

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081221\
 Data File : VL037423.D
 Acq On : 12 Aug 2021 21:25
 Operator : SY/AP
 Sample : M3239-03DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 13 03:06:46 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081221AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 13 01:37:35 2021
 QLast Update : Fri Aug 13 01:37:35 2021
 Response via : Initial Calibration

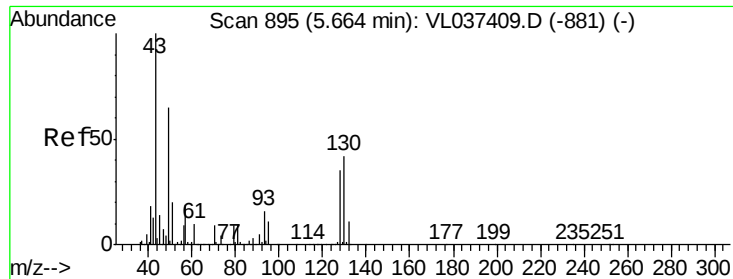
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1250261	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3695449	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3036851	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2062236	9.47	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.70%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	36122	0.189 ppbv #	85
3) Chlorodifluoromethane	2.99	51	131499	0.536 ppbv #	91
4) Chloromethane	3.14	50	19917	0.226 ppbv	92
9) Propene	3.02	41	57655	0.699 ppbv	95
11) Trichlorofluoromethane	3.95	101	36825	0.178 ppbv	97
13) Ethanol	3.61	45	351044	39.898 ppbv	92
15) Acetone	3.85	43	655074	4.941 ppbv	97
16) 1,3-Butadiene	3.32	39	3135	0.035 ppbv #	11
19) Isopropyl Alcohol	3.99	45	136490	1.769 ppbv #	92
20) Methylene Chloride	4.34	84	1529696	21.818 ppbv	94
23) Vinyl Acetate	5.07	43	14008	0.069 ppbv #	52
25) Ethyl Acetate	5.69	43	675872	2.139 ppbv #	79
26) Hexane	5.69	57	985655	6.044 ppbv #	46
27) Carbon Disulfide	4.55	76	50492	0.367 ppbv #	78
29) Chloroform	5.75	83	7863	0.034 ppbv	95
34) 2-Butanone	5.26	43	33226	0.218 ppbv #	66
36) Benzene	6.89	78	85187	0.273 ppbv	95
39) 1,2-Dichloropropane	7.17	63	861665	7.259 ppbv #	26
41) Tetrahydrofuran	5.68	42	347639	4.962 ppbv #	47
44) 2,2,4-Trimethylpentane	7.86	57	54978	0.106 ppbv #	18
53) Toluene	9.80	91	430954	1.211 ppbv	97
58) Ethyl Benzene	13.00	91	12927	0.031 ppbv	98
59) m/p-Xylene	12.98	91	19084	0.053 ppbv #	31
60) o-Xylene	13.68	91	11061	0.033 ppbv #	1

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.00 min

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MSVOA_L
ClientSampleId :

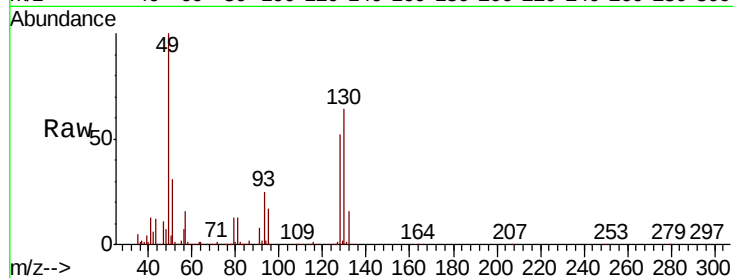
Tot Ion: 49 Resp: 1250261

Ion Ratio Lower Upper

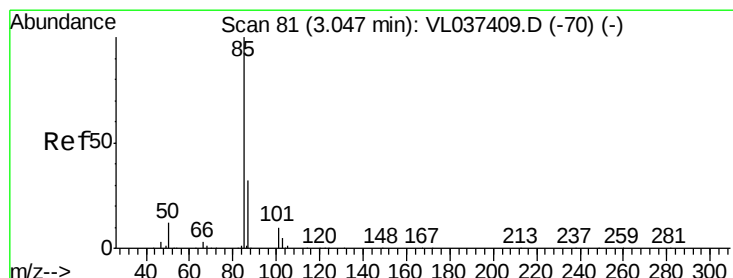
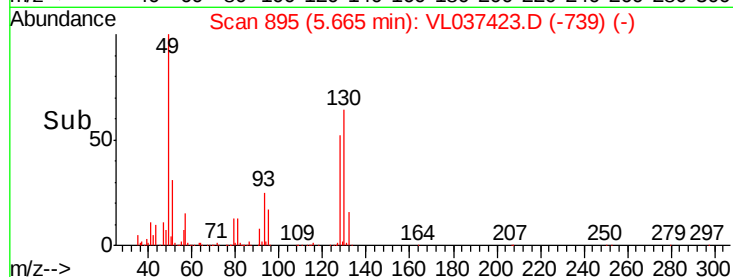
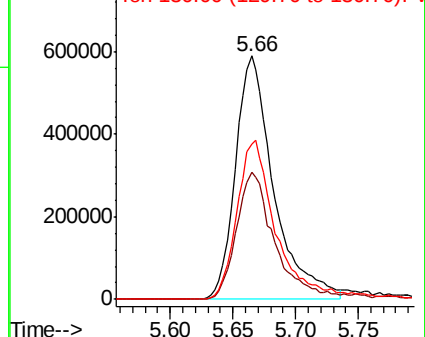
49 100

128 54.8 27.9 83.6

130 68.7 34.6 103.8



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.189 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL037423.D

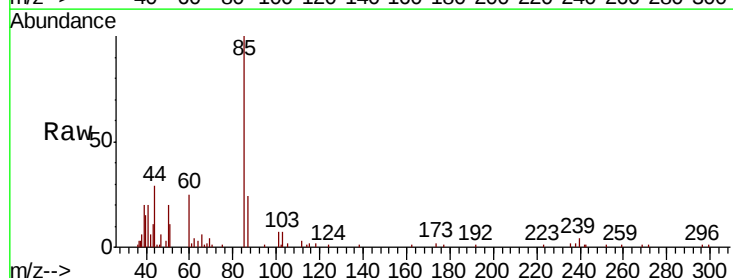
Acq: 12 Aug 2021 21:25

Tgt Ion: 85 Resp: 36122

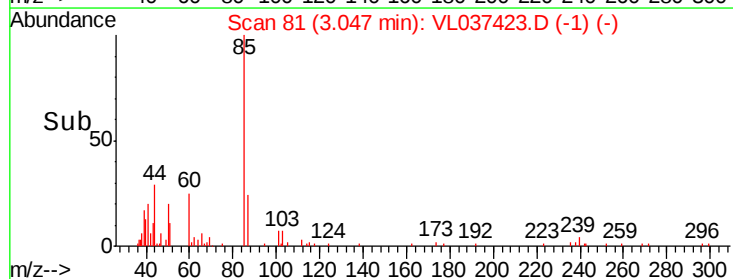
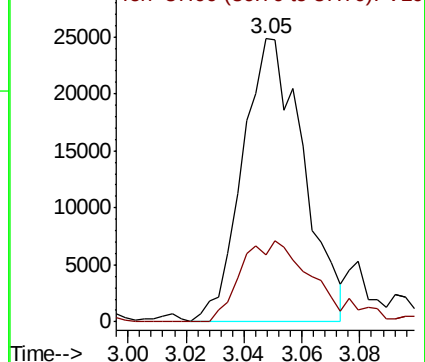
Ion Ratio Lower Upper

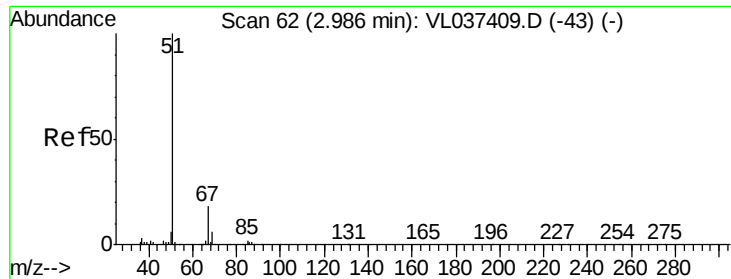
85 100

87 23.8 25.7 38.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.536 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.01 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

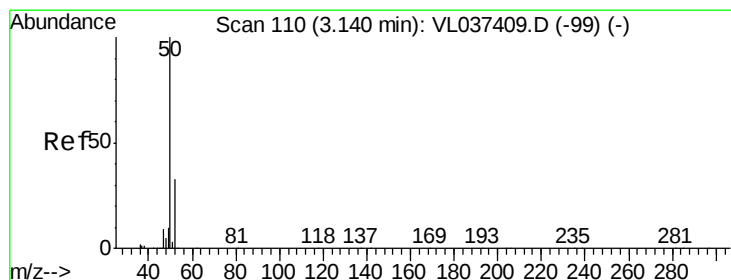
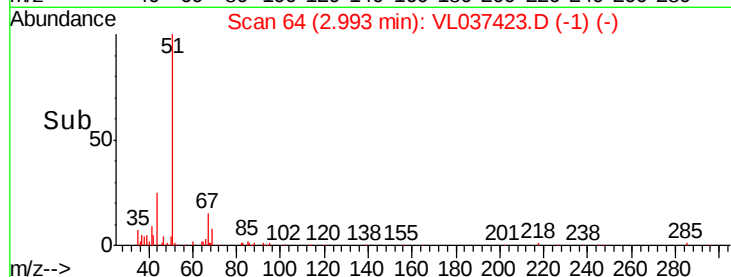
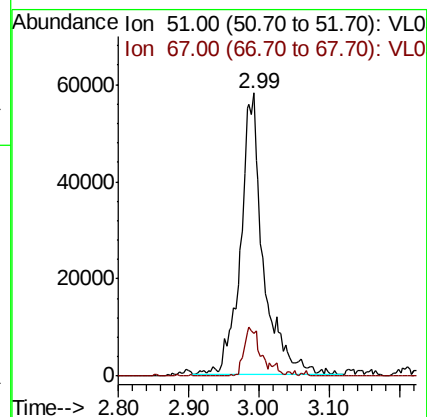
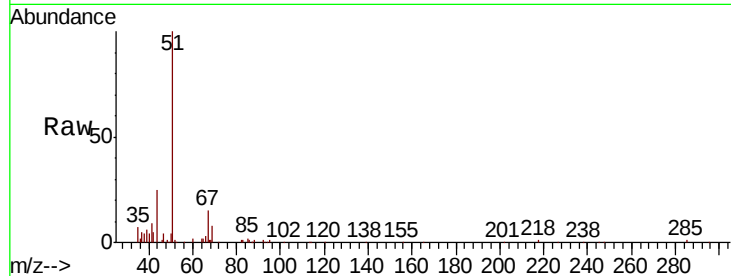
ClientSampleId :

Tot Ion: 51 Resp: 131499

Ion Ratio Lower Upper

51 100

67 14.5 14.7 22.1#



#4

Chloromethane

Concen: 0.226 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL037423.D

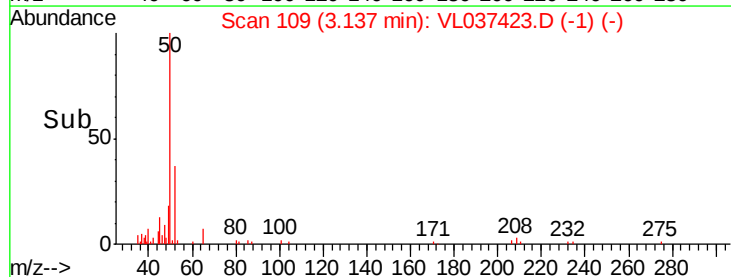
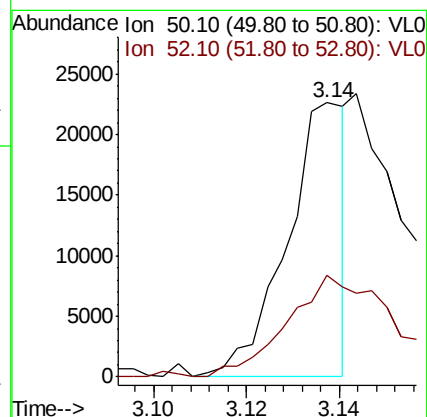
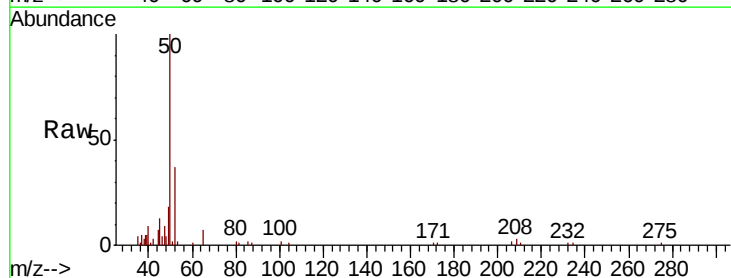
Acq: 12 Aug 2021 21:25

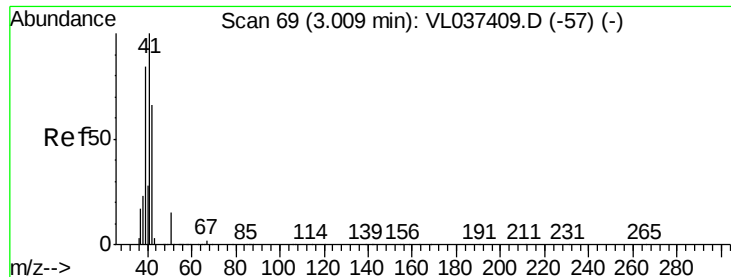
Tgt Ion: 50 Resp: 19917

Ion Ratio Lower Upper

50 100

52 37.1 26.2 39.4





#9

Propene

Concen: 0.699 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

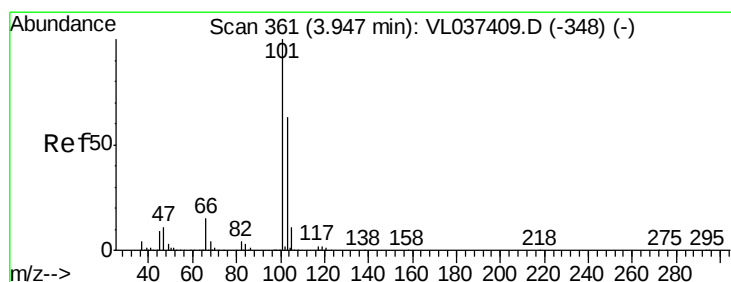
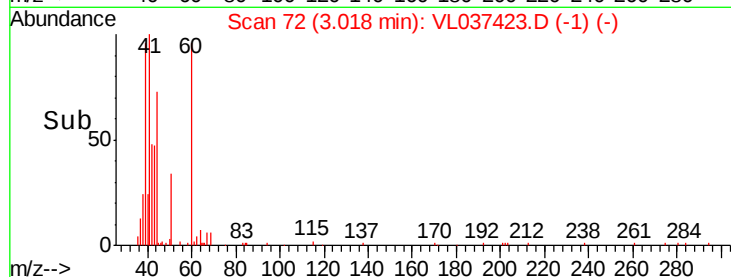
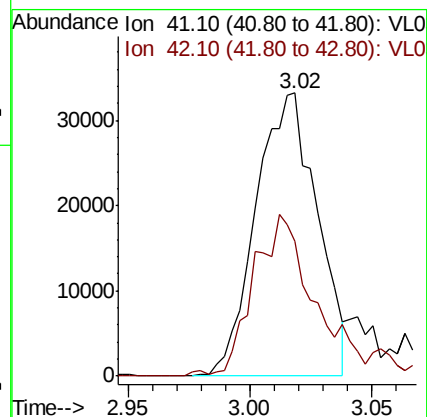
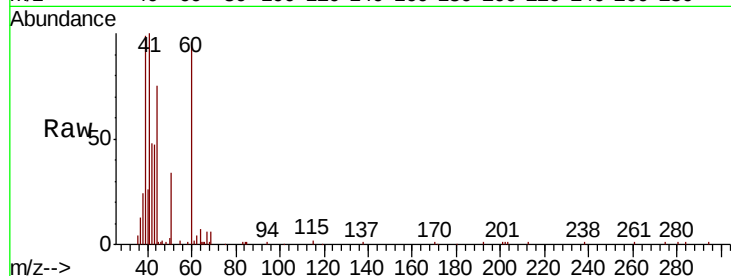
ClientSampleId :

Tot Ion: 41 Resp: 57655

Ion Ratio Lower Upper

41 100

42 63.6 53.8 80.8



#11

Trichlorofluoromethane

Concen: 0.178 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.00 min

Lab File: VL037423.D

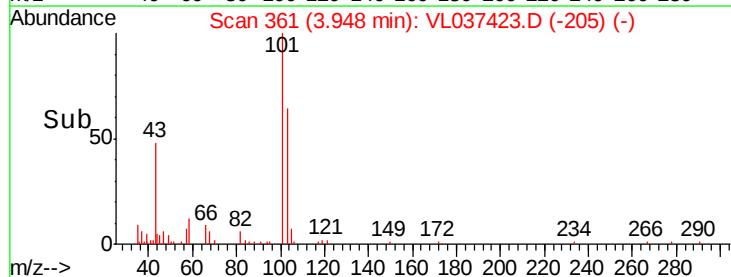
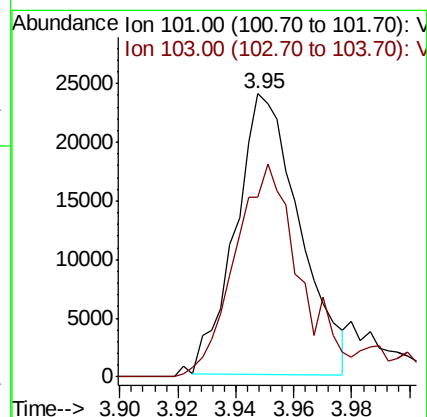
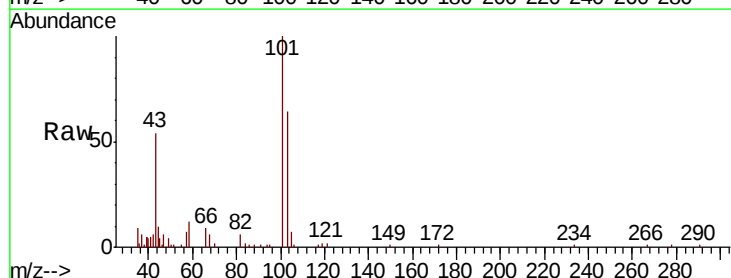
Acq: 12 Aug 2021 21:25

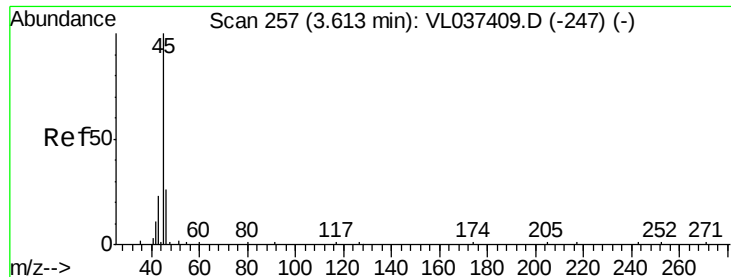
Tgt Ion: 101 Resp: 36825

Ion Ratio Lower Upper

101 100

103 60.6 50.2 75.4

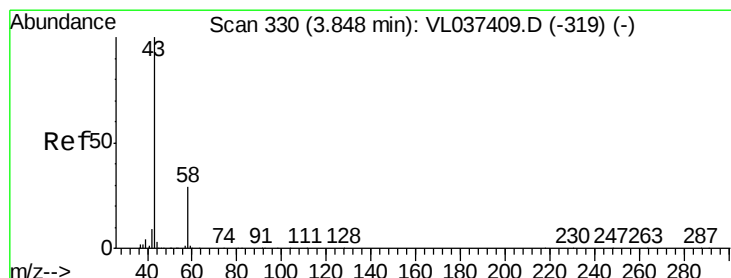
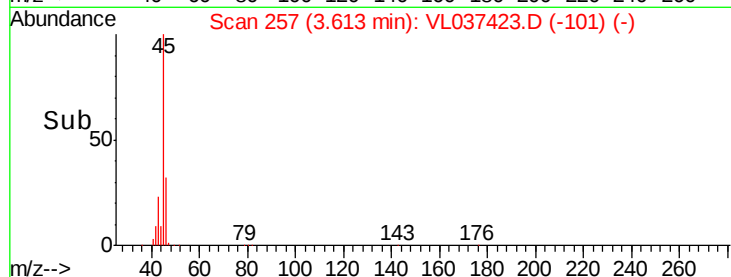
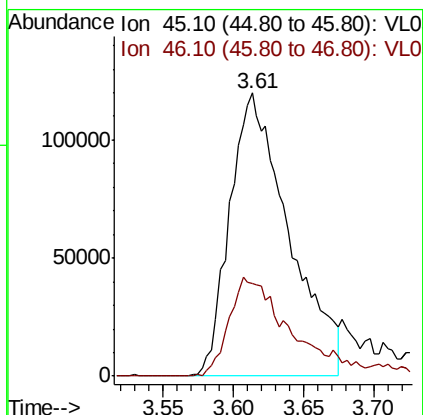
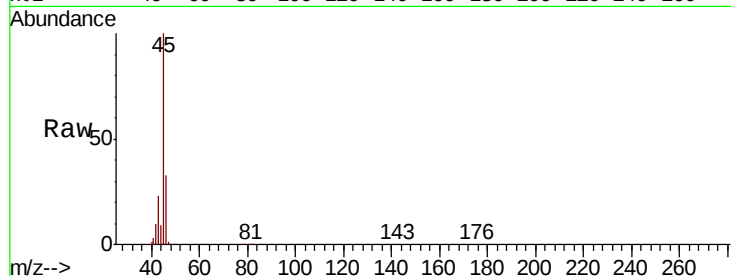




#13
Ethanol
Concen: 39.898 ppbv
RT: 3.61 min Scan# 257
Delta R.T. 0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

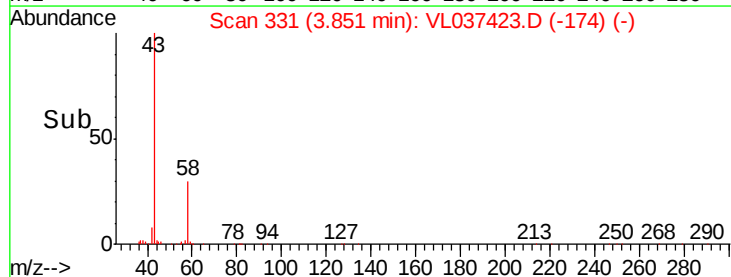
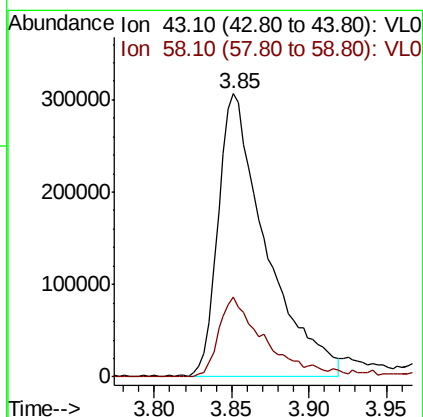
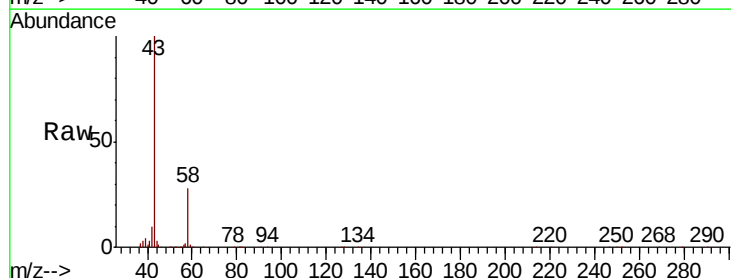
Instrument :
MSVOA_L
ClientSampleId :

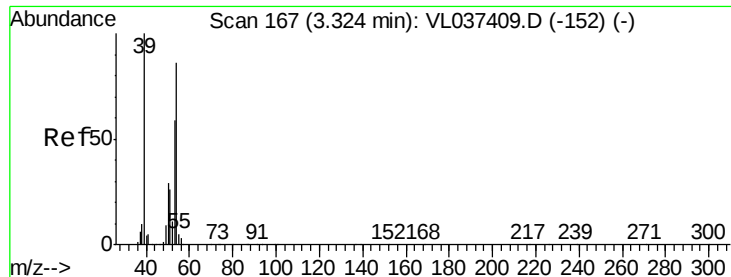
Tot Ion: 45 Resp: 351044
Ion Ratio Lower Upper
45 100
46 39.7 18.0 72.2



#15
Acetone
Concen: 4.941 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Tgt Ion: 43 Resp: 655074
Ion Ratio Lower Upper
43 100
58 29.1 24.4 36.6





#16

1,3-Butadiene

Concen: 0.035 ppbv

RT: 3.32 min Scan# 166

Delta R.T. -0.00 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

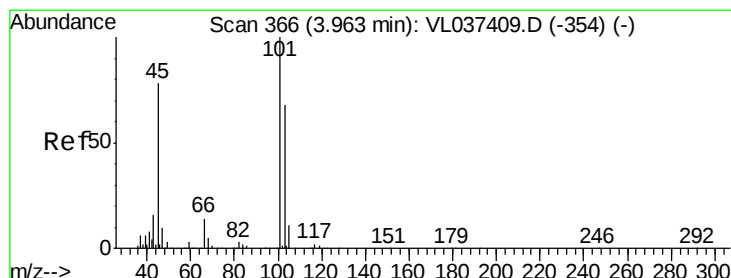
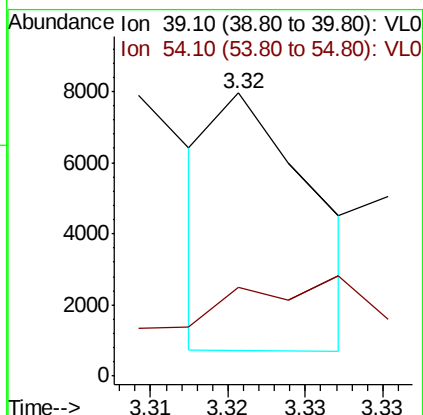
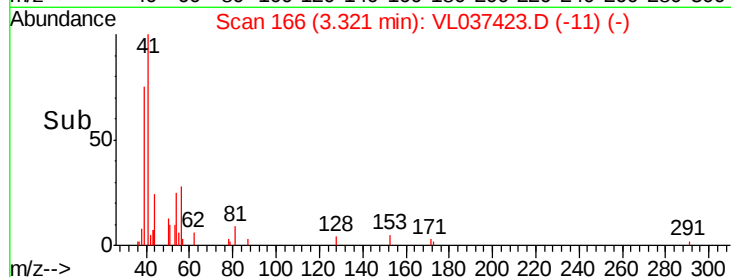
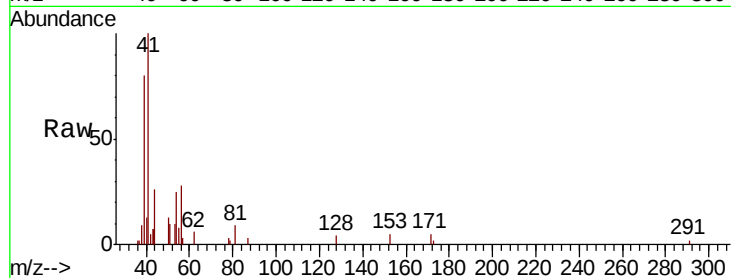
ClientSampleId :

Tot Ion: 39 Resp: 3135

Ion Ratio Lower Upper

39 100

54 0.0 61.4 92.0#



#19

Isopropyl Alcohol

Concen: 1.769 ppbv

RT: 3.99 min Scan# 373

Delta R.T. 0.02 min

Lab File: VL037423.D

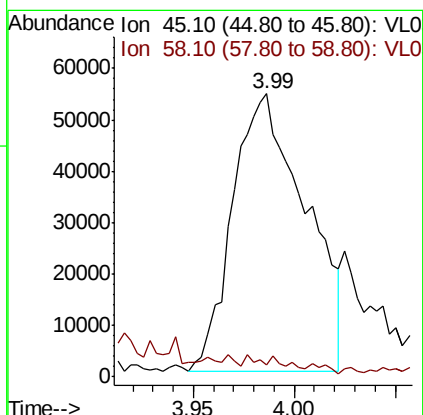
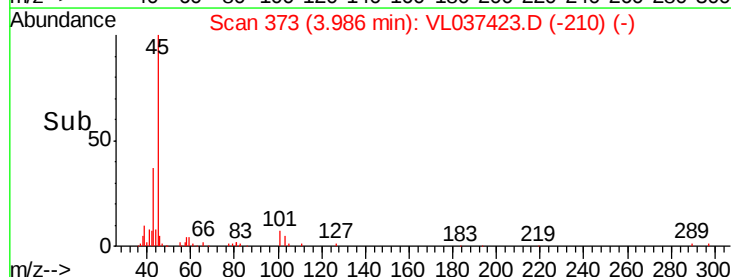
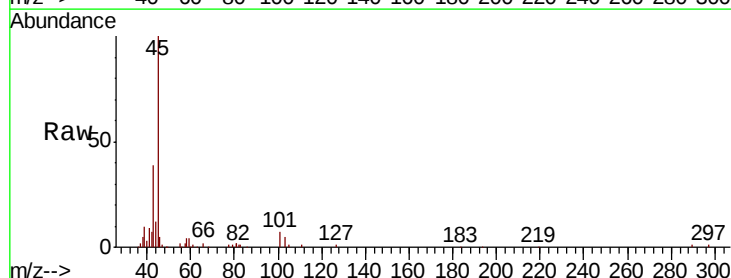
Acq: 12 Aug 2021 21:25

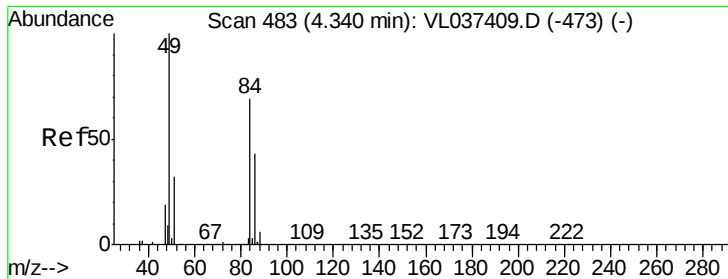
Tgt Ion: 45 Resp: 136490

Ion Ratio Lower Upper

45 100

58 0.0 2.2 3.4#

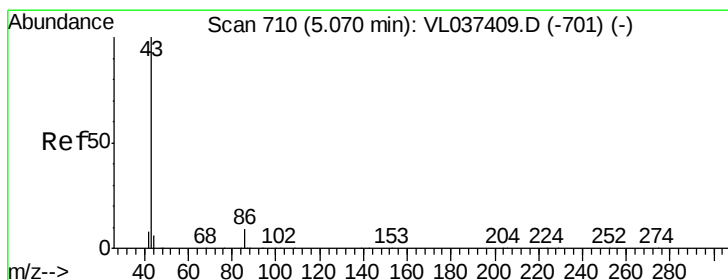
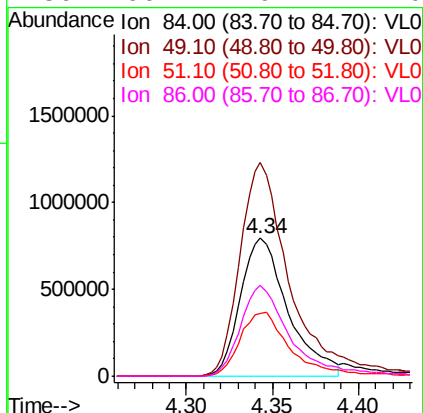
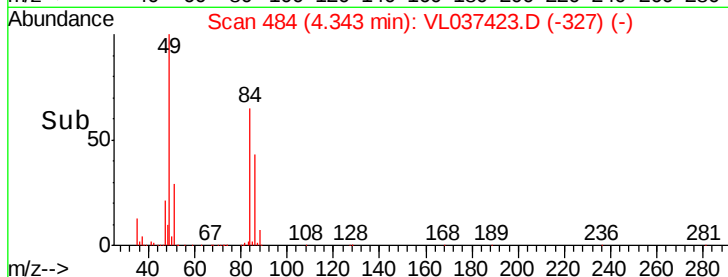
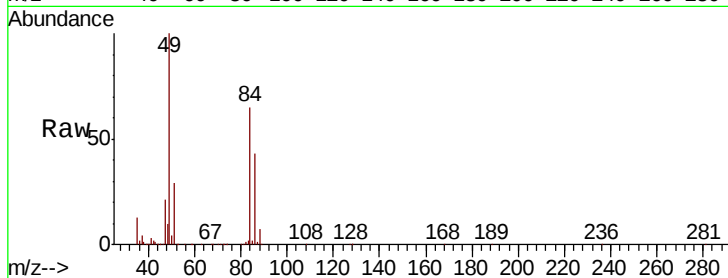




#20
Methvlene Chloride
Concen: 21.818 ppbv
RT: 4.34 min Scan# 484
Delta R.T. 0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

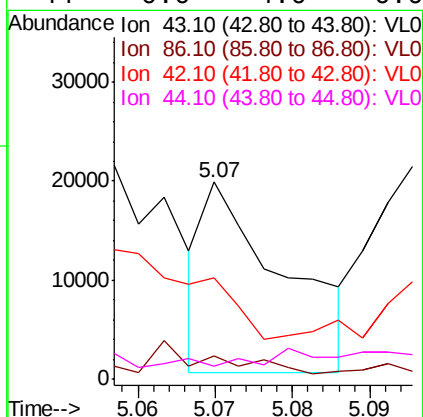
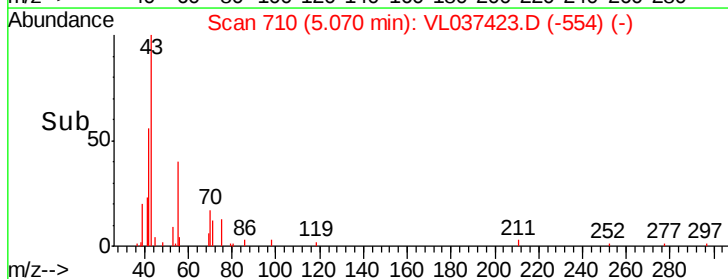
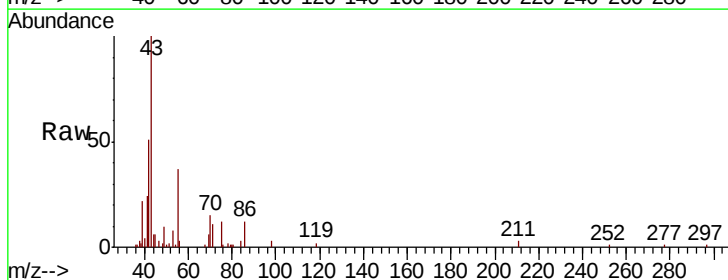
Instrument :
MSVOA_L
ClientSampleId :

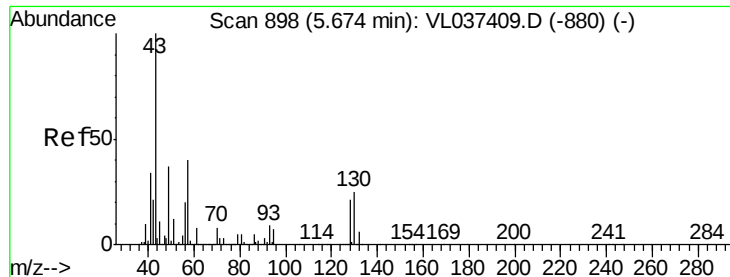
Tot Ion: 84 Resp: 1529696
Ion Ratio Lower Upper
84 100
49 154.6 116.0 174.0
51 45.4 37.1 55.7
86 66.1 49.4 74.0



#23
Vinyl Acetate
Concen: 0.069 ppbv
RT: 5.07 min Scan# 710
Delta R.T. 0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Tgt Ion: 43 Resp: 14008
Ion Ratio Lower Upper
43 100
86 14.9 5.8 8.8#
42 40.7 7.7 11.5#
44 0.0 4.0 6.0#

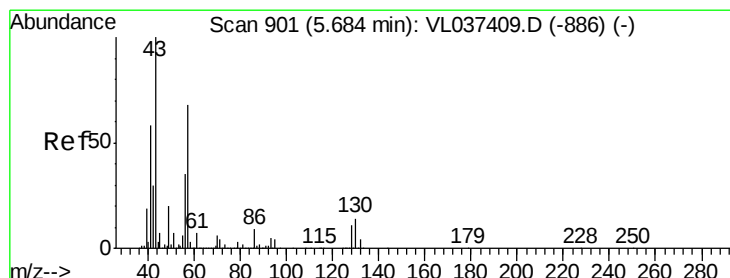
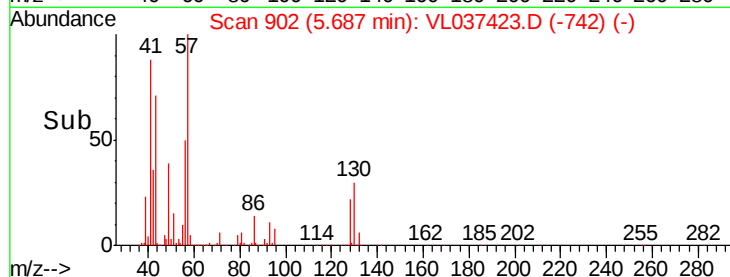
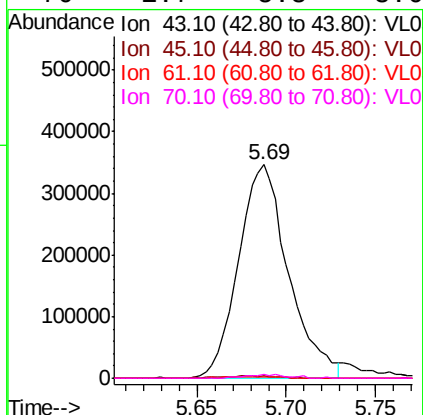
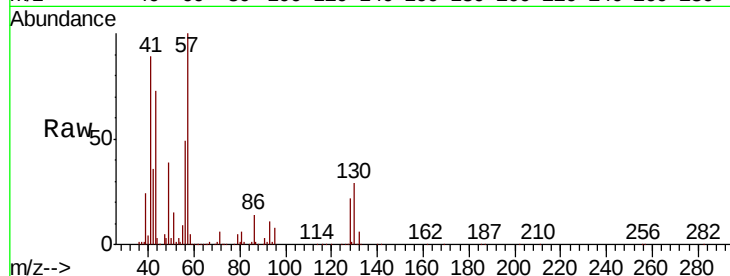




#25
Ethyl Acetate
Concen: 2.139 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.01 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

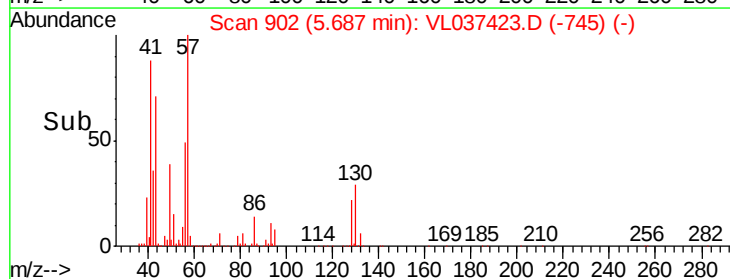
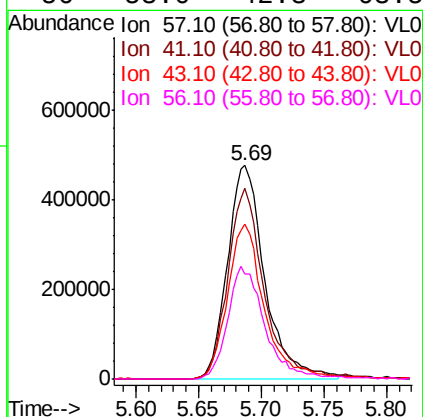
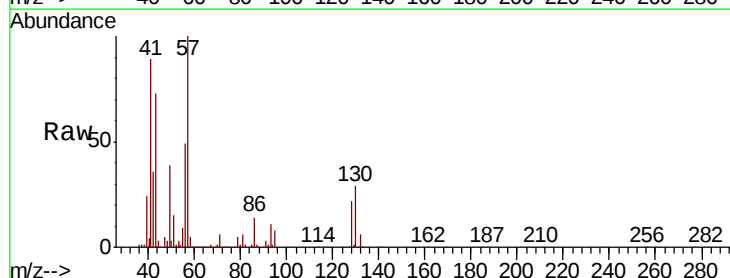
Instrument :
MSVOA_L
ClientSampleId :

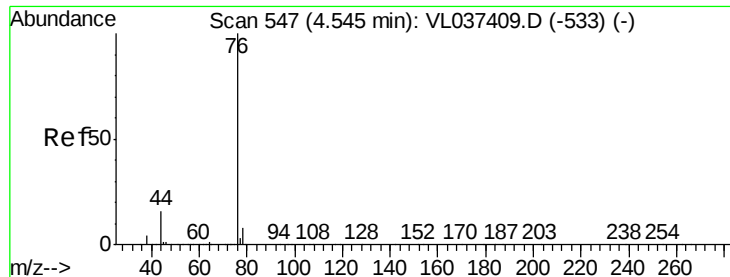
Tot Ion:	43	Resp:	675872
Ion	Ratio	Lower	Upper
43	100		
45	1.7	7.9	11.9#
61	0.9	7.7	11.5#
70	1.7	5.8	8.6#



#26
Hexane
Concen: 6.044 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Tgt Ion:	57	Resp:	985655
Ion	Ratio	Lower	Upper
57	100		
41	88.9	72.5	108.7
43	71.8	169.3	253.9#
56	53.0	42.3	63.5





#27

Carbon Disulfide

Concen: 0.367 ppbv

RT: 4.55 min Scan# 549

Delta R.T. 0.01 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

ClientSampleId :

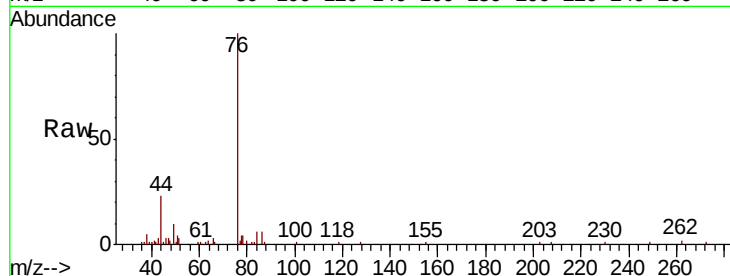
Tot Ion: 76 Resp: 50492

Ion Ratio Lower Upper

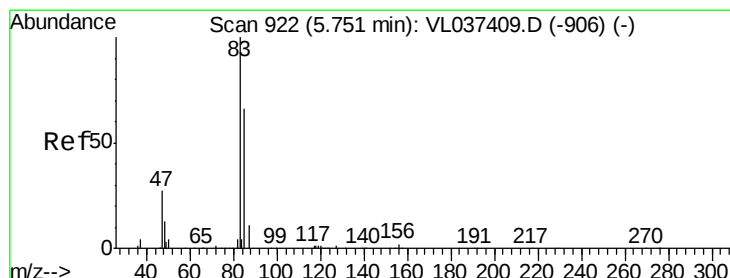
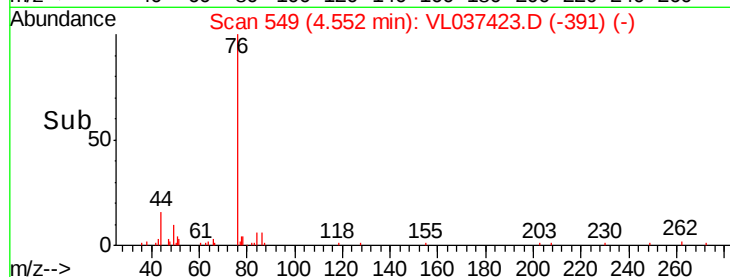
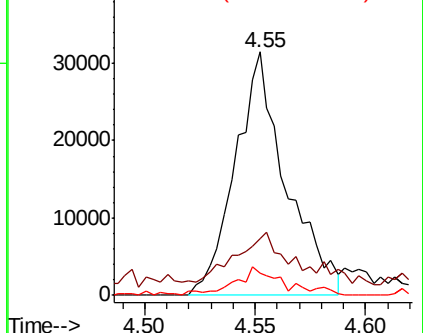
76 100

44 31.9 14.4 21.6#

78 11.6 8.0 12.0



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.034 ppbv

RT: 5.75 min Scan# 920

Delta R.T. -0.01 min

Lab File: VL037423.D

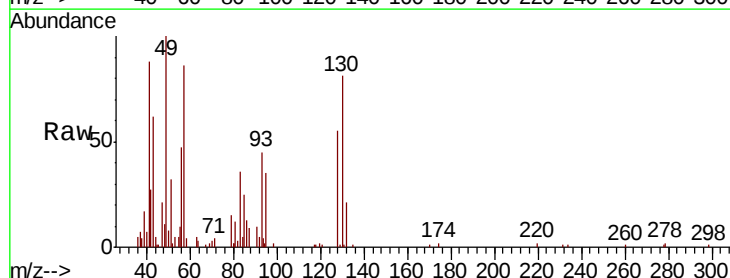
Acq: 12 Aug 2021 21:25

Tgt Ion: 83 Resp: 7863

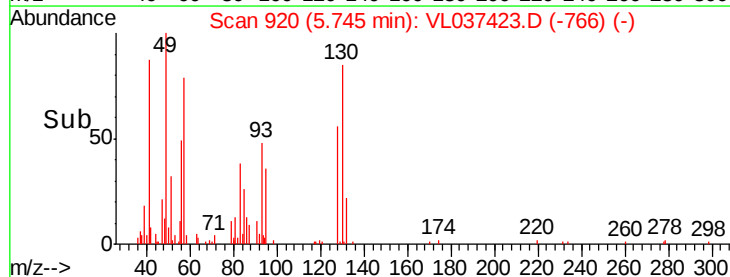
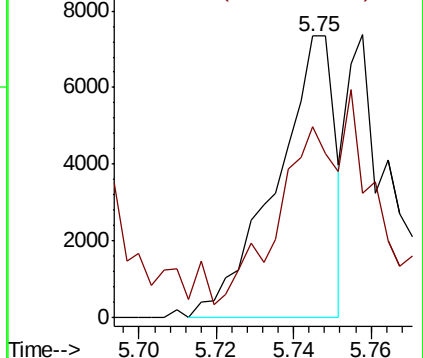
Ion Ratio Lower Upper

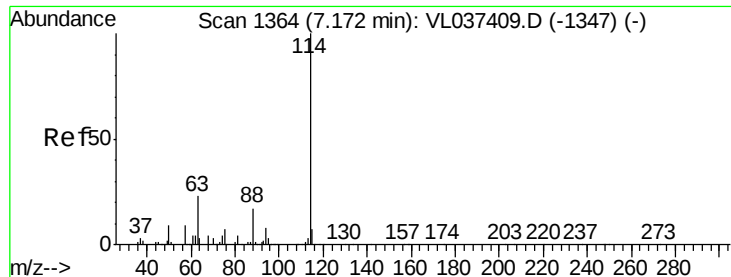
83 100

85 61.5 52.4 78.6



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

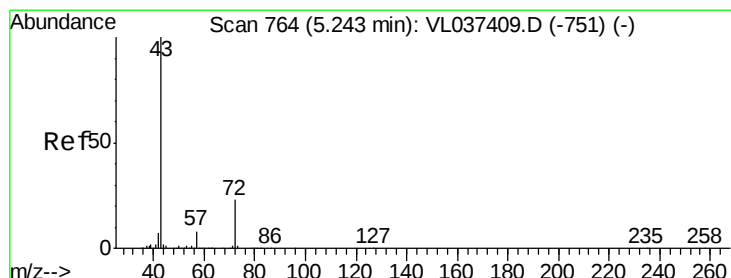
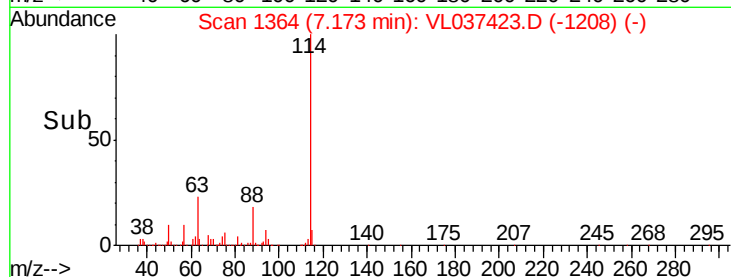
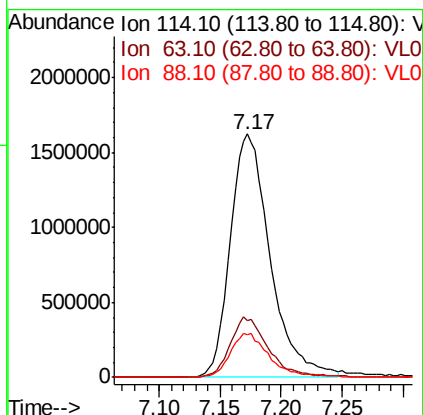
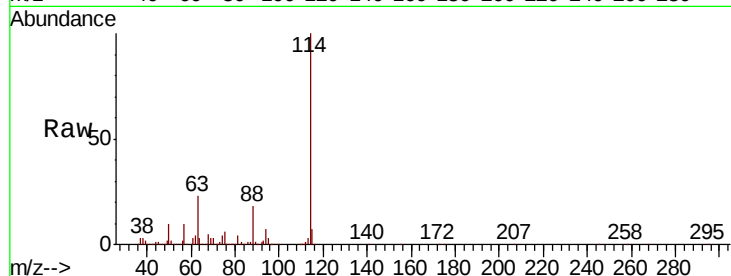




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. 0.00 min
 Lab File: VL037423.D
 Acq: 12 Aug 2021 21:25

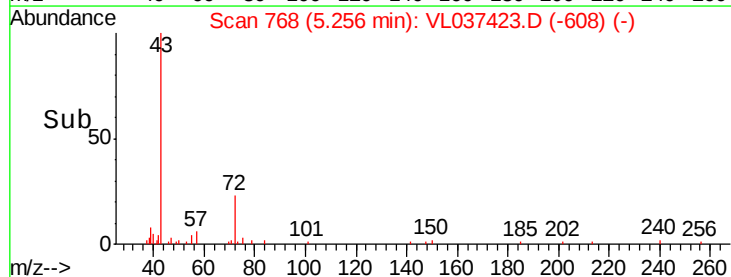
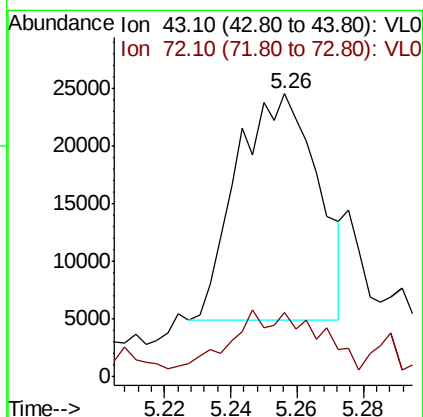
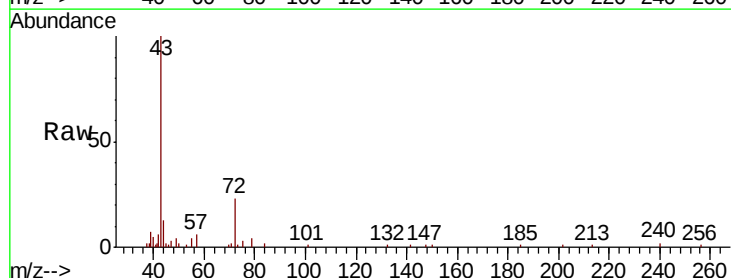
Instrument :
 MSVOA_L
 ClientSampleId :

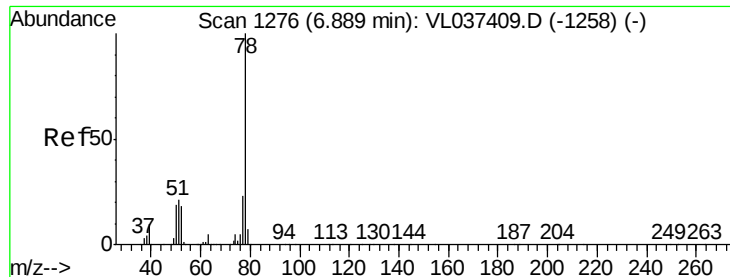
Tot Ion:114 Resp: 3695449
 Ion Ratio Lower Upper
 114 100
 63 24.2 19.4 29.2
 88 18.1 14.2 21.4



#34
 2-Butanone
 Concen: 0.218 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. 0.01 min
 Lab File: VL037423.D
 Acq: 12 Aug 2021 21:25

Tgt Ion: 43 Resp: 33226
 Ion Ratio Lower Upper
 43 100
 72 38.1 17.7 26.5#





#36

Benzene

Concen: 0.273 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. 0.00 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

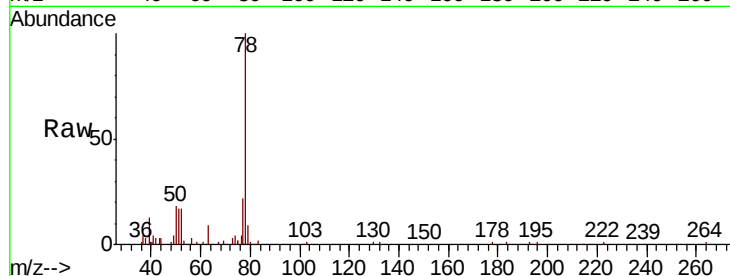
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 78 Resp: 85187

Ion	Ratio	Lower	Upper
78	100		
77	20.2	18.6	27.8
50	16.9	14.9	22.3

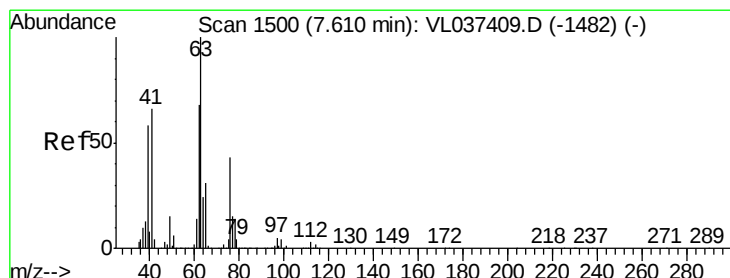
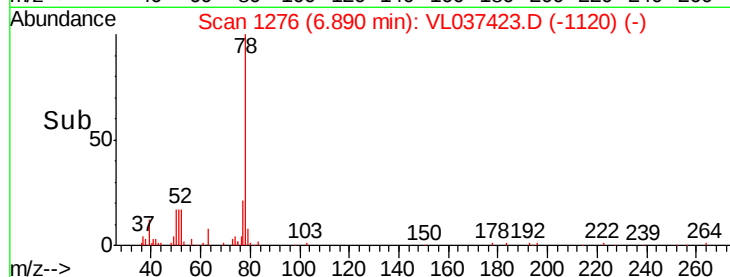
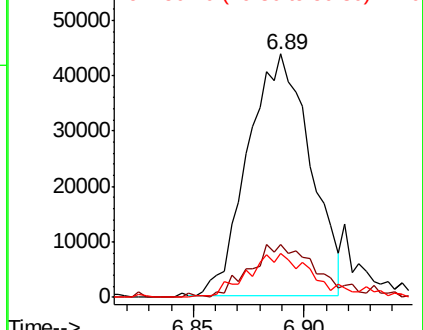


Abundance

Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.259 ppbv

RT: 7.17 min Scan# 1363

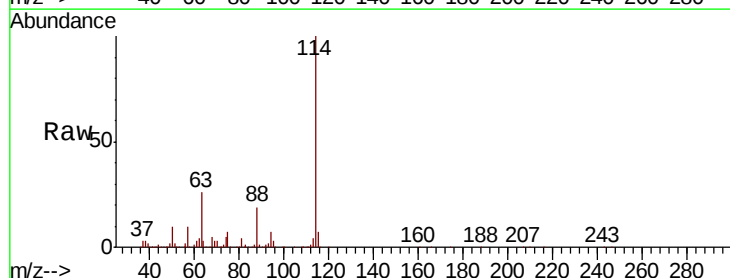
Delta R.T. -0.44 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Tgt Ion: 63 Resp: 861665

Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.0	79.6#
62	15.7	54.5	81.7#

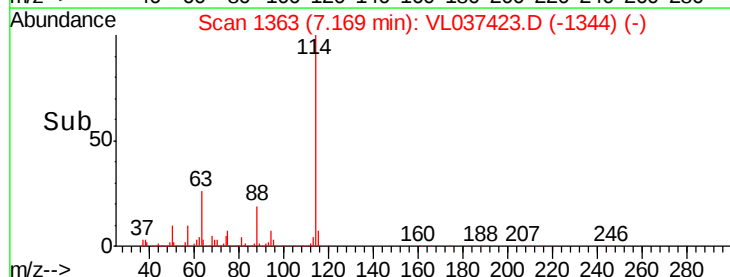
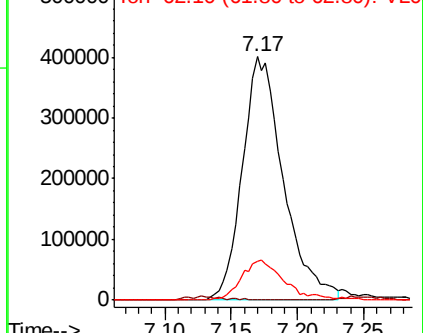


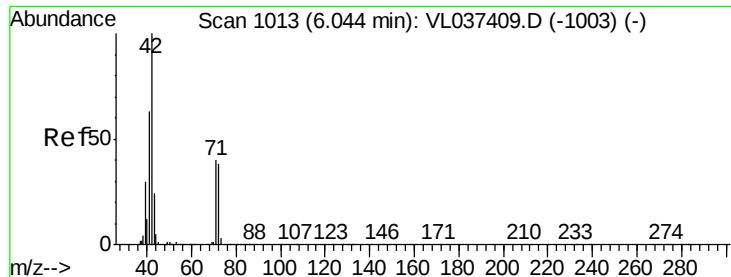
Abundance

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

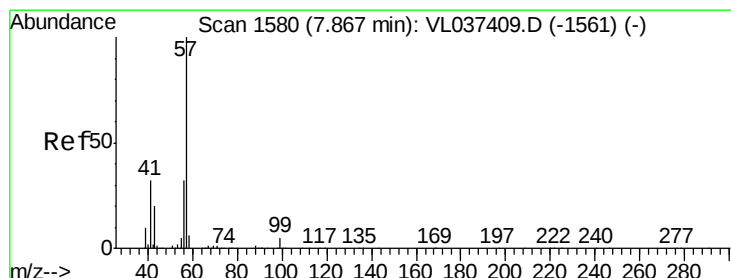
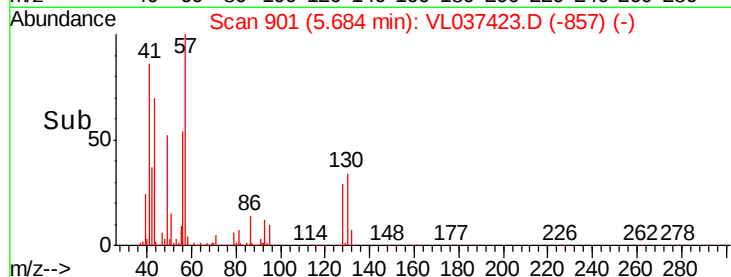
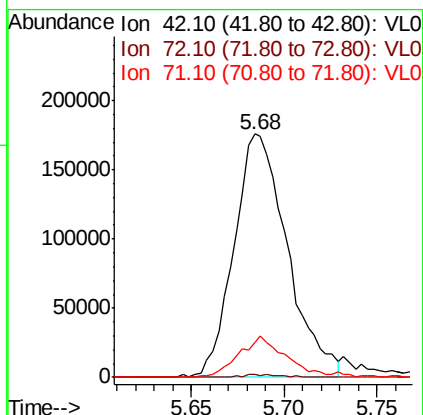
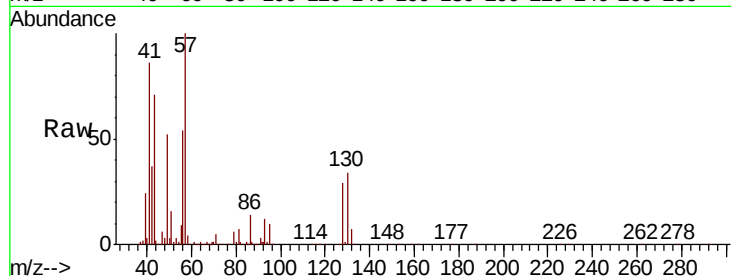




#41
Tetrahydrofuran
Concen: 4.962 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.36 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

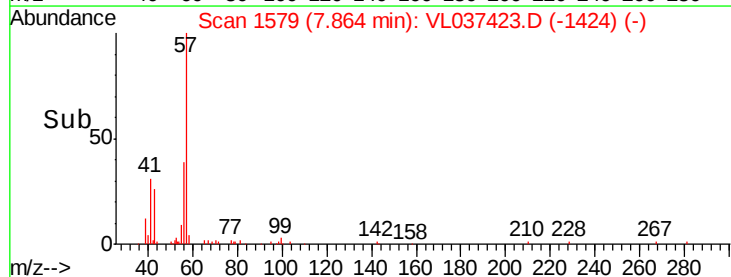
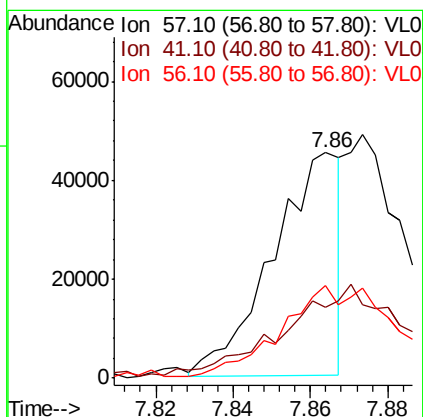
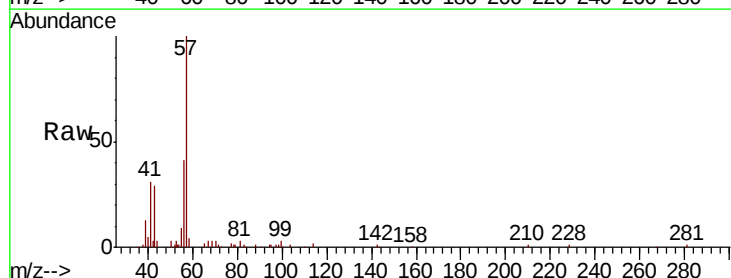
Instrument :
MSVOA_L
ClientSampleId :

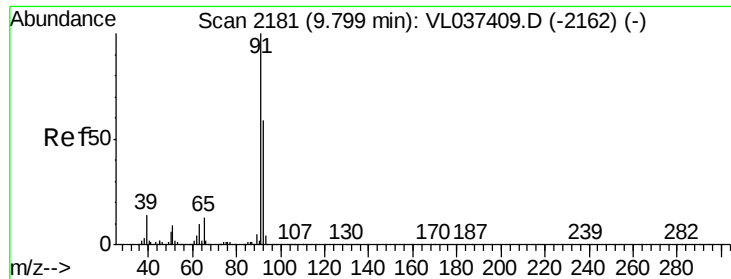
Tot Ion: 42 Resp: 347639
Ion Ratio Lower Upper
42 100
72 1.0 33.5 50.3#
71 15.6 32.6 48.8#



#44
2,2,4-Trimethylpentane
Concen: 0.106 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Tgt Ion: 57 Resp: 54978
Ion Ratio Lower Upper
57 100
41 0.0 26.4 39.6#
56 90.4 25.0 37.4#





#53

Toluene

Concen: 1.211 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. 0.00 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

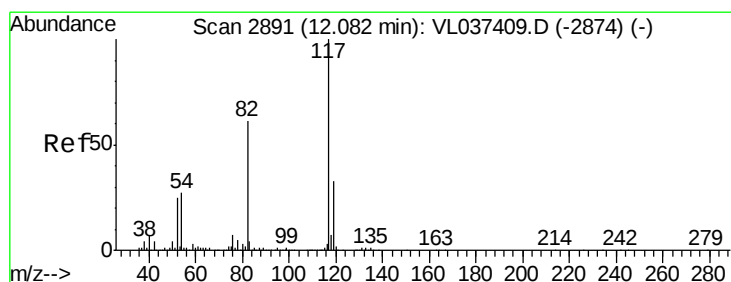
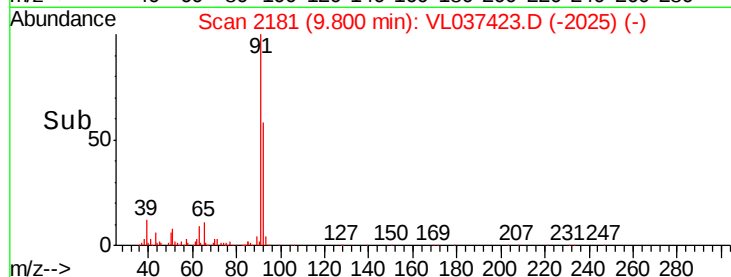
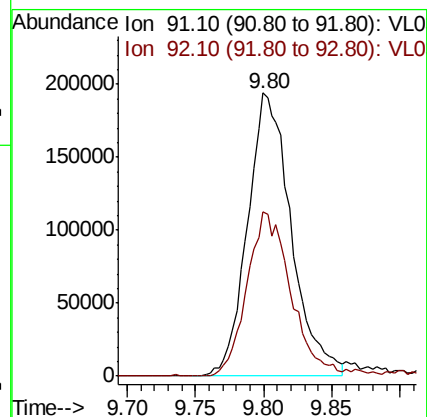
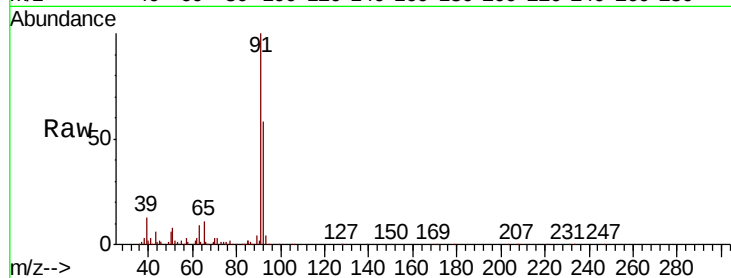
ClientSampleId :

Tot Ion: 91 Resp: 430954

Ion Ratio Lower Upper

91 100

92 59.3 49.0 73.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2891

Delta R.T. 0.00 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

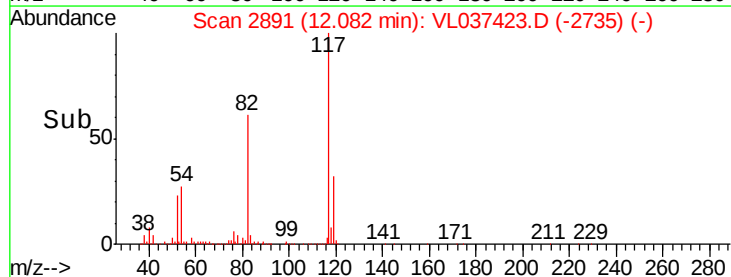
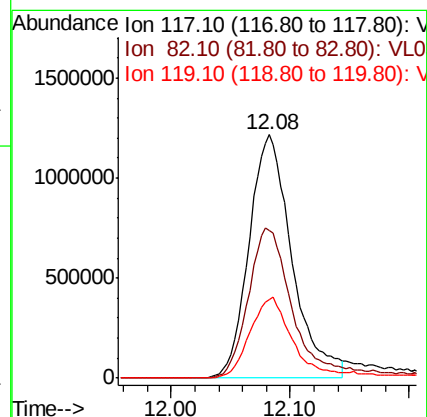
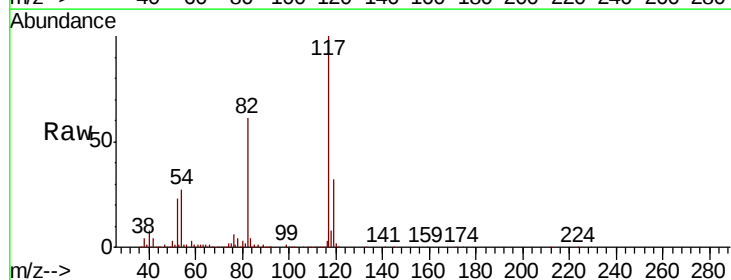
Tgt Ion: 117 Resp: 3036851

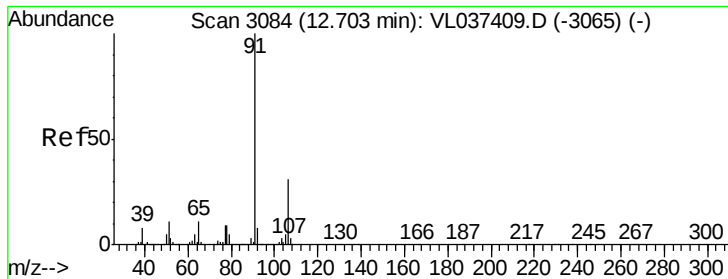
Ion Ratio Lower Upper

117 100

82 69.7 53.1 79.7

119 34.4 28.0 42.0





#58

Ethyl Benzene

Concen: 0.031 ppbv

RT: 13.00 min Scan# 3175

Delta R.T. 0.29 min

Lab File: VL037423.D

Acq: 12 Aug 2021 21:25

Instrument :

MSVOA_L

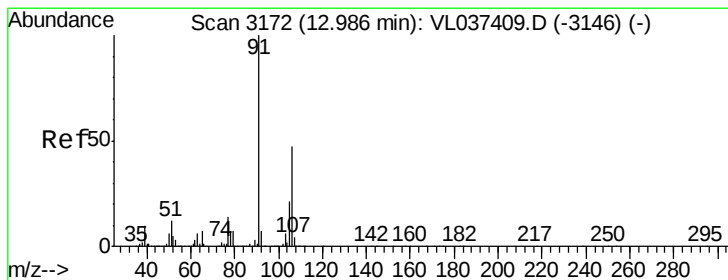
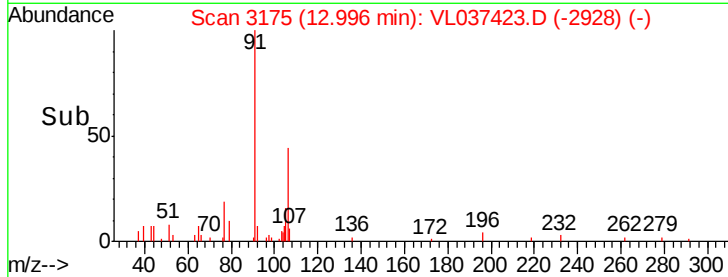
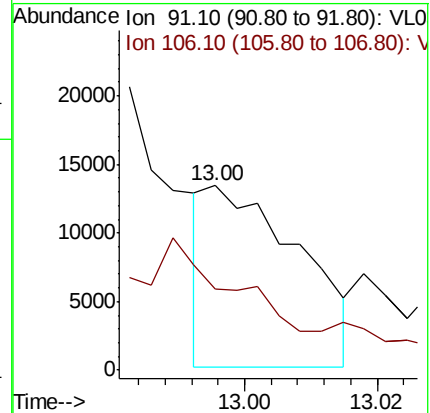
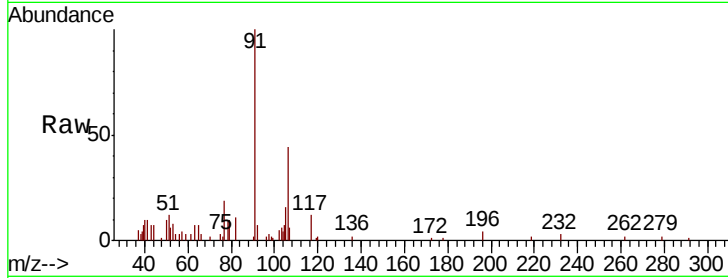
ClientSampleId :

Tot Ion: 91 Resp: 12927

Ion Ratio Lower Upper

91 100

106 30.0 24.7 37.1



#59

m/p-Xylene

Concen: 0.053 ppbv

RT: 12.98 min Scan# 3171

Delta R.T. -0.00 min

Lab File: VL037423.D

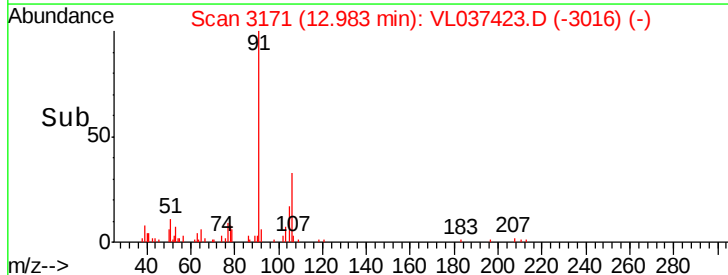
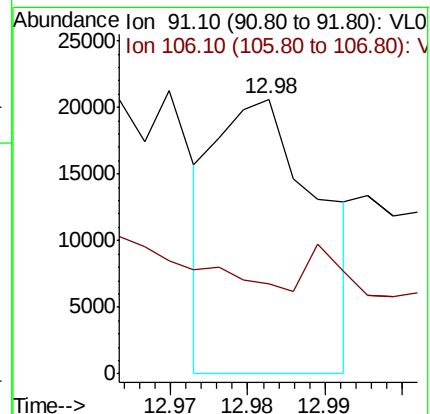
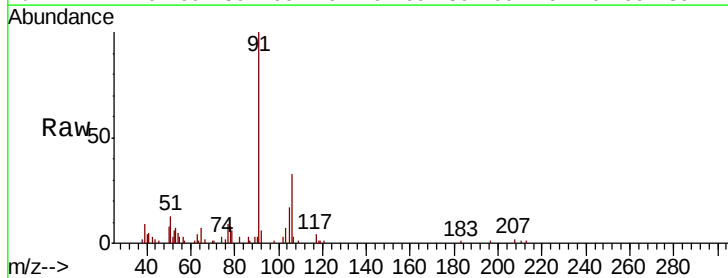
Acq: 12 Aug 2021 21:25

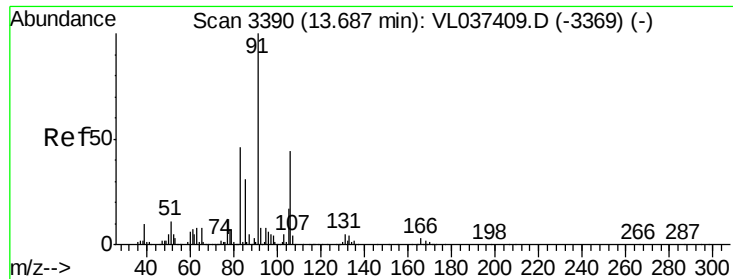
Tgt Ion: 91 Resp: 19084

Ion Ratio Lower Upper

91 100

106 0.0 36.6 54.8#

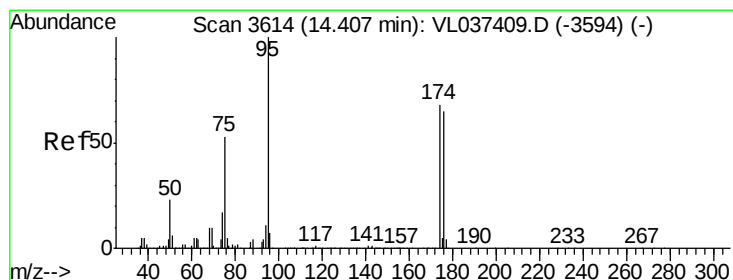
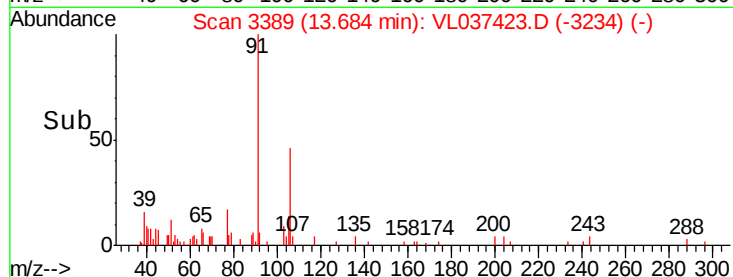
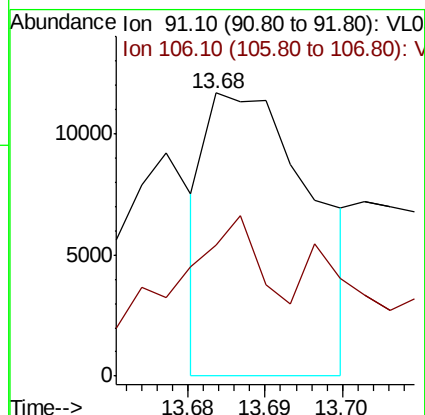
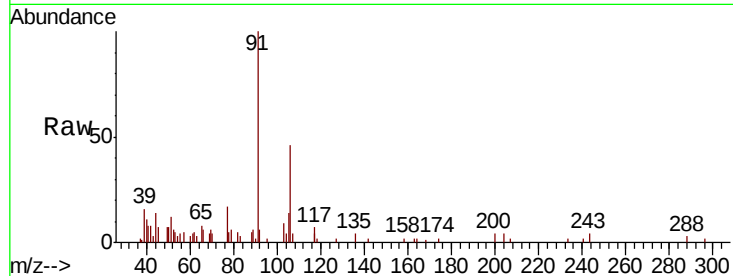




#60
o-Xylene
Concen: 0.033 ppbv
RT: 13.68 min Scan# 3389
Delta R.T. -0.00 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 91 Resp: 11061
Ion Ratio Lower Upper
91 100
106 130.7 24.1 72.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.466 ppbv
RT: 14.41 min Scan# 3616
Delta R.T. 0.01 min
Lab File: VL037423.D
Acq: 12 Aug 2021 21:25

Tgt Ion: 95 Resp: 2062236
Ion Ratio Lower Upper
95 100
174 82.8 59.6 89.4
175 6.1 4.3 6.5

