

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL032222\
 Data File : VL038699.D
 Acq On : 23 Mar 2022 1:02
 Operator : SY/AP
 Sample : N1961-16DL 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P79DL

Quant Time: Mar 23 04:17:12 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	845003	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	2325612	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.06	117	2069053	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1523056	9.60	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.00%

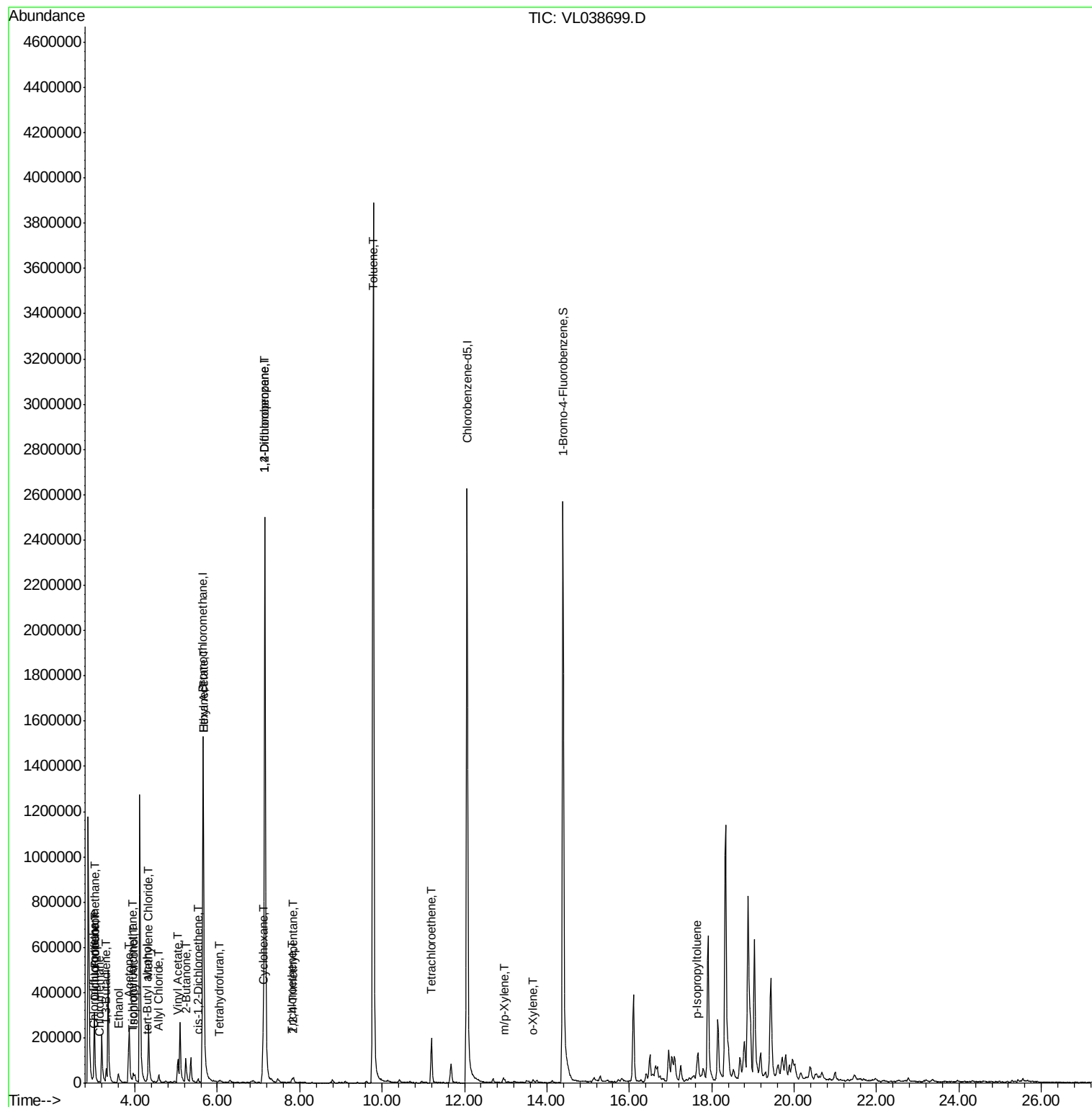
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	4234	0.04	ppbv	91
3) Chlorodifluoromethane	2.99	51	29073	0.33	ppbv #	87
4) Chloromethane	3.13	50	4581	0.09	ppbv	96
9) Propene	3.02	41	83765	1.94	ppbv #	63
11) Trichlorofluoromethane	3.94	101	2153	0.02	ppbv	98
13) Ethanol	3.60	45	58352	12.28	ppbv	94
15) Acetone	3.84	43	122820	1.68	ppbv #	71
16) 1,3-Butadiene	3.30	39	15439	0.37	ppbv #	11
17) tert-Butyl alcohol	4.29	59	9596	0.15	ppbv #	73
19) Isopropyl Alcohol	3.96	45	48311	1.20	ppbv #	93
20) Methylene Chloride	4.33	84	112757	3.67	ppbv	94
21) Allyl Chloride	4.58	41	4868	0.09	ppbv #	19
23) Vinyl Acetate	5.04	43	41686	0.59	ppbv #	1
25) Ethyl Acetate	5.67	43	127957	0.70	ppbv #	89
26) Hexane	5.67	57	62911	0.77	ppbv #	62
30) Cyclohexane	7.11	84	80515	1.13	ppbv #	73
31) cis-1,2-Dichloroethene	5.53	61	9867	0.13	ppbv	88
34) 2-Butanone	5.23	43	160321	1.74	ppbv	97
38) Trichloroethene	7.82	130	3558	0.05	ppbv #	68
39) 1,2-Dichloropropane	7.16	63	516058	7.35	ppbv #	28
41) Tetrahydrofuran	6.05	42	1529	0.02	ppbv #	1
44) 2,2,4-Trimethylpentane	7.85	57	8763	0.03	ppbv #	1
52) Tetrachloroethene	11.20	164	56447	0.86	ppbv	94
53) Toluene	9.78	91	3683624	19.10	ppbv	98
59) m/p-Xylene	12.97	91	4529	0.02	ppbv #	30
60) o-Xylene	13.66	91	5630	0.03	ppbv #	30
69) p-Isopropyltoluene	17.63	119	15489	0.05	ppbv #	93

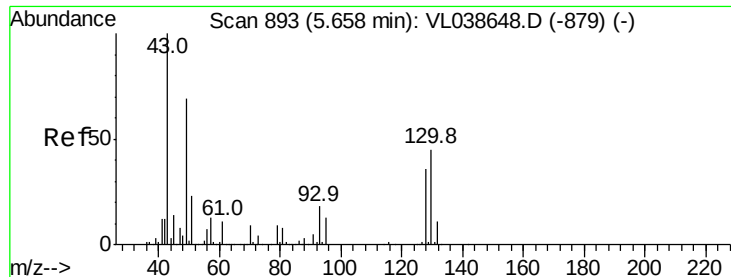
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Mar 2022 1:02

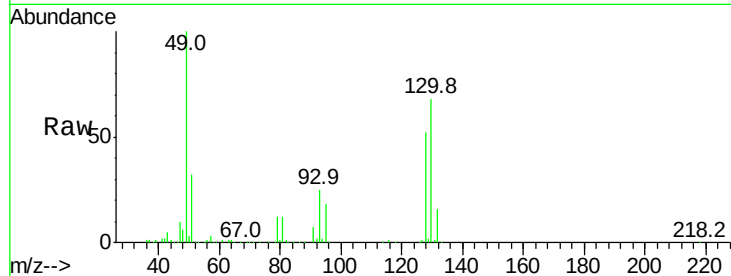
Tgt Ion: 49 Resp: 845003

Ion Ratio Lower Upper

49 100

128 54.7 26.2 78.6

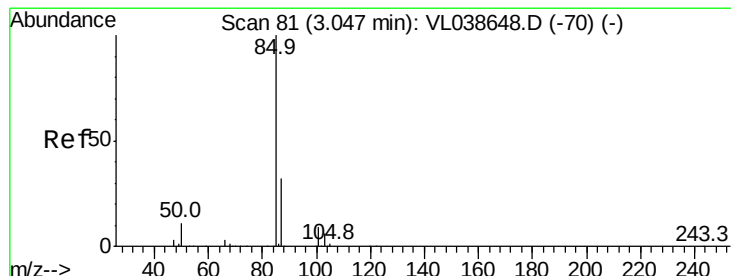
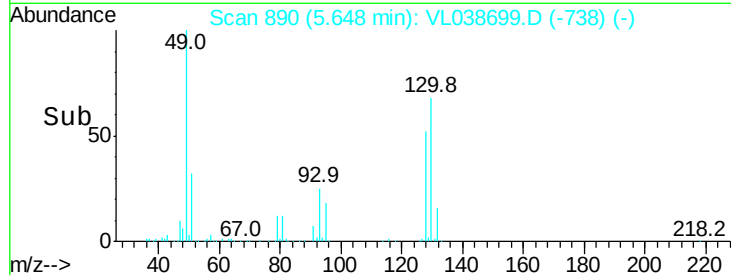
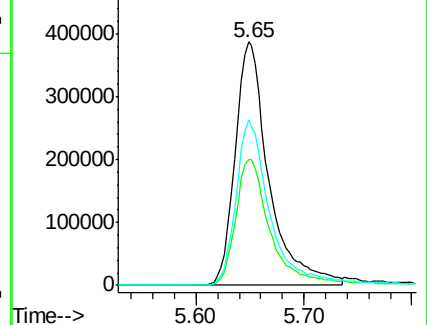
130 70.8 33.7 101.1



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: 0.04 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL038699.D

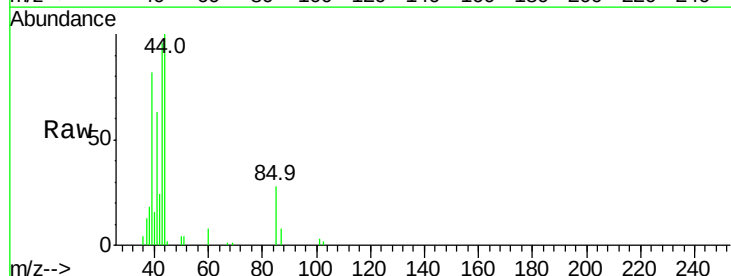
Acq: 23 Mar 2022 1:02

Tgt Ion: 85 Resp: 4234

Ion Ratio Lower Upper

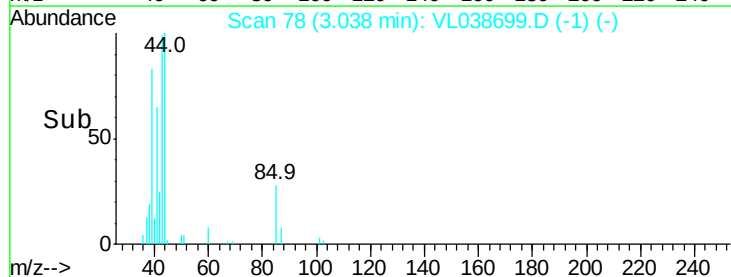
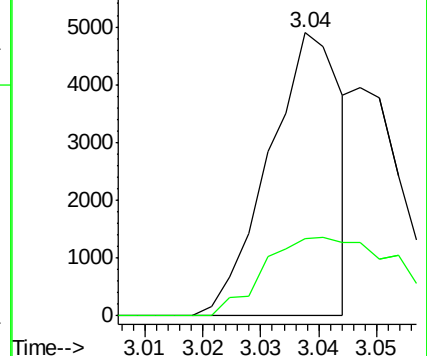
85 100

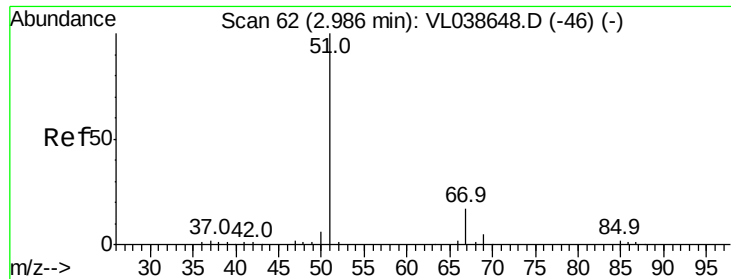
87 27.3 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.33 ppbv

RT: 2.99 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: C0P79DL

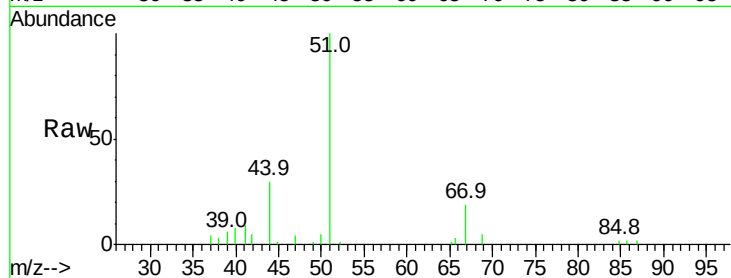
Acq: 23 Mar 2022 1:02

Tgt Ion: 51 Resp: 29073

Ion Ratio Lower Upper

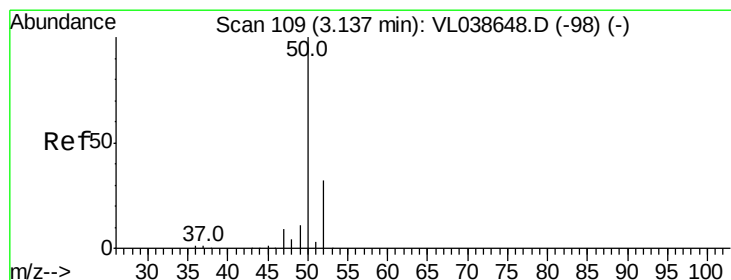
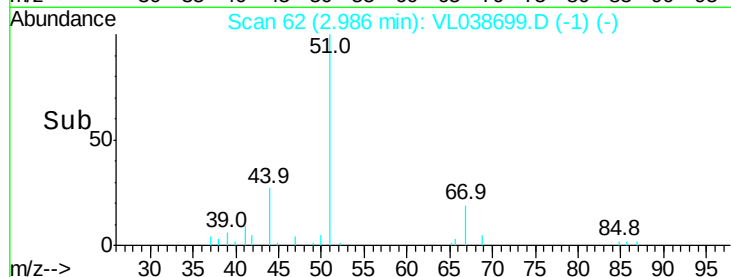
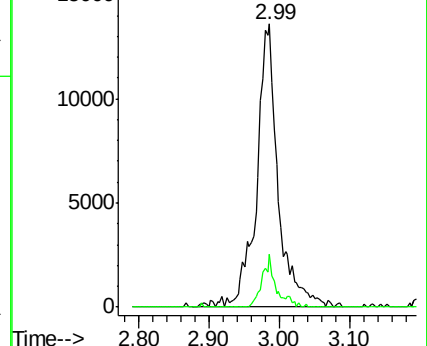
51 100

67 11.7 14.1 21.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.09 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.00 min

Lab File: VL038699.D

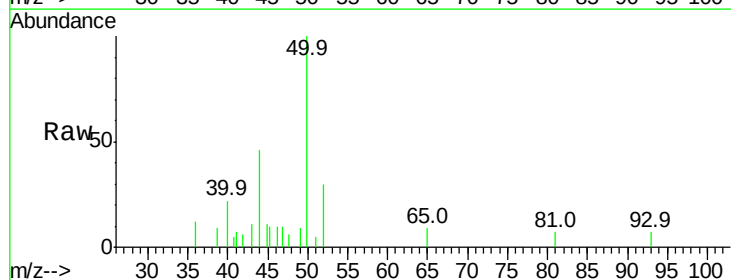
Acq: 23 Mar 2022 1:02

Tgt Ion: 50 Resp: 4581

Ion Ratio Lower Upper

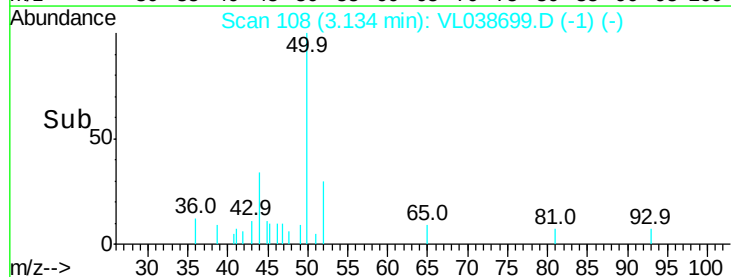
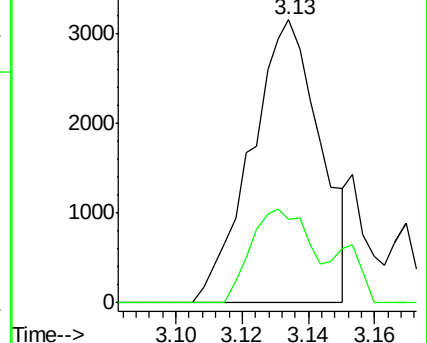
50 100

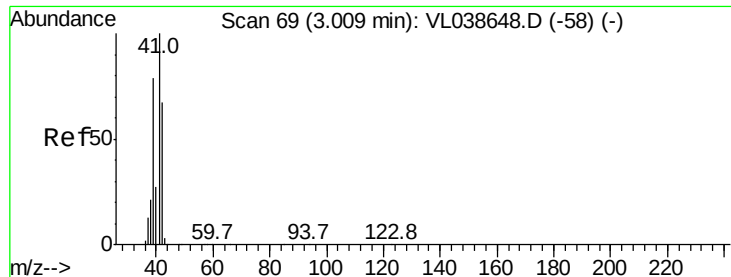
52 29.5 25.5 38.3



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.94 ppbv

RT: 3.02 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: C0P79DL

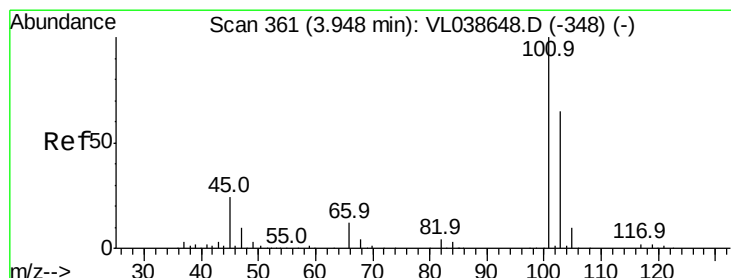
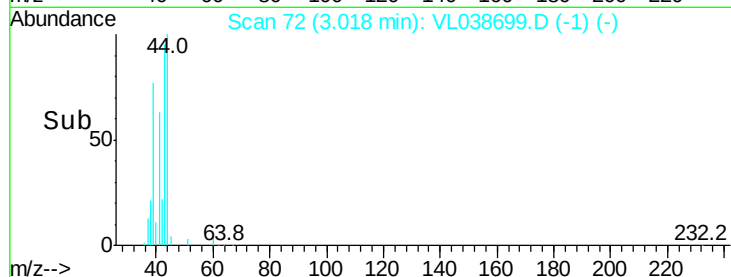
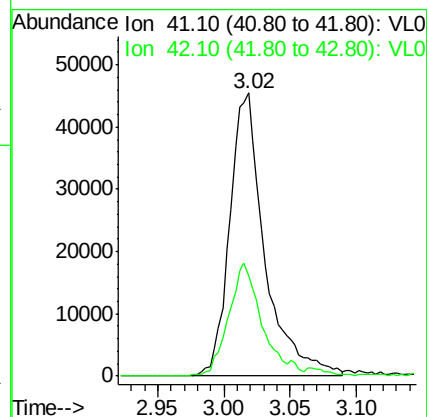
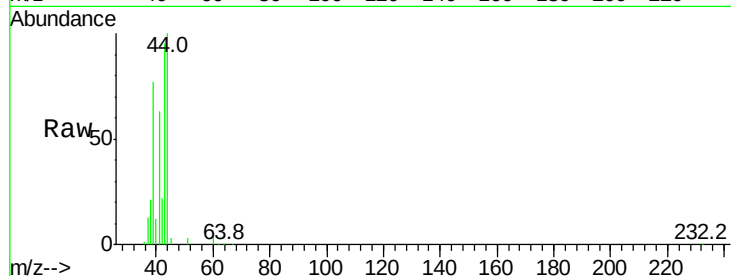
Acq: 23 Mar 2022 1:02

Tgt Ion: 41 Resp: 83765

Ion Ratio Lower Upper

41 100

42 40.0 56.2 84.4#



#11

Trichlorofluoromethane

Concen: 0.02 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL038699.D

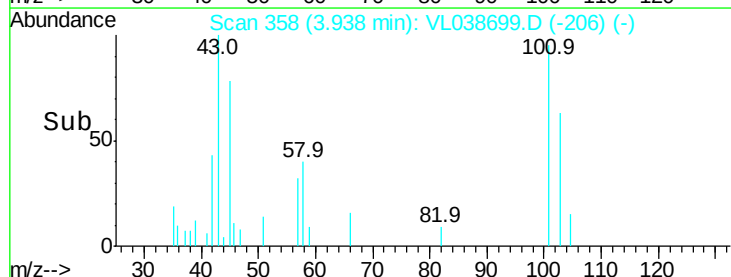
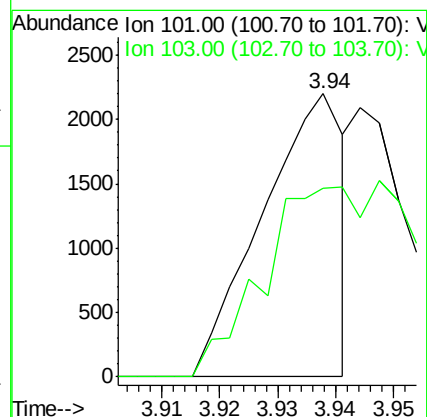
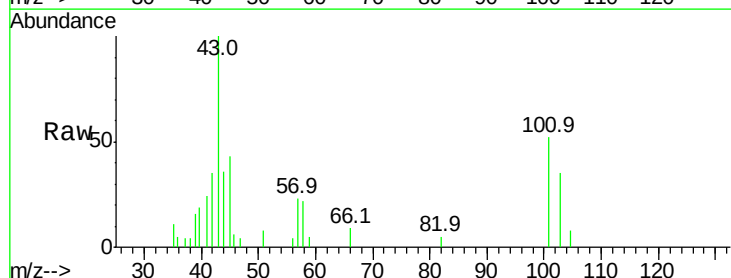
Acq: 23 Mar 2022 1:02

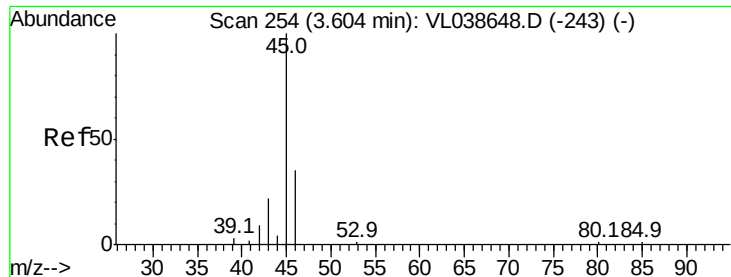
Tgt Ion: 101 Resp: 2153

Ion Ratio Lower Upper

101 100

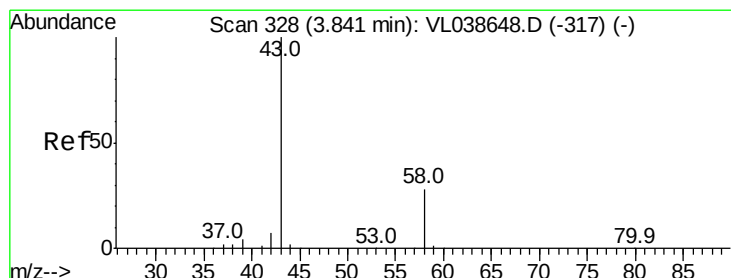
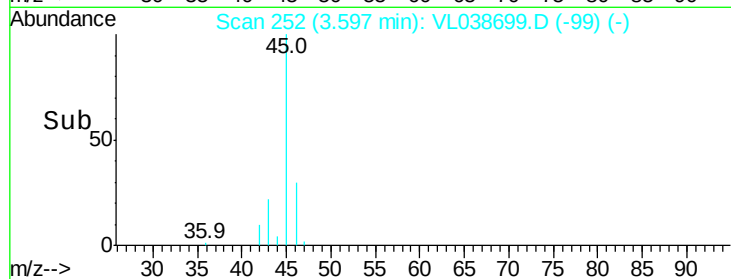
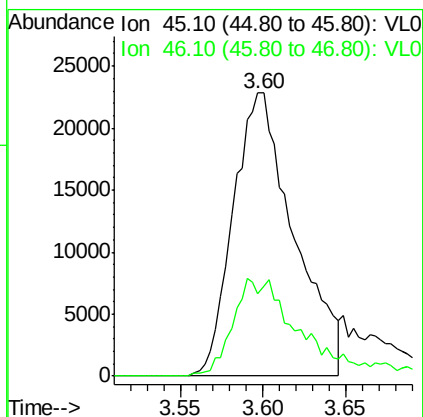
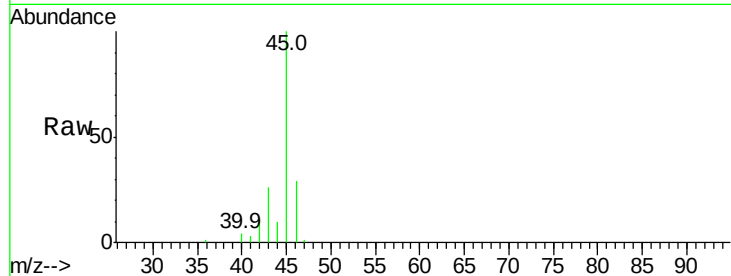
103 66.6 51.9 77.9





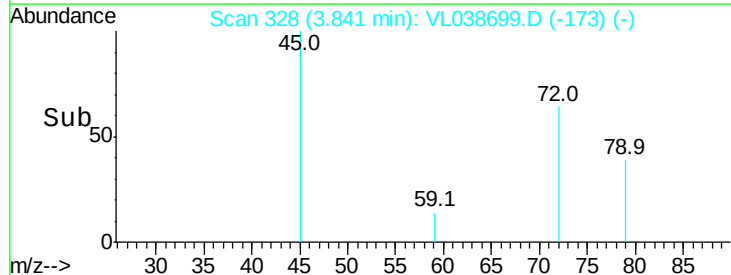
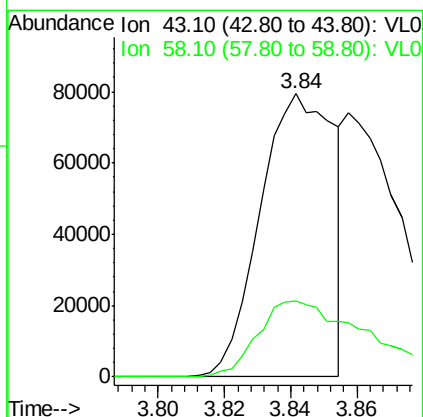
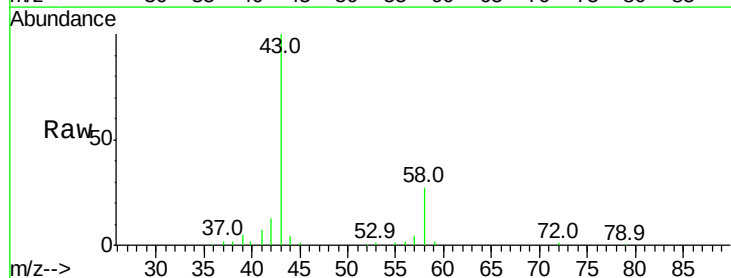
#13
Ethanol
Concen: 12.28 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Mar 2022 1:02

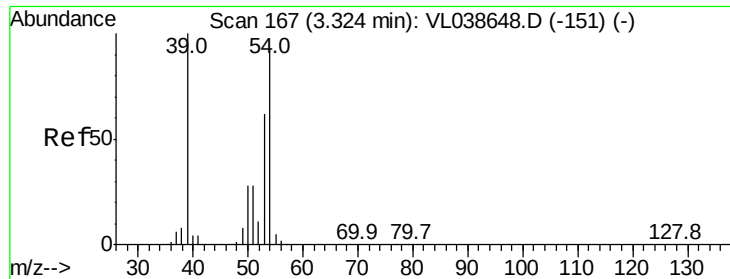
Tgt Ion: 45 Resp: 58352
Ion Ratio Lower Upper
45 100
46 41.5 15.1 60.5



#15
Acetone
Concen: 1.68 ppbv
RT: 3.84 min Scan# 328
Delta R.T. -0.00 min
Lab File: VL038699.D
Acq: 23 Mar 2022 1:02

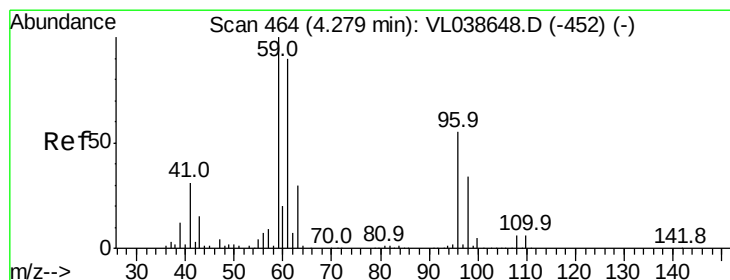
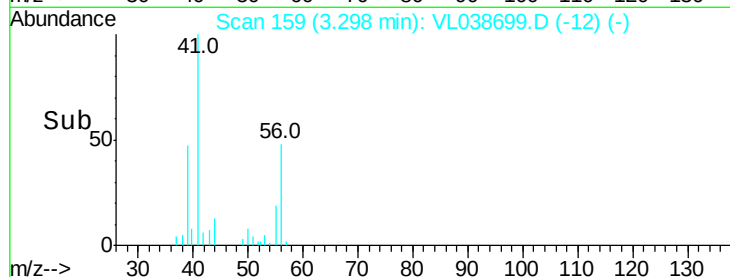
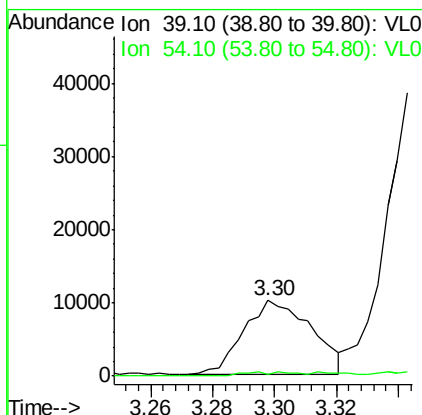
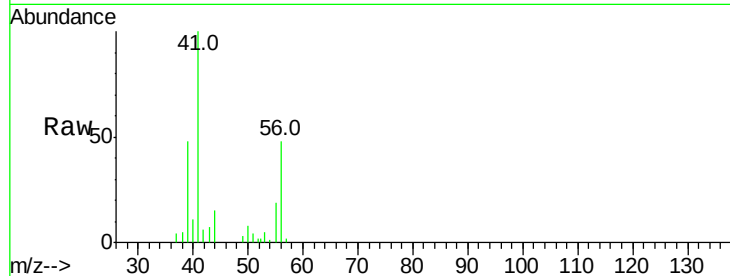
Tgt Ion: 43 Resp: 122820
Ion Ratio Lower Upper
43 100
58 44.8 23.3 34.9#





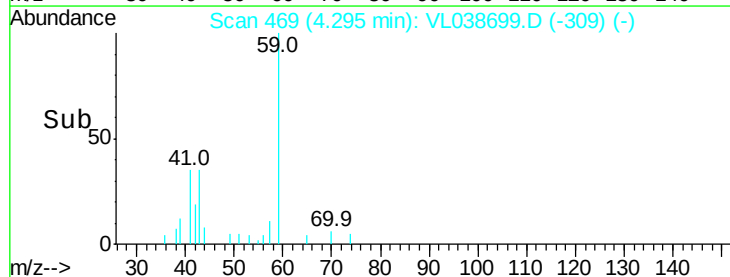
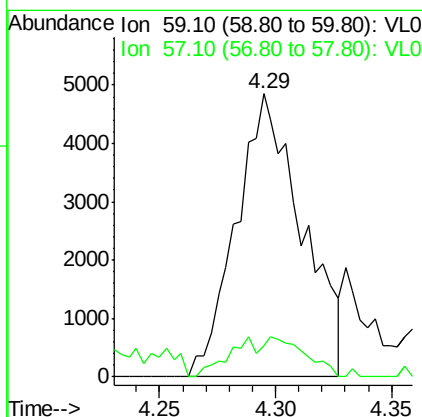
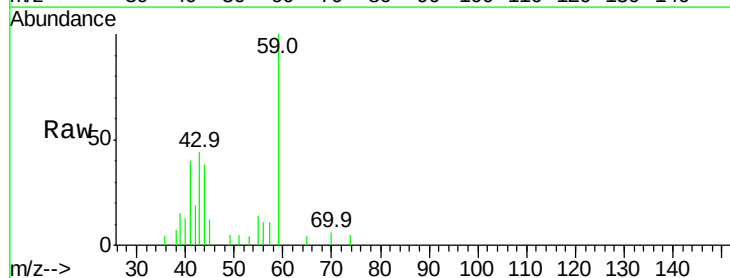
#16
 1,3-Butadiene
 Concen: 0.37 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 C0P79DL
 Acq: 23 Mar 2022 1:02

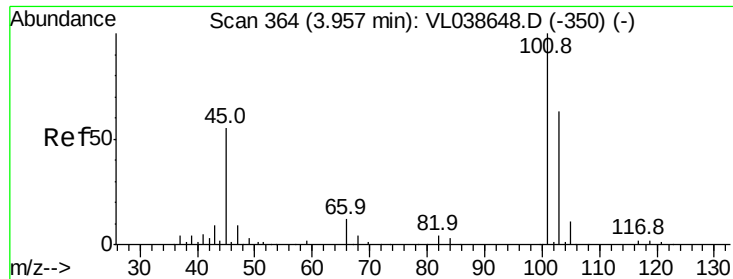
Tgt Ion: 39 Resp: 15439
 Ion Ratio Lower Upper
 39 100
 54 4.1 69.1 103.7#



#17
 tert-Butyl alcohol
 Concen: 0.15 ppbv
 RT: 4.29 min Scan# 469
 Delta R.T. 0.02 min
 Lab File: VL038699.D
 Acq: 23 Mar 2022 1:02

Tgt Ion: 59 Resp: 9596
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.2 12.2#





#19

Isopropyl Alcohol

Concen: 1.20 ppbv

RT: 3.96 Instrument: MSVOA_1

Delta R.T. -0.01 min

Lab File: ClientSampleId: C0P79DL

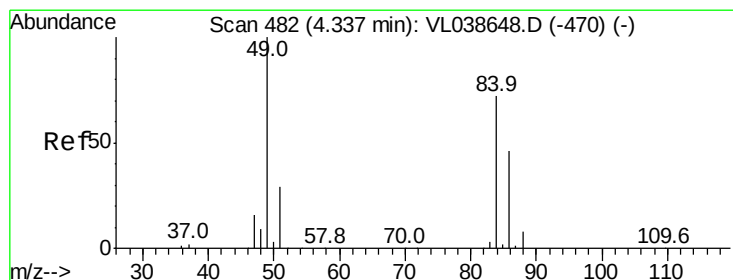
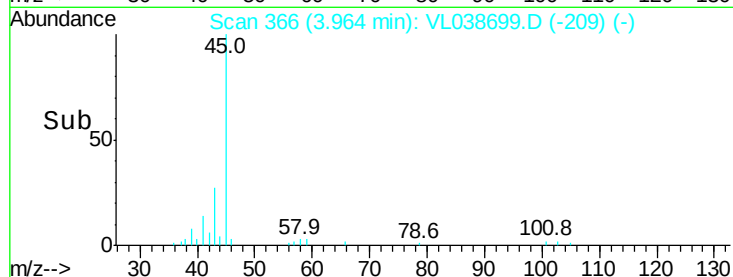
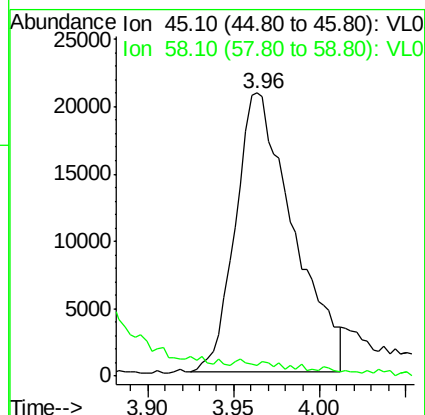
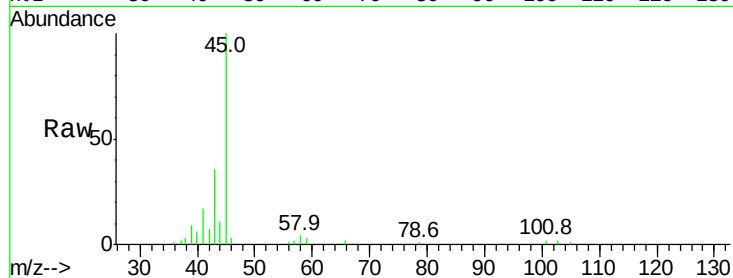
Acq: 23 Mar 2022 1:02

Tgt Ion: 45 Resp: 48311

Ion Ratio Lower Upper

45 100

58 5.3 2.3 3.5#



#20

Methylene Chloride

Concen: 3.67 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.01 min

Lab File: VL038699.D

Acq: 23 Mar 2022 1:02

Tgt Ion: 84 Resp: 112757

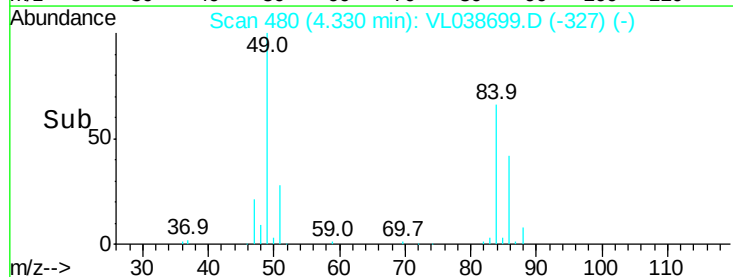
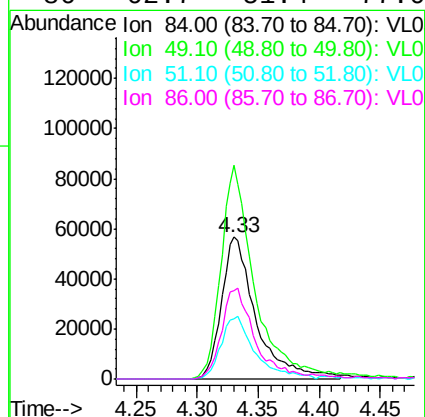
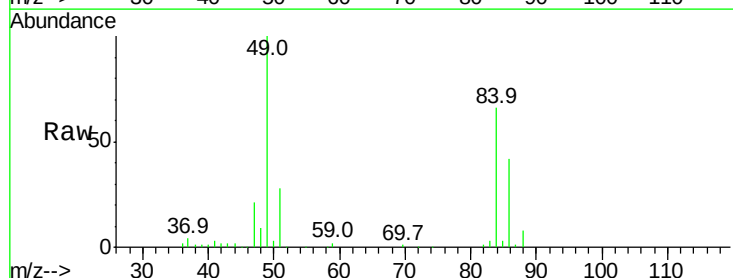
Ion Ratio Lower Upper

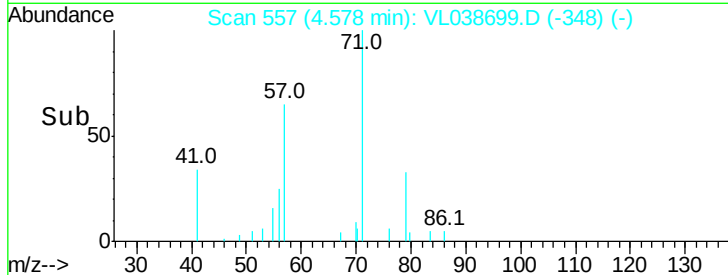
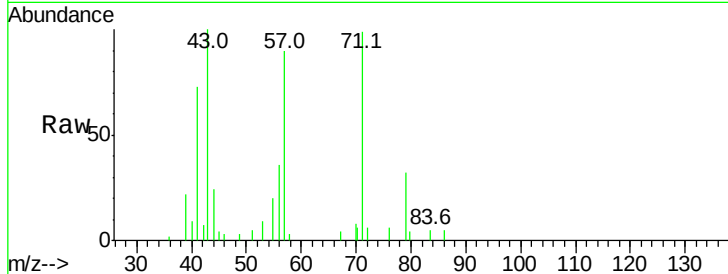
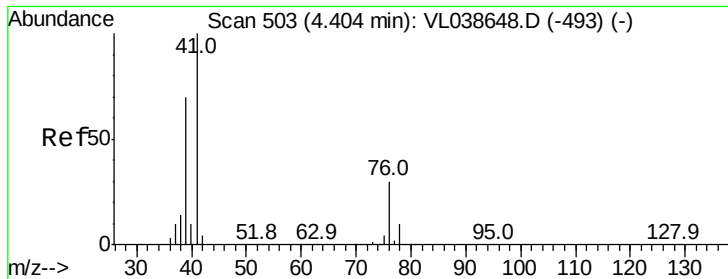
84 100

49 150.2 111.2 166.8

51 42.1 32.8 49.2

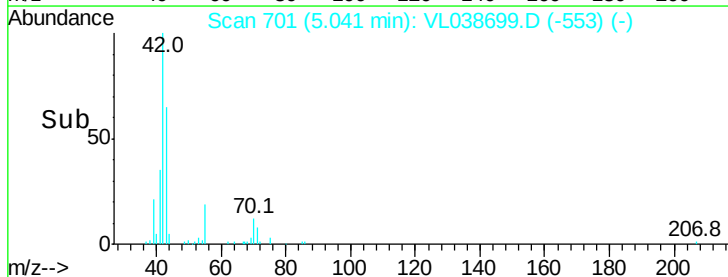
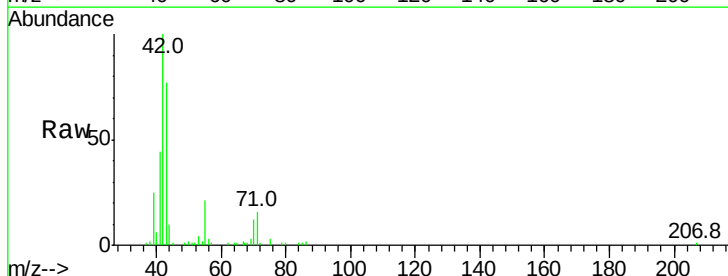
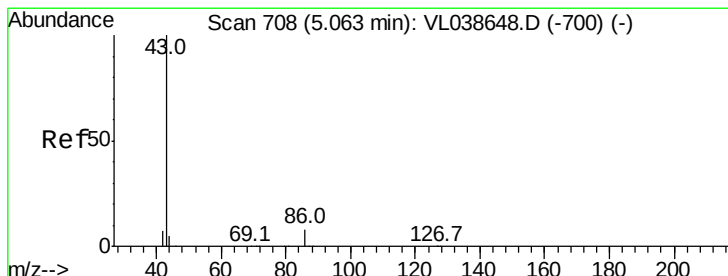
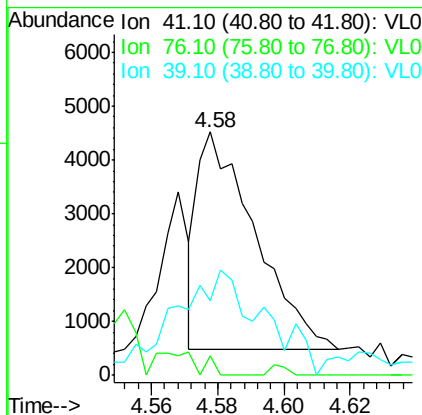
86 62.7 51.4 77.0





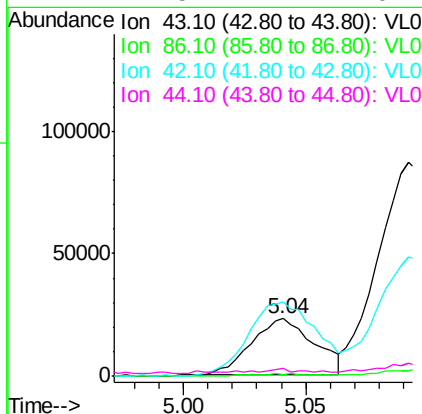
#21
 Allyl Chloride
 Concen: 0.09 ppbv
 RT: 4.58
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 C0P79DL
 Acq: 23 Mar 2022 1:02

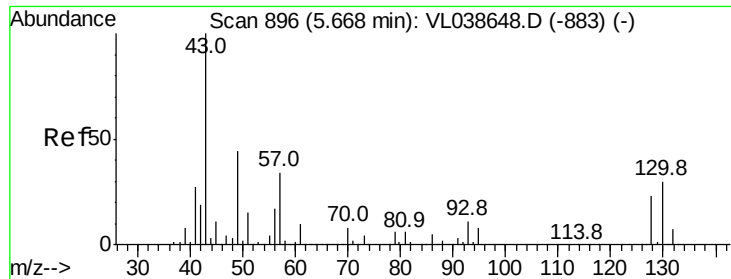
Tgt Ion: 41 Resp: 4868
 Ion Ratio Lower Upper
 41 100
 76 69.9 25.0 37.6#
 39 0.0 56.6 85.0#



#23
 Vinyl Acetate
 Concen: 0.59 ppbv
 RT: 5.04 min Scan# 701
 Delta R.T. -0.02 min
 Lab File: VL038699.D
 Acq: 23 Mar 2022 1:02

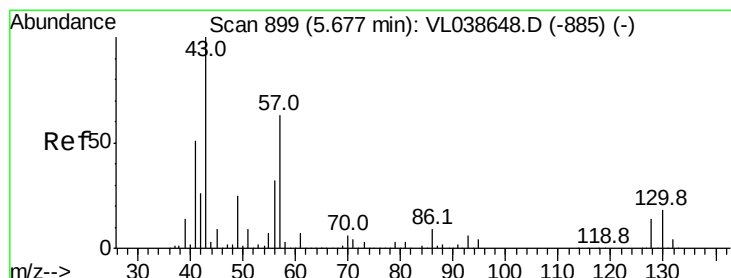
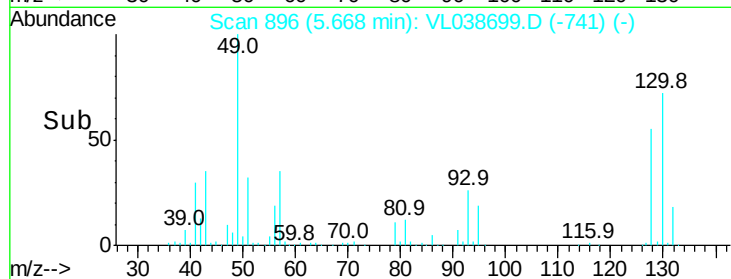
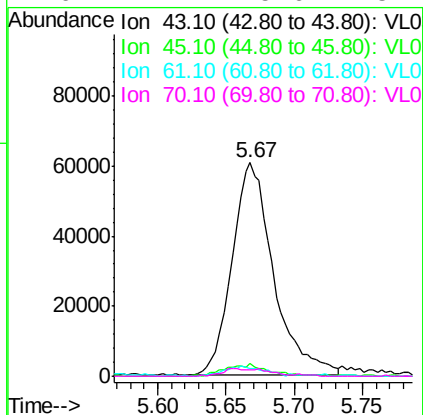
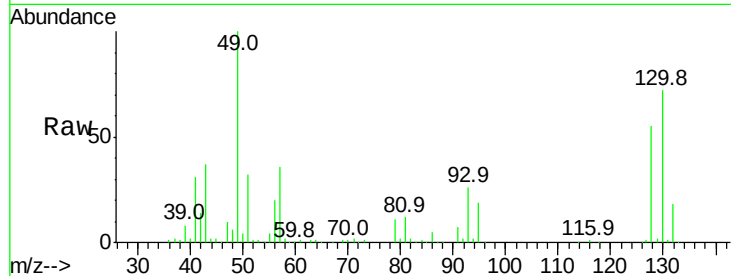
Tgt Ion: 43 Resp: 41686
 Ion Ratio Lower Upper
 43 100
 86 3.0 5.6 8.4#
 42 131.7 6.8 10.2#
 44 7.5 4.2 6.2#





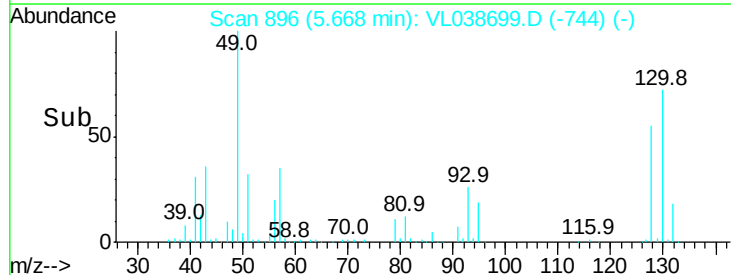
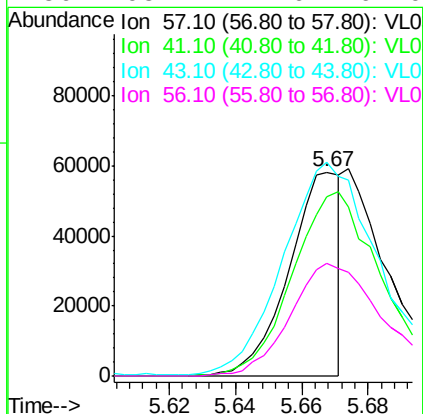
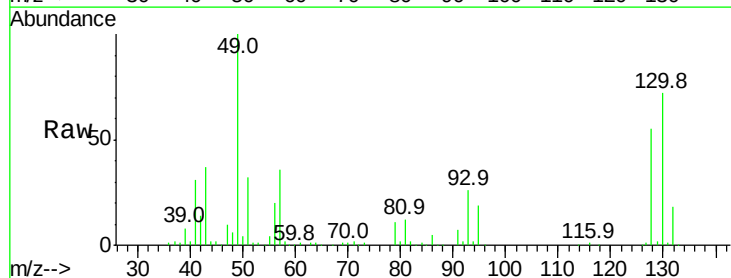
#25
Ethyl Acetate
Concen: 0.70 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
COP79DL
Acq: 23 Mar 2022 1:02

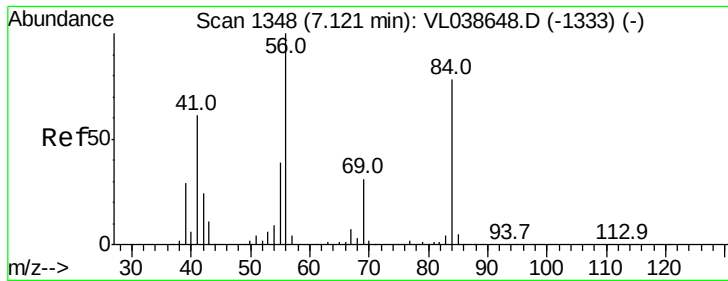
Tgt Ion:	43	Resp:	127957
Ion	Ratio	Lower	Upper
43	100		
45	6.5	8.2	12.4#
61	5.6	8.3	12.5#
70	4.4	5.6	8.4#



#26
Hexane
Concen: 0.77 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.01 min
Lab File: VL038699.D
Acq: 23 Mar 2022 1:02

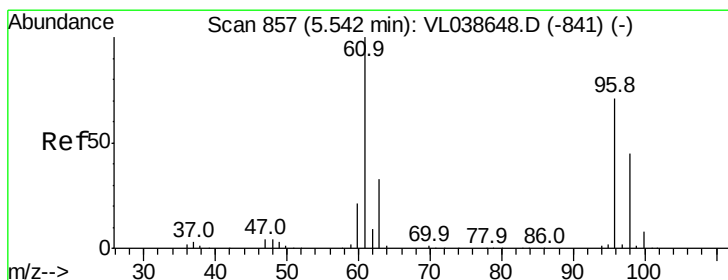
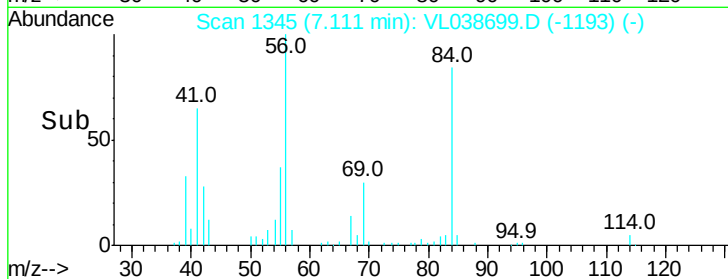
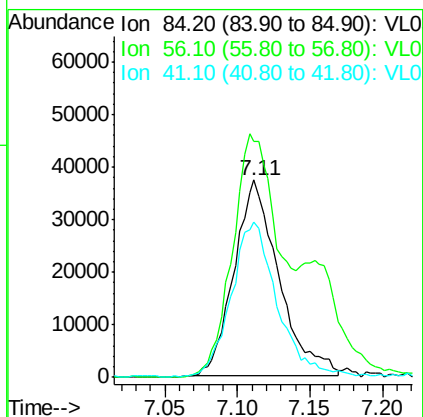
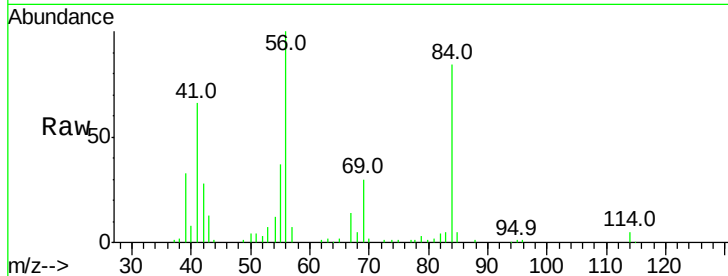
Tgt Ion:	57	Resp:	62911
Ion	Ratio	Lower	Upper
57	100		
41	0.0	67.0	100.4#
43	212.8	184.2	276.2
56	105.7	42.6	64.0#





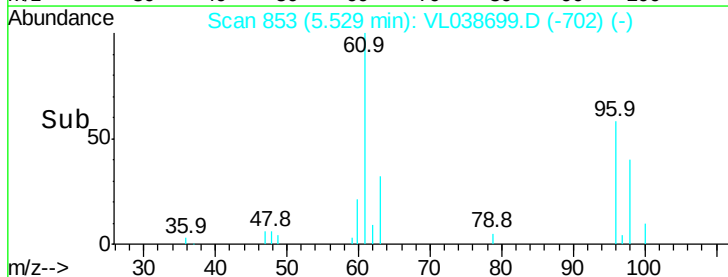
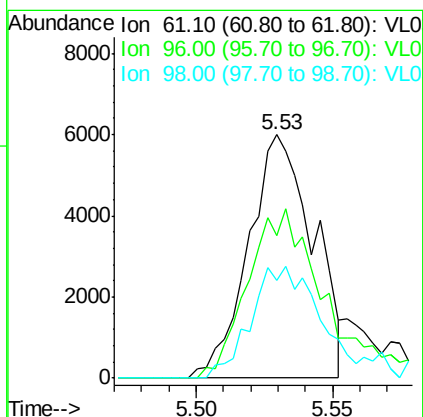
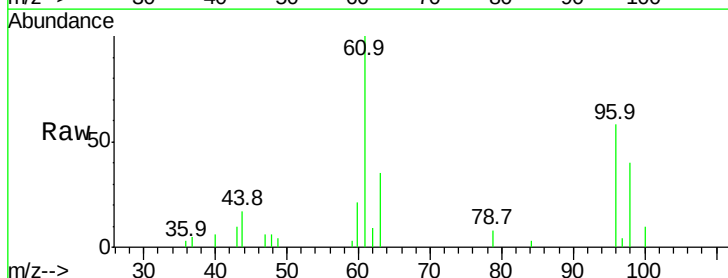
#30
Cyclohexane
Concen: 1.13 ppbv
RT: 7.11
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Mar 2022 1:02

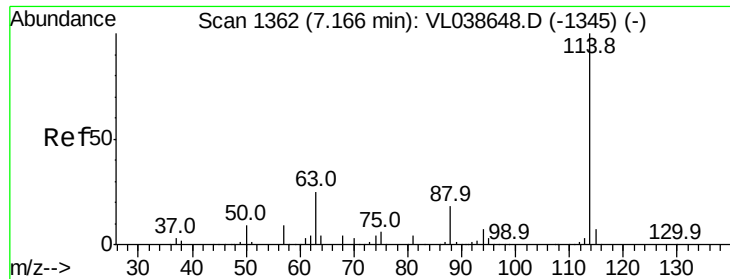
Tgt Ion: 84 Resp: 80515
Ion Ratio Lower Upper
84 100
56 181.5 108.2 162.4#
41 81.8 61.8 92.6



#31
cis-1,2-Dichloroethene
Concen: 0.13 ppbv
RT: 5.53 min Scan# 853
Delta R.T. -0.01 min
Lab File: VL038699.D
Acq: 23 Mar 2022 1:02

Tgt Ion: 61 Resp: 9867
Ion Ratio Lower Upper
61 100
96 58.3 56.6 84.8
98 40.2 36.3 54.5

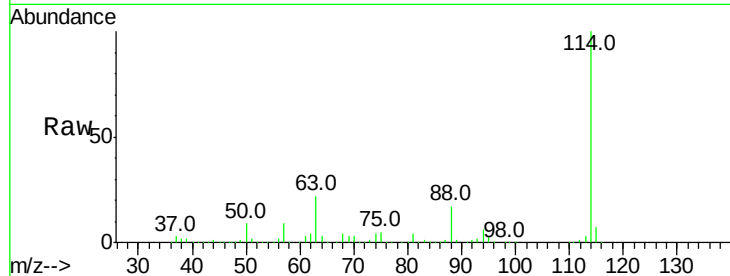




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.15 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 C0P79DL
 Acq: 23 Mar 2022 1:02

Tgt Ion: 114 Resp: 2325612

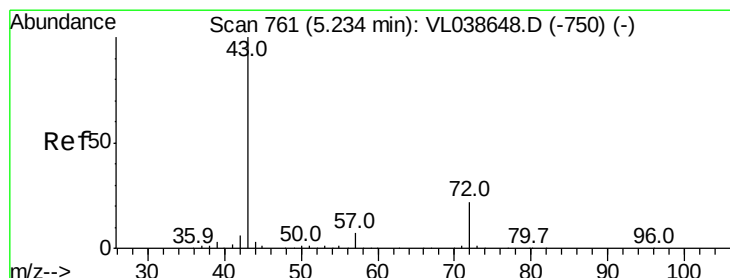
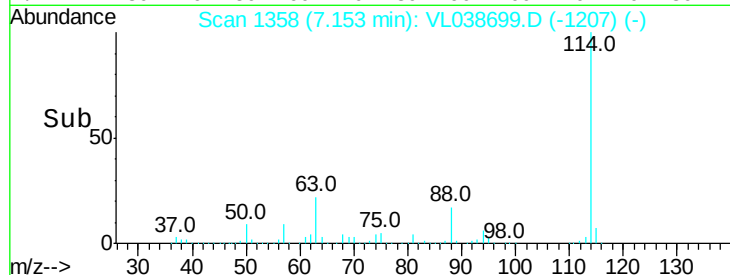
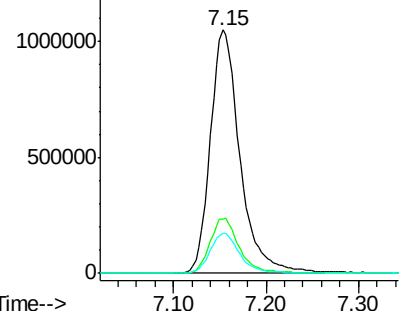
Ion	Ratio	Lower	Upper
114	100		
63	22.7	19.4	29.0
88	16.7	13.9	20.9



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

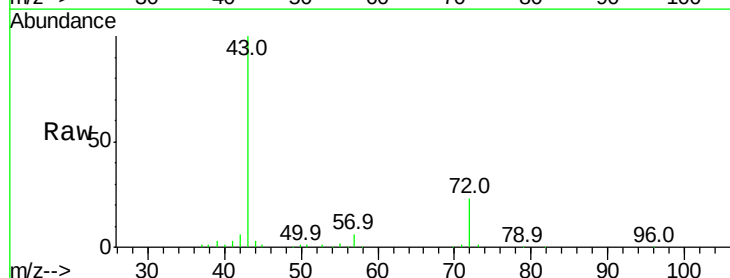
Ion 88.10 (87.80 to 88.80): VL0



#34
 2-Butanone
 Concen: 1.74 ppbv
 RT: 5.23 min Scan# 761
 Delta R.T.: -0.00 min
 Lab File: VL038699.D
 Acq: 23 Mar 2022 1:02

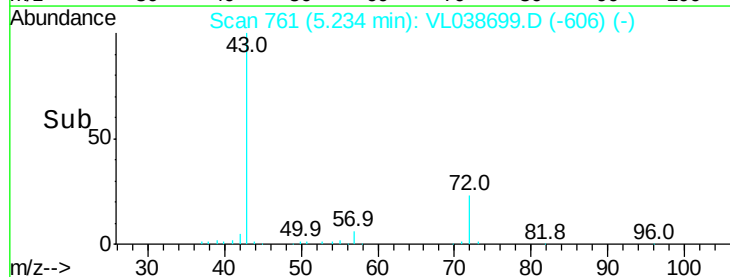
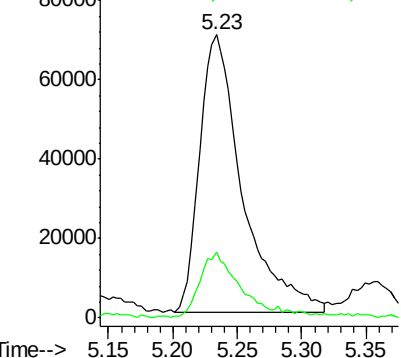
Tgt Ion: 43 Resp: 160321

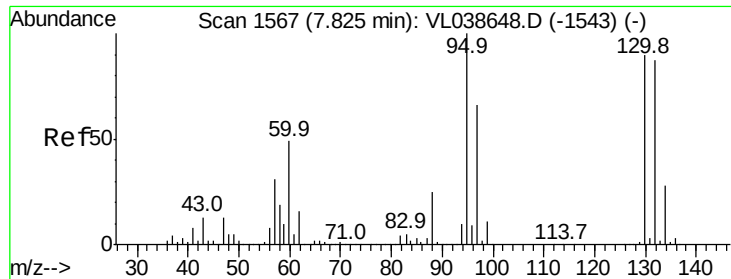
Ion	Ratio	Lower	Upper
43	100		
72	23.9	17.8	26.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

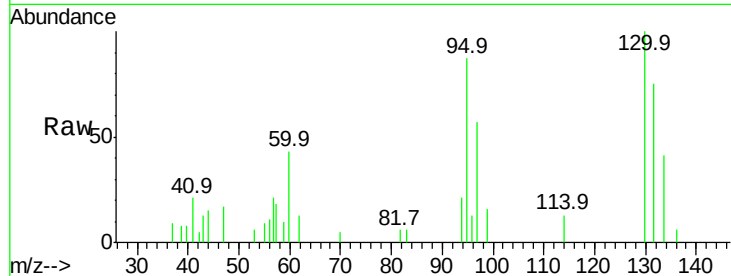
Ion 72.10 (71.80 to 72.80): VL0



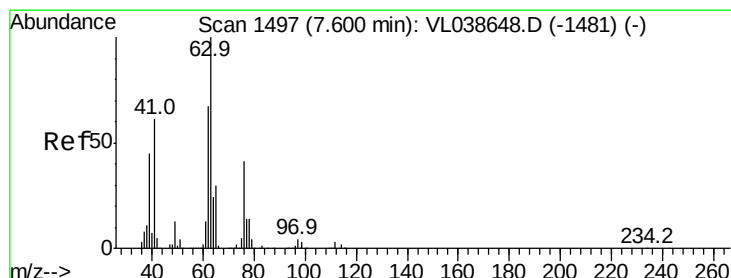
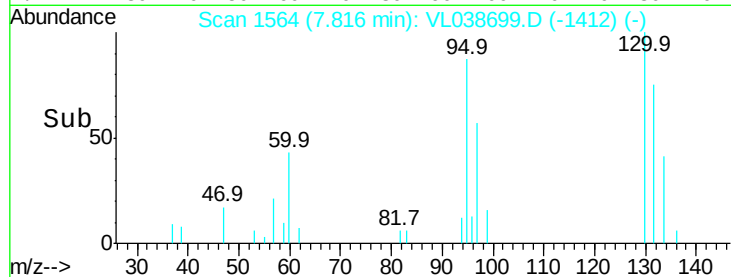
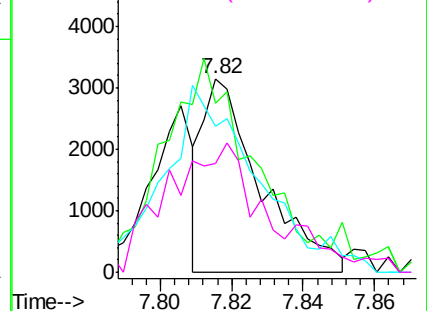


#38
 Trichloroethene
 Concen: 0.05 ppbv
 RT: 7.82
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Mar 2022 1:02

Tgt Ion: 130 Resp: 3558
 Ion Ratio Lower Upper
 130 100
 95 66.3 88.9 133.3#
 132 71.6 77.4 116.0#
 97 51.9 58.2 87.4#

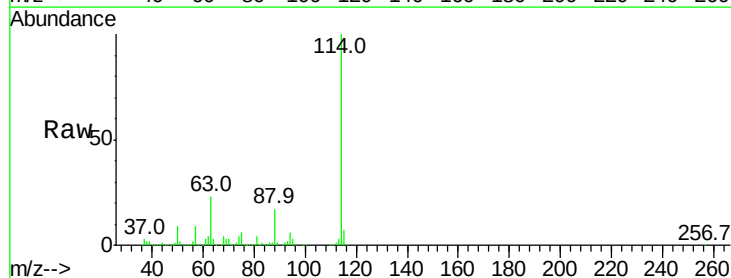


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

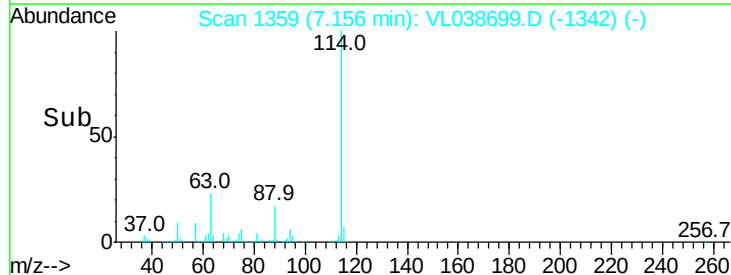
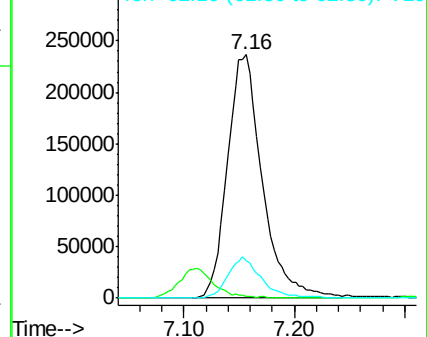


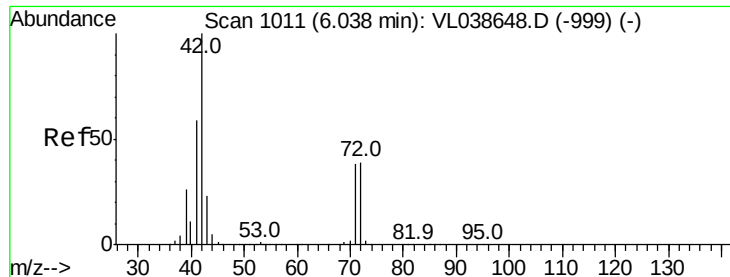
#39
 1,2-Dichloropropane
 Concen: 7.35 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.44 min
 Lab File: VL038699.D
 Acq: 23 Mar 2022 1:02

Tgt Ion: 63 Resp: 516058
 Ion Ratio Lower Upper
 63 100
 41 0.6 49.0 73.6#
 62 15.2 53.9 80.9#



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: 0.02 ppbv

RT: 6.05 Instrument: MSVOA_1

Delta R.T. -0.01

Lab File: ClientSampleId: C0P79DL

Acq: 23 Mar 2022 1:02

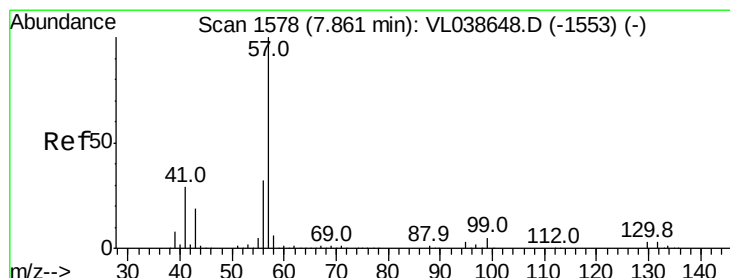
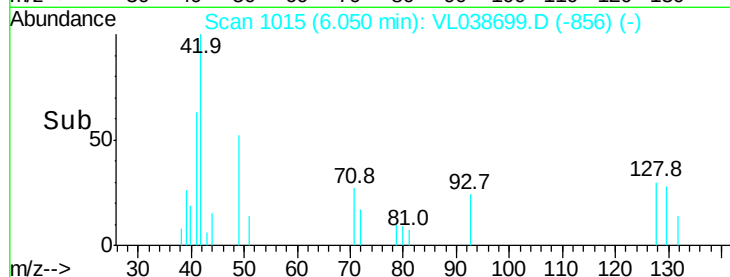
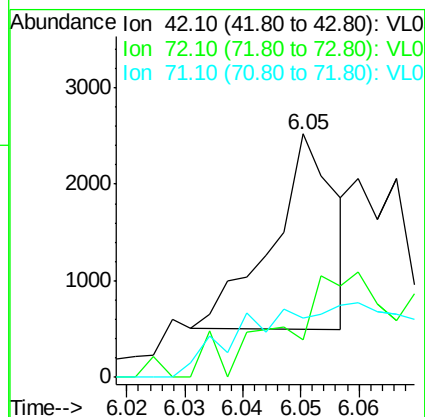
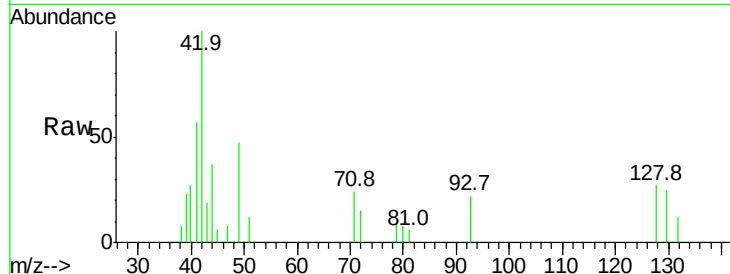
Tgt Ion: 42 Resp: 1529

Ion Ratio Lower Upper

42 100

72 144.8 32.5 48.7#

71 144.2 31.4 47.2#



#44

2,2,4-Trimethylpentane

Concen: 0.03 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. -0.01 min

Lab File: VL038699.D

Acq: 23 Mar 2022 1:02

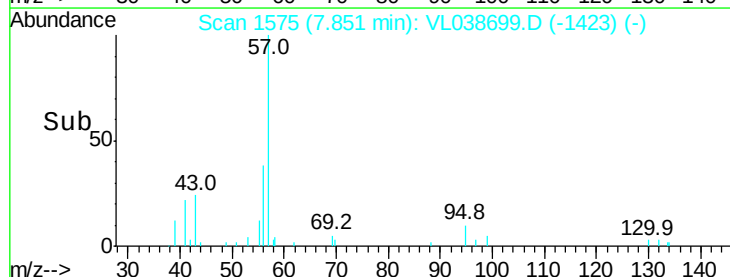
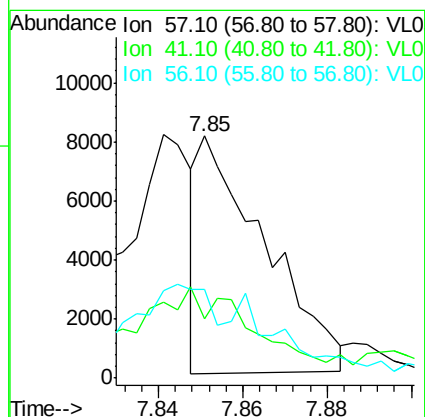
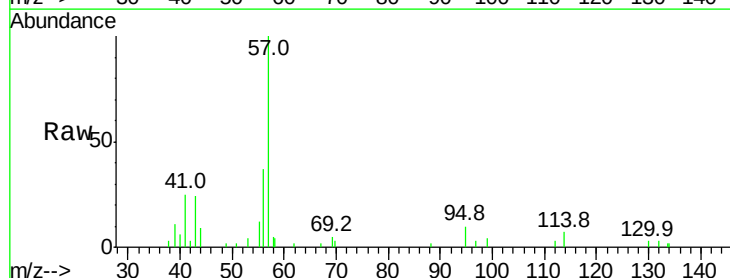
Tgt Ion: 57 Resp: 8763

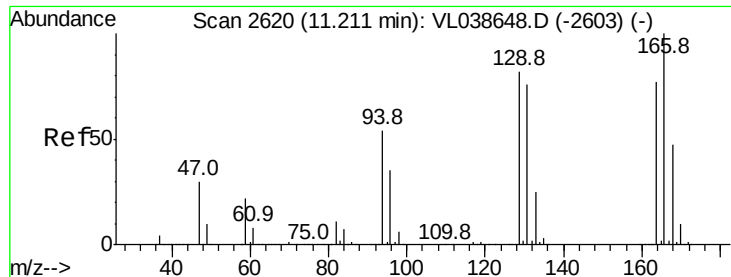
Ion Ratio Lower Upper

57 100

41 77.9 23.0 34.4#

56 95.8 25.3 37.9#





#52

Tetrachloroethene

Concen: 0.86 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 23 Mar 2022 1:02

Tgt Ion: 164 Resp: 56447

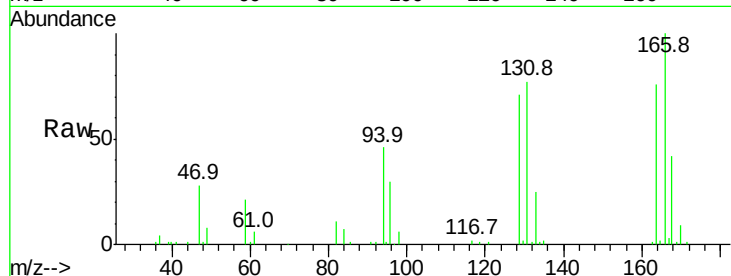
Ion Ratio Lower Upper

164 100

166 131.0 103.3 154.9

129 94.2 85.2 127.8

131 101.9 78.3 117.5

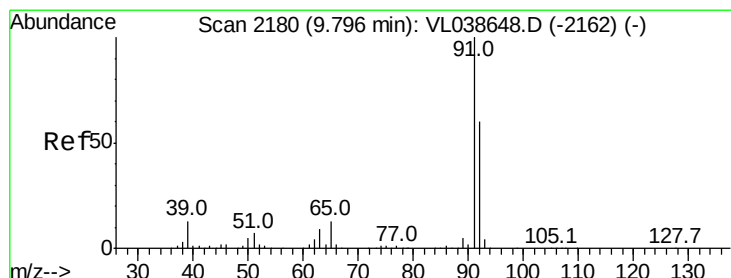
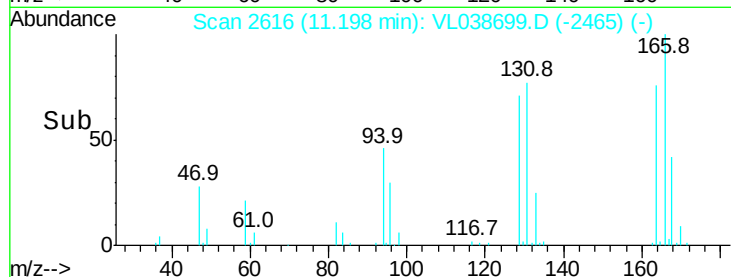
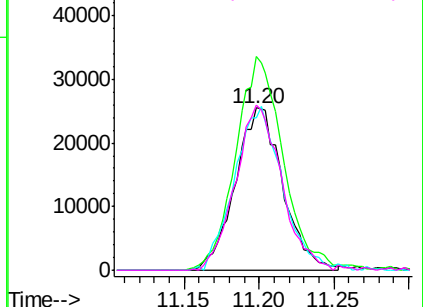


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 19.10 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.01 min

Lab File: VL038699.D

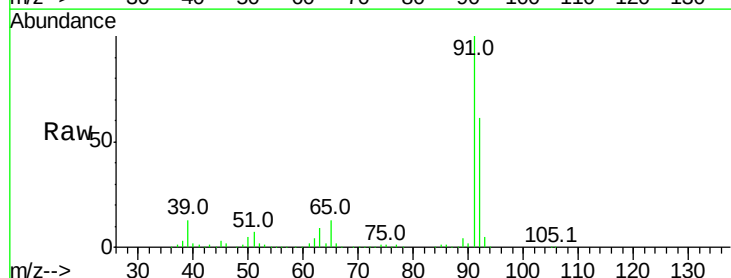
Acq: 23 Mar 2022 1:02

Tgt Ion: 91 Resp: 3683624

Ion Ratio Lower Upper

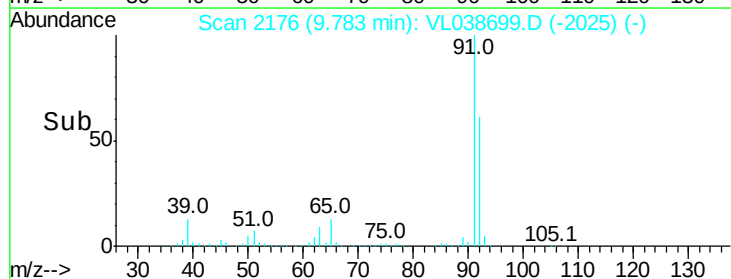
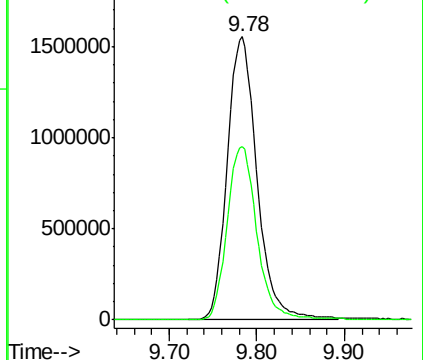
91 100

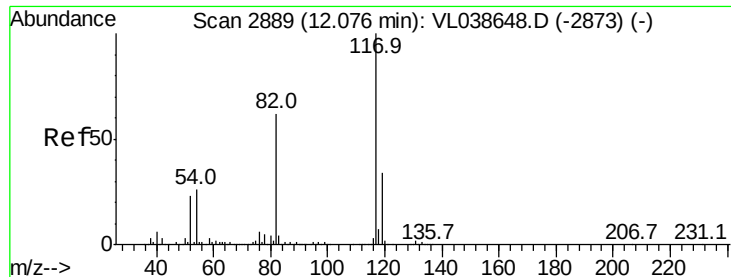
92 62.1 48.7 73.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

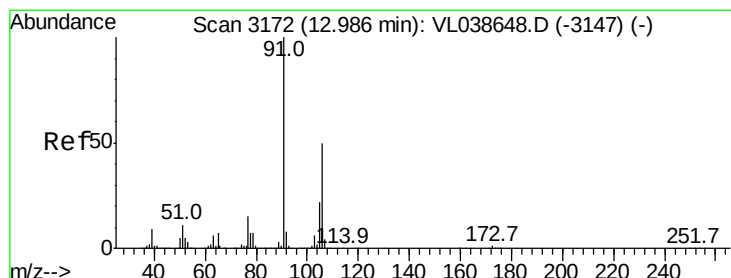
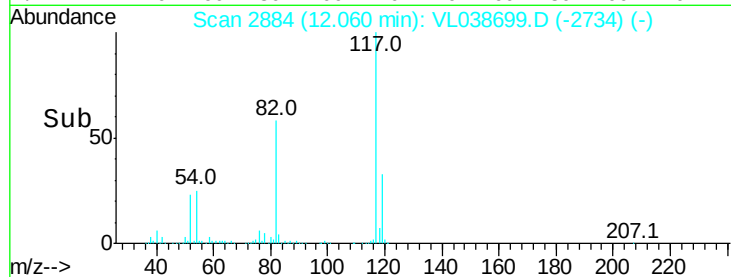
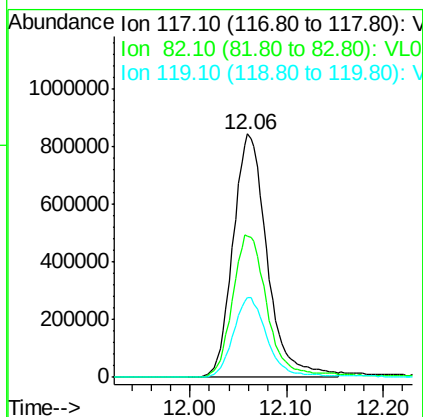
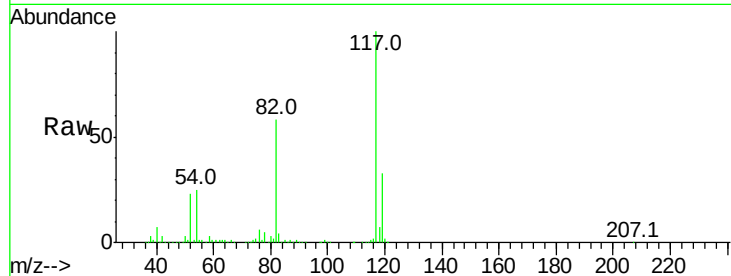
Ion 92.10 (91.80 to 92.80): VL0





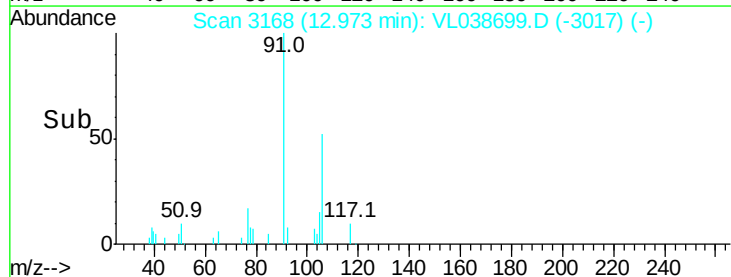
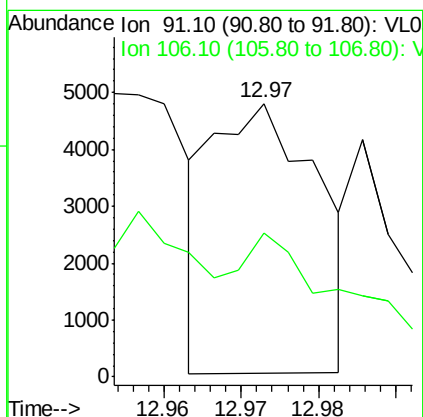
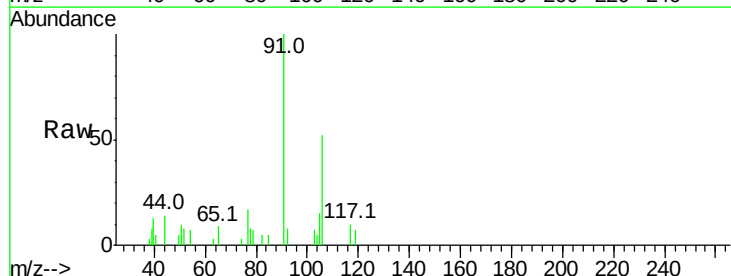
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.06 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
COP79DL
Acq: 23 Mar 2022 1:02

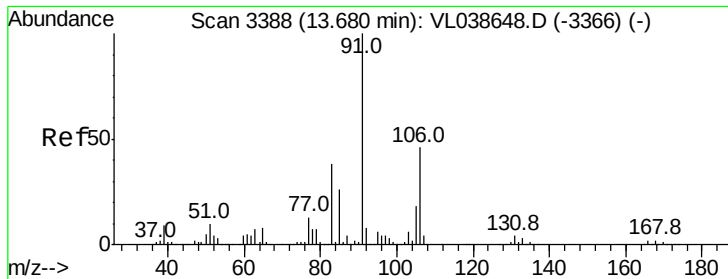
Tgt Ion: 117 Resp: 2069053
Ion Ratio Lower Upper
117 100
82 61.5 51.6 77.4
119 33.9 26.9 40.3



#59
m/p-Xylene
Concen: 0.02 ppbv
RT: 12.97 min Scan# 3168
Delta R.T.: -0.01 min
Lab File: VL038699.D
Acq: 23 Mar 2022 1:02

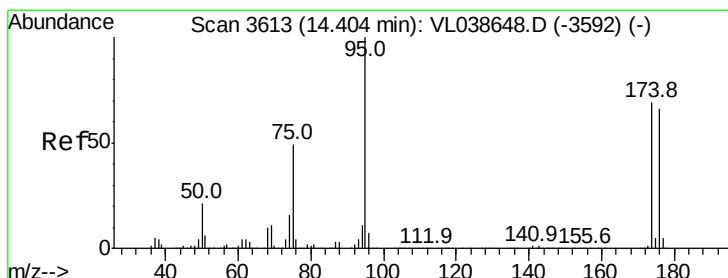
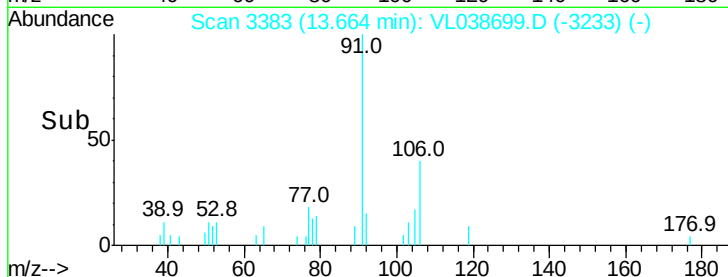
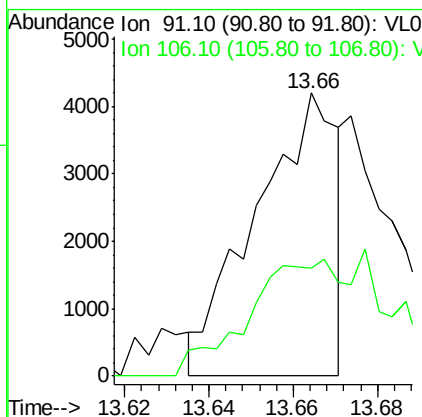
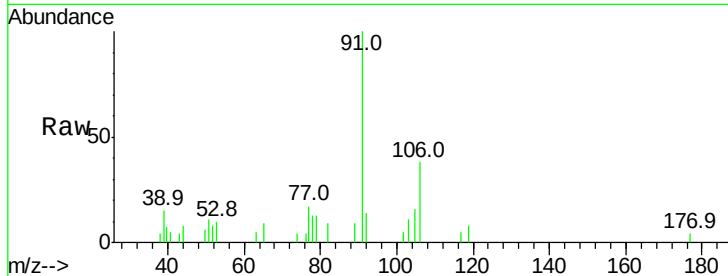
Tgt Ion: 91 Resp: 4529
Ion Ratio Lower Upper
91 100
106 0.0 37.2 55.8#





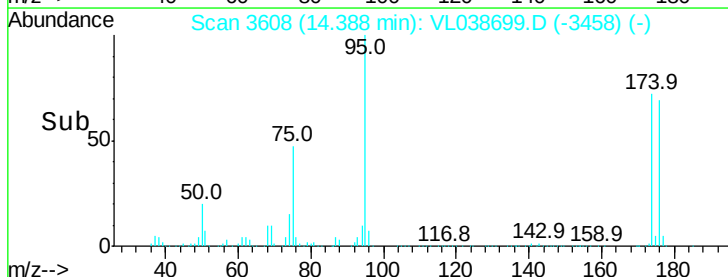
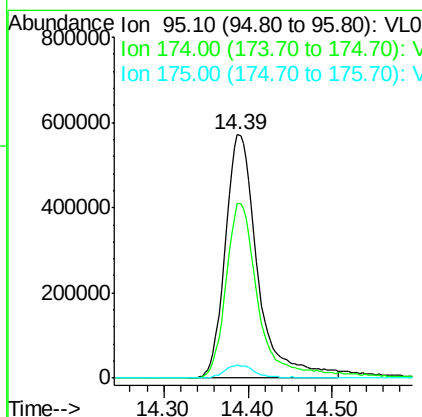
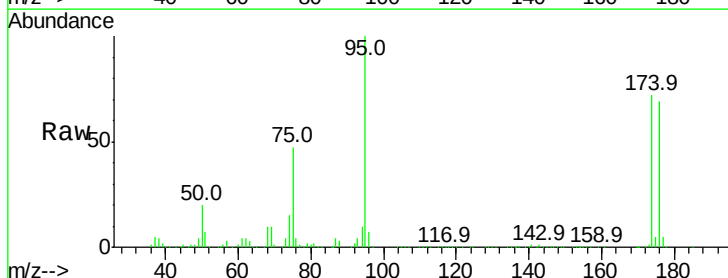
#60
o-Xylene
Concen: 0.03 ppbv
RT: 13.66
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Mar 2022 1:02

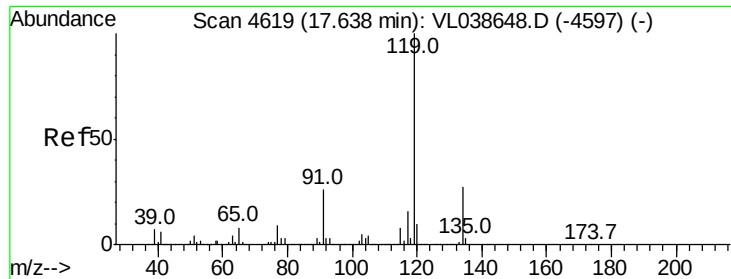
Tgt Ion: 91 Resp: 5630
Ion Ratio Lower Upper
91 100
106 0.0 23.5 70.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.60 ppbv
RT: 14.39 min Scan# 3608
Delta R.T. -0.02 min
Lab File: VL038699.D
Acq: 23 Mar 2022 1:02

Tgt Ion: 95 Resp: 1523056
Ion Ratio Lower Upper
95 100
174 74.1 56.1 84.1
175 5.2 4.2 6.2





#69

p-Isopropyltoluene

Concen: 0.05 ppbv

RT: 17.63

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 23 Mar 2022 1.02

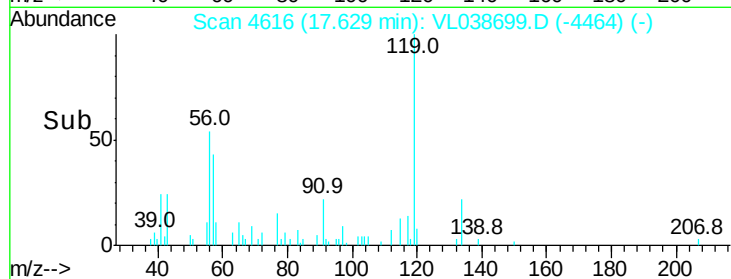
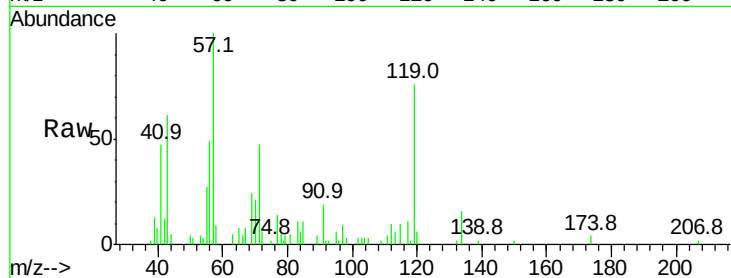
Tgt Ion: 119 Resp: 15489

Ion Ratio Lower Upper

119 100

134 25.5 21.2 31.8

91 32.8 21.4 32.2#



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

