Lab File: VL039448.D

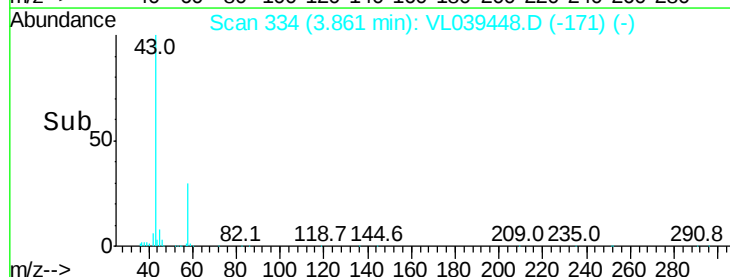
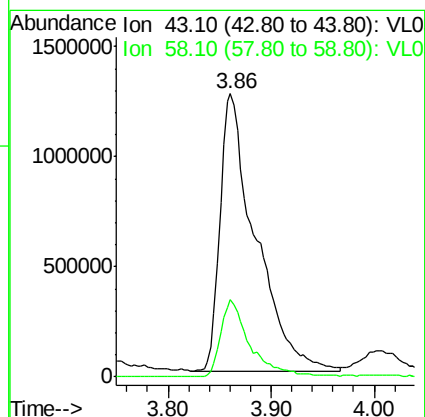
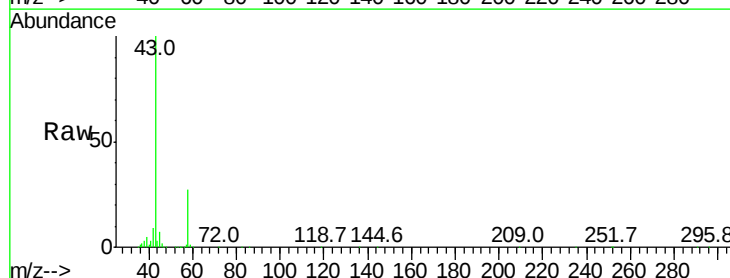
Acq: 12 Jul 2022 14:31

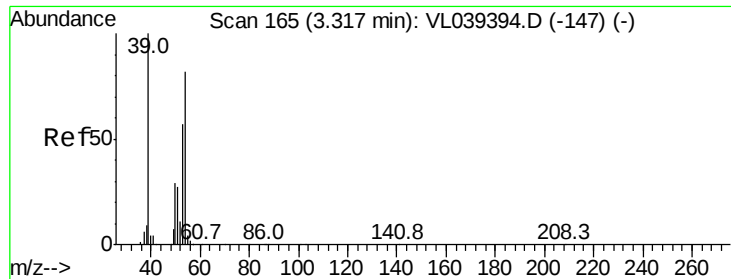
Tgt Ion: 43 Resp: 3011577

Ion Ratio Lower Upper

43 100

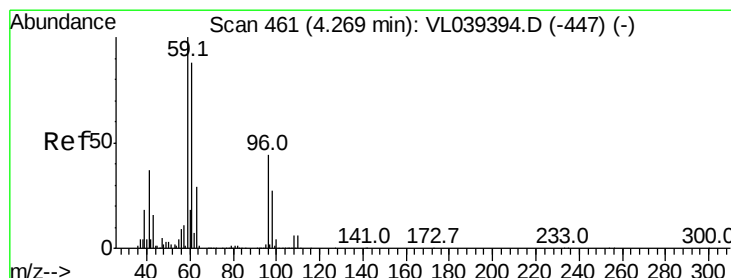
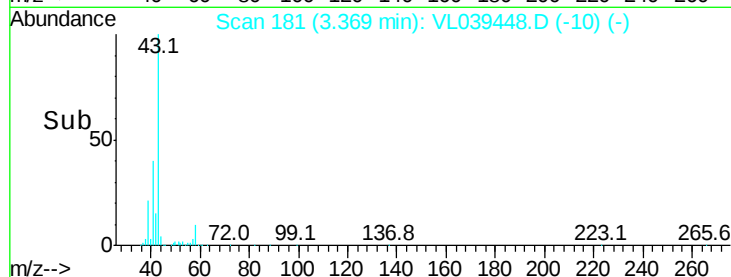
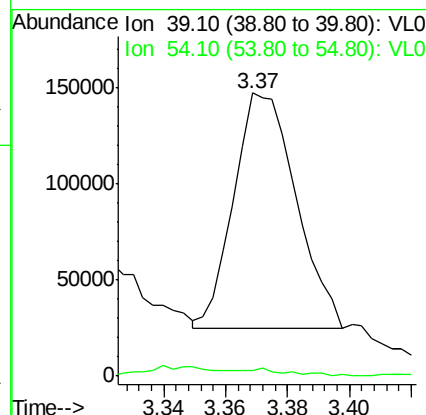
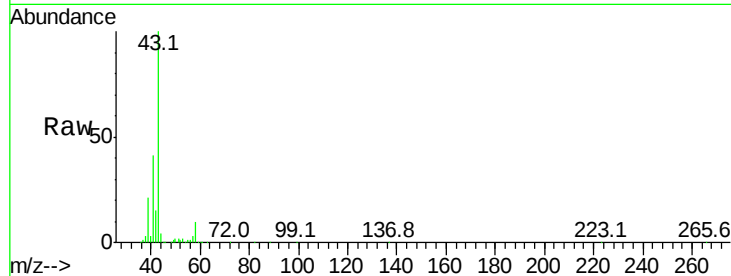
58 23.3 21.0 31.6





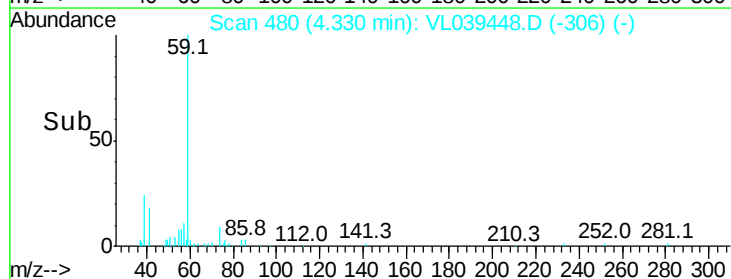
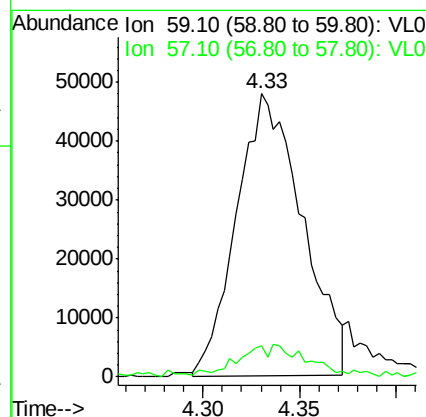
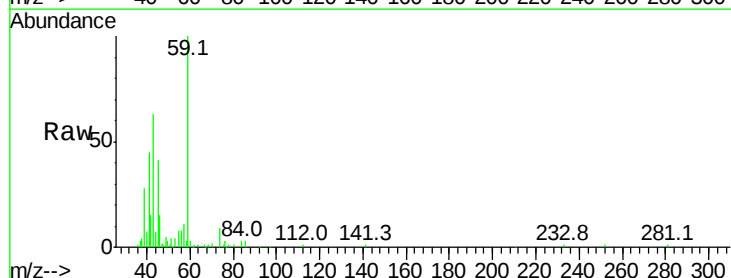
#16
 1,3-Butadiene
 Concen: 2.22 ppbv
 RT: 3.37
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 14:31

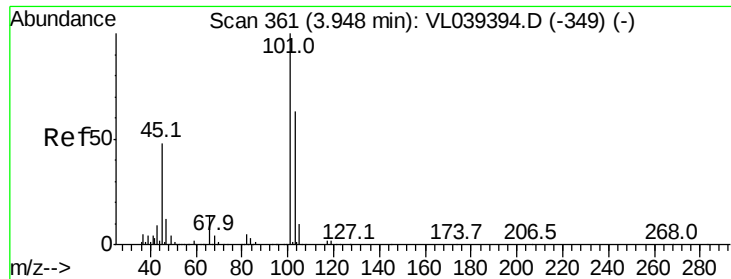
Tgt Ion: 39 Resp: 170964
 Ion Ratio Lower Upper
 39 100
 54 8.8 63.7 95.5#



#17
 tert-Butyl alcohol
 Concen: 0.90 ppbv
 RT: 4.33 min Scan# 480
 Delta R.T. 0.06 min
 Lab File: VL039448.D
 Acq: 12 Jul 2022 14:31

Tgt Ion: 59 Resp: 113427
 Ion Ratio Lower Upper
 59 100
 57 12.7 8.7 13.1





#19

Isopropyl Alcohol

Concen: 6.68 ppbv

RT: 4.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

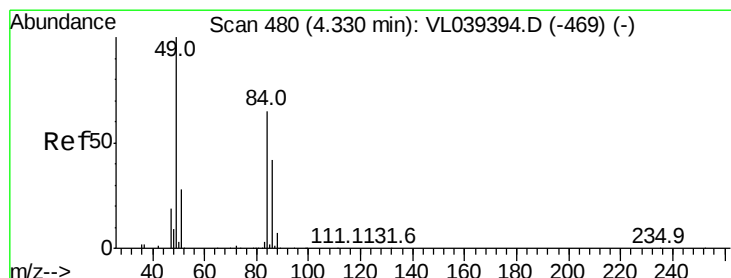
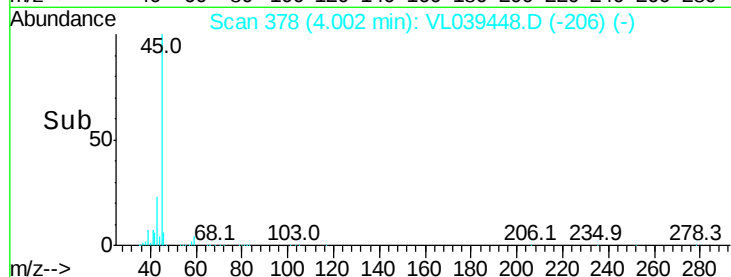
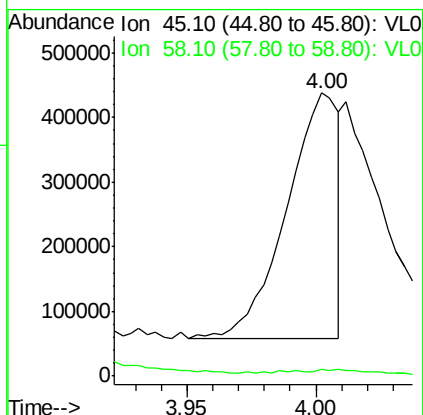
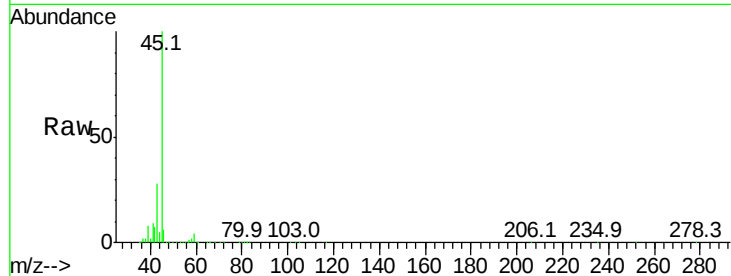
Acq: 12 Jul 2022 14:31

Tgt Ion: 45 Resp: 529649

Ion Ratio Lower Upper

45 100

58 5.3 3.2 4.8#



#20

Methylene Chloride

Concen: 5.69 ppbv

RT: 4.36 min Scan# 489

Delta R.T. 0.03 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

Tgt Ion: 84 Resp: 337089

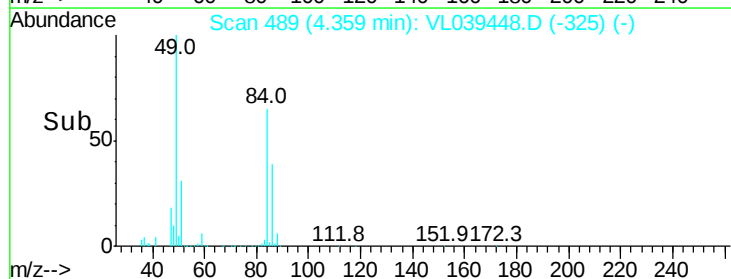
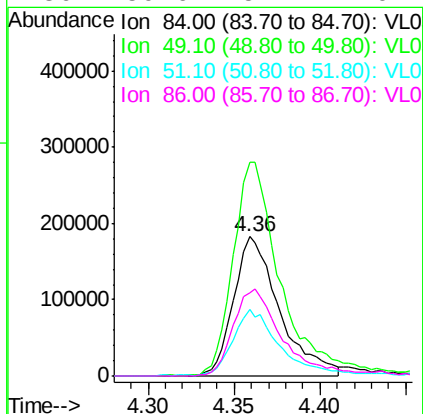
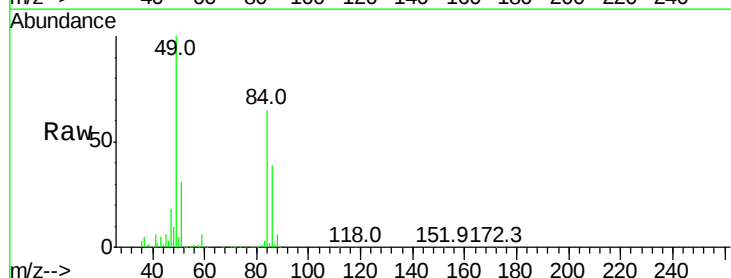
Ion Ratio Lower Upper

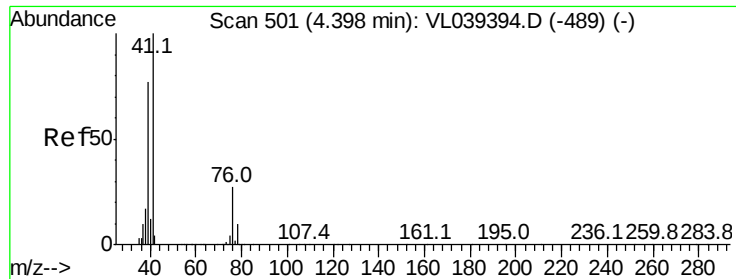
84 100

49 152.5 123.1 184.7

51 46.6 34.4 51.6

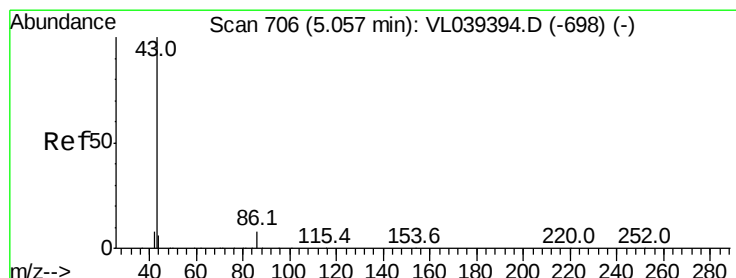
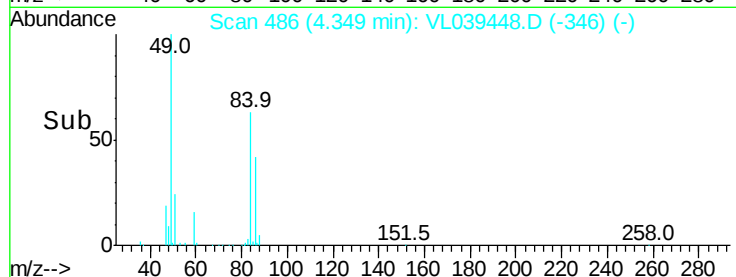
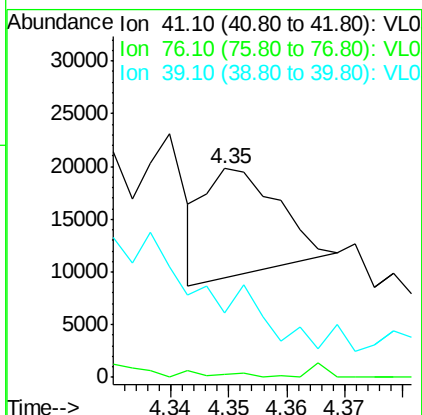
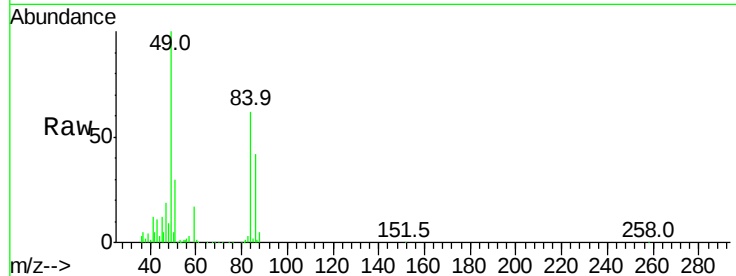
86 59.6 51.1 76.7





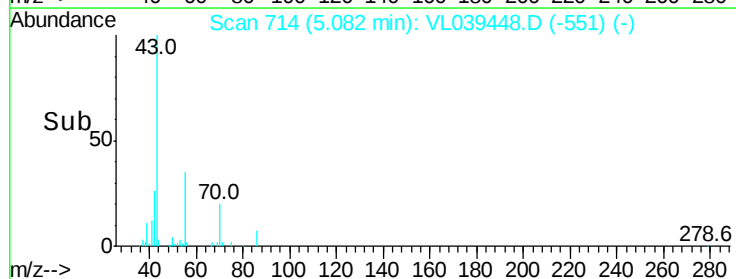
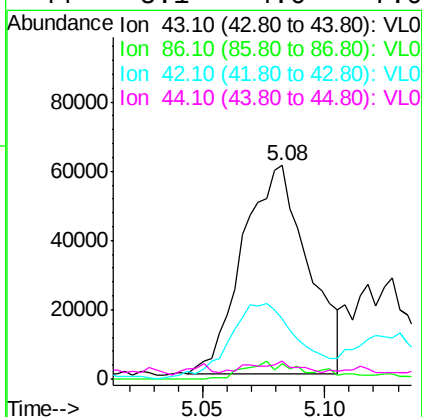
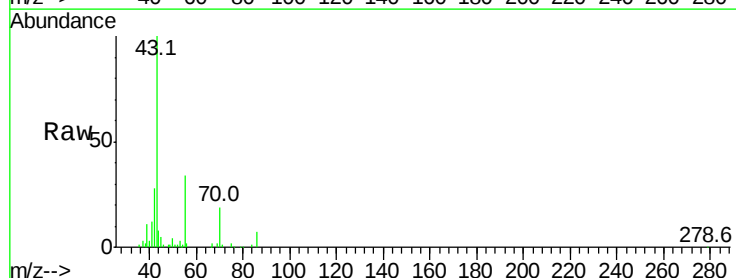
#21
 Allyl Chloride
 Concen: 0.09 ppbv
 RT: 4.35
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 14:31

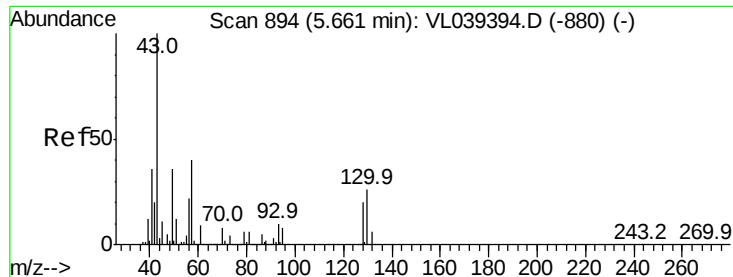
Tgt Ion: 41 Resp: 9060
 Ion Ratio Lower Upper
 41 100
 76 0.0 24.4 36.6#
 39 351.3 63.5 95.3#



#23
 Vinyl Acetate
 Concen: 1.13 ppbv
 RT: 5.08 min Scan# 714
 Delta R.T. 0.03 min
 Lab File: VL039448.D
 Acq: 12 Jul 2022 14:31

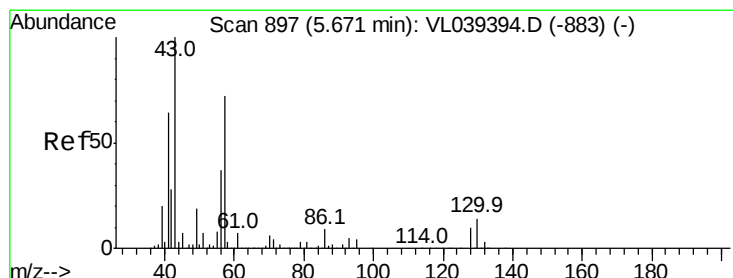
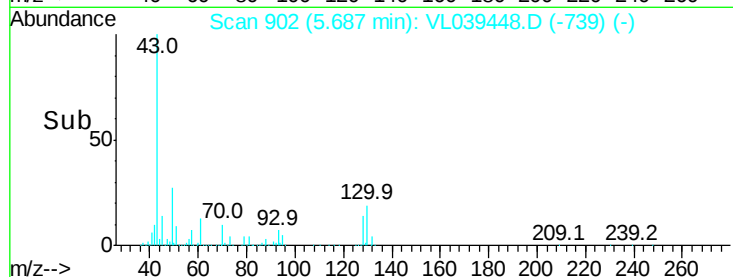
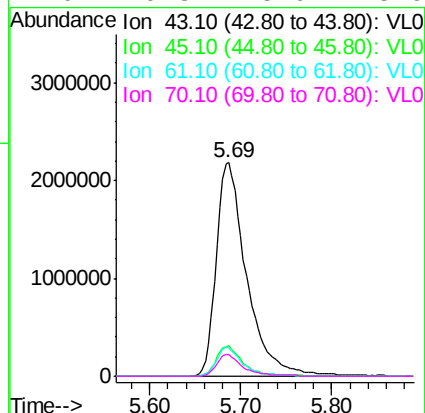
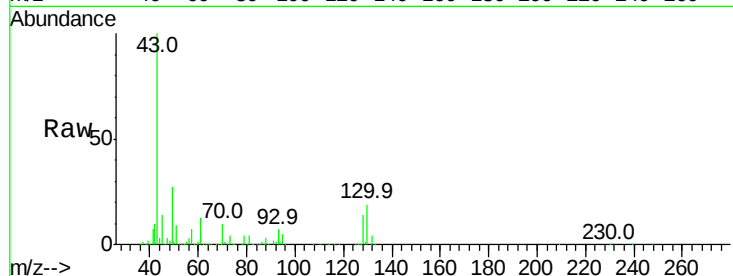
Tgt Ion: 43 Resp: 112580
 Ion Ratio Lower Upper
 43 100
 86 7.1 5.0 7.6
 42 25.0 7.7 11.5#
 44 5.1 4.6 7.0





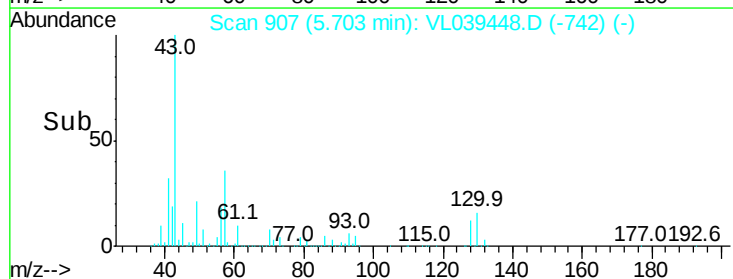
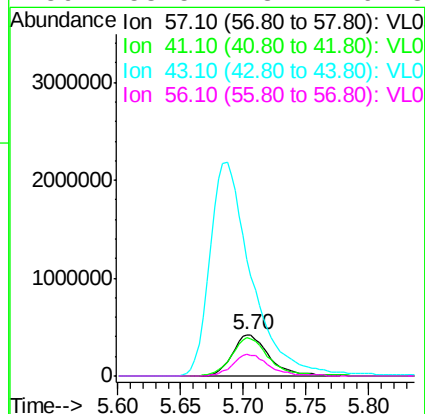
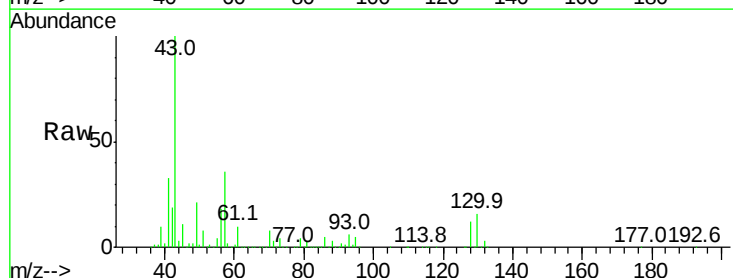
#25
Ethyl Acetate
Concen: 16.60 ppbv
RT: 5.69
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 12 Jul 2022 14:31

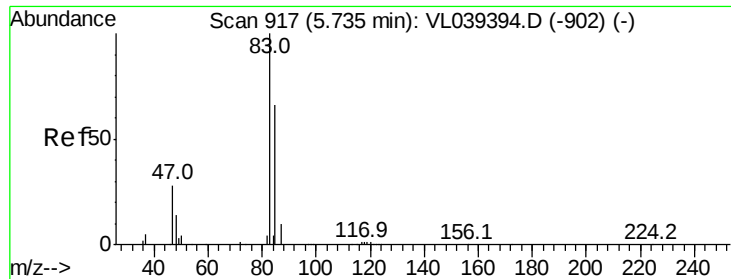
Tgt Ion:	43	Resp:	5059628
Ion	Ratio	Lower	Upper
43	100		
45	12.8	8.2	12.4#
61	11.8	8.3	12.5
70	9.3	5.9	8.9#



#26
Hexane
Concen: 7.01 ppbv
RT: 5.70 min Scan# 907
Delta R.T.: 0.03 min
Lab File: VL039448.D
Acq: 12 Jul 2022 14:31

Tgt Ion:	57	Resp:	860960
Ion	Ratio	Lower	Upper
57	100		
41	96.7	76.9	115.3
43	592.7	191.0	286.6#
56	53.5	43.2	64.8





#29

Chloroform

Concen: 2.29 ppbv

RT: 5.77 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

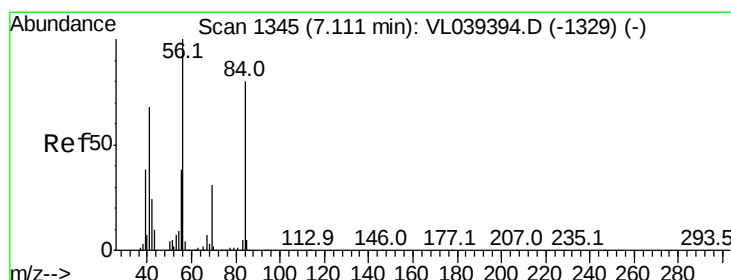
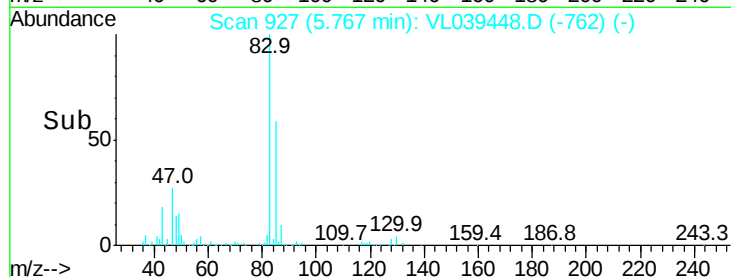
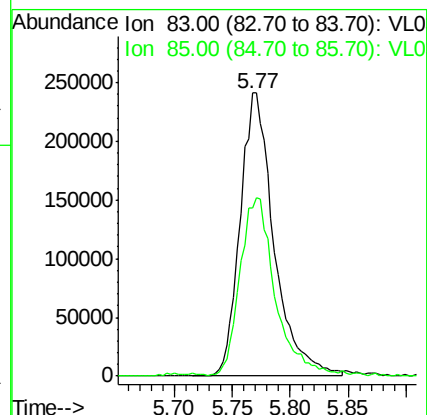
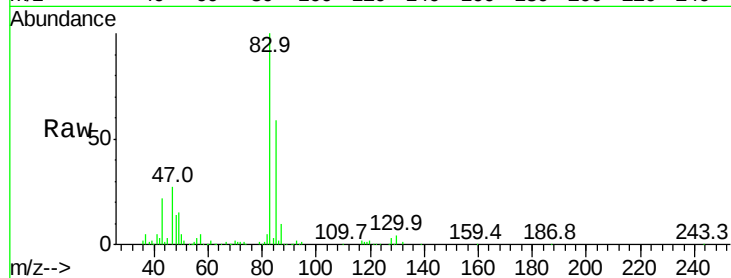
Acq: 12 Jul 2022 14:31

Tgt Ion: 83 Resp: 489684

Ion Ratio Lower Upper

83 100

85 58.3 52.8 79.2



#30

Cyclohexane

Concen: 0.05 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. 0.04 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

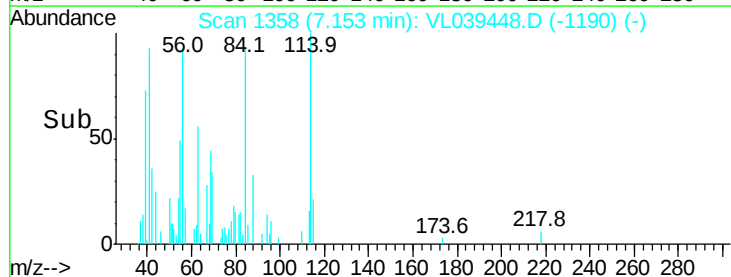
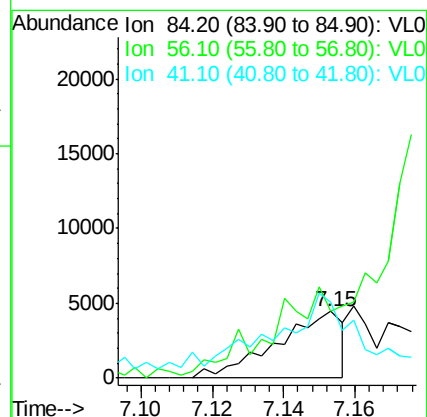
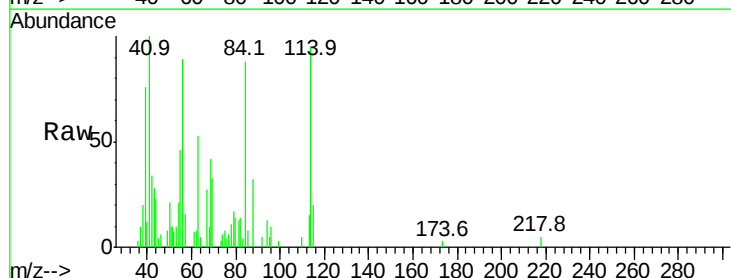
Tgt Ion: 84 Resp: 5736

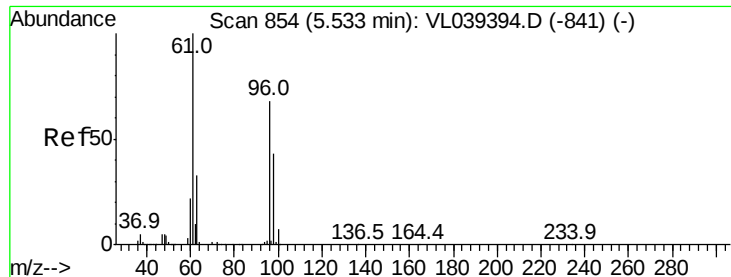
Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

41 147.0 67.7 101.5#





#31

cis-1,2-Dichloroethene

Concen: 4.44 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 12 Jul 2022 14:31

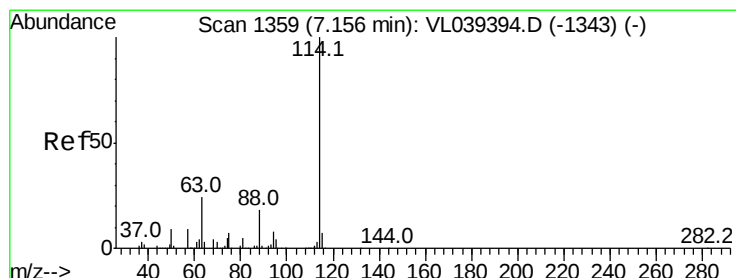
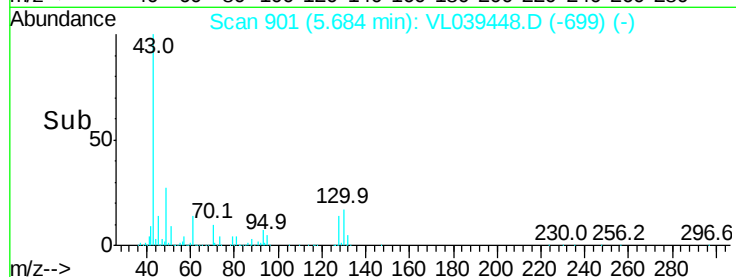
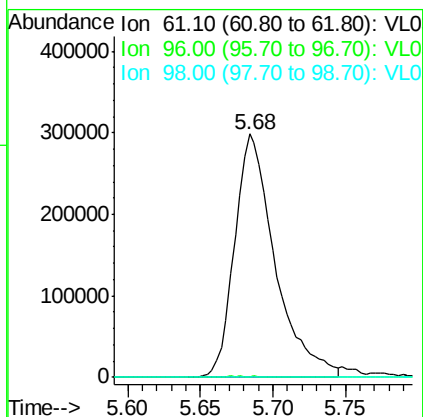
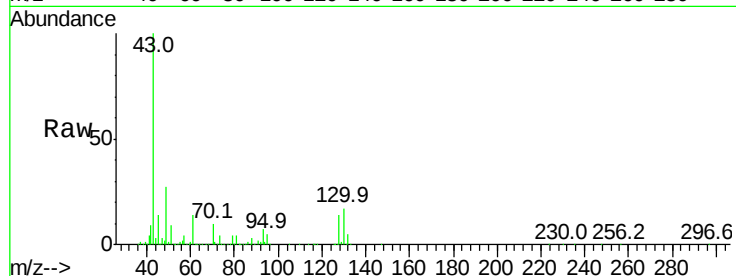
Tgt Ion: 61 Resp: 578134

Ion Ratio Lower Upper

61 100

96 0.2 54.1 81.1#

98 0.0 34.6 52.0#



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.19 min Scan# 1370

Delta R.T. 0.04 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

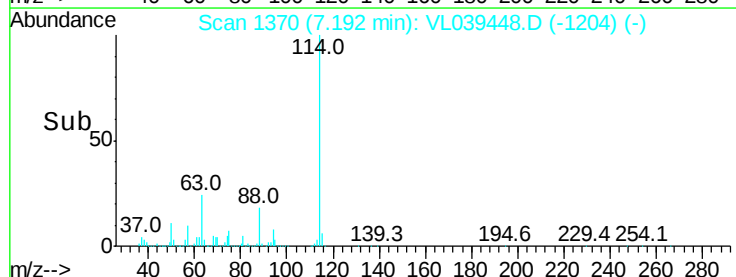
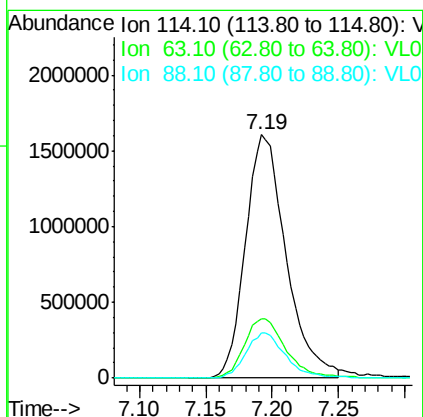
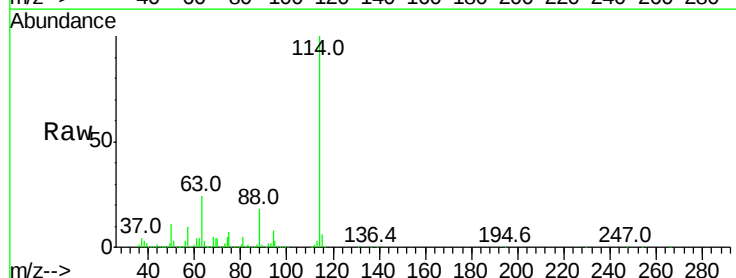
Tgt Ion: 114 Resp: 3414002

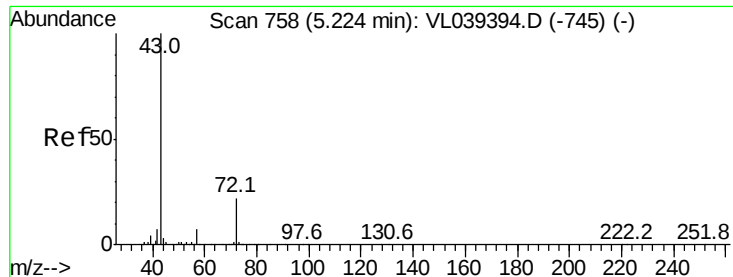
Ion Ratio Lower Upper

114 100

63 25.4 20.2 30.4

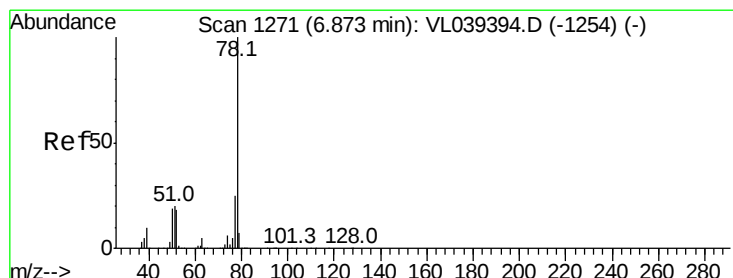
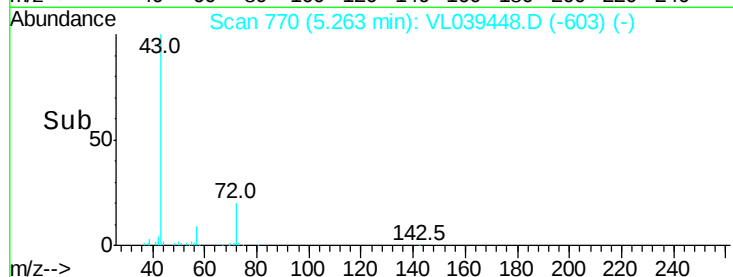
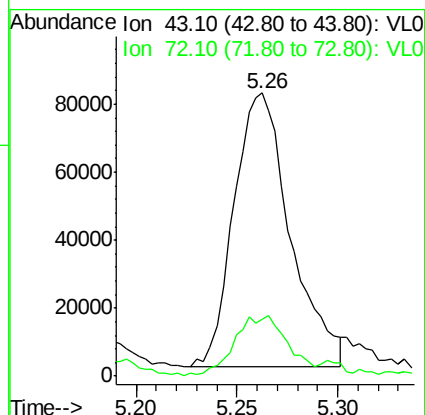
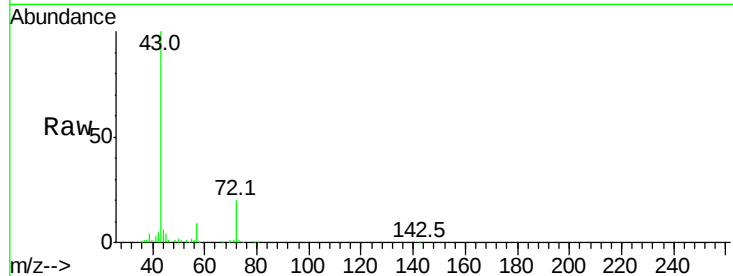
88 18.3 14.5 21.7





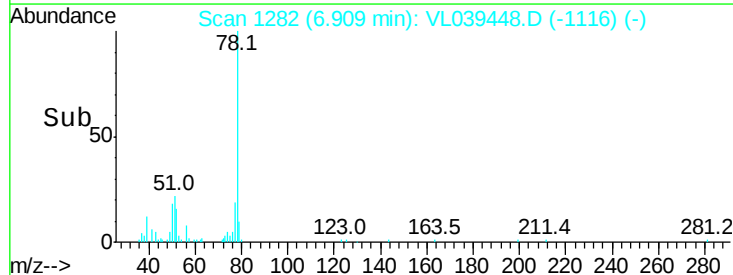
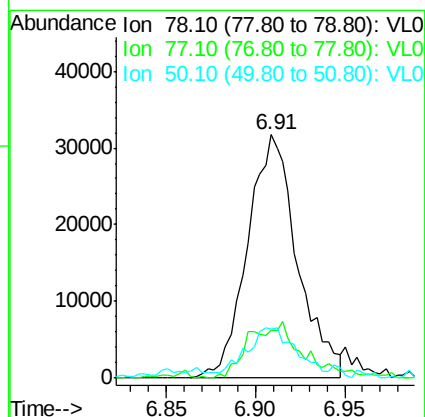
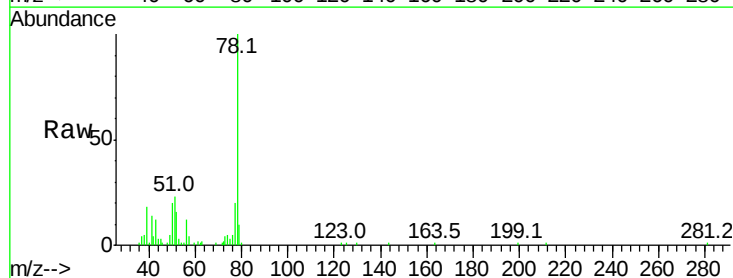
#34
 2-Butanone
 Concen: 0.92 ppbv
 RT: 5.26
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 14:31

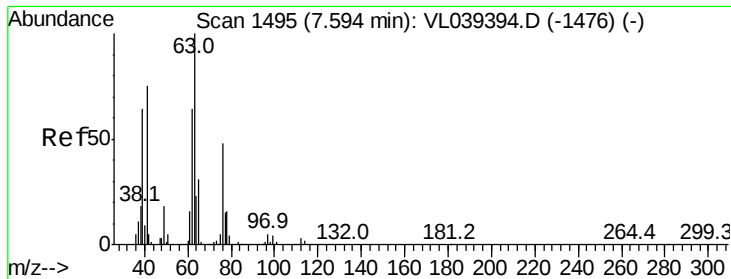
Tgt Ion: 43 Resp: 157584
 Ion Ratio Lower Upper
 43 100
 72 25.3 17.9 26.9



#36
 Benzene
 Concen: 0.23 ppbv
 RT: 6.91 min Scan# 1282
 Delta R.T. 0.04 min
 Lab File: VL039448.D
 Acq: 12 Jul 2022 14:31

Tgt Ion: 78 Resp: 61879
 Ion Ratio Lower Upper
 78 100
 77 19.0 20.3 30.5#
 50 17.3 15.5 23.3





#39

1,2-Dichloropropane

Concen: 8.62 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 12 Jul 2022 14:31

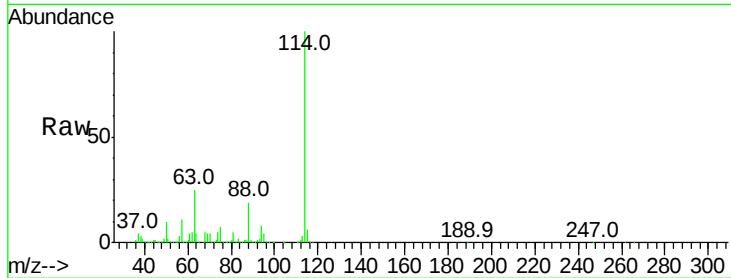
Tgt Ion: 63 Resp: 851229

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

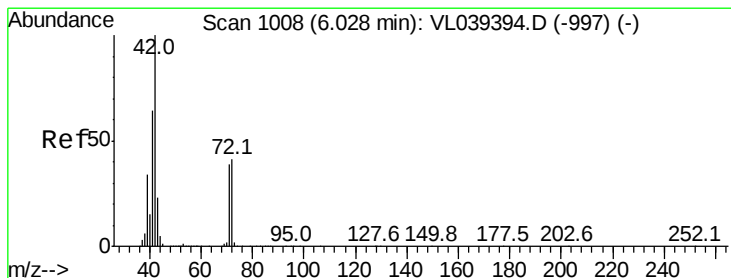
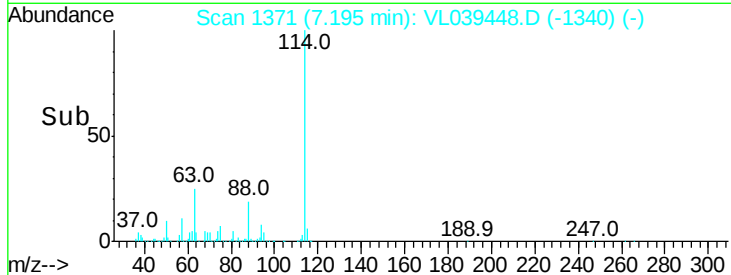
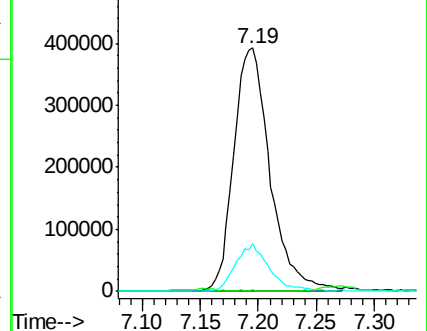
62 19.8 51.4 77.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.07 ppbv

RT: 6.04 min Scan# 1012

Delta R.T. 0.01 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

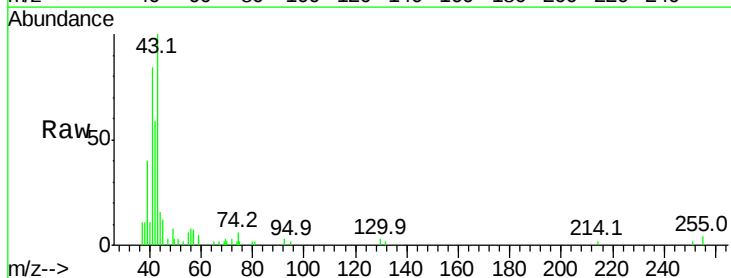
Tgt Ion: 42 Resp: 6540

Ion Ratio Lower Upper

42 100

72 61.3 31.8 47.8#

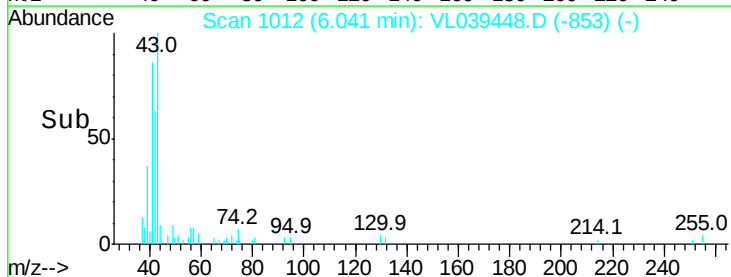
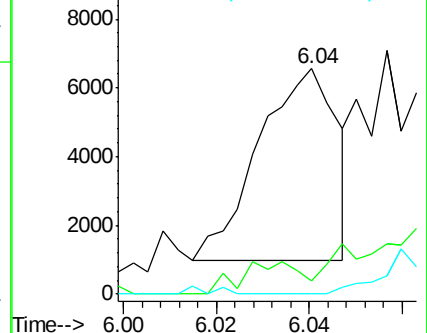
71 0.0 31.8 47.8#

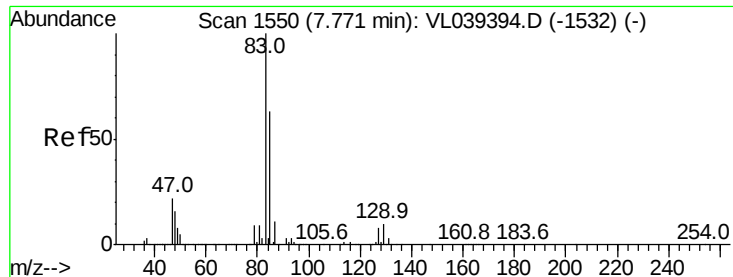


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#42

Bromodichloromethane

Concen: 0.04 ppbv

RT: 7.81 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 12 Jul 2022 14:31

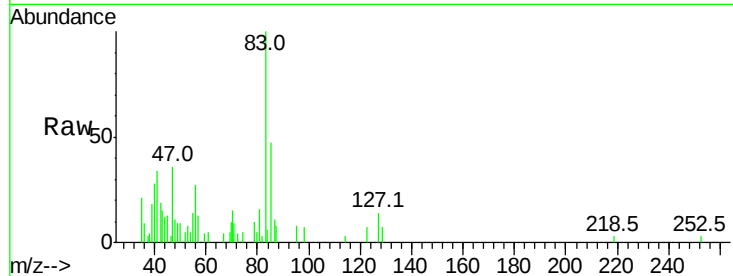
Tgt Ion: 83 Resp: 8455

Ion Ratio Lower Upper

83 100

85 20.4 50.7 76.1#

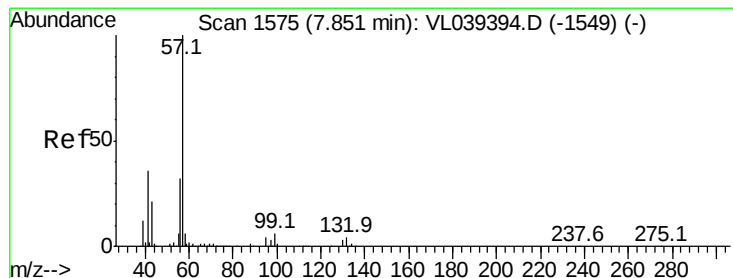
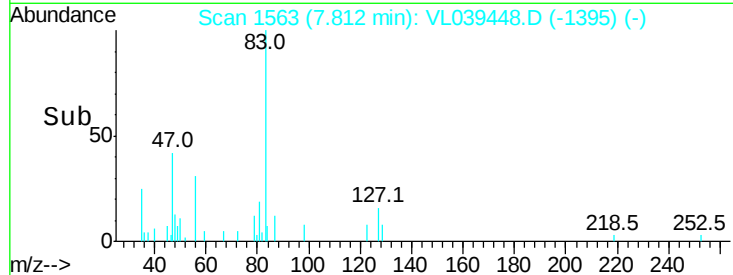
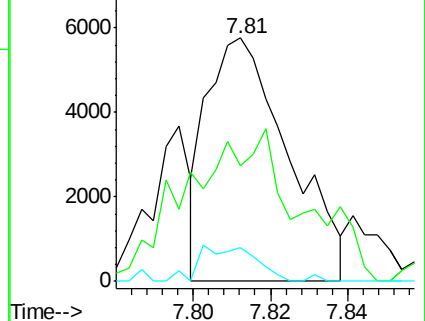
127 17.4 6.6 9.8#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.13 ppbv

RT: 7.89 min Scan# 1587

Delta R.T. 0.04 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

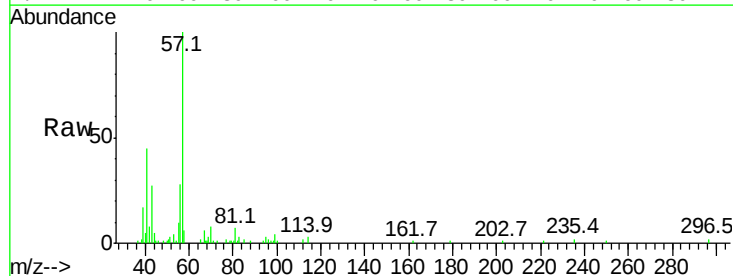
Tgt Ion: 57 Resp: 56710

Ion Ratio Lower Upper

57 100

41 47.4 27.4 41.2#

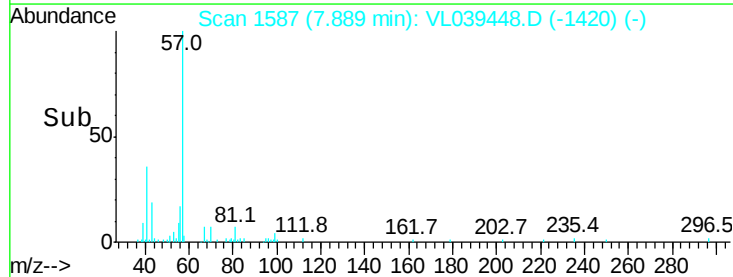
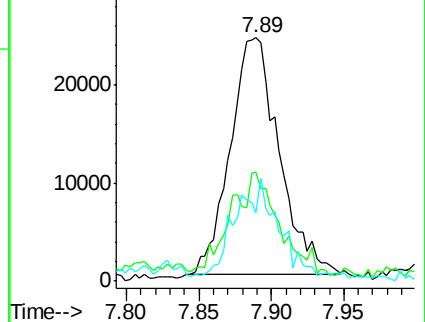
56 42.2 24.5 36.7#

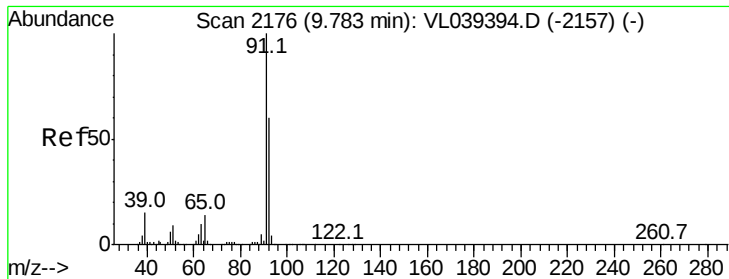


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.50 ppbv

RT: 9.83 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-18E

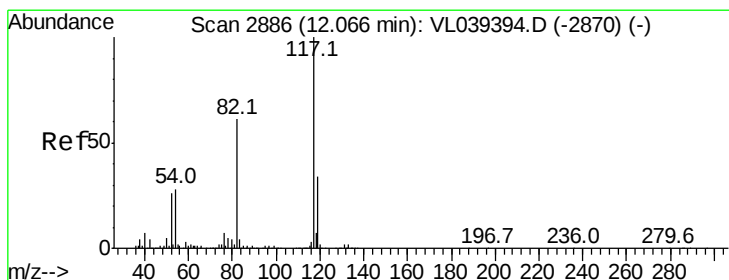
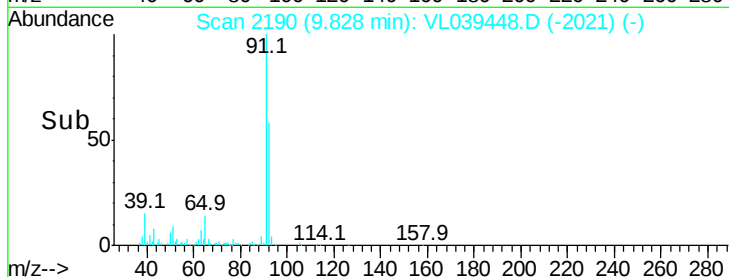
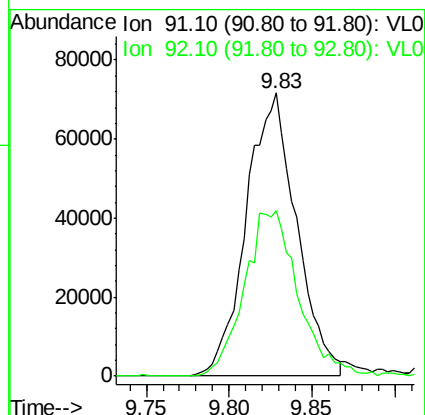
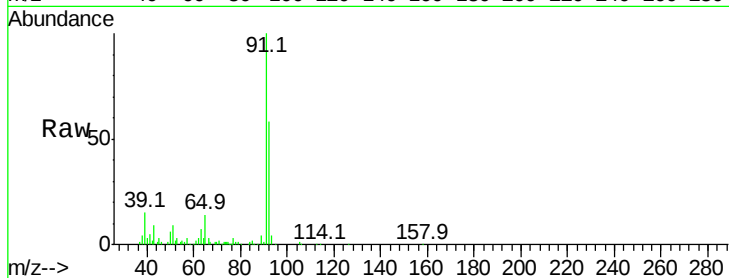
Acq: 12 Jul 2022 14:31

Tgt Ion: 91 Resp: 151609

Ion Ratio Lower Upper

91 100

92 62.2 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. 0.04 min

Lab File: VL039448.D

Acq: 12 Jul 2022 14:31

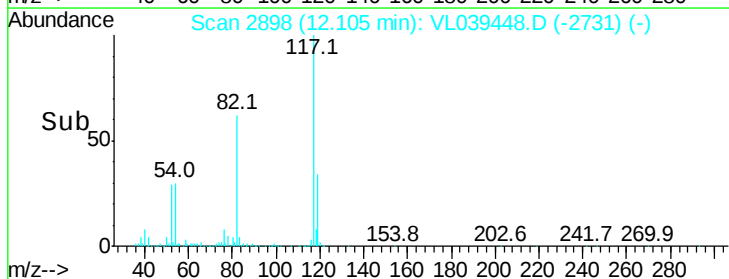
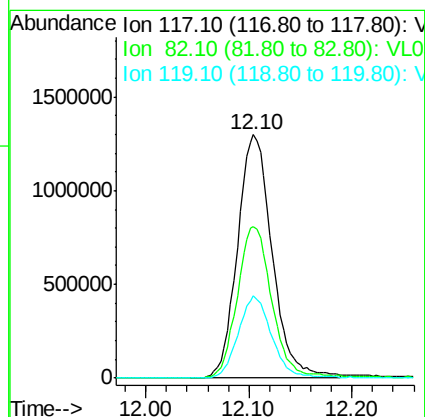
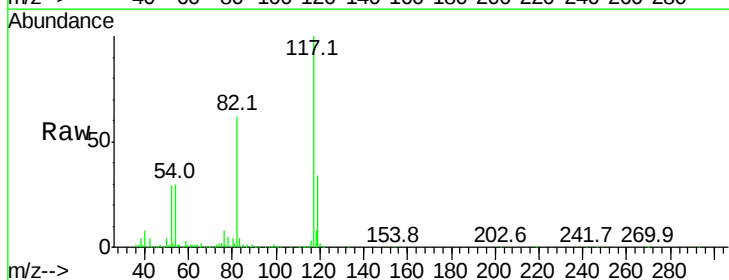
Tgt Ion: 117 Resp: 3041849

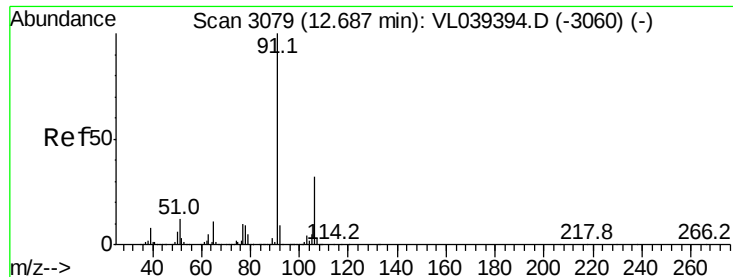
Ion Ratio Lower Upper

117 100

82 63.5 50.8 76.2

119 33.3 24.1 36.1





#58

Ethyl Benzene

Concen: 0.07 ppbv

RT: 13.01 min

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

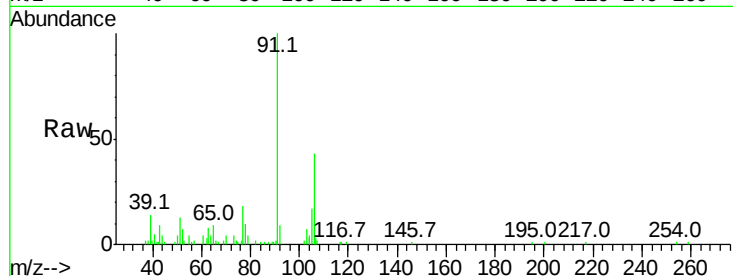
Acq: 12 Jul 2022 14:31

Tgt Ion: 91 Resp: 28080

Ion Ratio Lower Upper

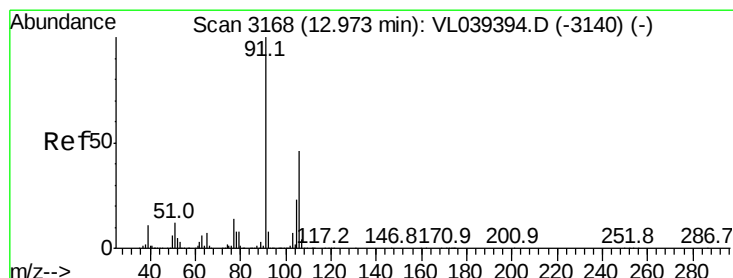
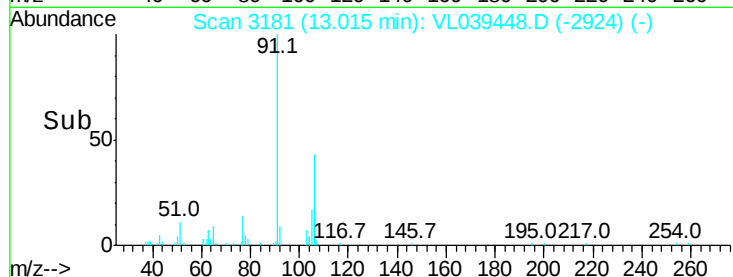
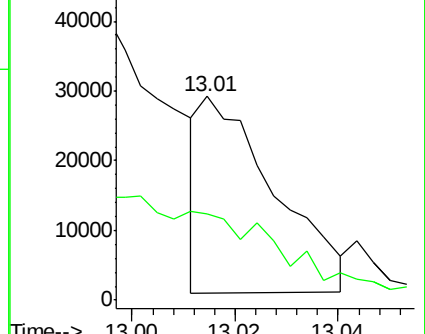
91 100

106 36.7 25.4 38.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.08 ppbv

RT: 13.01 min Scan# 3181

Delta R.T. 0.04 min

Lab File: VL039448.D

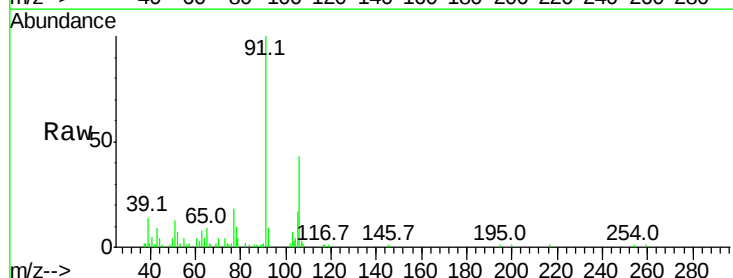
Acq: 12 Jul 2022 14:31

Tgt Ion: 91 Resp: 28080

Ion Ratio Lower Upper

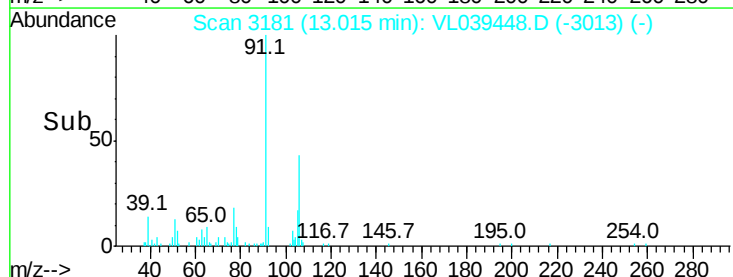
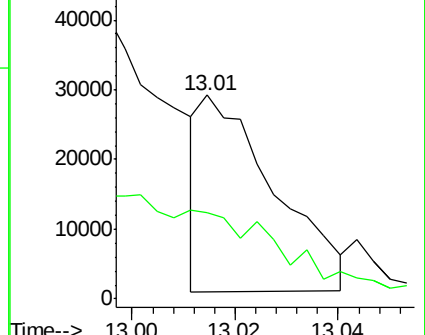
91 100

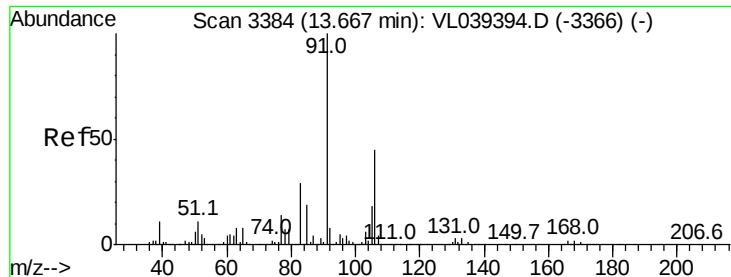
106 0.0 35.4 53.2#



Abundance Ion 91.10 (90.80 to 91.80): VL0

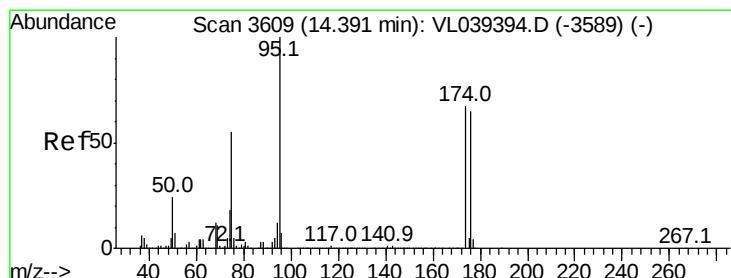
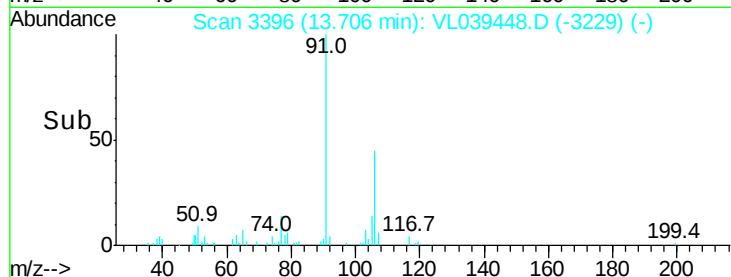
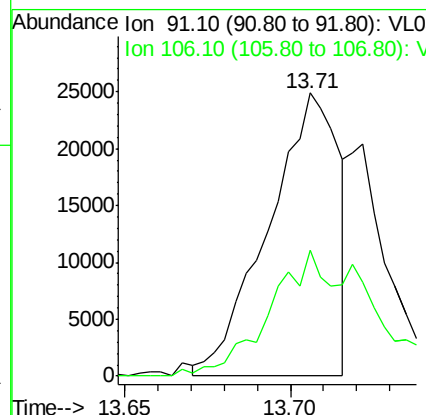
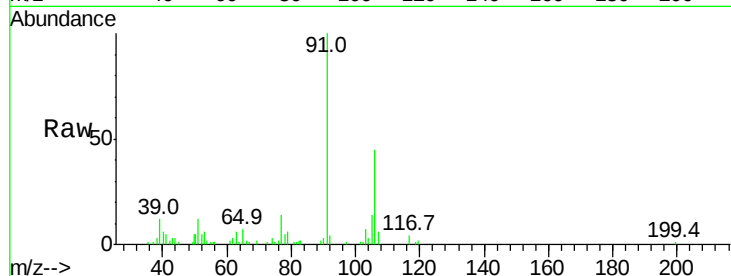
Ion 106.10 (105.80 to 106.80): V





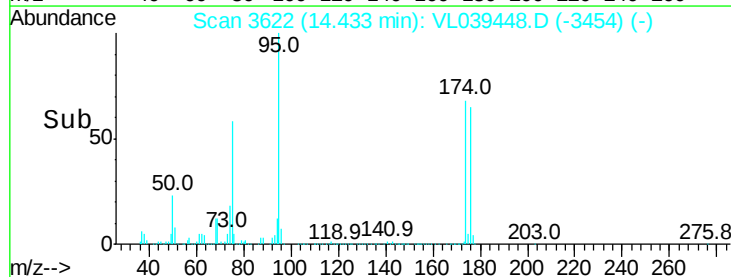
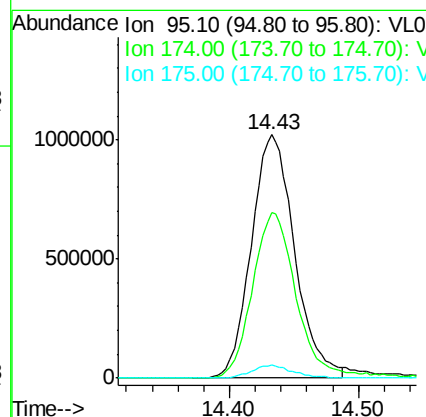
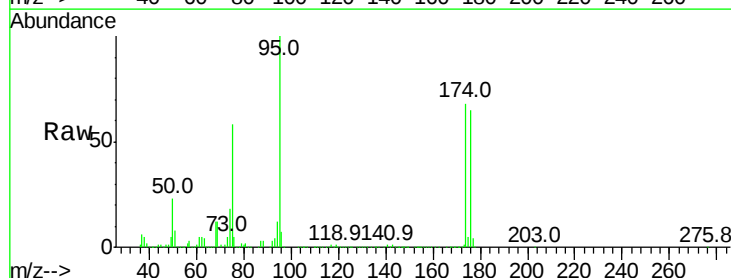
#60
o-Xylene
Concen: 0.11 ppbv
RT: 13.71 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 12 Jul 2022 14:31

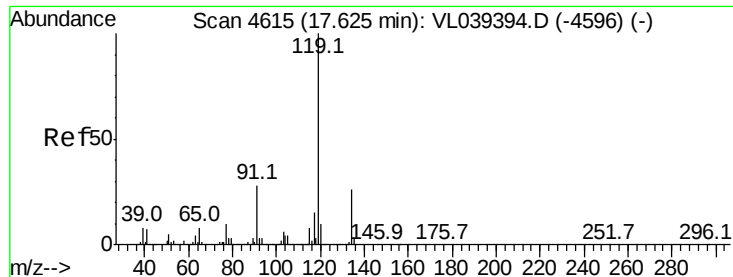
Tgt Ion: 91 Resp: 36730
Ion Ratio Lower Upper
91 100
106 65.5 22.4 67.3



#68
1-Bromo-4-Fluorobenzene
Concen: 10.60 ppbv
RT: 14.43 min Scan# 3622
Delta R.T. 0.04 min
Lab File: VL039448.D
Acq: 12 Jul 2022 14:31

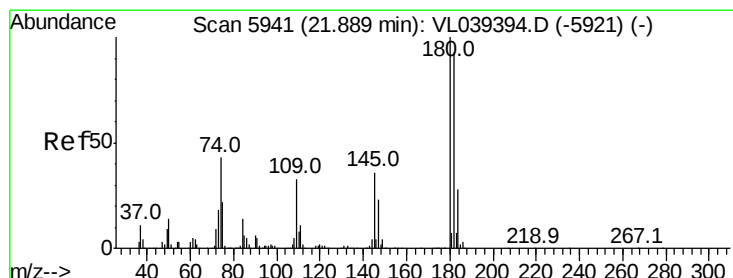
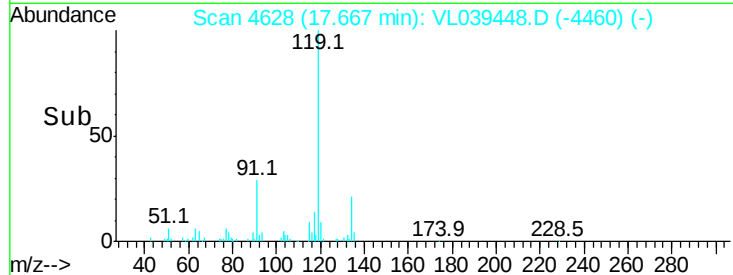
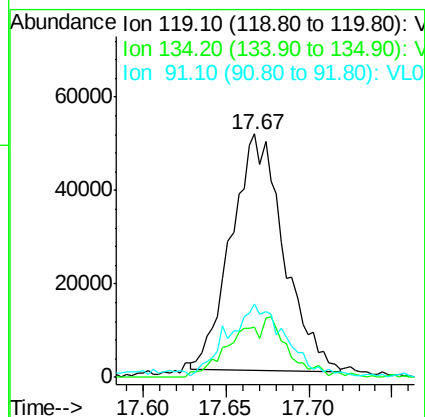
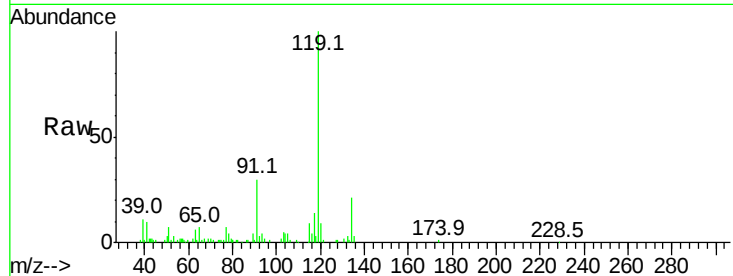
Tgt Ion: 95 Resp: 2391494
Ion Ratio Lower Upper
95 100
174 70.7 55.9 83.9
175 5.1 4.2 6.4





#69
 p-Isopropyltoluene
 Concen: 0.21 ppbv
 RT: 17.67 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 14:31

Tgt Ion:	119	Resp:	112061
Ion Ratio	Lower	Upper	
119	100		
134	27.3	20.3	30.5
91	36.4	22.9	34.3#



#81
 1,2,4-Trichlorobenzene
 Concen: 1.49 ppbv
 RT: 21.52 min Scan# 5825
 Delta R.T.: -0.37 min
 Lab File: VL039448.D
 Acq: 12 Jul 2022 14:31

Tgt Ion:	180	Resp:	261199
Ion Ratio	Lower	Upper	
180	100		
182	8.4	77.1	115.7#
184	1.6	24.3	36.5#

