

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091621\
 Data File : VL037623.D
 Acq On : 16 Sep 2021 20:08
 Operator : SY/AP
 Sample : M3277-01DL 2X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 17 05:28:33 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
 QLast Update : Thu Sep 16 13:42:46 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1688951	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	4823604	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	4751168	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	4150591	12.09	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	120.90%

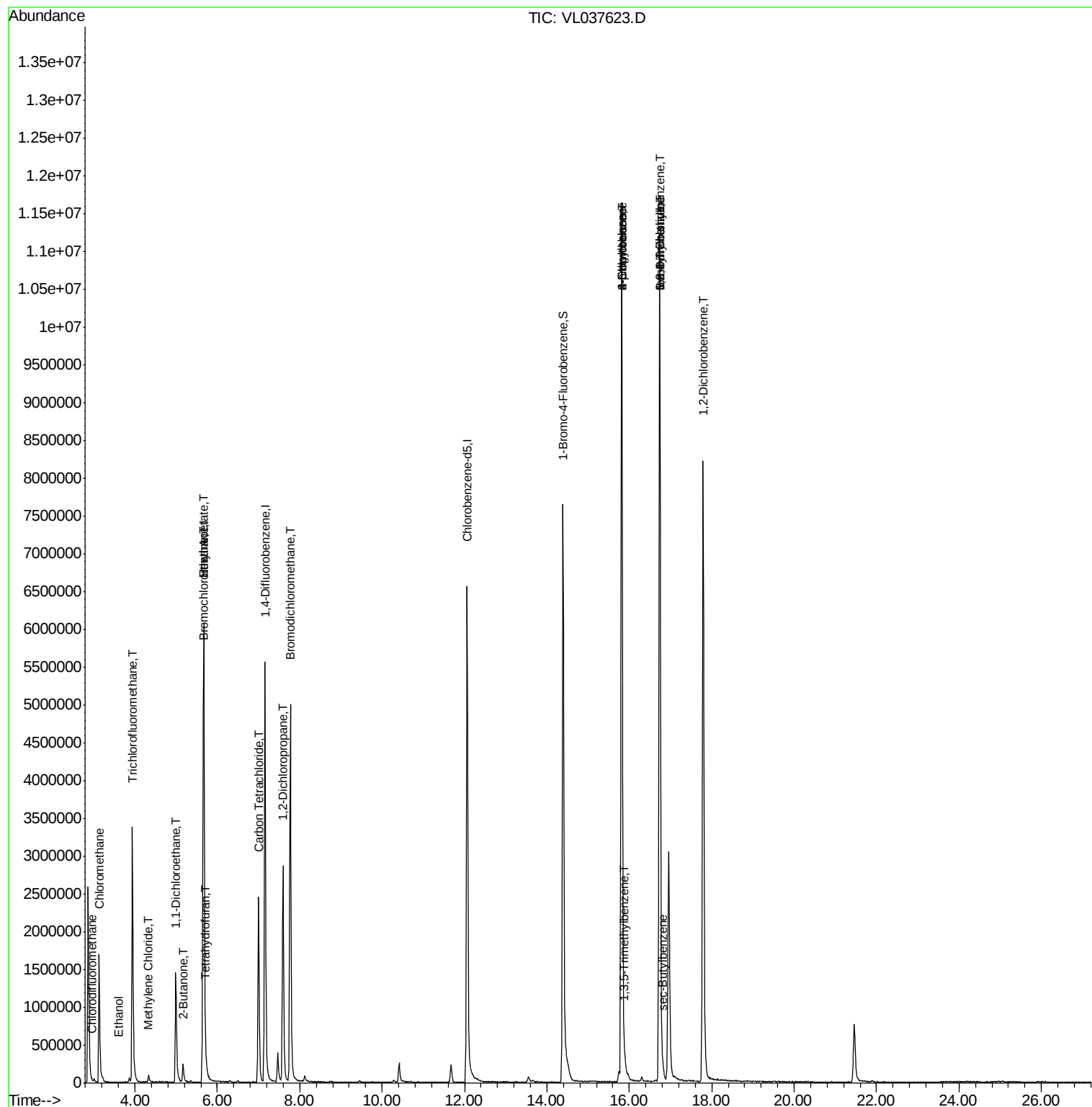
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.96	51	20418	0.064	ppbv #	69
4) Chloromethane	3.13	50	1882528	15.994	ppbv	98
11) Trichlorofluoromethane	3.94	101	2757983	11.240	ppbv	99
13) Ethanol	3.61	45	2952	0.269	ppbv #	1
20) Methylene Chloride	4.33	84	26987	0.322	ppbv	85
24) 1,1-Dichloroethane	4.99	63	1562577	8.983	ppbv	98
25) Ethyl Acetate	5.67	43	1594125	3.751	ppbv #	77
26) Hexane	5.67	57	2305479	11.419	ppbv #	46
34) 2-Butanone	5.17	43	91739	0.468	ppbv #	1
35) Carbon Tetrachloride	7.00	117	1596553	5.851	ppbv	94
39) 1,2-Dichloropropane	7.59	63	1227377	7.967	ppbv	96
41) Tetrahydrofuran	5.72	42	26442	0.287	ppbv #	38
42) Bromodichloromethane	7.77	83	3828627	13.503	ppbv	97
64) n-propylbenzene	15.82	120	3462289	18.359	ppbv #	1
65) tert-Butylbenzene	16.73	119	599875	0.910	ppbv #	1
66) Benzyl Chloride	16.74	91	1120783	31.127	ppbv #	65
67) sec-Butylbenzene	16.81	105	103042	0.115	ppbv #	42
71) 2-Chlorotoluene	15.82	91	1382851	2.640	ppbv #	42
72) 4-Ethyltoluene	15.82	105	10892051	18.138	ppbv	96
73) 1,3,5-Trimethylbenzene	15.89	105	135385	0.242	ppbv #	62
74) 1,2,4-Trimethylbenzene	16.74	105	9605246	16.292	ppbv #	79
77) 1,2-Dichlorobenzene	17.79	146	4983709	14.345	ppbv	99

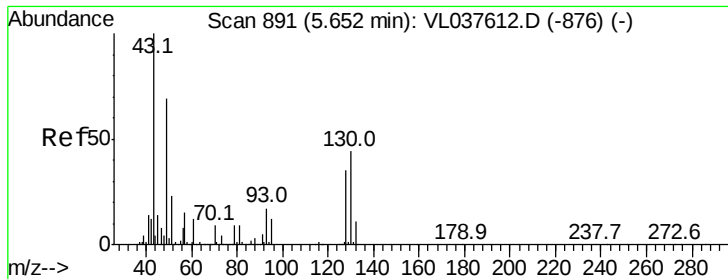
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
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QLast Update : Thu Sep 16 13:42:46 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

ClientSampleId :

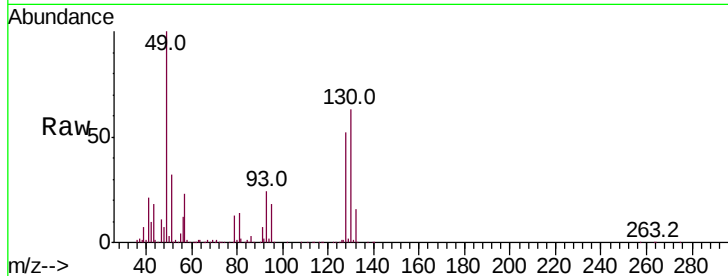
Tot Ion: 49 Resp: 1688951

Ion Ratio Lower Upper

49 100

128 52.6 27.9 83.6

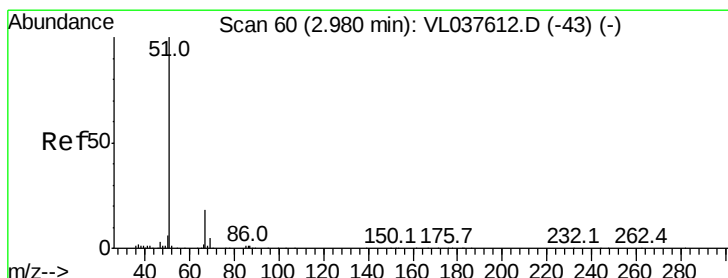
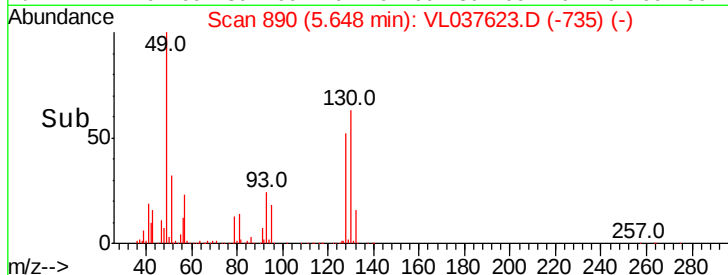
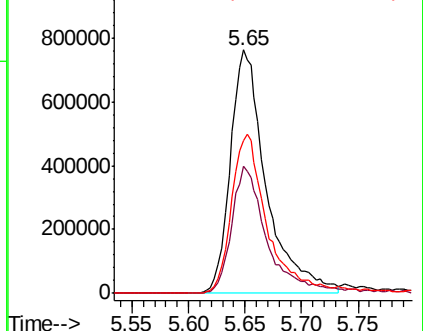
130 67.4 33.9 101.7



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



#3

Chlorodifluoromethane

Concen: 0.064 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.02 min

Lab File: VL037623.D

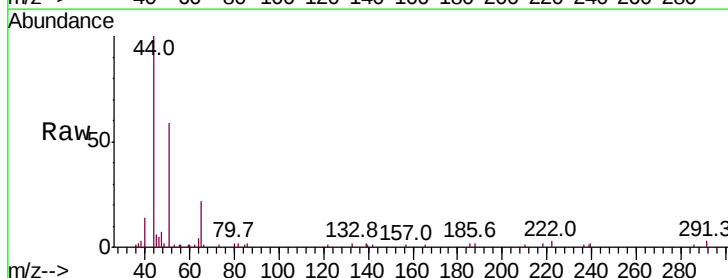
Acq: 16 Sep 2021 20:08

Tgt Ion: 51 Resp: 20418

Ion Ratio Lower Upper

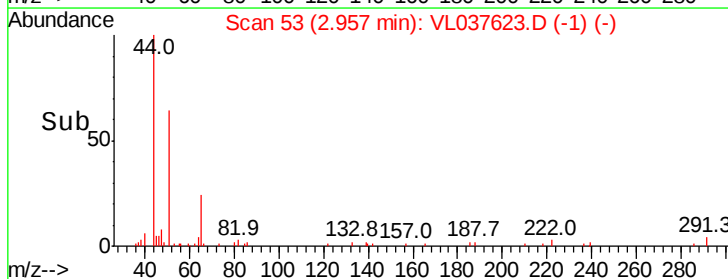
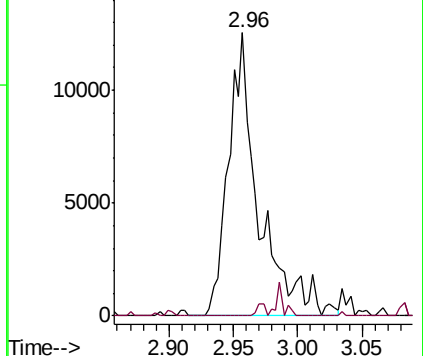
51 100

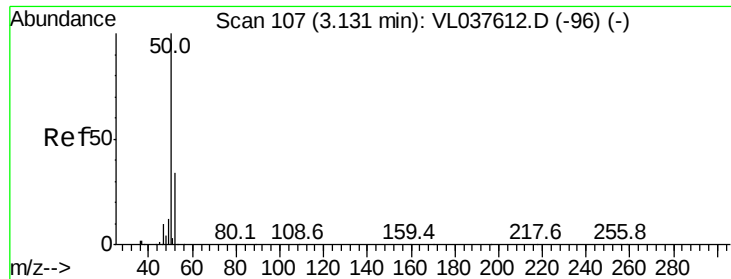
67 3.8 14.0 21.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 15.994 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

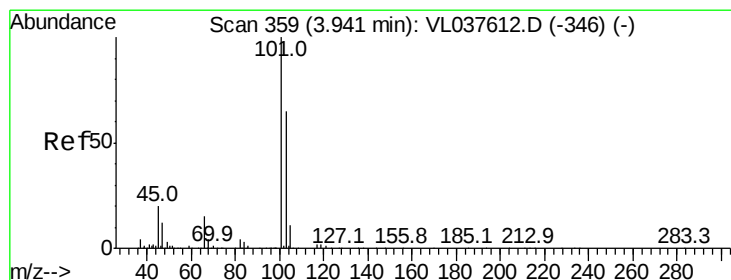
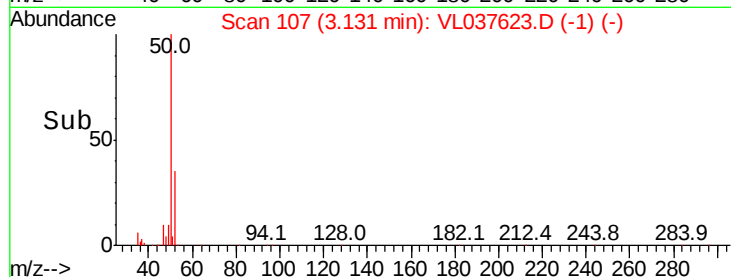
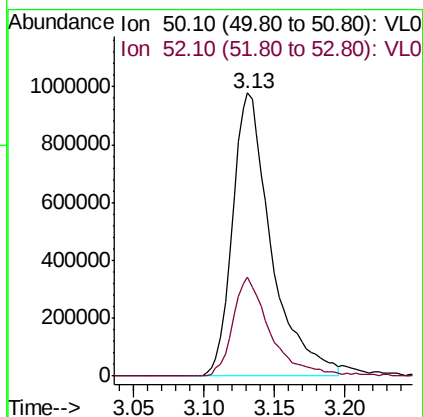
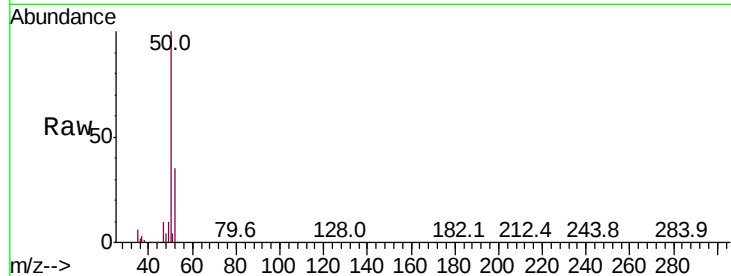
ClientSampled :

Tot Ion: 50 Resp: 1882528

Ion Ratio Lower Upper

50 100

52 34.9 27.1 40.7



#11

Trichlorofluoromethane

Concen: 11.240 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.00 min

Lab File: VL037623.D

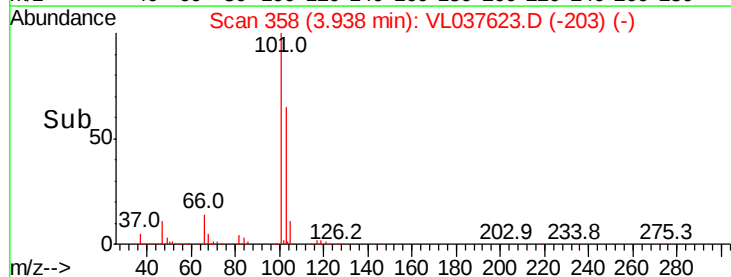
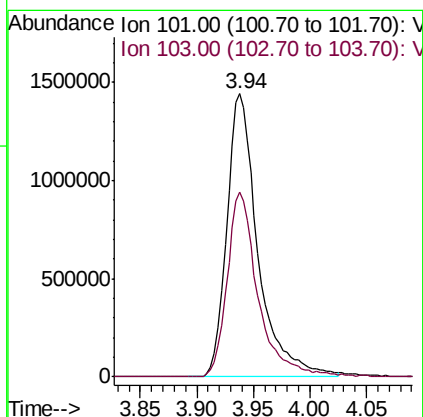
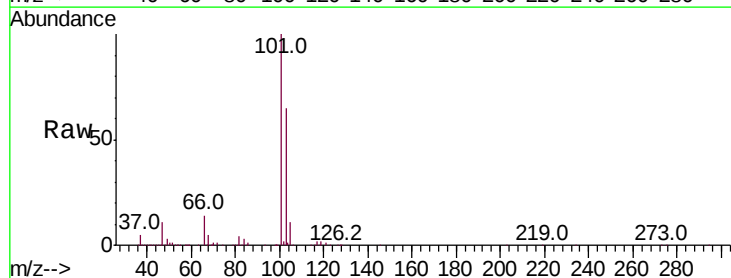
Acq: 16 Sep 2021 20:08

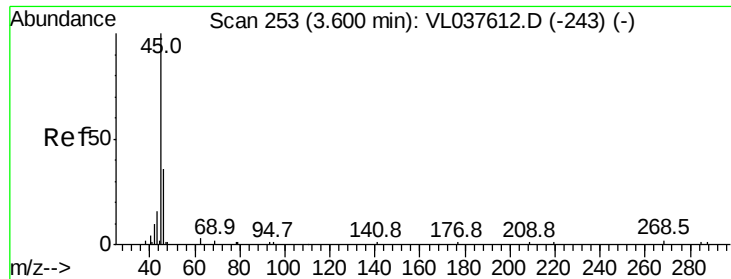
Tgt Ion: 101 Resp: 2757983

Ion Ratio Lower Upper

101 100

103 65.3 51.9 77.9

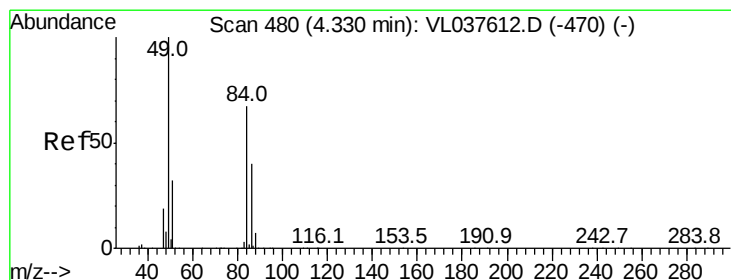
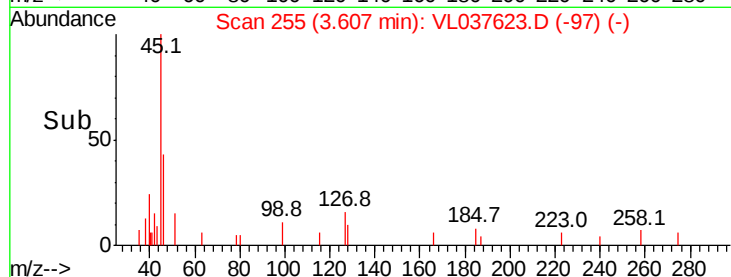
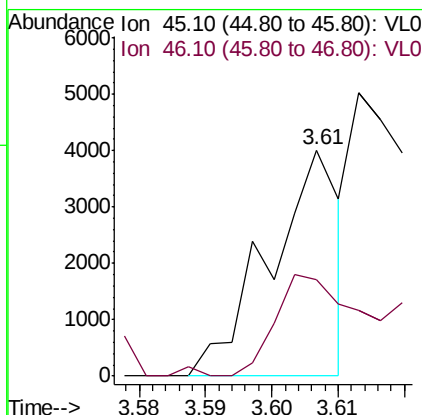
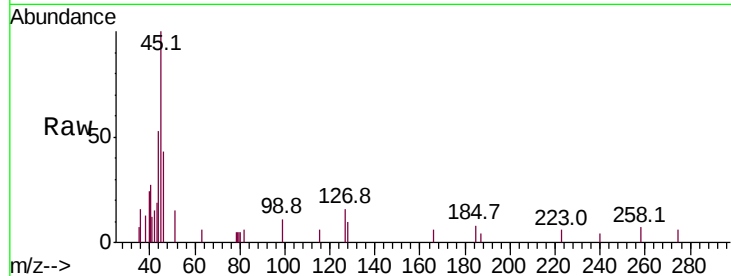




#13
Ethanol
Concen: 0.269 ppbv
RT: 3.61 min Scan# 255
Delta R.T. 0.01 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

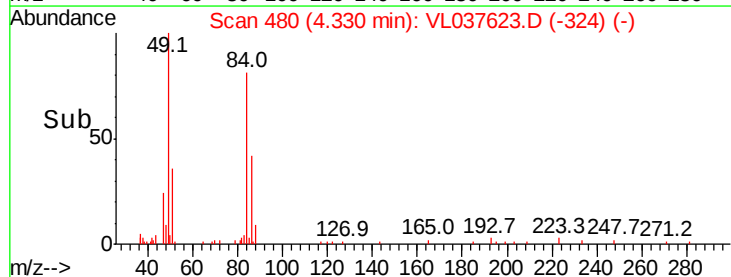
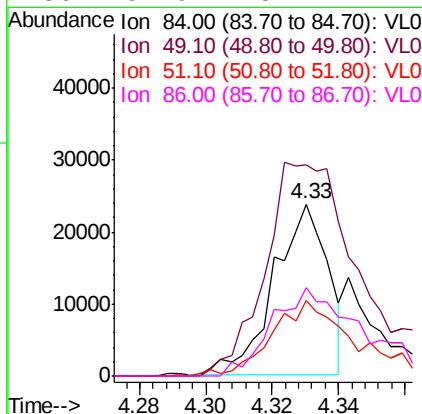
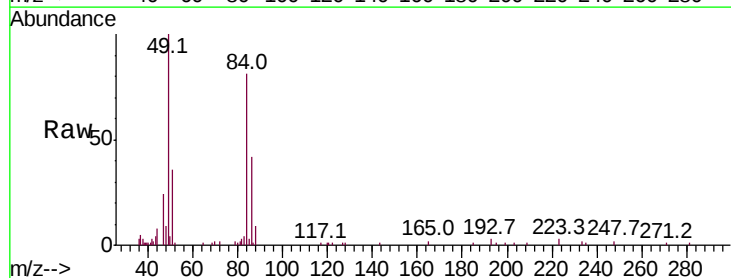
Instrument :
MSVOA_L
ClientSampleId :

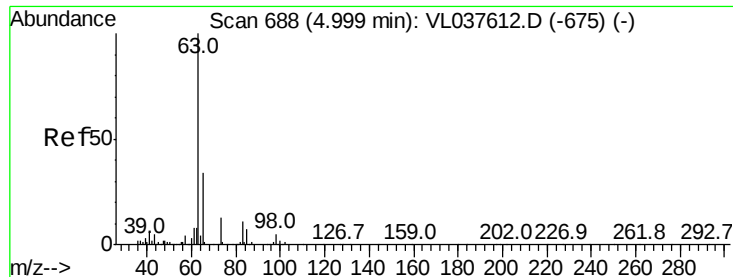
Tot Ion: 45 Resp: 2952
Ion Ratio Lower Upper
45 100
46 153.2 17.2 68.8#



#20
Methylene Chloride
Concen: 0.322 ppbv
RT: 4.33 min Scan# 480
Delta R.T. 0.00 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

Tgt Ion: 84 Resp: 26987
Ion Ratio Lower Upper
84 100
49 123.9 120.0 180.0
51 44.6 38.0 57.0
86 51.9 48.2 72.2





#24

1,1-Dichloroethane

Concen: 8.983 ppbv

RT: 4.99 min Scan# 686

Delta R.T. -0.01 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

ClientSampleId :

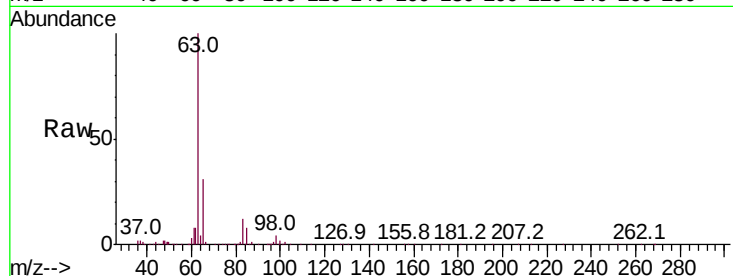
Tot Ion: 63 Resp: 1562577

Ion Ratio Lower Upper

63 100

98 3.8 2.4 7.2

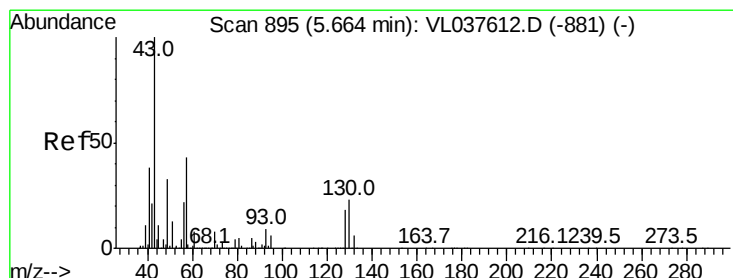
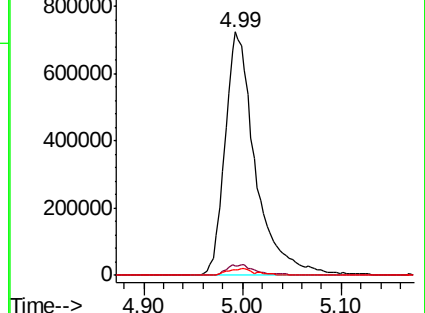
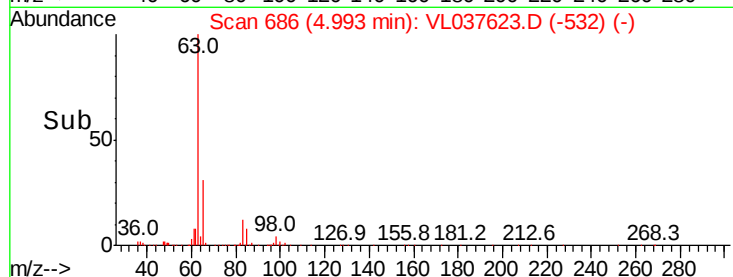
100 2.4 1.1 3.5



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 3.751 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.01 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Tgt Ion: 43 Resp: 1594125

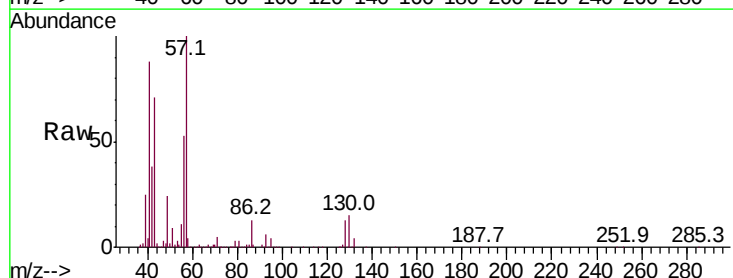
Ion Ratio Lower Upper

43 100

45 0.1 8.0 12.0#

61 0.2 7.5 11.3#

70 1.4 5.6 8.4#

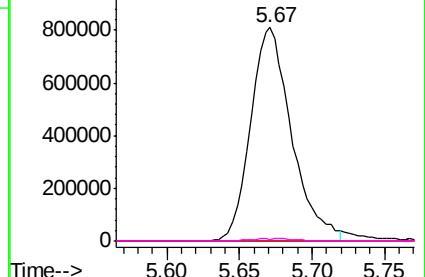
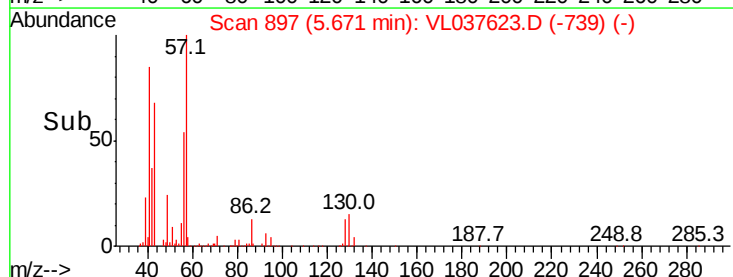


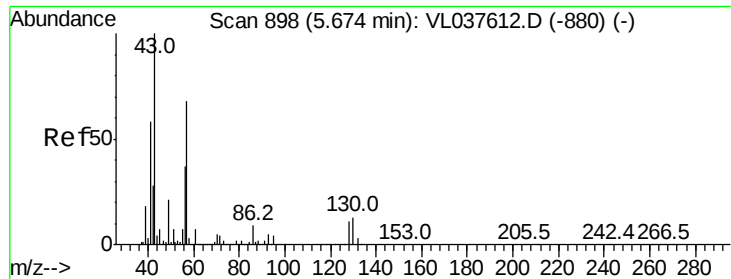
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



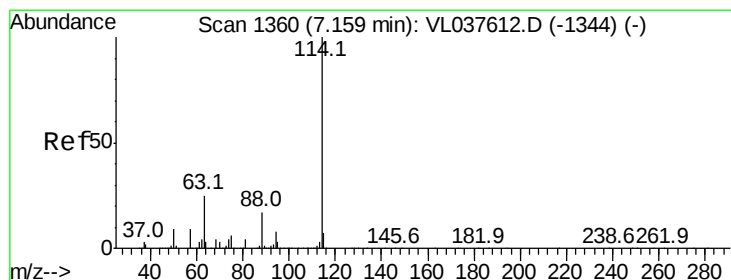
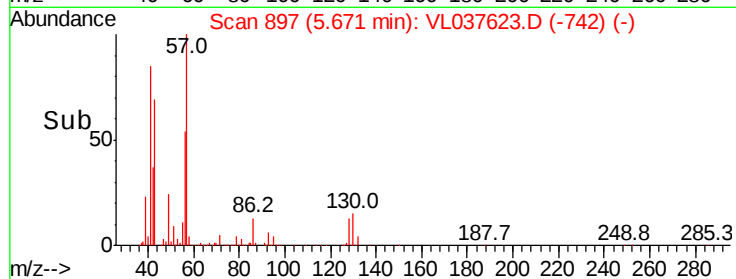
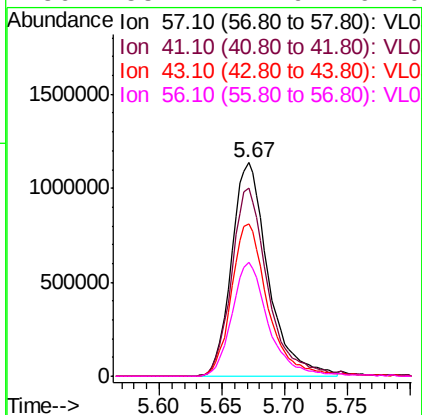
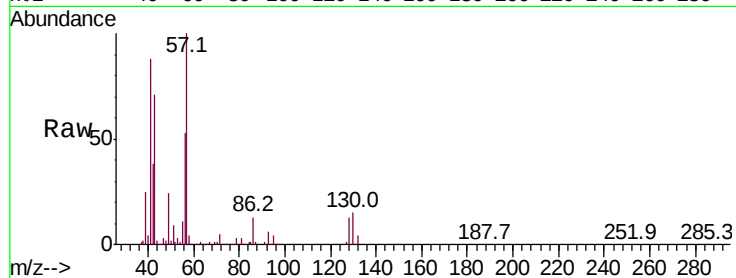


#26
Hexane
Concen: 11.419 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.00 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 2305479

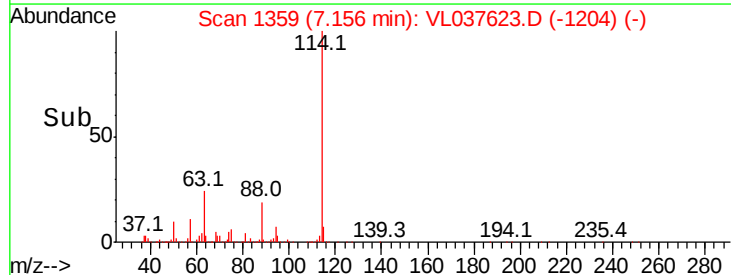
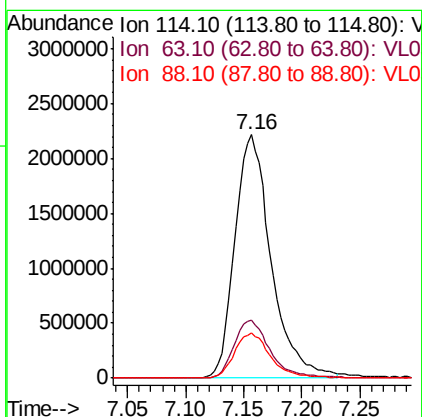
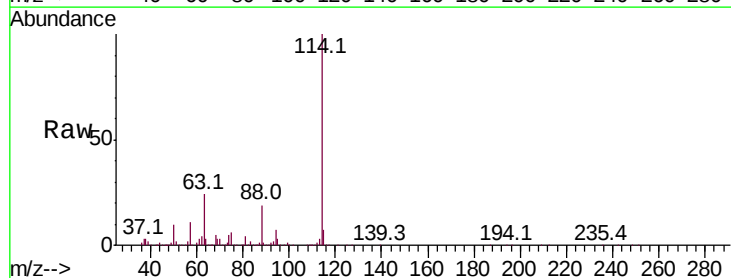
Ion	Ratio	Lower	Upper
57	100		
41	88.6	70.9	106.3
43	71.6	170.4	255.6#
56	53.7	42.6	64.0

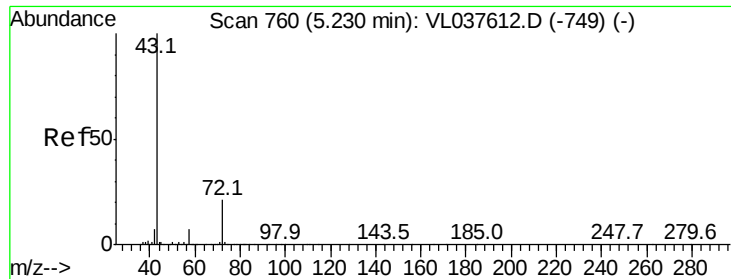


#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

Tgt Ion: 114 Resp: 4823604

Ion	Ratio	Lower	Upper
114	100		
63	24.0	19.6	29.4
88	18.5	14.2	21.4





#34

2-Butanone

Concen: 0.468 ppbv

RT: 5.17 min Scan# 740

Delta R.T. -0.06 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

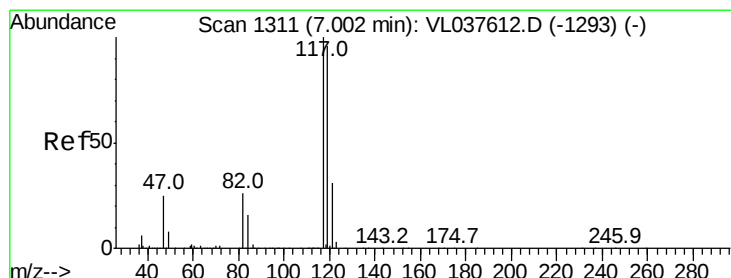
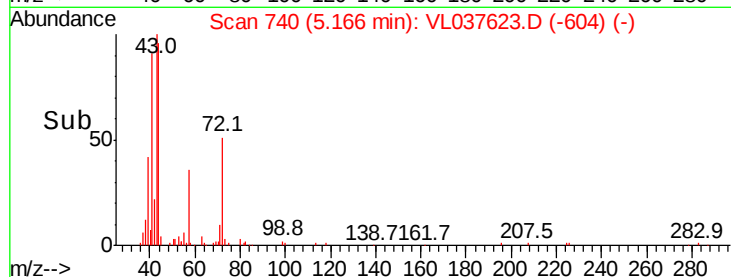
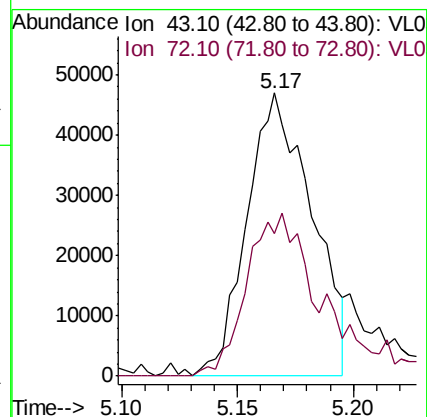
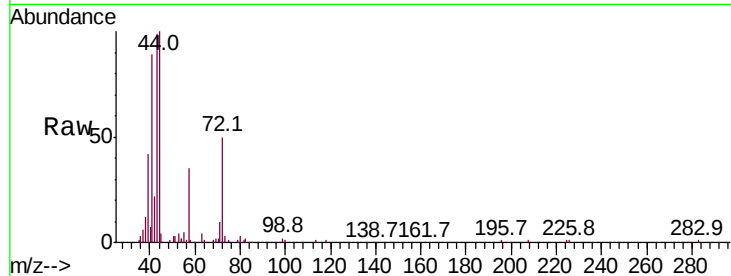
ClientSampleId :

Tot Ion: 43 Resp: 91739

Ion Ratio Lower Upper

43 100

72 71.9 18.4 27.6#



#35

Carbon Tetrachloride

Concen: 5.851 ppbv

RT: 7.00 min Scan# 1310

Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

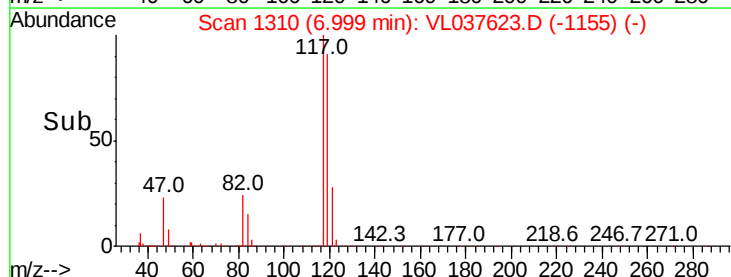
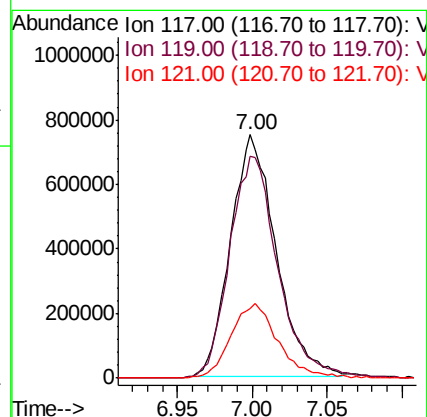
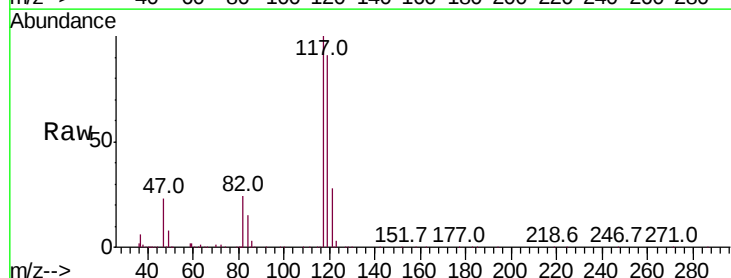
Tgt Ion: 117 Resp: 1596553

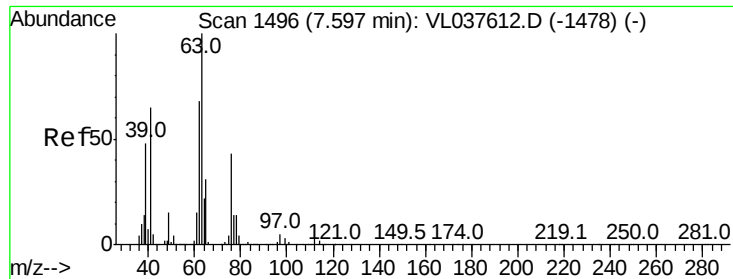
Ion Ratio Lower Upper

117 100

119 90.4 77.0 115.6

121 28.1 24.5 36.7

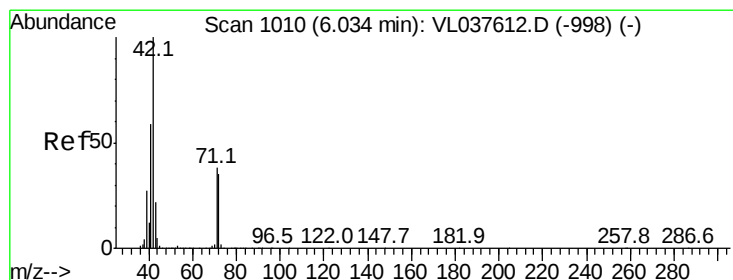
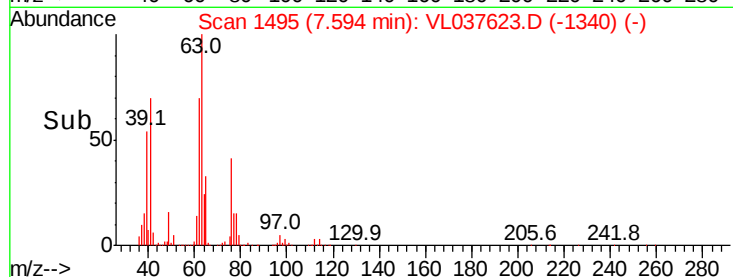
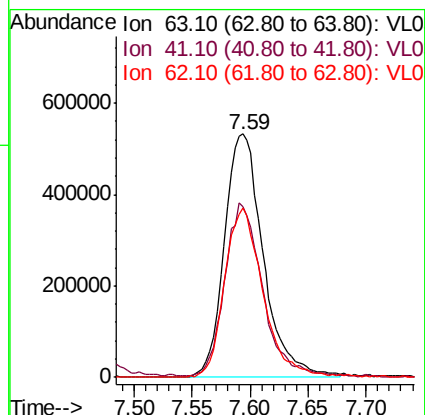
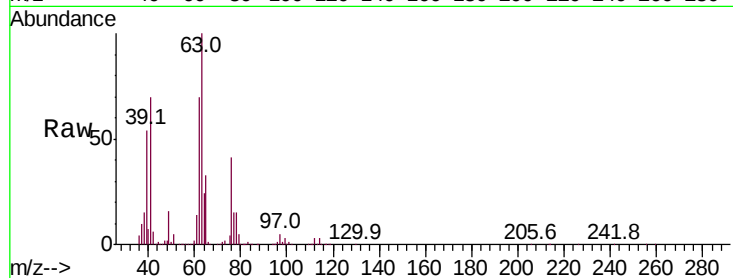




#39
1,2-Dichloropropane
Concen: 7.967 ppbv
RT: 7.59 min Scan# 1495
Delta R.T. -0.00 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

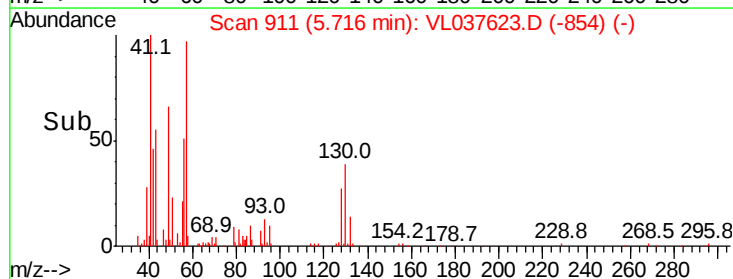
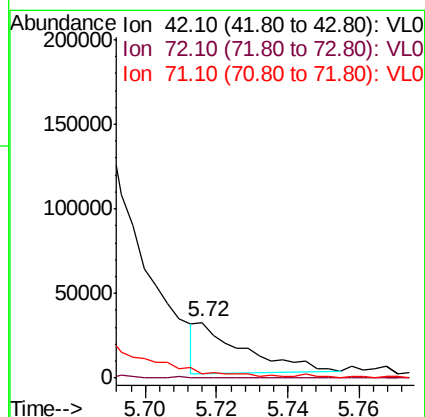
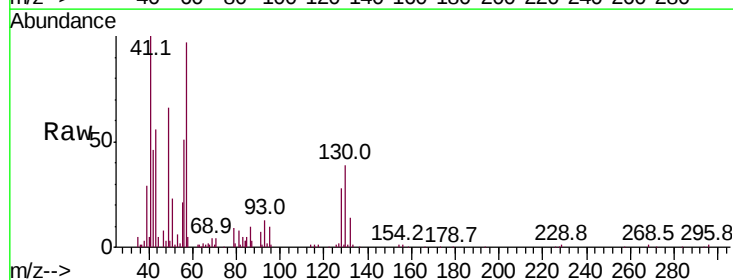
Instrument :
MSVOA_L
ClientSampleId :

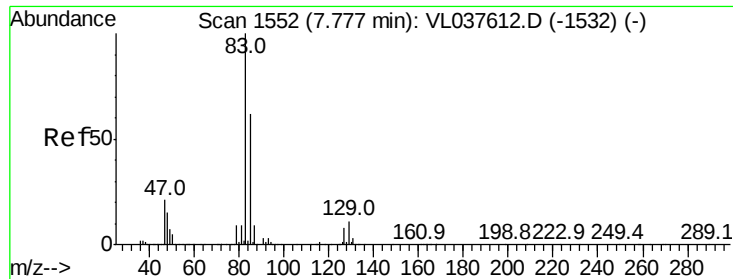
Tot Ion: 63 Resp: 1227377
Ion Ratio Lower Upper
63 100
41 69.3 51.6 77.4
62 69.3 54.6 81.8



#41
Tetrahydrofuran
Concen: 0.287 ppbv
RT: 5.72 min Scan# 911
Delta R.T. -0.32 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

Tgt Ion: 42 Resp: 26442
Ion Ratio Lower Upper
42 100
72 2.2 31.4 47.2#
71 0.0 30.6 46.0#





#42

Bromodichloromethane

Concen: 13.503 ppbv

RT: 7.77 min Scan# 1550

Delta R.T. -0.01 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

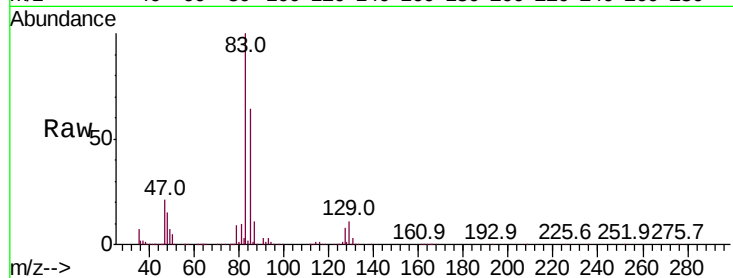
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 83 Resp: 3828627

Ion	Ratio	Lower	Upper
83	100		
85	64.4	49.8	74.6
127	8.2	6.4	9.6

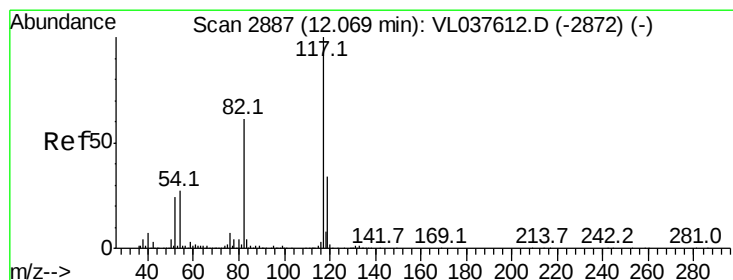
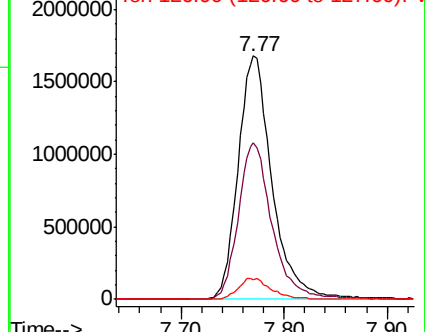
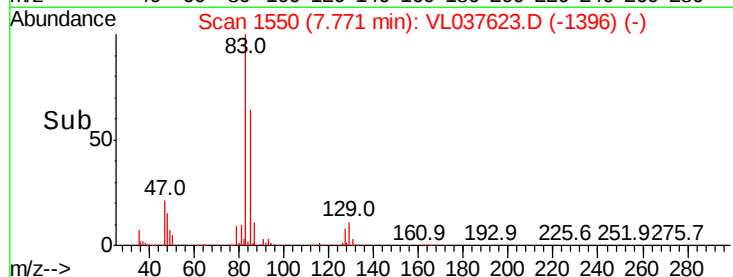


Abundance

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



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

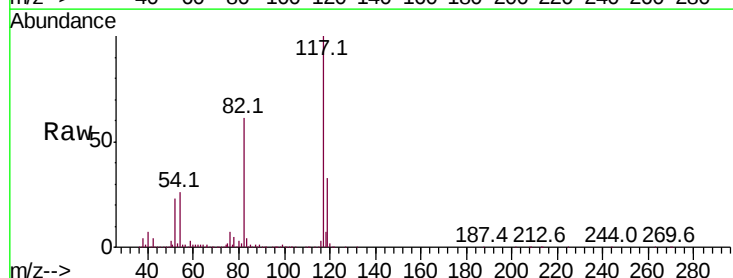
Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Tgt Ion: 117 Resp: 4751168

Ion	Ratio	Lower	Upper
117	100		
82	66.3	50.6	75.8
119	35.0	26.2	39.2

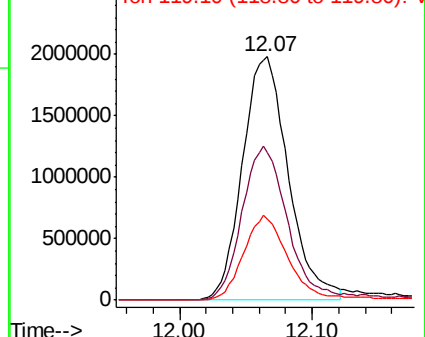
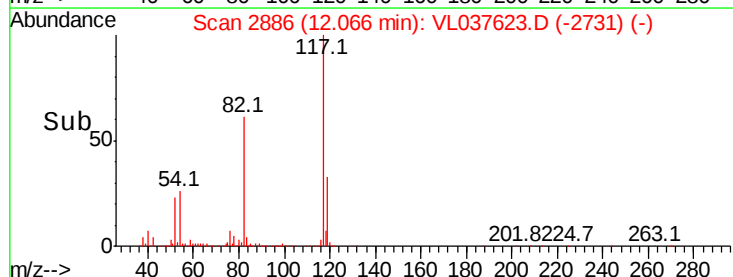


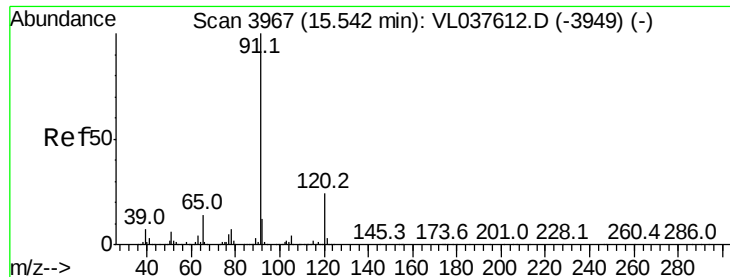
Abundance

Ion 117.10 (116.80 to 117.80): VL0

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): VL0





#64

n-propylbenzene

Concen: 18.359 ppbv

RT: 15.82 min Scan# 4053

Delta R.T. 0.28 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

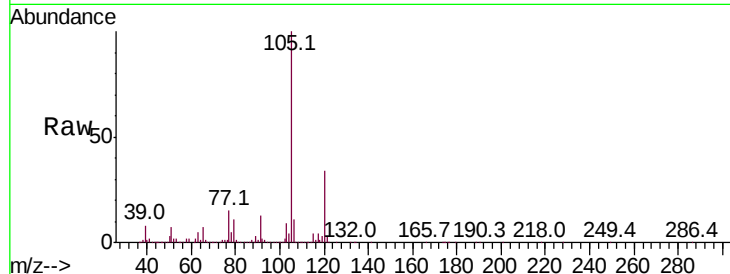
ClientSampleId :

Tot Ion:120 Resp: 3462289

Ion Ratio Lower Upper

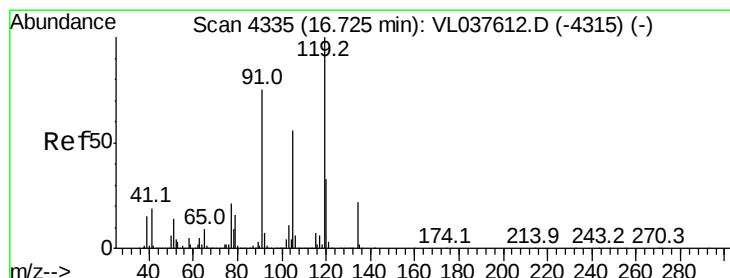
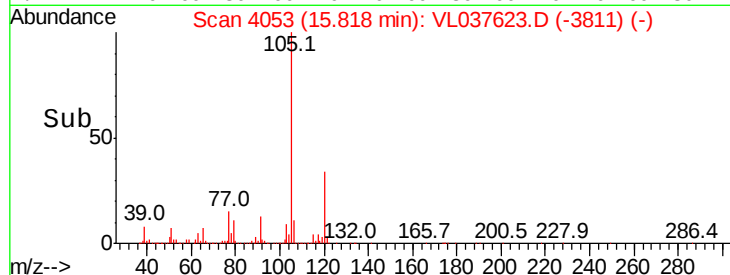
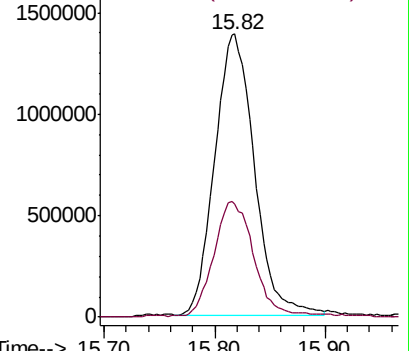
120 100

91 43.0 345.0 517.4#



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#65

tert-Butylbenzene

Concen: 0.910 ppbv

RT: 16.73 min Scan# 4338

Delta R.T. 0.01 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

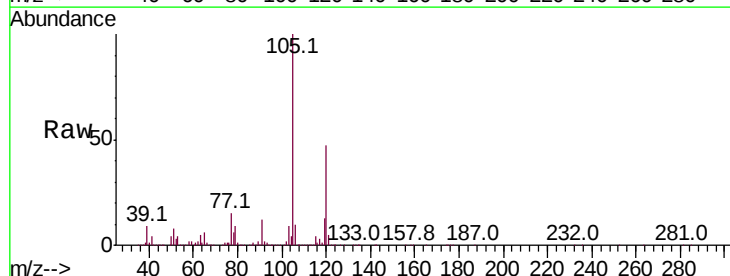
Tgt Ion:119 Resp: 599875

Ion Ratio Lower Upper

119 100

91 192.9 61.9 92.9#

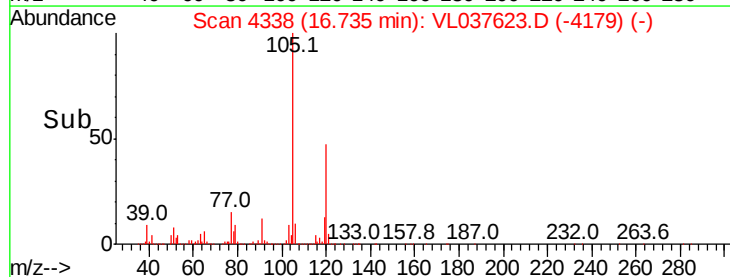
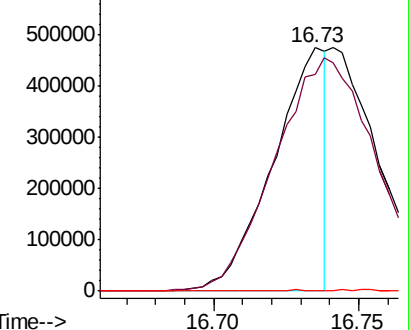
134 0.0 16.5 24.7#

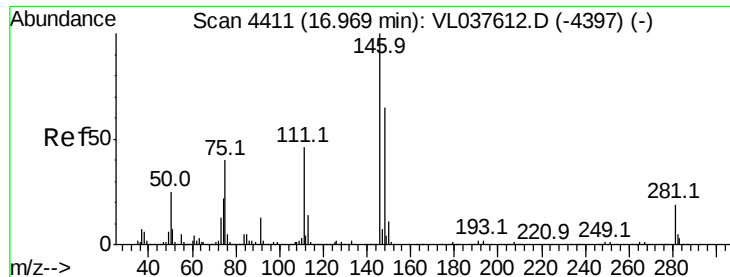


Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V

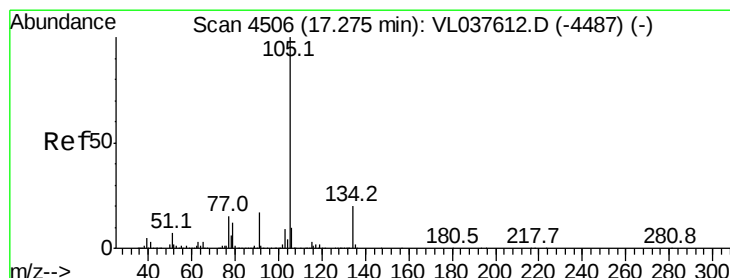
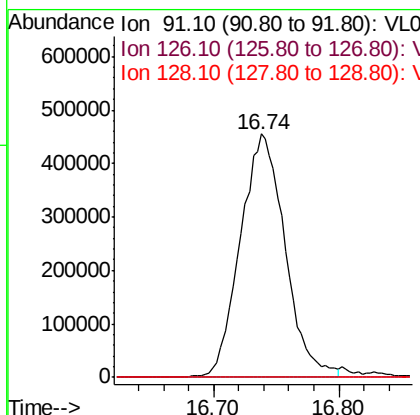
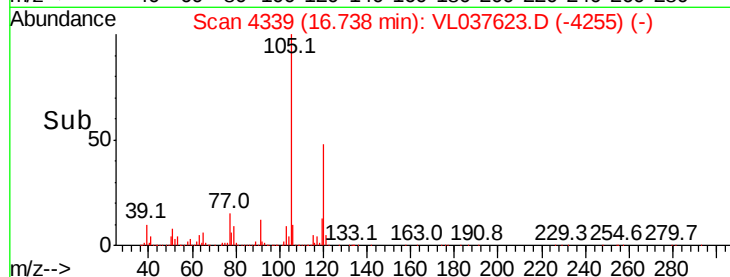
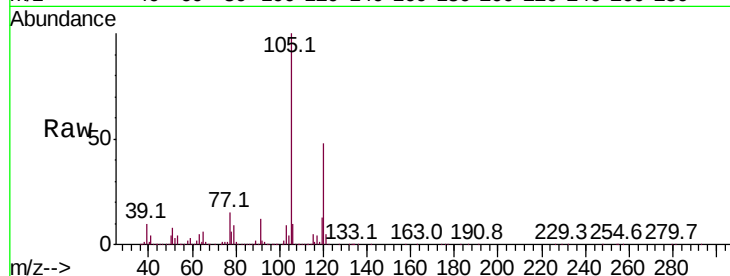




#66
Benzyl Chloride
Concen: 31.127 ppbv
RT: 16.74 min Scan# 4339
Delta R.T. -0.23 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

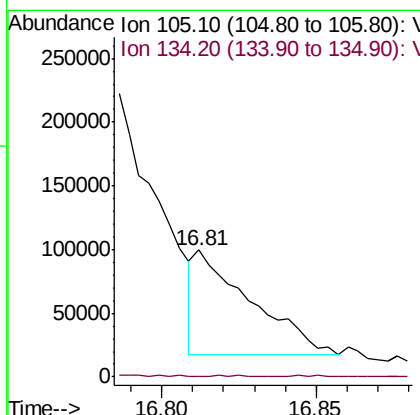
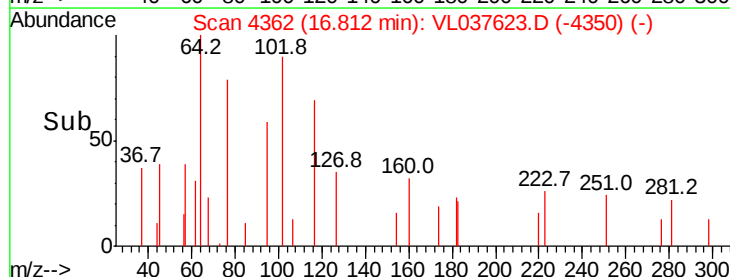
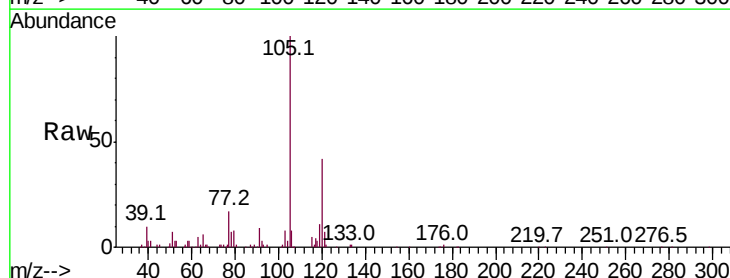
Instrument :
MSVOA_L
ClientSampled :

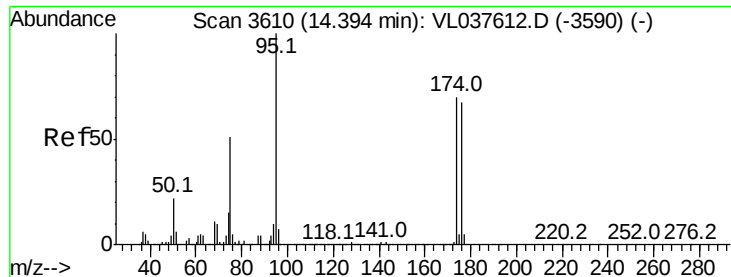
Tot Ion: 91 Resp: 1120783
Ion Ratio Lower Upper
91 100
126 0.0 14.4 21.6#
128 0.0 5.7 8.5#



#67
sec-Butylbenzene
Concen: 0.115 ppbv
RT: 16.81 min Scan# 4362
Delta R.T. -0.46 min
Lab File: VL037623.D
Acq: 16 Sep 2021 20:08

Tgt Ion: 105 Resp: 103042
Ion Ratio Lower Upper
105 100
134 46.0 15.7 23.5#

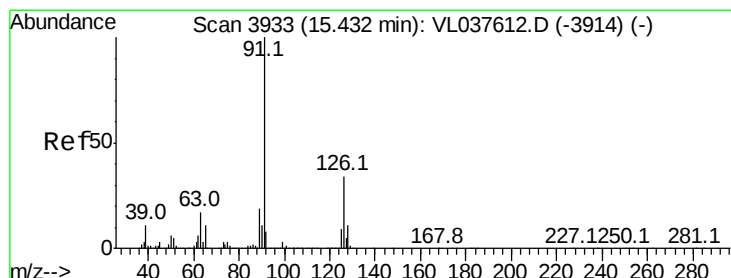
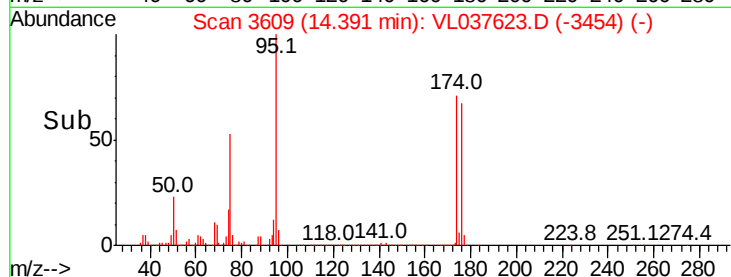
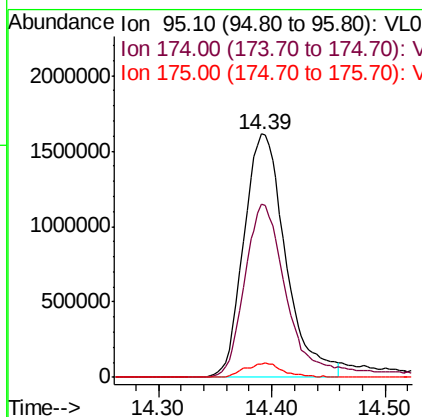
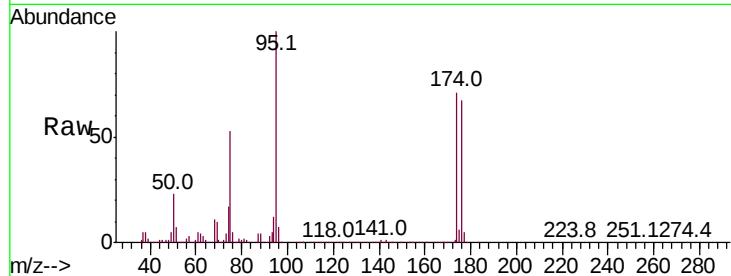




#68
 1-Bromo-4-Fluorobenzene
 Concen: 12.088 ppbv
 RT: 14.39 min Scan# 3609
 Delta R.T. -0.00 min
 Lab File: VL037623.D
 Acq: 16 Sep 2021 20:08

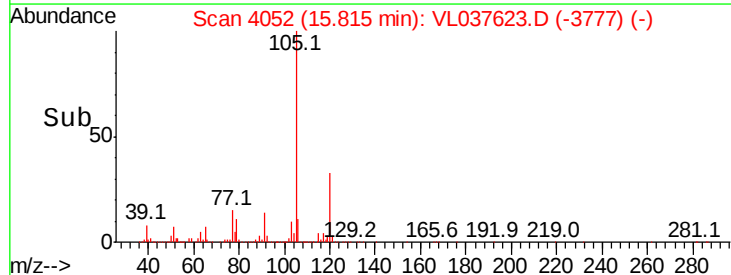
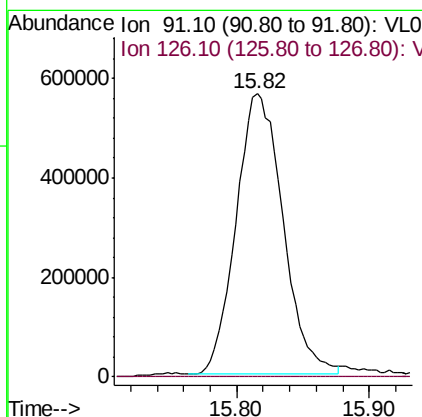
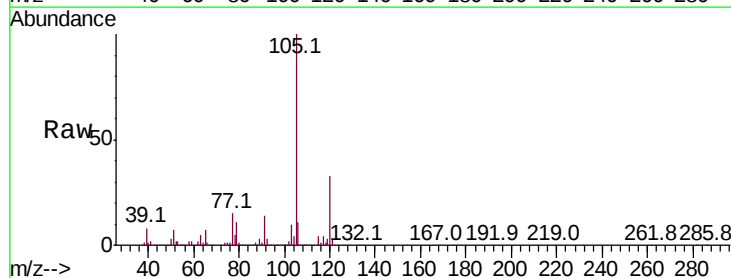
Instrument :
 MSVOA_L
 ClientSampleId :

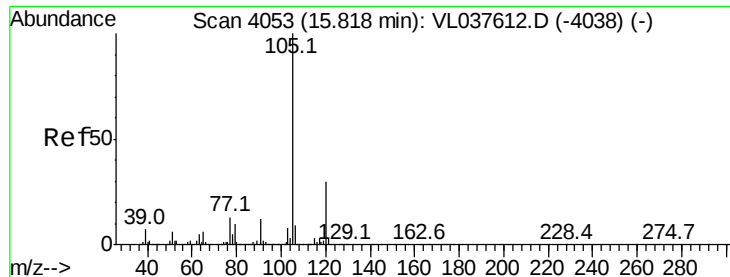
Tot Ion: 95 Resp: 4150591
 Ion Ratio Lower Upper
 95 100
 174 75.4 56.3 84.5
 175 5.7 4.4 6.6



#71
 2-Chlorotoluene
 Concen: 2.640 ppbv
 RT: 15.82 min Scan# 4052
 Delta R.T. 0.38 min
 Lab File: VL037623.D
 Acq: 16 Sep 2021 20:08

Tgt Ion: 91 Resp: 1382851
 Ion Ratio Lower Upper
 91 100
 126 0.0 13.2 52.8#





#72

4-Ethyltoluene

Concen: 18.138 ppbv

RT: 15.82 min Scan# 4052

Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp:10892051

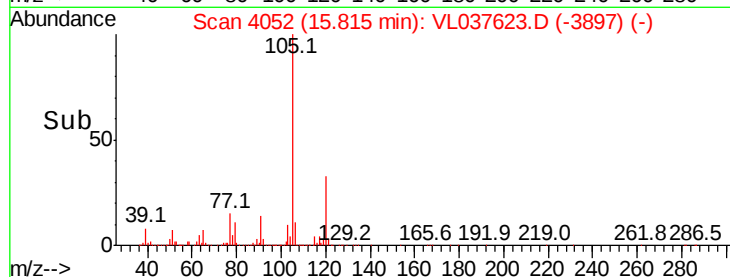
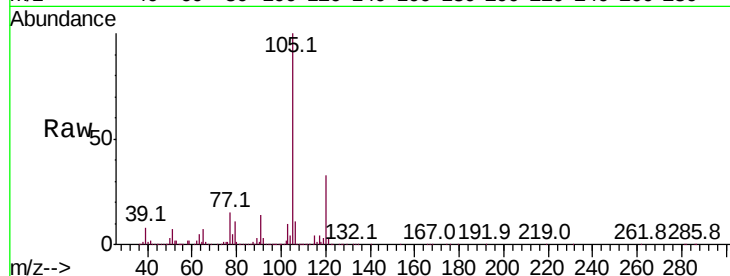
Ion Ratio Lower Upper

105 100

120 33.5 24.7 37.1

91 13.7 9.9 14.9

77 14.5 10.5 15.7

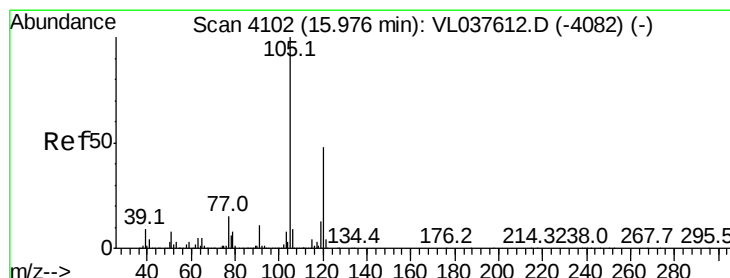
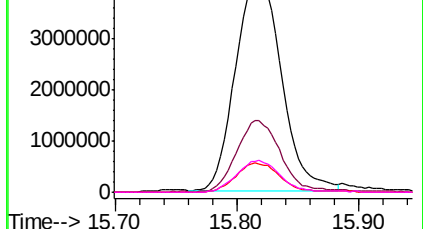


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#73

1,3,5-Trimethylbenzene

Concen: 0.242 ppbv

RT: 15.89 min Scan# 4074

Delta R.T. -0.09 min

Lab File: VL037623.D

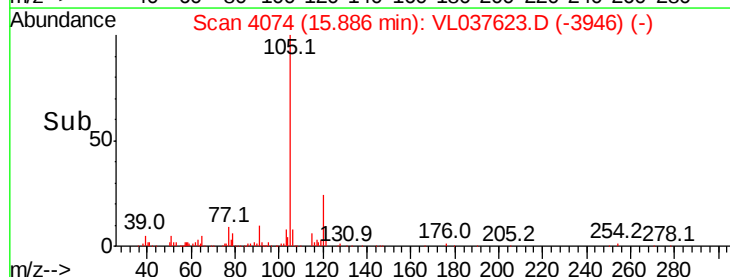
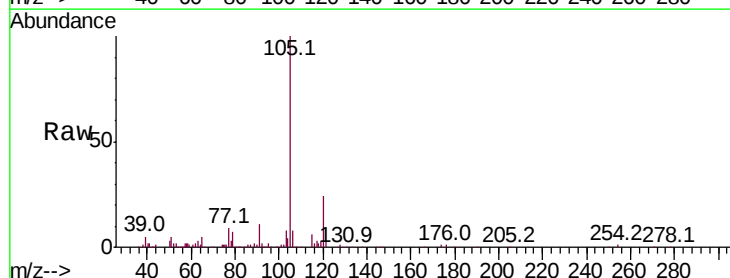
Acq: 16 Sep 2021 20:08

Tgt Ion:105 Resp: 135385

Ion Ratio Lower Upper

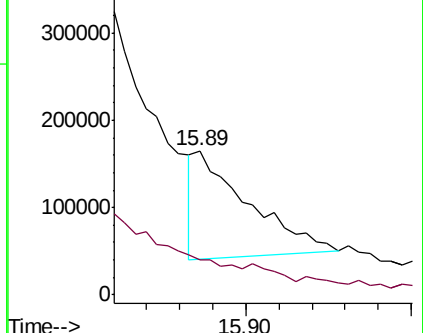
105 100

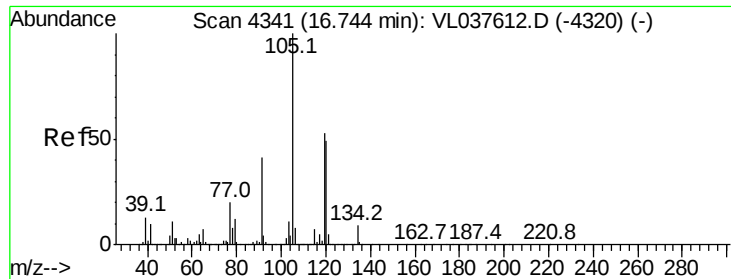
120 22.6 38.3 57.5#



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: 16.292 ppbv

RT: 16.74 min Scan# 4340

Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp: 9605246

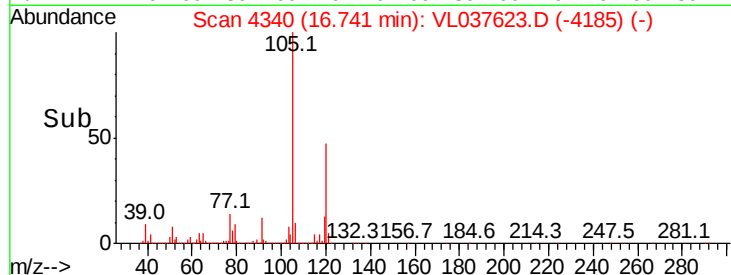
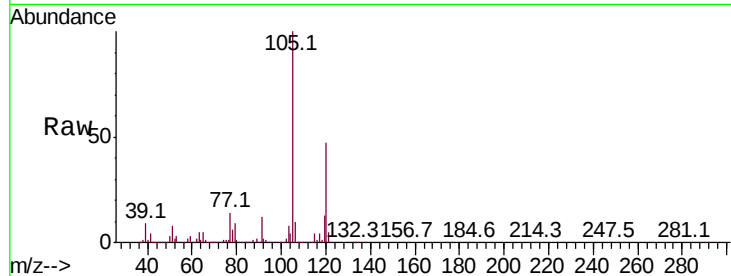
Ion Ratio Lower Upper

105 100

120 47.3 39.4 59.0

91 12.2 33.3 49.9#

77 14.0 15.7 23.5#

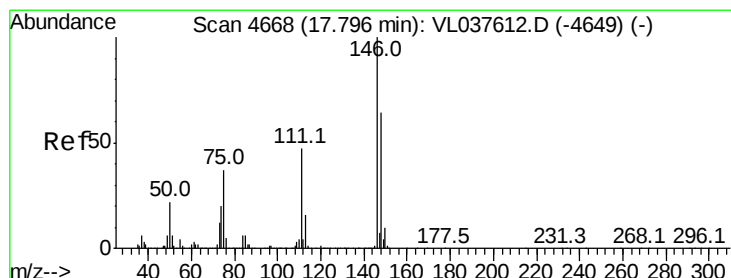
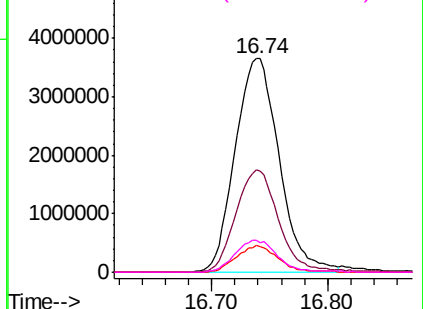


Abundance Ion 105.10 (104.80 to 105.80): V

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



#77

1,2-Dichlorobenzene

Concen: 14.345 ppbv

RT: 17.79 min Scan# 4667

Delta R.T. -0.00 min

Lab File: VL037623.D

Acq: 16 Sep 2021 20:08

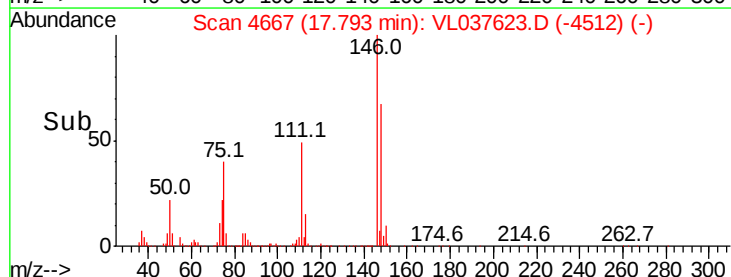
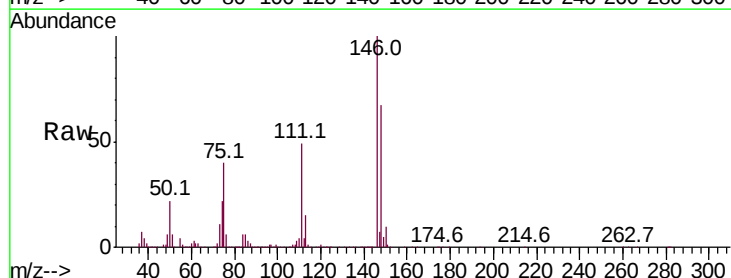
Tgt Ion:146 Resp: 4983709

Ion Ratio Lower Upper

146 100

111 47.7 24.0 72.0

148 65.0 32.8 98.3



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

