

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120820\
 Data File : VL036109.D
 Acq On : 9 Dec 2020 00:24
 Operator : SY/AP
 Sample : L4949-06DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5DL

Quant Time: Dec 09 07:23:04 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
 QLast Update : Mon Dec 07 16:56:49 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1141457	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.18	114	2515819	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	2297745	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	1936496	10.61	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

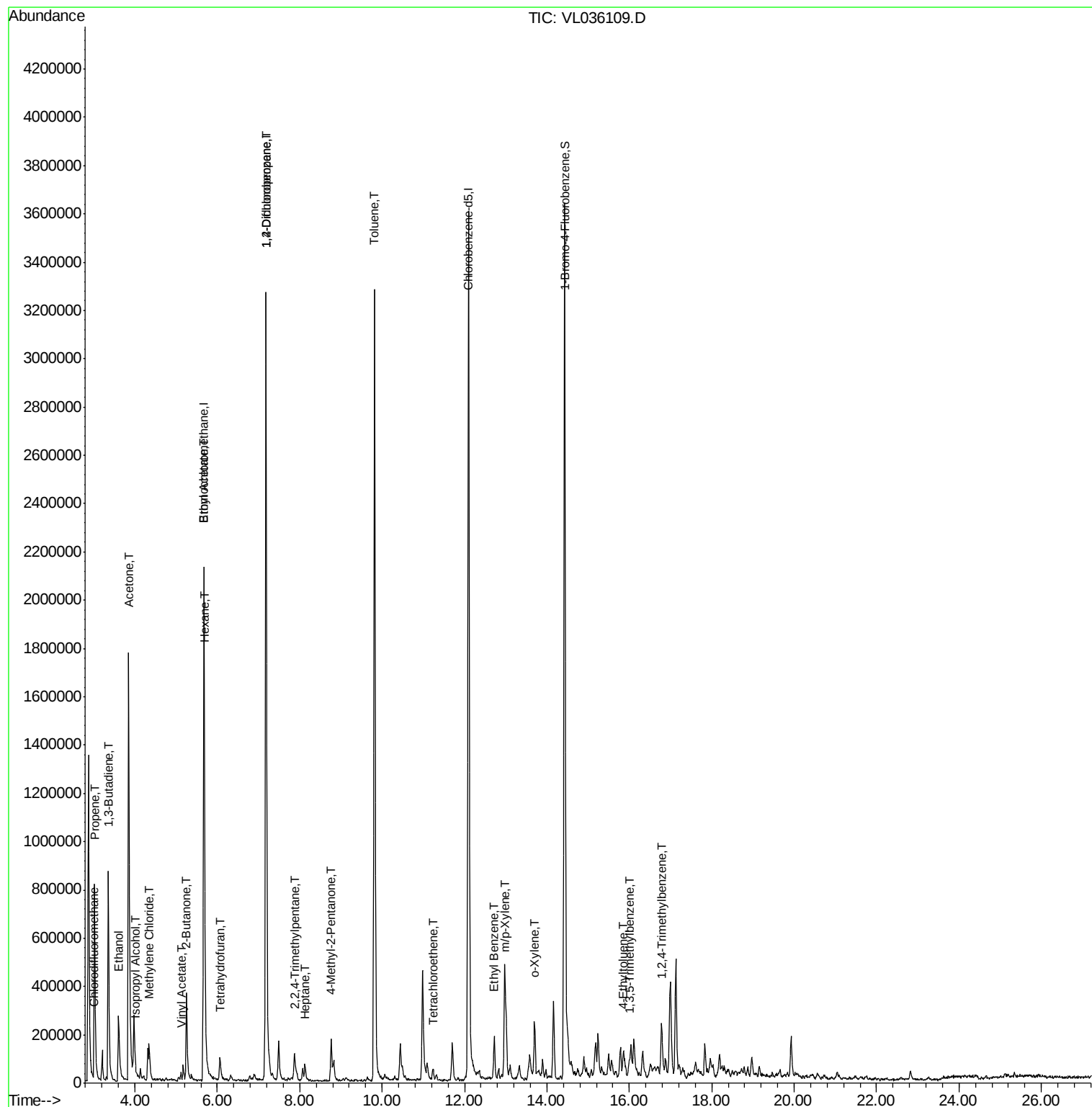
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.99	51	16670	0.128	ppbv #	75
9) Propene	3.02	41	211130	3.236	ppbv #	60
10) Heptane	8.13	43	13715	0.082	ppbv #	1
13) Ethanol	3.60	45	339141	37.709	ppbv	86
15) Acetone	3.85	43	2386710	17.398	ppbv	99
16) 1,3-Butadiene	3.36	39	134105	1.941	ppbv #	14
19) Isopropyl Alcohol	4.02	45	13818	0.165	ppbv #	100
20) Methylene Chloride	4.35	84	33390	0.594	ppbv	83
23) Vinyl Acetate	5.11	43	6341	0.035	ppbv #	91
25) Ethyl Acetate	5.68	43	318698	1.163	ppbv #	62
26) Hexane	5.69	57	61814	0.501	ppbv #	1
34) 2-Butanone	5.25	43	527950	3.164	ppbv	98
39) 1,2-Dichloropropane	7.18	63	750665	8.915	ppbv #	24
41) Tetrahydrofuran	6.07	42	62377	0.629	ppbv	93
44) 2,2,4-Trimethylpentane	7.87	57	44852	0.116	ppbv #	9
50) 4-Methyl-2-Pentanone	8.76	43	150038	0.603	ppbv	91
52) Tetrachloroethene	11.23	164	2587	0.034	ppbv #	65
53) Toluene	9.82	91	2739746	11.444	ppbv	99
58) Ethyl Benzene	12.73	91	72687	0.231	ppbv	94
59) m/p-Xylene	13.01	91	129506	0.488	ppbv #	34
60) o-Xylene	13.71	91	89586	0.359	ppbv #	42
72) 4-Ethyltoluene	15.84	105	23660	0.087	ppbv #	51
73) 1,3,5-Trimethylbenzene	16.01	105	24482	0.095	ppbv #	86
74) 1,2,4-Trimethylbenzene	16.78	105	102825	0.396	ppbv #	60

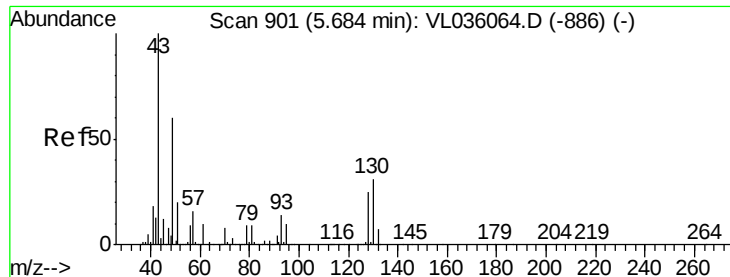
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
MSVOA_L
ClientSampled :
IA-5DL

Quant Time: Dec 09 07:23:04 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.01 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleId :

IA-5DL

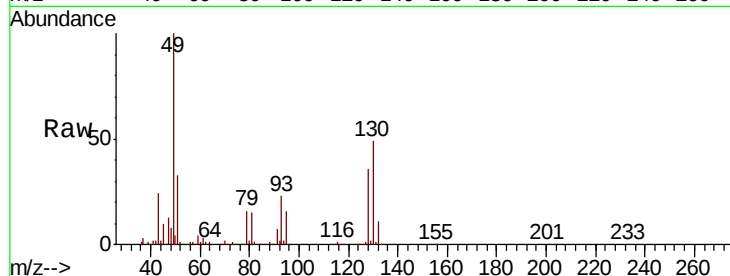
Tot Ion: 49 Resp: 1141457

Ion Ratio Lower Upper

49 100

128 39.9 21.1 63.1

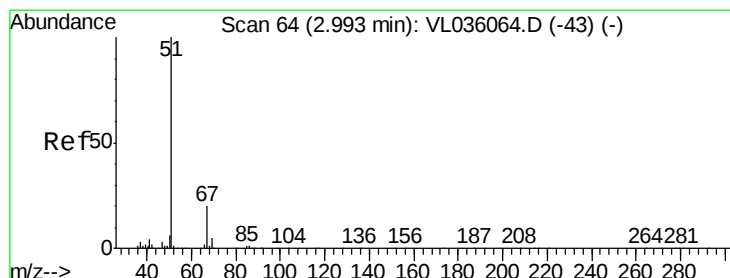
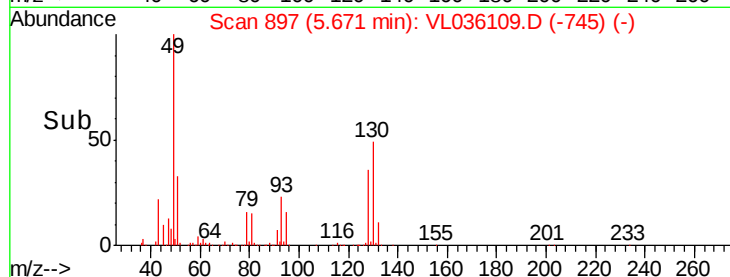
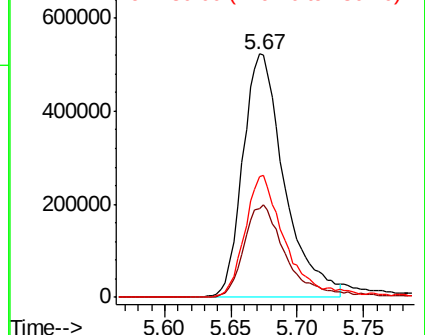
130 49.3 27.1 81.3



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



#3

Chlorodifluoromethane

Concen: 0.128 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.00 min

Lab File: VL036109.D

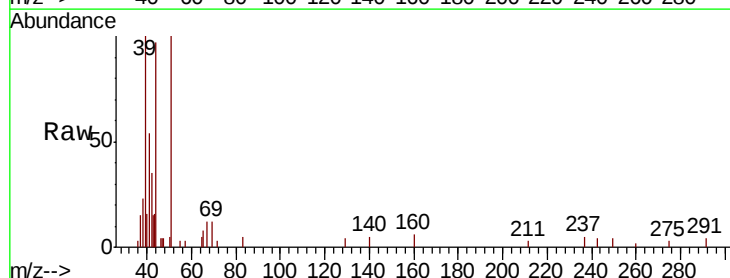
Acq: 9 Dec 2020 00:24

Tgt Ion: 51 Resp: 16670

Ion Ratio Lower Upper

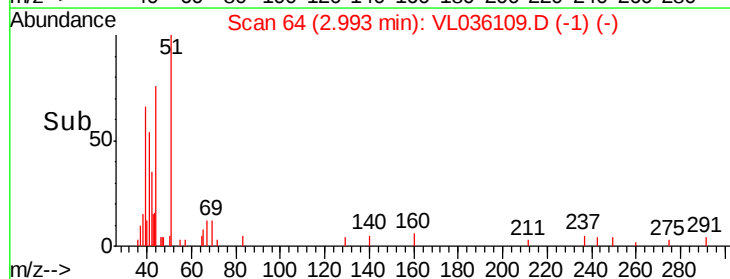
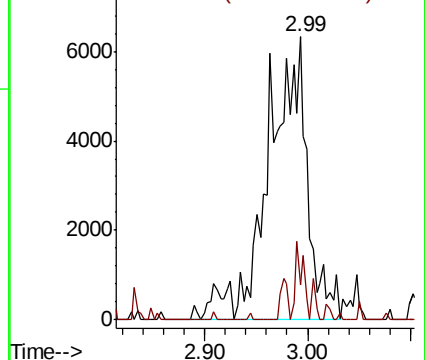
51 100

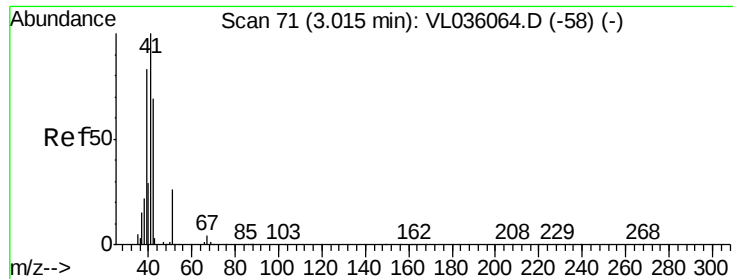
67 6.9 14.3 21.5#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 3.236 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.01 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleId :

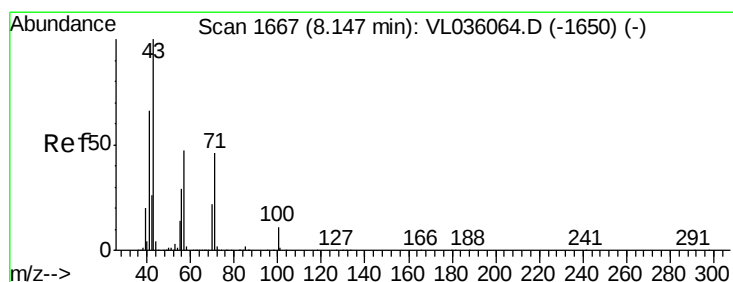
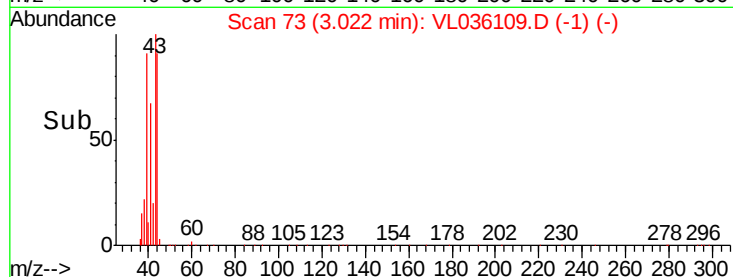
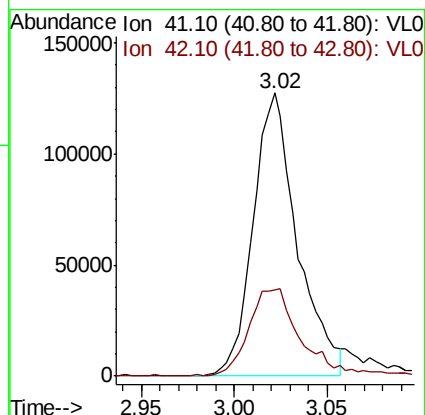
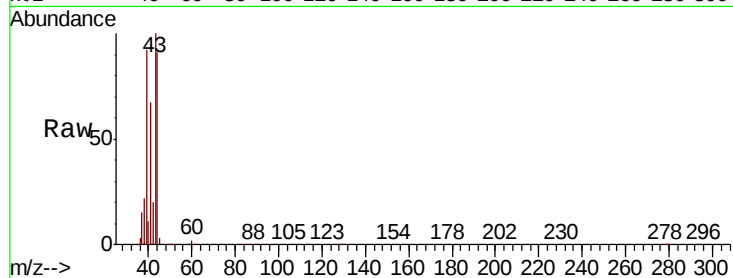
IA-5DL

Tot Ion: 41 Resp: 211130

Ion Ratio Lower Upper

41 100

42 37.8 57.0 85.6#



#10

Heptane

Concen: 0.082 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. -0.02 min

Lab File: VL036109.D

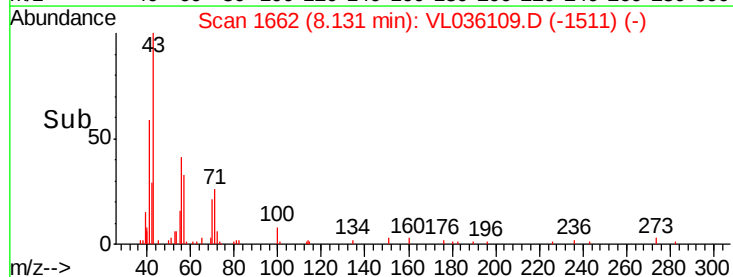
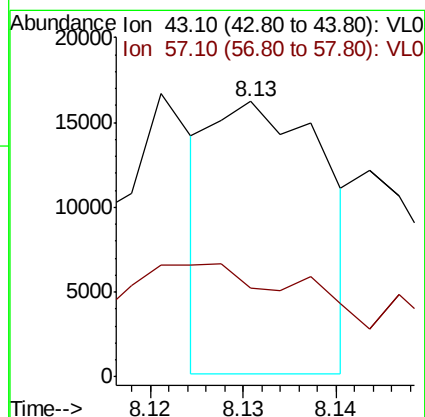
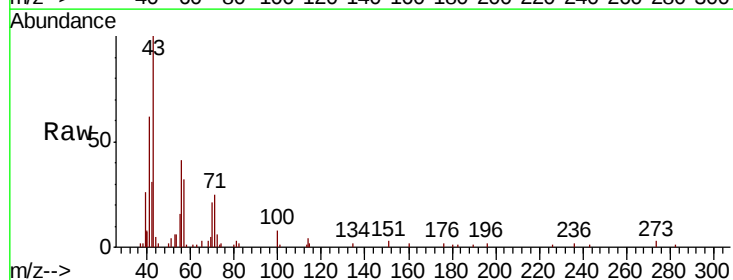
Acq: 9 Dec 2020 00:24

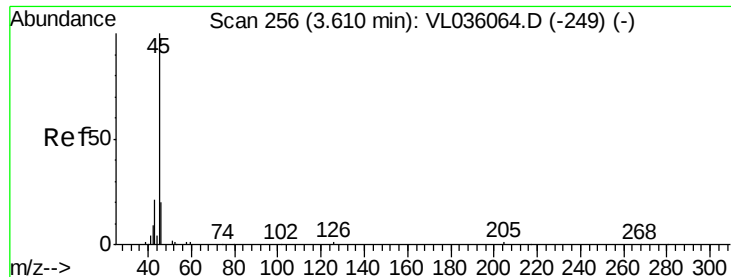
Tgt Ion: 43 Resp: 13715

Ion Ratio Lower Upper

43 100

57 122.4 37.9 56.9#

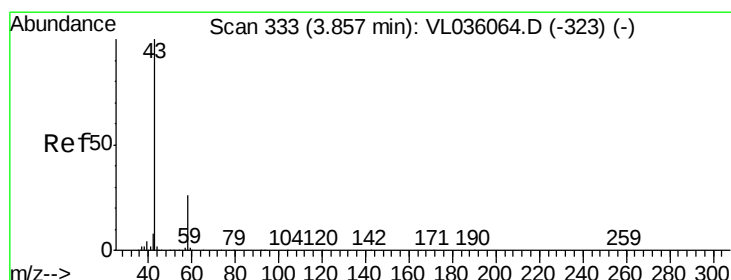
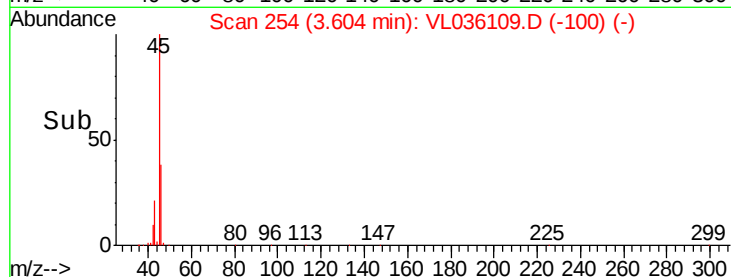
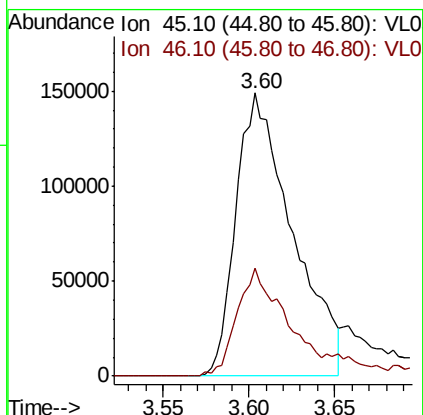
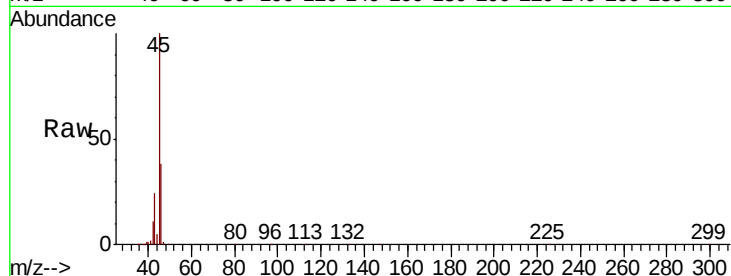




#13
Ethanol
Concen: 37.709 ppbv
RT: 3.60 min Scan# 254
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

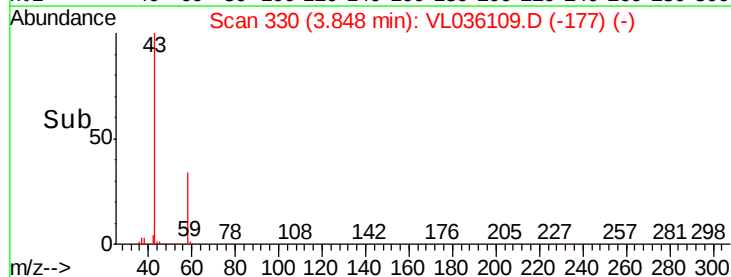
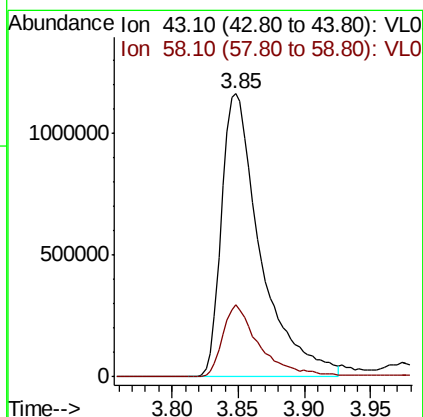
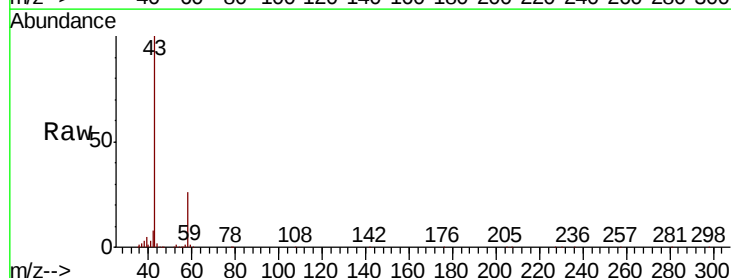
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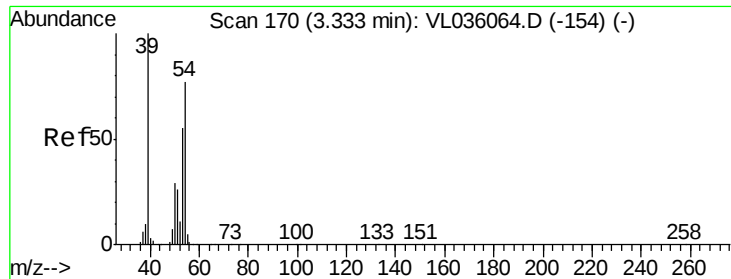
Tot Ion: 45 Resp: 339141
Ion Ratio Lower Upper
45 100
46 38.1 19.0 75.8



#15
Acetone
Concen: 17.398 ppbv
RT: 3.85 min Scan# 330
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Tgt Ion: 43 Resp: 2386710
Ion Ratio Lower Upper
43 100
58 25.7 20.9 31.3

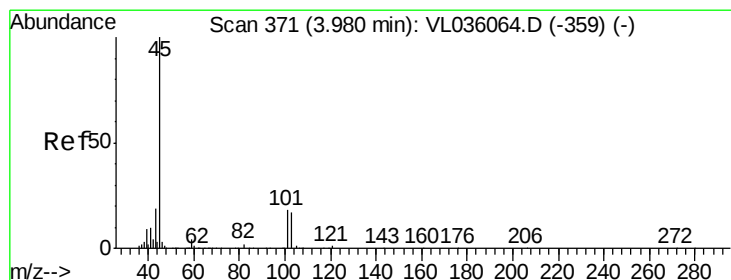
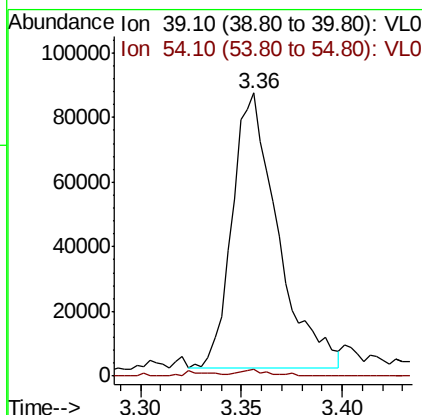
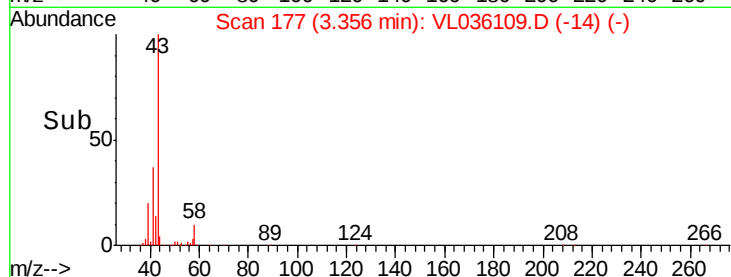
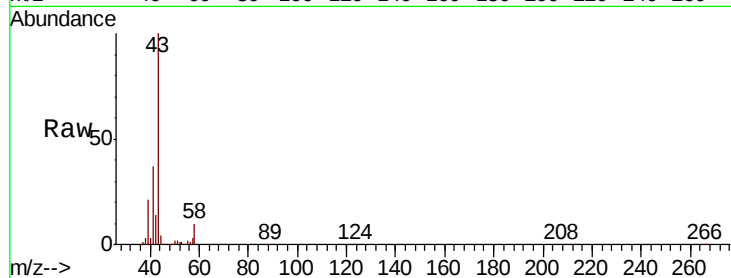




#16
 1,3-Butadiene
 Concen: 1.941 ppbv
 RT: 3.36 min Scan# 177
 Delta R.T. 0.02 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

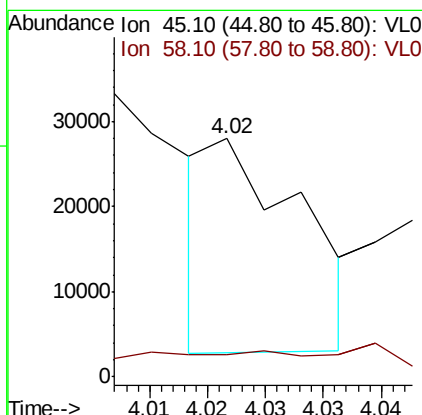
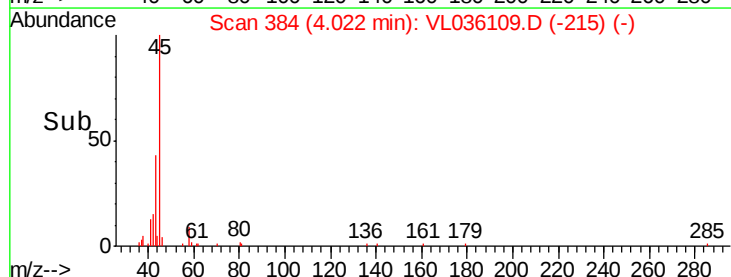
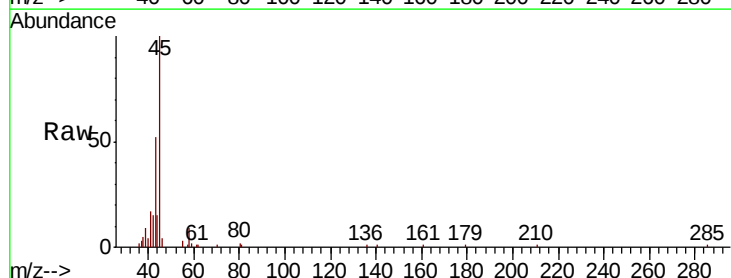
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5DL

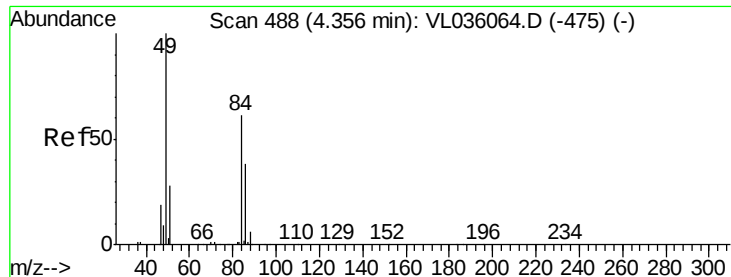
Tot Ion: 39 Resp: 134105
 Ion Ratio Lower Upper
 39 100
 54 3.0 62.1 93.1#



#19
 Isopropyl Alcohol
 Concen: 0.165 ppbv
 RT: 4.02 min Scan# 384
 Delta R.T. 0.04 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

Tgt Ion: 45 Resp: 13818
 Ion Ratio Lower Upper
 45 100
 58 0.0 0.0 0.0

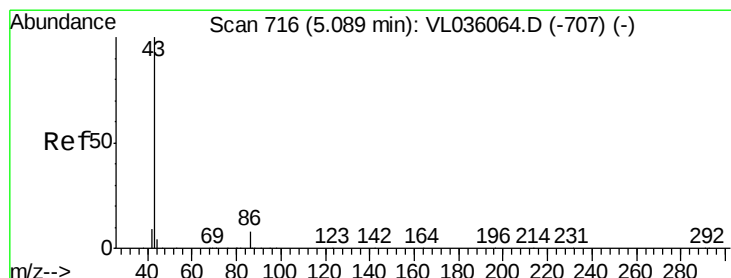
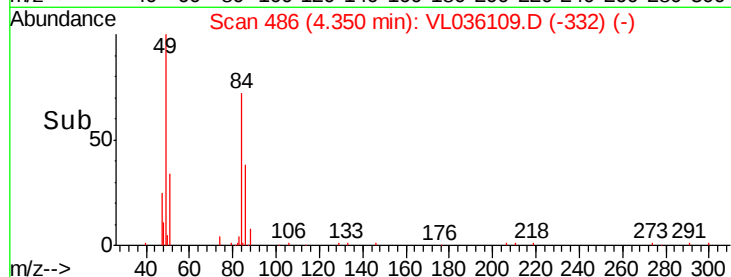
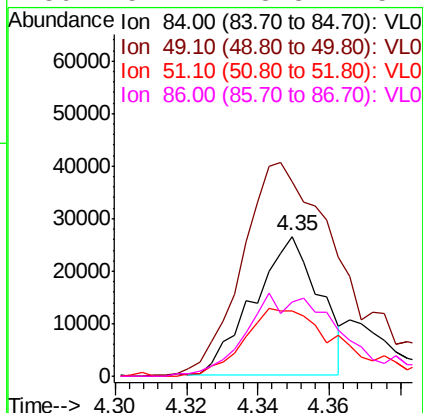
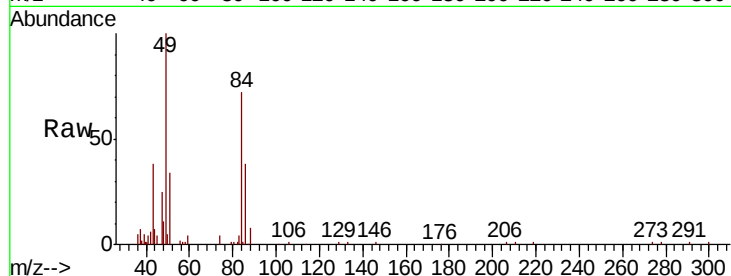




#20
Methvlene Chloride
Concen: 0.594 ppbv
RT: 4.35 min Scan# 486
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

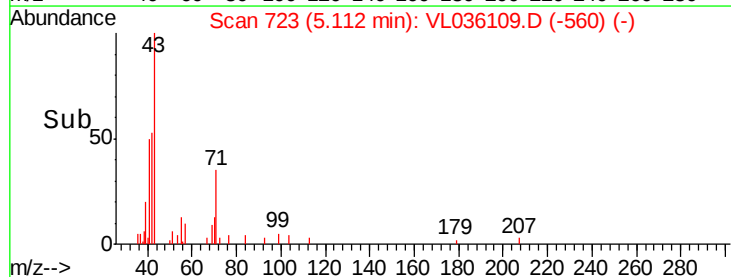
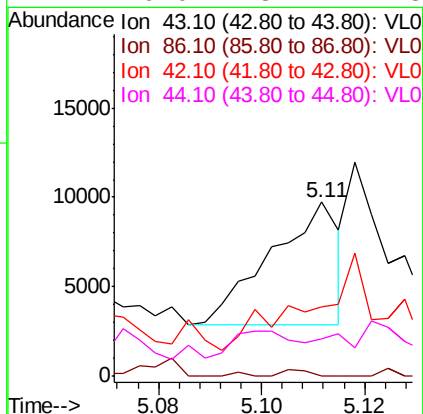
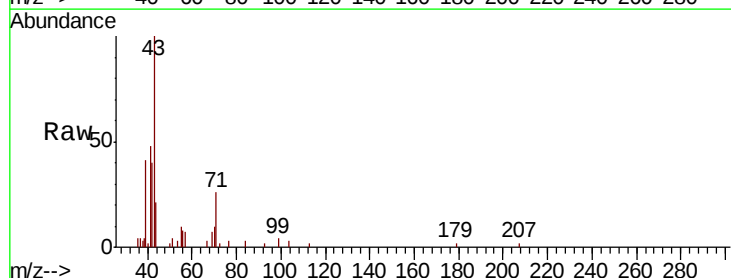
Instrument :
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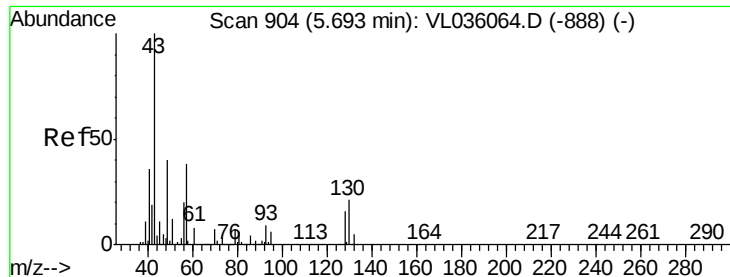
Tot Ion:	84	Resp:	33390
Ion	Ratio	Lower	Upper
84	100		
49	135.9	133.0	199.4
51	45.3	38.9	58.3
86	52.1	48.8	73.2



#23
Vinyl Acetate
Concen: 0.035 ppbv
RT: 5.11 min Scan# 723
Delta R.T. 0.02 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Tgt Ion:	43	Resp:	6341
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.4#
42	10.3	7.8	11.6
44	0.0	3.2	4.8#

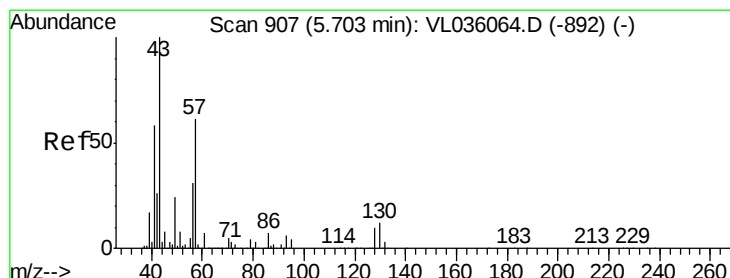
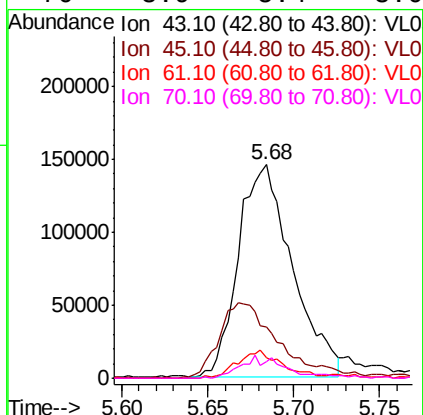
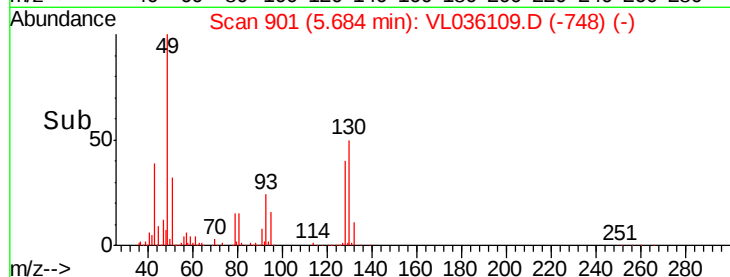
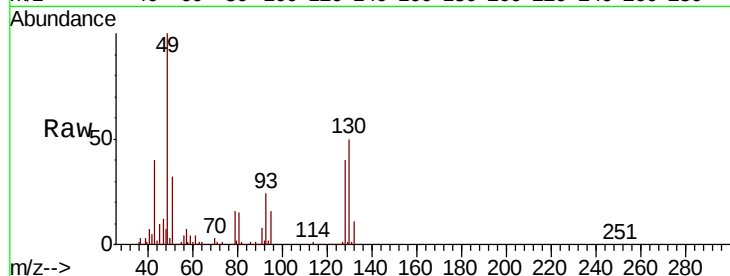




#25
Ethyl Acetate
Concen: 1.163 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

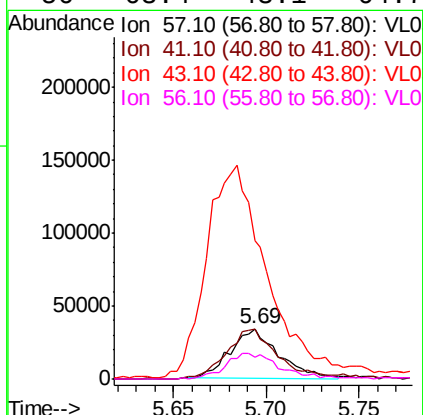
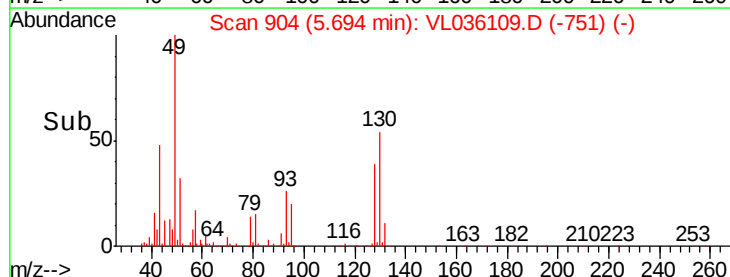
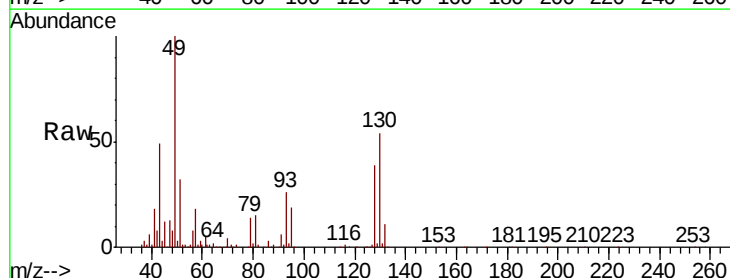
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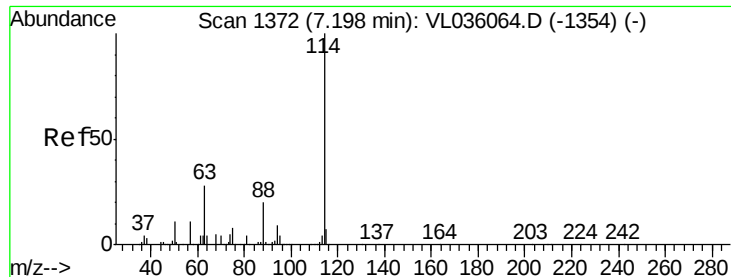
Tot Ion:	43	Resp:	318698
Ion	Ratio	Lower	Upper
43	100		
45	42.2	8.2	12.4#
61	12.5	7.4	11.2#
70	8.9	5.4	8.0#



#26
Hexane
Concen: 0.501 ppbv
RT: 5.69 min Scan# 904
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Tgt Ion:	57	Resp:	61814
Ion	Ratio	Lower	Upper
57	100		
41	113.3	82.9	124.3
43	556.5	199.9	299.9#
56	63.4	43.1	64.7

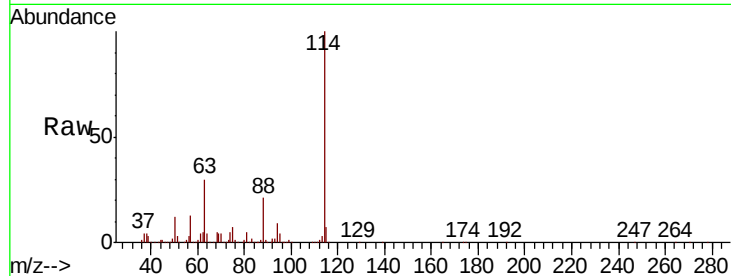




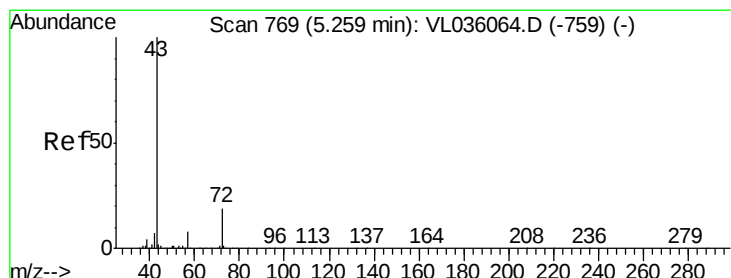
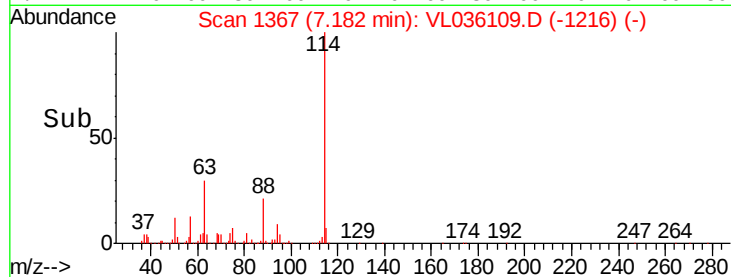
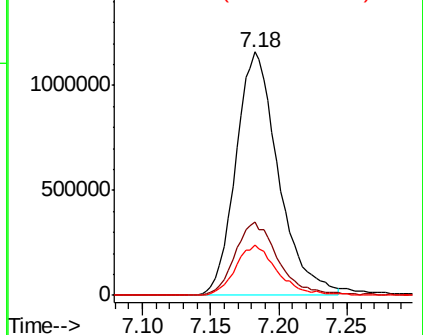
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1367
 Delta R.T. -0.02 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5DL

Tot Ion:114 Resp: 2515819
 Ion Ratio Lower Upper
 114 100
 63 30.9 23.6 35.4
 88 20.6 15.8 23.6

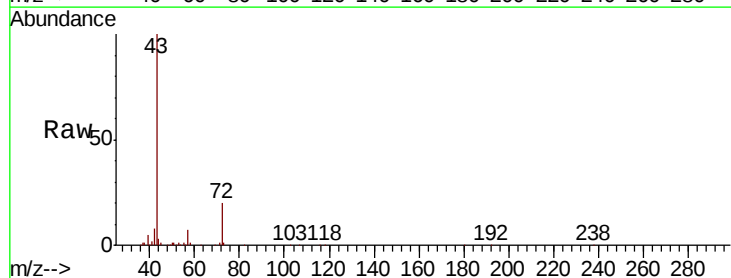


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

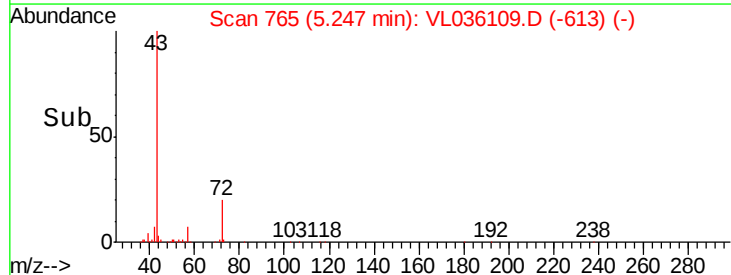
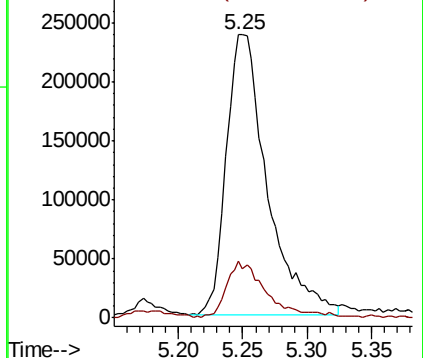


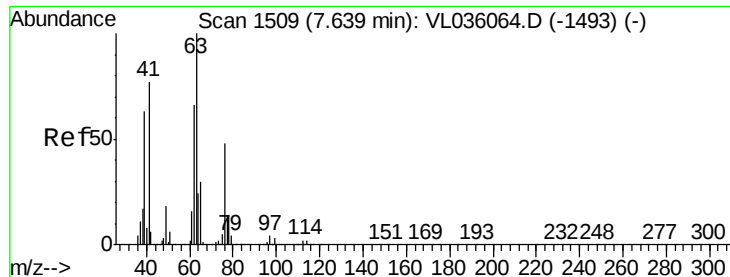
#34
 2-Butanone
 Concen: 3.164 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. -0.01 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

Tgt Ion: 43 Resp: 527950
 Ion Ratio Lower Upper
 43 100
 72 19.8 16.5 24.7



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#39

1,2-Dichloropropane

Concen: 8.915 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.46 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleId :

IA-5DL

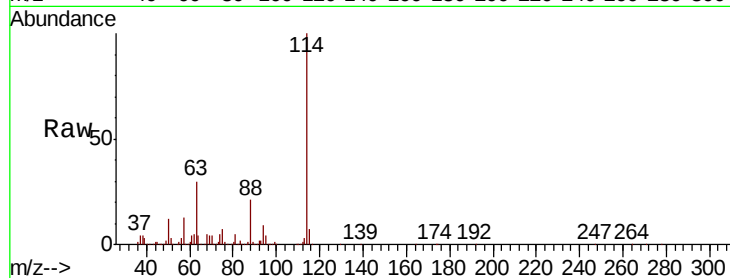
Tot Ion: 63 Resp: 750665

Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

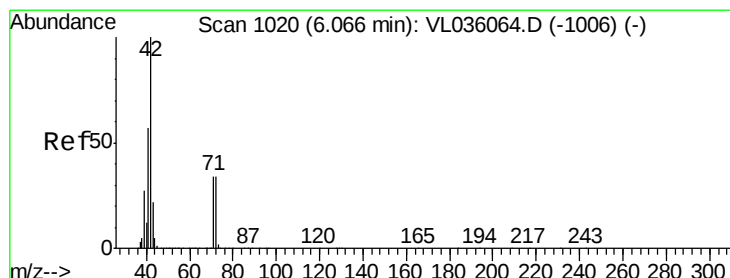
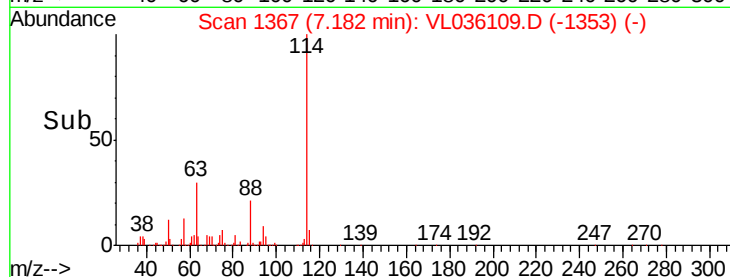
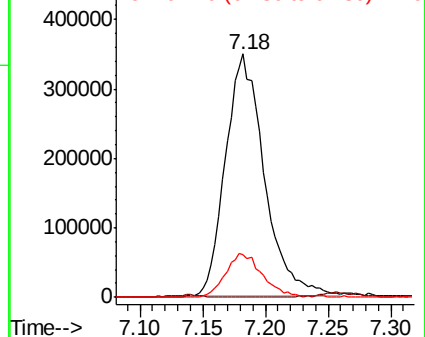
62 17.7 52.5 78.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.629 ppbv

RT: 6.07 min Scan# 1020

Delta R.T. 0.00 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

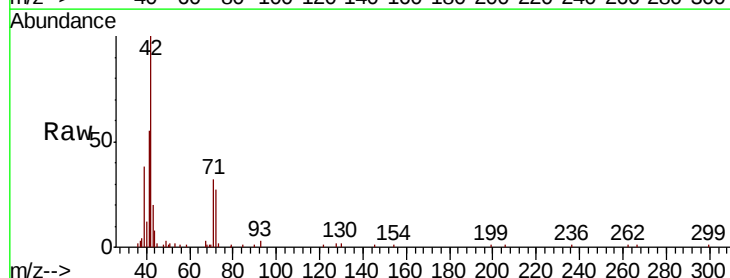
Tgt Ion: 42 Resp: 62377

Ion Ratio Lower Upper

42 100

72 38.5 28.3 42.5

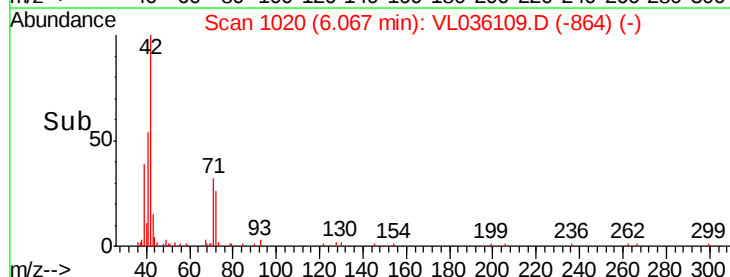
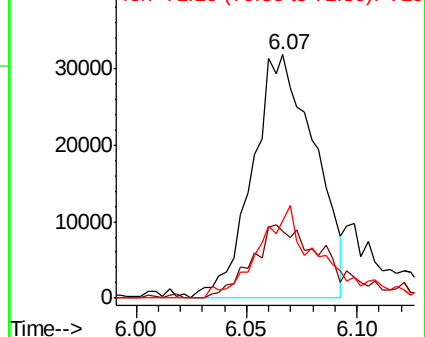
71 39.3 27.3 40.9

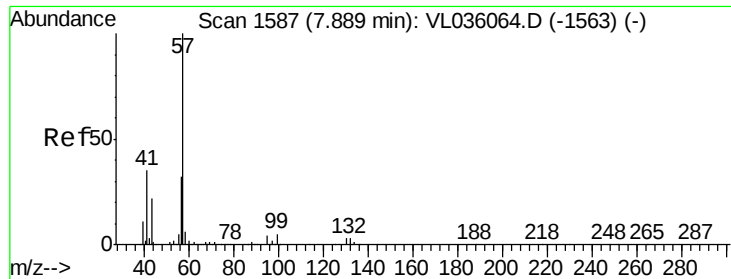


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0

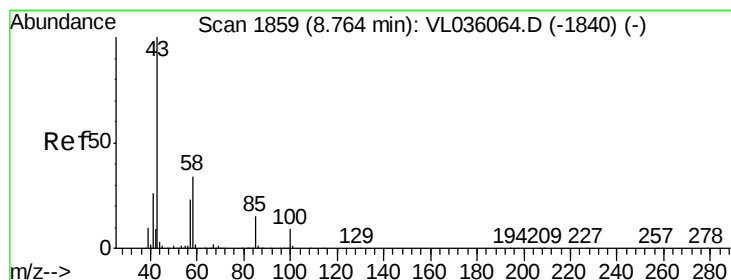
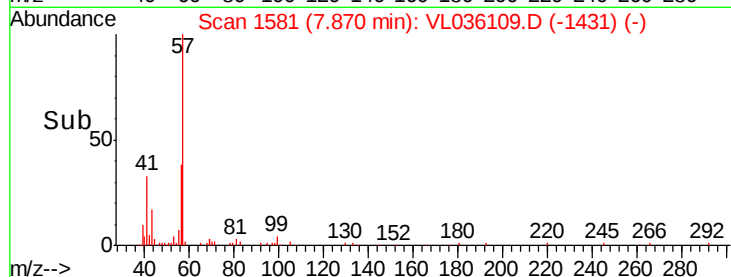
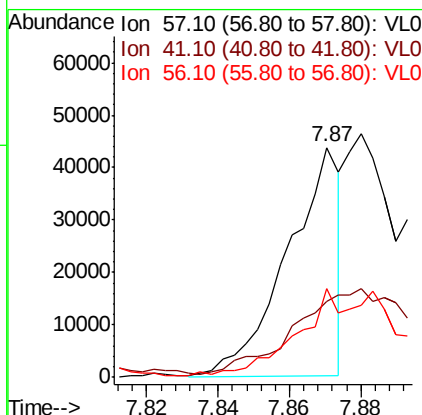
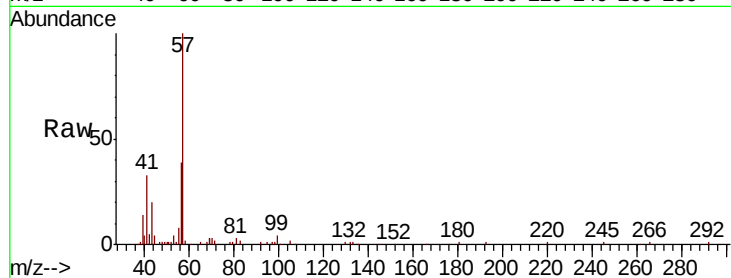




#44
 2,2,4-Trimethylpentane
 Concen: 0.116 ppbv
 RT: 7.87 min Scan# 1581
 Delta R.T. -0.02 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

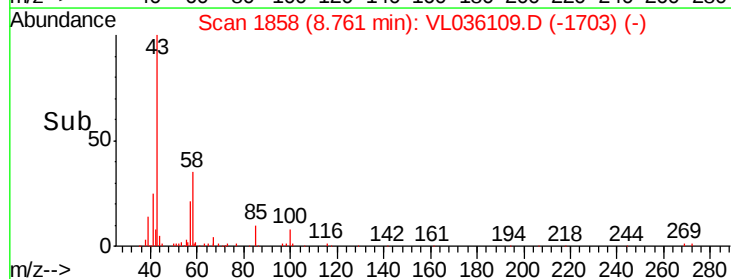
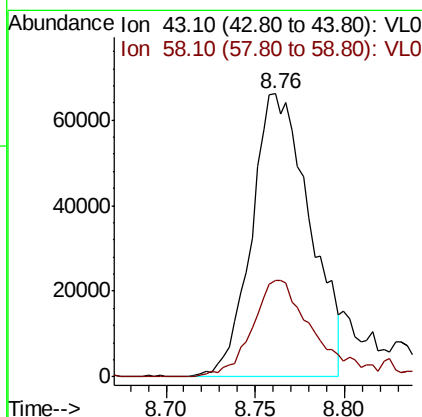
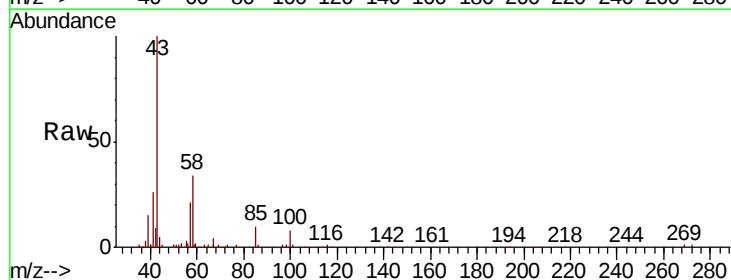
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5DL

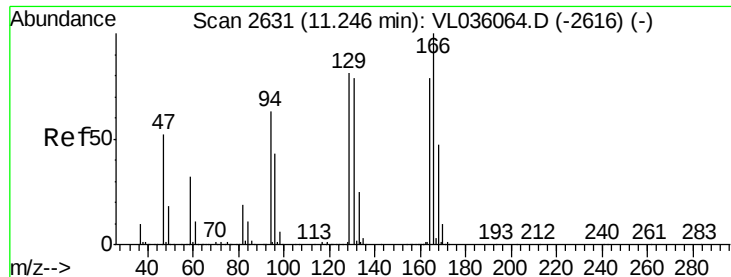
Tot Ion: 57 Resp: 44852
 Ion Ratio Lower Upper
 57 100
 41 0.0 28.9 43.3#
 56 100.6 25.3 37.9#



#50
 4-Methyl-2-Pentanone
 Concen: 0.603 ppbv
 RT: 8.76 min Scan# 1858
 Delta R.T. -0.00 min
 Lab File: VL036109.D
 Acq: 9 Dec 2020 00:24

Tgt Ion: 43 Resp: 150038
 Ion Ratio Lower Upper
 43 100
 58 39.5 27.4 41.2





#52

Tetrachloroethene

Concen: 0.034 ppbv

RT: 11.23 min Scan# 2625

Delta R.T. -0.02 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleID :

IA-5DL

Tot Ion:164 Resp: 2587

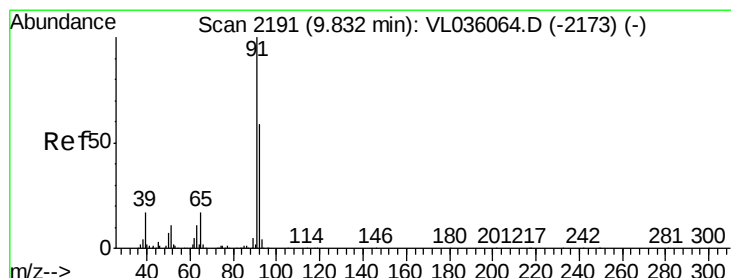
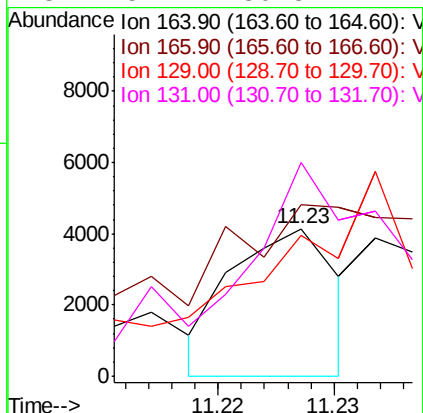
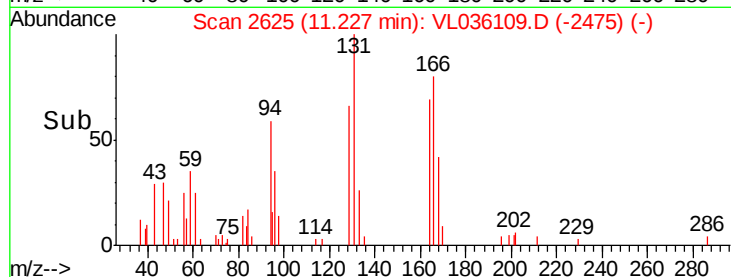
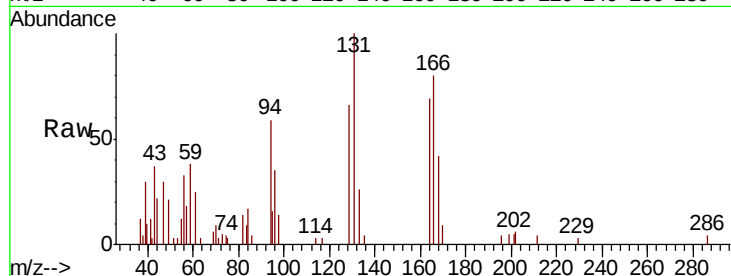
Ion Ratio Lower Upper

164 100

166 94.8 101.9 152.9#

129 77.0 82.1 123.1#

131 154.2 80.8 121.2#



#53

Toluene

Concen: 11.444 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. -0.02 min

Lab File: VL036109.D

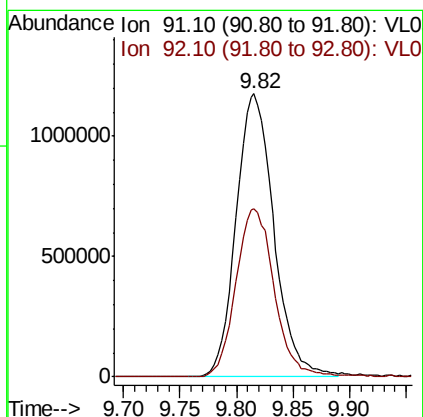
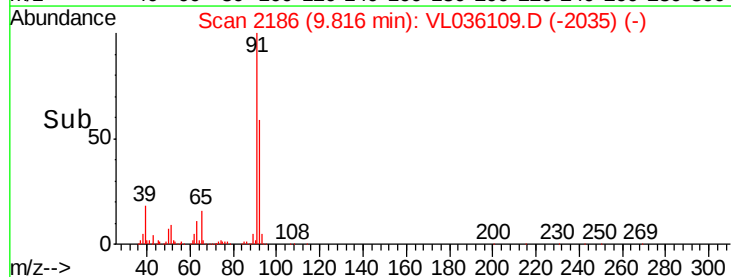
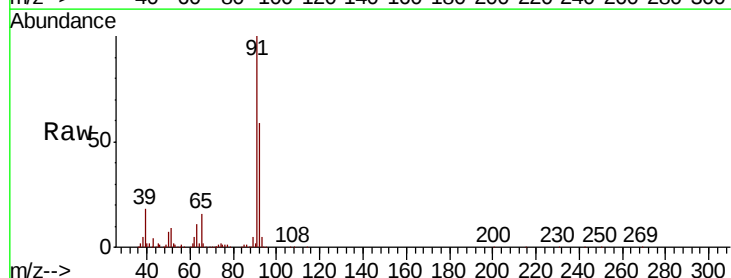
Acq: 9 Dec 2020 00:24

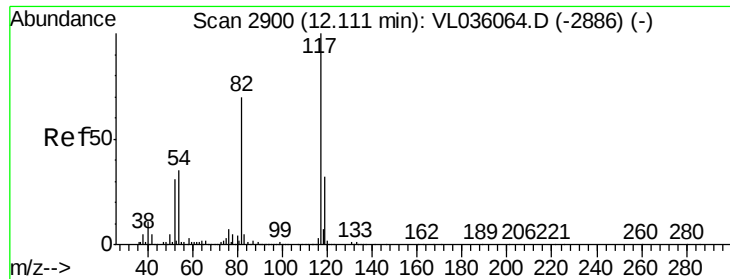
Tgt Ion: 91 Resp: 2739746

Ion Ratio Lower Upper

91 100

92 60.8 48.2 72.2

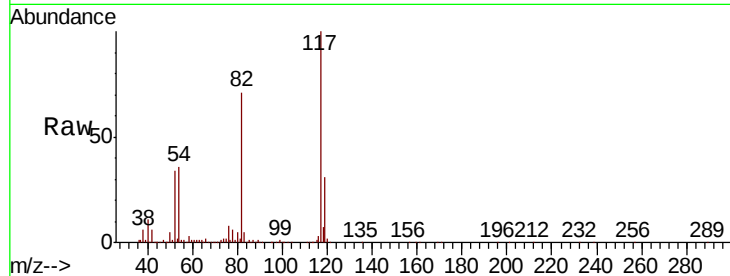




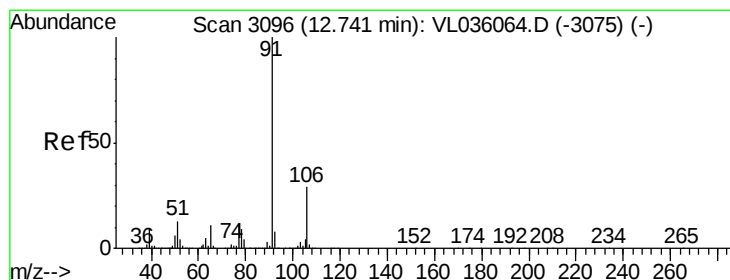
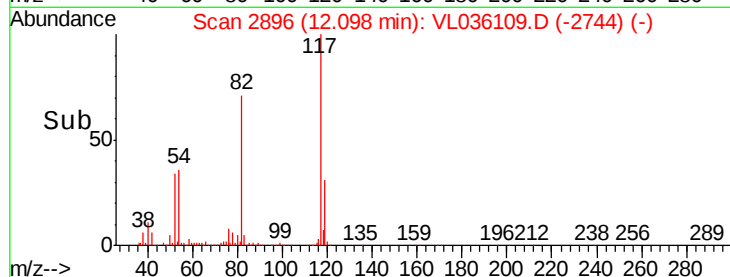
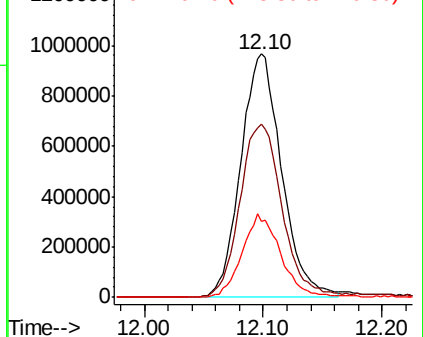
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2896
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Instrument :
MSVOA_L
ClientSampleId :
IA-5DL

Tot Ion:117 Resp: 2297745
Ion Ratio Lower Upper
117 100
82 75.5 0.0 0.0#
119 32.5 0.0 0.0#

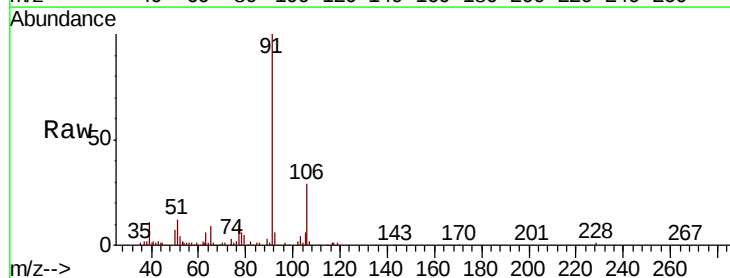


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

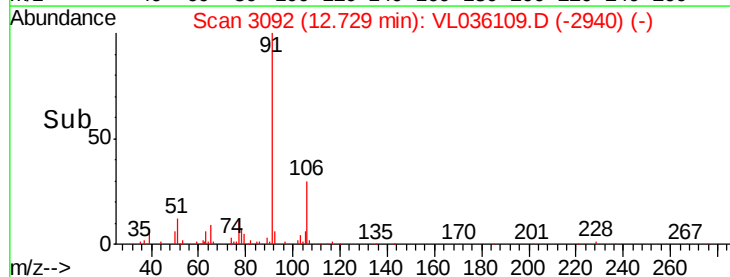
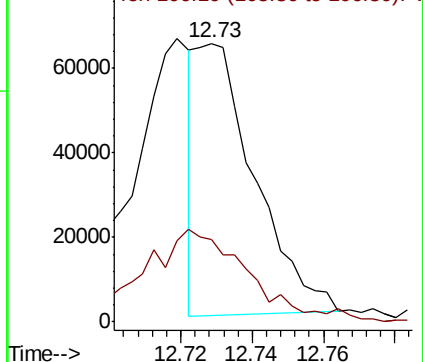


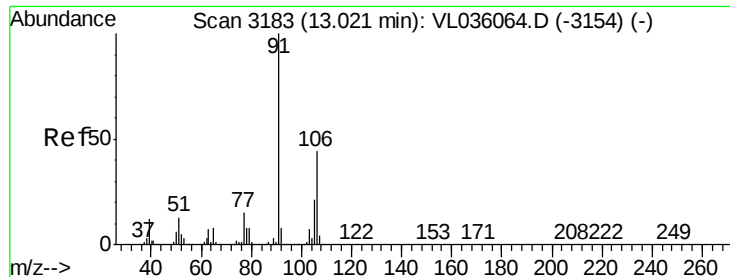
#58
Ethyl Benzene
Concen: 0.231 ppbv
RT: 12.73 min Scan# 3092
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Tgt Ion: 91 Resp: 72687
Ion Ratio Lower Upper
91 100
106 25.7 23.0 34.4



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

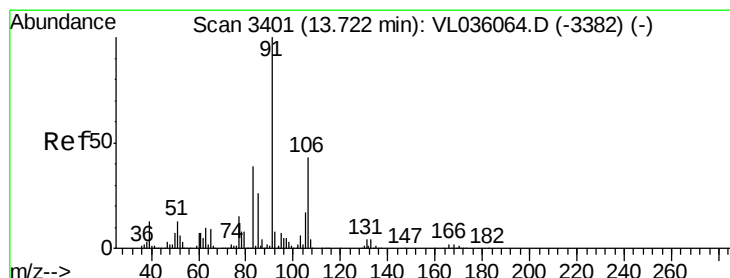
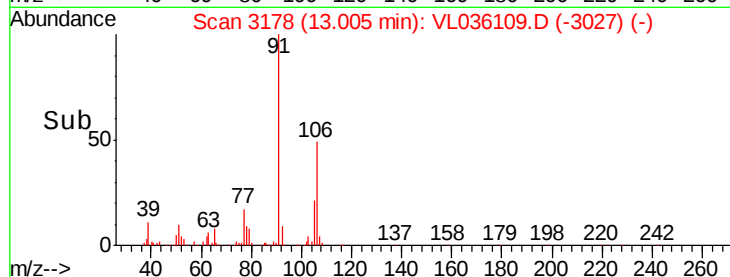
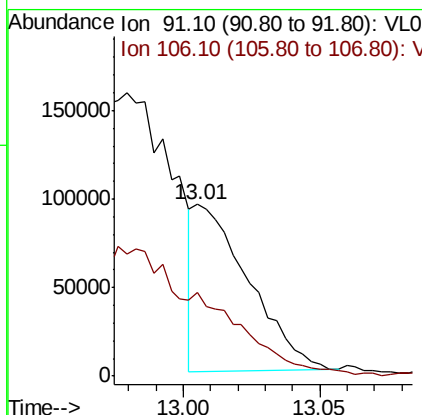
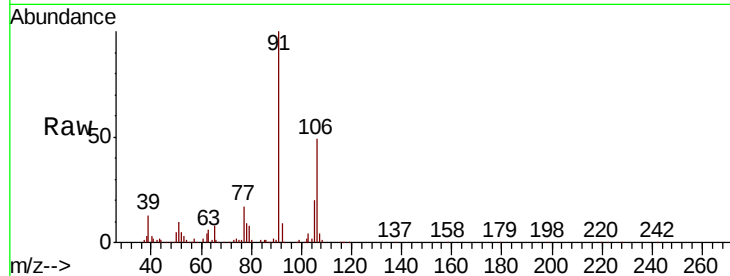




#59
m/p-Xylene
Concen: 0.488 ppbv
RT: 13.01 min Scan# 3178
Delta R.T. -0.02 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

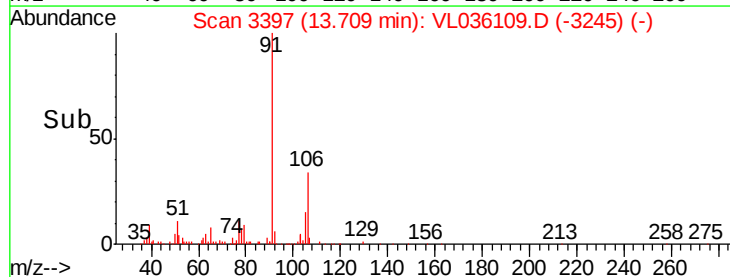
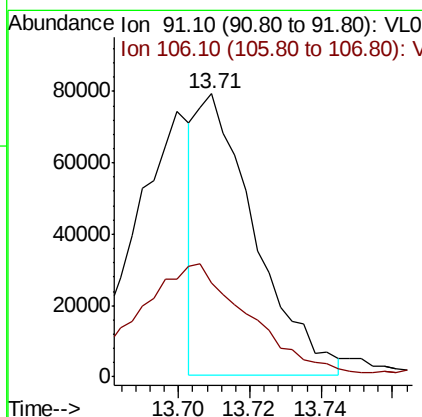
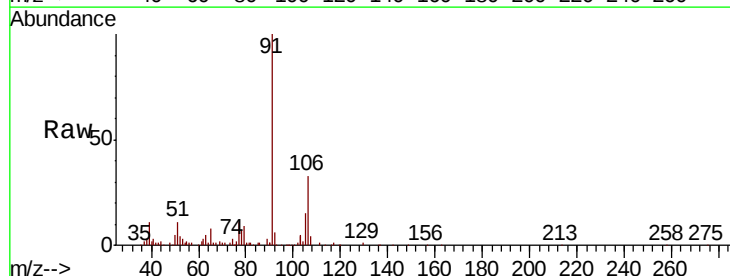
Instrument :
MSVOA_L
ClientSampleId :
IA-5DL

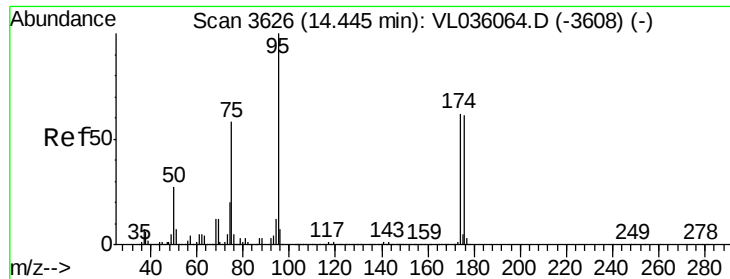
Tot Ion: 91 Resp: 129506
Ion Ratio Lower Upper
91 100
106 0.0 33.6 50.4#



#60
o-Xylene
Concen: 0.359 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. -0.01 min
Lab File: VL036109.D
Acq: 9 Dec 2020 00:24

Tgt Ion: 91 Resp: 89586
Ion Ratio Lower Upper
91 100
106 80.3 21.6 64.6#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.614 ppbv

RT: 14.43 min Scan# 3621

Delta R.T. -0.02 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleId :

IA-5DL

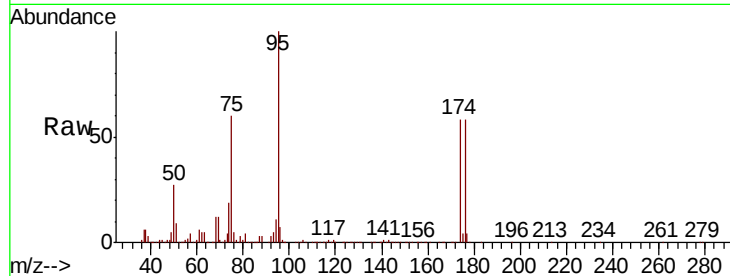
Tot Ion: 95 Resp: 1936496

Ion Ratio Lower Upper

95 100

174 59.3 50.7 76.1

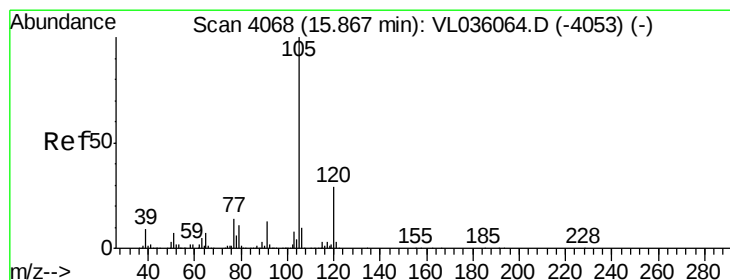
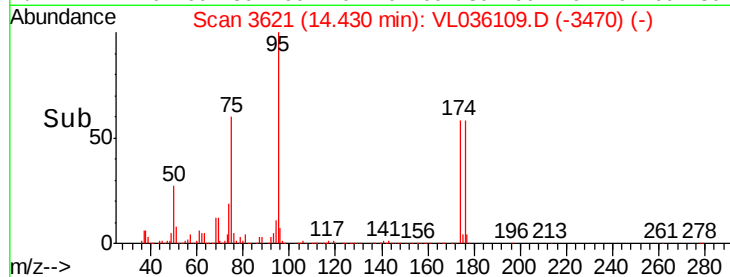
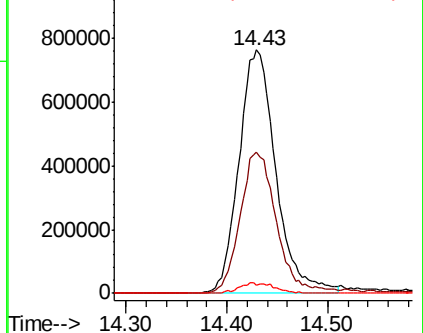
175 4.2 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL036109.D (-3470) (-)

Ion 174.00 (173.70 to 174.70): VL036109.D (-3470) (-)

Ion 175.00 (174.70 to 175.70): VL036109.D (-3470) (-)



#72

4-Ethyltoluene

Concen: 0.087 ppbv

RT: 15.84 min Scan# 4061

Delta R.T. -0.02 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Tgt Ion: 105 Resp: 23660

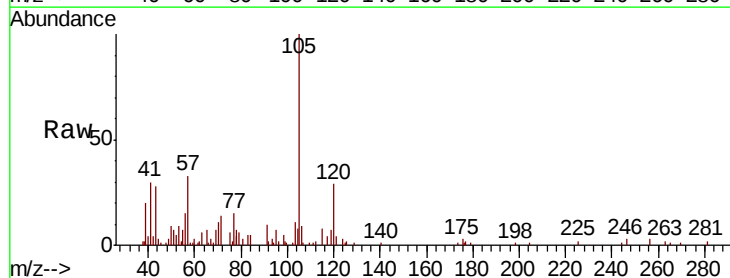
Ion Ratio Lower Upper

105 100

120 0.0 23.6 35.4#

91 0.0 11.4 17.0#

77 36.9 12.1 18.1#

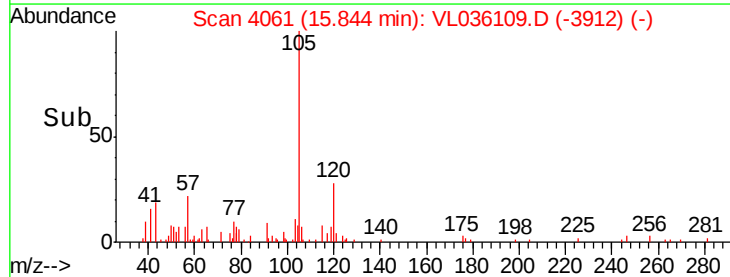
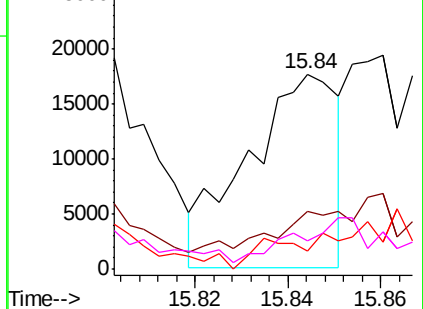


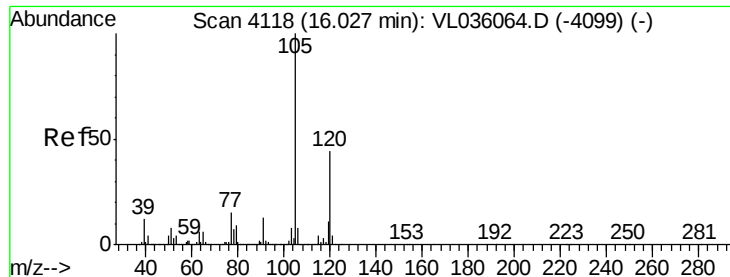
Abundance Ion 105.10 (104.80 to 105.80): VL036109.D (-3912) (-)

Ion 120.20 (119.90 to 120.90): VL036109.D (-3912) (-)

Ion 91.10 (90.80 to 91.80): VL036109.D (-3912) (-)

Ion 77.10 (76.80 to 77.80): VL036109.D (-3912) (-)





#73

1,3,5-Trimethylbenzene

Concen: 0.095 ppbv

RT: 16.01 min Scan# 4111

Delta R.T. -0.02 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Instrument :

MSVOA_L

ClientSampleId :

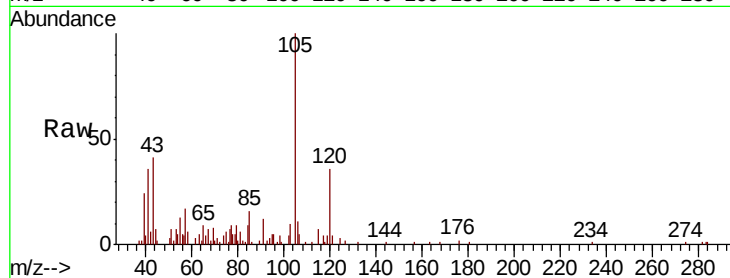
IA-5DL

Tot Ion:105 Resp: 24482

Ion Ratio Lower Upper

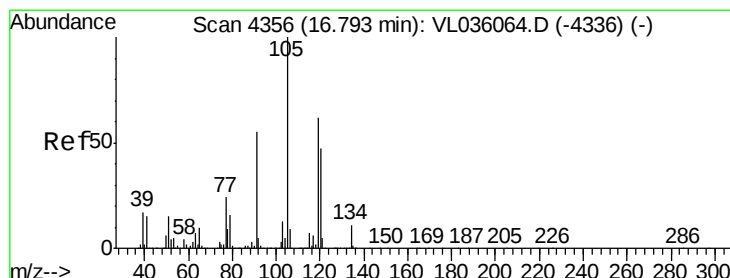
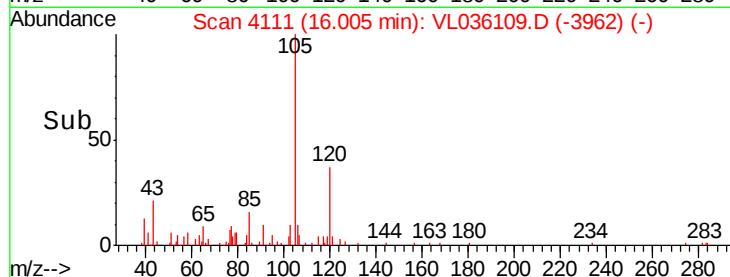
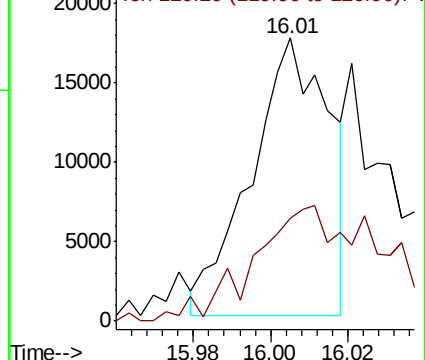
105 100

120 35.0 35.4 53.2#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.396 ppbv

RT: 16.78 min Scan# 4352

Delta R.T. -0.01 min

Lab File: VL036109.D

Acq: 9 Dec 2020 00:24

Tgt Ion:105 Resp: 102825

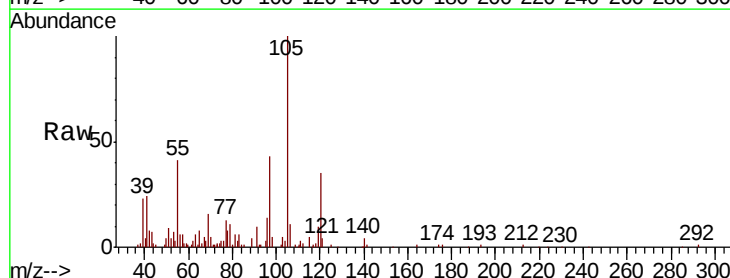
Ion Ratio Lower Upper

105 100

120 35.1 37.4 56.0#

91 9.1 45.6 68.4#

77 12.8 19.4 29.2#



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

