

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030320\
 Data File : VL034769.D
 Acq On : 3 Mar 2020 18:28
 Operator : SY/AP
 Sample : L1704-05DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5-4DL

Quant Time: Mar 04 05:47:58 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Feb 28 01:15:02 2020
 QLast Update : Fri Feb 28 01:15:02 2020
 Response via : Initial Calibration

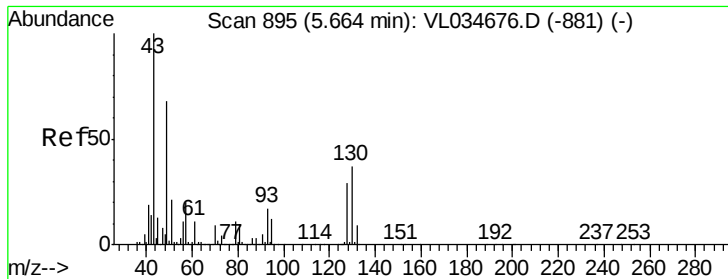
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1236977	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.21	114	2583431	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	2531528	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	2136939	10.29	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.90%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.02	85	9549	0.049 ppbv	# 65
4) Chloromethane	3.12	50	2973	0.040 ppbv	# 74
9) Propene	3.19	41	27713	0.497 ppbv	93
10) Heptane	8.16	43	1413328	9.840 ppbv	99
13) Ethanol	3.60	45	24465	1.388 ppbv	# 37
15) Acetone	3.84	43	11297639	80.151 ppbv	# 60
16) 1,3-Butadiene	3.29	39	3511	0.054 ppbv	# 7
17) tert-Butyl alcohol	3.84	59	267032	2.472 ppbv	# 1
19) Isopropyl Alcohol	3.97	45	2874	0.034 ppbv	# 94
20) Methylene Chloride	4.35	84	13153	0.251 ppbv	90
23) Vinyl Acetate	5.09	43	14506	0.076 ppbv	# 77
25) Ethyl Acetate	5.70	43	120787	0.484 ppbv	# 89
26) Hexane	5.71	57	41623	0.362 ppbv	# 1
30) Cyclohexane	7.17	84	69484	0.780 ppbv	94
34) 2-Butanone	5.26	43	44764	0.275 ppbv	97
36) Benzene	6.92	78	6117	0.027 ppbv	# 73
39) 1,2-Dichloropropane	7.22	63	726290	8.182 ppbv	# 22
42) Bromodichloromethane	7.84	83	7167	0.039 ppbv	# 24
43) Methyl Methacrylate	8.15	69	8529	0.091 ppbv	# 1
44) 2,2,4-Trimethylpentane	8.17	57	710736	1.823 ppbv	# 1
53) Toluene	9.86	91	7414549	31.243 ppbv	92
58) Ethyl Benzene	12.77	91	23829	0.078 ppbv	97
59) m/p-Xylene	13.05	91	36897	0.138 ppbv	# 32
60) o-Xylene	13.76	91	67959	0.256 ppbv	94
64) n-propylbenzene	15.63	120	32414	0.325 ppbv	# 52
65) tert-Butylbenzene	16.83	119	28737	0.086 ppbv	# 1
71) 2-Chlorotoluene	15.63	91	188113	0.628 ppbv	# 45
72) 4-Ethyltoluene	15.91	105	213759	0.724 ppbv	99
73) 1,3,5-Trimethylbenzene	16.07	105	149839	0.528 ppbv	95
74) 1,2,4-Trimethylbenzene	16.83	105	456951	1.458 ppbv	# 69

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 904

Delta R.T. 0.03 min

Lab File: VL034769.D

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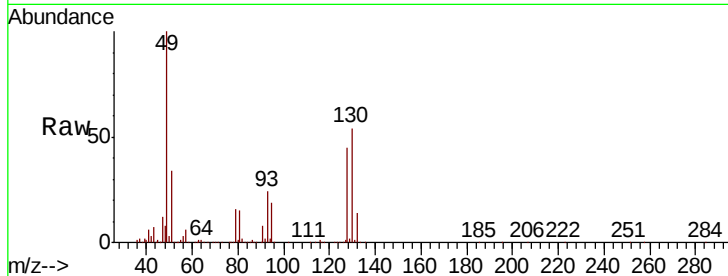
Tot Ion: 49 Resp: 1236977

Ion Ratio Lower Upper

49 100

128 43.6 21.6 65.0

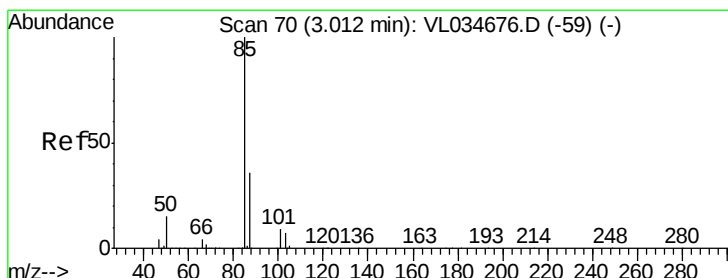
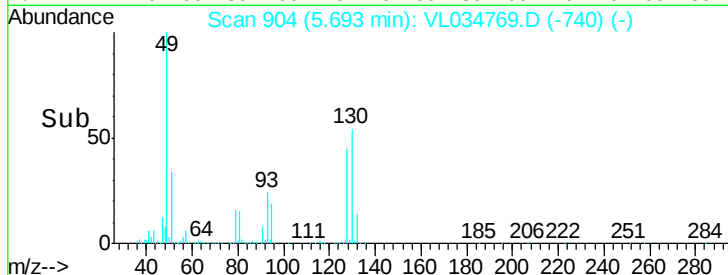
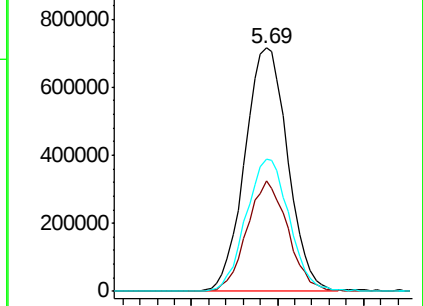
130 54.7 27.7 83.1



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: 0.049 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL034769.D

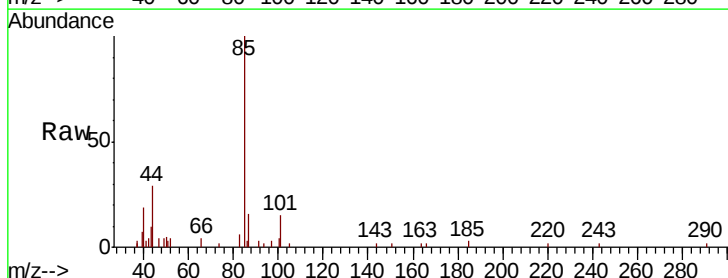
Acq: 3 Mar 2020 18:28

Tgt Ion: 85 Resp: 9549

Ion Ratio Lower Upper

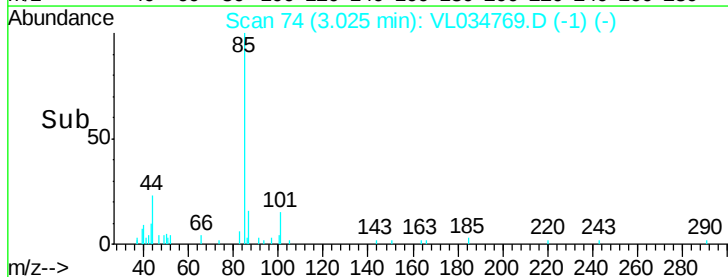
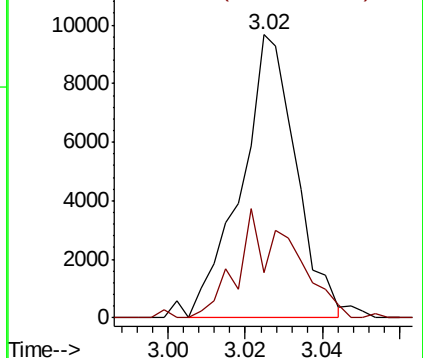
85 100

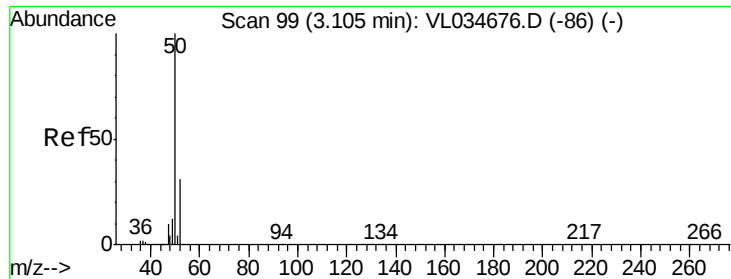
87 15.8 29.2 43.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.040 ppbv

RT: 3.12 min Scan# 103

Delta R.T. 0.01 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleId :

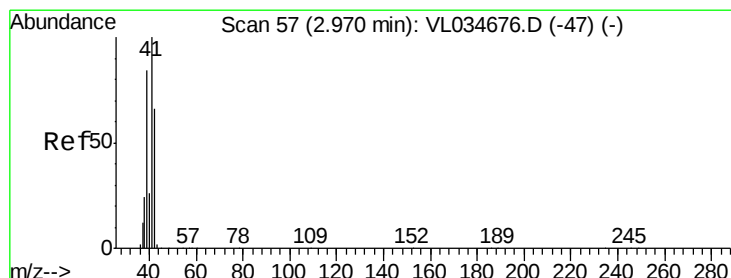
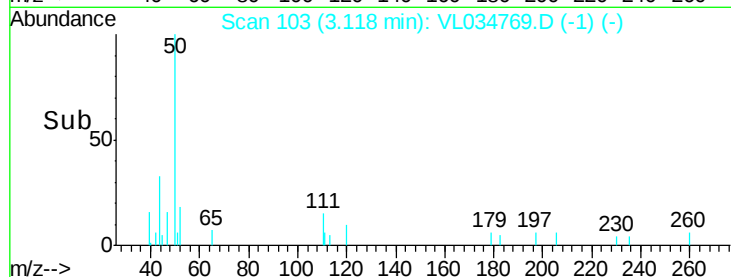
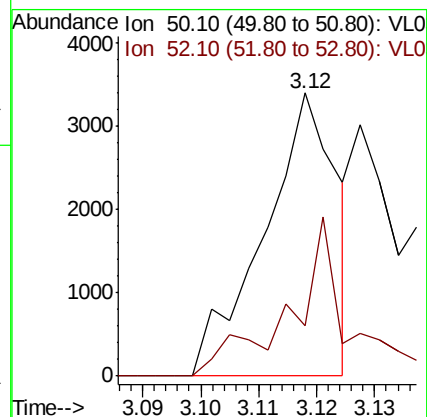
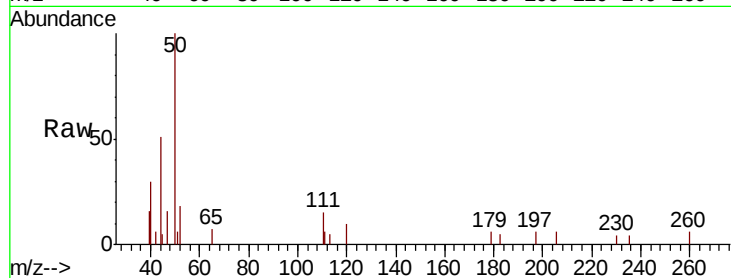
IA-5-4DL

Tot Ion: 50 Resp: 2973

Ion Ratio Lower Upper

50 100

52 16.6 25.0 37.4#



#9

Propene

Concen: 0.497 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.22 min

Lab File: VL034769.D

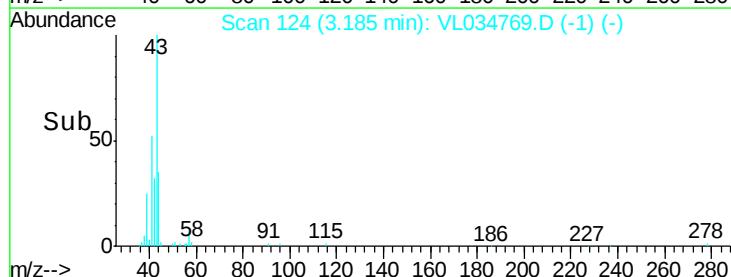
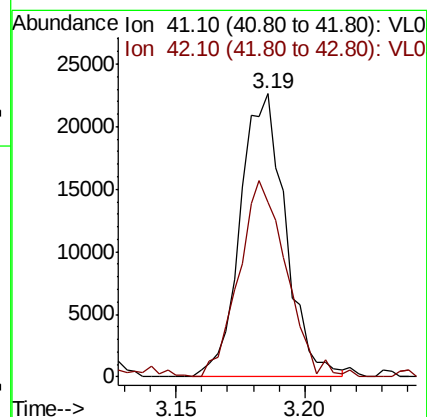
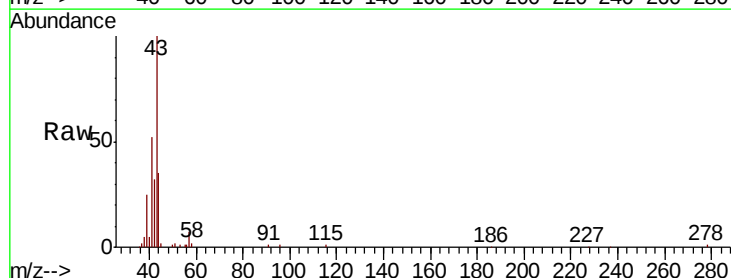
Acq: 3 Mar 2020 18:28

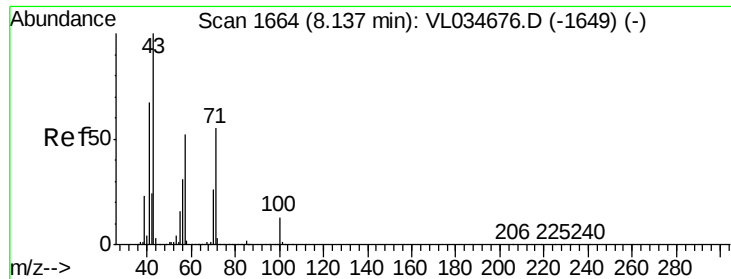
Tgt Ion: 41 Resp: 27713

Ion Ratio Lower Upper

41 100

42 73.9 54.9 82.3

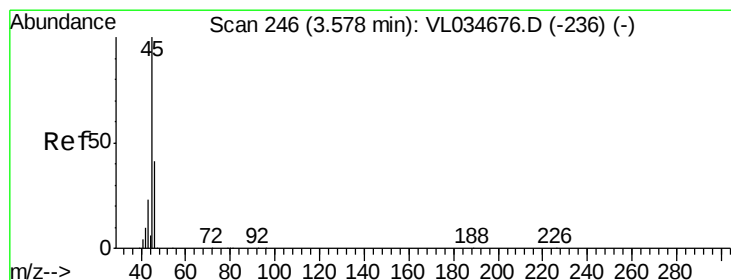
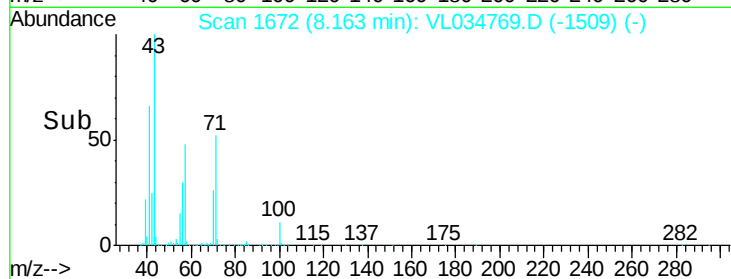
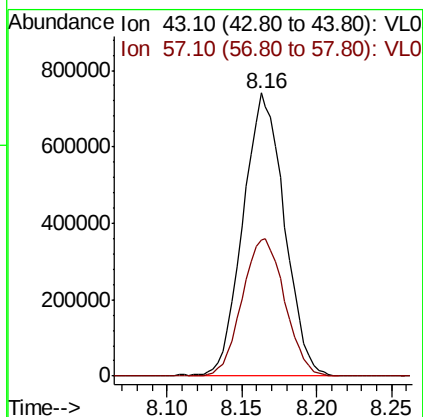
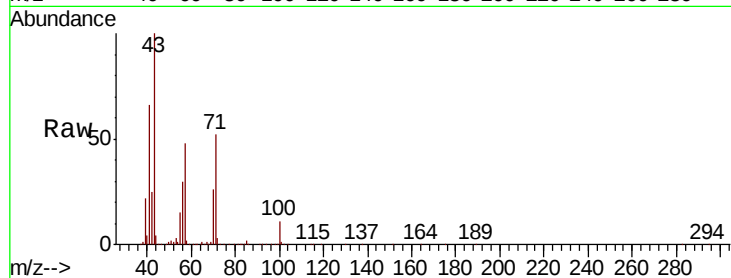




#10
Heptane
Concen: 9.840 ppbv
RT: 8.16 min Scan# 1672
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

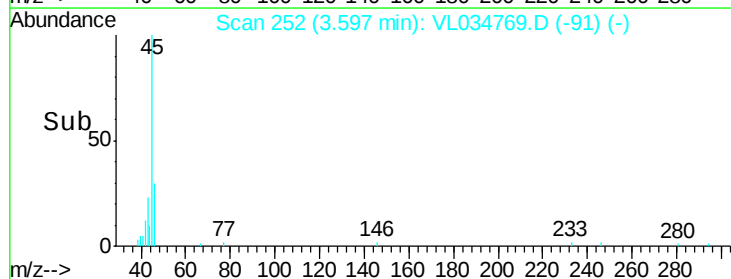
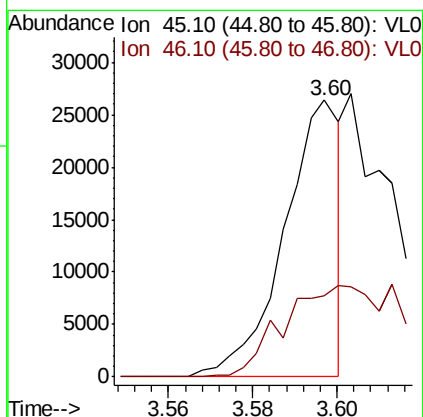
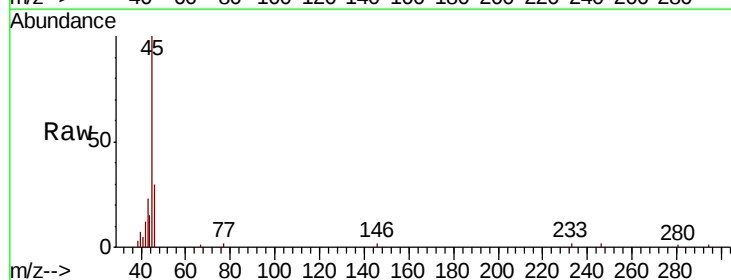
Instrument :
MSVOA_L
ClientSampleId :
IA-5-4DL

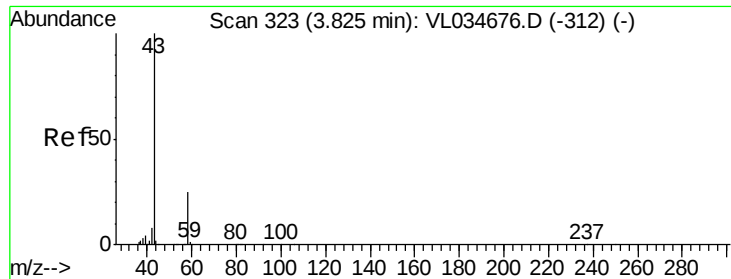
Tot Ion: 43 Resp: 1413328
Ion Ratio Lower Upper
43 100
57 50.3 41.0 61.6



#13
Ethanol
Concen: 1.388 ppbv
RT: 3.60 min Scan# 252
Delta R.T. 0.02 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion: 45 Resp: 24465
Ion Ratio Lower Upper
45 100
46 0.0 15.4 61.4#





#15

Acetone

Concen: 80.151 ppbv

RT: 3.84 min Scan# 327

Delta R.T. 0.01 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleId :

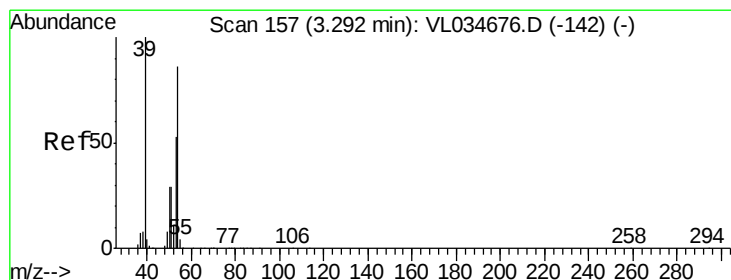
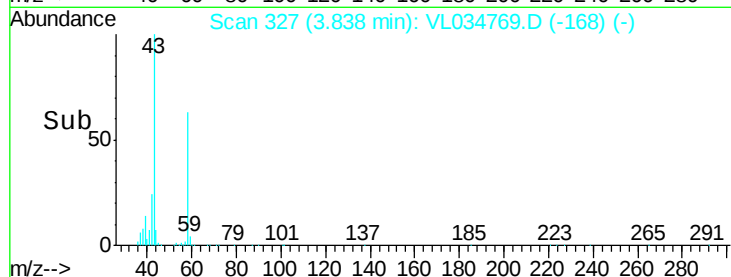
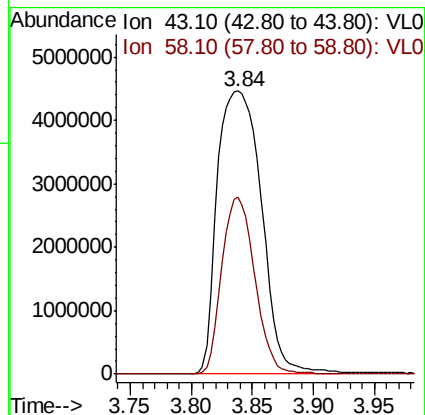
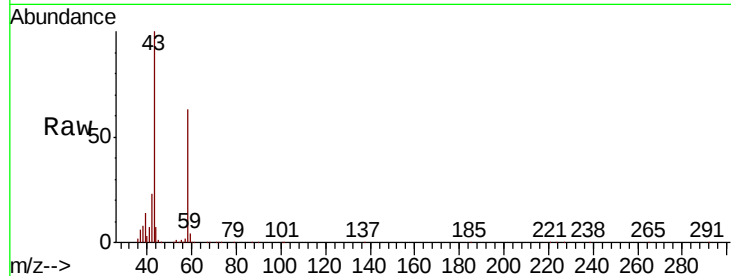
IA-5-4DL

Tot Ion: 43 Resp:11297639

Ion Ratio Lower Upper

43 100

58 47.5 21.4 32.0#



#16

1,3-Butadiene

Concen: 0.054 ppbv

RT: 3.29 min Scan# 156

Delta R.T. -0.00 min

Lab File: VL034769.D

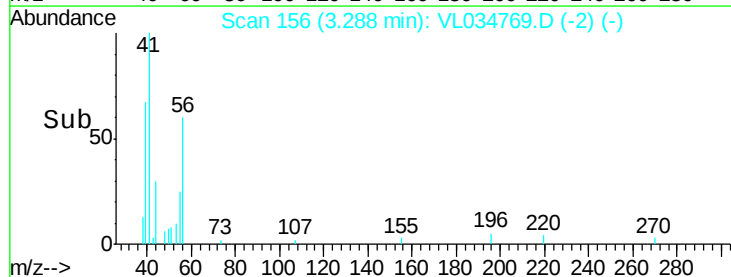
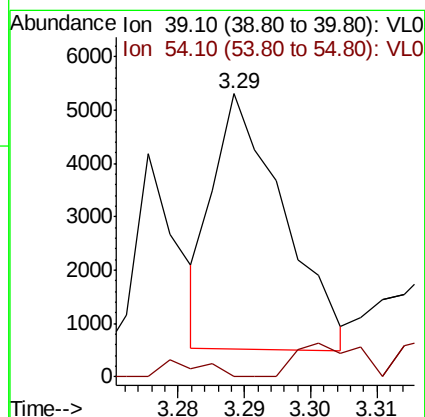
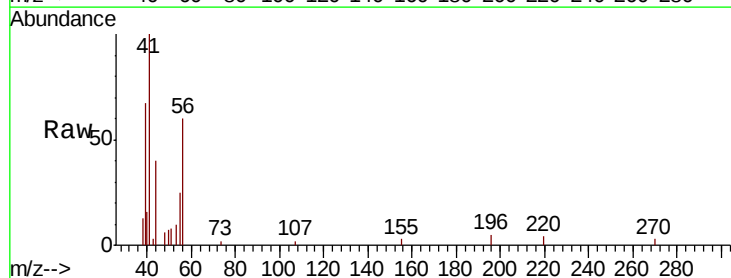
Acq: 3 Mar 2020 18:28

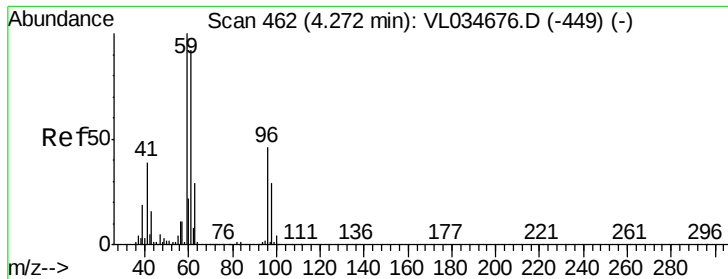
Tgt Ion: 39 Resp: 3511

Ion Ratio Lower Upper

39 100

54 0.0 67.0 100.6#

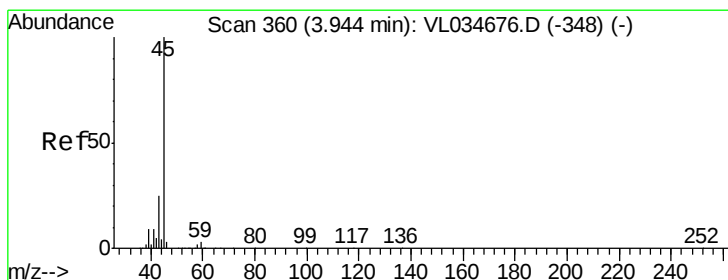
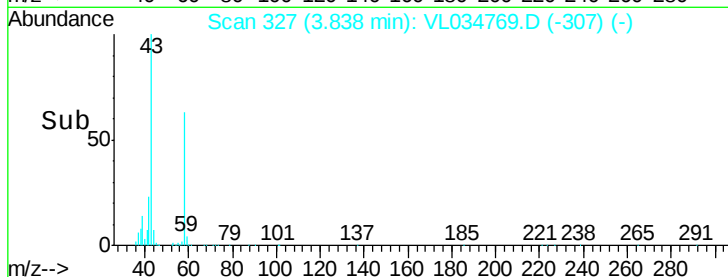
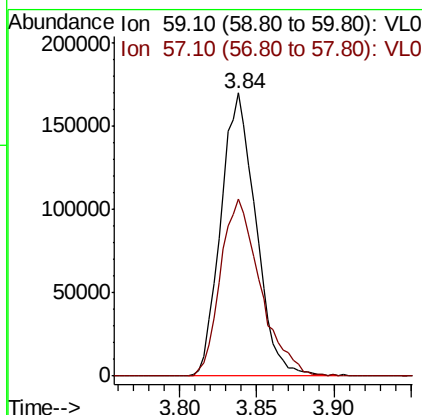
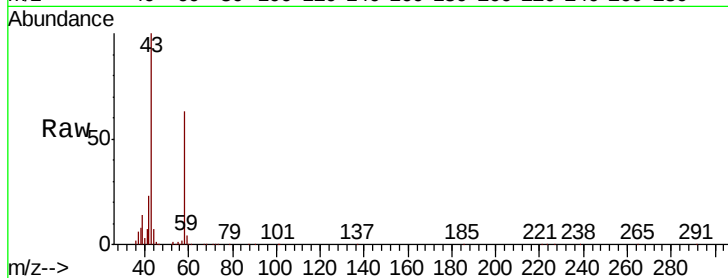




#17
tert-Butyl alcohol
Concen: 2.472 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.43 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

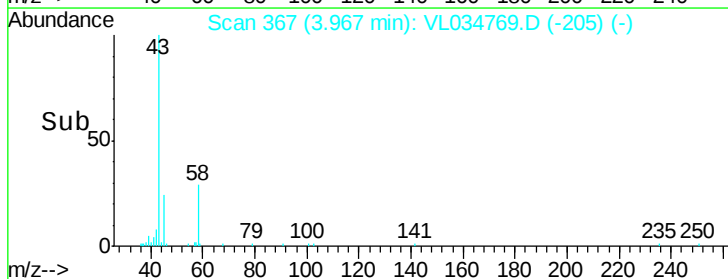
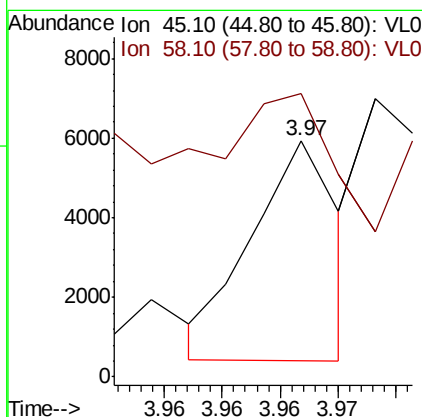
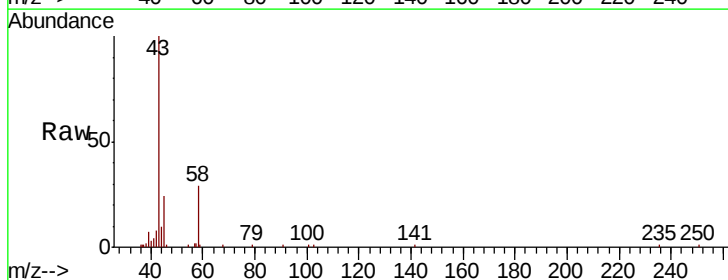
Instrument :
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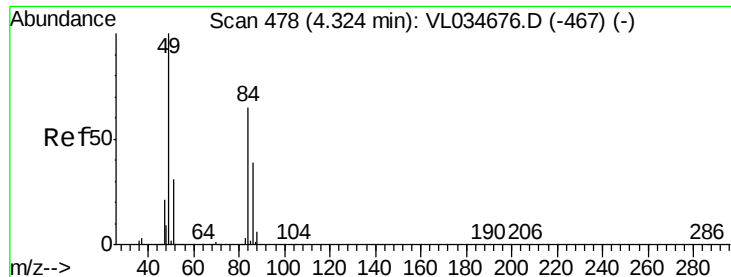
Tot Ion: 59 Resp: 267032
Ion Ratio Lower Upper
59 100
57 71.3 8.8 13.2#



#19
Isopropyl Alcohol
Concen: 0.034 ppbv
RT: 3.97 min Scan# 367
Delta R.T. 0.02 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion: 45 Resp: 2874
Ion Ratio Lower Upper
45 100
58 0.0 1.8 2.6#

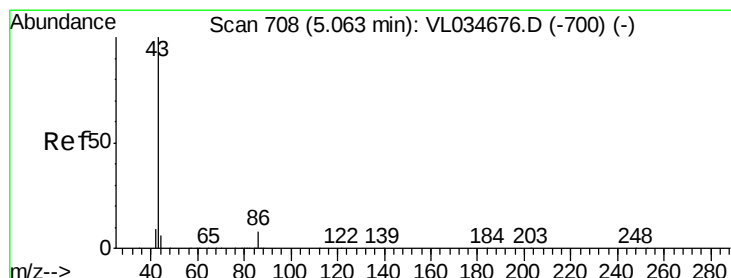
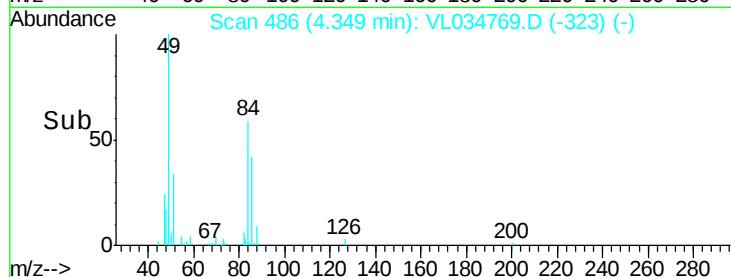
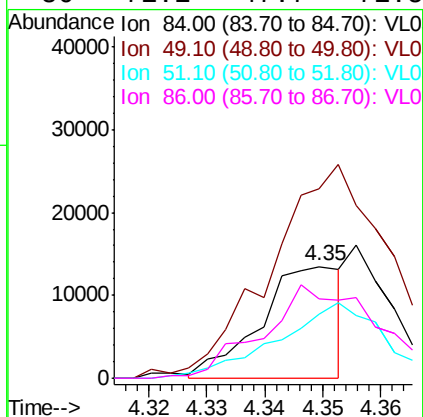
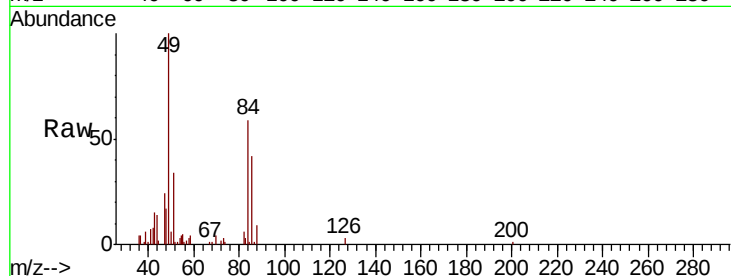




#20
Methylene Chloride
Concen: 0.251 ppbv
RT: 4.35 min Scan# 486
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

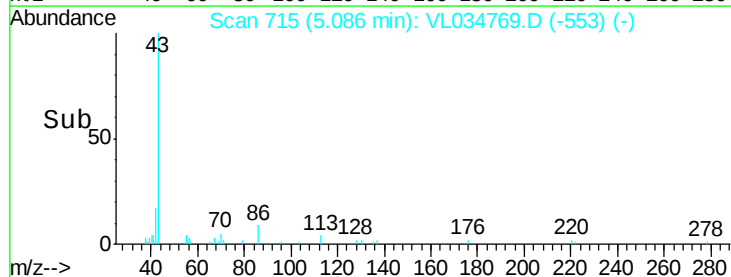
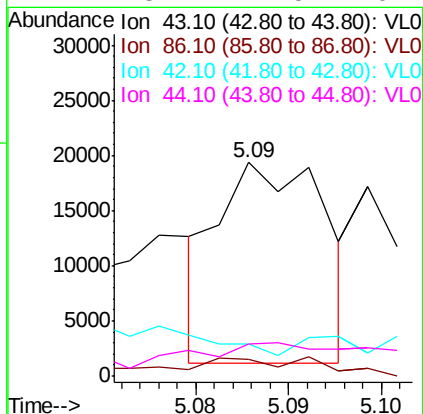
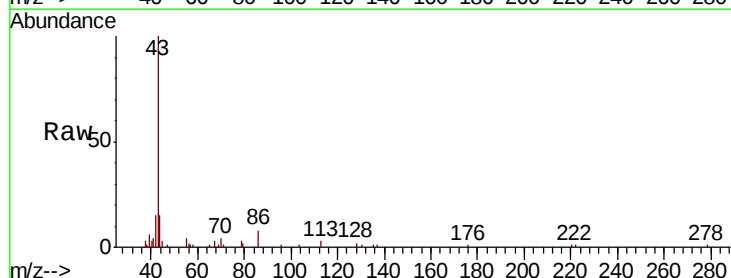
Instrument :
MSVOA_L
ClientSampled :
IA-5-4DL

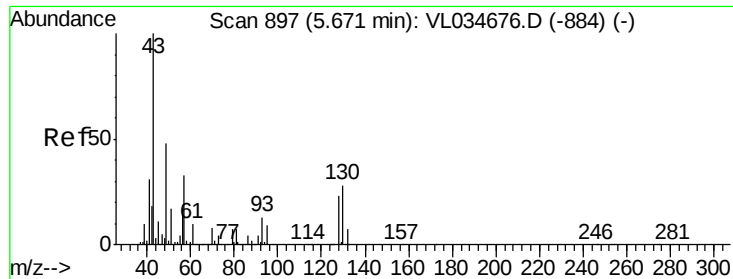
Tot Ion:	84	Resp:	13153
Ion	Ratio	Lower	Upper
84	100		
49	163.2	122.8	184.2
51	54.4	38.6	58.0
86	71.1	47.7	71.5



#23
Vinyl Acetate
Concen: 0.076 ppbv
RT: 5.09 min Scan# 715
Delta R.T. 0.02 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion:	43	Resp:	14506
Ion	Ratio	Lower	Upper
43	100		
86	14.1	6.0	9.0#
42	0.0	8.0	12.0#
44	13.4	4.5	6.7#

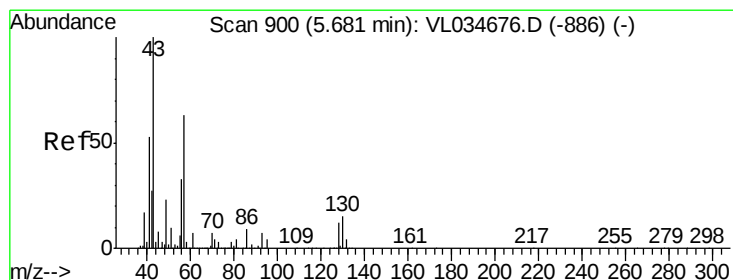
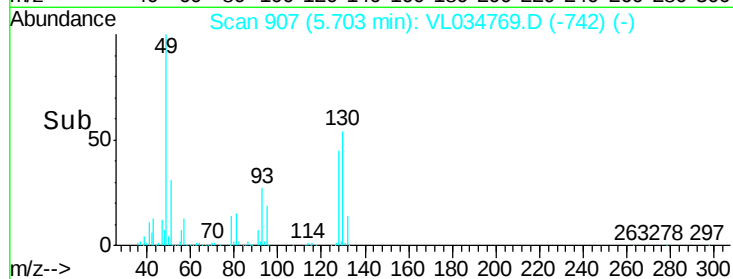
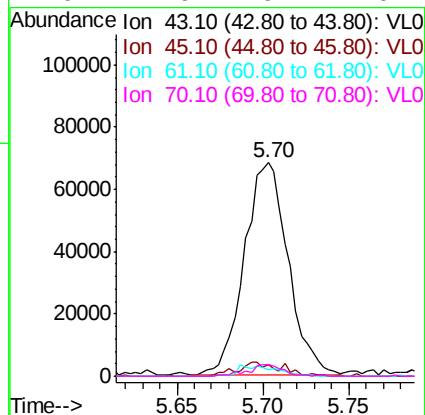
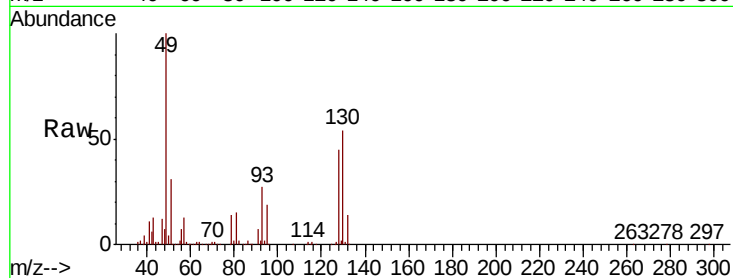




#25
Ethyl Acetate
Concen: 0.484 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

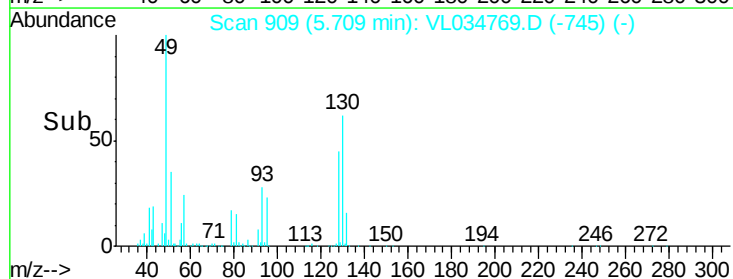
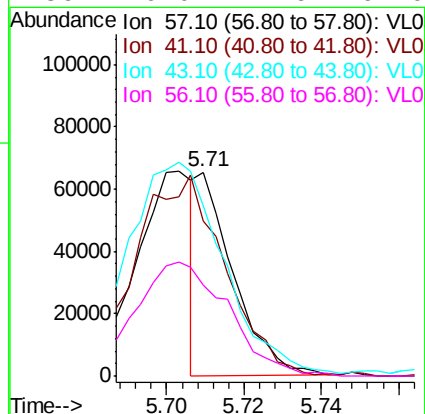
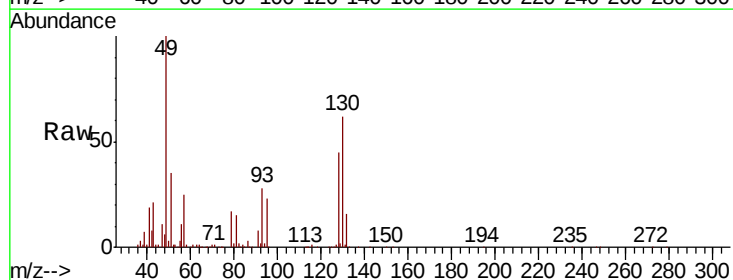
Instrument :
MSVOA_L
ClientSampleID :
IA-5-4DL

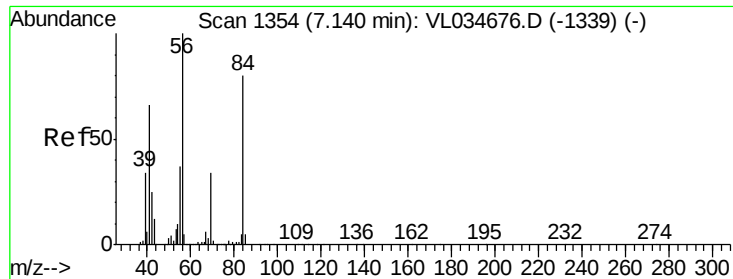
Tot Ion:	43	Resp:	120787
Ion	Ratio	Lower	Upper
43	100		
45	6.7	8.2	12.4#
61	4.5	7.8	11.6#
70	4.6	6.1	9.1#



#26
Hexane
Concen: 0.362 ppbv
RT: 5.71 min Scan# 909
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion:	57	Resp:	41623
Ion	Ratio	Lower	Upper
57	100		
41	254.6	70.3	105.5#
43	0.0	177.0	265.4#
56	0.0	42.6	64.0#

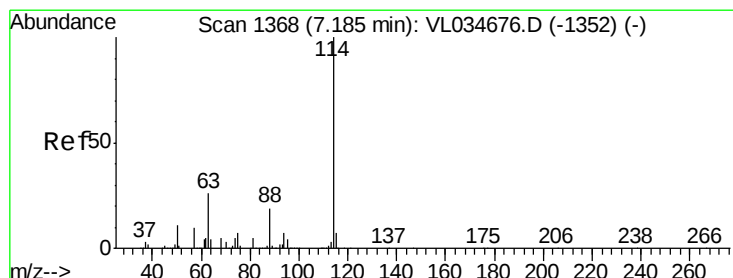
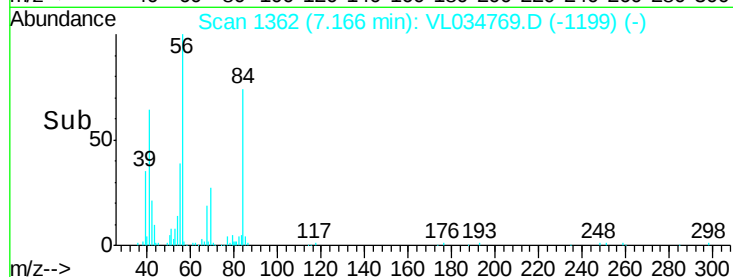
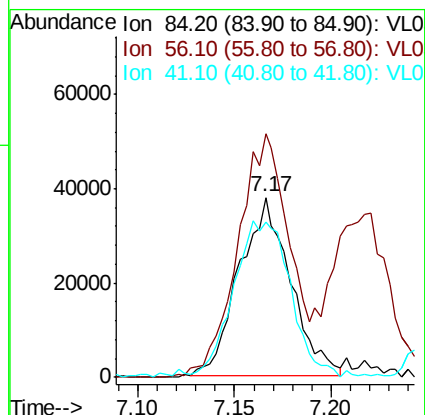
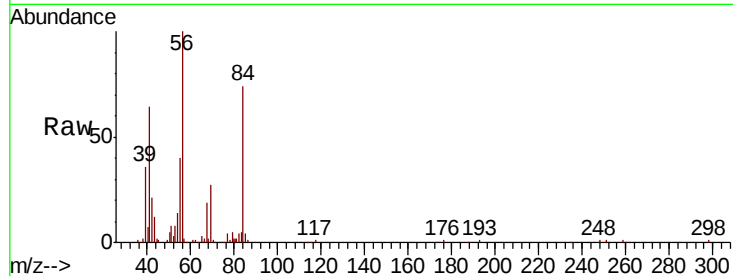




#30
Cvclohexane
Concen: 0.780 ppbv
RT: 7.17 min Scan# 1362
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

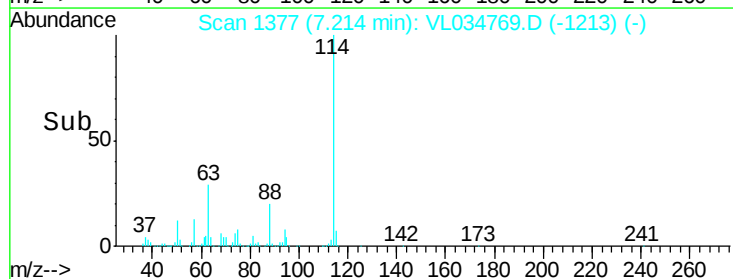
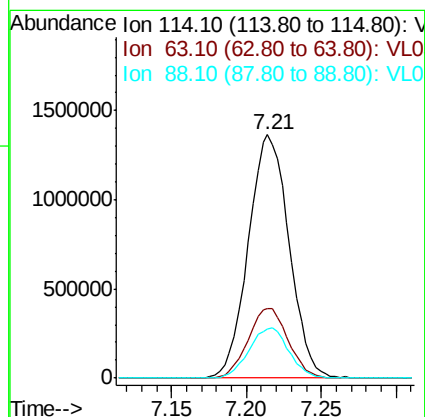
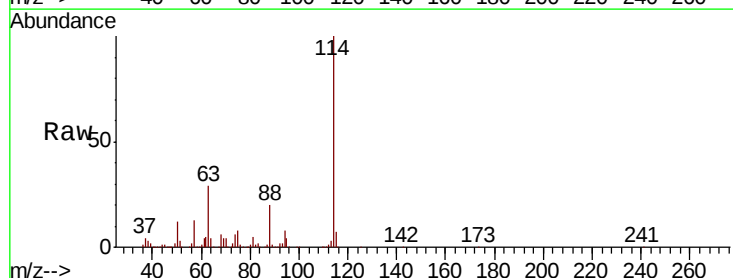
Instrument :
MSVOA_L
ClientSampleId :
IA-5-4DL

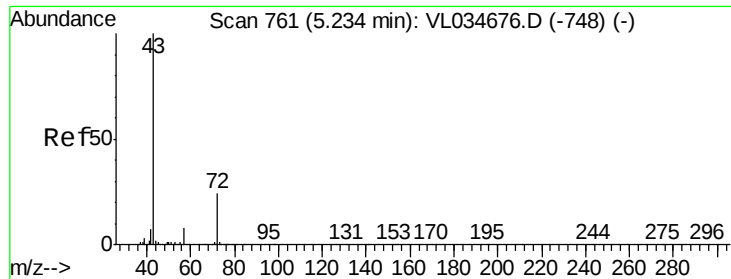
Tot Ion: 84 Resp: 69484
Ion Ratio Lower Upper
84 100
56 144.1 113.4 170.2
41 97.7 68.2 102.4



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1377
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion: 114 Resp: 2583431
Ion Ratio Lower Upper
114 100
63 28.3 22.9 34.3
88 20.2 15.8 23.6

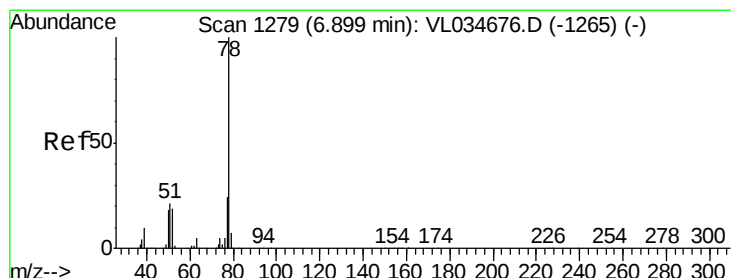
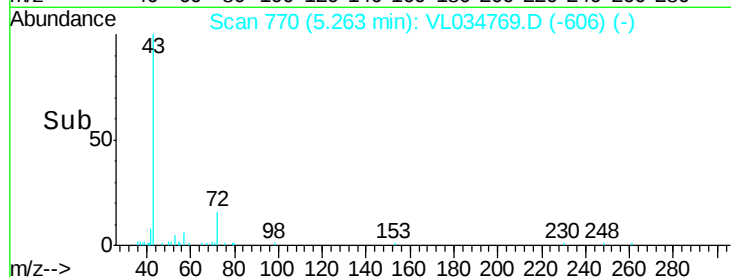
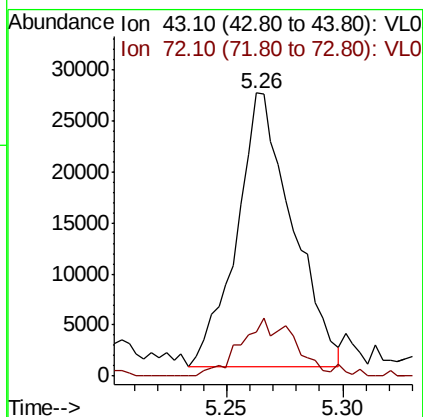
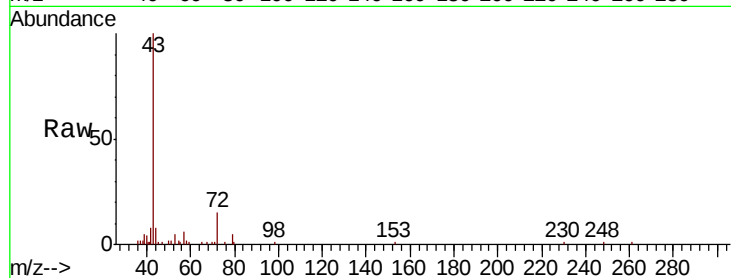




#34
2-Butanone
Concen: 0.275 ppbv
RT: 5.26 min Scan# 770
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

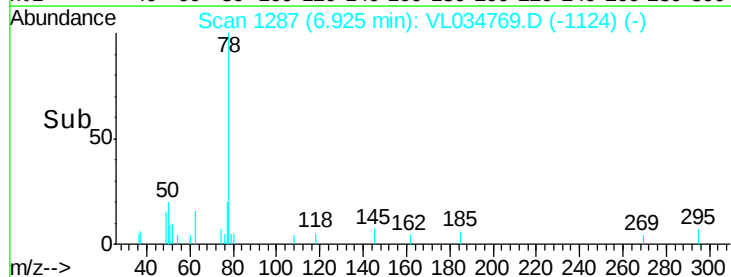
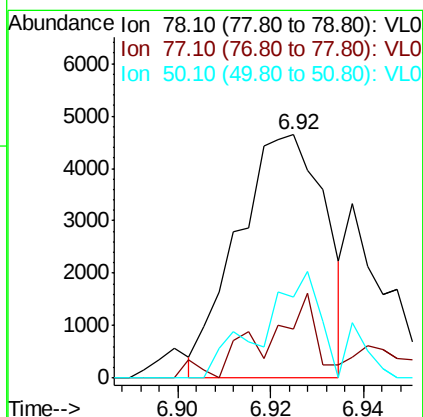
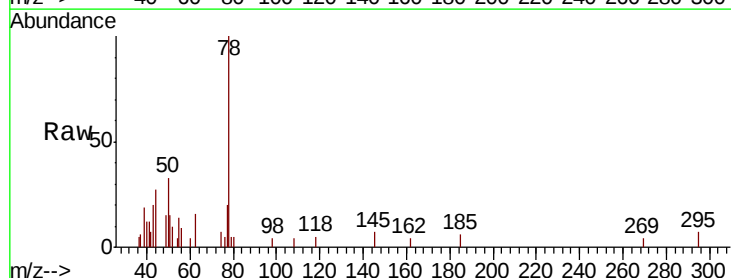
Instrument :
MSVOA_L
ClientSampleId :
IA-5-4DL

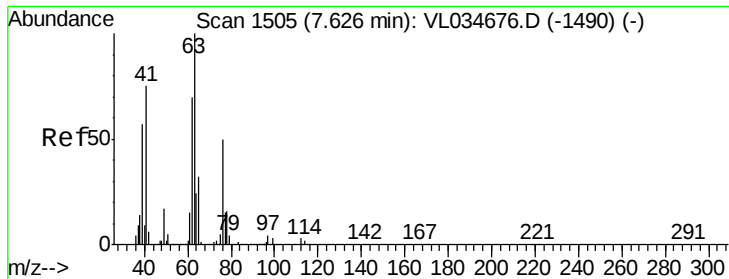
Tot Ion: 43 Resp: 44764
Ion Ratio Lower Upper
43 100
72 21.4 18.2 27.2



#36
Benzene
Concen: 0.027 ppbv
RT: 6.92 min Scan# 1287
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion: 78 Resp: 6117
Ion Ratio Lower Upper
78 100
77 16.0 19.5 29.3#
50 36.3 14.6 21.8#

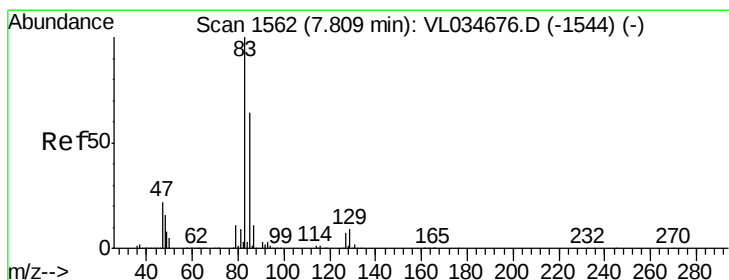
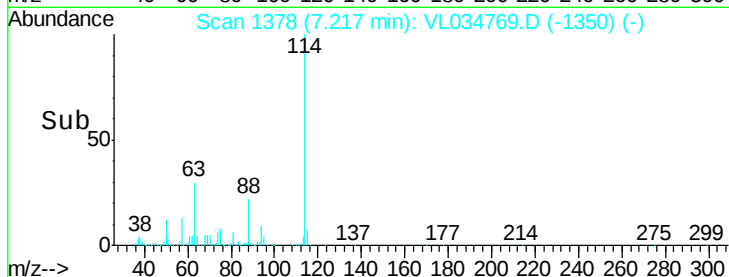
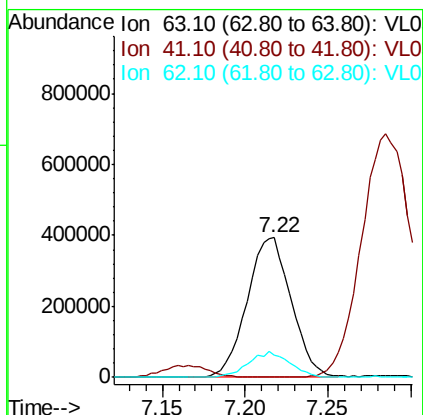
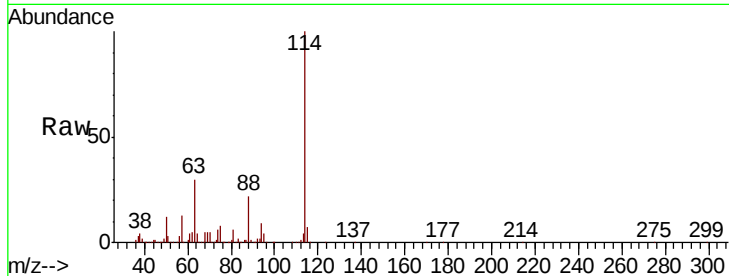




#39
 1,2-Dichloropropane
 Concen: 8.182 ppbv
 RT: 7.22 min Scan# 1378
 Delta R.T. -0.41 min
 Lab File: VL034769.D
 Acq: 3 Mar 2020 18:28

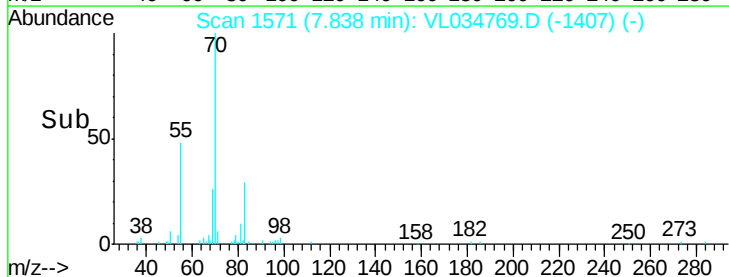
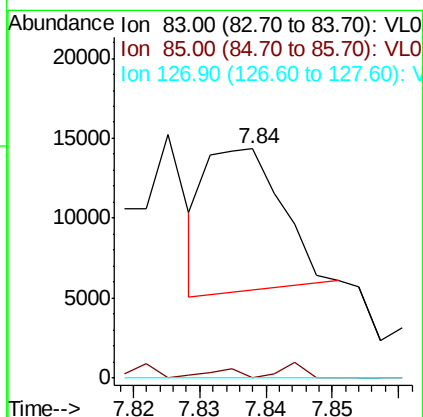
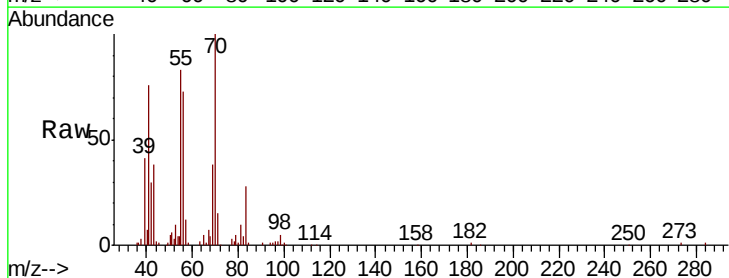
Instrument :
 MSVOA_L
 ClientSampleID :
 IA-5-4DL

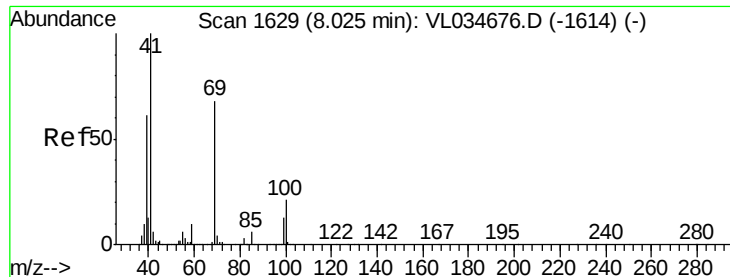
Tot Ion: 63 Resp: 726290
 Ion Ratio Lower Upper
 63 100
 41 0.0 60.2 90.4#
 62 15.9 56.3 84.5#



#42
 Bromodichloromethane
 Concen: 0.039 ppbv
 RT: 7.84 min Scan# 1571
 Delta R.T. 0.03 min
 Lab File: VL034769.D
 Acq: 3 Mar 2020 18:28

Tgt Ion: 83 Resp: 7167
 Ion Ratio Lower Upper
 83 100
 85 0.0 51.1 76.7#
 127 0.0 5.8 8.8#

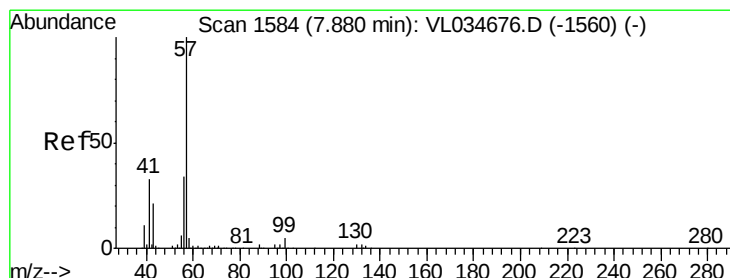
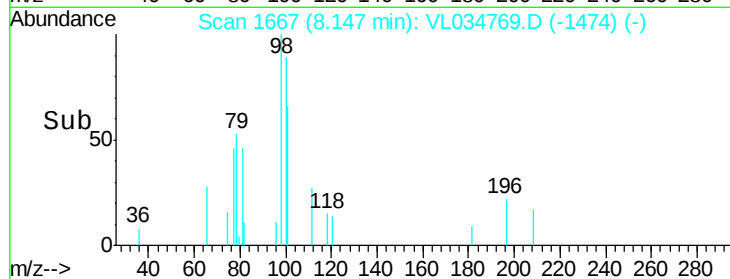
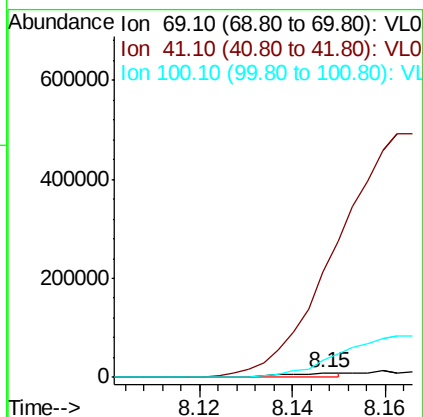
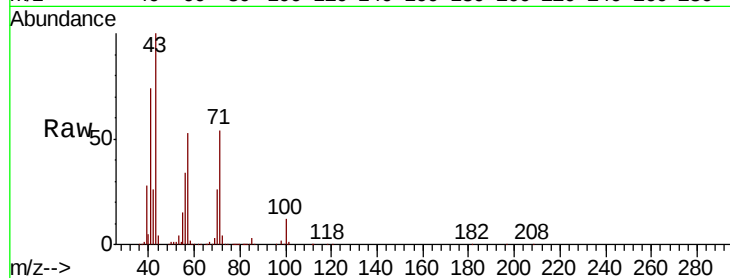




#43
Methyl Methacrylate
Concen: 0.091 ppbv
RT: 8.15 min Scan# 1667
Delta R.T. 0.12 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

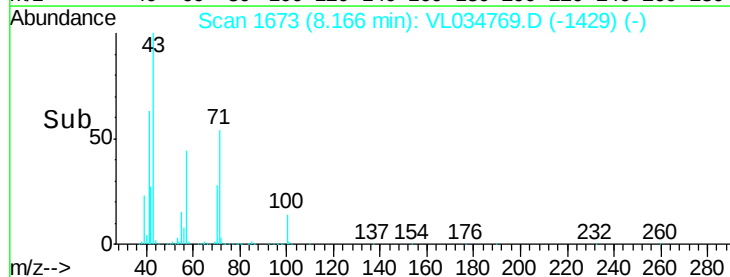
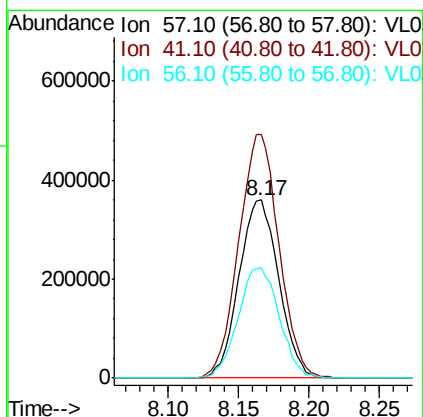
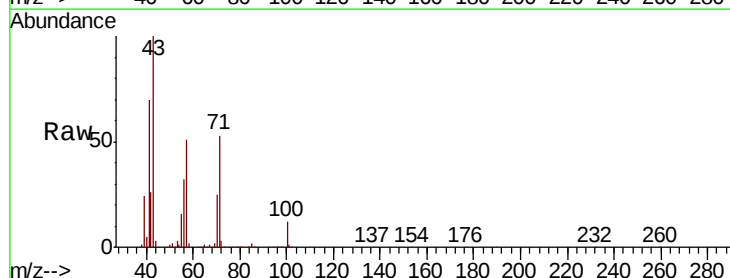
Instrument :
MSVOA_L
ClientSampleId :
IA-5-4DL

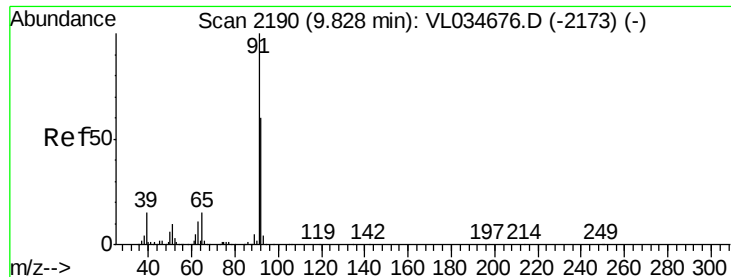
Tot Ion: 69 Resp: 8529
Ion Ratio Lower Upper
69 100
41 0.0 118.2 177.2#
100 0.0 24.2 36.2#



#44
2,2,4-Trimethylpentane
Concen: 1.823 ppbv
RT: 8.17 min Scan# 1673
Delta R.T. 0.29 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion: 57 Resp: 710736
Ion Ratio Lower Upper
57 100
41 138.6 26.0 39.0#
56 64.8 25.6 38.4#





#53

Toluene

Concen: 31.243 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleId :

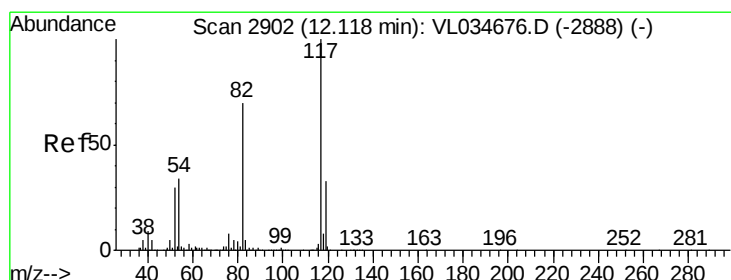
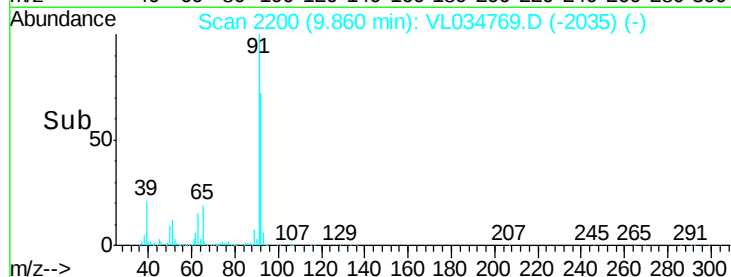
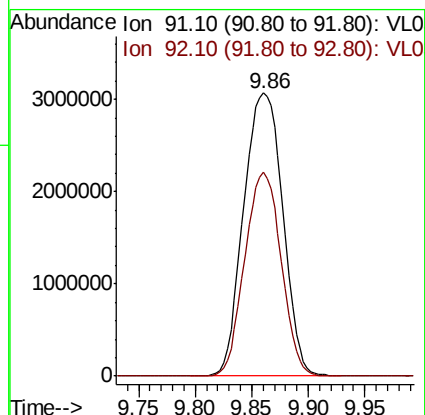
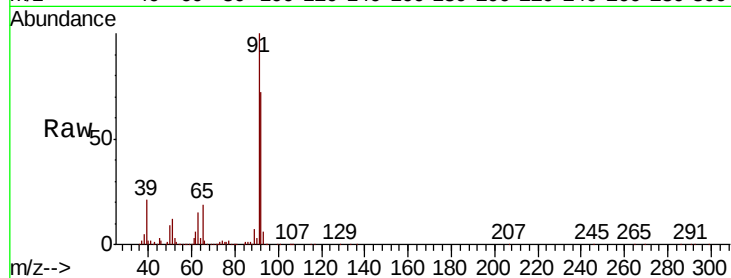
IA-5-4DL

Tot Ion: 91 Resp: 7414549

Ion Ratio Lower Upper

91 100

92 67.0 48.5 72.7



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

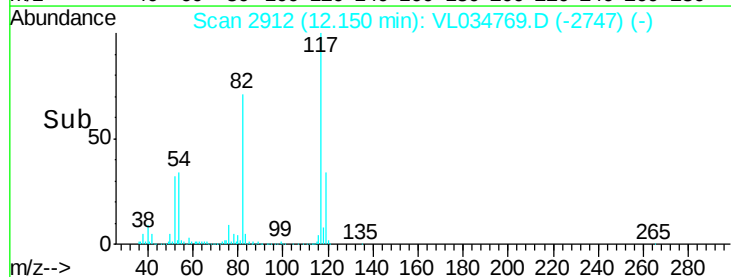
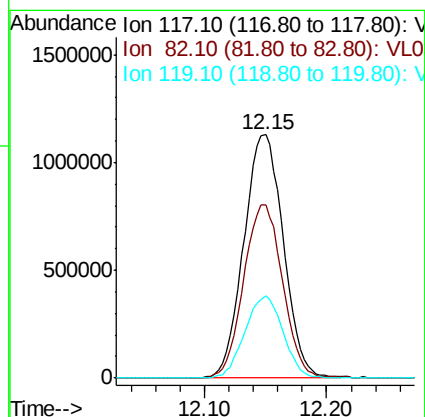
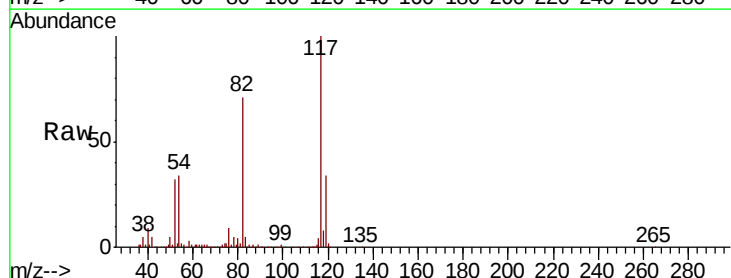
Tgt Ion: 117 Resp: 2531528

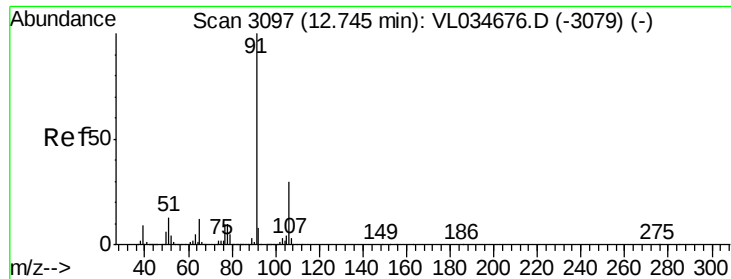
Ion Ratio Lower Upper

117 100

82 70.4 54.1 81.1

119 32.8 27.6 41.4





#58

Ethyl Benzene

Concen: 0.078 ppbv

RT: 12.77 min Scan# 3105

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleId :

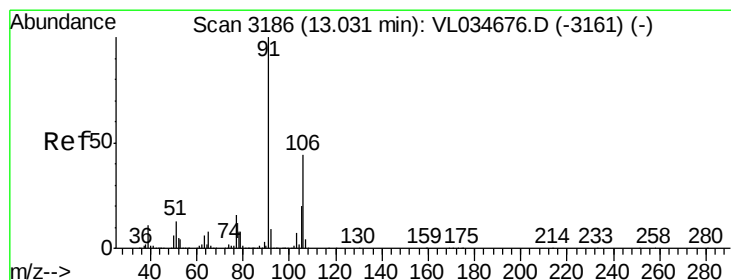
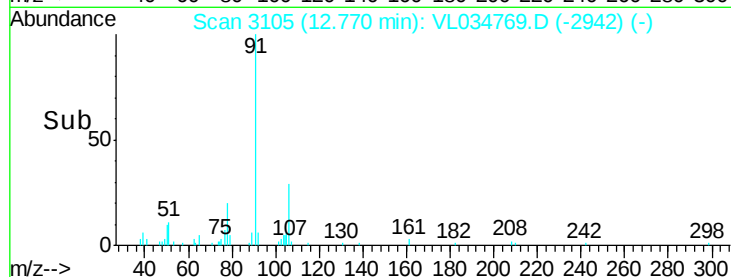
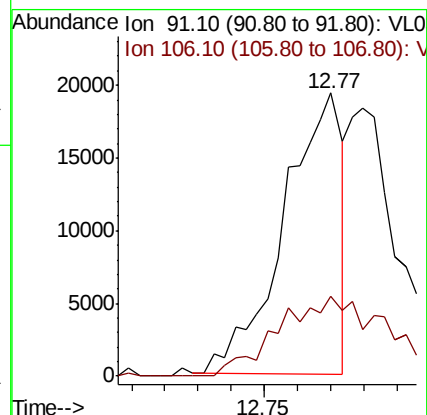
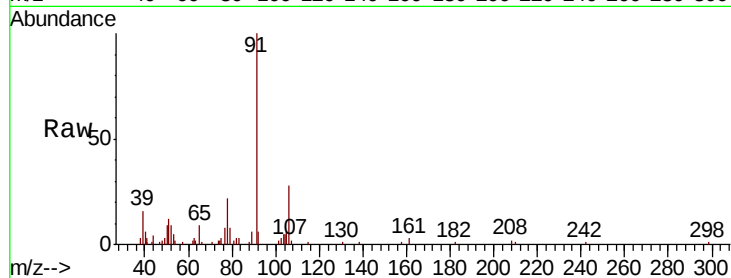
IA-5-4DL

Tot Ion: 91 Resp: 23829

Ion Ratio Lower Upper

91 100

106 28.5 24.0 36.0



#59

m/p-Xylene

Concen: 0.138 ppbv

RT: 13.05 min Scan# 3193

Delta R.T. 0.02 min

Lab File: VL034769.D

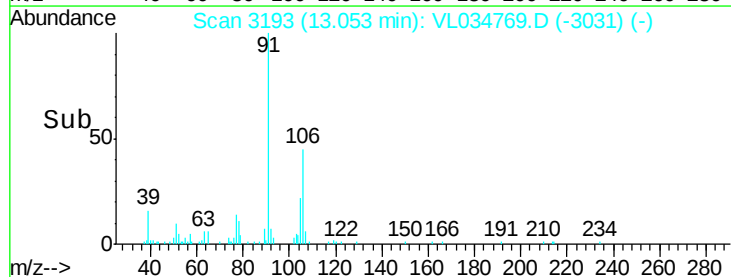
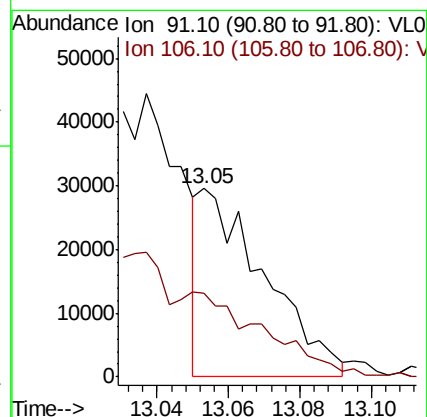
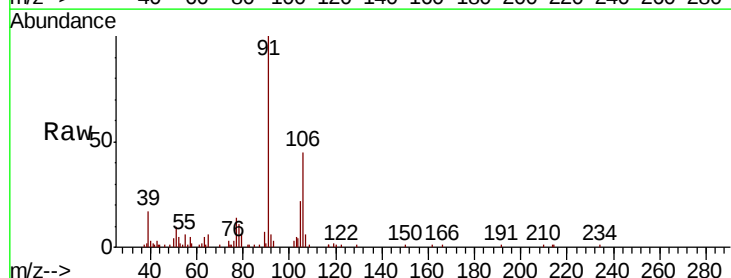
Acq: 3 Mar 2020 18:28

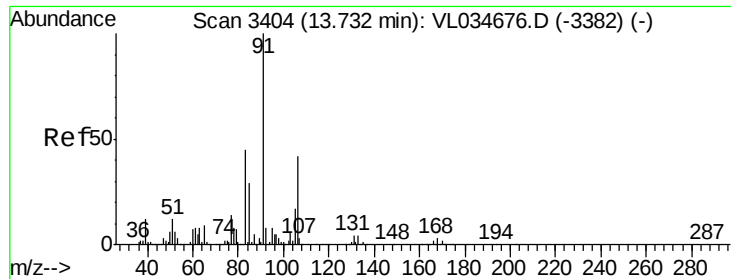
Tgt Ion: 91 Resp: 36897

Ion Ratio Lower Upper

91 100

106 0.0 35.6 53.4#

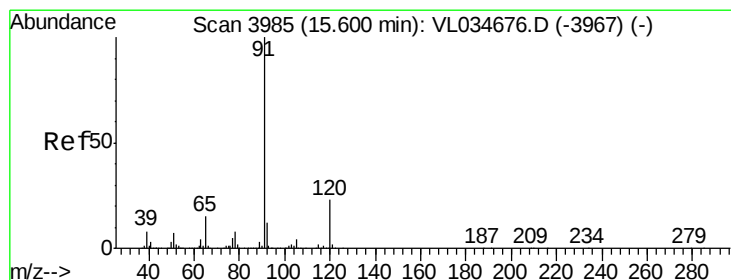
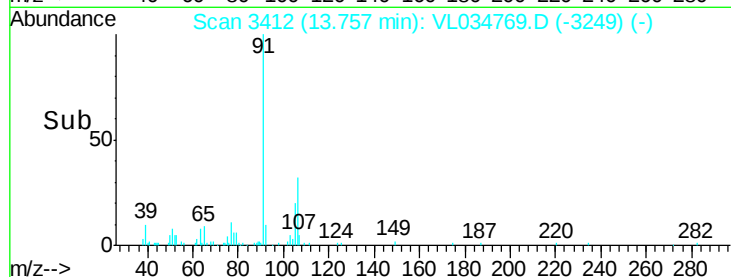
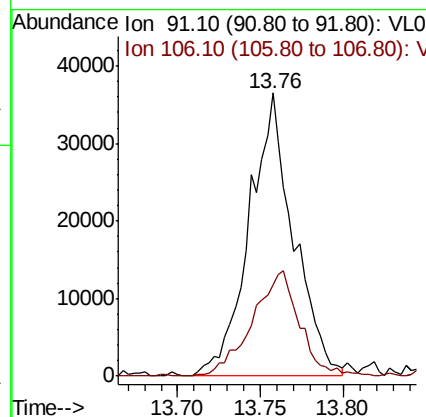
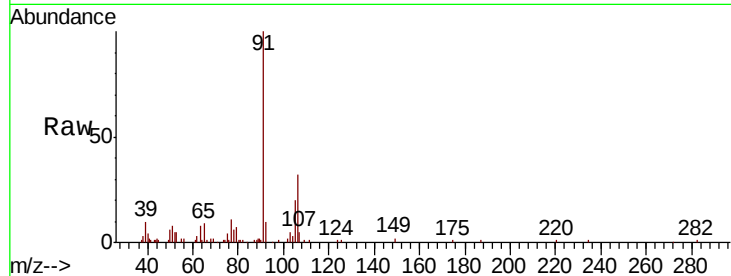




#60
o-Xylene
Concen: 0.256 ppbv
RT: 13.76 min Scan# 3412
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

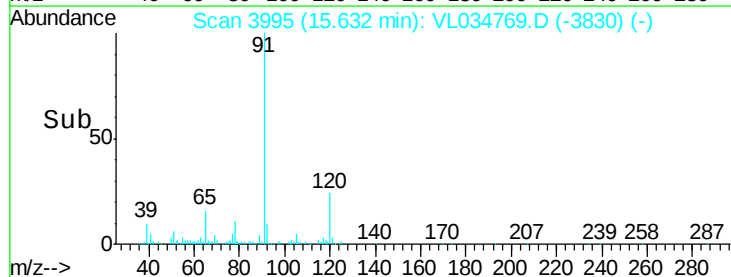
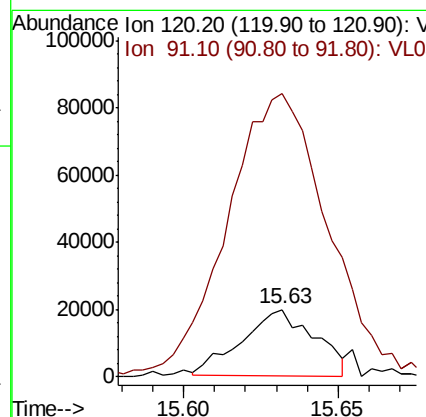
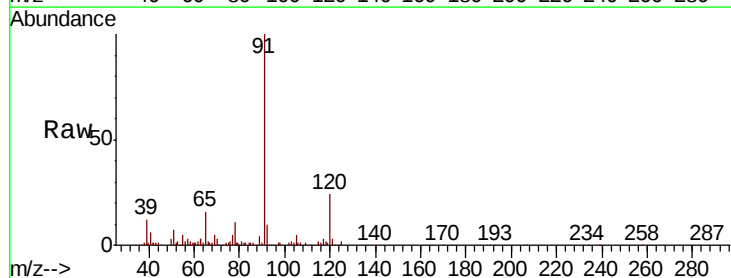
Instrument :
MSVOA_L
ClientSampleId :
IA-5-4DL

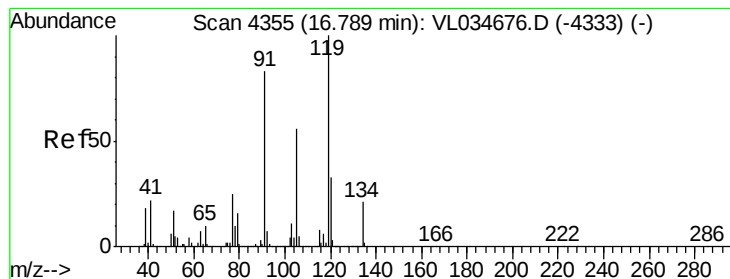
Tot Ion: 91 Resp: 67959
Ion Ratio Lower Upper
91 100
106 39.8 21.9 65.5



#64
n-propylbenzene
Concen: 0.325 ppbv
RT: 15.63 min Scan# 3995
Delta R.T. 0.03 min
Lab File: VL034769.D
Acq: 3 Mar 2020 18:28

Tgt Ion:120 Resp: 32414
Ion Ratio Lower Upper
120 100
91 588.7 369.8 554.8#





#65

tert-Butylbenzene

Concen: 0.086 ppbv

RT: 16.83 min Scan# 4368

Delta R.T. 0.04 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleID :

IA-5-4DL

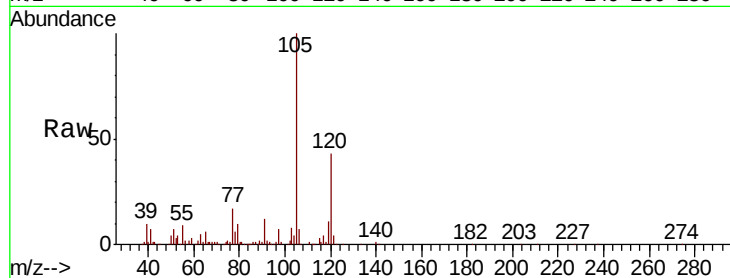
Tot Ion:119 Resp: 28737

Ion Ratio Lower Upper

119 100

91 211.5 69.1 103.7#

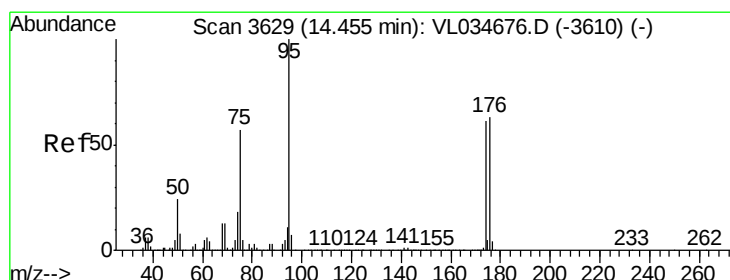
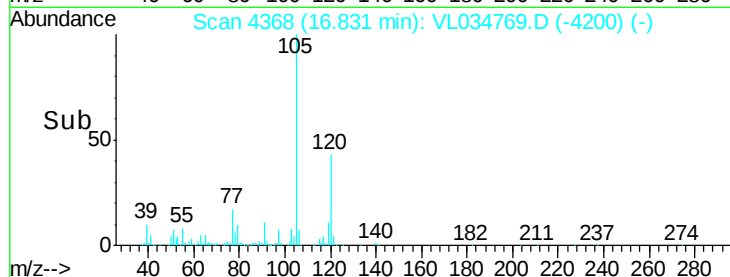
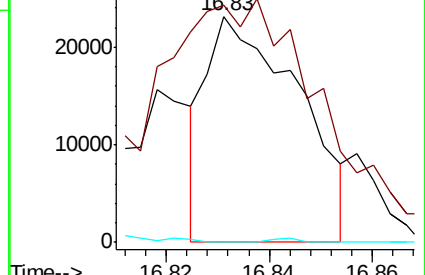
134 0.0 15.8 23.8#



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



#68

1-Bromo-4-Fluorobenzene

Concen: 10.295 ppbv

RT: 14.48 min Scan# 3638

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

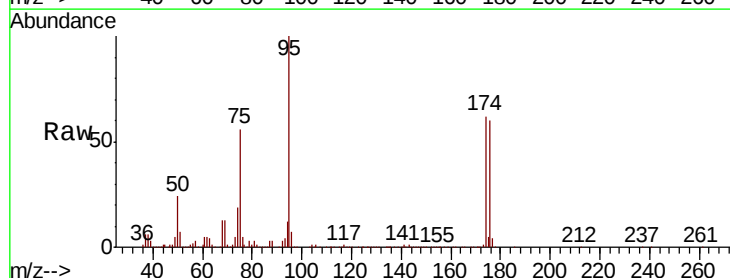
Tgt Ion: 95 Resp: 2136939

Ion Ratio Lower Upper

95 100

174 64.3 50.7 76.1

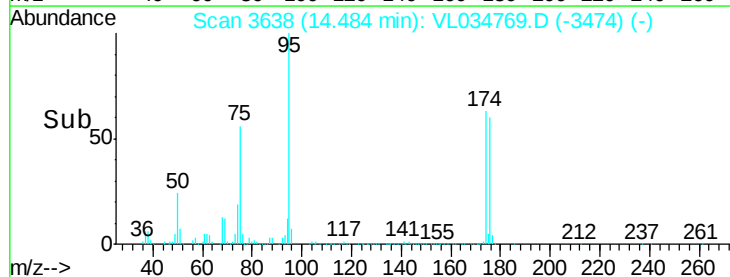
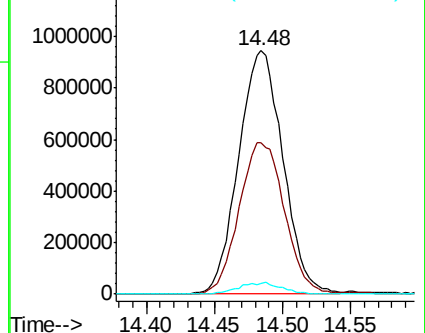
175 4.6 3.9 5.9

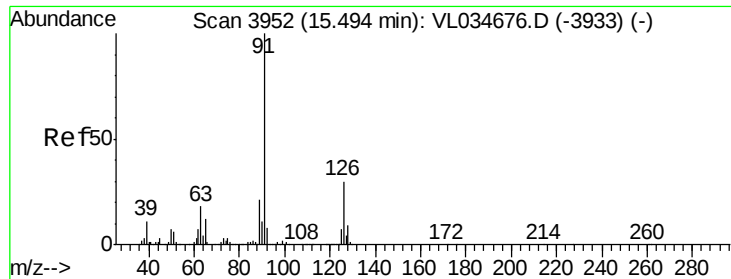


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

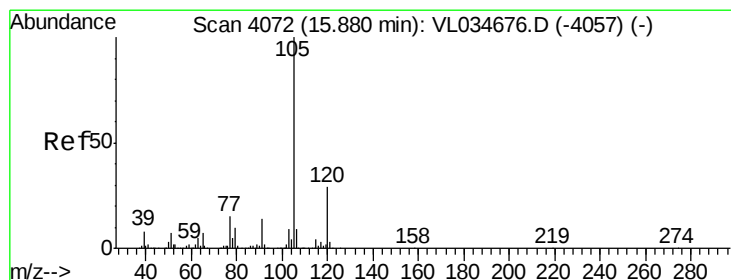
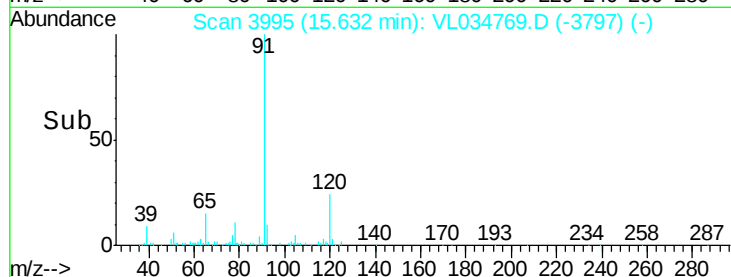
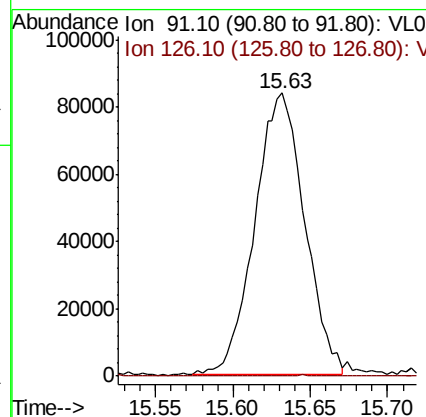
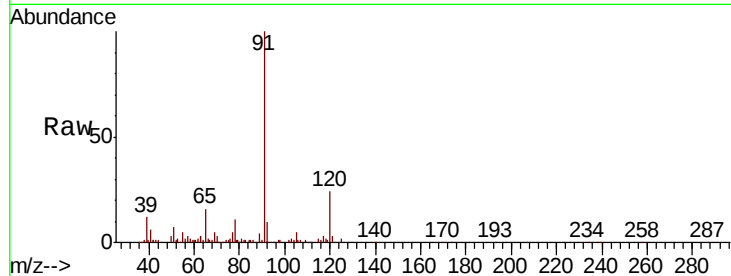




#71
 2-Chlorotoluene
 Concen: 0.628 ppbv
 RT: 15.63 min Scan# 3995
 Delta R.T. 0.14 min
 Lab File: VL034769.D
 Acq: 3 Mar 2020 18:28

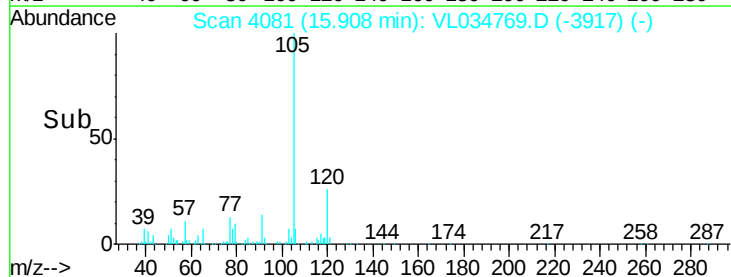
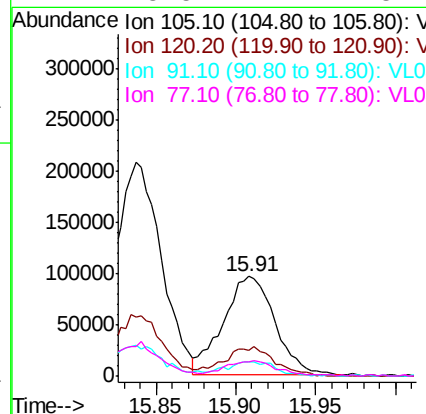
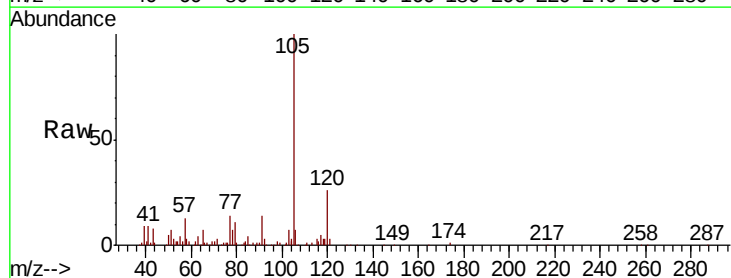
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5-4DL

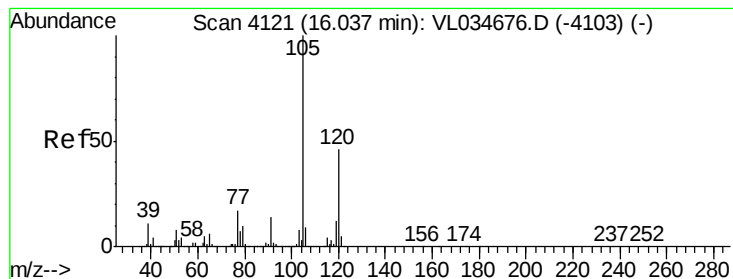
Tot Ion: 91 Resp: 188113
 Ion Ratio Lower Upper
 91 100
 126 0.2 11.8 47.2#



#72
 4-Ethyltoluene
 Concen: 0.724 ppbv
 RT: 15.91 min Scan# 4081
 Delta R.T. 0.03 min
 Lab File: VL034769.D
 Acq: 3 Mar 2020 18:28

Tgt Ion:105 Resp: 213759
 Ion Ratio Lower Upper
 105 100
 120 29.5 23.7 35.5
 91 15.7 10.9 16.3
 77 15.5 12.2 18.2





#73

1,3,5-Trimethylbenzene

Concen: 0.528 ppbv

RT: 16.07 min Scan# 4131

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Instrument :

MSVOA_L

ClientSampleId :

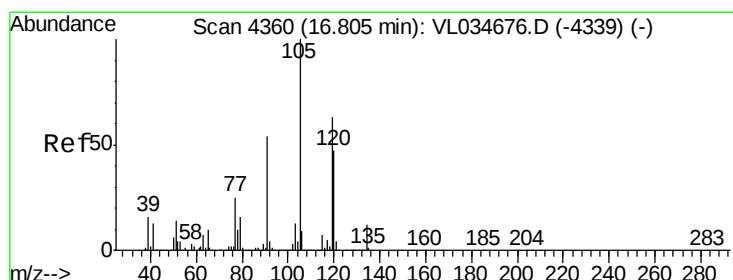
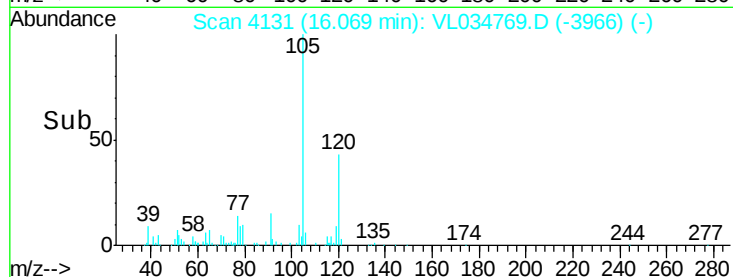
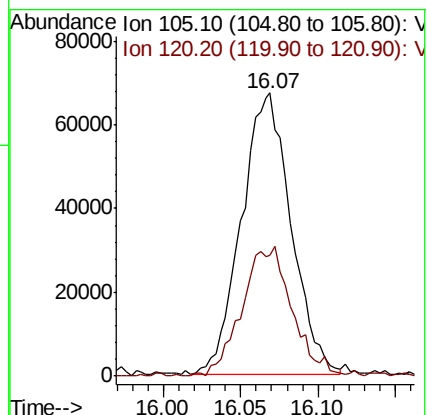
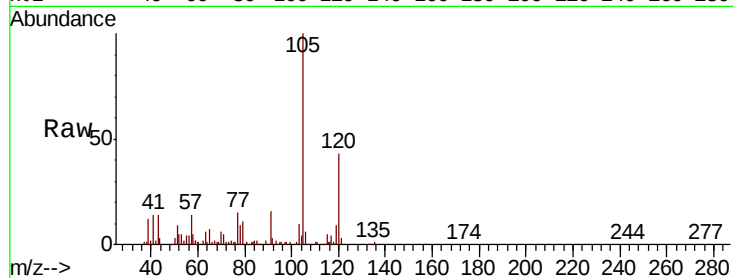
IA-5-4DL

Tot Ion:105 Resp: 149839

Ion Ratio Lower Upper

105 100

120 42.9 37.1 55.7



#74

1,2,4-Trimethylbenzene

Concen: 1.458 ppbv

RT: 16.83 min Scan# 4368

Delta R.T. 0.03 min

Lab File: VL034769.D

Acq: 3 Mar 2020 18:28

Tgt Ion:105 Resp: 456951

Ion Ratio Lower Upper

105 100

120 43.5 37.9 56.9

91 11.7 43.9 65.9#

77 16.5 20.3 30.5#

