

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
 Data File : VL039182.D
 Acq On : 6 Jun 2022 12:16
 Operator : SY/AP
 Sample : N3110-04 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-11DL

Quant Time: Jun 06 12:49:10 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1308544	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	3614320	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3234314	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2507080	9.38	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.80%

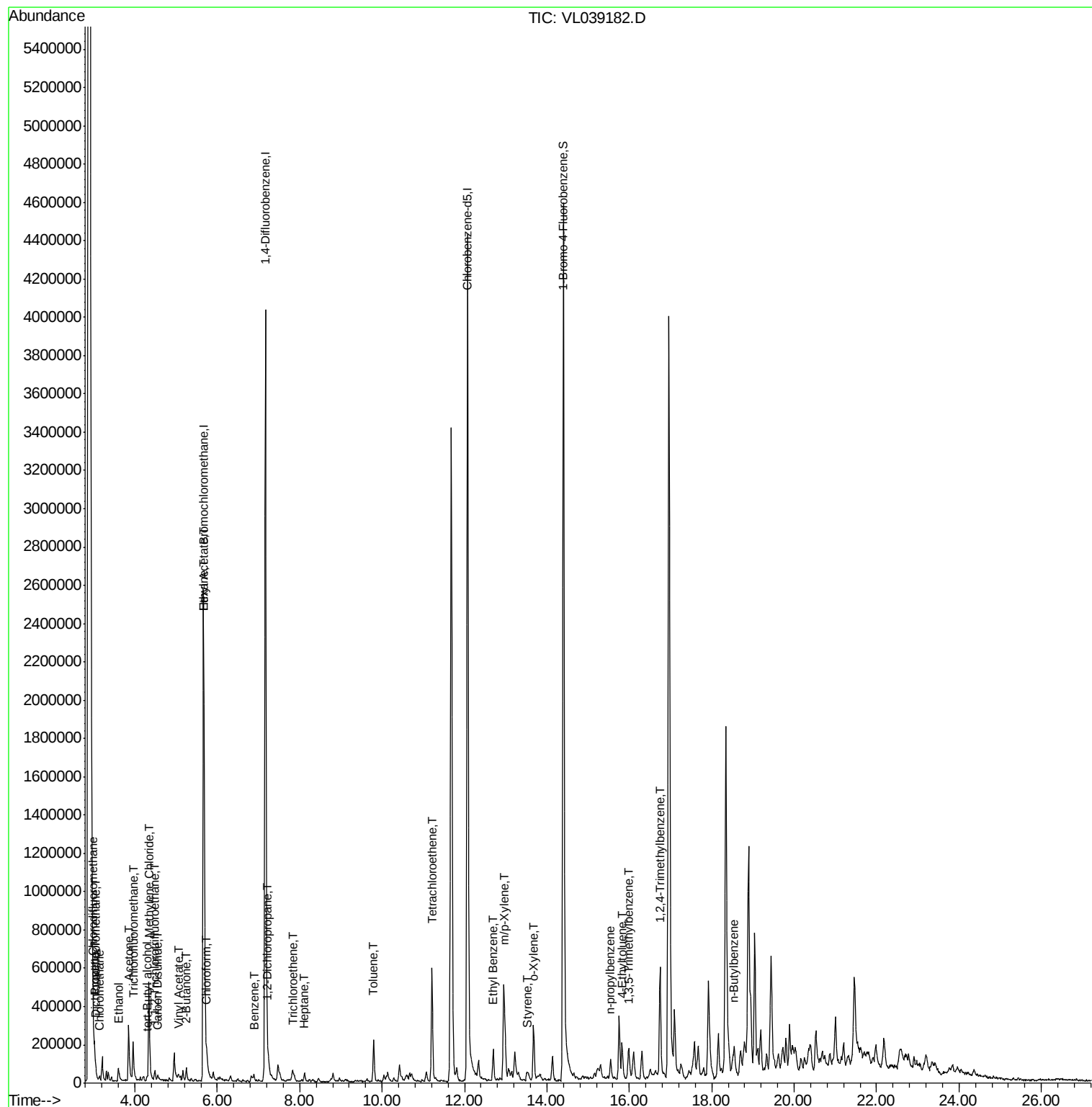
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	27360	0.12	ppbv	90
3) Chlorodifluoromethane	2.99	51	18584	0.11	ppbv #	88
4) Chloromethane	3.14	50	18040	0.21	ppbv #	88
9) Propene	3.02	41	19435	0.27	ppbv	100
10) Heptane	8.10	43	9156	0.05	ppbv #	26
11) Trichlorofluoromethane	3.95	101	146312	0.70	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.48	101	19414	0.14	ppbv	91
13) Ethanol	3.60	45	64971	16.41	ppbv #	100
15) Acetone	3.85	43	355975	2.61	ppbv	90
17) tert-Butyl alcohol	4.29	59	7637	0.07	ppbv #	18
20) Methylene Chloride	4.34	84	210505	3.66	ppbv	94
23) Vinyl Acetate	5.06	43	20659	0.18	ppbv #	89
25) Ethyl Acetate	5.68	43	294065	0.96	ppbv #	79
26) Hexane	5.68	57	415554	3.08	ppbv #	39
27) Carbon Disulfide	4.55	76	28084	0.20	ppbv #	59
29) Chloroform	5.74	83	52140	0.23	ppbv	95
34) 2-Butanone	5.25	43	88871	0.45	ppbv #	88
36) Benzene	6.88	78	26775	0.09	ppbv #	91
38) Trichloroethene	7.82	130	8247	0.06	ppbv #	62
39) 1,2-Dichloropropane	7.23	63	9915	0.08	ppbv #	30
52) Tetrachloroethene	11.20	164	64127	0.56	ppbv	95
53) Toluene	9.79	91	98413	0.29	ppbv #	21
58) Ethyl Benzene	12.70	91	145729	0.33	ppbv	94
59) m/p-Xylene	12.97	91	230996	0.59	ppbv #	33
60) o-Xylene	13.67	91	104507	0.28	ppbv #	31
61) Styrene	13.51	104	6404	0.03	ppbv #	1
64) n-propylbenzene	15.55	120	13628	0.10	ppbv #	1
70) n-Butylbenzene	18.54	91	32394	0.05	ppbv #	72
72) 4-Ethyltoluene	15.82	105	147563	0.34	ppbv	97
73) 1,3,5-Trimethylbenzene	15.98	105	120022	0.31	ppbv #	84
74) 1,2,4-Trimethylbenzene	16.74	105	479231	1.10	ppbv #	64

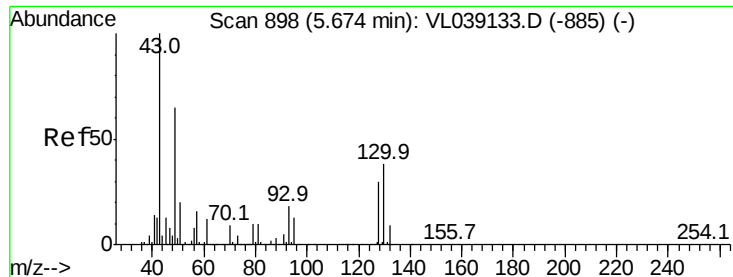
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
Data File : VL039182.D
Acq On : 6 Jun 2022 12:16
Operator : SY/AP
Sample : N3110-04 4X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG-11DL

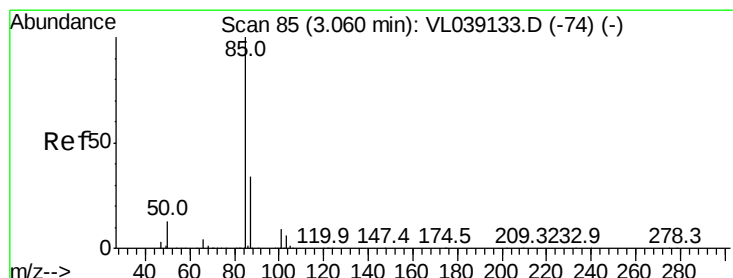
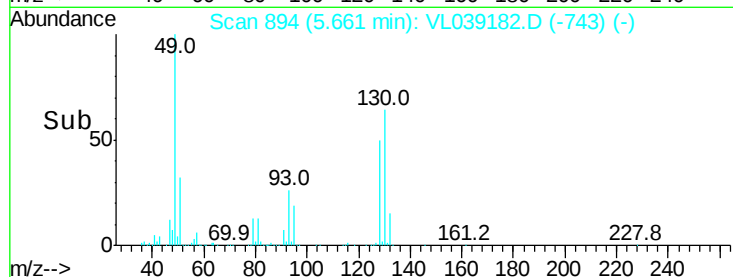
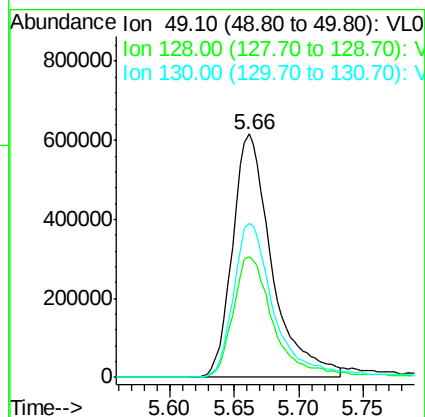
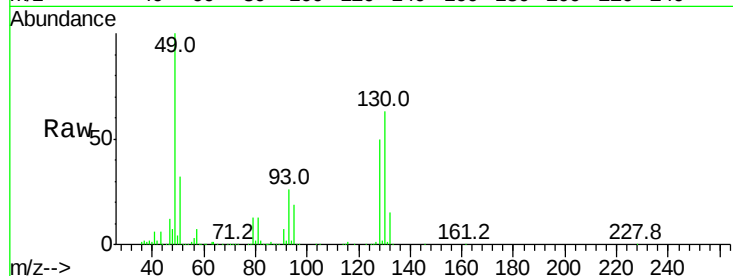
Quant Time: Jun 06 12:49:10 2022
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL053122AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jun 01 01:22:18 2022
QLast Update : Wed Jun 01 01:22:18 2022
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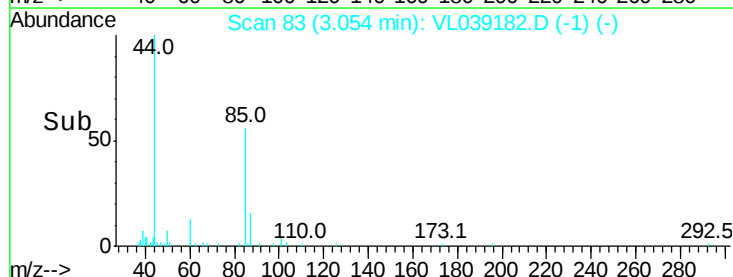
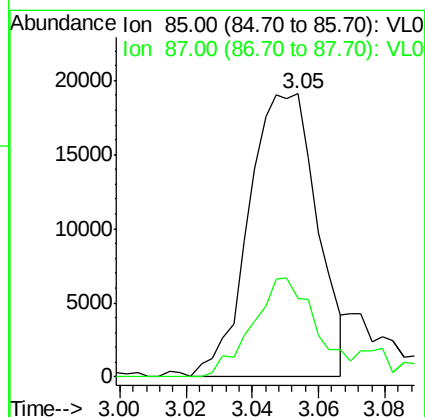
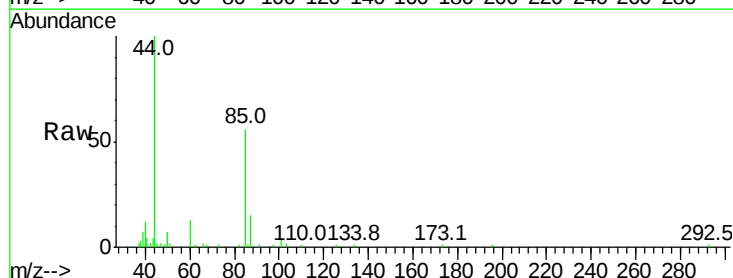
#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.66
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 12:16

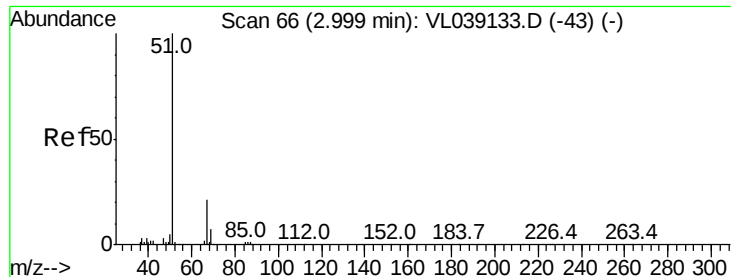
Tgt Ion: 49 Resp: 1308544
 Ion Ratio Lower Upper
 49 100
 128 52.5 24.7 74.1
 130 67.3 31.4 94.0



#2
 Dichlorodifluoromethane
 Concen: 0.12 ppbv
 RT: 3.05 min Scan# 83
 Delta R.T. -0.01 min
 Lab File: VL039182.D
 Acq: 6 Jun 2022 12:16

Tgt Ion: 85 Resp: 27360
 Ion Ratio Lower Upper
 85 100
 87 27.8 26.9 40.3





#3

Chlorodifluoromethane

Concen: 0.11 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

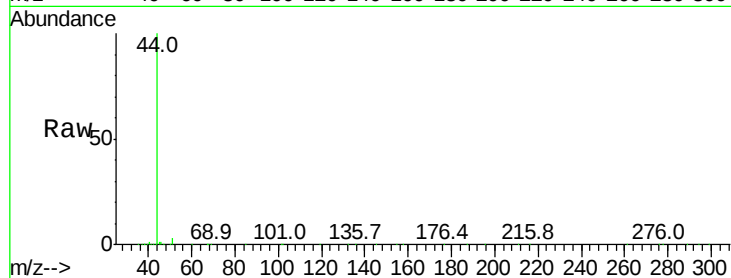
Acq: 6 Jun 2022 12:16 SG-11DL

Tgt Ion: 51 Resp: 18584

Ion Ratio Lower Upper

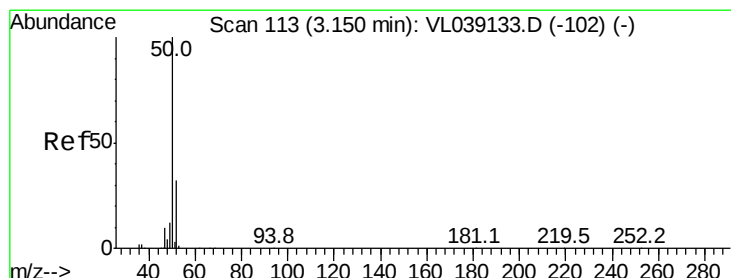
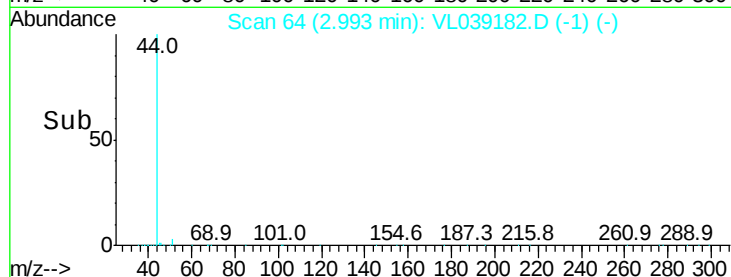
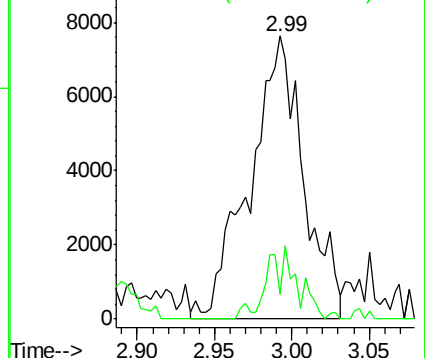
51 100

67 14.8 16.2 24.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.21 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.01 min

Lab File: VL039182.D

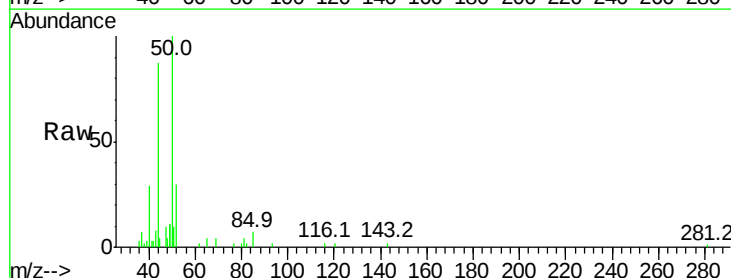
Acq: 6 Jun 2022 12:16

Tgt Ion: 50 Resp: 18040

Ion Ratio Lower Upper

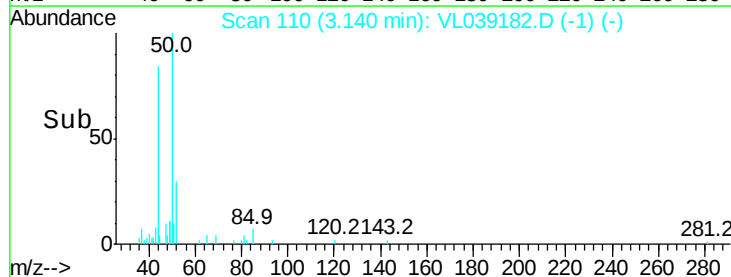
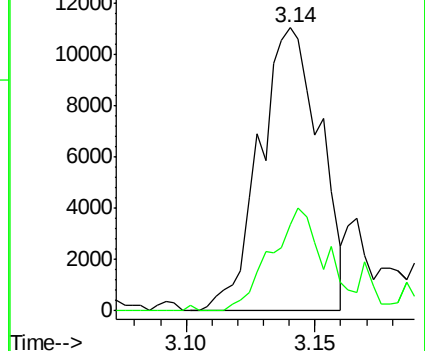
50 100

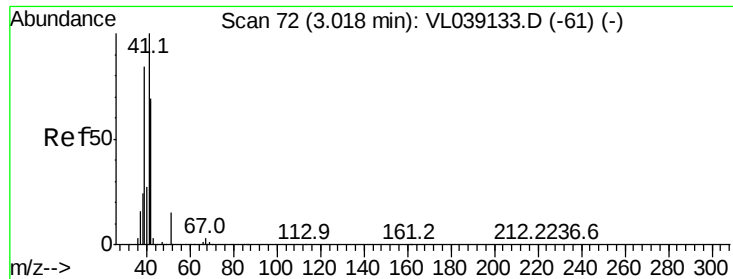
52 25.8 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.27 ppbv

RT: 3.02 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-11DL

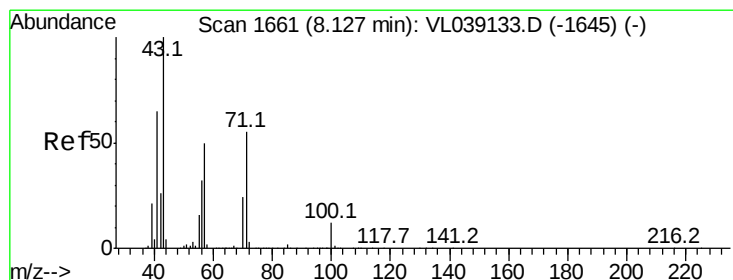
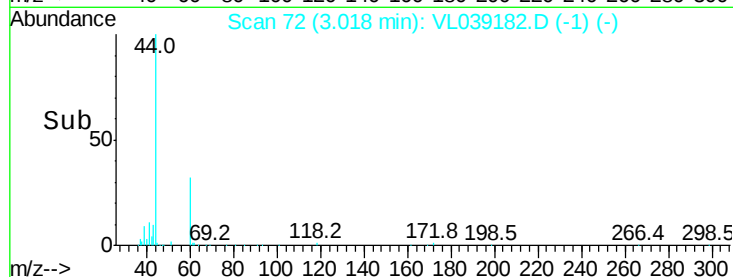
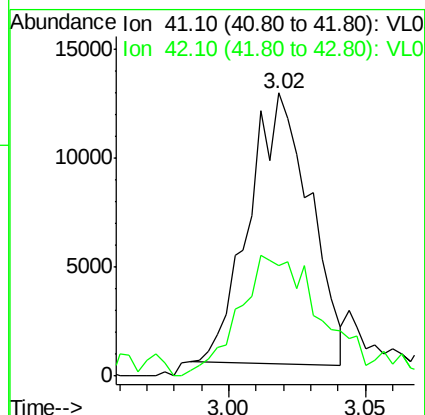
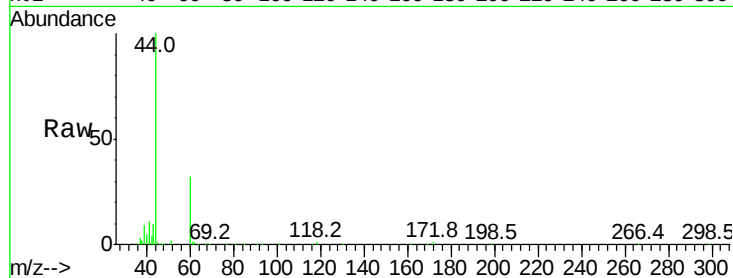
Acq: 6 Jun 2022 12:16

Tgt Ion: 41 Resp: 19435

Ion Ratio Lower Upper

41 100

42 69.3 55.4 83.2



#10

Heptane

Concen: 0.05 ppbv

RT: 8.10 min Scan# 1654

Delta R.T. -0.02 min

Lab File: VL039182.D

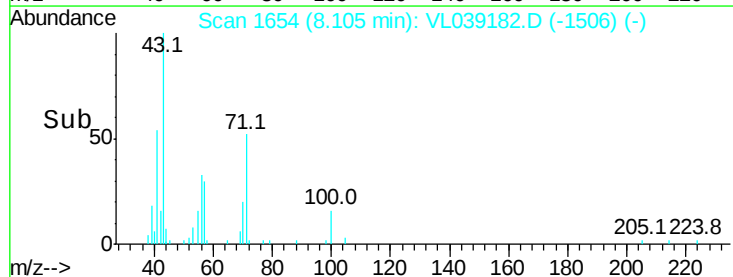
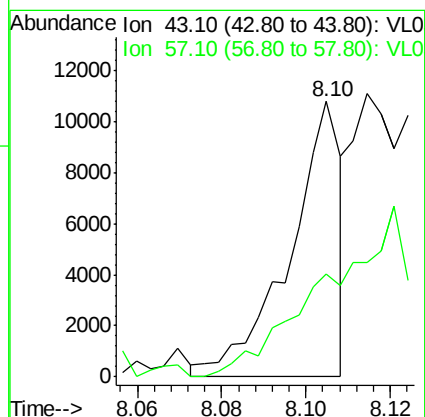
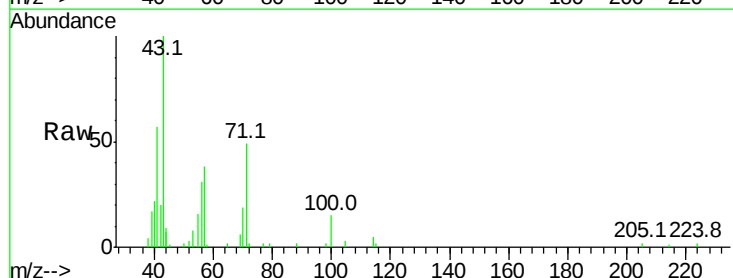
Acq: 6 Jun 2022 12:16

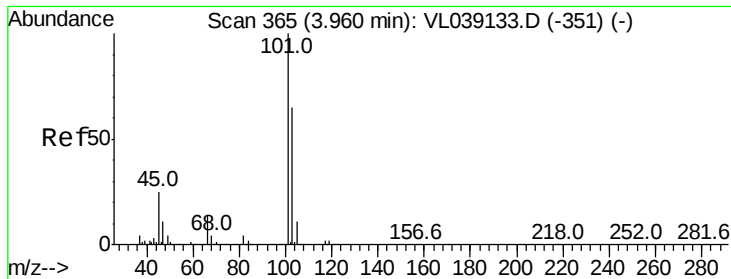
Tgt Ion: 43 Resp: 9156

Ion Ratio Lower Upper

43 100

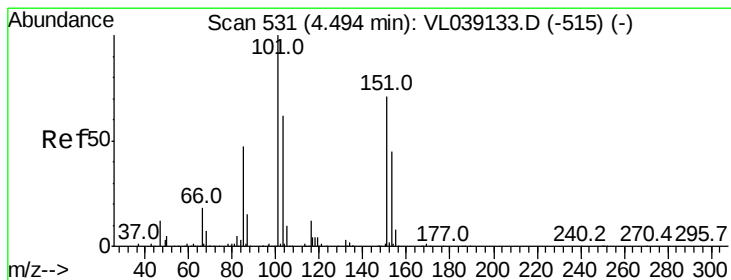
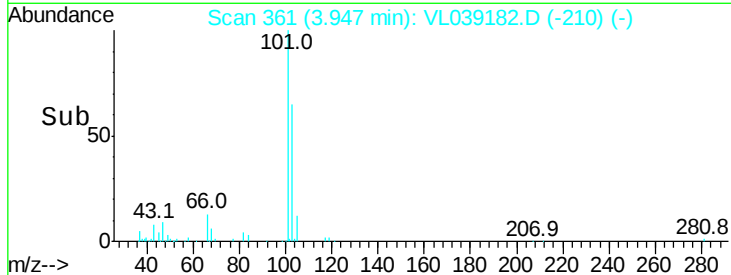
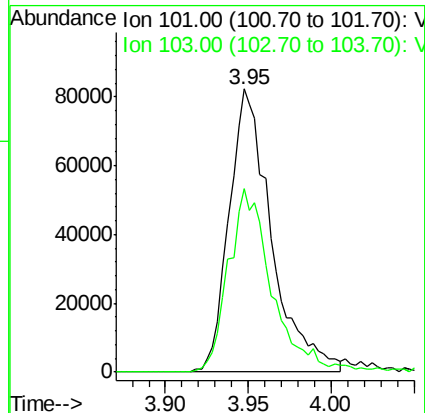
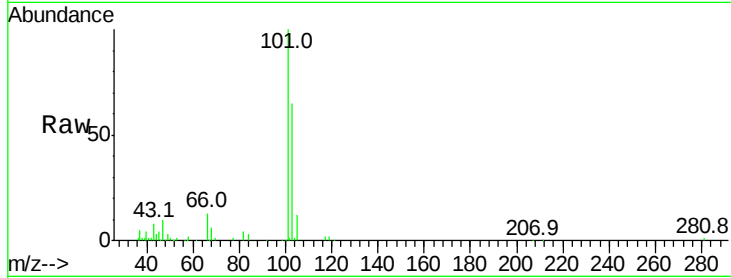
57 0.0 41.4 62.2#





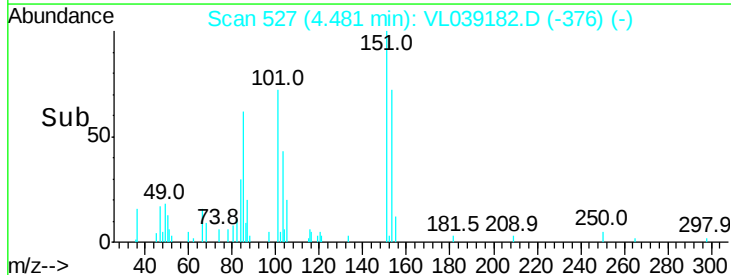
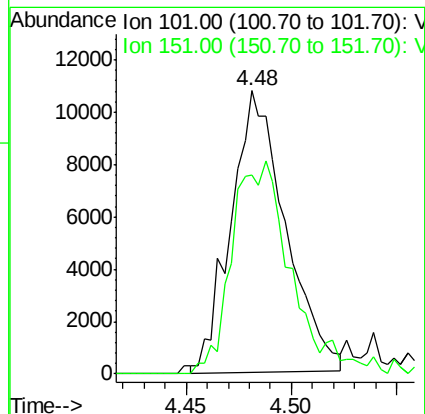
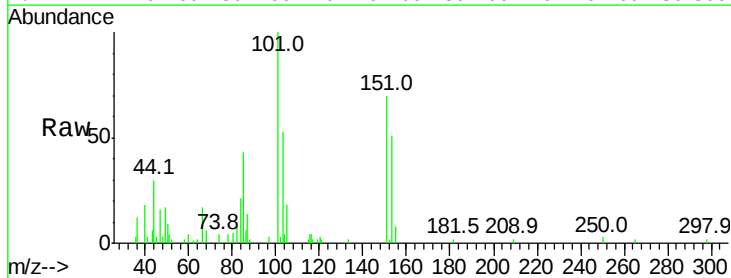
#11
 Trichlorofluoromethane
 Concen: 0.70 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 12:16

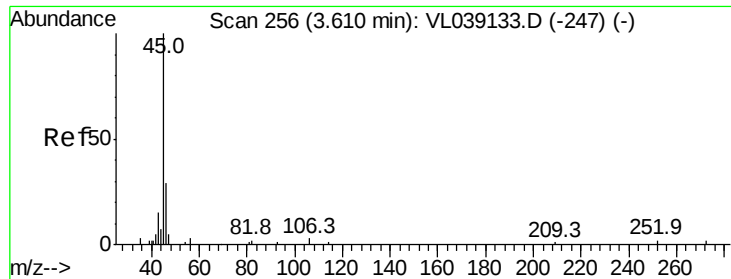
Tgt Ion:101 Resp: 146312
 Ion Ratio Lower Upper
 101 100
 103 64.6 51.7 77.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.14 ppbv
 RT: 4.48 min Scan# 527
 Delta R.T. -0.01 min
 Lab File: VL039182.D
 Acq: 6 Jun 2022 12:16

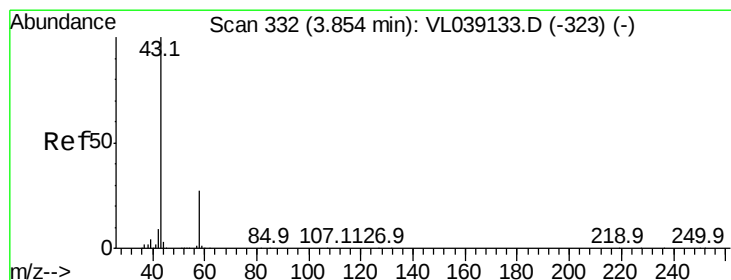
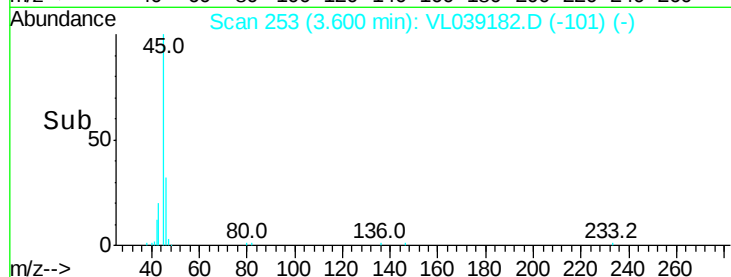
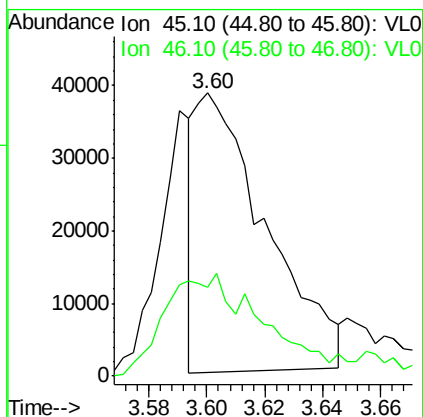
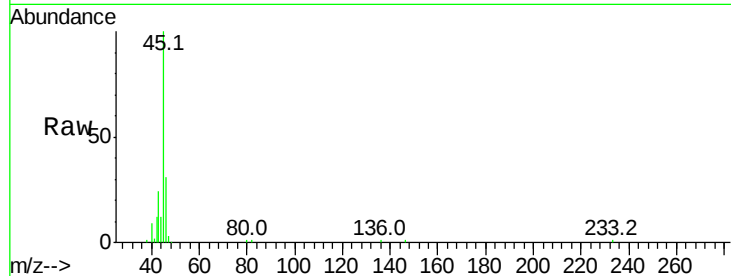
Tgt Ion:101 Resp: 19414
 Ion Ratio Lower Upper
 101 100
 151 81.5 59.4 89.0





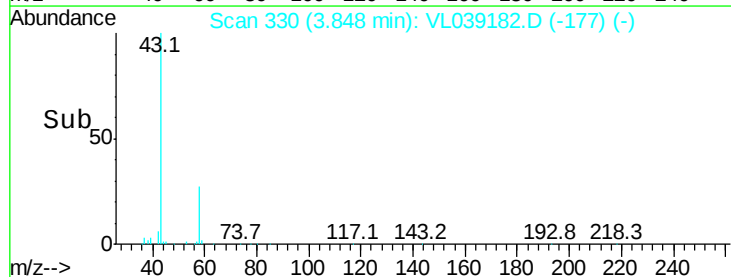
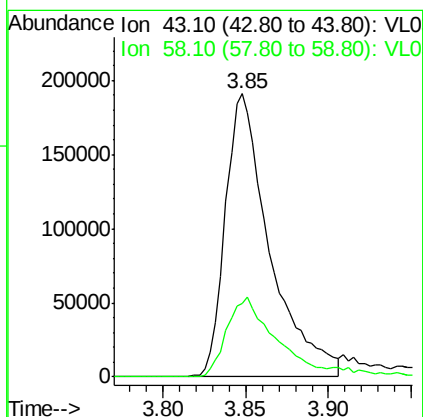
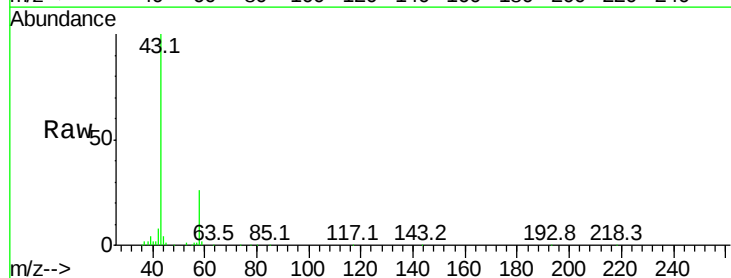
#13
Ethanol
Concen: 16.41 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 12:16

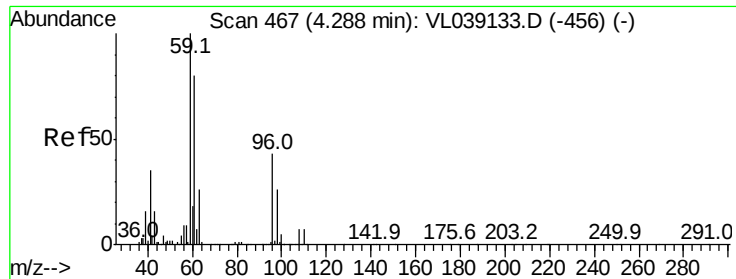
Tgt Ion: 45 Resp: 64971
Ion Ratio Lower Upper
45 100
46 60.0 0.0 0.0#



#15
Acetone
Concen: 2.61 ppbv
RT: 3.85 min Scan# 330
Delta R.T. -0.01 min
Lab File: VL039182.D
Acq: 6 Jun 2022 12:16

Tgt Ion: 43 Resp: 355975
Ion Ratio Lower Upper
43 100
58 33.3 22.5 33.7





#17

tert-Butyl alcohol

Concen: 0.07 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

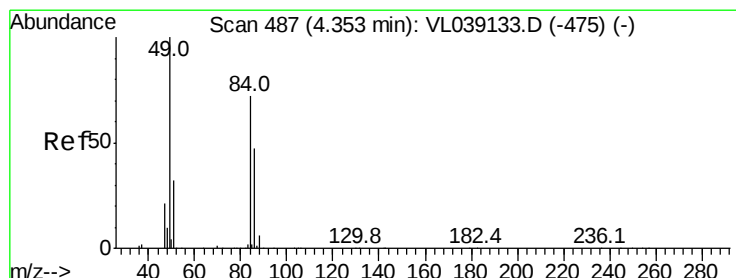
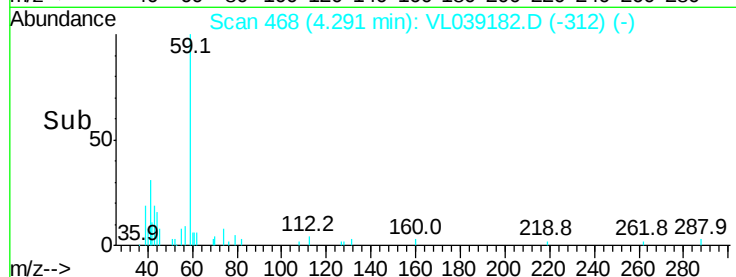
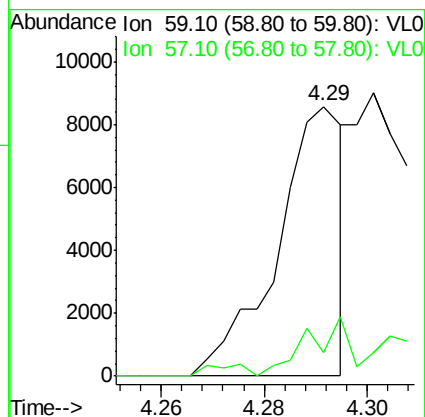
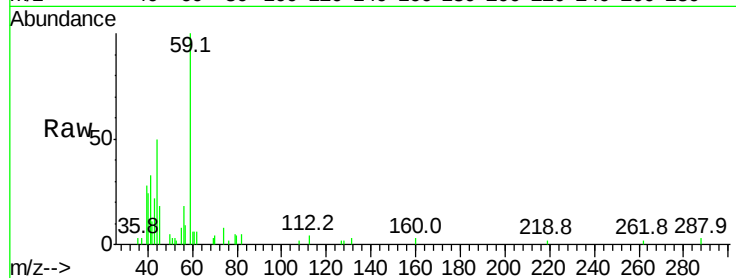
Acq: 6 Jun 2022 12:10 SG-11DL

Tgt Ion: 59 Resp: 7637

Ion Ratio Lower Upper

59 100

57 43.0 9.1 13.7#



#20

Methylene Chloride

Concen: 3.66 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.01 min

Lab File: VL039182.D

Acq: 6 Jun 2022 12:16

Tgt Ion: 84 Resp: 210505

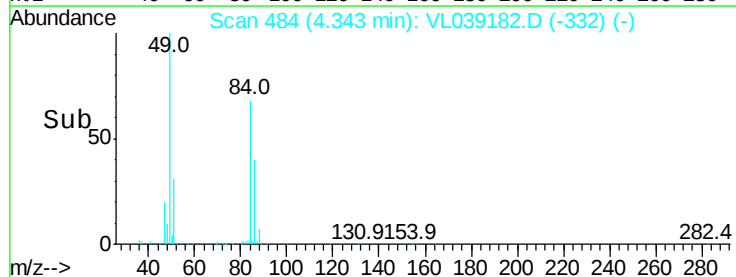
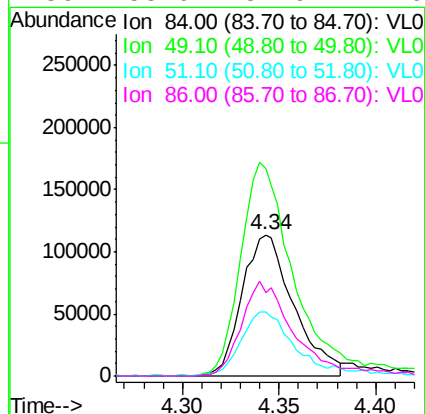
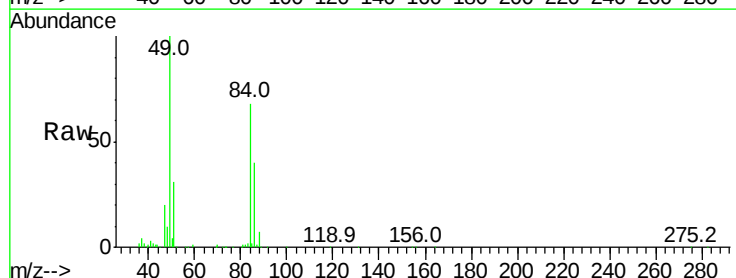
Ion Ratio Lower Upper

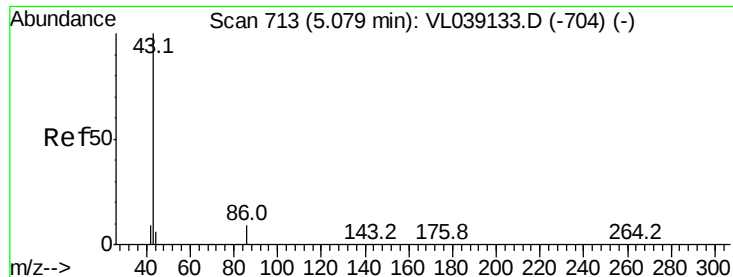
84 100

49 146.8 111.1 166.7

51 45.0 35.3 52.9

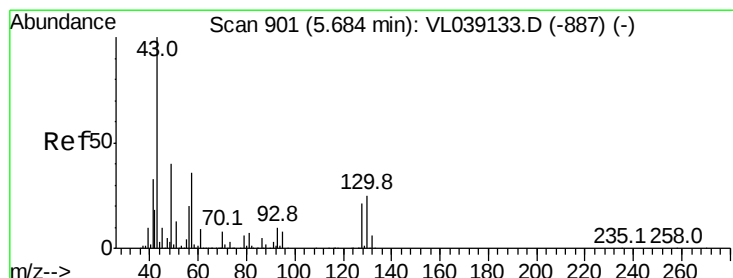
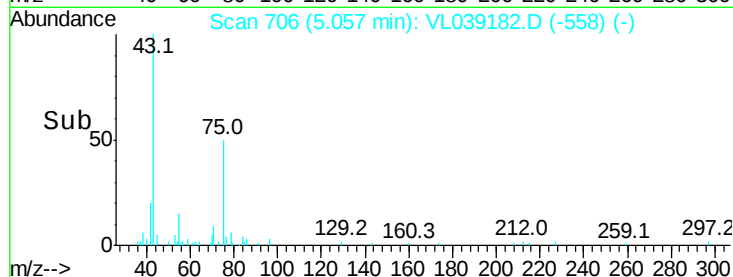
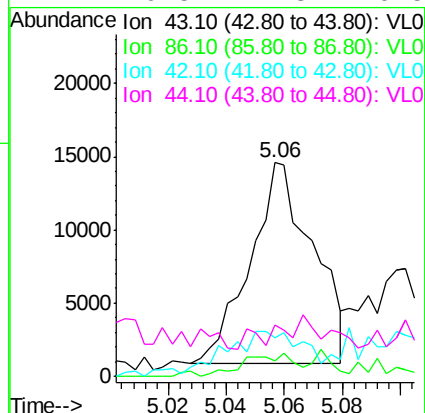
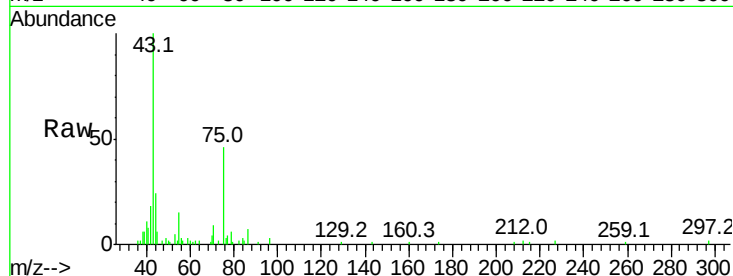
86 58.9 51.9 77.9





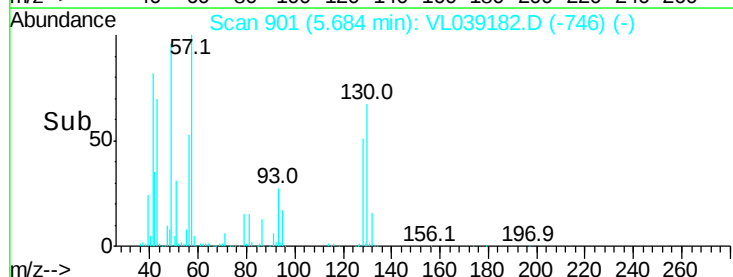
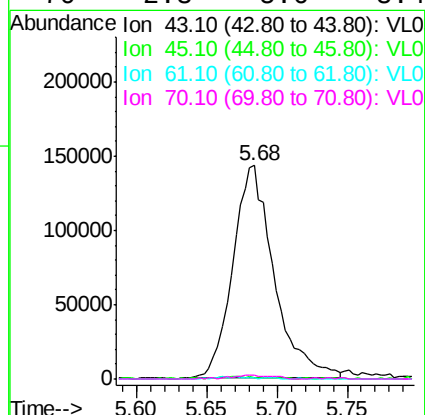
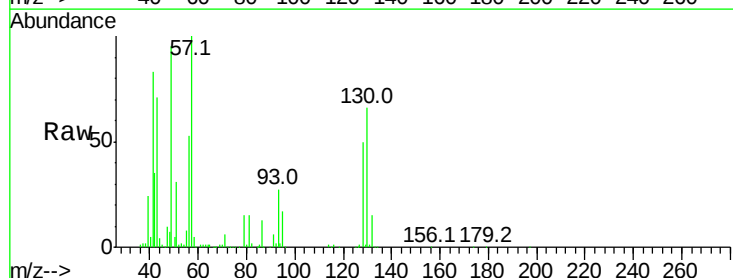
#23
 Vinyl Acetate
 Concen: 0.18 ppbv
 RT: 5.06
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 12:10

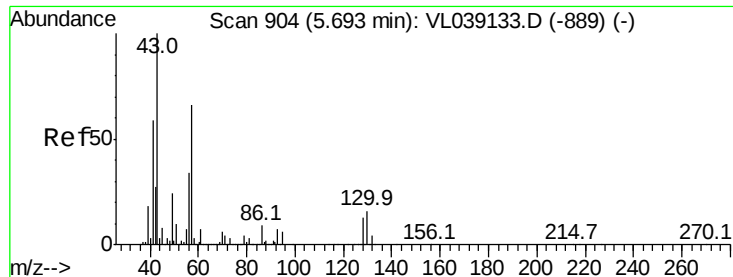
Tgt Ion:	43	Resp:	20659
Ion	Ratio	Lower	Upper
43	100		
86	5.4	6.0	9.0#
42	14.8	8.2	12.4#
44	10.5	4.3	6.5#



#25
 Ethyl Acetate
 Concen: 0.96 ppbv
 RT: 5.68 min Scan# 901
 Delta R.T. -0.00 min
 Lab File: VL039182.D
 Acq: 6 Jun 2022 12:16

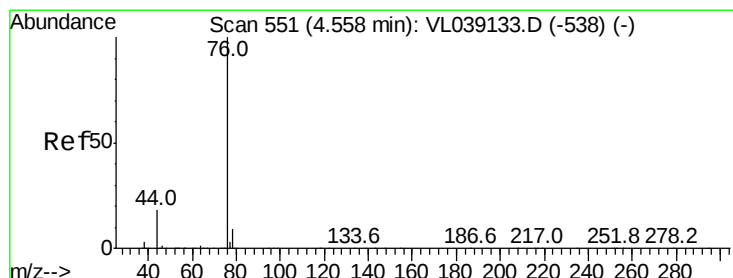
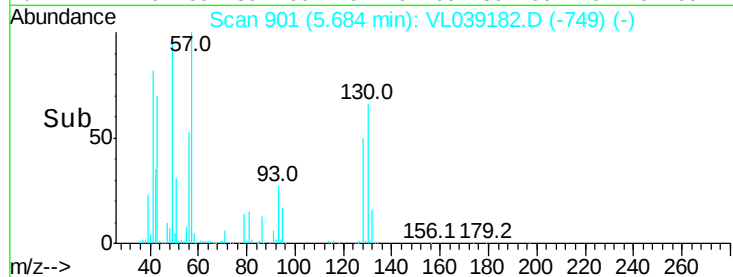
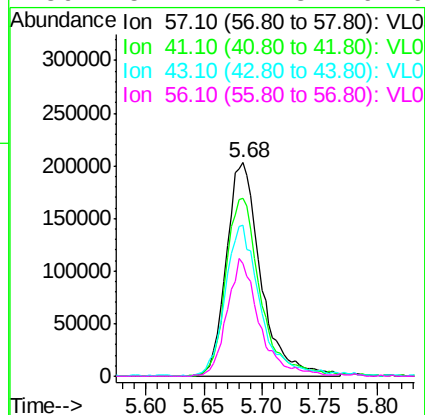
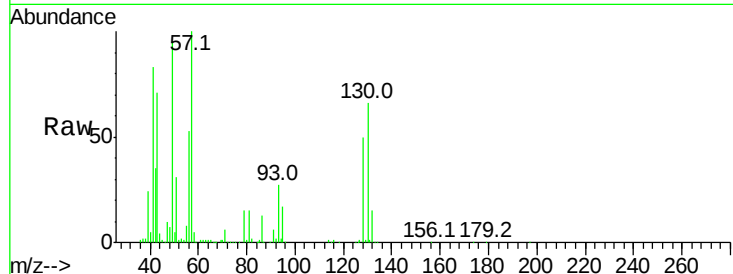
Tgt Ion:	43	Resp:	294065
Ion	Ratio	Lower	Upper
43	100		
45	1.5	8.2	12.2#
61	1.1	8.4	12.6#
70	2.3	5.6	8.4#





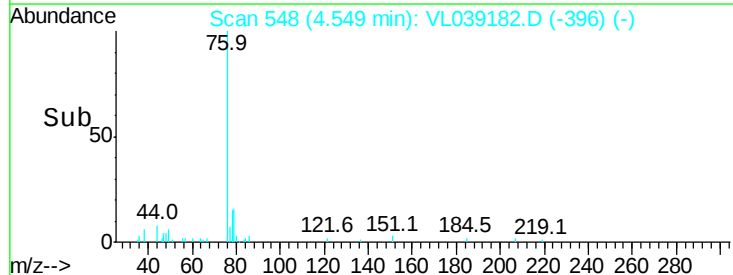
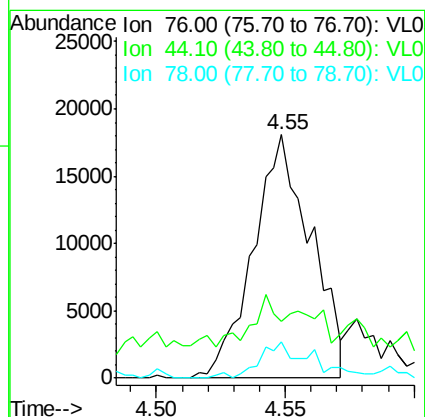
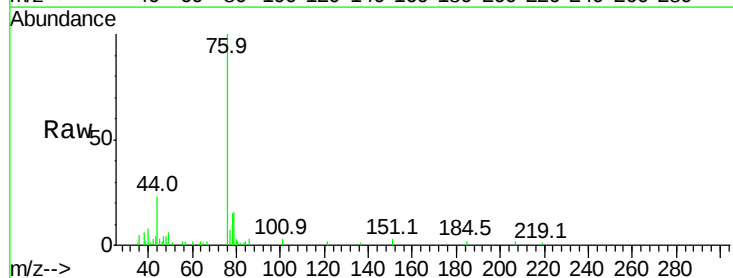
#26
Hexane
Concen: 3.08 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 12:16

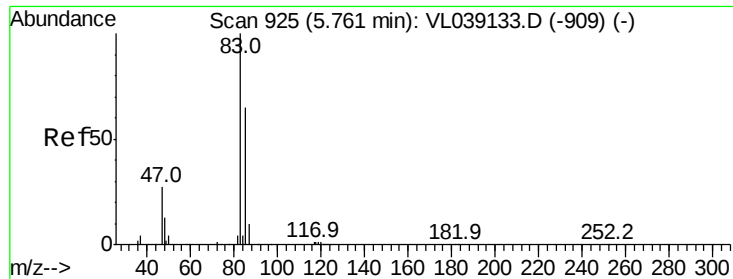
Tgt Ion:	57	Resp:	415554
Ion	Ratio	Lower	Upper
57	100		
41	85.1	72.4	108.6
43	72.8	187.0	280.6#
56	52.2	41.8	62.6



#27
Carbon Disulfide
Concen: 0.20 ppbv
RT: 4.55 min Scan# 548
Delta R.T. -0.01 min
Lab File: VL039182.D
Acq: 6 Jun 2022 12:16

Tgt Ion:	76	Resp:	28084
Ion	Ratio	Lower	Upper
76	100		
44	42.0	14.4	21.6#
78	15.5	7.7	11.5#





#29

Chloroform

Concen: 0.23 ppbv

RT: 5.74 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-11DL

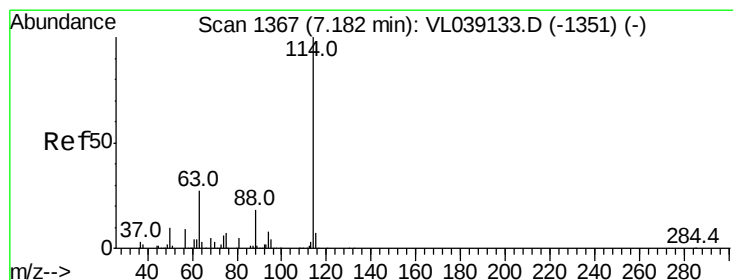
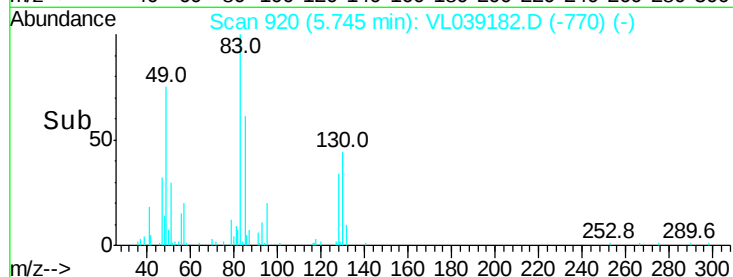
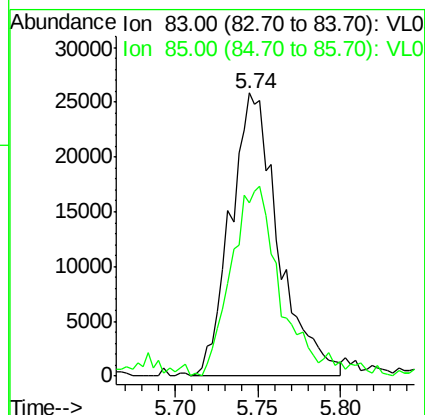
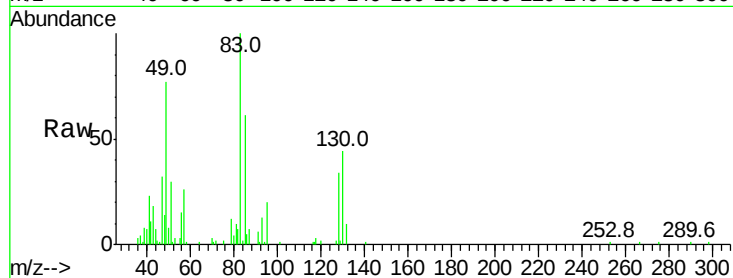
Acq: 6 Jun 2022 12:16

Tgt Ion: 83 Resp: 52140

Ion Ratio Lower Upper

83 100

85 61.4 52.4 78.6



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.17 min Scan# 1362

Delta R.T. -0.02 min

Lab File: VL039182.D

Acq: 6 Jun 2022 12:16

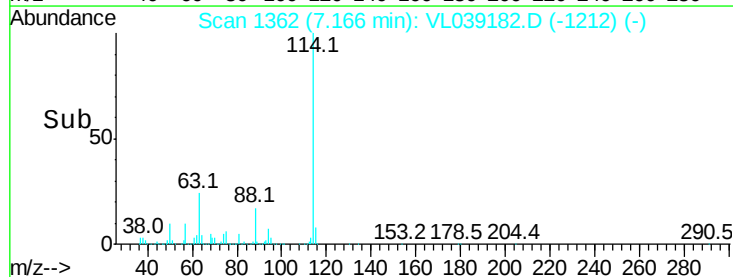
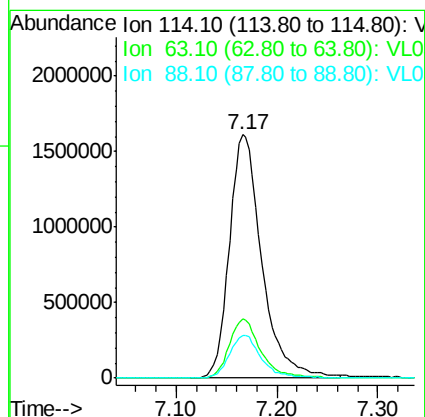
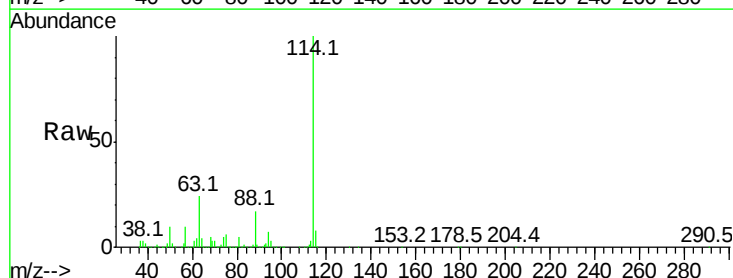
Tgt Ion: 114 Resp: 3614320

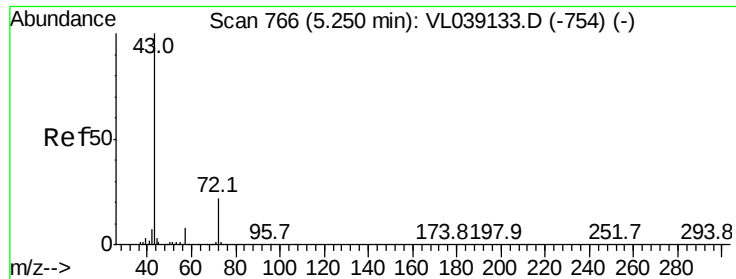
Ion Ratio Lower Upper

114 100

63 23.9 21.7 32.5

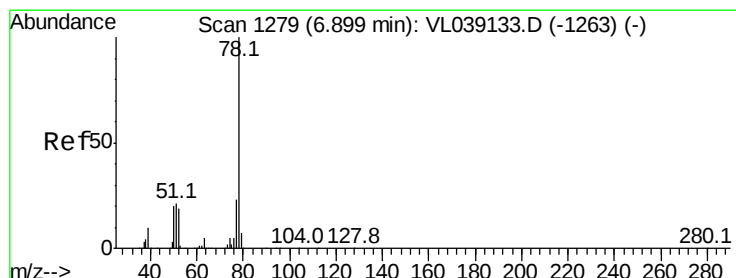
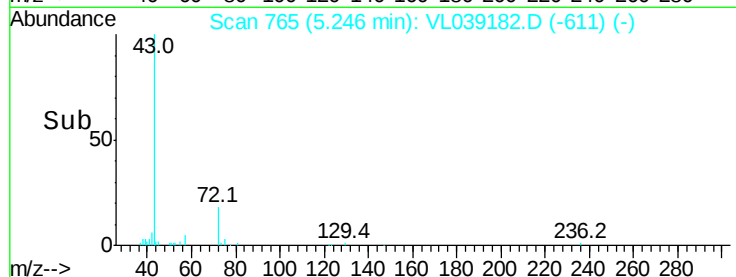
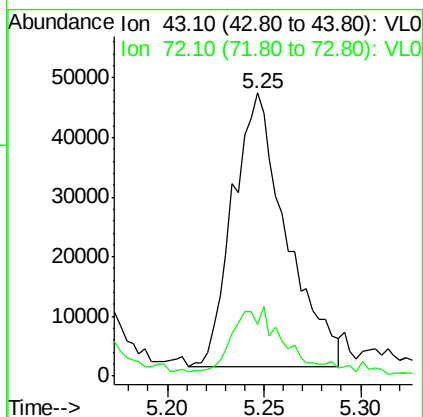
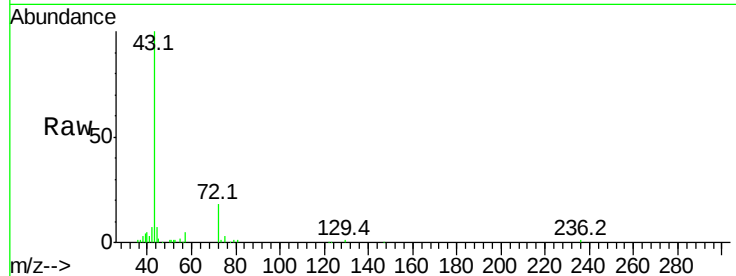
88 17.6 14.8 22.2





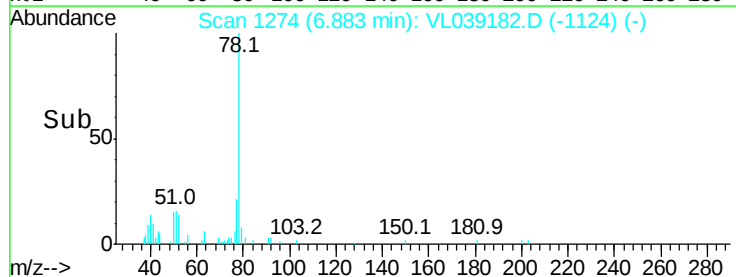
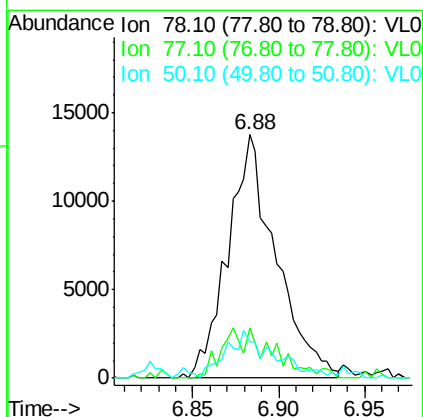
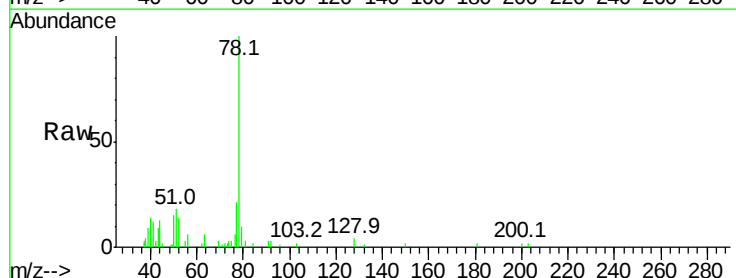
#34
2-Butanone
Concen: 0.45 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 12:16

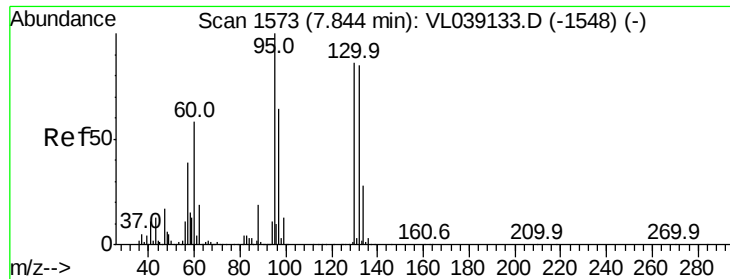
Tgt Ion: 43 Resp: 88871
Ion Ratio Lower Upper
43 100
72 28.5 18.2 27.2#



#36
Benzene
Concen: 0.09 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.02 min
Lab File: VL039182.D
Acq: 6 Jun 2022 12:16

Tgt Ion: 78 Resp: 26775
Ion Ratio Lower Upper
78 100
77 20.6 18.6 27.8
50 13.6 15.8 23.8#





#38

Trichloroethene

Concen: 0.06 ppbv

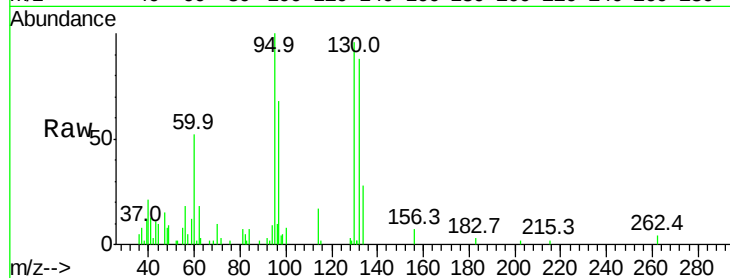
RT: 7.82 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 6 Jun 2022 12:16

Tgt Ion:	130	Resp:	8247
Ion	Ratio	Lower	Upper
130	100		
95	63.1	93.3	139.9#
132	64.1	79.0	118.4#
97	52.8	59.4	89.2#

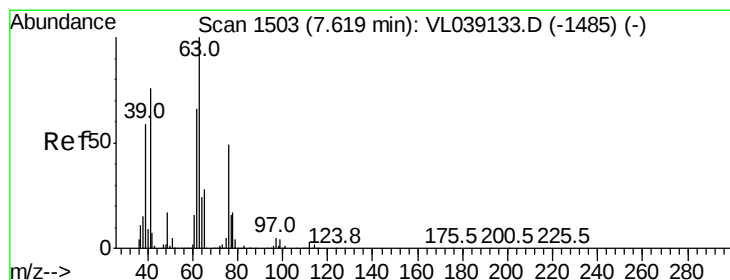
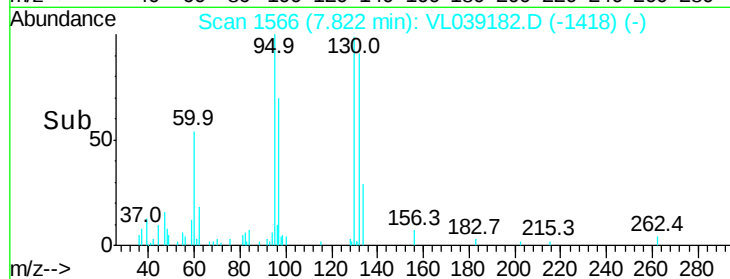
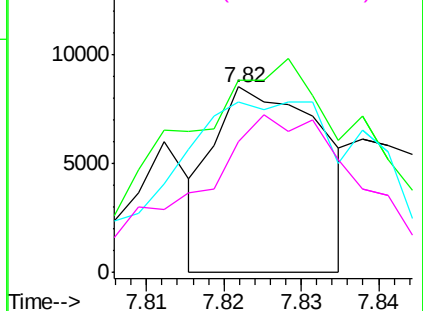


Abundance Ion 130.00 (129.70 to 130.70): V

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: 0.08 ppbv

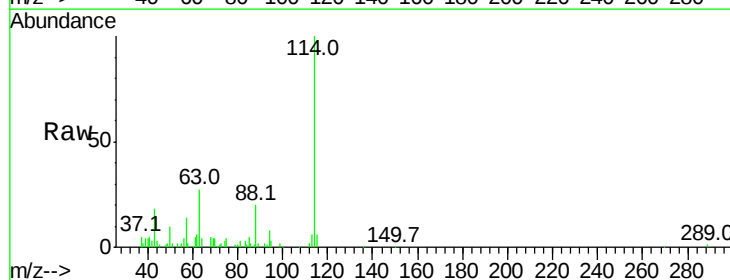
RT: 7.23 min Scan# 1382

Delta R.T. -0.39 min

Lab File: VL039182.D

Acq: 6 Jun 2022 12:16

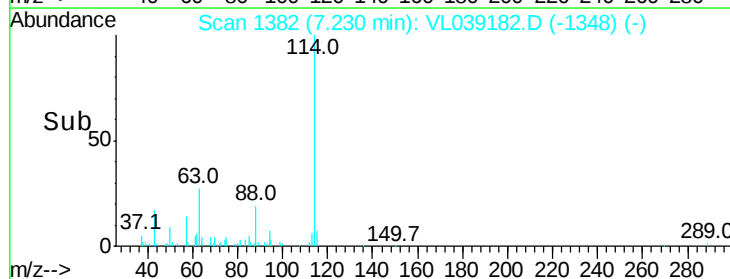
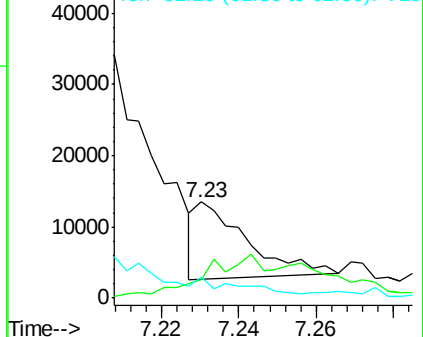
Tgt Ion:	63	Resp:	9915
Ion	Ratio	Lower	Upper
63	100		
41	6.4	60.8	91.2#
62	20.2	52.9	79.3#

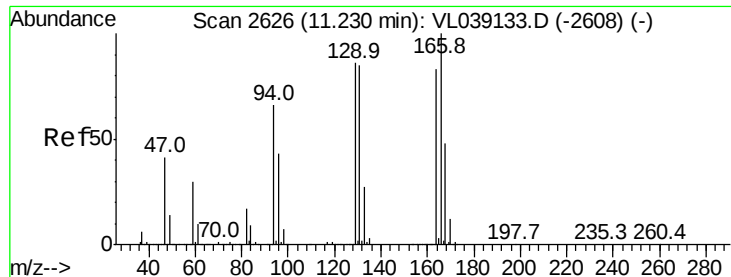


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#52

Tetrachloroethene

Concen: 0.56 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File:

Acq: 6 Jun 2022 12:16

ClientSampleId:

SG-11DL

Tgt Ion: 164 Resp: 64127

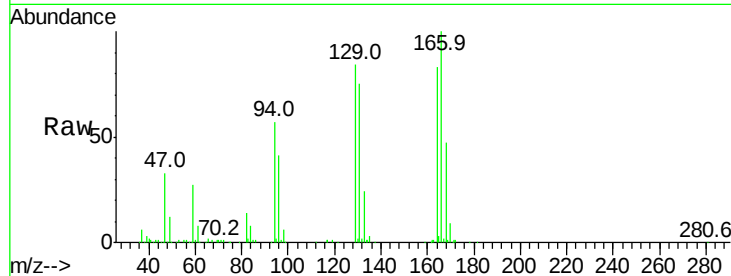
Ion Ratio Lower Upper

164 100

166 120.6 96.3 144.5

129 100.7 82.5 123.7

131 90.4 82.1 123.1

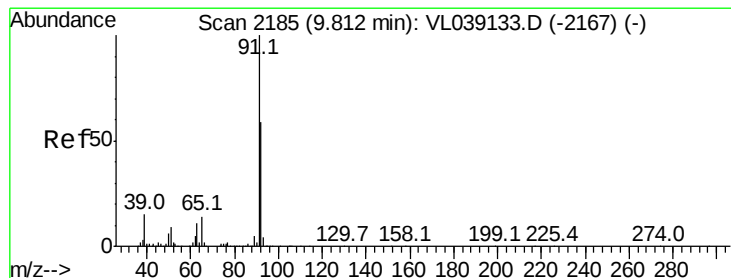
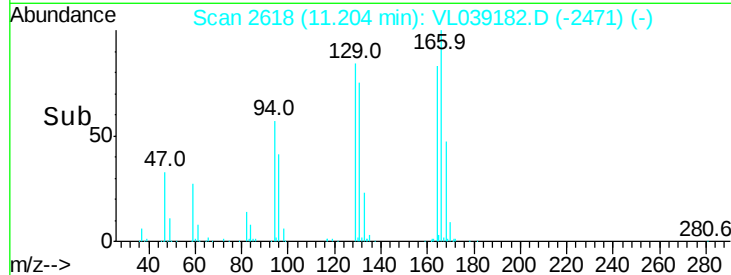
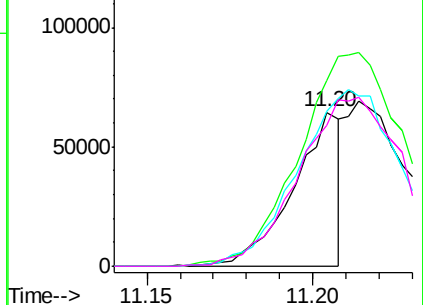


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.29 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.02 min

Lab File: VL039182.D

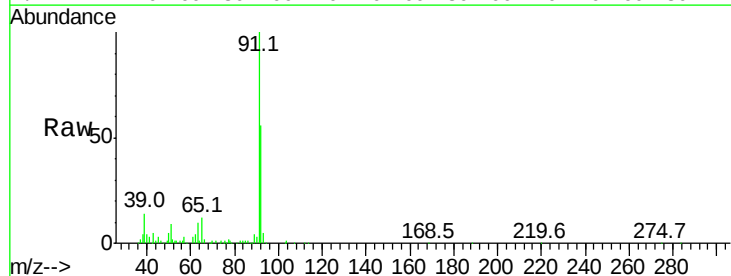
Acq: 6 Jun 2022 12:16

Tgt Ion: 91 Resp: 98413

Ion Ratio Lower Upper

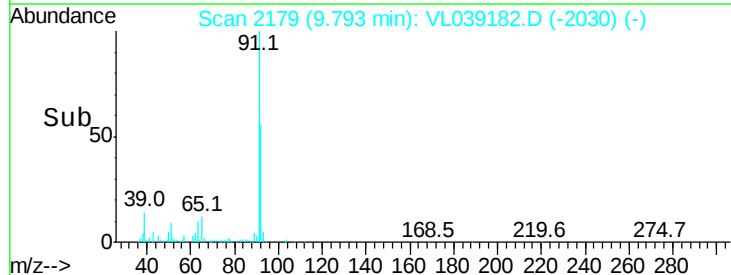
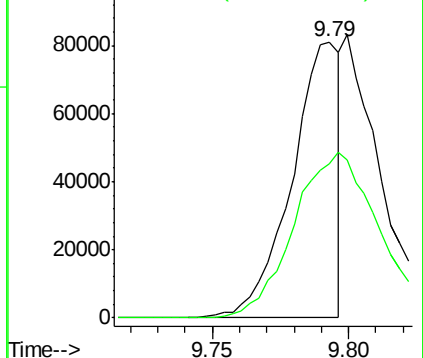
91 100

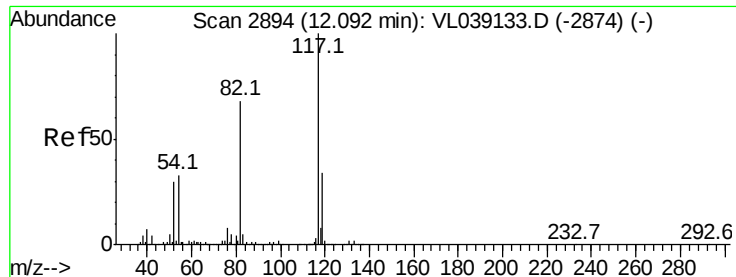
92 0.0 48.1 72.1#



Abundance Ion 91.10 (90.80 to 91.80): VL0

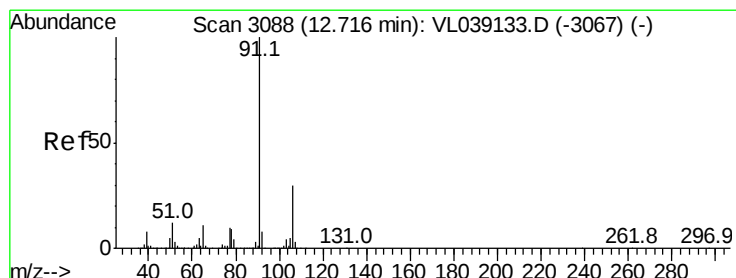
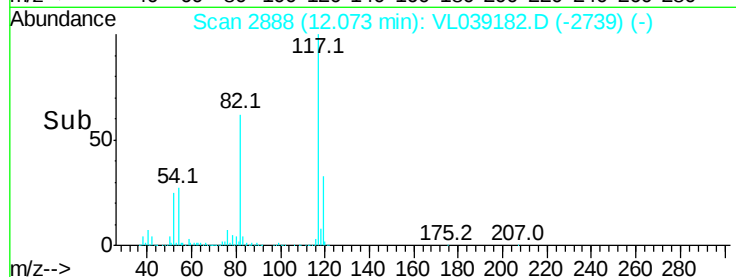
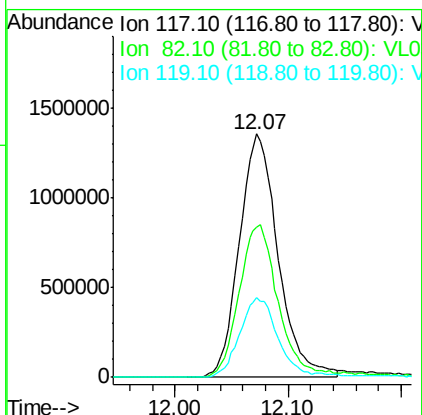
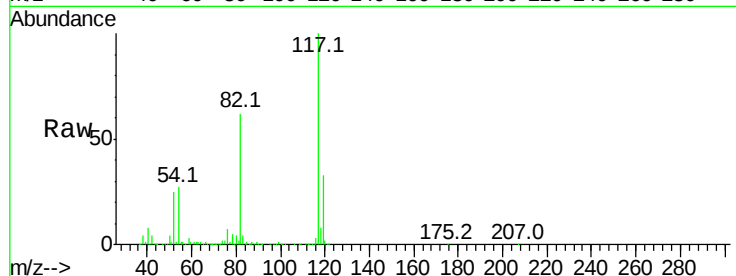
Ion 92.10 (91.80 to 92.80): VL0





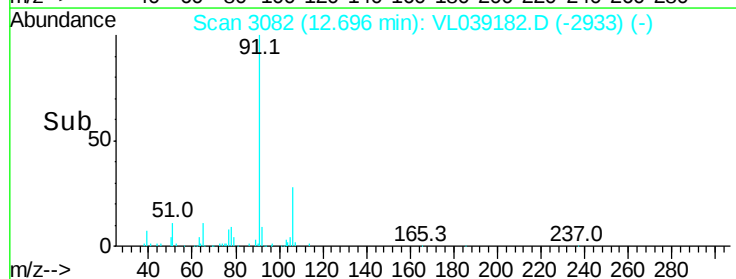
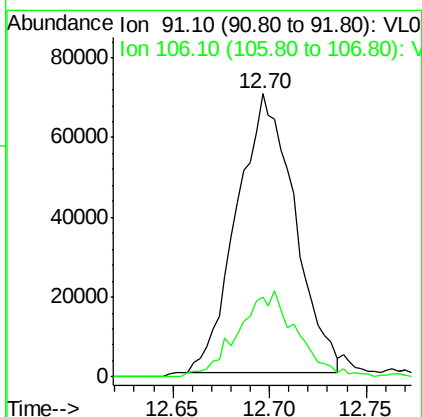
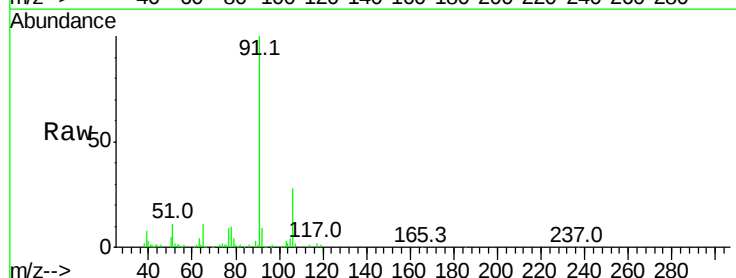
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.07
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 6 Jun 2022 12:10

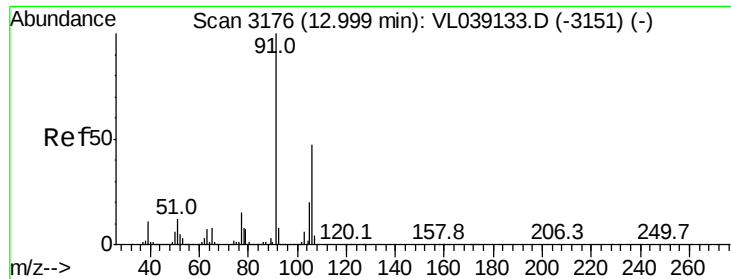
Tgt Ion: 117 Resp: 3234314
Ion Ratio Lower Upper
117 100
82 66.4 55.1 82.7
119 33.6 24.7 37.1



#58
Ethyl Benzene
Concen: 0.33 ppbv
RT: 12.70 min Scan# 3082
Delta R.T. -0.02 min
Lab File: VL039182.D
Acq: 6 Jun 2022 12:16

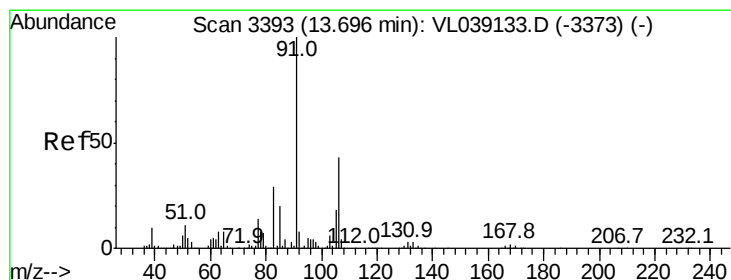
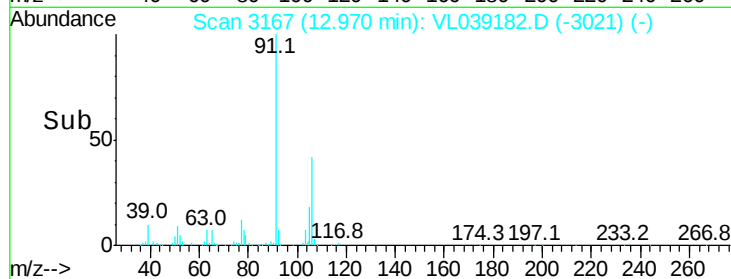
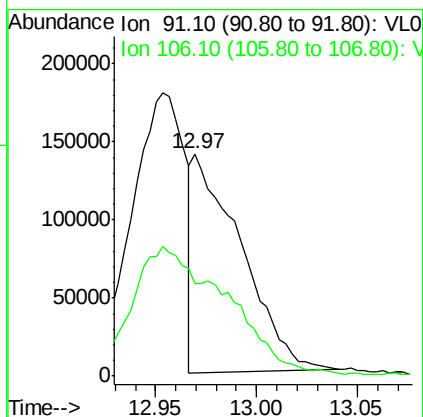
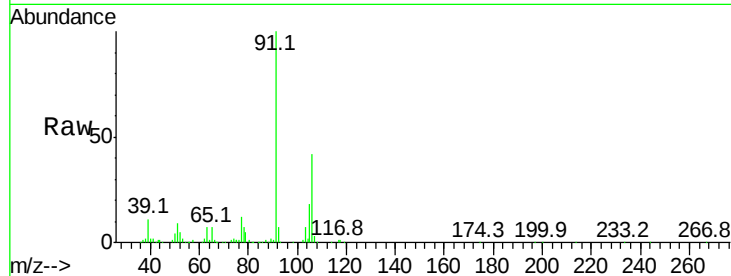
Tgt Ion: 91 Resp: 145729
Ion Ratio Lower Upper
91 100
106 27.2 24.2 36.4





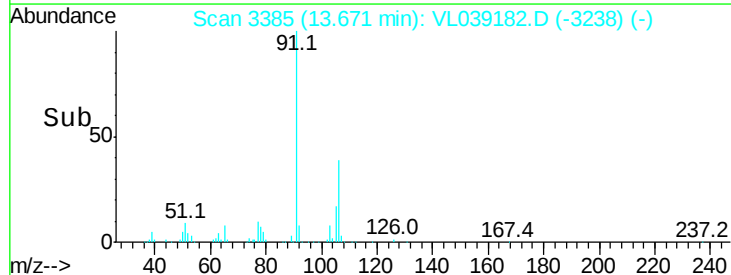
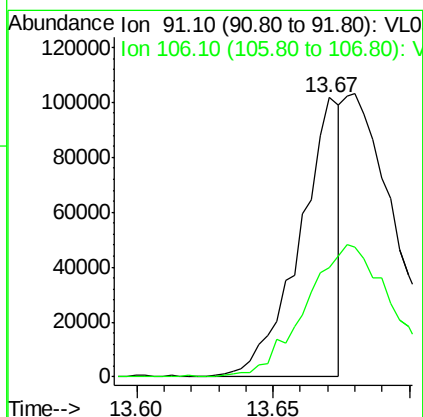
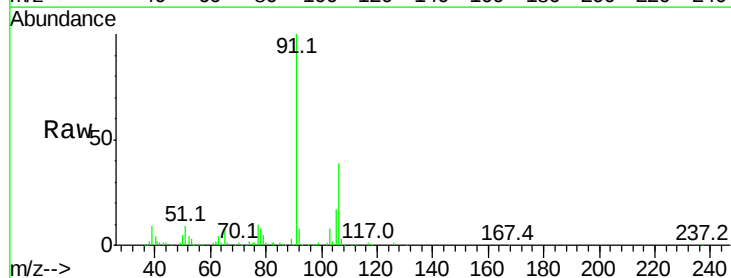
#59
m/p-Xylene
Concen: 0.59 ppbv
RT: 12.97
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 6 Jun 2022 12:16

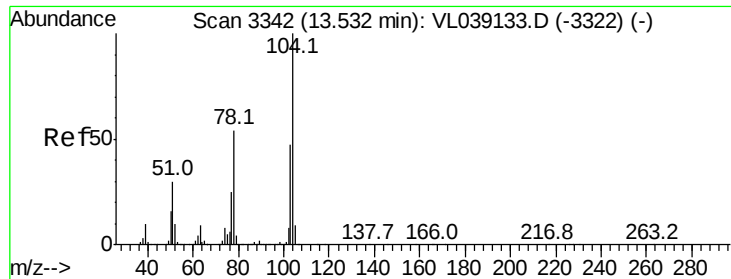
Tgt Ion: 91 Resp: 230996
Ion Ratio Lower Upper
91 100
106 0.0 34.3 51.5#



#60
o-Xylene
Concen: 0.28 ppbv
RT: 13.67 min Scan# 3385
Delta R.T. -0.03 min
Lab File: VL039182.D
Acq: 6 Jun 2022 12:16

Tgt Ion: 91 Resp: 104507
Ion Ratio Lower Upper
91 100
106 0.0 22.3 66.9#





#61

Styrene

Concen: 0.03 ppbv

RT: 13.51

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 6 Jun 2022 12:16

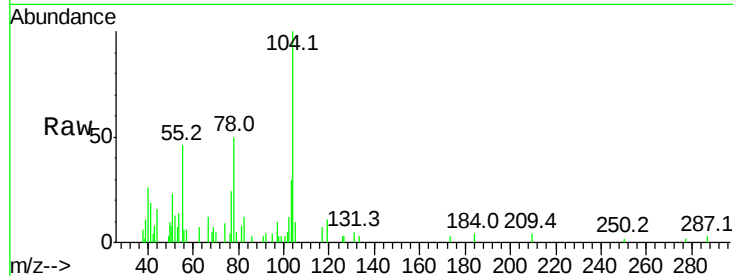
Tgt Ion:104 Resp: 6404

Ion Ratio Lower Upper

104 100

78 143.6 45.7 68.5#

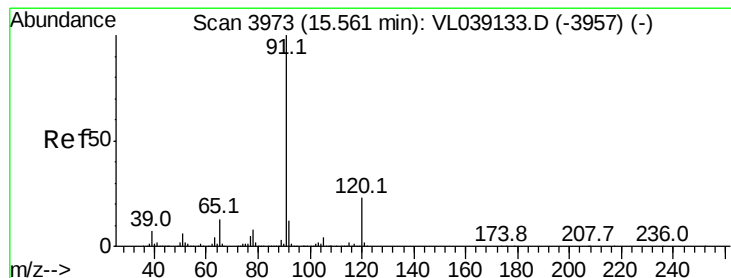
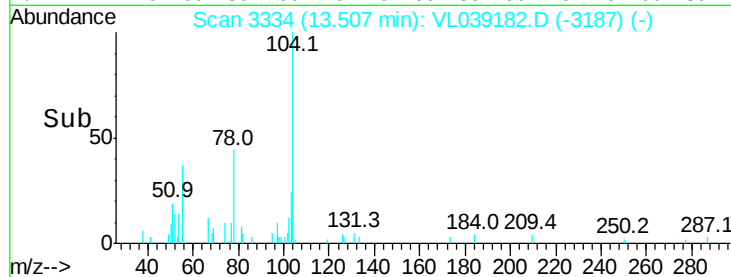
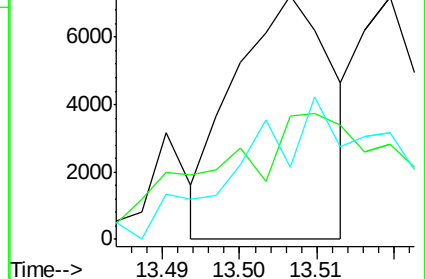
103 131.4 39.6 59.4#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#64

n-propylbenzene

Concen: 0.10 ppbv

RT: 15.55 min Scan# 3968

Delta R.T. -0.02 min

Lab File: VL039182.D

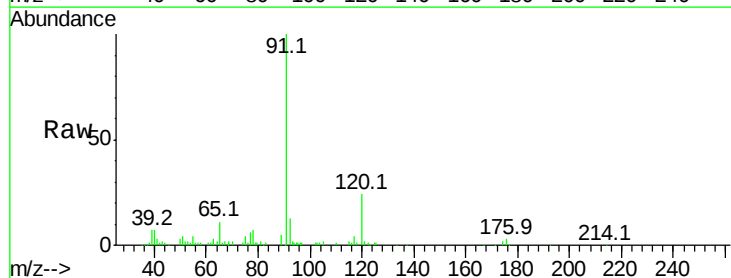
Acq: 6 Jun 2022 12:16

Tgt Ion:120 Resp: 13628

Ion Ratio Lower Upper

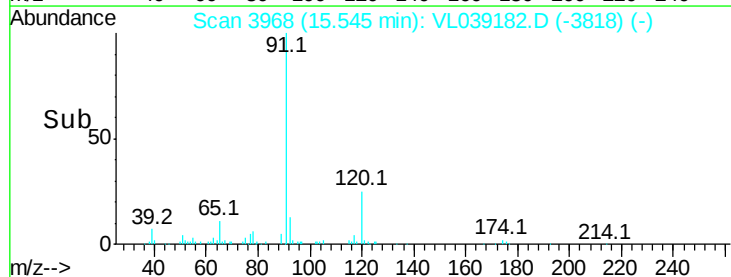
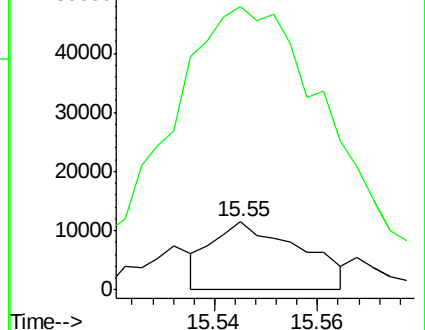
120 100

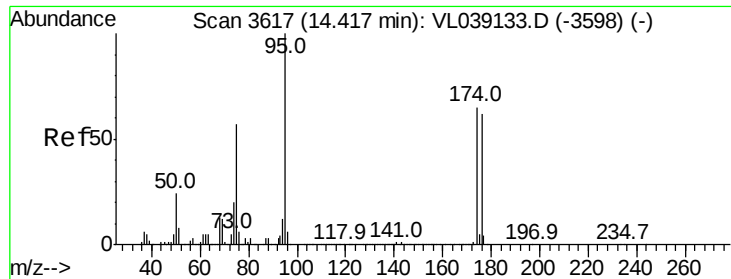
91 853.4 388.4 582.6#



Abundance Ion 120.20 (119.90 to 120.90): V

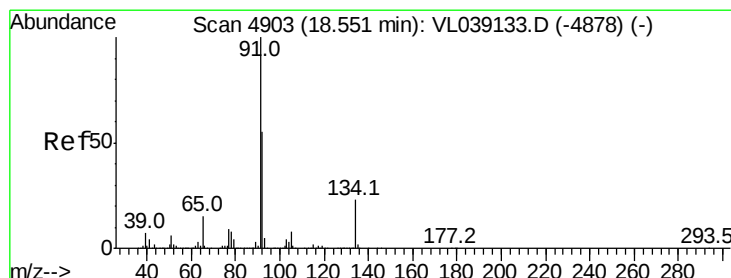
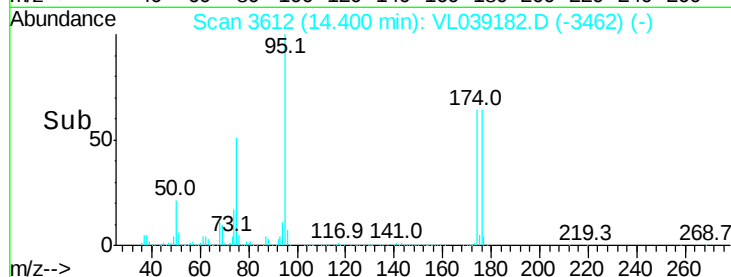
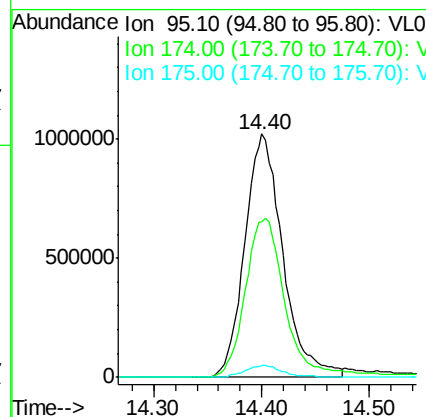
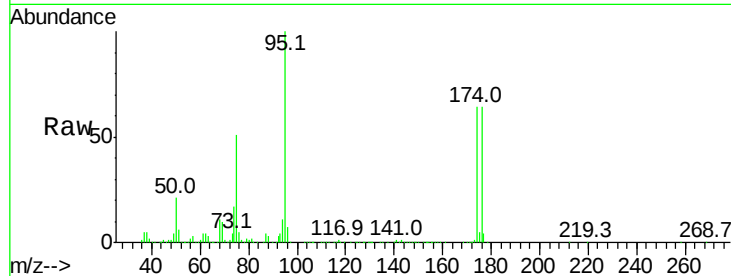
Ion 91.10 (90.80 to 91.80): VL0





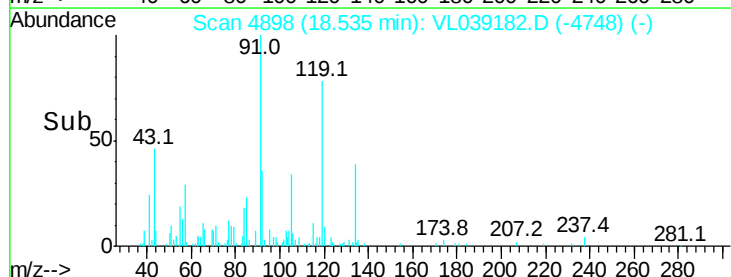
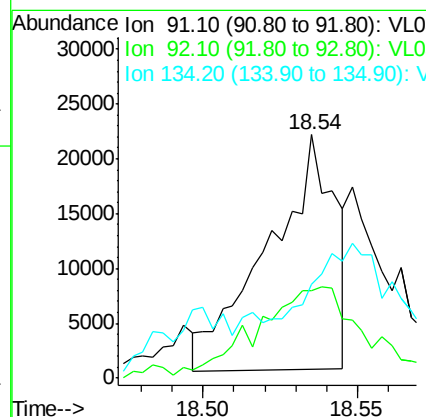
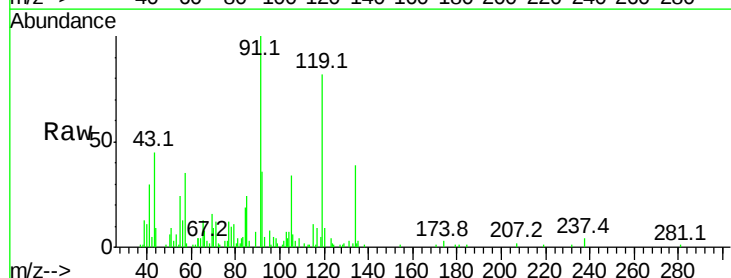
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.38 ppbv
 RT: 14.40
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : SG-11DL
 Acq: 6 Jun 2022 12:16

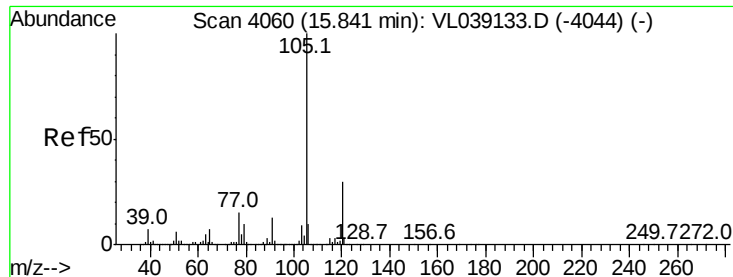
Tgt Ion: 95 Resp: 2507080
 Ion Ratio Lower Upper
 95 100
 174 70.6 53.8 80.8
 175 5.1 4.1 6.1



#70
 n-Butylbenzene
 Concen: 0.05 ppbv
 RT: 18.54 min Scan# 4898
 Delta R.T. -0.02 min
 Lab File: VL039182.D
 Acq: 6 Jun 2022 12:16

Tgt Ion: 91 Resp: 32394
 Ion Ratio Lower Upper
 91 100
 92 68.9 43.6 65.4#
 134 0.0 17.7 26.5#





#72

4-Ethyltoluene

Concen: 0.34 ppbv

RT: 15.82

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 12:16

Tgt Ion:105 Resp: 147563

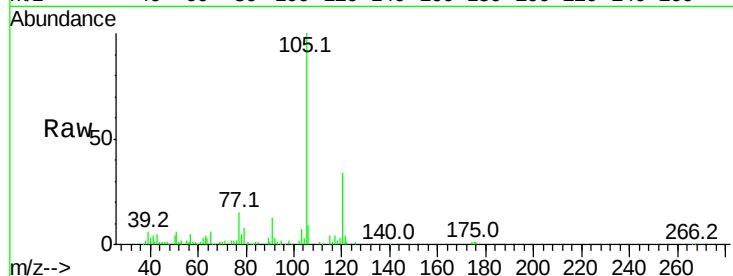
Ion Ratio Lower Upper

105 100

120 31.5 23.9 35.9

91 13.7 10.6 16.0

77 16.0 11.7 17.5

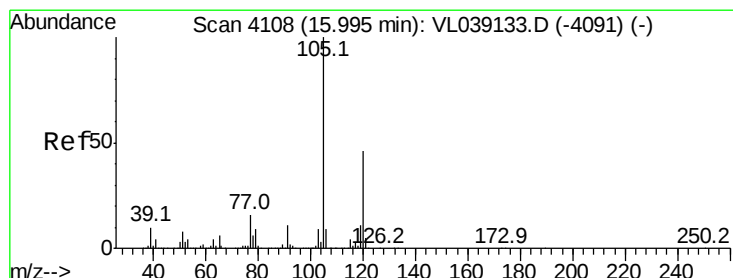
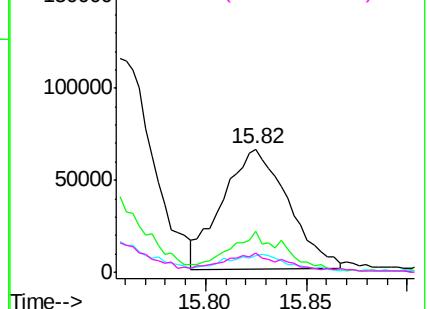
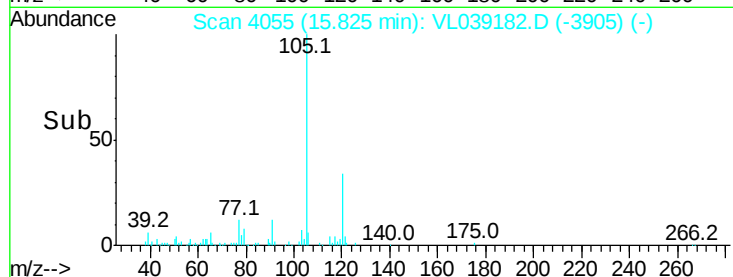


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.31 ppbv

RT: 15.98 min Scan# 4103

Delta R.T. -0.02 min

Lab File: VL039182.D

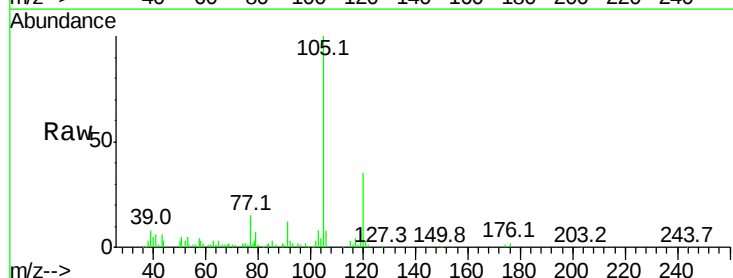
Acq: 6 Jun 2022 12:16

Tgt Ion:105 Resp: 120022

Ion Ratio Lower Upper

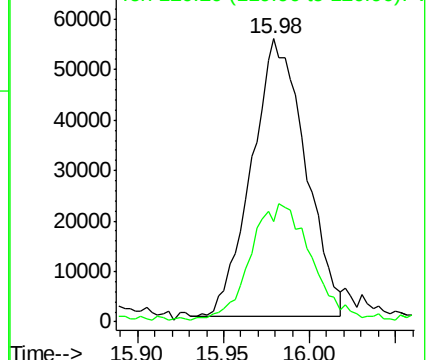
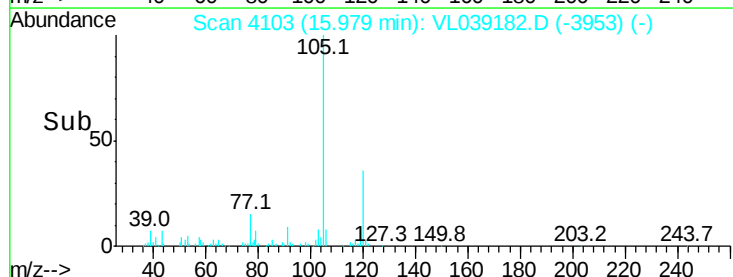
105 100

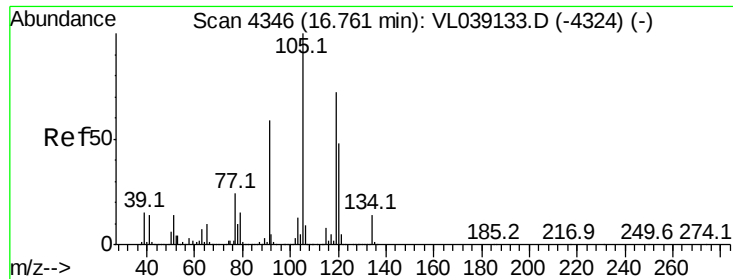
120 35.5 36.7 55.1#



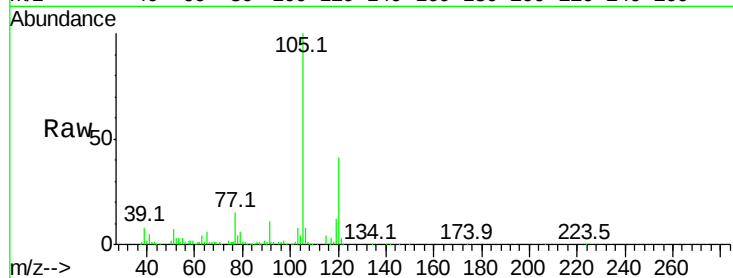
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74
 1,2,4-Trimethylbenzene
 Concen: 1.10 ppbv
 RT: 16.74
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 12:10



Tgt Ion:	105	Resp:	479231
Ion Ratio	Lower	Upper	
105	100		
120	41.5	38.1	57.1
91	10.8	47.4	71.0#
77	14.8	19.5	29.3#

