

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL033121\
 Data File : VL036618.D
 Acq On : 1 Apr 2021 2:09
 Operator : SY/AP
 Sample : M1841-04DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 01 04:32:13 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	5.68	49	1560166	10.00	ppbv	0.01
33) 1,4-Difluorobenzene	7.19	114	3788955	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.11	117	3392097	10.00	ppbv	0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.45	95	2655378	9.82	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.20%

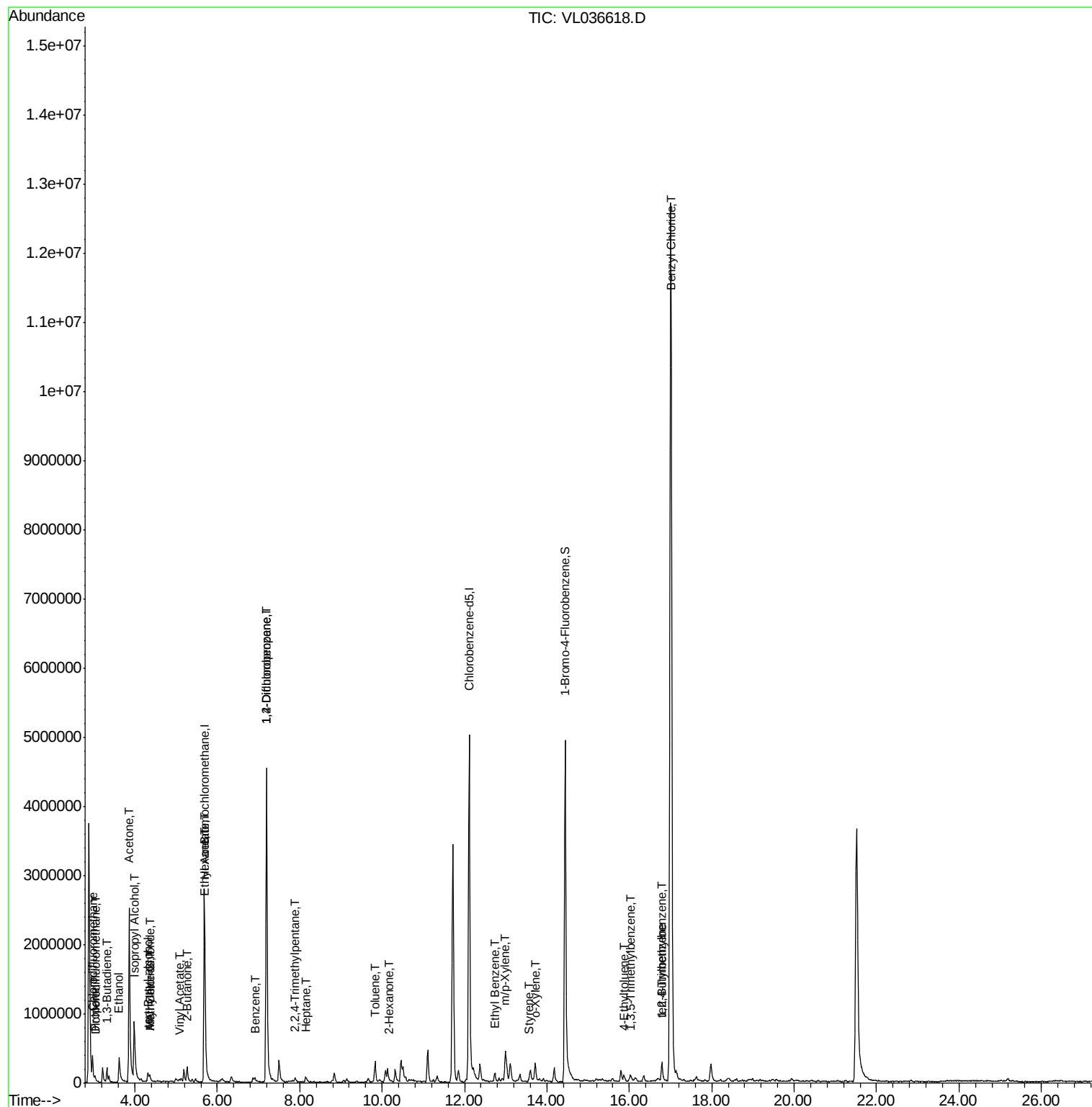
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	9190	0.036	ppbv 89
3) Chlorodifluoromethane	2.97	51	272693	0.935	ppbv # 59
9) Propene	3.03	41	32662	0.351	ppbv 87
10) Heptane	8.15	43	7571	0.032	ppbv # 1
13) Ethanol	3.62	45	469569	42.433	ppbv 99
15) Acetone	3.86	43	3566240	23.224	ppbv 97
16) 1,3-Butadiene	3.32	39	66350	0.621	ppbv # 23
17) tert-Butyl alcohol	4.32	59	136000	1.017	ppbv # 94
19) Isopropyl Alcohol	3.98	45	1244290	14.730	ppbv # 1
20) Methylene Chloride	4.36	84	16321	0.227	ppbv # 79
21) Allyl Chloride	4.37	41	2705	0.022	ppbv # 17
23) Vinyl Acetate	5.08	43	5331	0.020	ppbv # 73
25) Ethyl Acetate	5.71	43	98362	0.269	ppbv # 86
26) Hexane	5.70	57	129327	0.763	ppbv # 49
34) 2-Butanone	5.26	43	306576	1.658	ppbv 93
36) Benzene	6.91	78	34454	0.099	ppbv # 81
39) 1,2-Dichloropropane	7.19	63	1004479	7.086	ppbv # 23
44) 2,2,4-Trimethylpentane	7.89	57	30946	0.050	ppbv # 35
51) 2-Hexanone	10.18	43	3643	0.027	ppbv # 30
53) Toluene	9.83	91	209717	0.564	ppbv 100
58) Ethyl Benzene	12.73	91	63440	0.129	ppbv 96
59) m/p-Xylene	12.99	91	434880	1.010	ppbv 96
60) o-Xylene	13.72	91	204504	0.491	ppbv 100
61) Styrene	13.55	104	5353	0.026	ppbv # 35
65) tert-Butylbenzene	16.79	119	11219	0.023	ppbv # 1
66) Benzyl Chloride	17.02	91	1801	0.034	ppbv # 1
72) 4-Ethyltoluene	15.87	105	55585	0.122	ppbv # 82
73) 1,3,5-Trimethylbenzene	16.03	105	19413	0.046	ppbv # 85
74) 1,2,4-Trimethylbenzene	16.79	105	189854	0.417	ppbv # 69

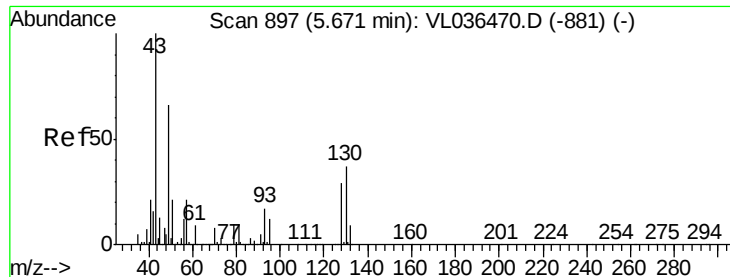
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.01 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

Instrument :

MSVOA_L

ClientSampleId :

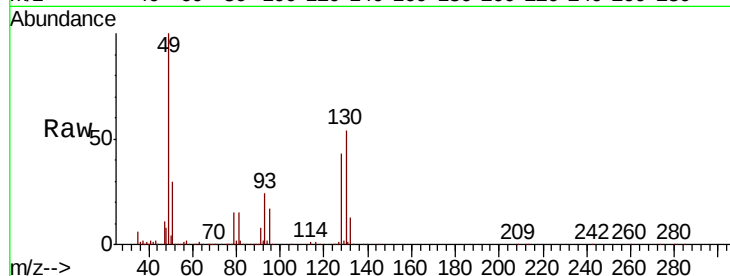
Tot Ion: 49 Resp: 1560166

Ion Ratio Lower Upper

49 100

128 46.8 23.5 70.6

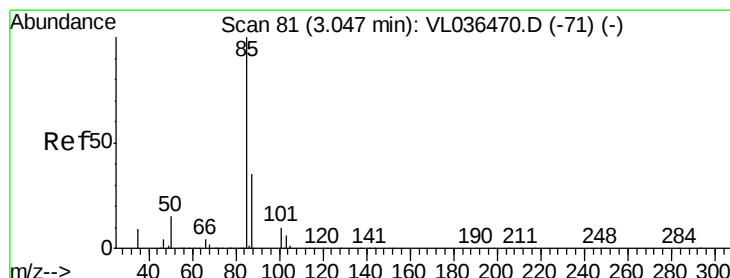
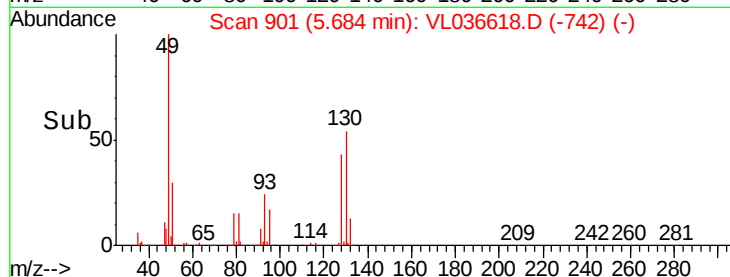
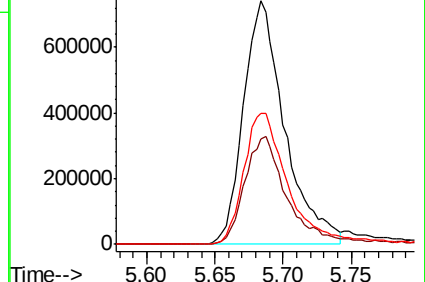
130 59.7 29.1 87.4



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: 0.036 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL036618.D

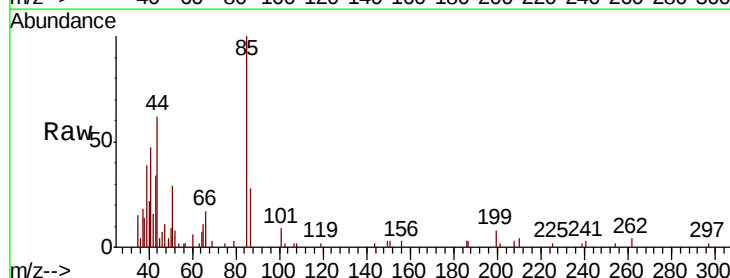
Acq: 1 Apr 2021 2:09

Tgt Ion: 85 Resp: 9190

Ion Ratio Lower Upper

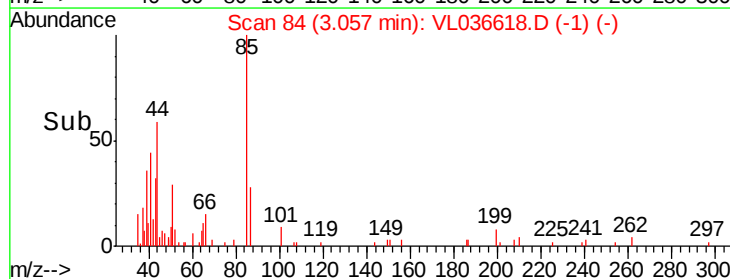
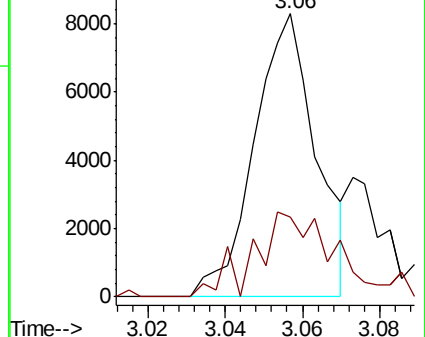
85 100

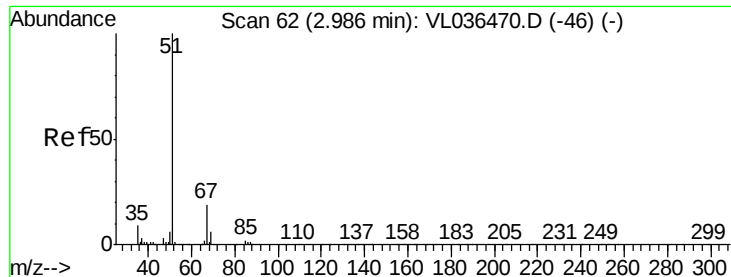
87 28.2 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

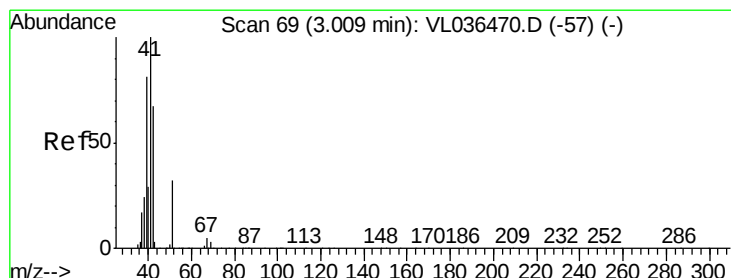
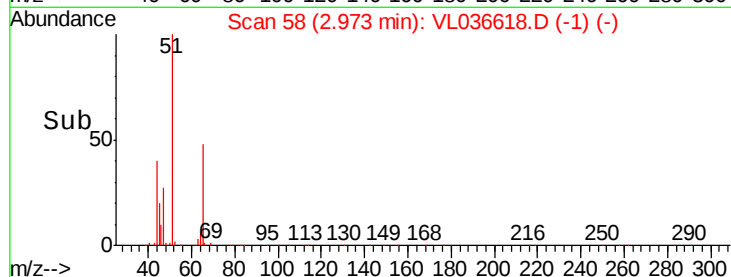
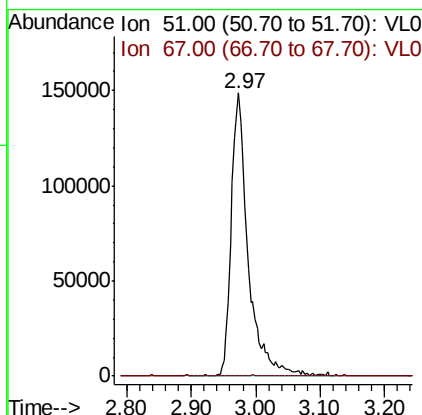
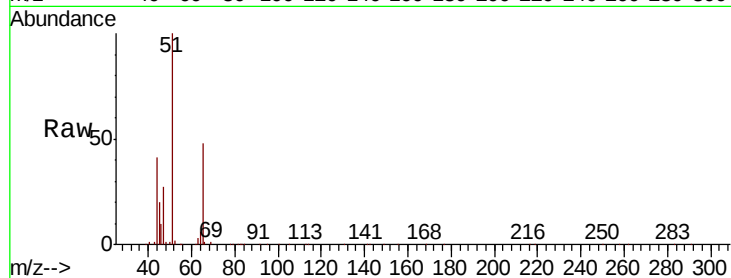




#3
 Chlorodifluoromethane
 Concen: 0.935 ppbv
 RT: 2.97 min Scan# 58
 Delta R.T. -0.01 min
 Lab File: VL036618.D
 Acq: 1 Apr 2021 2:09

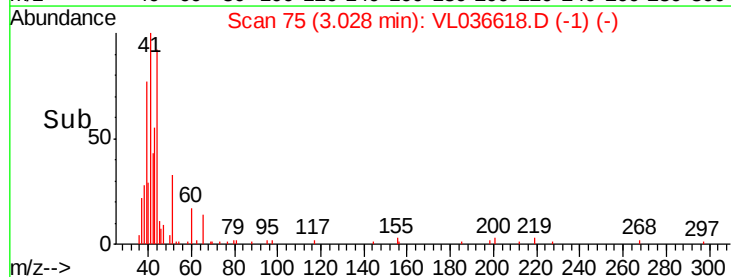
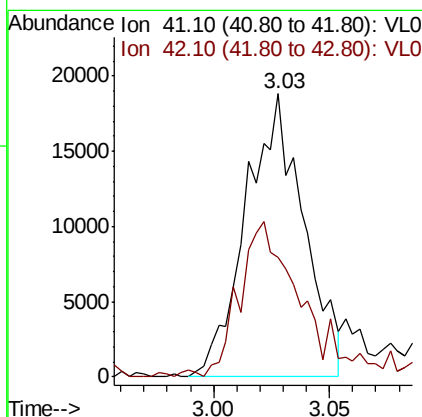
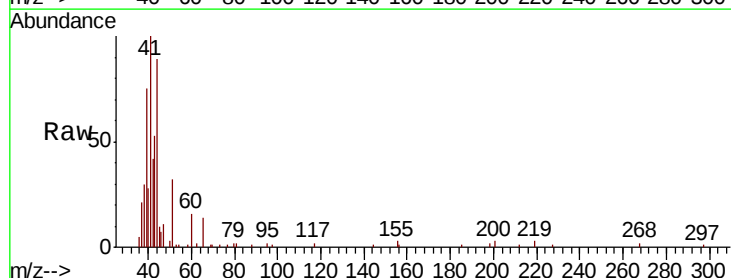
Instrument :
 MSVOA_L
 ClientSampleId :

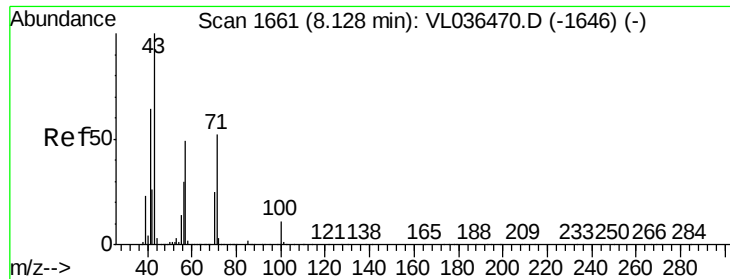
Tot Ion: 51 Resp: 272693
 Ion Ratio Lower Upper
 51 100
 67 0.3 14.7 22.1#



#9
 Propene
 Concen: 0.351 ppbv
 RT: 3.03 min Scan# 75
 Delta R.T. 0.02 min
 Lab File: VL036618.D
 Acq: 1 Apr 2021 2:09

Tgt Ion: 41 Resp: 32662
 Ion Ratio Lower Upper
 41 100
 42 60.1 57.0 85.4

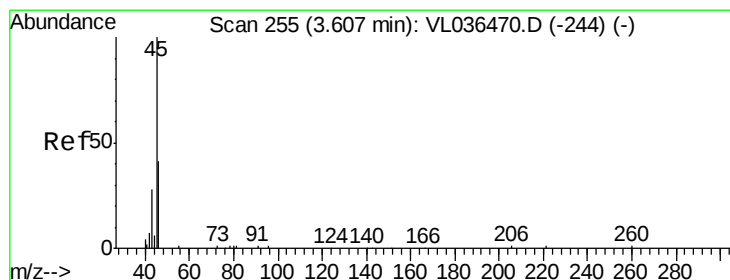
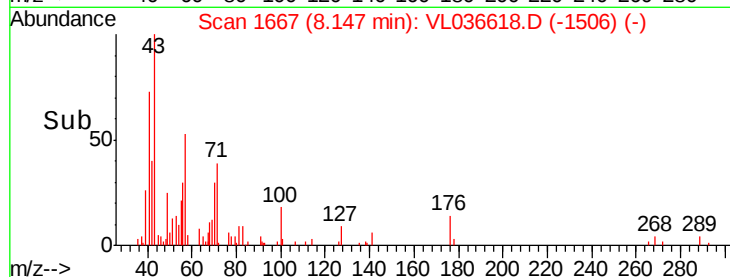
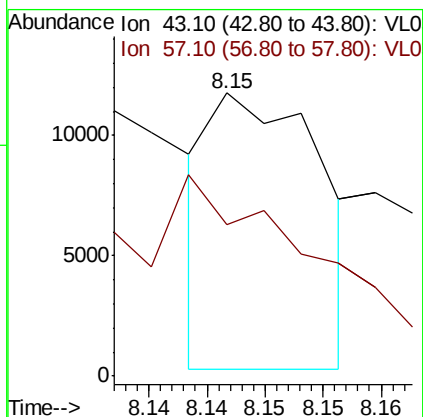
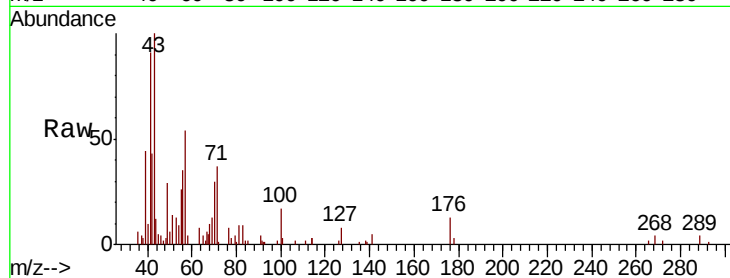




#10
Heptane
Concen: 0.032 ppbv
RT: 8.15 min Scan# 1667
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

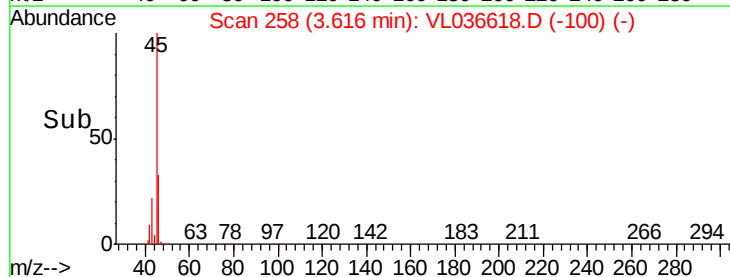
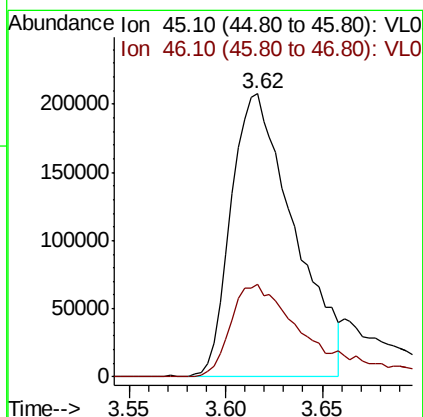
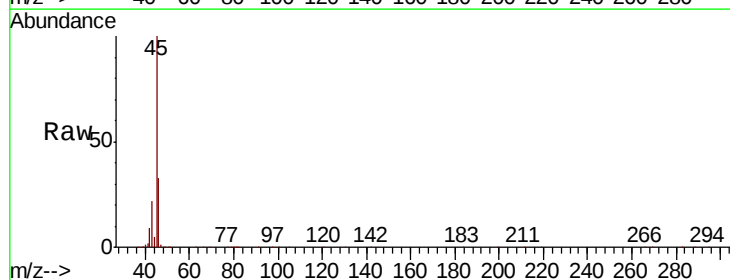
Instrument :
MSVOA_L
ClientSampled :

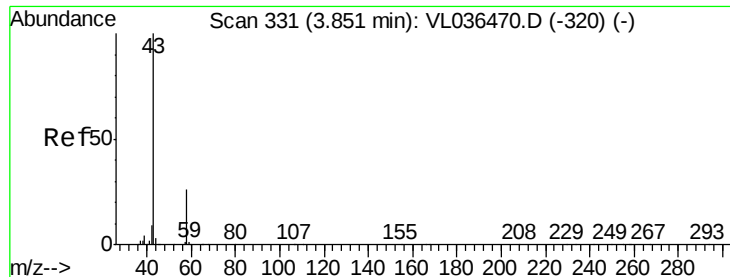
Tot Ion: 43 Resp: 7571
Ion Ratio Lower Upper
43 100
57 213.8 39.0 58.6#



#13
Ethanol
Concen: 42.433 ppbv
RT: 3.62 min Scan# 258
Delta R.T. 0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 45 Resp: 469569
Ion Ratio Lower Upper
45 100
46 42.1 16.6 66.2





#15

Acetone

Concen: 23.224 ppbv

RT: 3.86 min Scan# 334

Delta R.T. 0.01 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

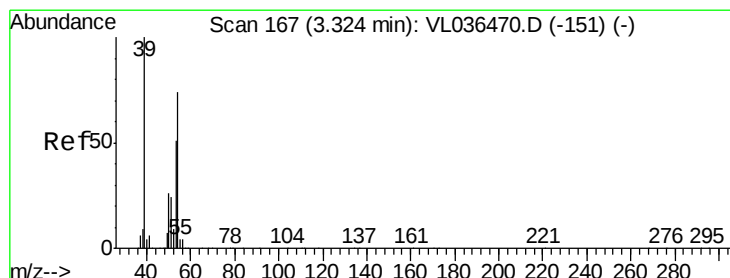
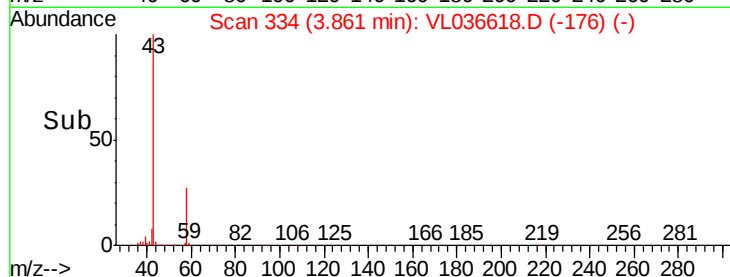
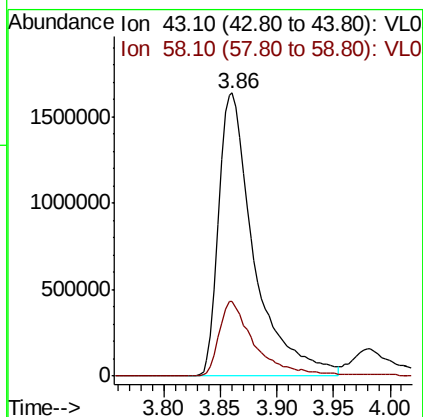
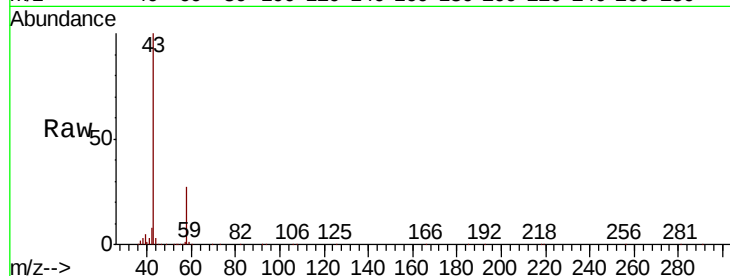
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 3566240

Ion Ratio Lower Upper

43 100

58 28.0 21.2 31.8



#16

1,3-Butadiene

Concen: 0.621 ppbv

RT: 3.32 min Scan# 166

Delta R.T. -0.00 min

Lab File: VL036618.D

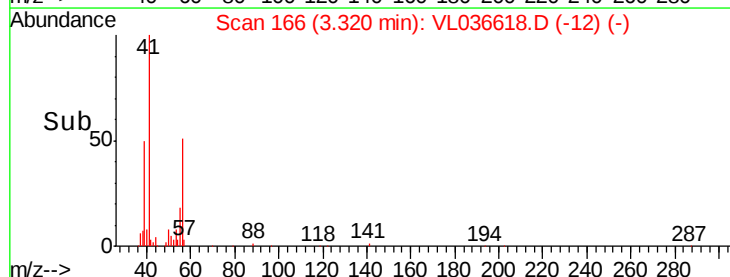
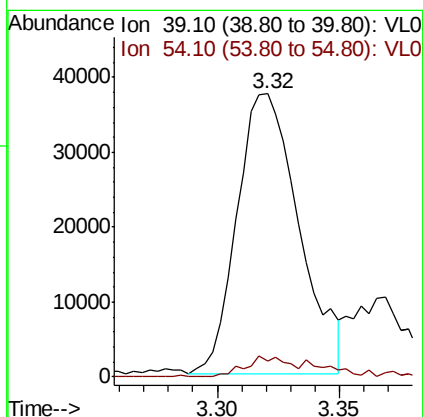
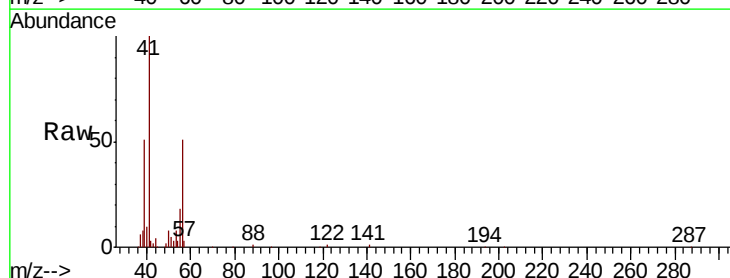
Acq: 1 Apr 2021 2:09

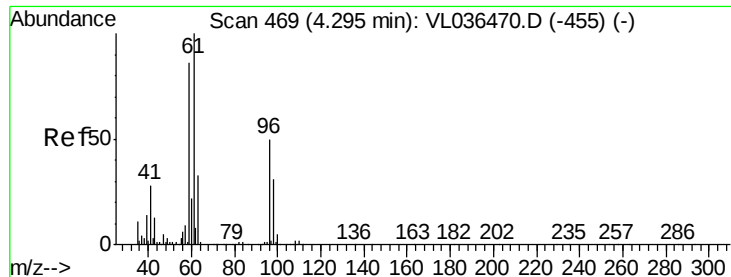
Tgt Ion: 39 Resp: 66350

Ion Ratio Lower Upper

39 100

54 8.5 58.8 88.2#



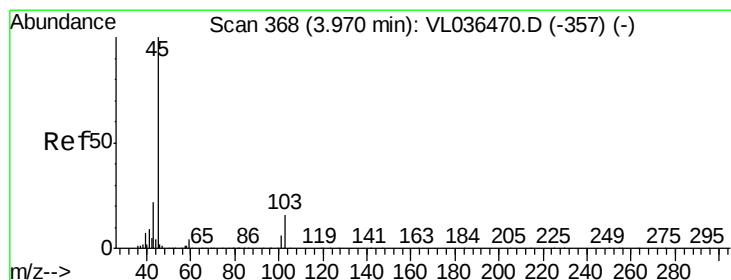
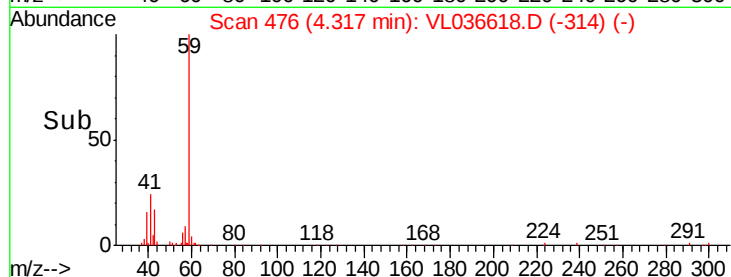
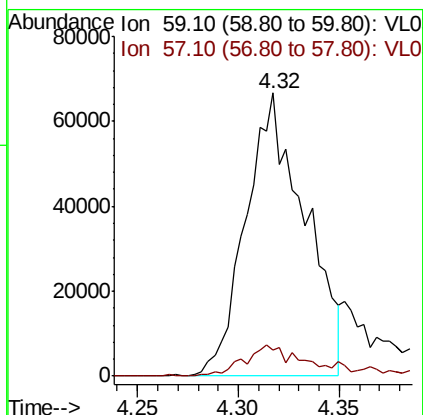
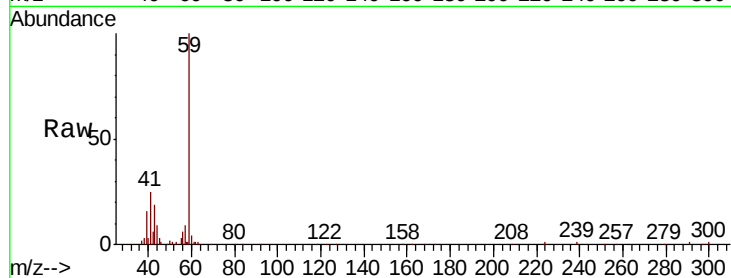


#17

tert-Butyl alcohol
Concen: 1.017 ppbv
RT: 4.32 min Scan# 476
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Instrument :
MSVOA_L
ClientSampleId :

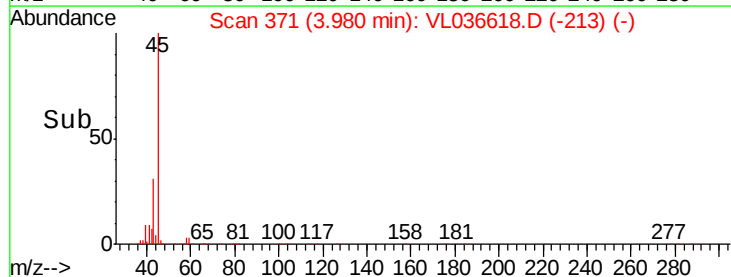
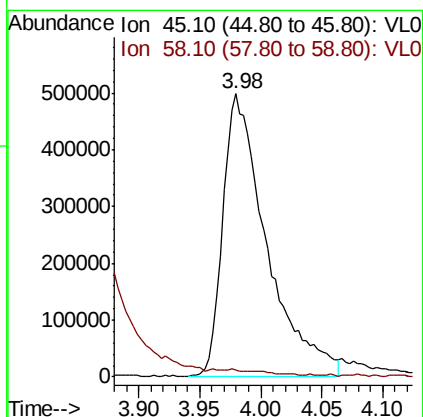
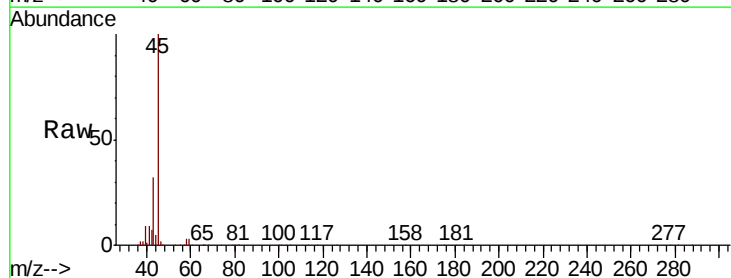
Tot Ion: 59 Resp: 136000
Ion Ratio Lower Upper
59 100
57 13.1 8.6 12.8#

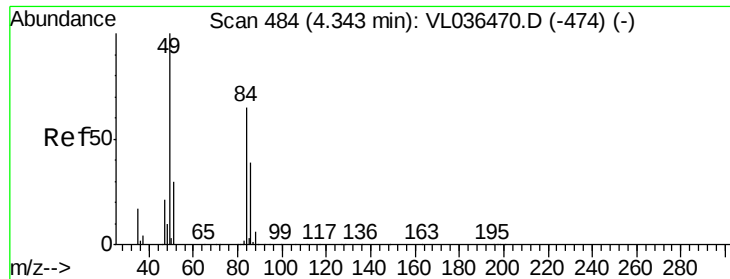


#19

Isopropyl Alcohol
Concen: 14.730 ppbv
RT: 3.98 min Scan# 371
Delta R.T. 0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 45 Resp: 1244290
Ion Ratio Lower Upper
45 100
58 80.1 2.9 4.3#

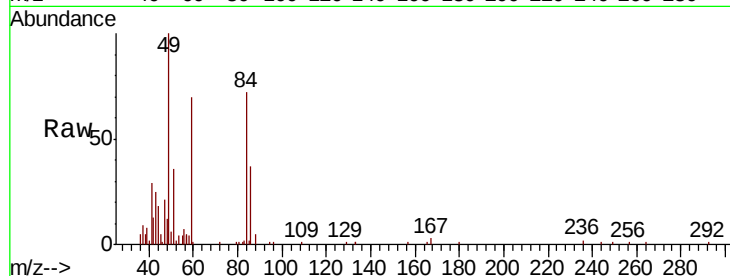




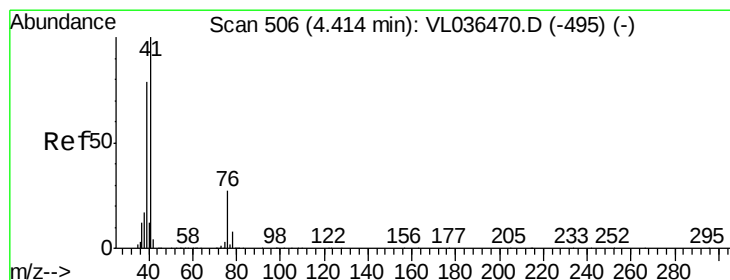
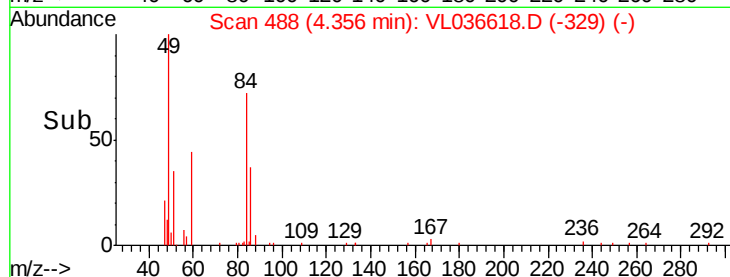
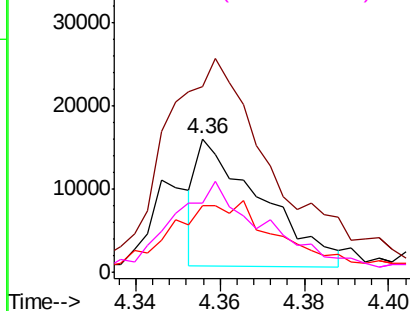
#20
Methylene Chloride
Concen: 0.227 ppbv
RT: 4.36 min Scan# 488
Delta R.T. 0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 84 Resp: 16321
Ion Ratio Lower Upper
84 100
49 117.2 122.9 184.3#
51 44.2 36.9 55.3
86 49.0 48.2 72.4

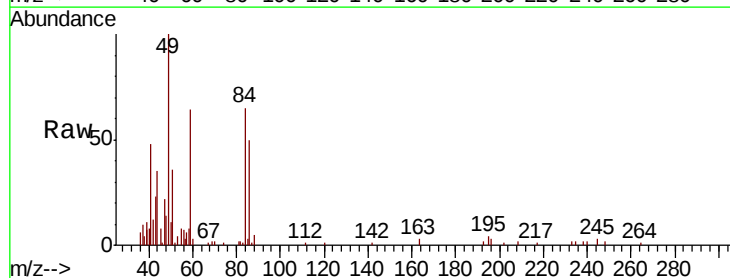


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

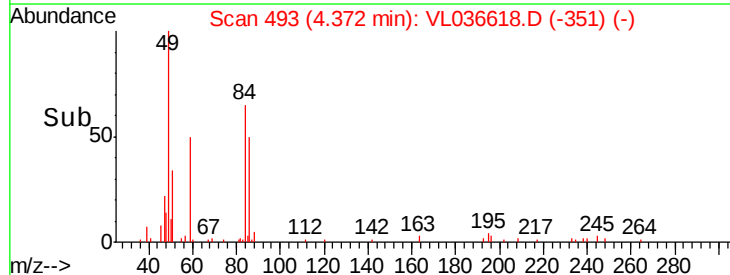
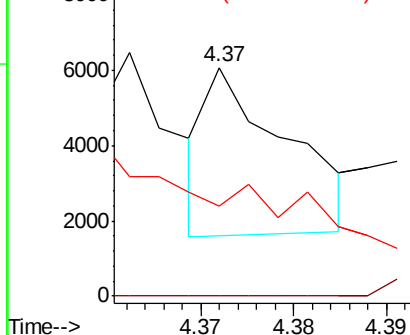


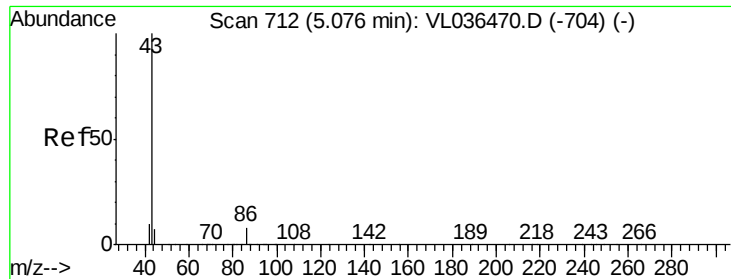
#21
Allyl Chloride
Concen: 0.022 ppbv
RT: 4.37 min Scan# 493
Delta R.T. -0.04 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 41 Resp: 2705
Ion Ratio Lower Upper
41 100
76 0.0 22.9 34.3#
39 0.0 67.3 100.9#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.020 ppbv

RT: 5.08 min Scan# 713

Delta R.T. 0.00 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 5331

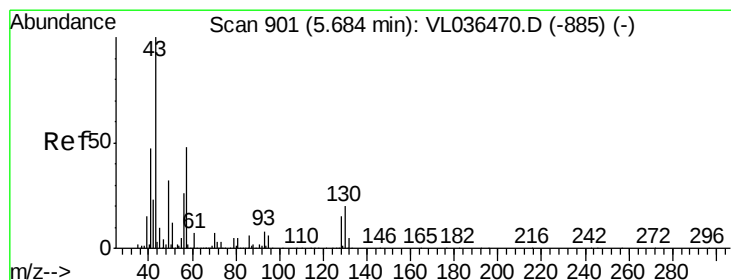
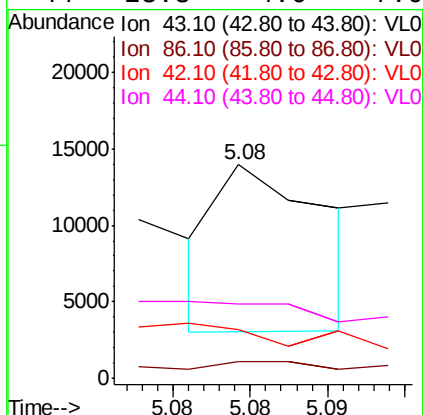
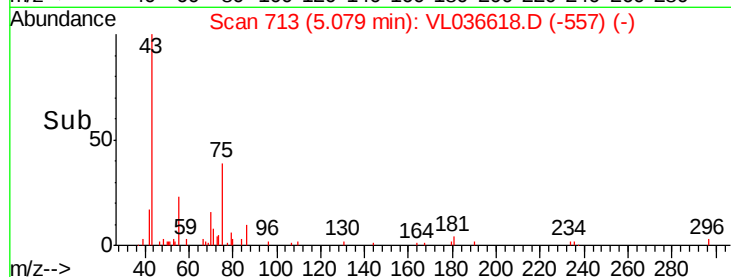
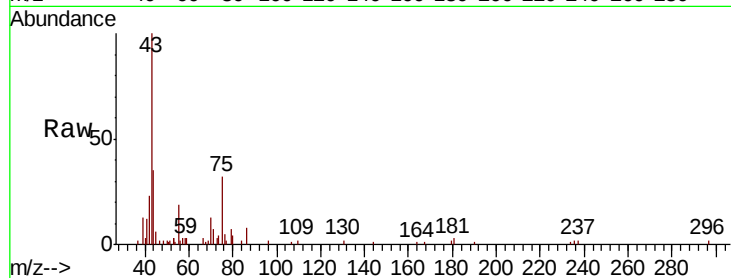
Ion Ratio Lower Upper

43 100

86 10.9 5.4 8.0#

42 2.3 8.5 12.7#

44 23.3 4.6 7.0#



#25

Ethyl Acetate

Concen: 0.269 ppbv

RT: 5.71 min Scan# 908

Delta R.T. 0.02 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

Tgt Ion: 43 Resp: 98362

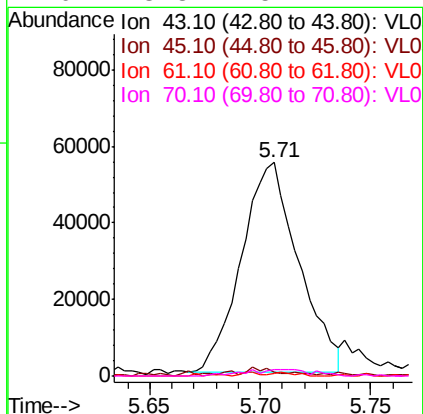
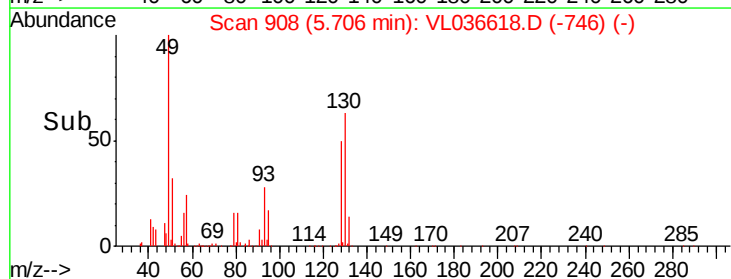
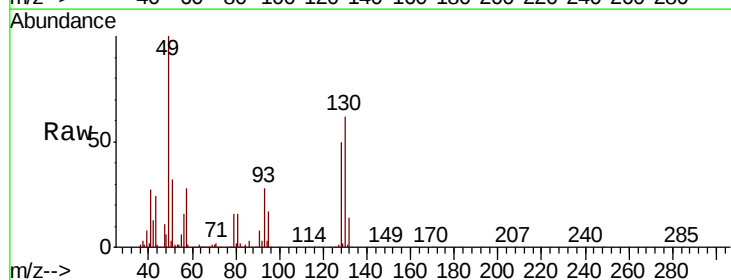
Ion Ratio Lower Upper

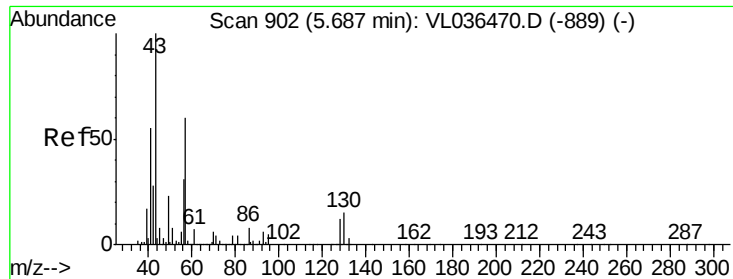
43 100

45 4.9 7.9 11.9#

61 2.1 7.4 11.2#

70 3.8 5.1 7.7#

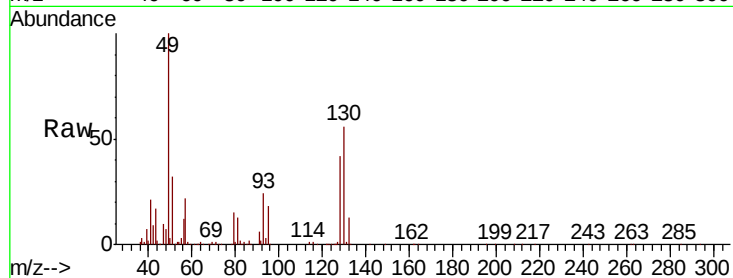




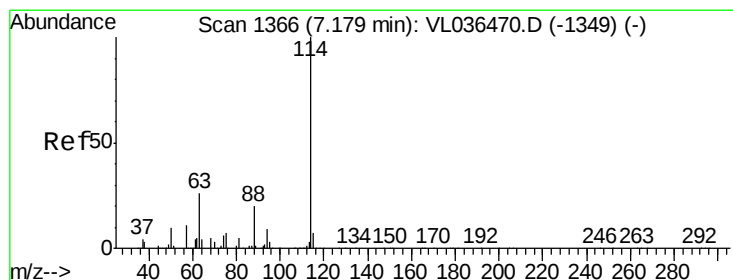
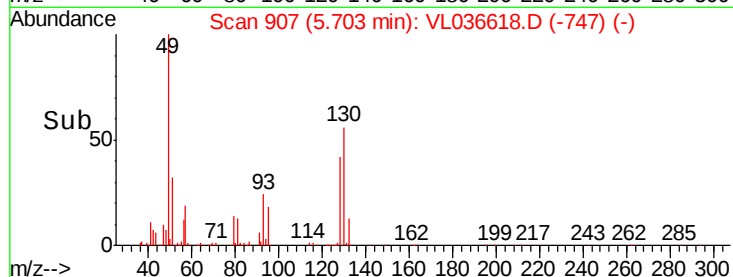
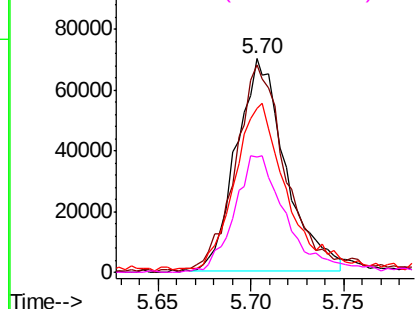
#26
Hexane
Concen: 0.763 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 129327
Ion Ratio Lower Upper
57 100
41 105.0 77.2 115.8
43 87.9 173.8 260.6#
56 58.7 43.8 65.6

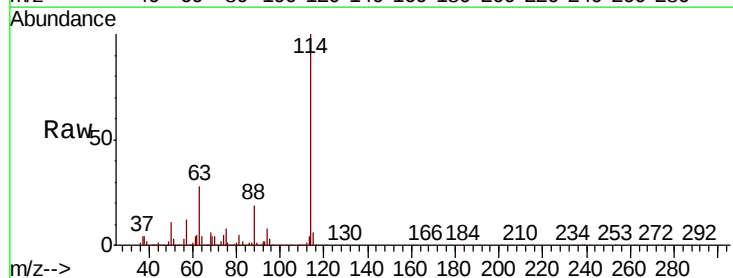


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

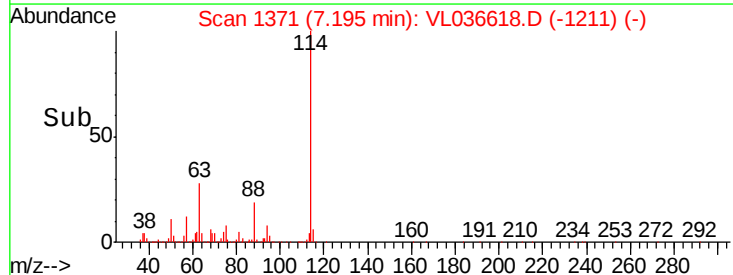
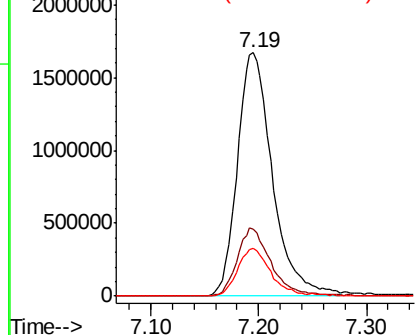


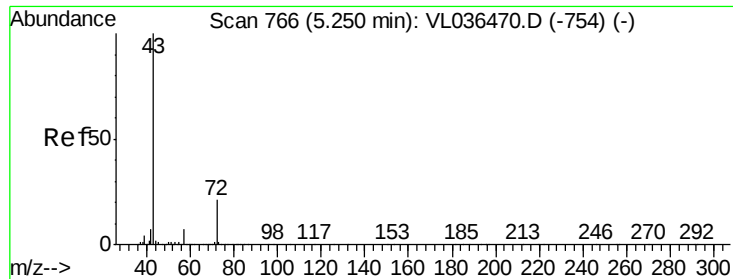
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1371
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion:114 Resp: 3788955
Ion Ratio Lower Upper
114 100
63 27.4 22.4 33.6
88 19.0 15.4 23.0



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0

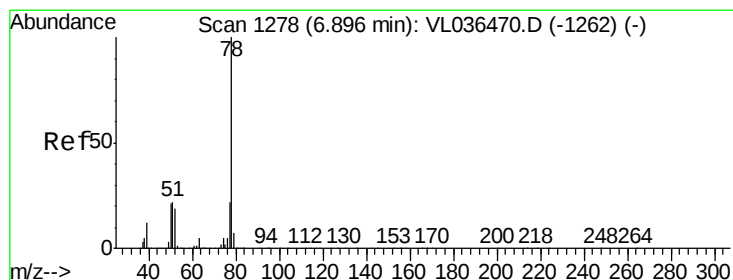
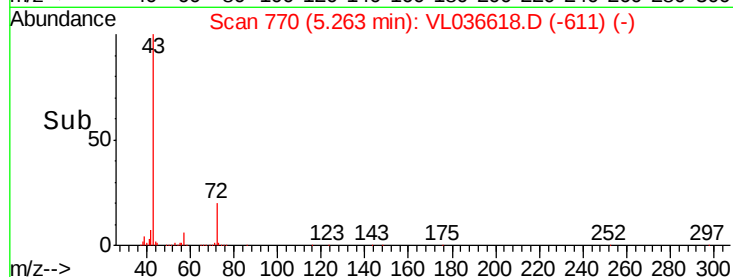
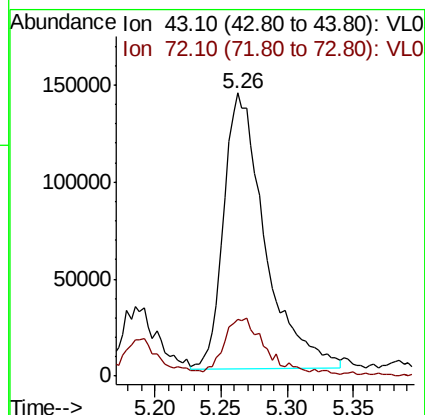
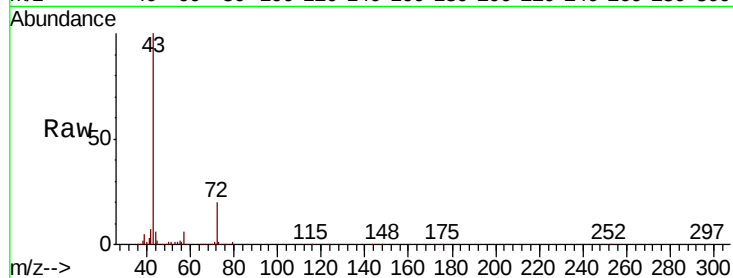




#34
2-Butanone
Concen: 1.658 ppbv
RT: 5.26 min Scan# 770
Delta R.T. 0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

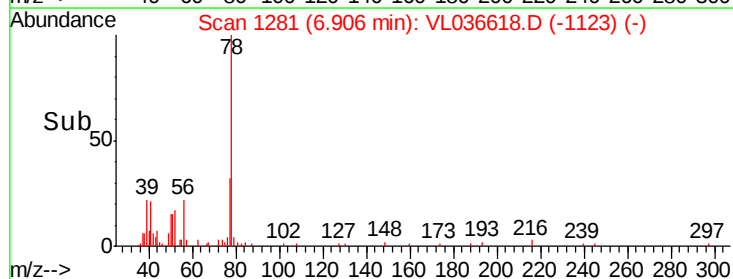
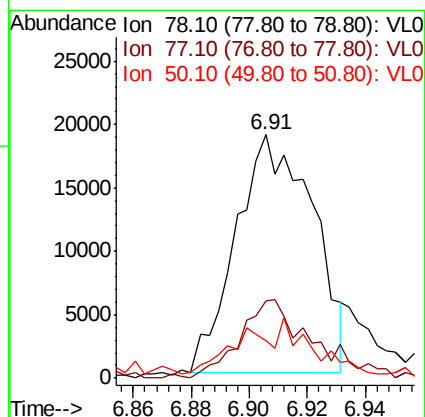
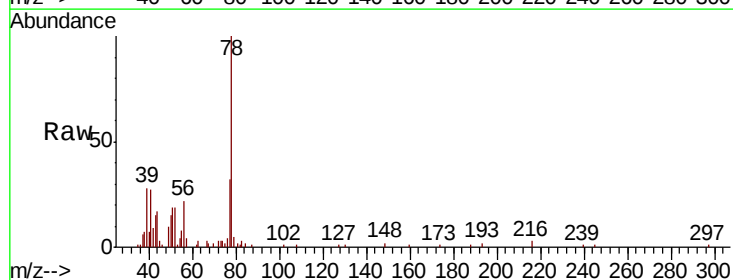
Instrument :
MSVOA_L
ClientSampleId :

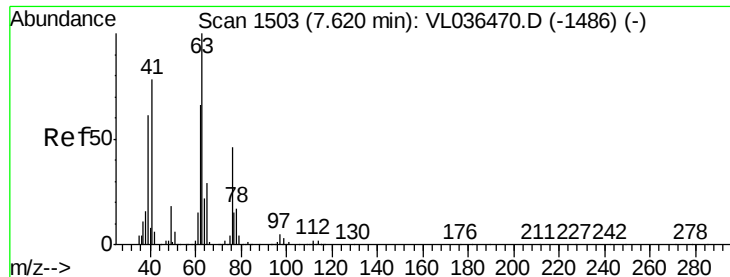
Tot Ion: 43 Resp: 306576
Ion Ratio Lower Upper
43 100
72 24.7 17.0 25.6



#36
Benzene
Concen: 0.099 ppbv
RT: 6.91 min Scan# 1281
Delta R.T. 0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 78 Resp: 34454
Ion Ratio Lower Upper
78 100
77 33.7 18.0 27.0#
50 13.8 16.5 24.7#

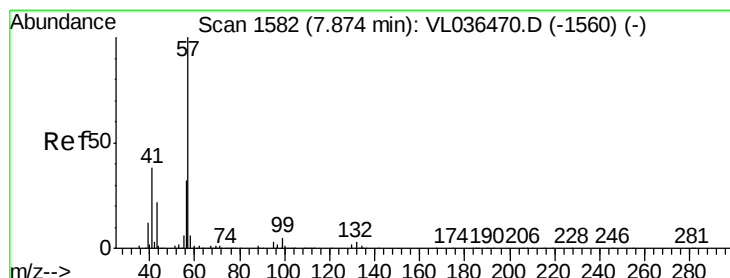
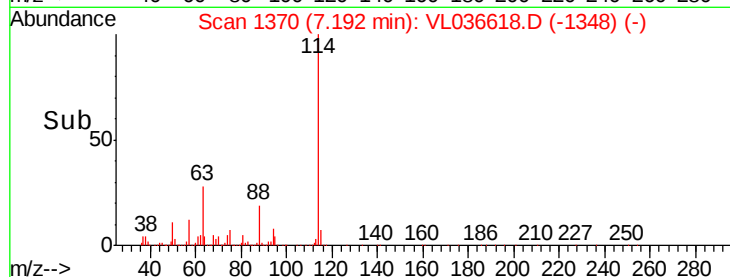
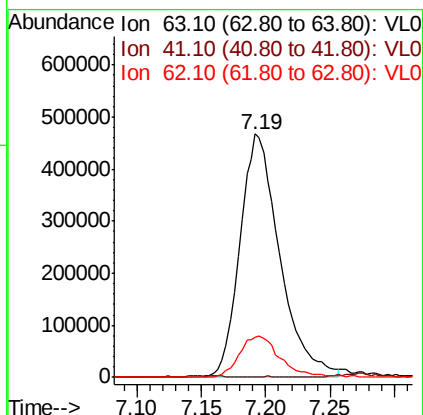
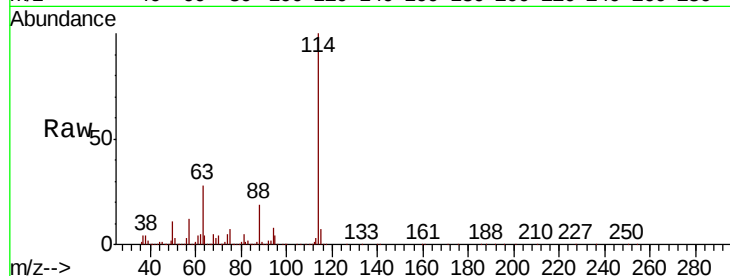




#39
 1,2-Dichloropropane
 Concen: 7.086 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. -0.43 min
 Lab File: VL036618.D
 Acq: 1 Apr 2021 2:09

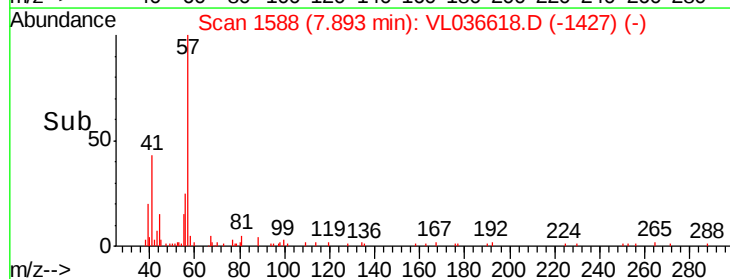
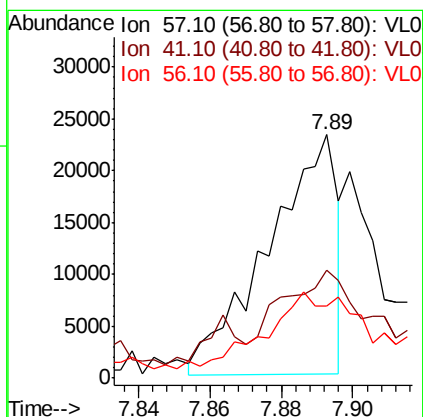
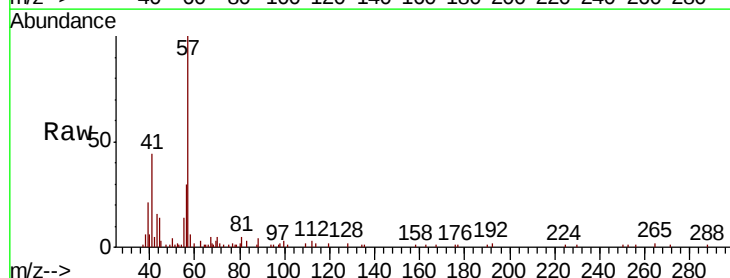
Instrument :
 MSVOA_L
 ClientSampleId :

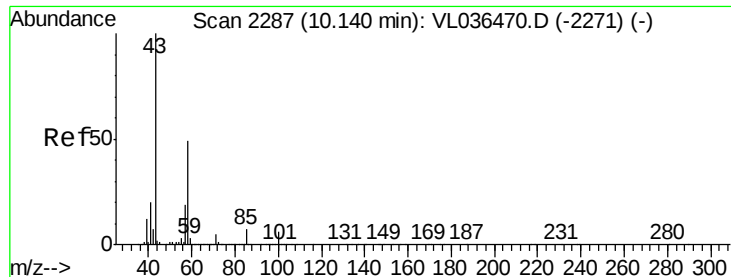
Tot Ion: 63 Resp: 1004479
 Ion Ratio Lower Upper
 63 100
 41 0.0 62.4 93.6#
 62 16.6 52.8 79.2#



#44
 2,2,4-Trimethylpentane
 Concen: 0.050 ppbv
 RT: 7.89 min Scan# 1588
 Delta R.T. 0.02 min
 Lab File: VL036618.D
 Acq: 1 Apr 2021 2:09

Tgt Ion: 57 Resp: 30946
 Ion Ratio Lower Upper
 57 100
 41 75.2 28.8 43.2#
 56 67.5 26.1 39.1#

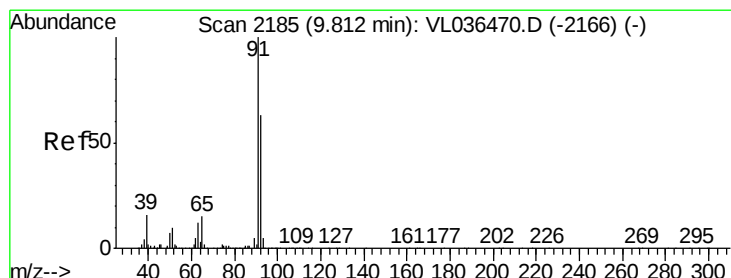
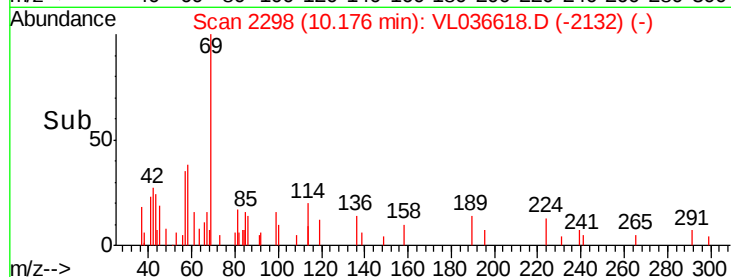
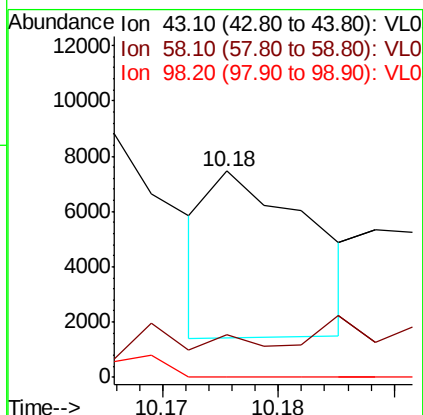
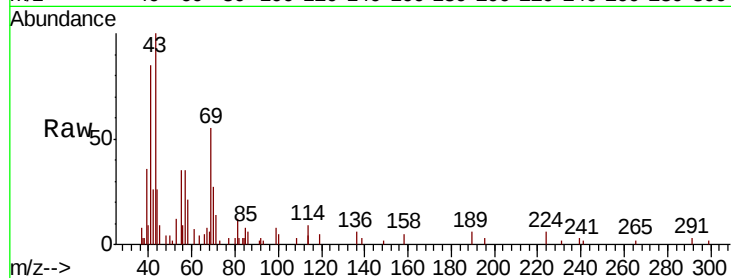




#51
2-Hexanone
Concen: 0.027 ppbv
RT: 10.18 min Scan# 2298
Delta R.T. 0.04 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

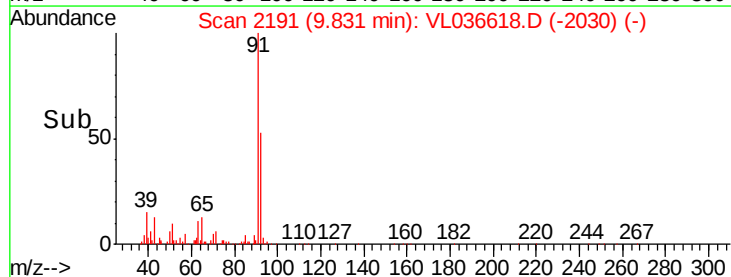
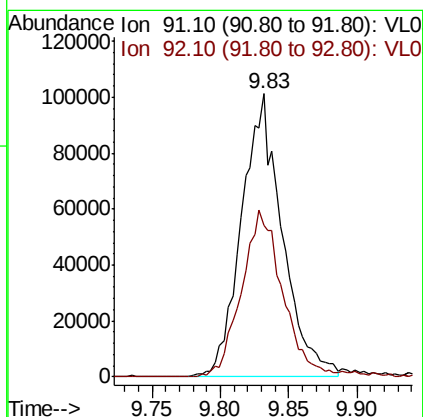
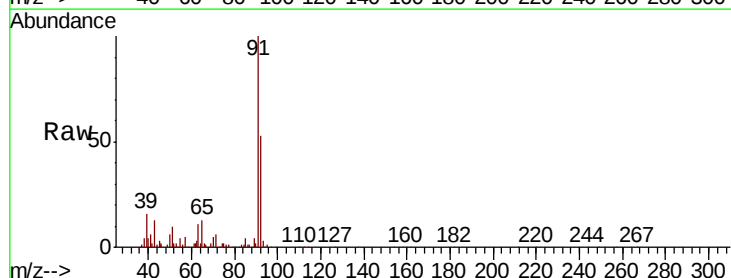
Instrument :
MSVOA_L
ClientSampled :

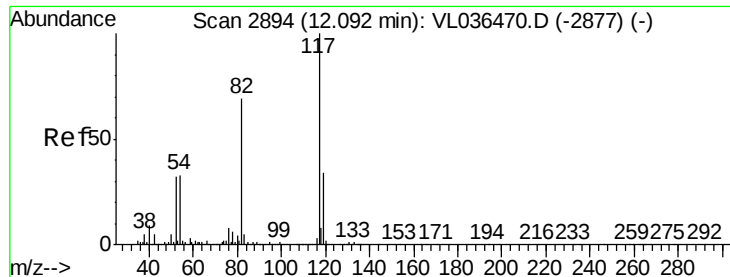
Tot Ion: 43 Resp: 3643
Ion Ratio Lower Upper
43 100
58 0.0 37.7 56.5#
98 0.0 0.2 0.2#



#53
Toluene
Concen: 0.564 ppbv
RT: 9.83 min Scan# 2191
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 91 Resp: 209717
Ion Ratio Lower Upper
91 100
92 61.2 48.8 73.2

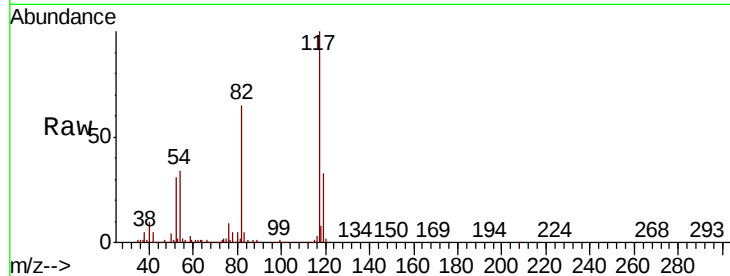




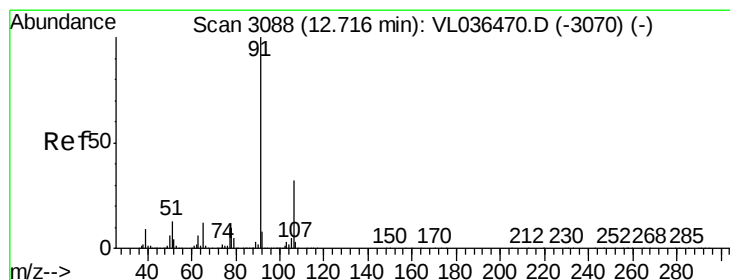
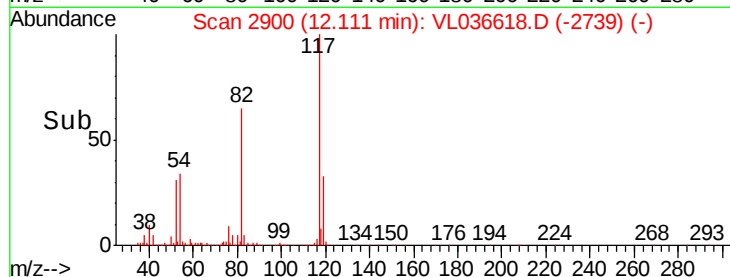
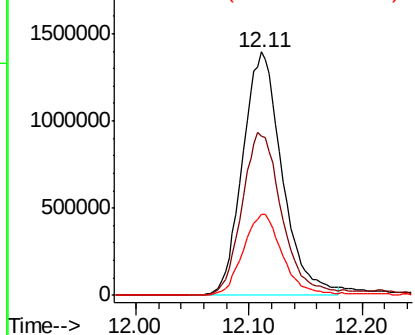
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2900
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 3392097
Ion Ratio Lower Upper
117 100
82 68.1 57.4 86.0
119 34.6 47.4 71.0#

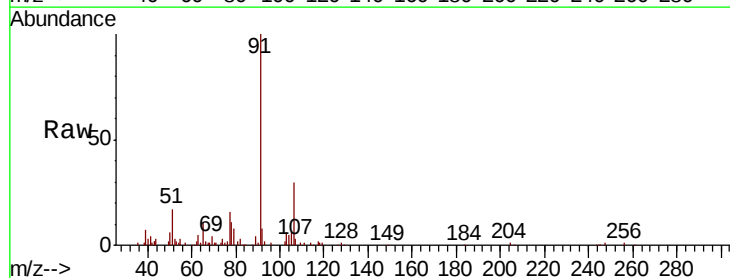


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

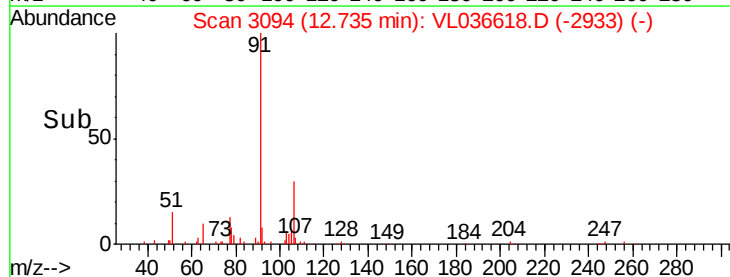
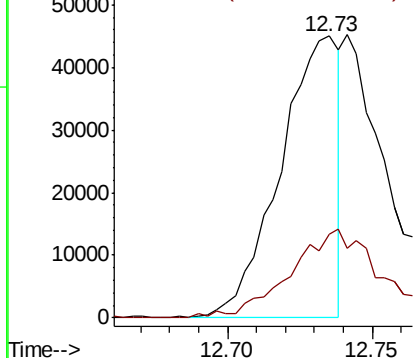


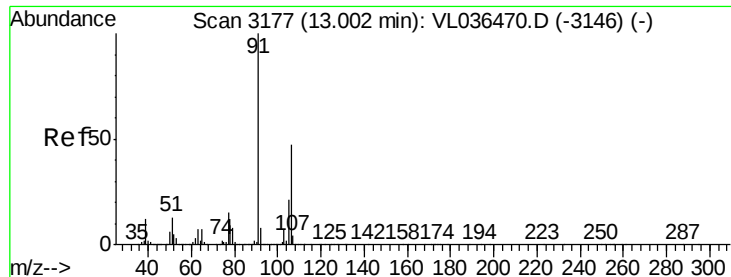
#58
Ethyl Benzene
Concen: 0.129 ppbv
RT: 12.73 min Scan# 3094
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 91 Resp: 63440
Ion Ratio Lower Upper
91 100
106 29.3 25.3 37.9



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V

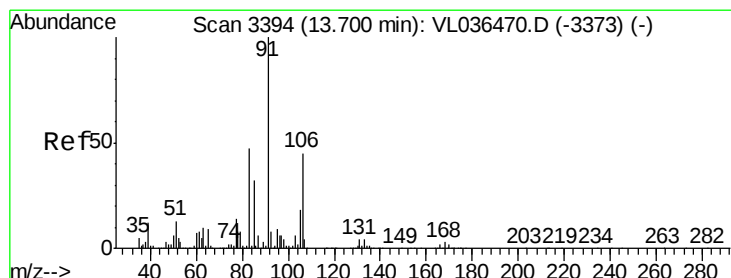
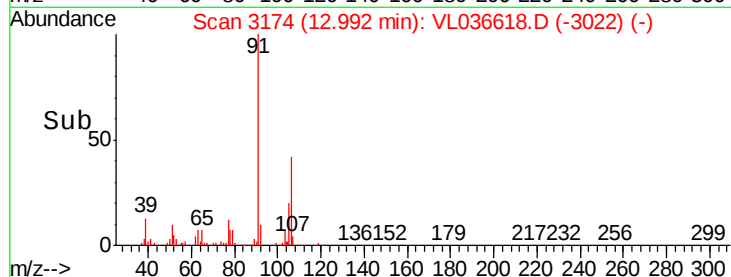
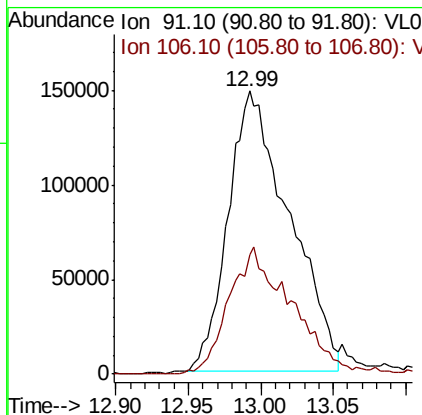
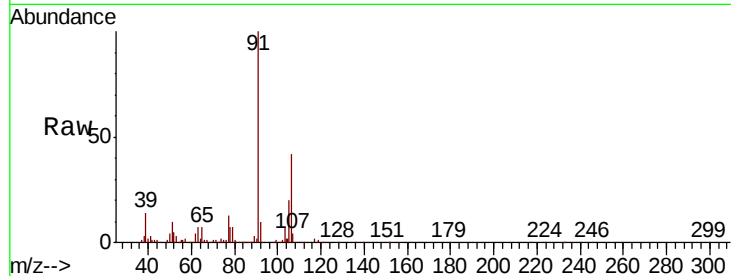




#59
m/p-Xylene
Concen: 1.010 ppbv
RT: 12.99 min Scan# 3174
Delta R.T. -0.01 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

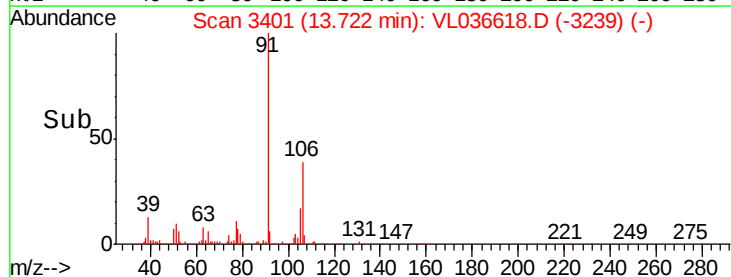
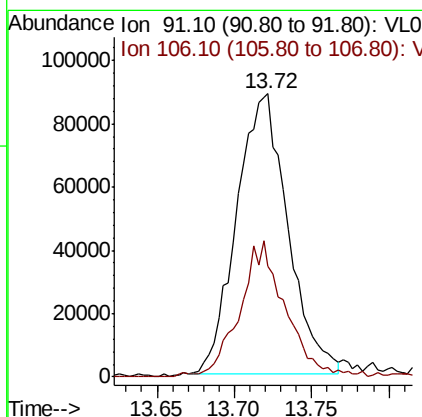
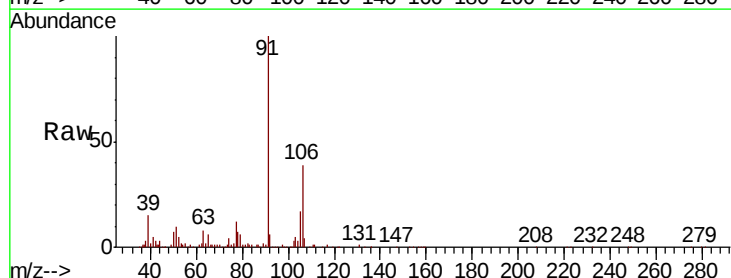
Instrument :
MSVOA_L
ClientSampled :

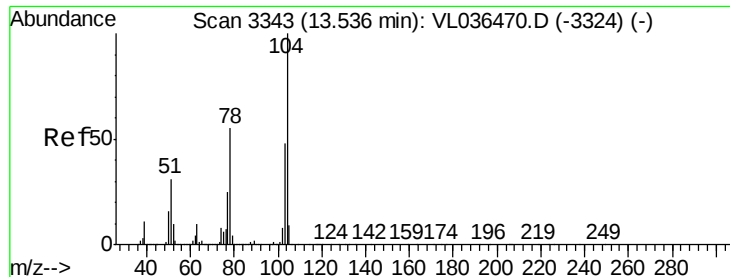
Tot Ion: 91 Resp: 434880
Ion Ratio Lower Upper
91 100
106 46.5 35.3 52.9



#60
o-Xylene
Concen: 0.491 ppbv
RT: 13.72 min Scan# 3401
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 91 Resp: 204504
Ion Ratio Lower Upper
91 100
106 44.4 22.3 66.9





#61

Stvrene

Concen: 0.026 ppbv

RT: 13.55 min Scan# 3348

Delta R.T. 0.02 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

Instrument :

MSVOA_L

ClientSampled :

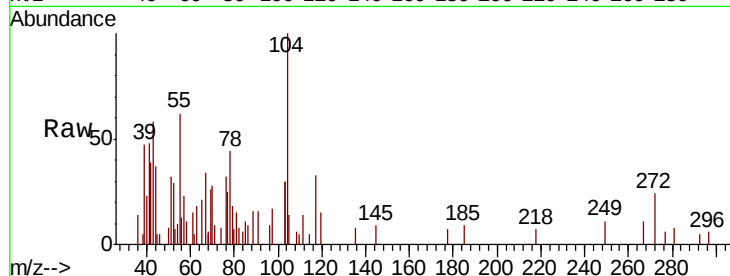
Tot Ion:104 Resp: 5353

Ion Ratio Lower Upper

104 100

78 117.3 43.8 65.8#

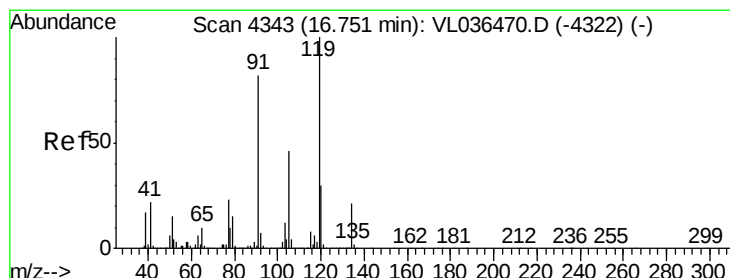
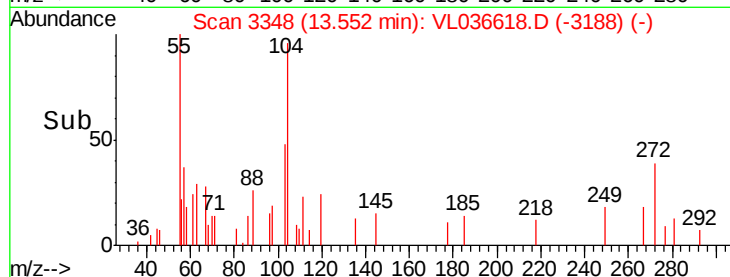
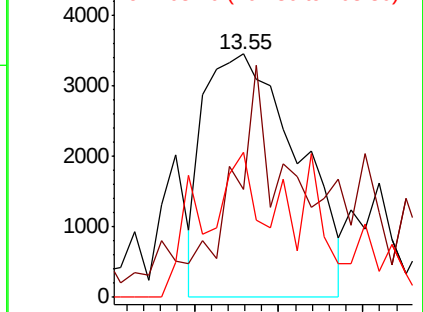
103 74.5 38.3 57.5#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#65

tert-Butylbenzene

Concen: 0.023 ppbv

RT: 16.79 min Scan# 4354

Delta R.T. 0.04 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

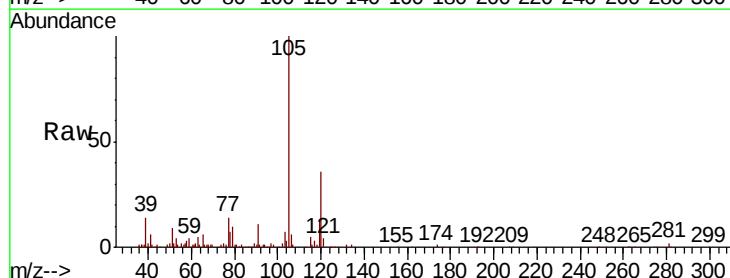
Tgt Ion:119 Resp: 11219

Ion Ratio Lower Upper

119 100

91 279.5 67.5 101.3#

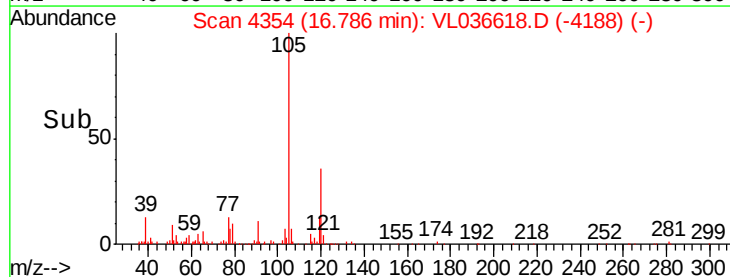
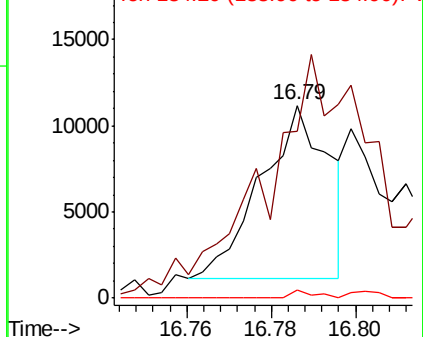
134 0.0 15.8 23.8#

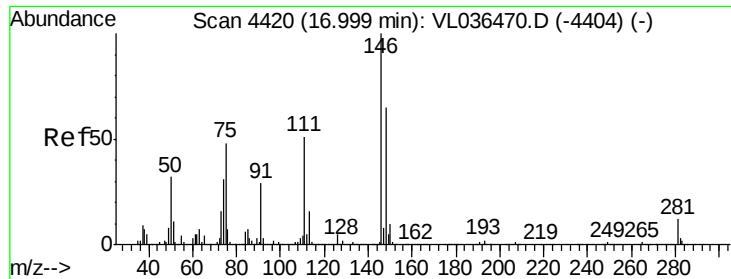


Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V

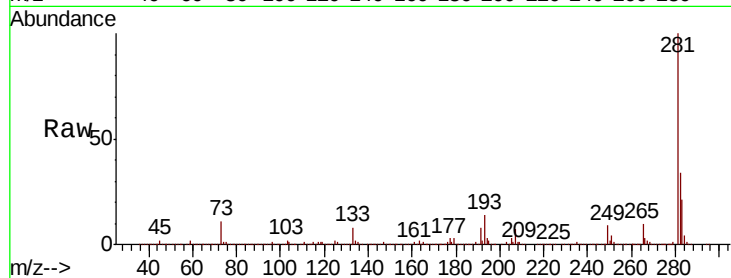




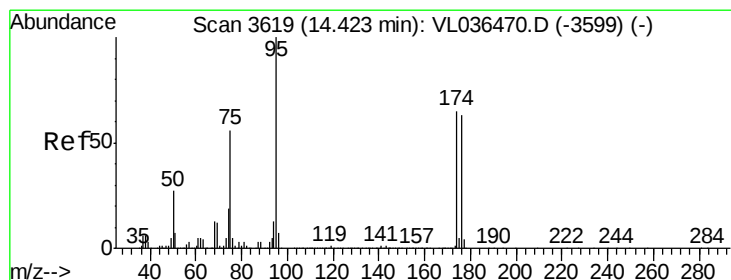
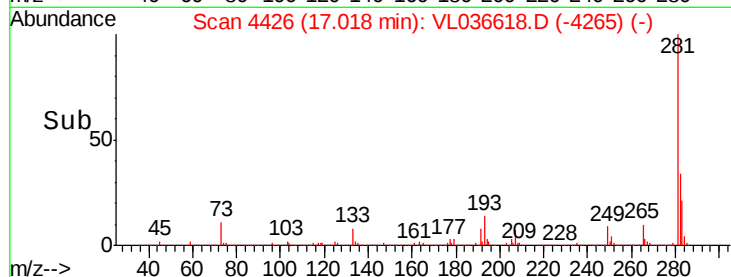
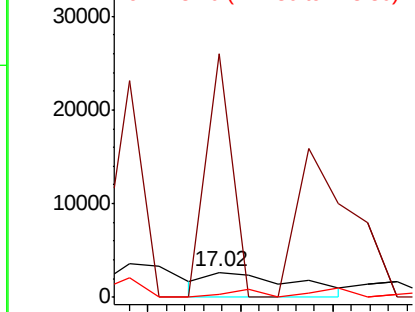
#66
Benzyl Chloride
Concen: 0.034 ppbv
RT: 17.02 min Scan# 4426
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 91 Resp: 1801
Ion Ratio Lower Upper
91 100
126 1203.7 13.5 20.3#
128 0.0 4.2 6.4#

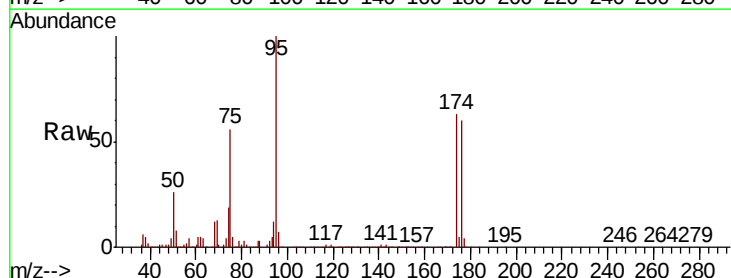


Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 126.10 (125.80 to 126.80): V
Ion 128.10 (127.80 to 128.80): V

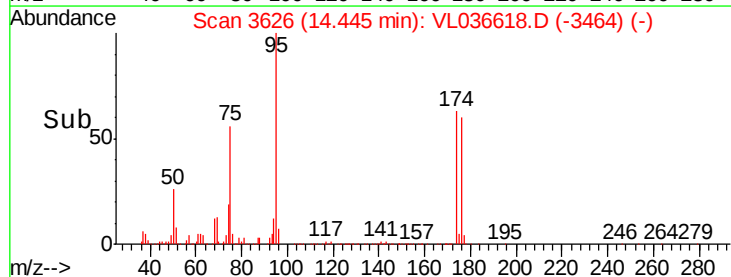
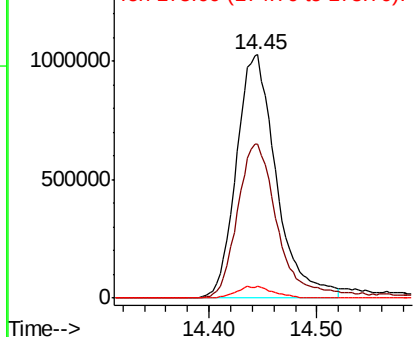


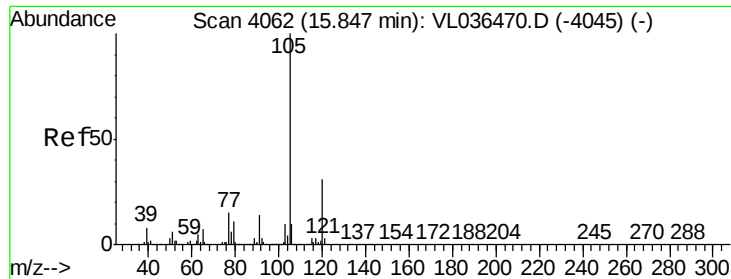
#68
1-Bromo-4-Fluorobenzene
Concen: 9.822 ppbv
RT: 14.45 min Scan# 3626
Delta R.T. 0.02 min
Lab File: VL036618.D
Acq: 1 Apr 2021 2:09

Tgt Ion: 95 Resp: 2655378
Ion Ratio Lower Upper
95 100
174 66.5 51.0 76.6
175 4.7 3.9 5.9



Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.122 ppbv

RT: 15.87 min Scan# 4068

Delta R.T. 0.02 min

Lab File: VL036618.D

Acq: 1 Apr 2021 2:09

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp: 55585

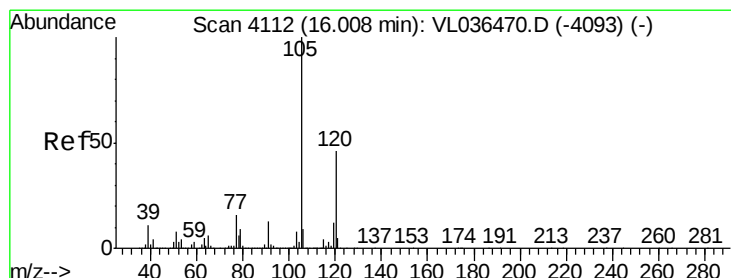
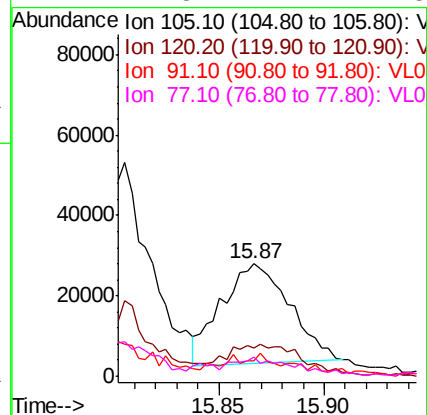
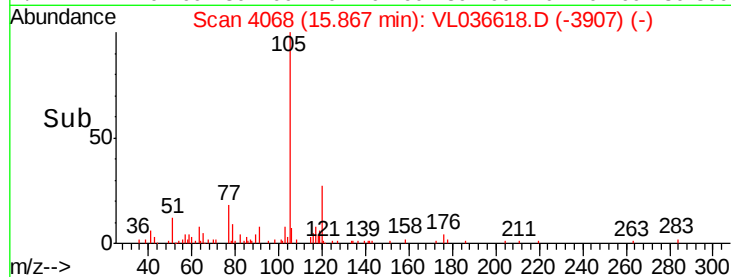
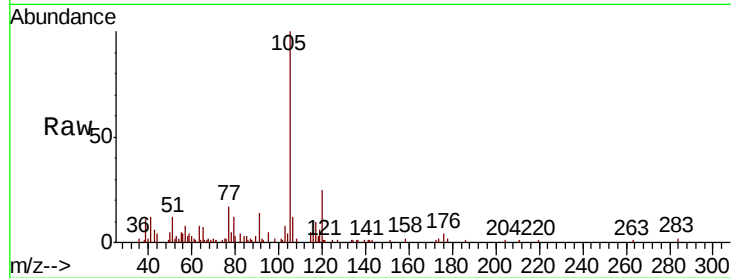
Ion Ratio Lower Upper

105 100

120 36.8 24.0 36.0#

91 24.3 11.0 16.4#

77 22.8 11.7 17.5#



#73

1,3,5-Trimethylbenzene

Concen: 0.046 ppbv

RT: 16.03 min Scan# 4120

Delta R.T. 0.03 min

Lab File: VL036618.D

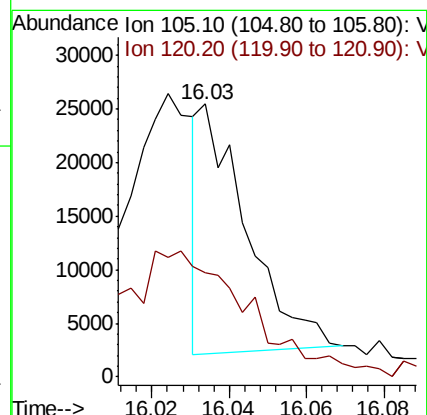
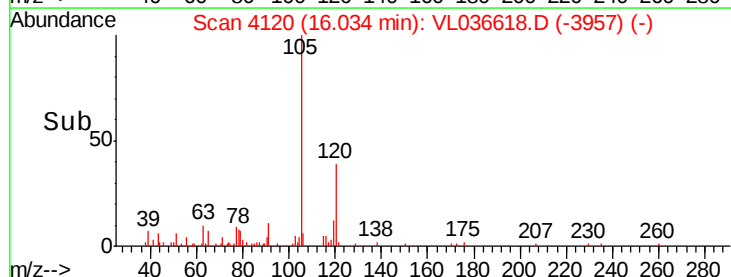
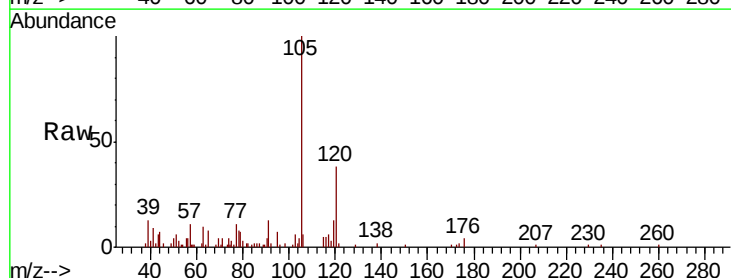
Acq: 1 Apr 2021 2:09

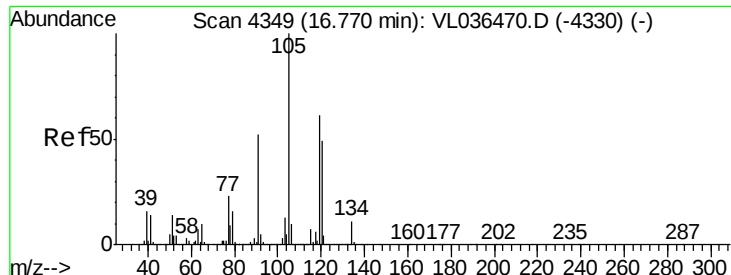
Tgt Ion:105 Resp: 19413

Ion Ratio Lower Upper

105 100

120 35.8 36.6 54.8#

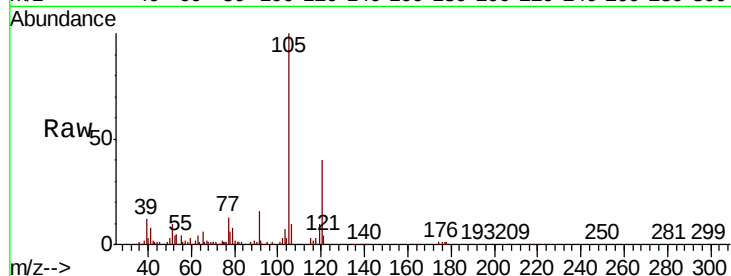




#74
 1,2,4-Trimethylbenzene
 Concen: 0.417 ppbv
 RT: 16.79 min Scan# 4355
 Delta R.T. 0.02 min
 Lab File: VL036618.D
 Acq: 1 Apr 2021 2:09

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	189854
Ion Ratio		Lower	Upper
105	100		
120	40.9	39.2	58.8
91	15.7	42.6	64.0#
77	12.9	18.6	28.0#



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

