

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040221\
 Data File : VL036667.D
 Acq On : 3 Apr 2021 5:15
 Operator : SY/AP
 Sample : M1834-01 1200X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 03 07:30:15 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1174412	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	3297359	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3083305	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2353245	9.58	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.80%

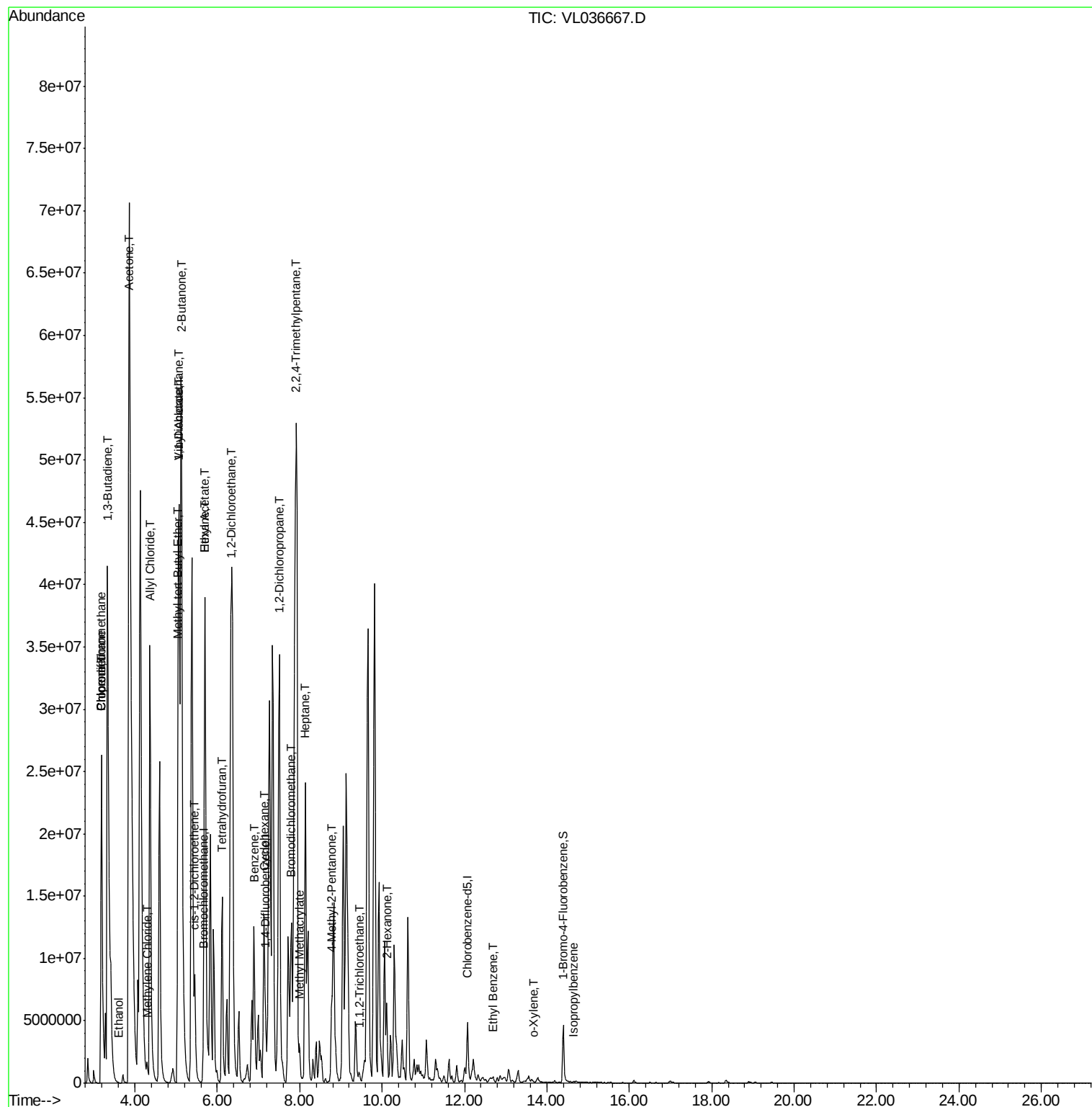
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.19	51	439179	2.002	ppbv #	59
4) Chloromethane	3.19	50	540075	6.968	ppbv #	69
9) Propene	3.19	41	14789542	211.426	ppbv	94
10) Heptane	8.14	43	11935385	66.977	ppbv	92
13) Ethanol	3.61	45	985	0.118	ppbv #	34
15) Acetone	3.85	43	49723161	430.170	ppbv #	52
16) 1,3-Butadiene	3.33	39	18301619	227.423	ppbv #	15
20) Methylene Chloride	4.29	84	149068	2.754	ppbv #	5
21) Allyl Chloride	4.37	41	10594282	114.976	ppbv #	63
23) Vinyl Acetate	5.06	43	23765871	120.200	ppbv #	1
24) 1,1-Dichloroethane	5.06	63	288935	2.005	ppbv #	90
25) Ethyl Acetate	5.70	43	17761393	64.632	ppbv #	77
26) Hexane	5.70	57	22040932	172.833	ppbv #	46
28) Methyl tert-Butyl Ether	5.03	73	315588	2.098	ppbv #	52
30) Cyclohexane	7.13	84	5548124	53.644	ppbv	91
31) cis-1,2-Dichloroethene	5.46	61	4530	0.037	ppbv #	26
34) 2-Butanone	5.12	43	37318267	231.855	ppbv #	68
36) Benzene	6.89	78	10421047	34.268	ppbv #	89
37) 1,2-Dichloroethane	6.32	62	62682	0.350	ppbv #	82
39) 1,2-Dichloropropane	7.51	63	23278	0.189	ppbv #	1
41) Tetrahydrofuran	6.11	42	1080258	14.556	ppbv #	41
42) Bromodichloromethane	7.80	83	819109	3.364	ppbv #	24
43) Methyl Methacrylate	8.00	69	936495	9.171	ppbv #	1
44) 2,2,4-Trimethylpentane	7.91	57	8471567	15.828	ppbv #	1
47) 1,1,2-Trichloroethane	9.45	97	9733	0.078	ppbv #	1
50) 4-Methyl-2-Pentanone	8.77	43	229785	0.987	ppbv #	75
51) 2-Hexanone	10.11	43	3508323	29.851	ppbv #	30
58) Ethyl Benzene	12.69	91	250690	0.559	ppbv	97
60) o-Xylene	13.68	91	12405	0.033	ppbv	72
62) Isopropylbenzene	14.65	105	38881	0.076	ppbv #	53

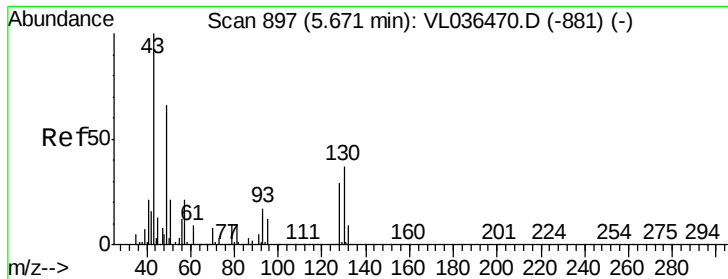
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.02 min

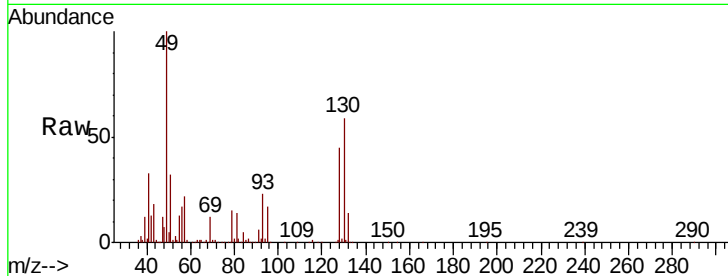
Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 49 Resp: 1174412

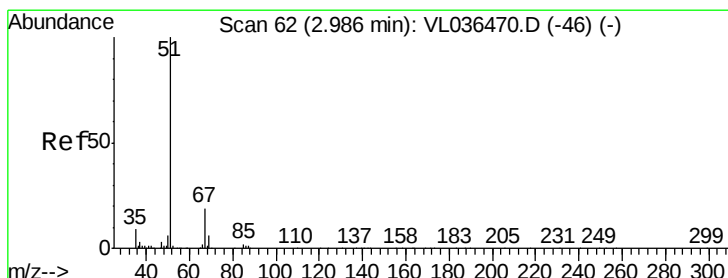
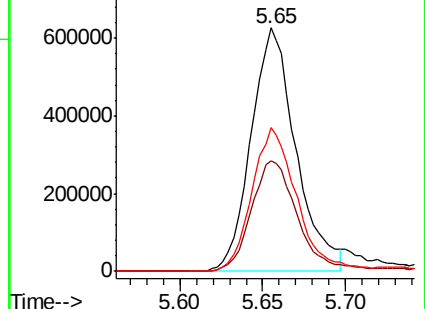
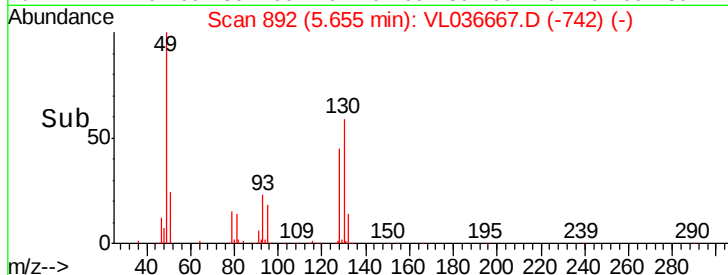
Ion	Ratio	Lower	Upper
49	100		
128	49.2	23.5	70.6
130	62.1	29.1	87.4



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: 2.002 ppbv

RT: 3.19 min Scan# 124

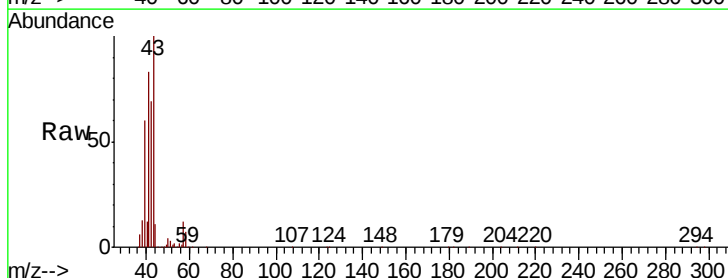
Delta R.T. 0.20 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

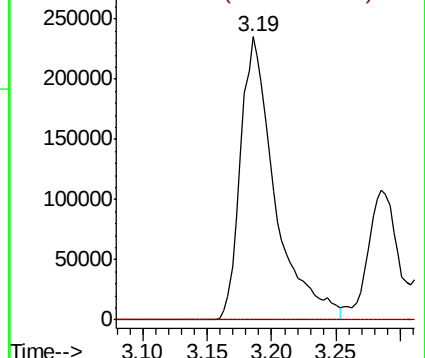
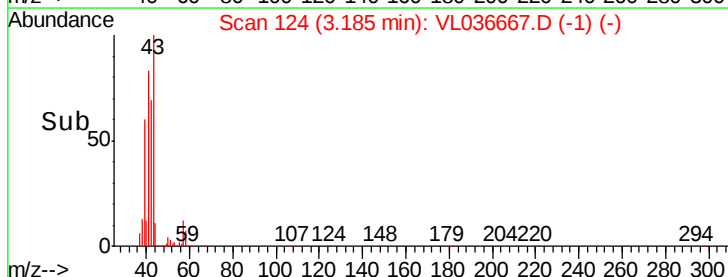
Tgt Ion: 51 Resp: 439179

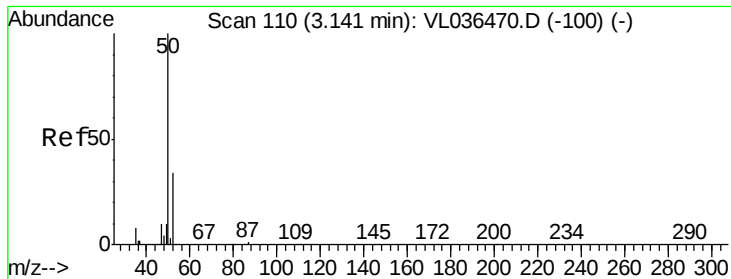
Ion	Ratio	Lower	Upper
51	100		
67	0.0	14.7	22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 6.968 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.04 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

Instrument :

MSVOA_L

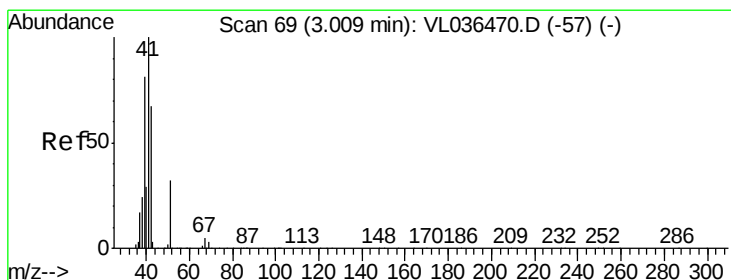
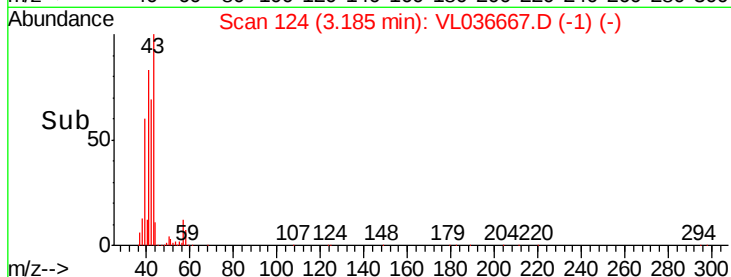
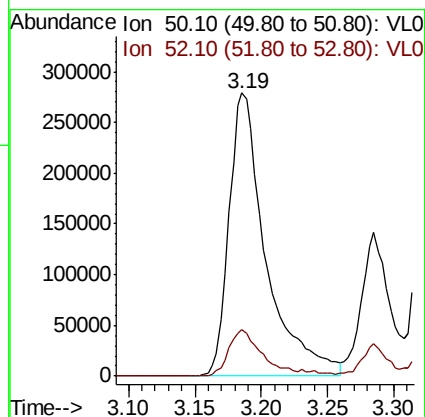
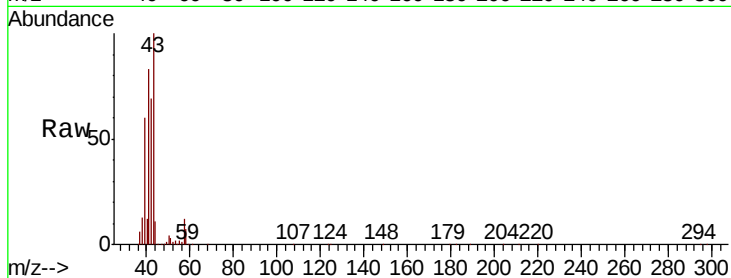
ClientSampleId :

Tot Ion: 50 Resp: 540075

Ion Ratio Lower Upper

50 100

52 16.3 27.0 40.6#



#9

Propene

Concen: 211.426 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.18 min

Lab File: VL036667.D

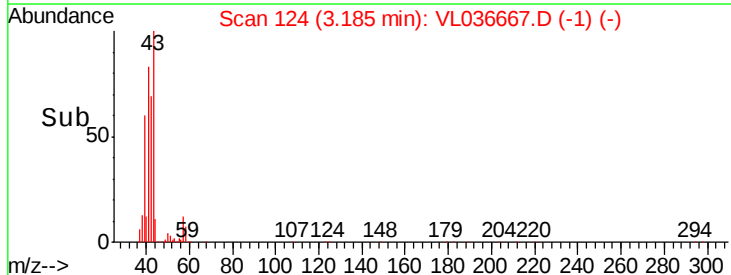
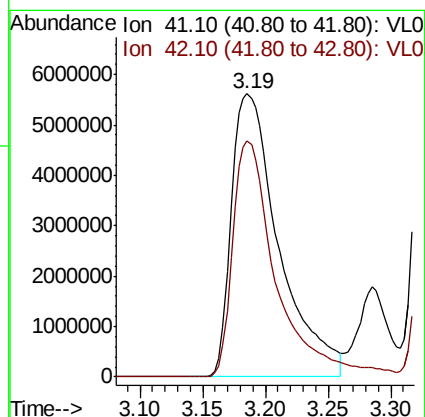
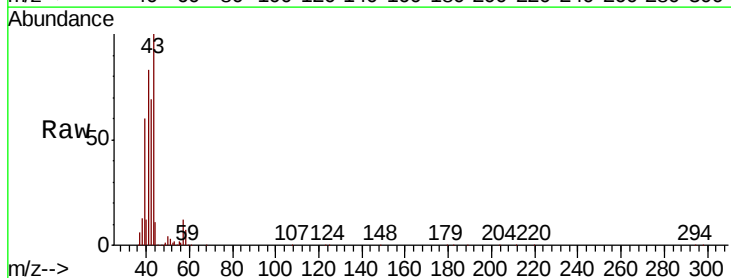
Acq: 3 Apr 2021 5:15

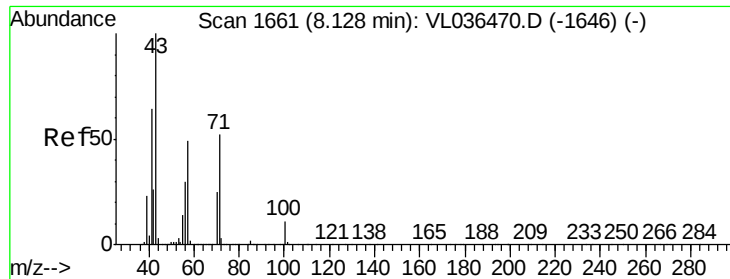
Tgt Ion: 41 Resp: 14789542

Ion Ratio Lower Upper

41 100

42 76.3 57.0 85.4

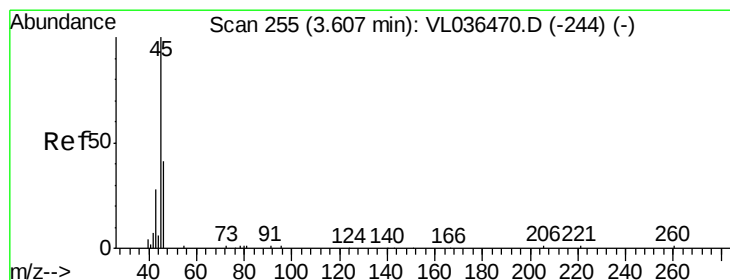
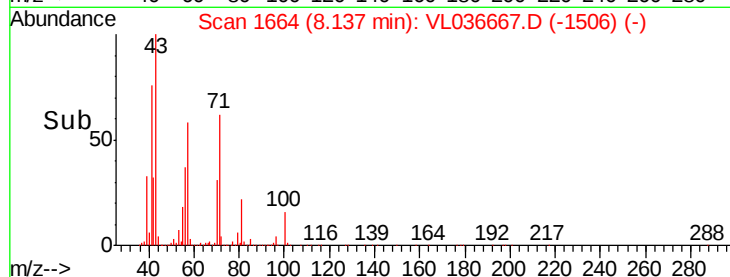
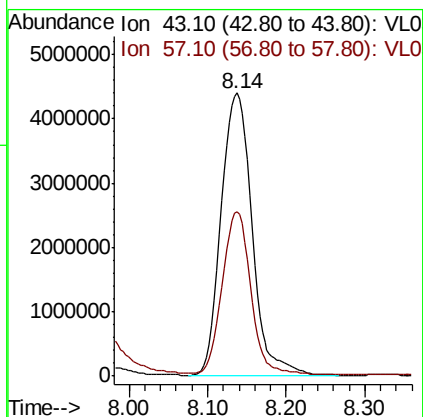
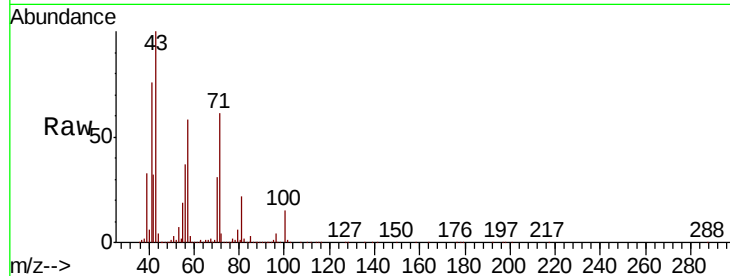




#10
Heptane
Concen: 66.977 ppbv
RT: 8.14 min Scan# 1664
Delta R.T. 0.01 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

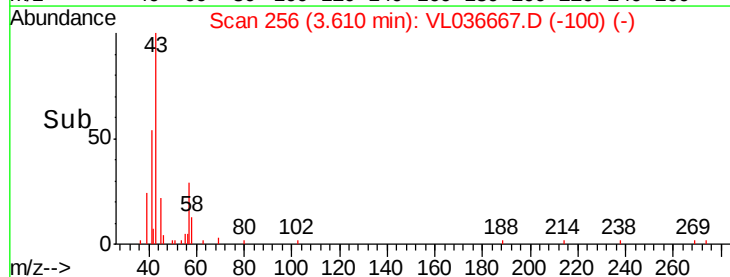
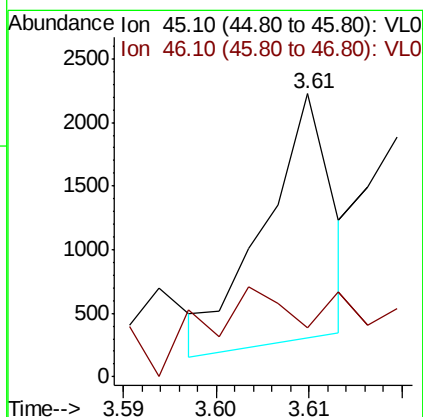
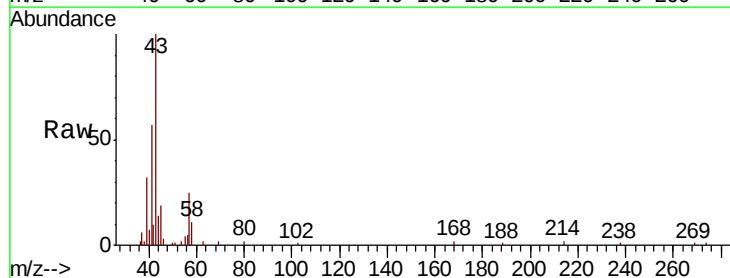
Instrument :
MSVOA_L
ClientSampleId :

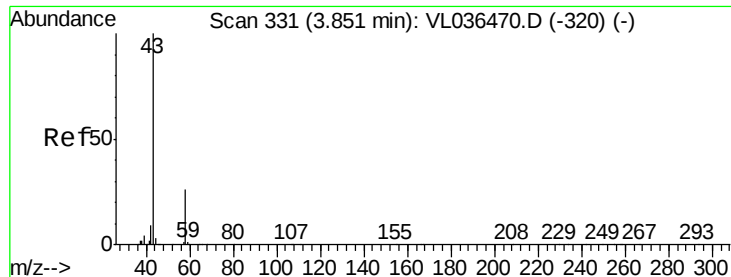
Tot Ion: 43 Resp: 11935385
Ion Ratio Lower Upper
43 100
57 54.1 39.0 58.6



#13
Ethanol
Concen: 0.118 ppbv
RT: 3.61 min Scan# 256
Delta R.T. 0.00 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 45 Resp: 985
Ion Ratio Lower Upper
45 100
46 0.0 16.6 66.2#





#15

Acetone

Concen: 430.170 ppbv

RT: 3.85 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

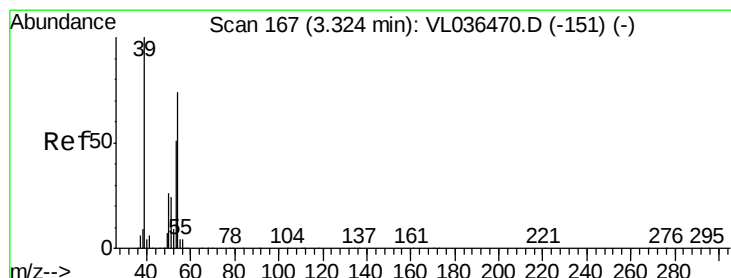
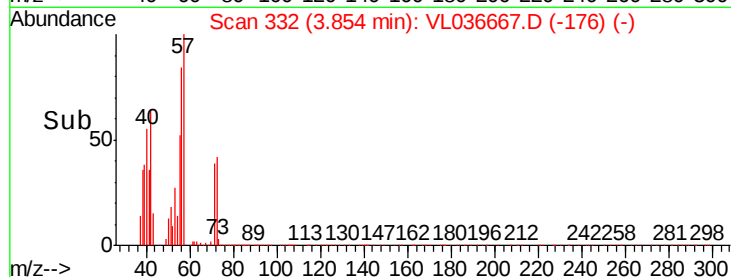
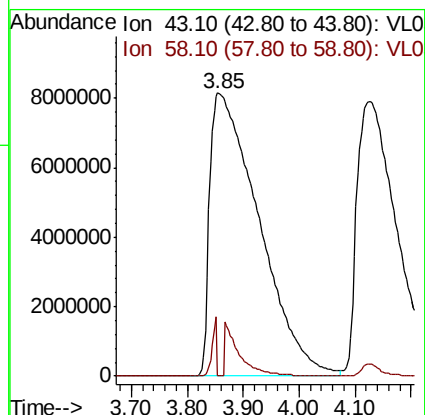
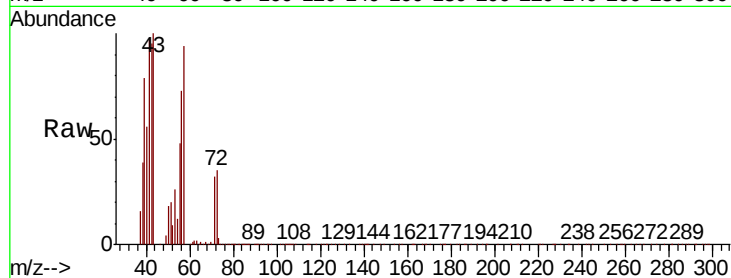
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp:49723161

Ion Ratio Lower Upper

43 100

58 1.9 21.2 31.8#



#16

1,3-Butadiene

Concen: 227.423 ppbv

RT: 3.33 min Scan# 170

Delta R.T. 0.01 min

Lab File: VL036667.D

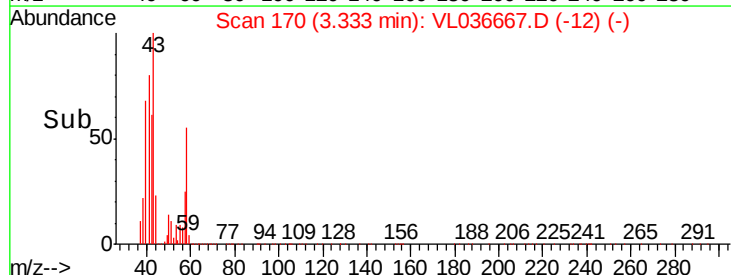
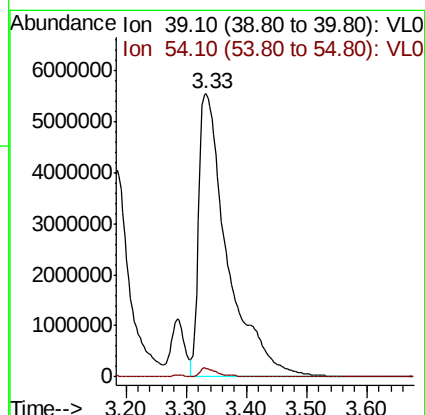
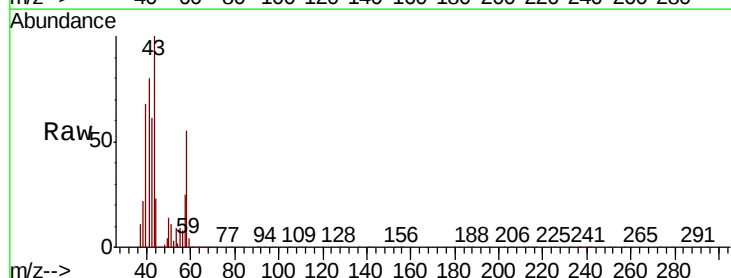
Acq: 3 Apr 2021 5:15

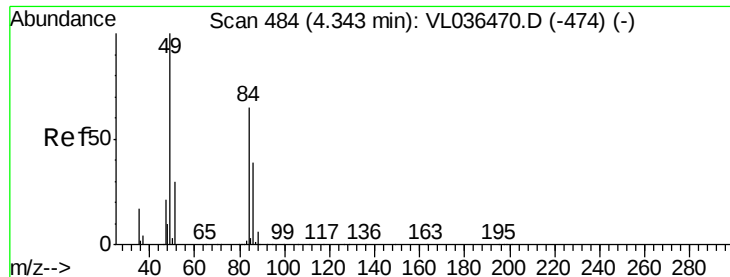
Tgt Ion: 39 Resp:18301619

Ion Ratio Lower Upper

39 100

54 2.1 58.8 88.2#

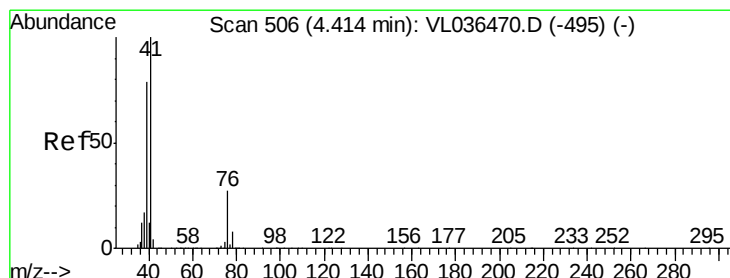
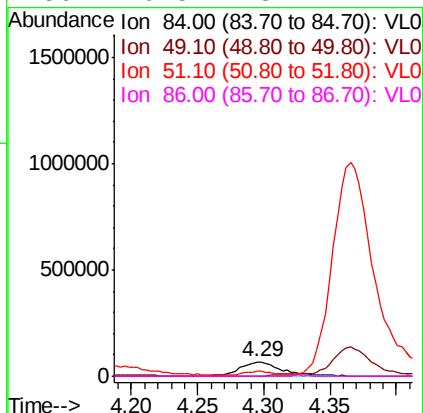
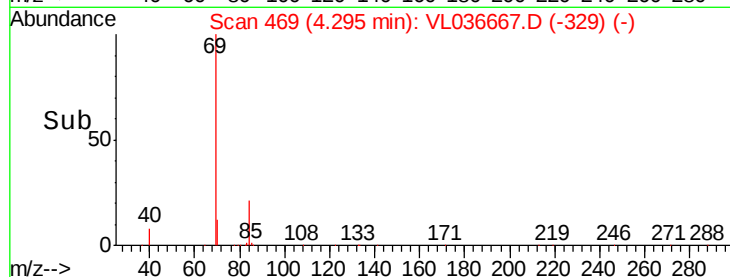
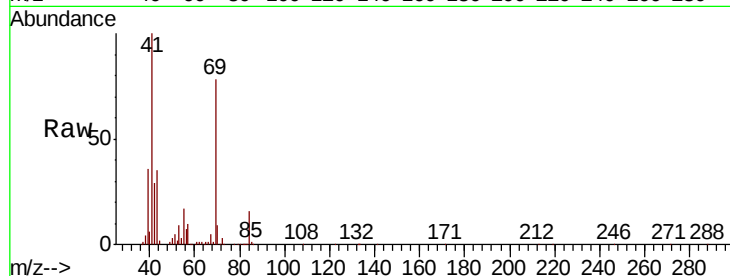




#20
Methvlene Chloride
Concen: 2.754 ppbv
RT: 4.29 min Scan# 469
Delta R.T. -0.05 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

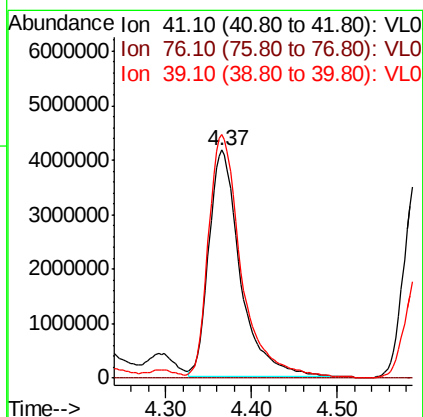
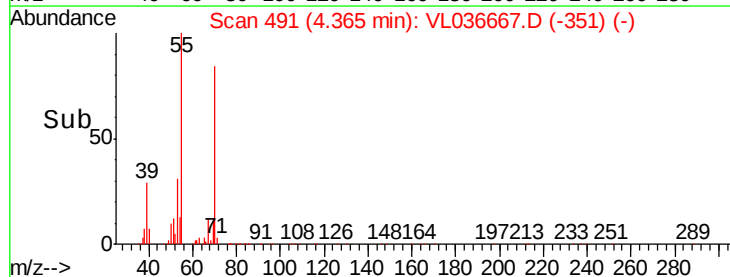
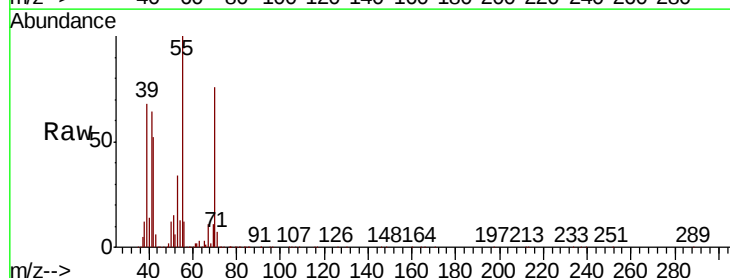
Instrument :
MSVOA_L
ClientSampleId :

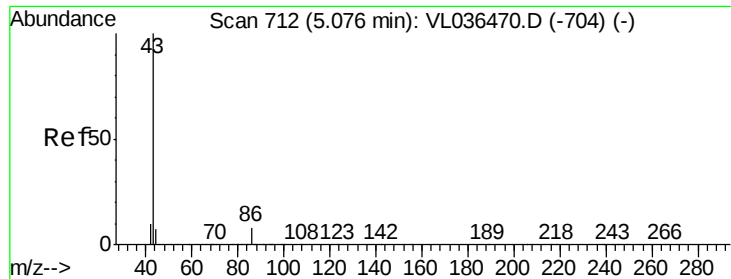
Tot Ion: 84 Resp: 149068
Ion Ratio Lower Upper
84 100
49 1.4 122.9 184.3#
51 19.2 36.9 55.3#
86 0.5 48.2 72.4#



#21
Allyl Chloride
Concen: 114.976 ppbv
RT: 4.37 min Scan# 491
Delta R.T. -0.05 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 41 Resp: 10594282
Ion Ratio Lower Upper
41 100
76 0.0 22.9 34.3#
39 112.0 67.3 100.9#

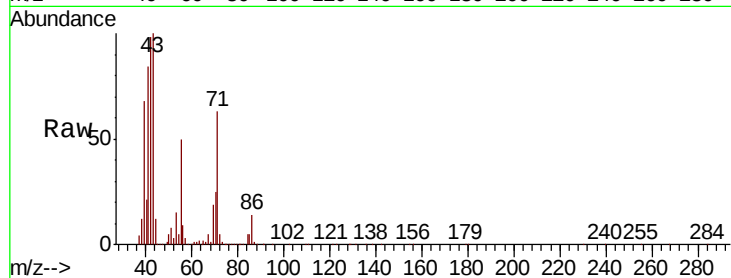




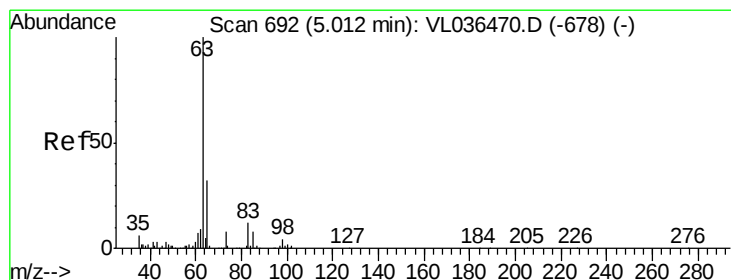
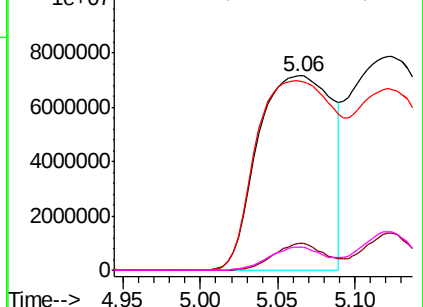
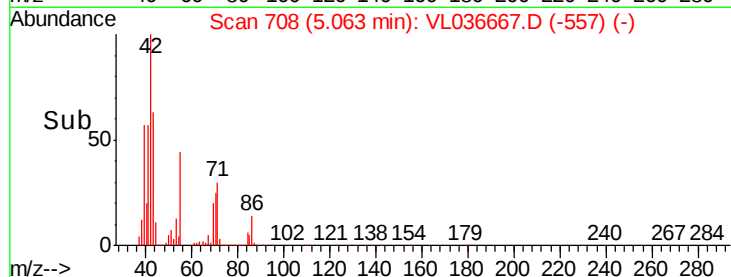
#23
 Vinyl Acetate
 Concen: 120.200 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. -0.01 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Instrument :
 MSVOA_L
 ClientSampleID :

Tot Ion: 43 Resp: 23765871
 Ion Ratio Lower Upper
 43 100
 86 13.6 5.4 8.0#
 42 97.5 8.5 12.7#
 44 11.8 4.6 7.0#

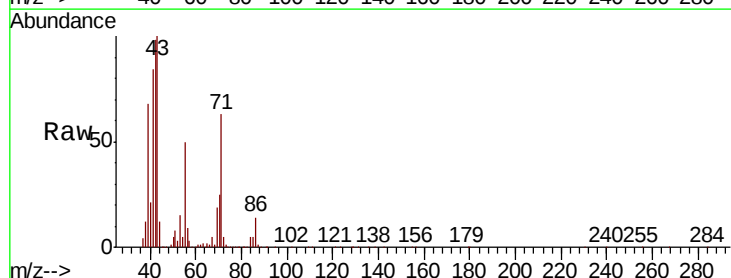


Abundance Ion 43.10 (42.80 to 43.80): VL0
 1.2e+07 Ion 86.10 (85.80 to 86.80): VL0
 1e+07 Ion 42.10 (41.80 to 42.80): VL0
 Ion 44.10 (43.80 to 44.80): VL0

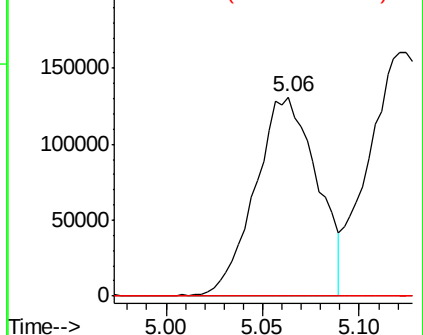
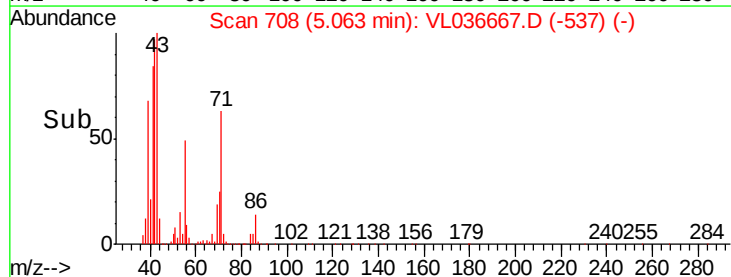


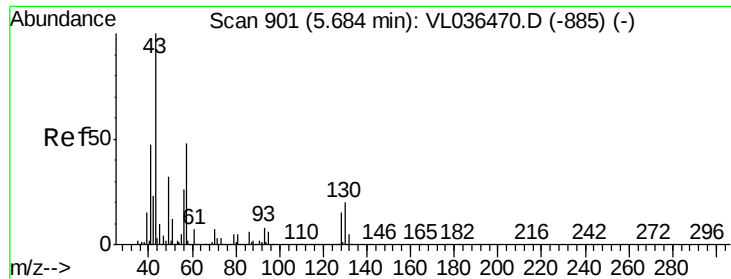
#24
 1,1-Dichloroethane
 Concen: 2.005 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. 0.05 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Tgt Ion: 63 Resp: 288935
 Ion Ratio Lower Upper
 63 100
 98 0.0 2.1 6.2#
 100 0.0 0.9 2.8#



Abundance Ion 63.10 (62.80 to 63.80): VL0
 200000 Ion 98.00 (97.70 to 98.70): VL0
 Ion 100.00 (99.70 to 100.70): VL0



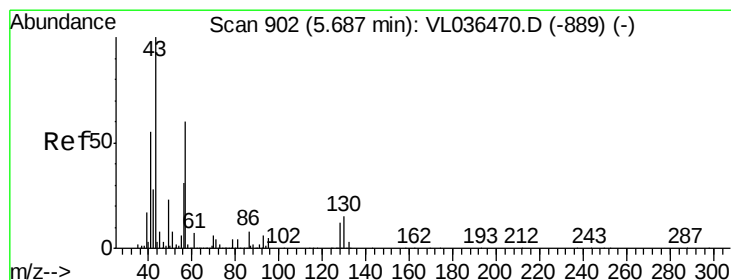
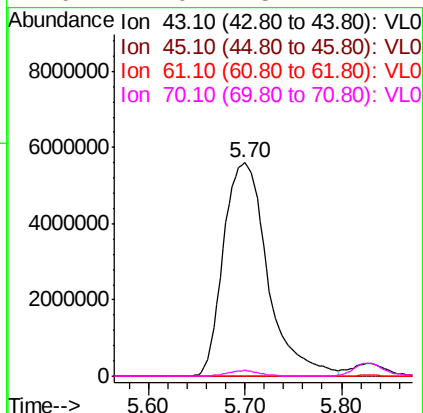
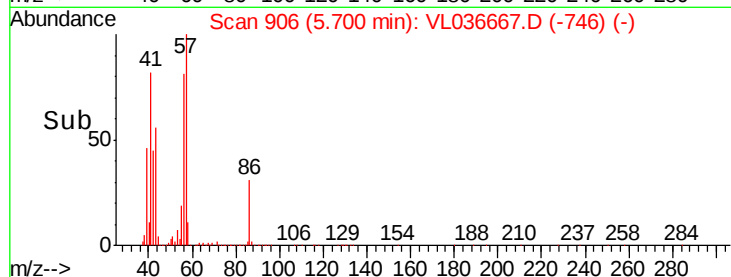
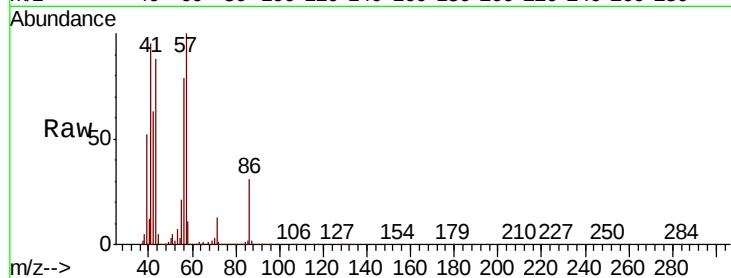


#25
Ethyl Acetate
Concen: 64.632 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.02 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp:17761393

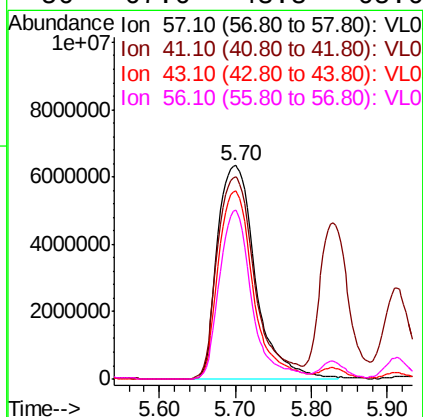
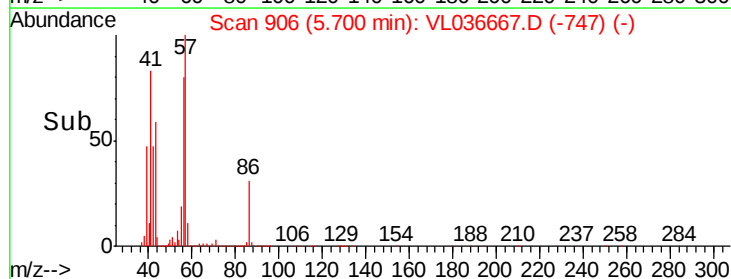
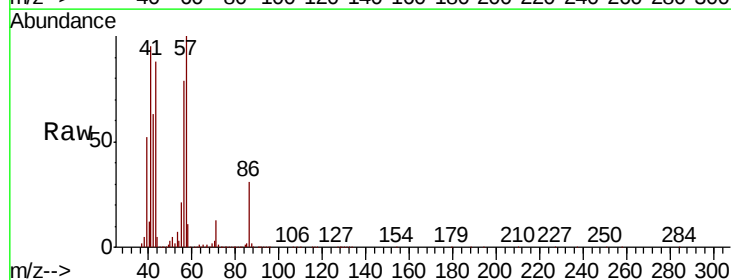
Ion	Ratio	Lower	Upper
43	100		
45	0.1	7.9	11.9#
61	0.2	7.4	11.2#
70	2.0	5.1	7.7#

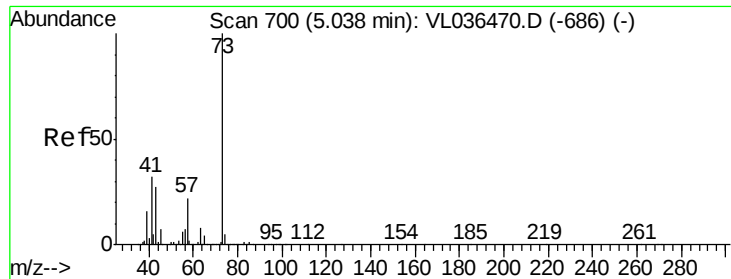


#26
Hexane
Concen: 172.833 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.01 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 57 Resp:22040932

Ion	Ratio	Lower	Upper
57	100		
41	93.9	77.2	115.8
43	80.8	173.8	260.6#
56	67.6	43.8	65.6#



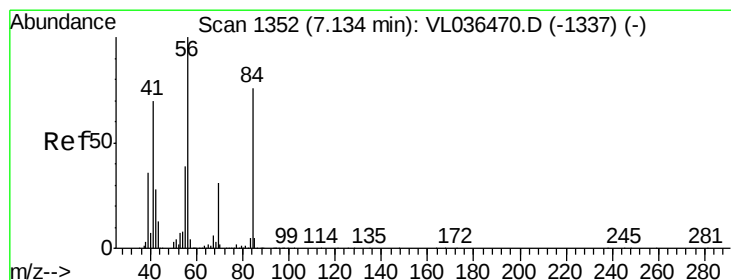
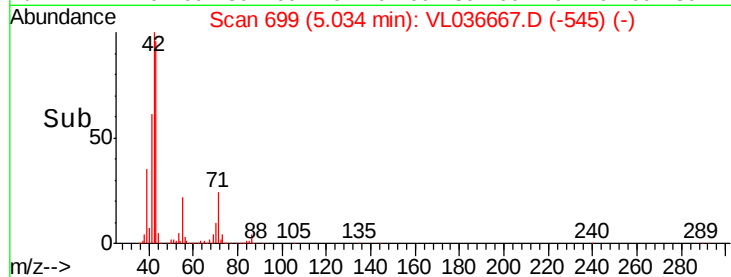
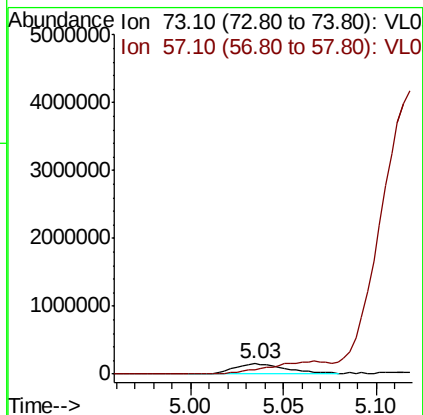
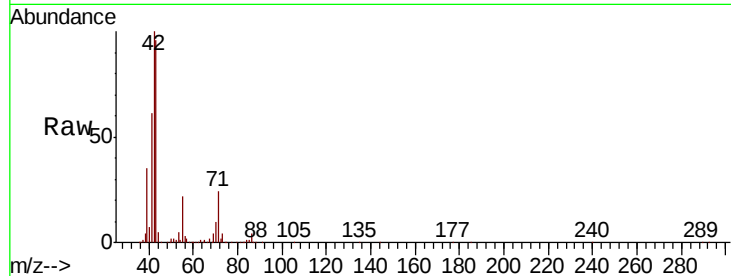


#28

Methvl tert-Butvl Ether
 Concen: 2.098 ppbv
 RT: 5.03 min Scan# 699
 Delta R.T. -0.00 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Instrument :
 MSVOA_L
 ClientSampleId :

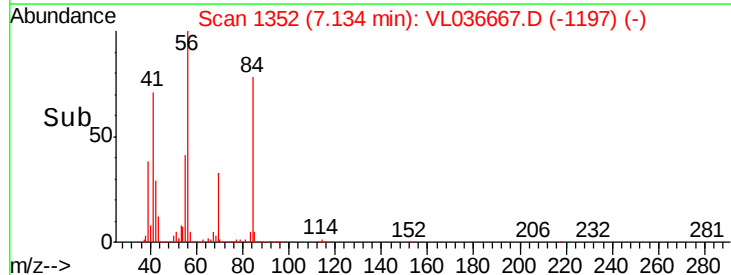
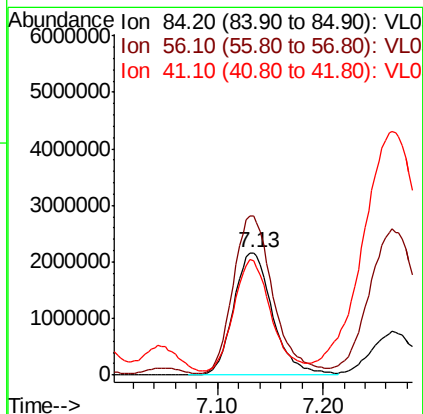
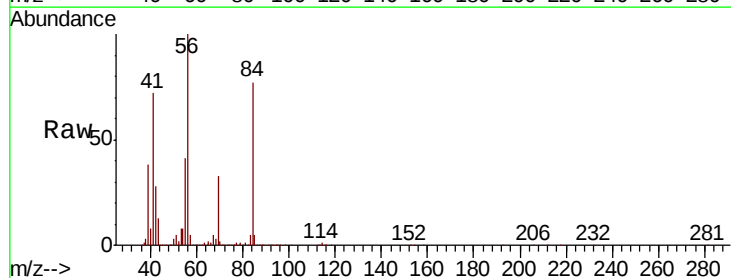
Tot Ion: 73 Resp: 315588
 Ion Ratio Lower Upper
 73 100
 57 0.0 18.5 27.7#

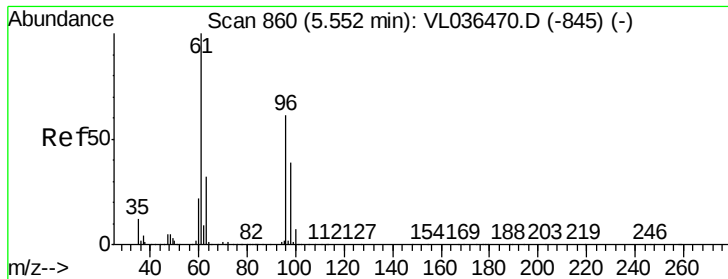


#30

Cyclohexane
 Concen: 53.644 ppbv
 RT: 7.13 min Scan# 1352
 Delta R.T. -0.00 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Tgt Ion: 84 Resp: 5548124
 Ion Ratio Lower Upper
 84 100
 56 132.2 114.6 171.8
 41 85.8 75.3 112.9



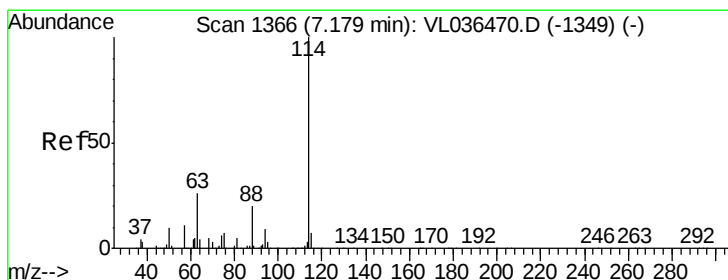
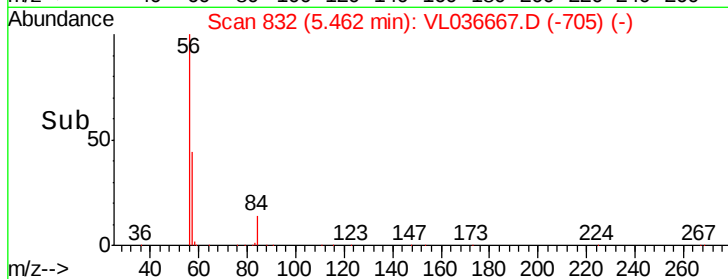
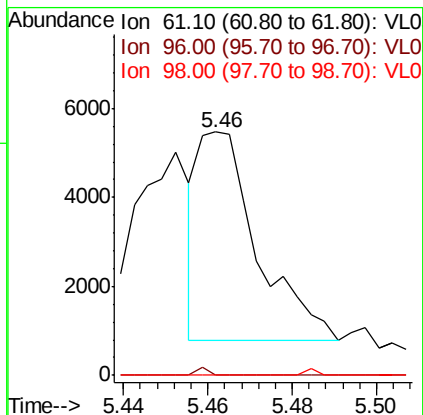
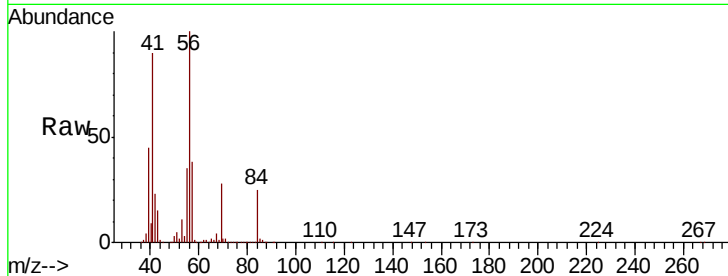


#31

cis-1,2-Dichloroethene
 Concen: 0.037 ppbv
 RT: 5.46 min Scan# 832
 Delta R.T. -0.09 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Instrument :
 MSVOA_L
 ClientSampleId :

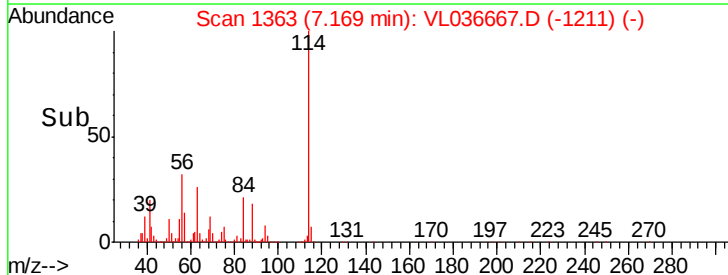
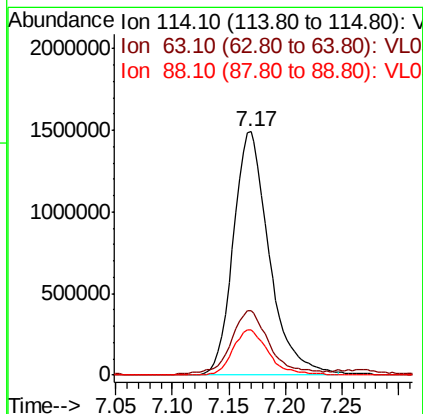
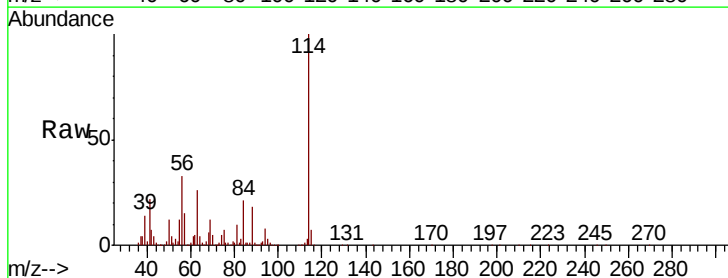
Tot Ion	Ratio	Lower	Upper
61	100		
96	0.0	48.7	73.1#
98	0.0	31.4	47.0#

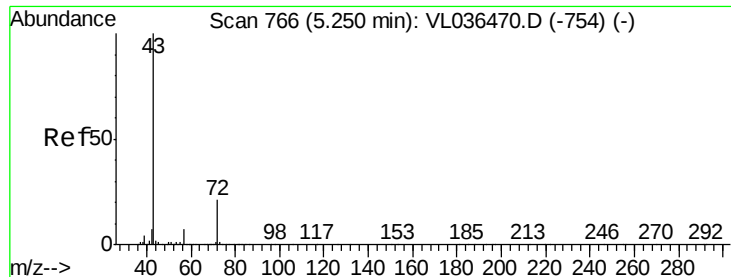


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.01 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Tgt Ion	Ratio	Lower	Upper
114	100		
63	28.9	22.4	33.6
88	18.6	15.4	23.0

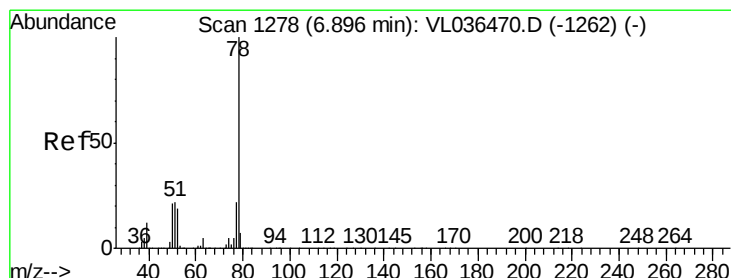
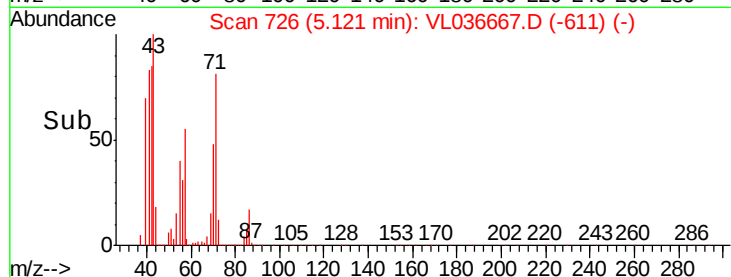
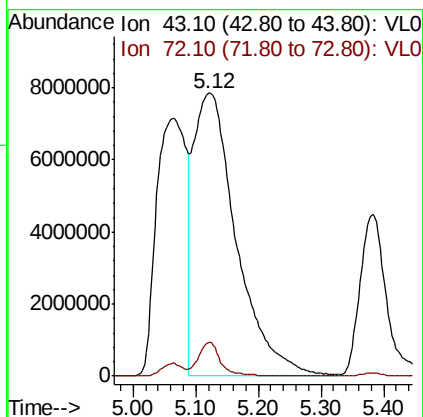
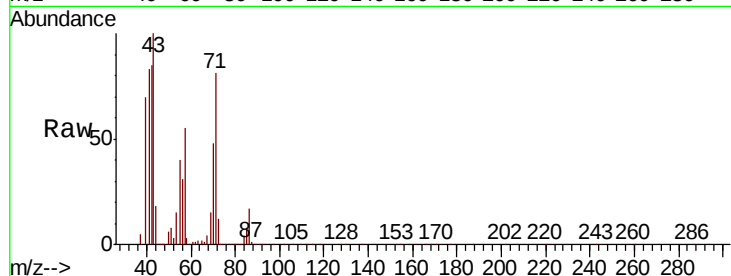




#34
2-Butanone
Concen: 231.855 ppbv
RT: 5.12 min Scan# 726
Delta R.T. -0.13 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

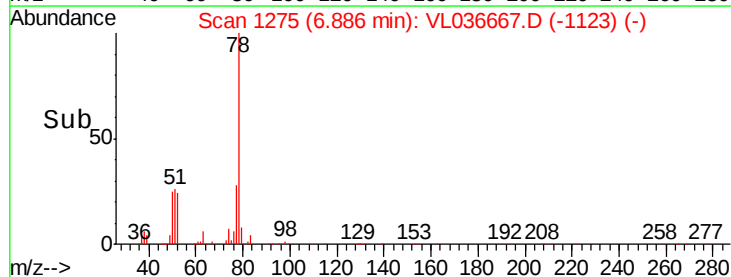
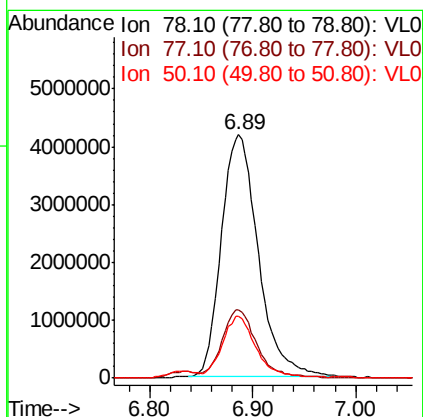
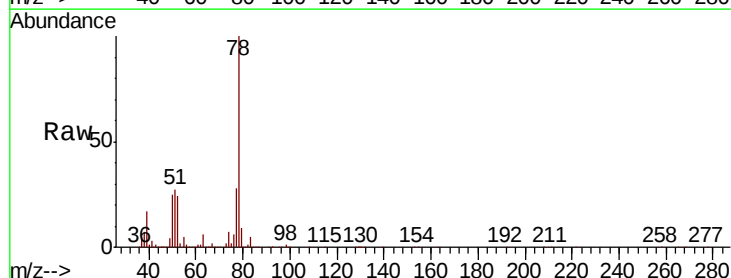
Instrument :
MSVOA_L
ClientSampleId :

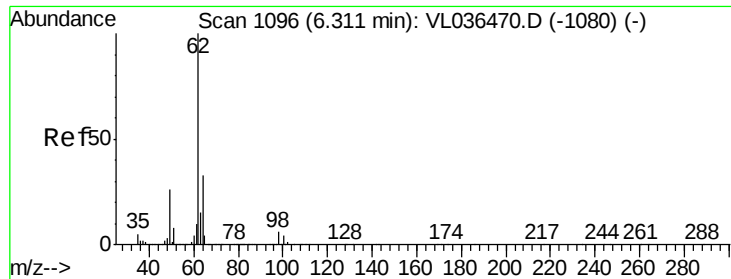
Tot Ion: 43 Resp:37318267
Ion Ratio Lower Upper
43 100
72 6.4 17.0 25.6#



#36
Benzene
Concen: 34.268 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.01 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 78 Resp:10421047
Ion Ratio Lower Upper
78 100
77 28.2 18.0 27.0#
50 25.0 16.5 24.7#

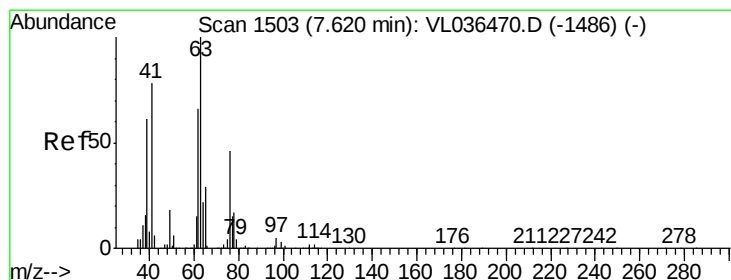
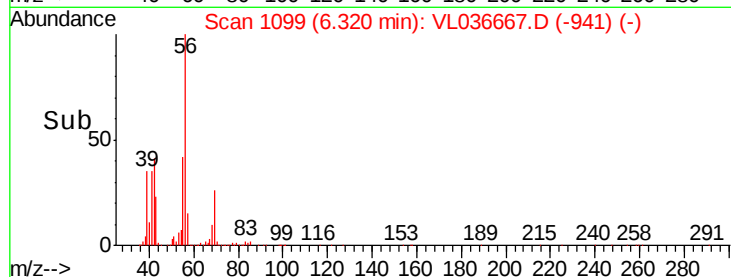
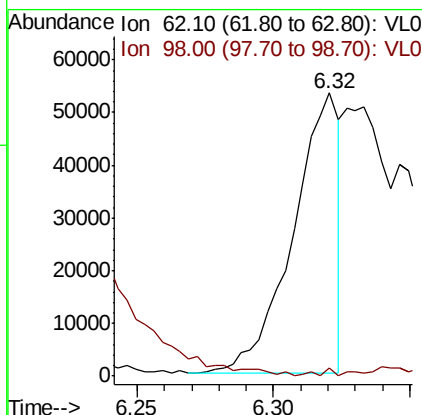
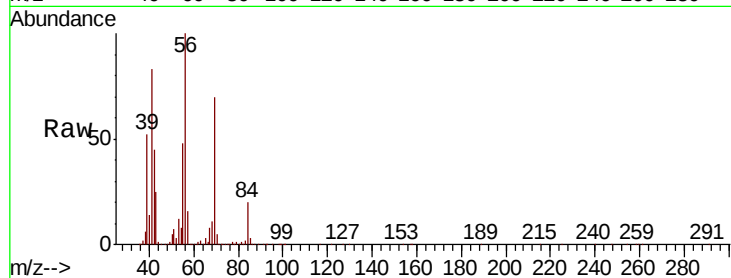




#37
 1,2-Dichloroethane
 Concen: 0.350 ppbv
 RT: 6.32 min Scan# 1099
 Delta R.T. 0.01 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

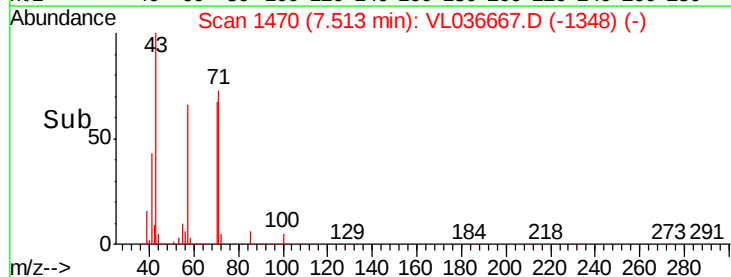
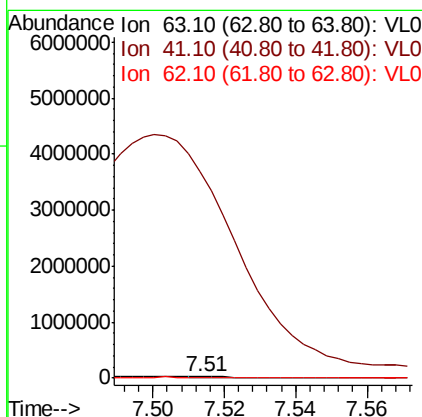
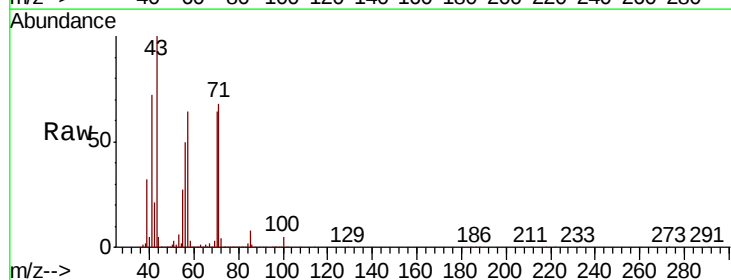
Instrument :
 MSVOA_L
 ClientSampleId :

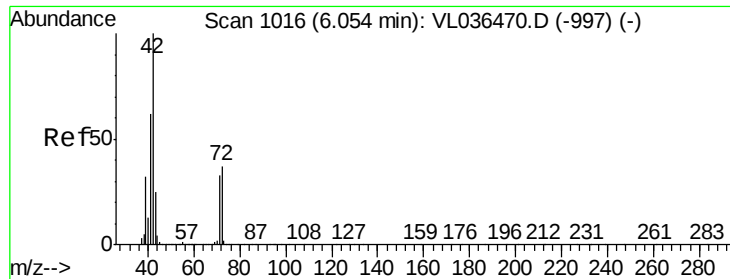
Tot Ion: 62 Resp: 62682
 Ion Ratio Lower Upper
 62 100
 98 0.0 4.9 7.3#



#39
 1,2-Dichloropropane
 Concen: 0.189 ppbv
 RT: 7.51 min Scan# 1470
 Delta R.T. -0.11 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Tgt Ion: 63 Resp: 23278
 Ion Ratio Lower Upper
 63 100
 41 12330.4 62.4 93.6#
 62 36.2 52.8 79.2#

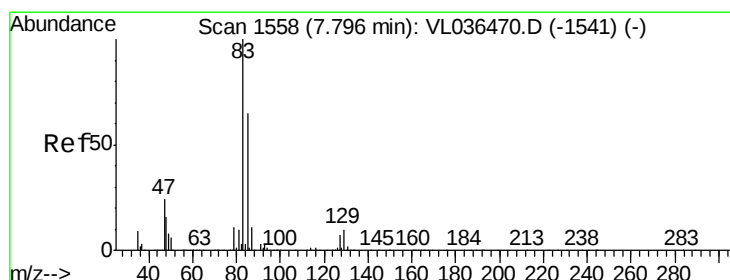
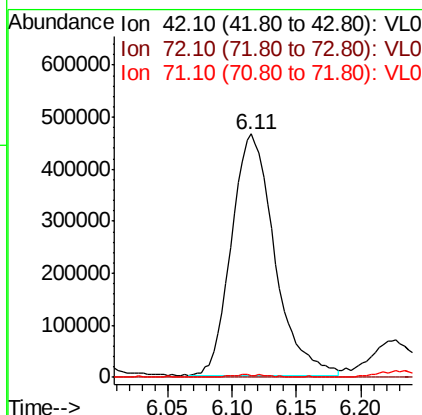
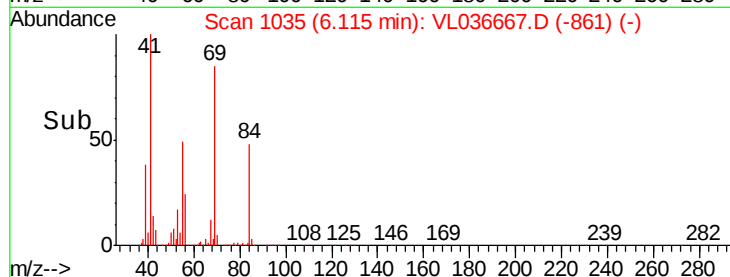
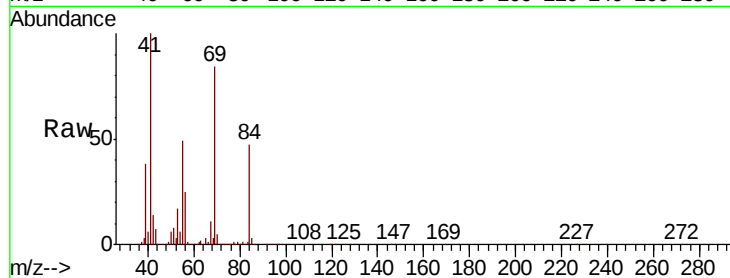




#41
Tetrahydrofuran
Concen: 14.556 ppbv
RT: 6.11 min Scan# 1035
Delta R.T. 0.06 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

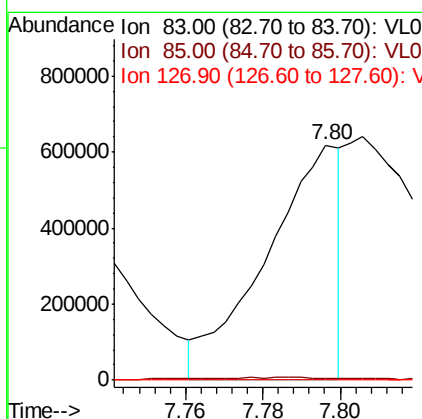
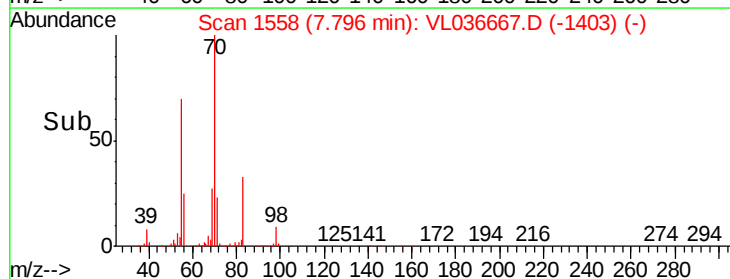
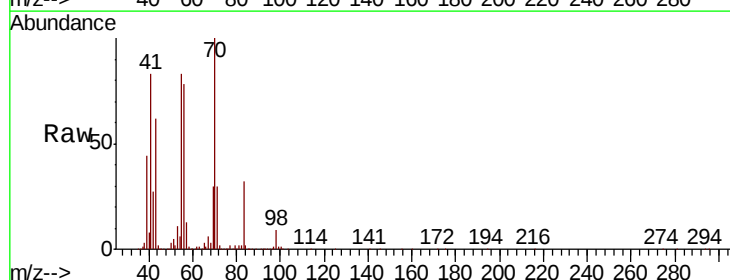
Instrument :
MSVOA_L
ClientSampleId :

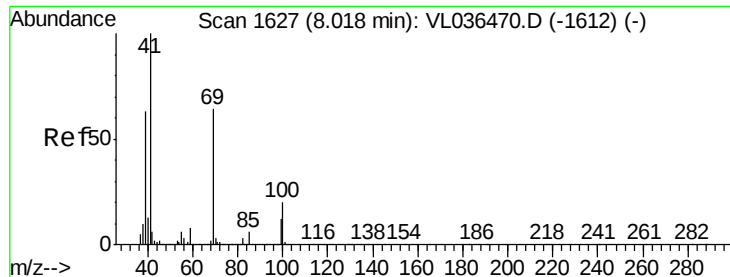
Tot Ion: 42 Resp: 1080258
Ion Ratio Lower Upper
42 100
72 0.0 27.6 41.4#
71 0.0 27.0 40.4#



#42
Bromodichloromethane
Concen: 3.364 ppbv
RT: 7.80 min Scan# 1558
Delta R.T. -0.00 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 83 Resp: 819109
Ion Ratio Lower Upper
83 100
85 0.2 51.8 77.6#
127 0.0 5.8 8.8#

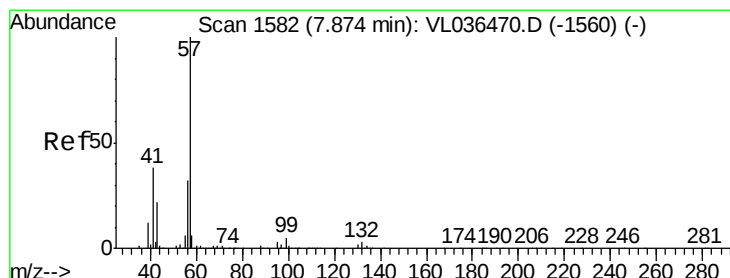
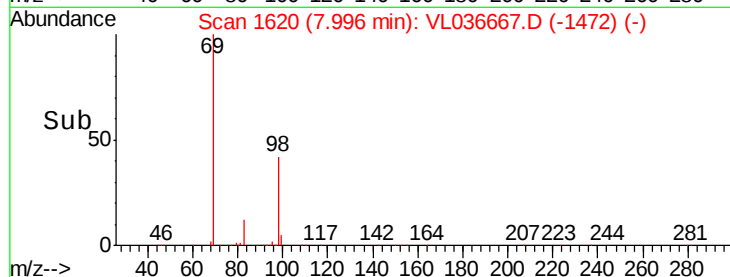
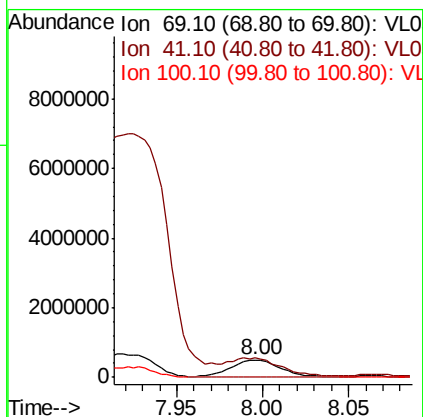
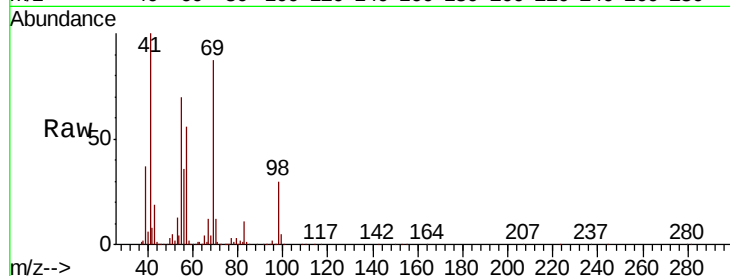




#43
Methvl Methacrylate
Concen: 9.171 ppbv
RT: 8.00 min Scan# 1620
Delta R.T. -0.02 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

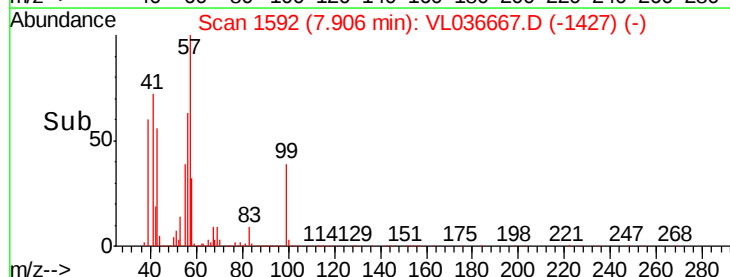
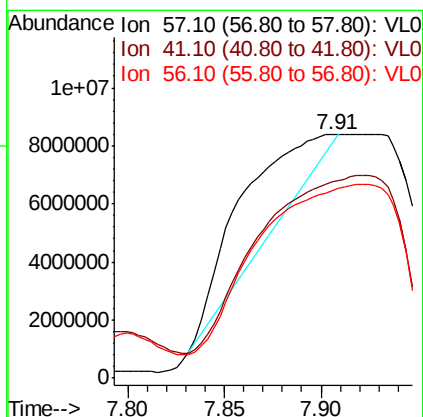
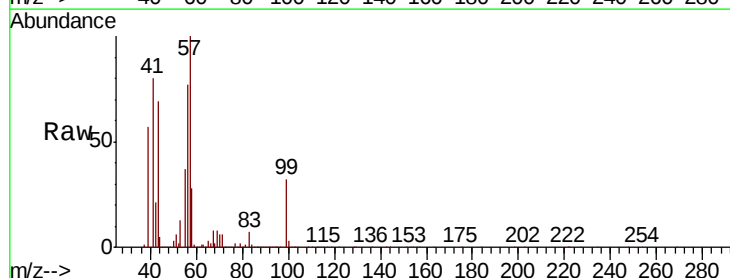
Instrument :
MSVOA_L
ClientSampleId :

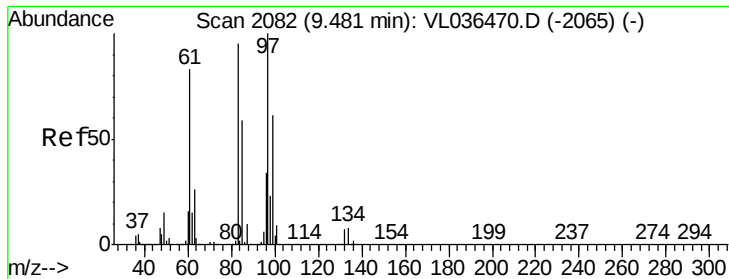
Tot Ion: 69 Resp: 936495
Ion Ratio Lower Upper
69 100
41 0.0 126.8 190.2#
100 0.0 24.9 37.3#



#44
2,2,4-Trimethylpentane
Concen: 15.828 ppbv
RT: 7.91 min Scan# 1592
Delta R.T. 0.03 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 57 Resp: 8471567
Ion Ratio Lower Upper
57 100
41 435.2 28.8 43.2#
56 424.6 26.1 39.1#

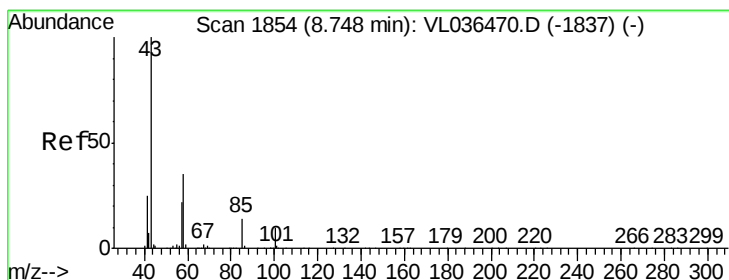
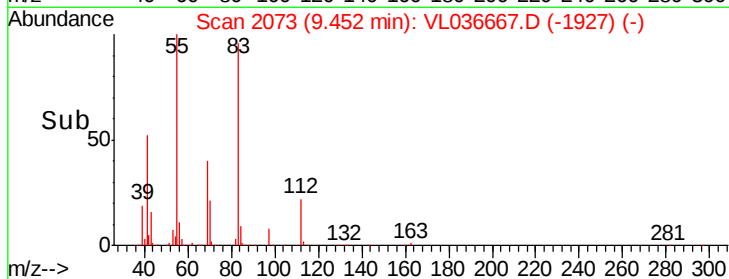
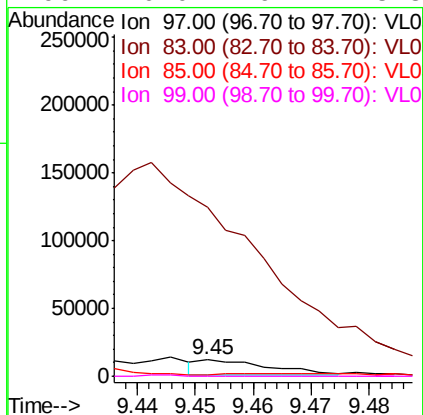
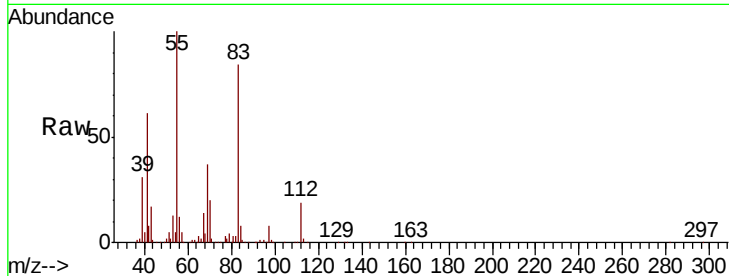




#47
 1,1,2-Trichloroethane
 Concen: 0.078 ppbv
 RT: 9.45 min Scan# 2073
 Delta R.T. -0.03 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

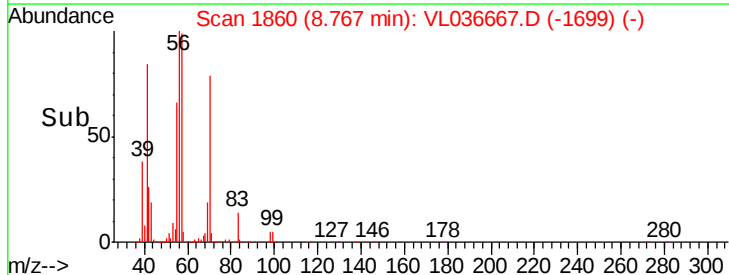
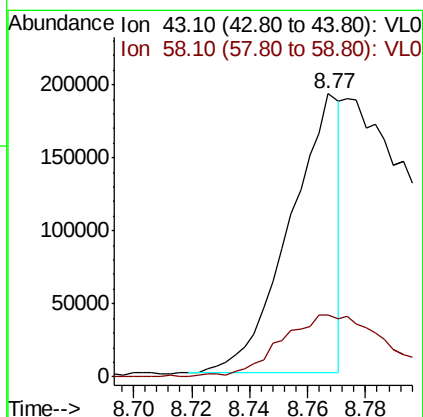
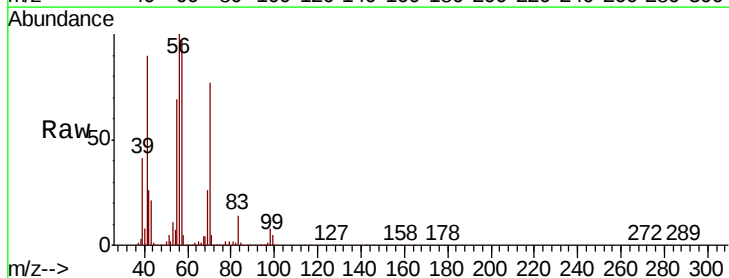
Instrument :
 MSVOA_L
 ClientSampleId :

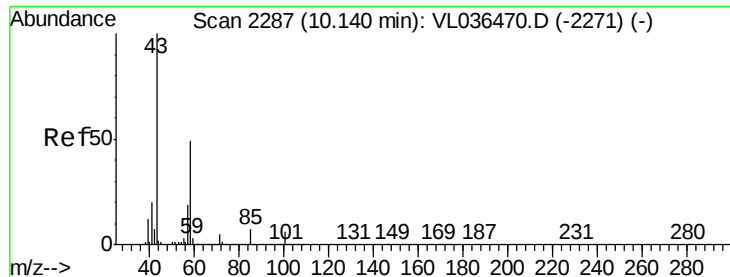
Tot Ion: 97 Resp: 9733
 Ion Ratio Lower Upper
 97 100
 83 898.8 75.8 113.8#
 85 0.4 47.1 70.7#
 99 0.0 49.2 73.8#



#50
 4-Methyl-2-Pentanone
 Concen: 0.987 ppbv
 RT: 8.77 min Scan# 1860
 Delta R.T. 0.02 min
 Lab File: VL036667.D
 Acq: 3 Apr 2021 5:15

Tgt Ion: 43 Resp: 229785
 Ion Ratio Lower Upper
 43 100
 58 50.0 28.2 42.2#

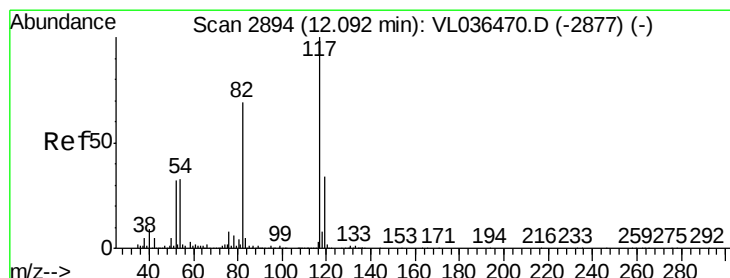
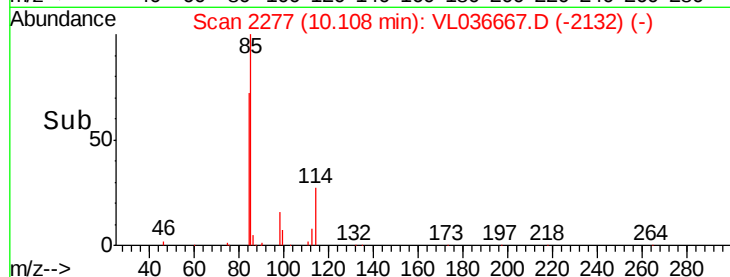
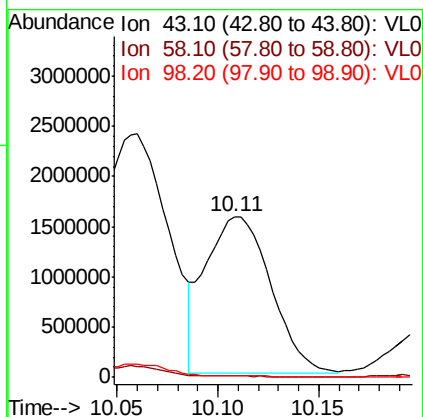
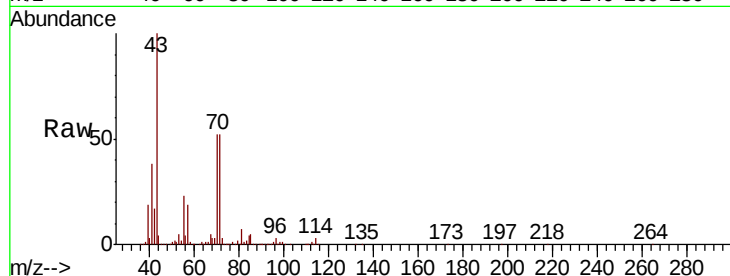




#51
2-Hexanone
Concen: 29.851 ppbv
RT: 10.11 min Scan# 2277
Delta R.T. -0.03 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

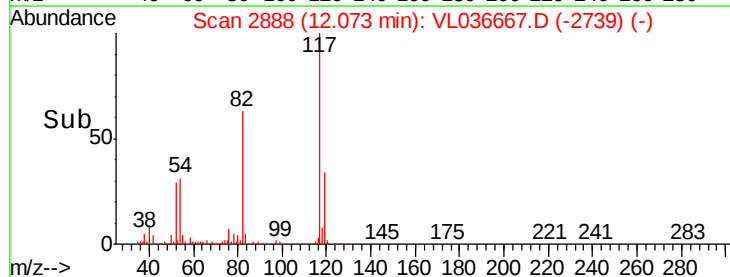
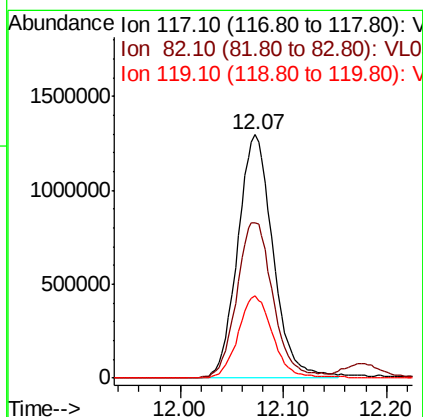
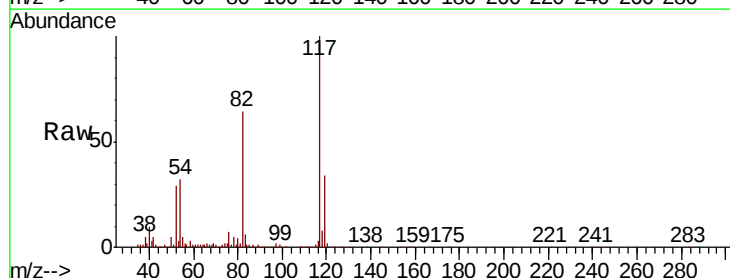
Instrument :
MSVOA_L
ClientSampleId :

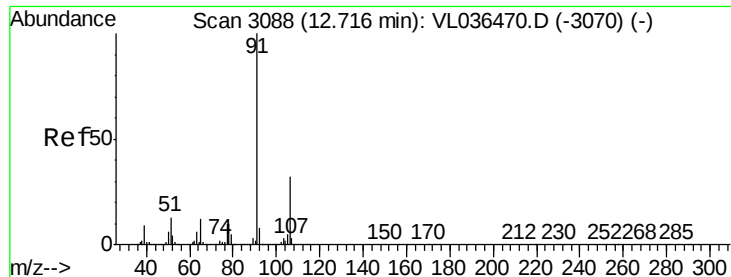
Tot Ion: 43 Resp: 3508323
Ion Ratio Lower Upper
43 100
58 0.0 37.7 56.5#
98 0.0 0.2 0.2#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2888
Delta R.T. -0.02 min
Lab File: VL036667.D
Acq: 3 Apr 2021 5:15

Tgt Ion: 117 Resp: 3083305
Ion Ratio Lower Upper
117 100
82 66.0 57.4 86.0
119 33.5 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.559 ppbv

RT: 12.69 min Scan# 3081

Delta R.T. -0.02 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

Instrument :

MSVOA_L

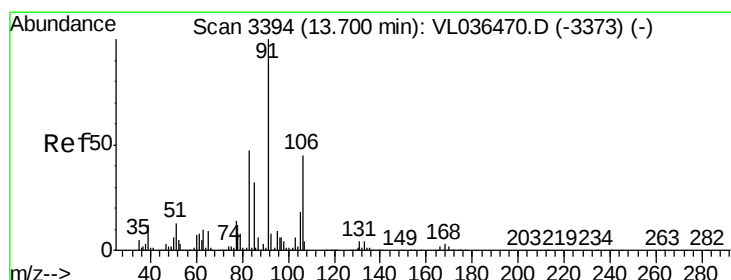
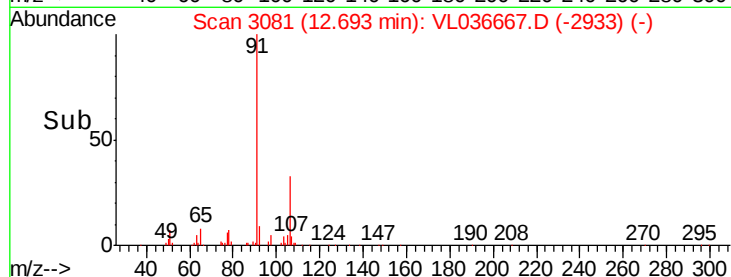
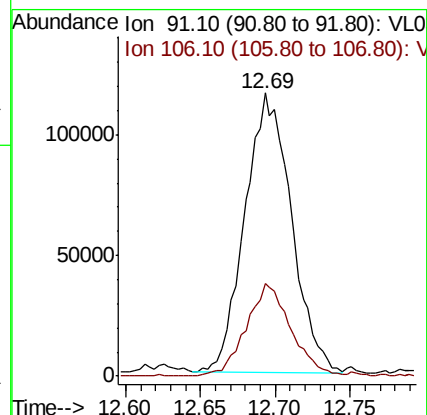
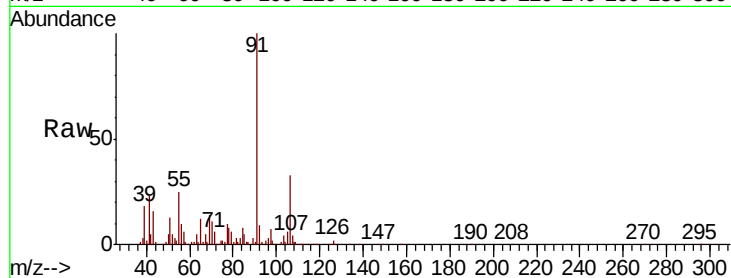
ClientSampled :

Tot Ion: 91 Resp: 250690

Ion Ratio Lower Upper

91 100

106 33.3 25.3 37.9



#60

o-Xylene

Concen: 0.033 ppbv

RT: 13.68 min Scan# 3387

Delta R.T. -0.02 min

Lab File: VL036667.D

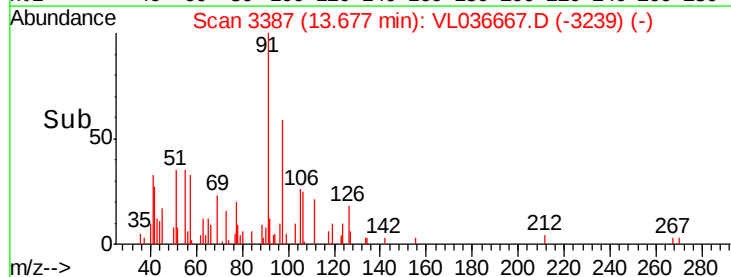
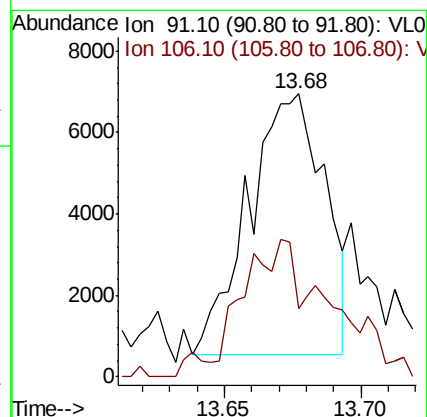
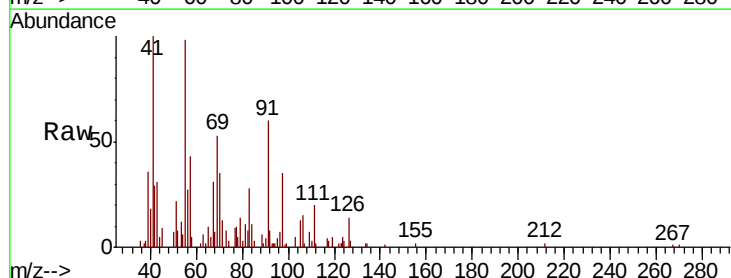
Acq: 3 Apr 2021 5:15

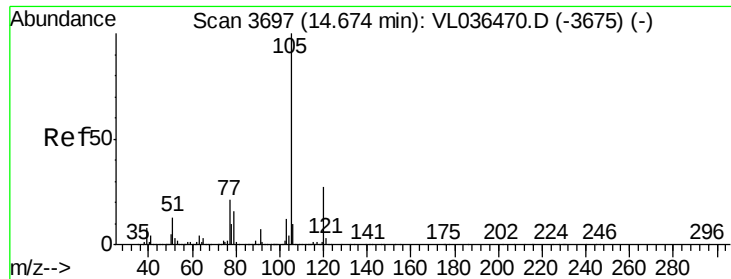
Tgt Ion: 91 Resp: 12405

Ion Ratio Lower Upper

91 100

106 62.8 22.3 66.9





#62

Isopropylbenzene

Concen: 0.076 ppbv

RT: 14.65 min Scan# 3689

Delta R.T. -0.03 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

Instrument :

MSVOA_L

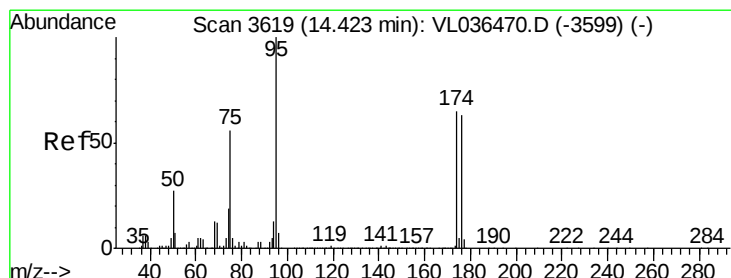
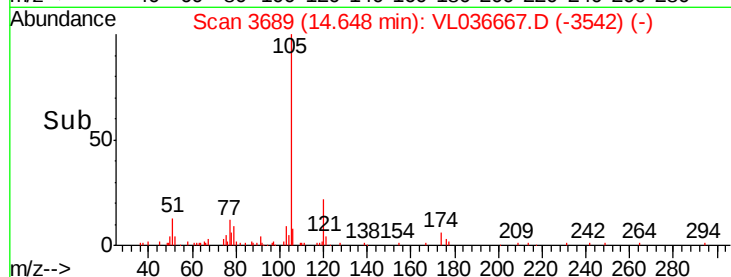
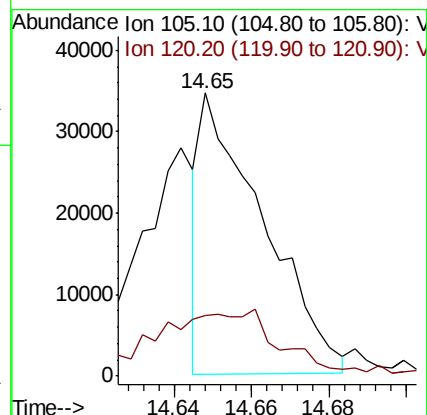
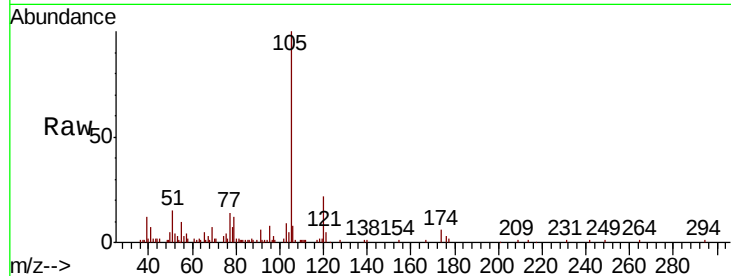
ClientSampleId :

Tot Ion:105 Resp: 38881

Ion Ratio Lower Upper

105 100

120 49.8 20.6 31.0#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.576 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. -0.03 min

Lab File: VL036667.D

Acq: 3 Apr 2021 5:15

Tgt Ion: 95 Resp: 2353245

Ion Ratio Lower Upper

95 100

174 73.0 51.0 76.6

175 5.7 3.9 5.9

