

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120720\
 Data File : VL036076.D
 Acq On : 7 Dec 2020 22:26
 Operator : SY/AP
 Sample : L4949-02DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DL

Quant Time: Dec 08 08:40:03 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	5.68	49	1283704	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2912792	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2568397	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2138135	10.48	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.80%

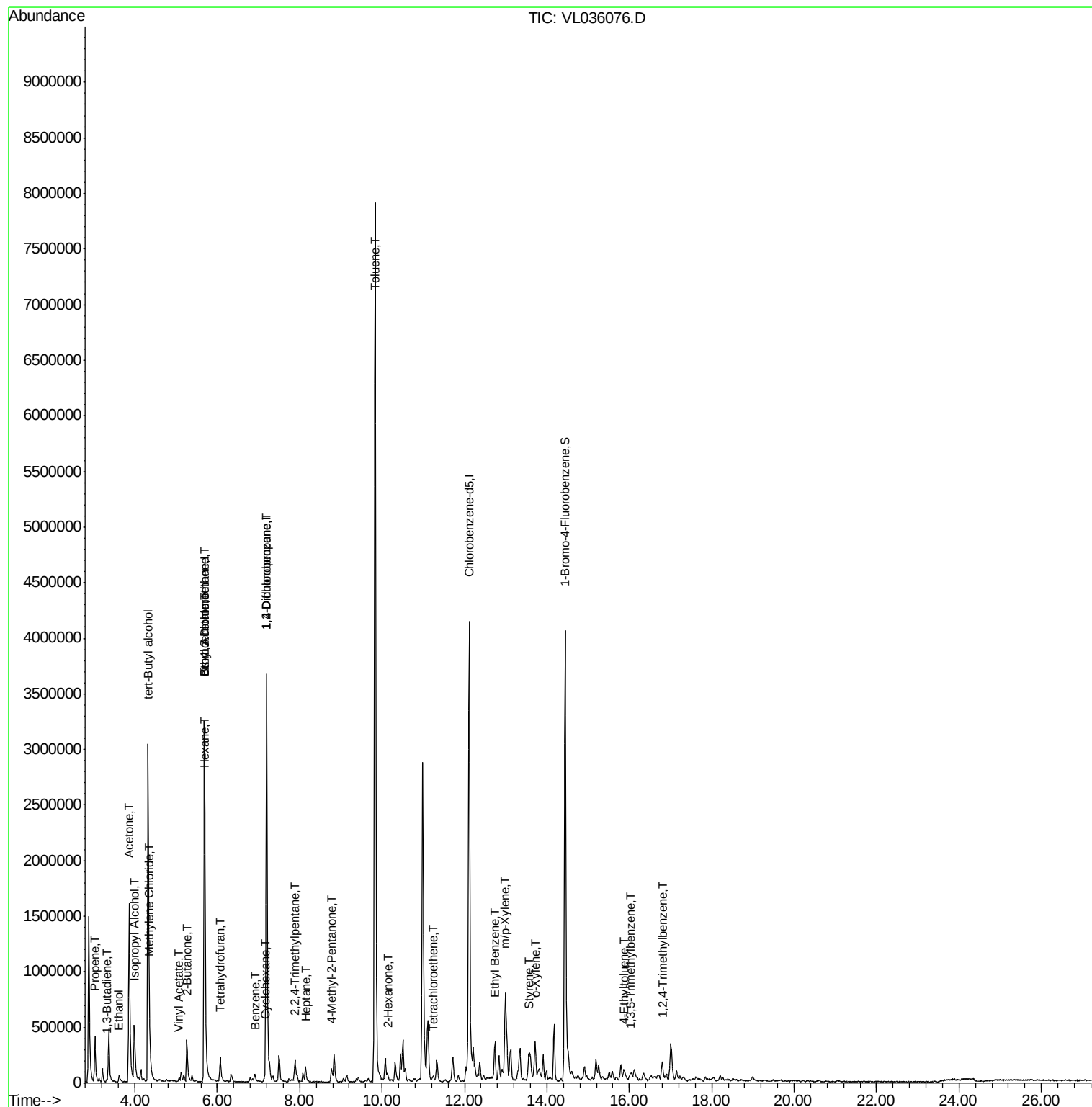
Target Compounds					Ovalue
9) Propene	3.03	41	115561	1.575 ppbv	# 70
10) Heptane	8.14	43	46818	0.250 ppbv	# 57
13) Ethanol	3.62	45	53605	5.300 ppbv	83
15) Acetone	3.85	43	2209784	14.323 ppbv	96
16) 1,3-Butadiene	3.32	39	7896	0.102 ppbv	# 11
17) tert-Butyl alcohol	4.32	59	325478	2.178 ppbv	# 80
19) Isopropyl Alcohol	3.99	45	698335	7.406 ppbv	# 100
20) Methylene Chloride	4.36	84	55169	0.873 ppbv	85
23) Vinyl Acetate	5.08	43	10462	0.051 ppbv	# 27
25) Ethyl Acetate	5.69	43	1603727	5.203 ppbv	# 90
26) Hexane	5.71	57	30856	0.222 ppbv	# 1
30) Cyclohexane	7.15	84	8977	0.088 ppbv	# 1
31) cis-1,2-Dichloroethene	5.69	61	173182	1.373 ppbv	# 28
34) 2-Butanone	5.26	43	530234	2.744 ppbv	99
36) Benzene	6.91	78	27277	0.110 ppbv	# 85
39) 1,2-Dichloropropane	7.19	63	829973	8.514 ppbv	# 24
41) Tetrahydrofuran	6.07	42	147448	1.285 ppbv	94
44) 2,2,4-Trimethylpentane	7.89	57	122273	0.274 ppbv	# 25
50) 4-Methyl-2-Pentanone	8.77	43	46591	0.162 ppbv	# 40
51) 2-Hexanone	10.14	43	16018	0.071 ppbv	# 33
52) Tetrachloroethene	11.25	164	3003	0.034 ppbv	88
53) Toluene	9.83	91	6663868	24.041 ppbv	96
58) Ethyl Benzene	12.74	91	297289	0.845 ppbv	97
59) m/p-Xylene	12.99	91	533618	1.800 ppbv	# 34
60) o-Xylene	13.72	91	113033	0.405 ppbv	# 15
61) Styrene	13.56	104	31577	0.176 ppbv	# 1
72) 4-Ethyltoluene	15.86	105	51330	0.170 ppbv	# 93
73) 1,3,5-Trimethylbenzene	16.02	105	11215	0.039 ppbv	# 37
74) 1,2,4-Trimethylbenzene	16.79	105	47447	0.164 ppbv	# 65

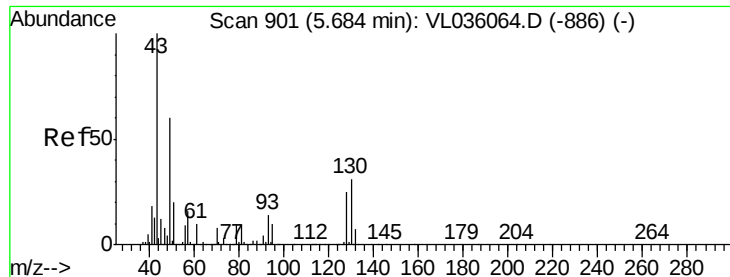
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Misc : 400ml/MSVOA L
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Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

Quant Time: Dec 08 08:40:03 2020
Quant Method : Z:\V0ASRV\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

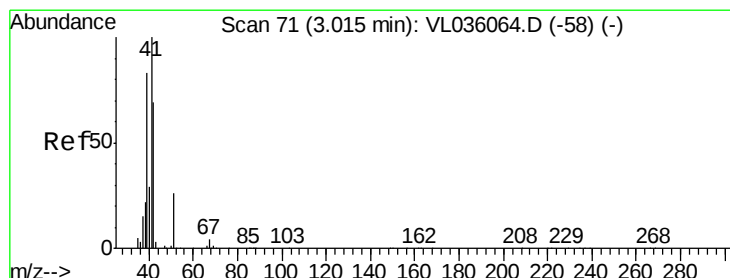
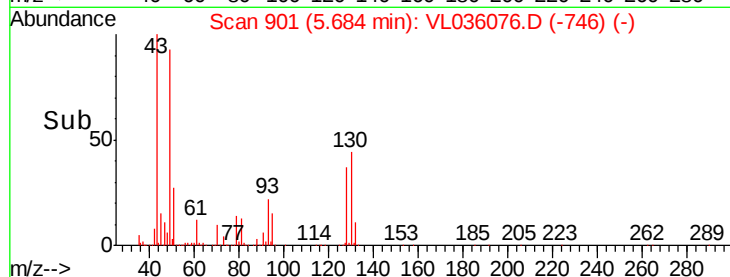
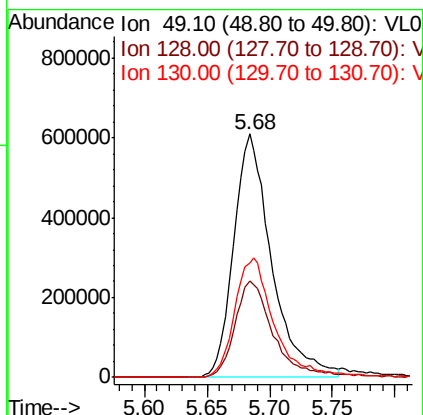
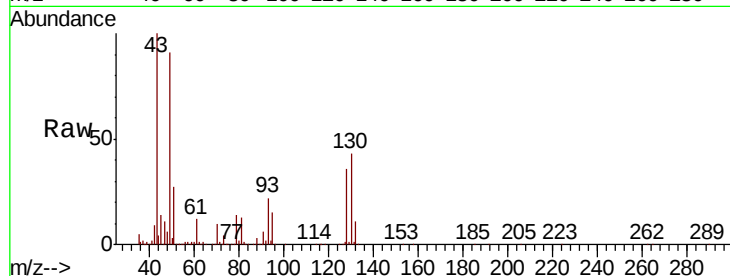




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68 min Scan# 901
 Delta R.T. -0.00 min
 Lab File: VL036076.D
 Acq: 7 Dec 2020 22:26

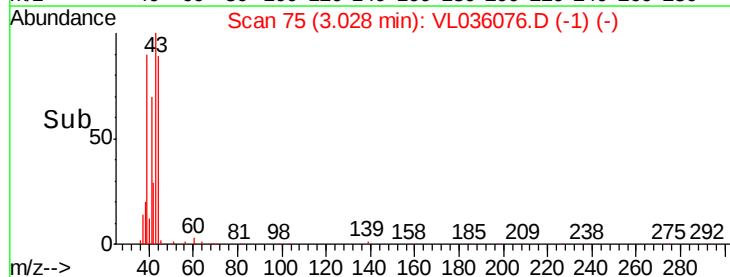
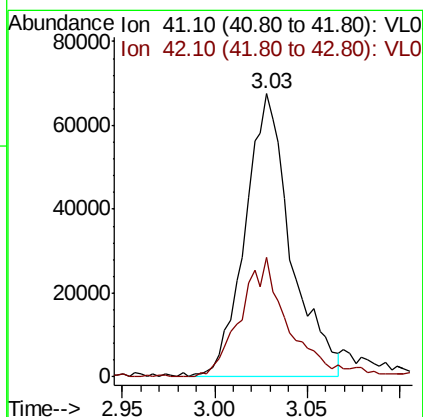
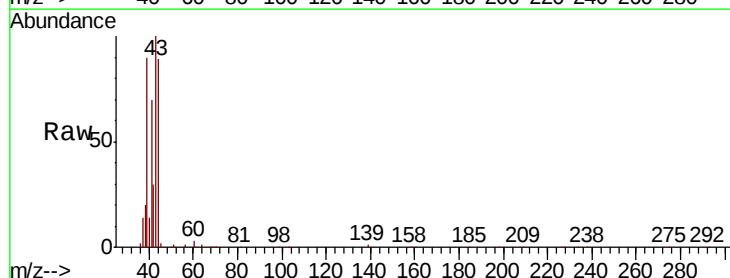
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DL

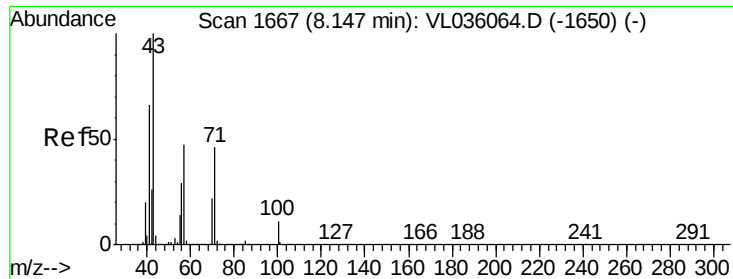
Tot Ion: 49 Resp: 1283704
 Ion Ratio Lower Upper
 49 100
 128 40.3 21.1 63.1
 130 52.2 27.1 81.3



#9
 Propene
 Concen: 1.575 ppbv
 RT: 3.03 min Scan# 75
 Delta R.T. 0.01 min
 Lab File: VL036076.D
 Acq: 7 Dec 2020 22:26

Tgt Ion: 41 Resp: 115561
 Ion Ratio Lower Upper
 41 100
 42 46.7 57.0 85.6#

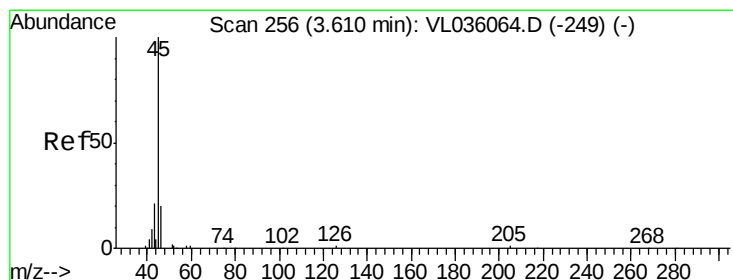
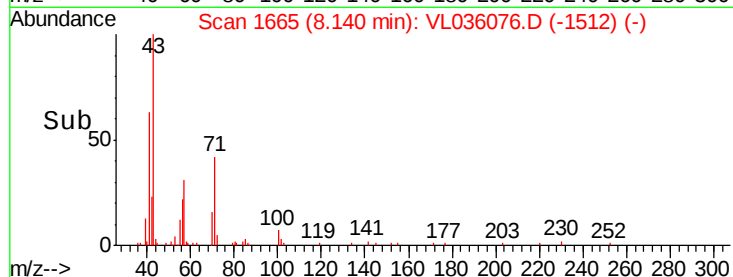
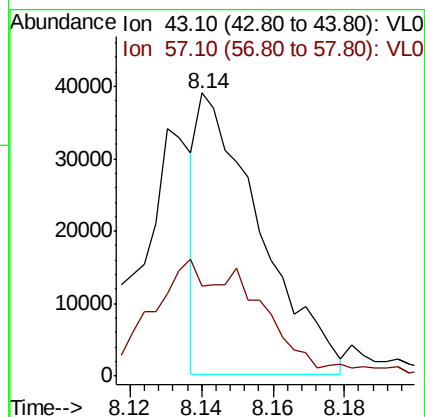
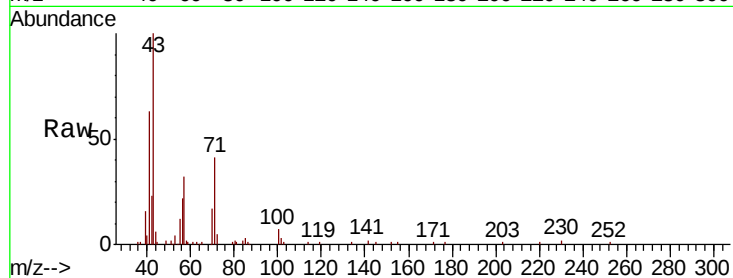




#10
Heptane
Concen: 0.250 ppbv
RT: 8.14 min Scan# 1665
Delta R.T. -0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

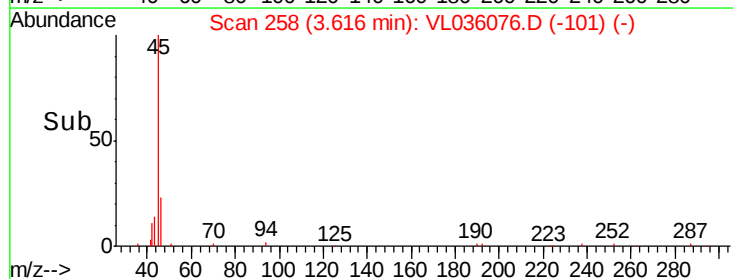
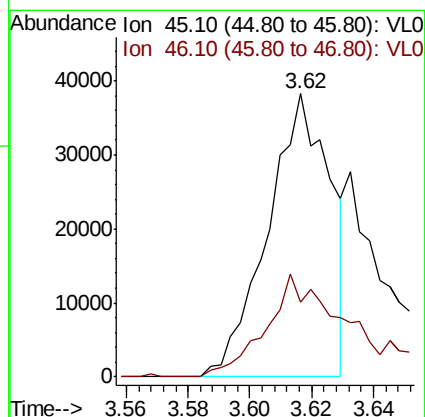
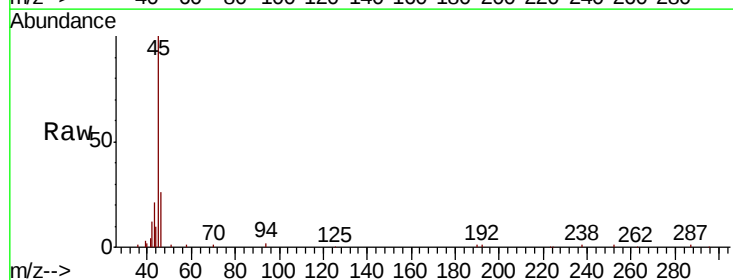
Instrument :
MSVOA_L
ClientSampled :
IA-3DL

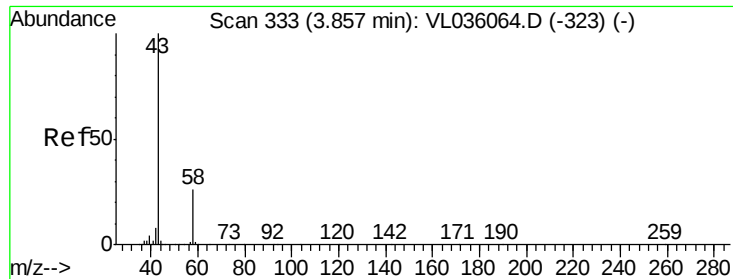
Tot Ion: 43 Resp: 46818
Ion Ratio Lower Upper
43 100
57 76.5 37.9 56.9#



#13
Ethanol
Concen: 5.300 ppbv
RT: 3.62 min Scan# 258
Delta R.T. 0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 45 Resp: 53605
Ion Ratio Lower Upper
45 100
46 59.0 19.0 75.8

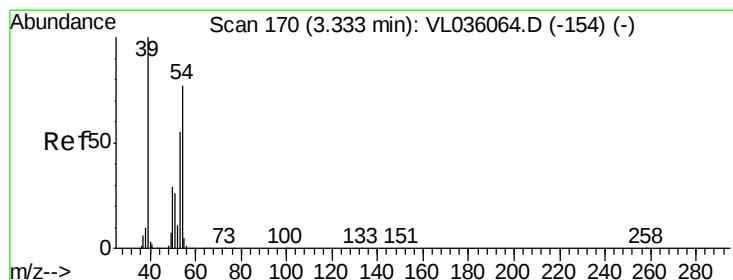
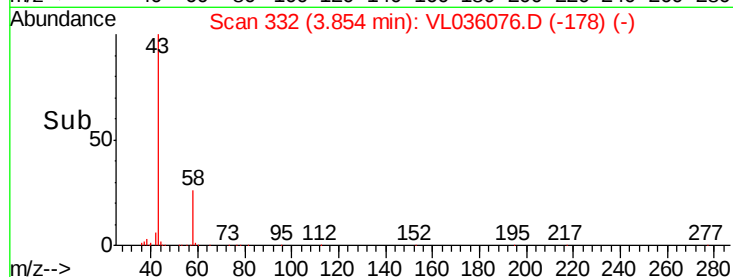
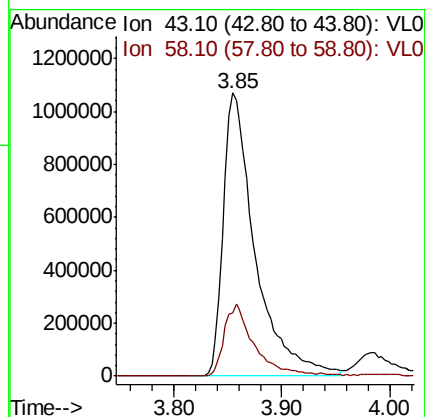
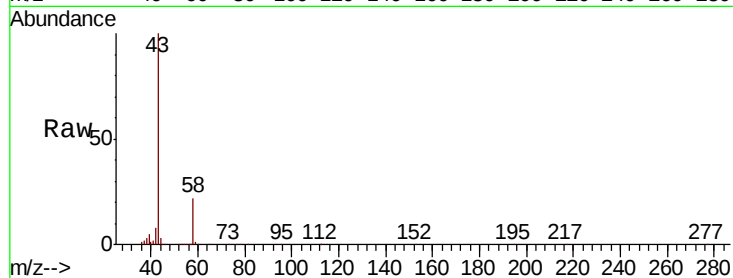




#15
Acetone
Concen: 14.323 ppbv
RT: 3.85 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

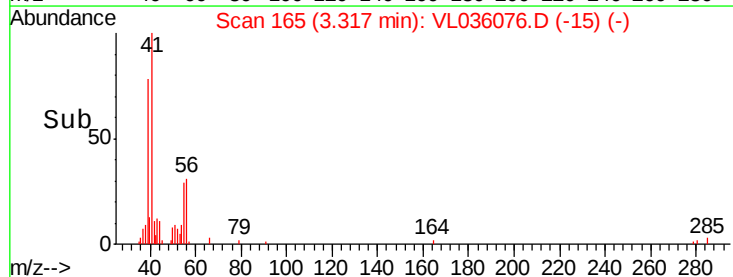
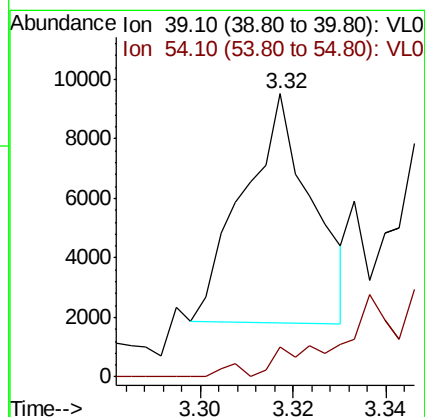
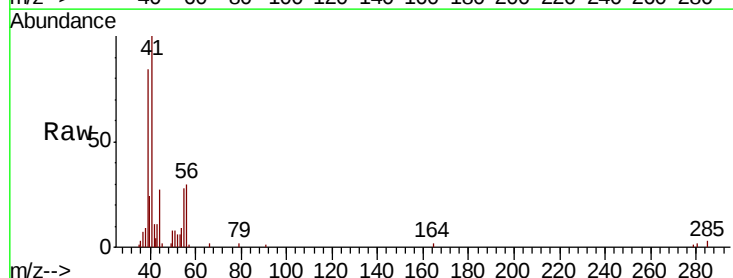
Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

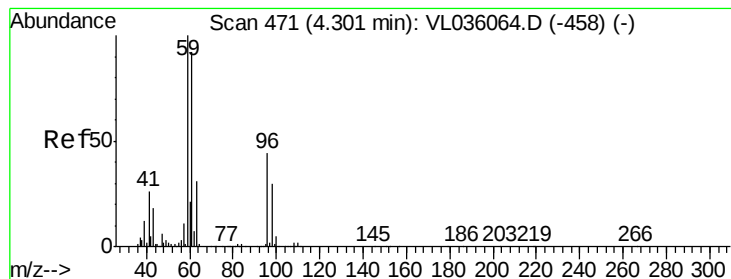
Tot Ion: 43 Resp: 2209784
Ion Ratio Lower Upper
43 100
58 24.3 20.9 31.3



#16
1,3-Butadiene
Concen: 0.102 ppbv
RT: 3.32 min Scan# 165
Delta R.T. -0.02 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 39 Resp: 7896
Ion Ratio Lower Upper
39 100
54 0.0 62.1 93.1#



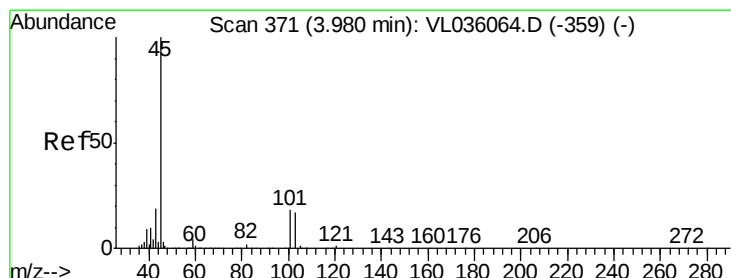
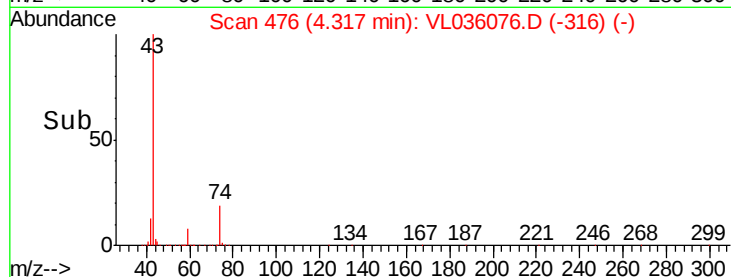
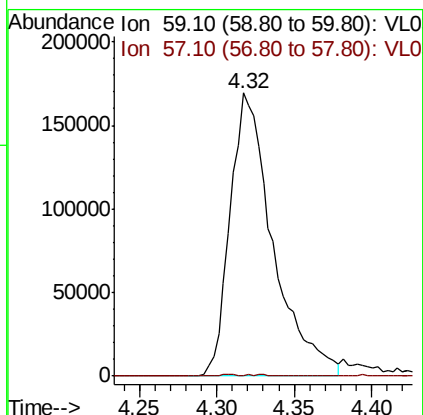
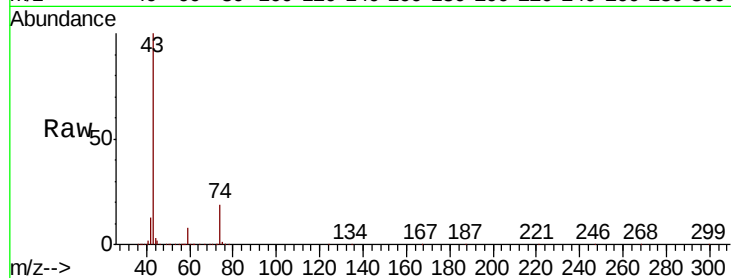


#17

tert-Butyl alcohol
Concen: 2.178 ppbv
RT: 4.32 min Scan# 476
Delta R.T. 0.02 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

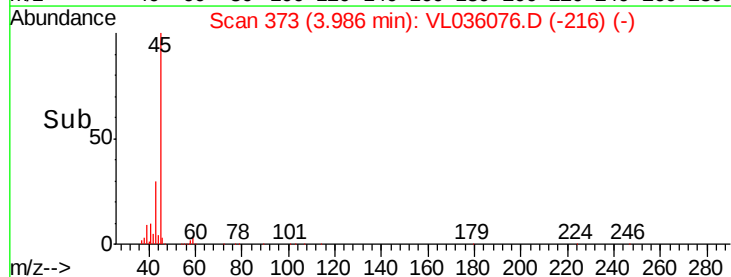
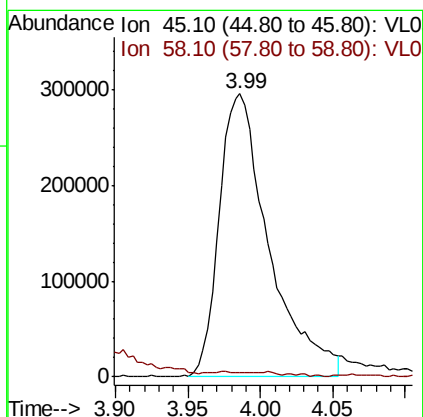
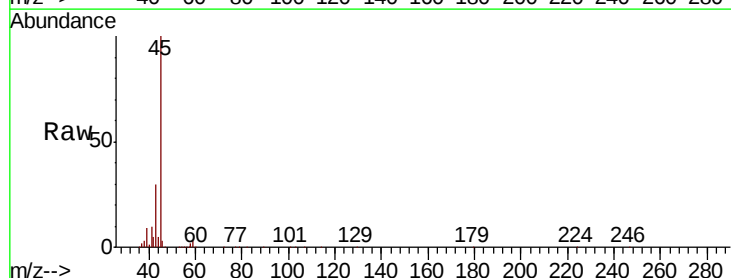
Tot Ion: 59 Resp: 325478
Ion Ratio Lower Upper
59 100
57 3.3 8.7 13.1#

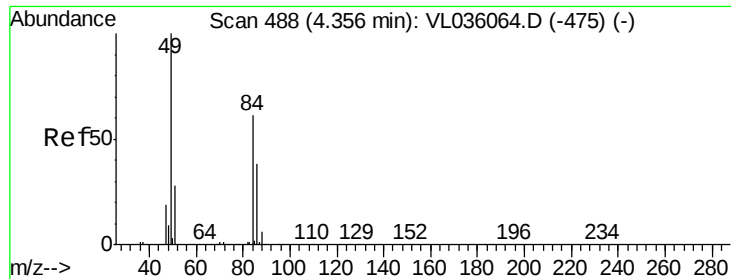


#19

Isopropyl Alcohol
Concen: 7.406 ppbv
RT: 3.99 min Scan# 373
Delta R.T. 0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 45 Resp: 698335
Ion Ratio Lower Upper
45 100
58 76.7 0.0 0.0#

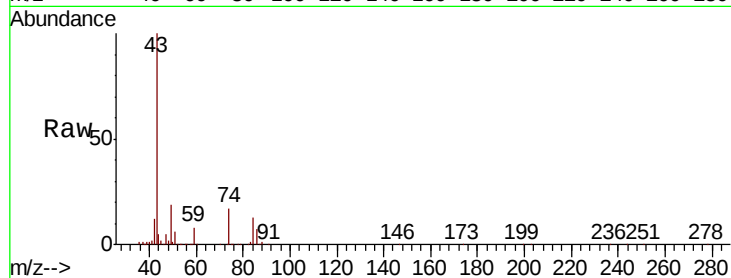




#20
Methvlene Chloride
Concen: 0.873 ppbv
RT: 4.36 min Scan# 489
Delta R.T. 0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

Tot Ion:	84	Resp:	55169
Ion	Ratio	Lower	Upper
84	100		
49	138.2	133.0	199.4
51	44.6	38.9	58.3
86	54.9	48.8	73.2



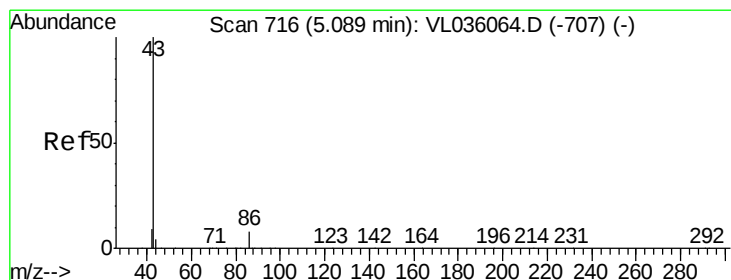
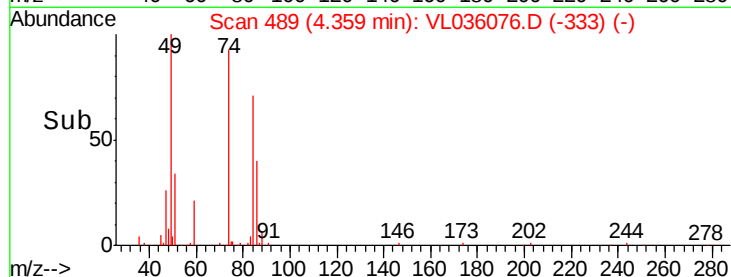
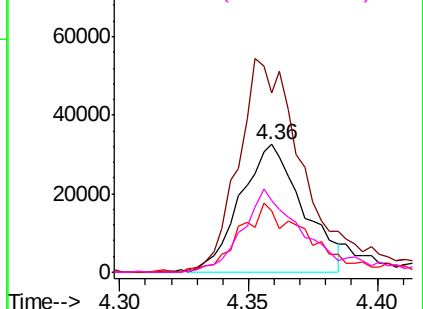
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

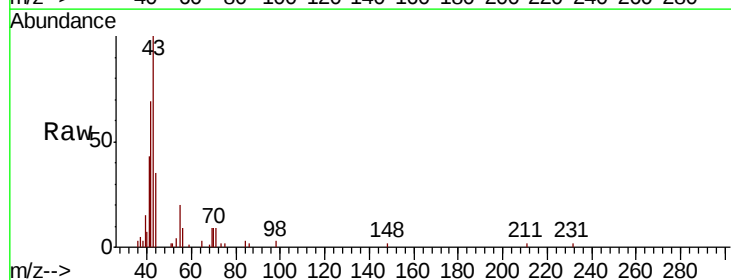
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23
Vinyl Acetate
Concen: 0.051 ppbv
RT: 5.08 min Scan# 714
Delta R.T. -0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion:	43	Resp:	10462
Ion	Ratio	Lower	Upper
43	100		
86	5.0	5.0	7.4
42	48.8	7.8	11.6#
44	37.3	3.2	4.8#



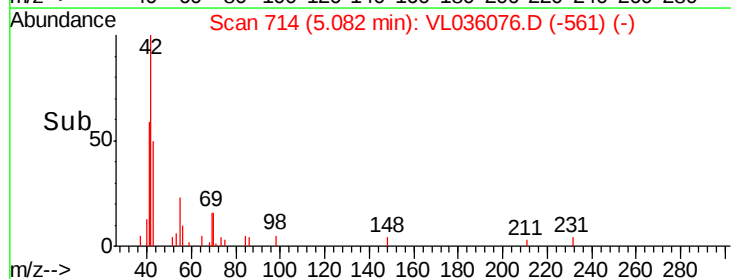
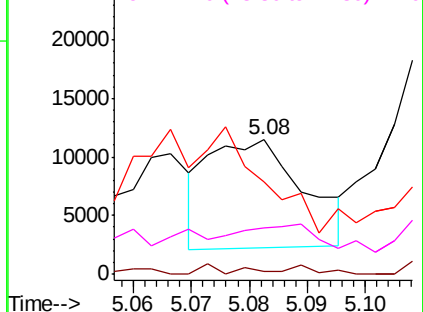
Abundance

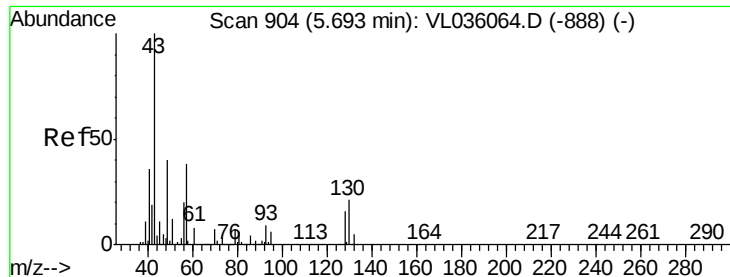
Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



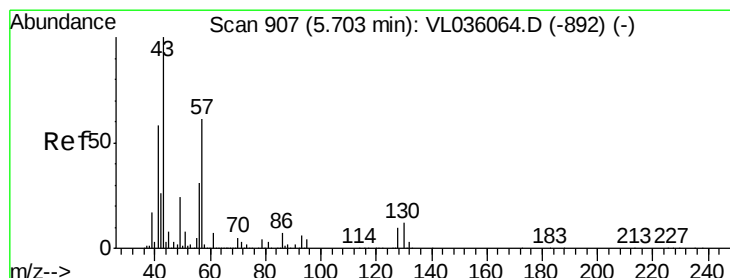
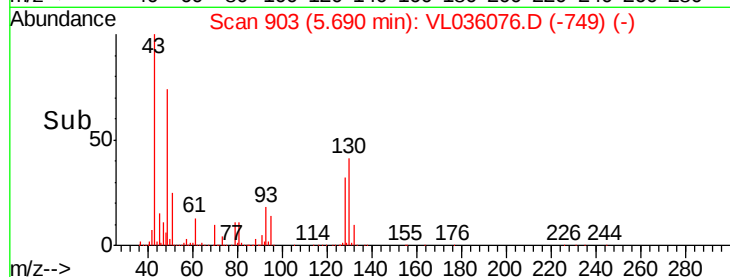
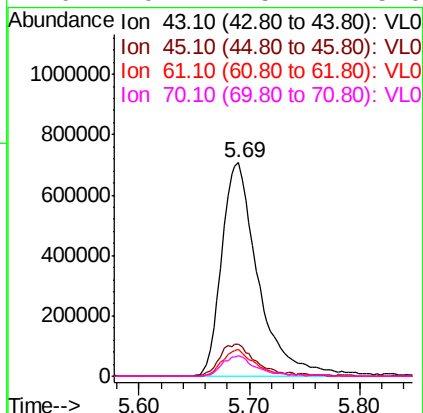
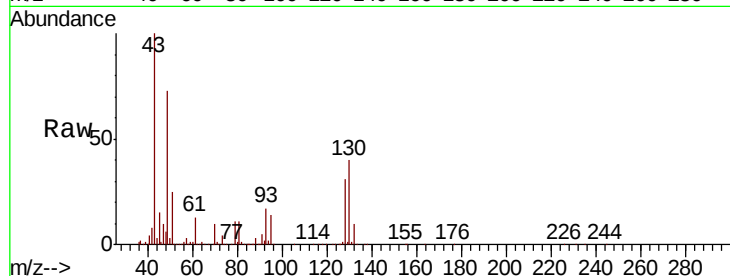


#25
Ethyl Acetate
Concen: 5.203 ppbv
RT: 5.69 min Scan# 903
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Instrument :
MSVOA_L
ClientSampled :
IA-3DL

Tot Ion: 43 Resp: 1603727

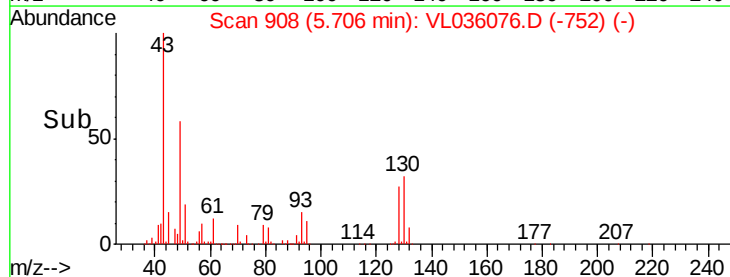
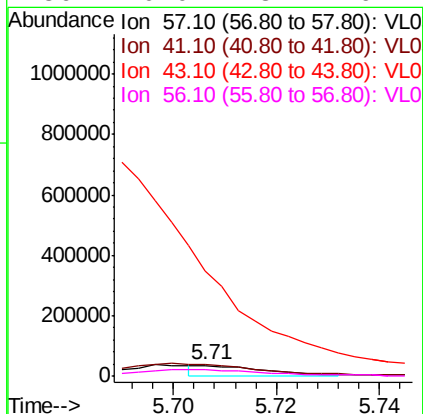
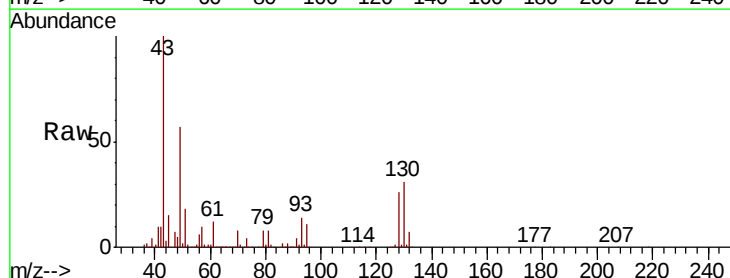
Ion	Ratio	Lower	Upper
43	100		
45	16.0	8.2	12.4#
61	11.8	7.4	11.2#
70	9.4	5.4	8.0#

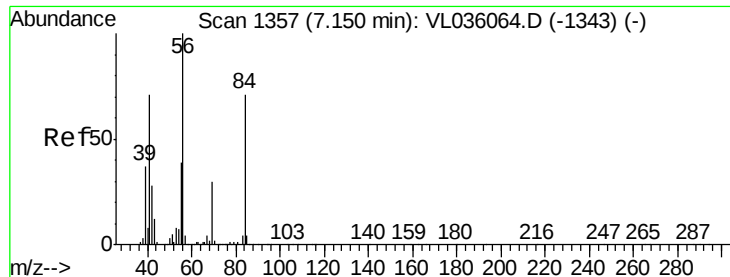


#26
Hexane
Concen: 0.222 ppbv
RT: 5.71 min Scan# 908
Delta R.T. 0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 57 Resp: 30856

Ion	Ratio	Lower	Upper
57	100		
41	0.0	82.9	124.3#
43	0.0	199.9	299.9#
56	0.0	43.1	64.7#

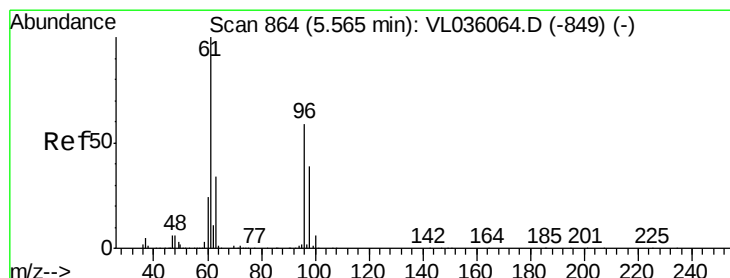
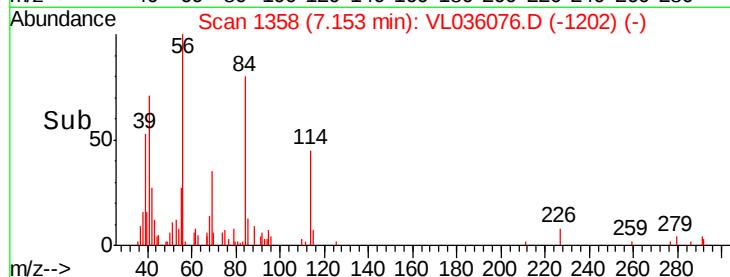
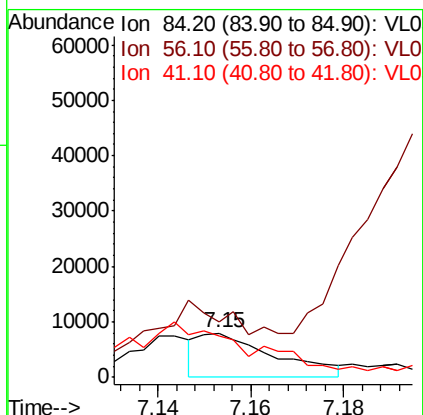
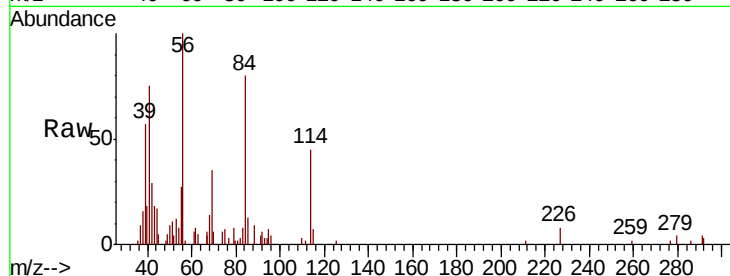




#30
Cvclohexane
Concen: 0.088 ppbv
RT: 7.15 min Scan# 1358
Delta R.T. 0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

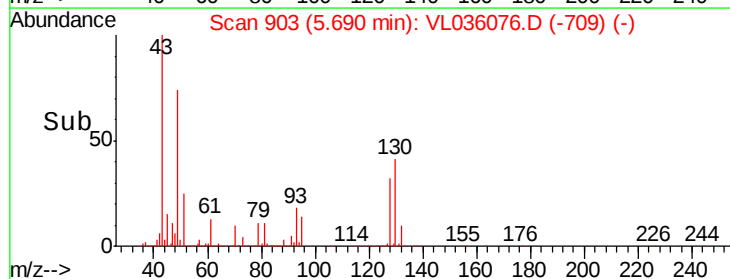
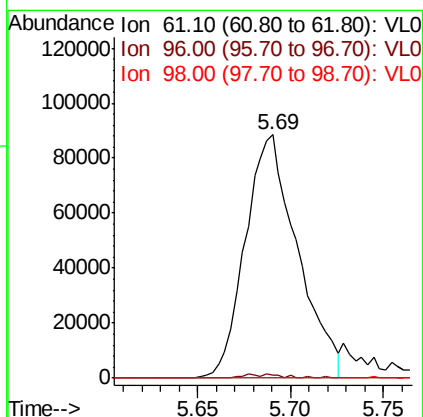
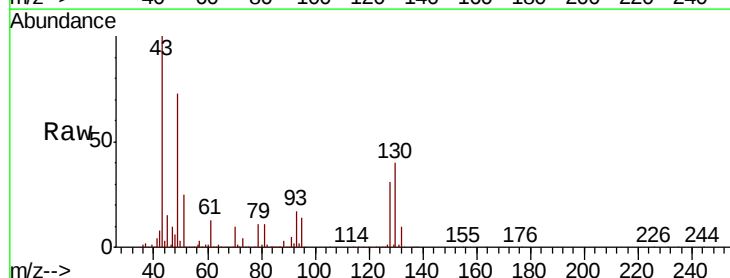
Instrument :
MSVOA_L
ClientSampled :
IA-3DL

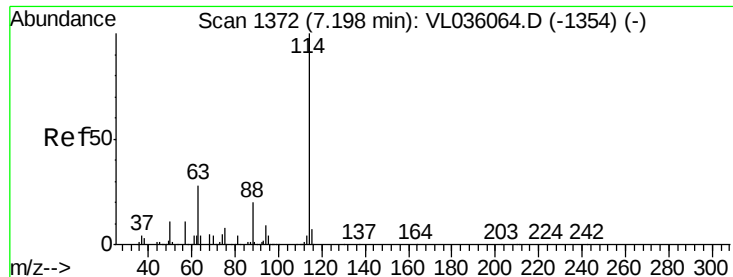
Tot Ion: 84 Resp: 8977
Ion Ratio Lower Upper
84 100
56 0.0 128.0 192.0#
41 0.0 81.3 121.9#



#31
cis-1,2-Dichloroethene
Concen: 1.373 ppbv
RT: 5.69 min Scan# 903
Delta R.T. 0.13 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 61 Resp: 173182
Ion Ratio Lower Upper
61 100
96 1.0 47.3 70.9#
98 0.0 31.4 47.0#

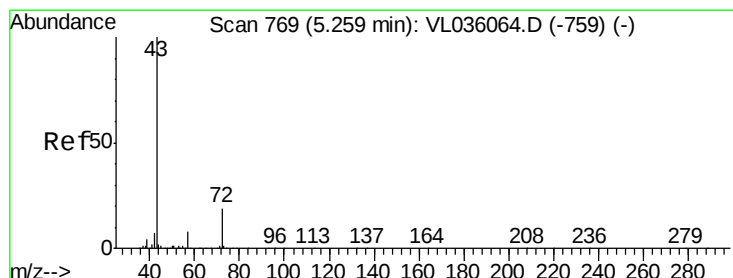
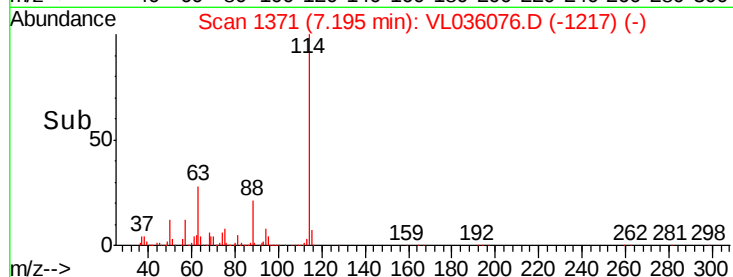
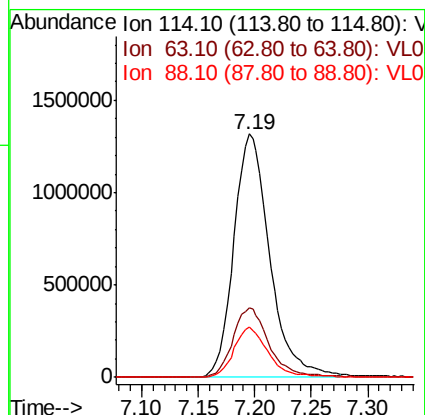
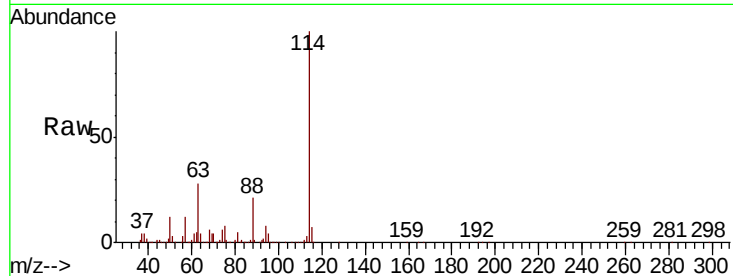




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1371
 Delta R.T. -0.00 min
 Lab File: VL036076.D
 Acq: 7 Dec 2020 22:26

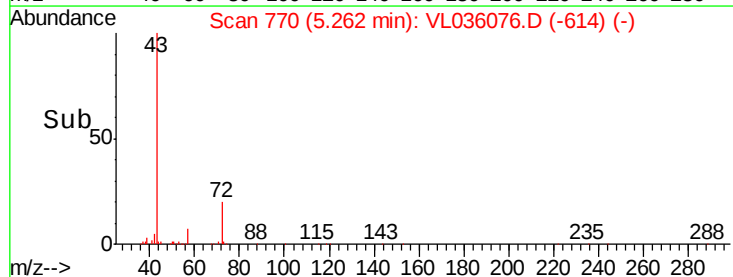
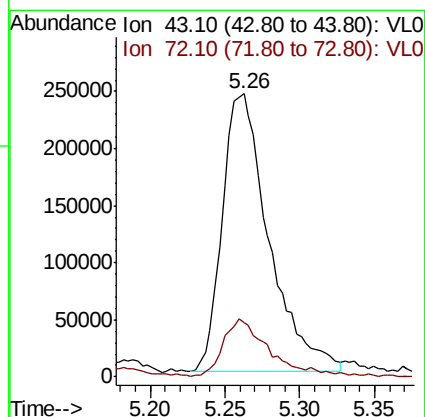
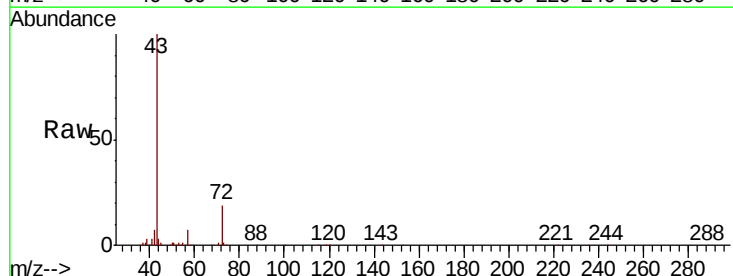
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DL

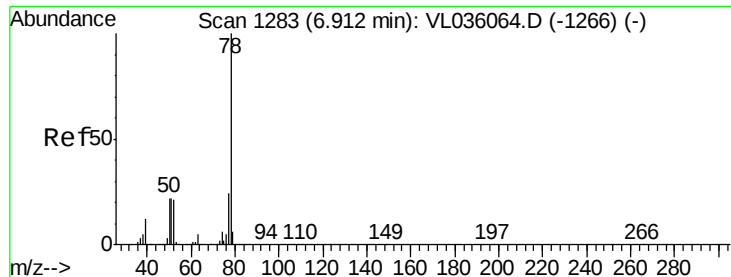
Tot Ion:114 Resp: 2912792
 Ion Ratio Lower Upper
 114 100
 63 29.1 23.6 35.4
 88 19.9 15.8 23.6



#34
 2-Butanone
 Concen: 2.744 ppbv
 RT: 5.26 min Scan# 770
 Delta R.T. 0.00 min
 Lab File: VL036076.D
 Acq: 7 Dec 2020 22:26

Tgt Ion: 43 Resp: 530234
 Ion Ratio Lower Upper
 43 100
 72 21.2 16.5 24.7





#36

Benzene

Concen: 0.110 ppbv

RT: 6.91 min Scan# 1281

Delta R.T. -0.01 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

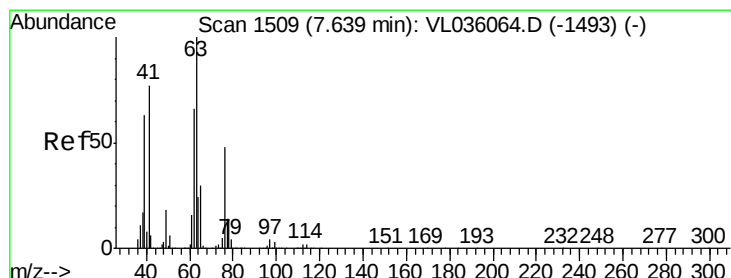
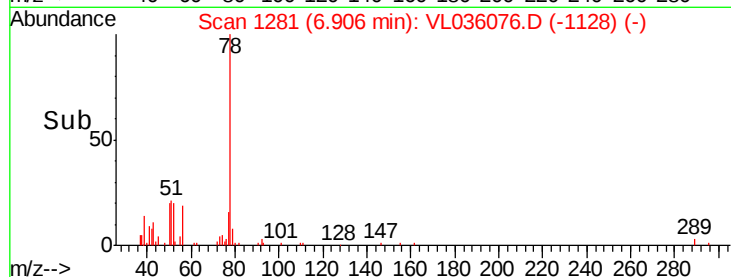
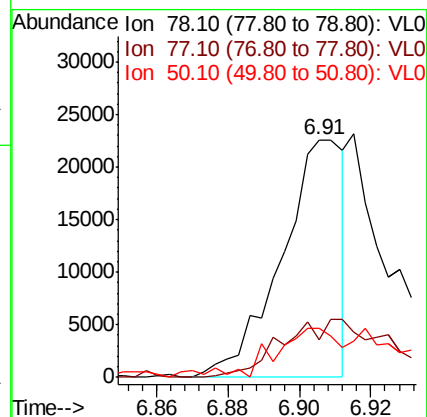
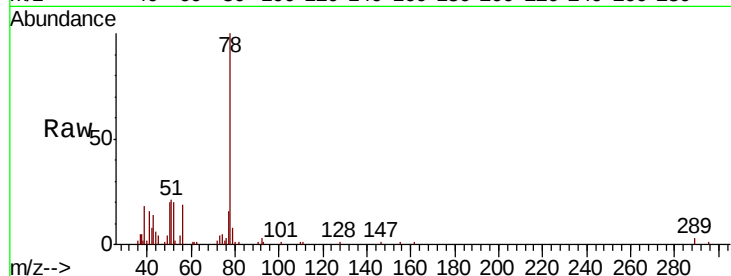
Tot Ion: 78 Resp: 27277

Ion Ratio Lower Upper

78 100

77 15.9 19.4 29.2#

50 16.6 17.8 26.8#



#39

1,2-Dichloropropane

Concen: 8.514 ppbv

RT: 7.19 min Scan# 1371

Delta R.T. -0.44 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

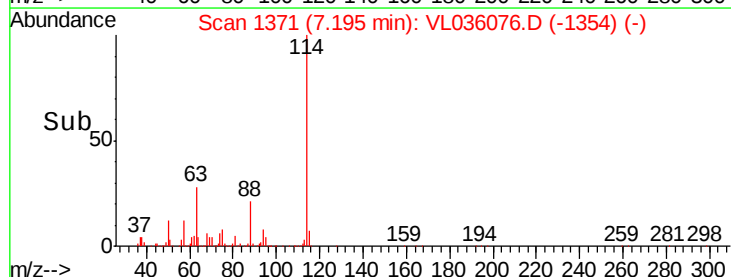
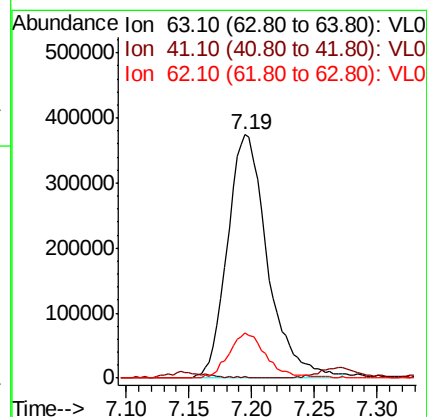
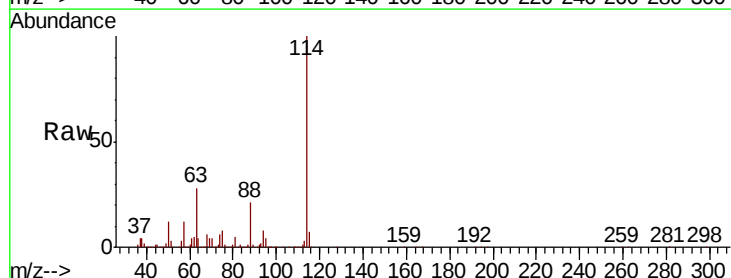
Tgt Ion: 63 Resp: 829973

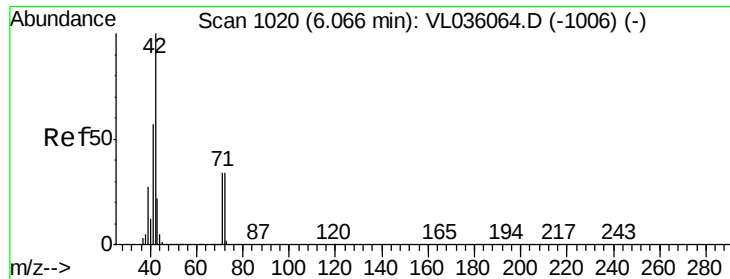
Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

62 18.2 52.5 78.7#

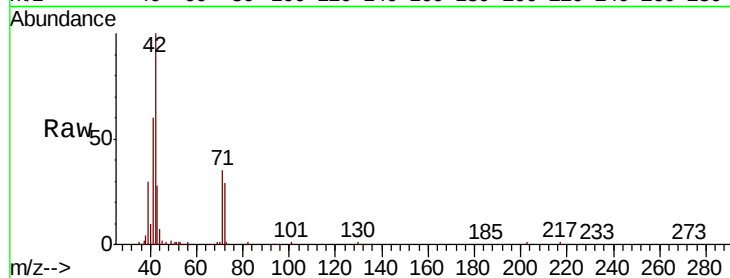




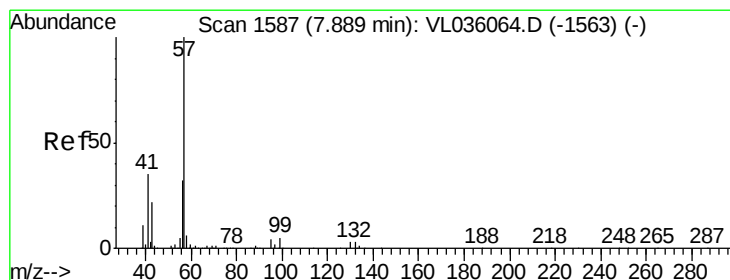
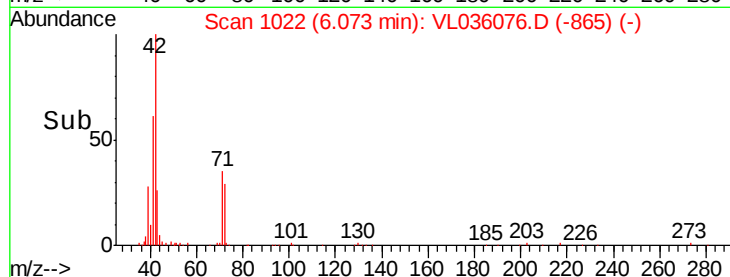
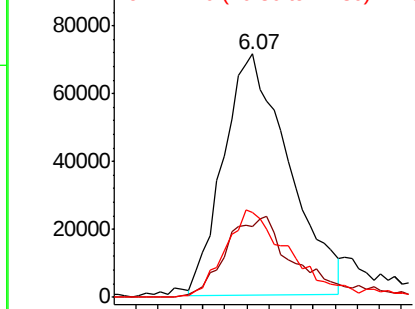
#41
Tetrahydrofuran
Concen: 1.285 ppbv
RT: 6.07 min Scan# 1022
Delta R.T. 0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

Tot Ion	Ratio	Lower	Upper
42	100		
72	38.1	28.3	42.5
71	38.0	27.3	40.9

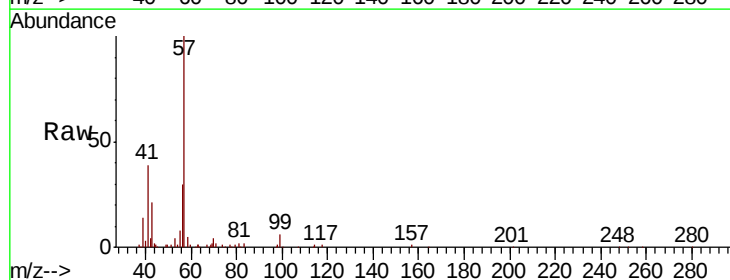


Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0

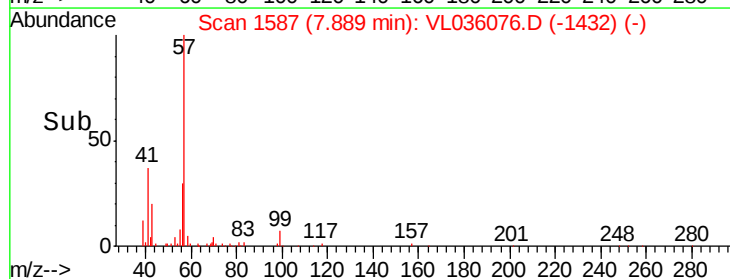
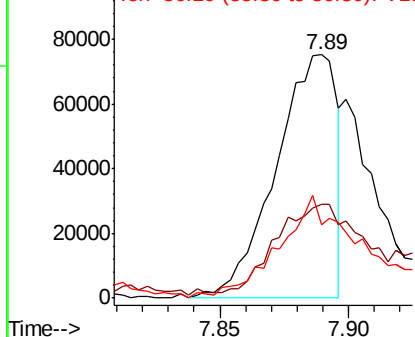


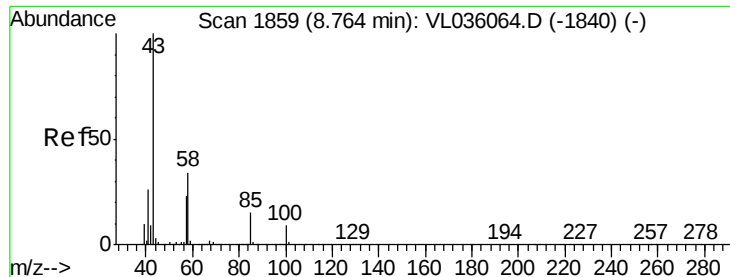
#44
2,2,4-Trimethylpentane
Concen: 0.274 ppbv
RT: 7.89 min Scan# 1587
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion	Ratio	Lower	Upper
57	100		
41	84.7	28.9	43.3#
56	68.2	25.3	37.9#



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

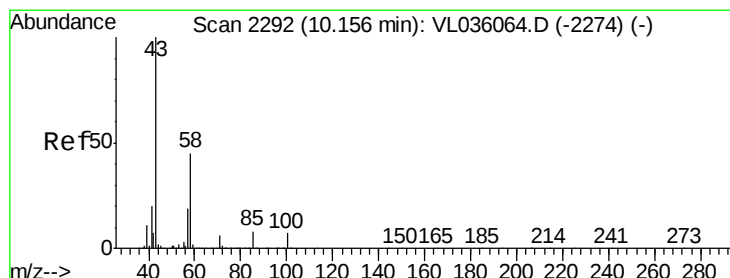
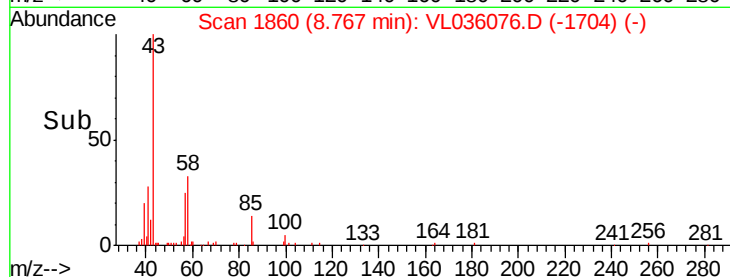
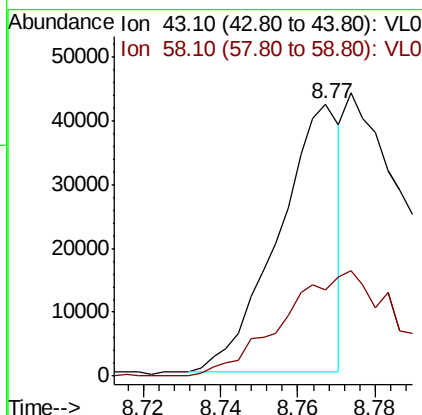
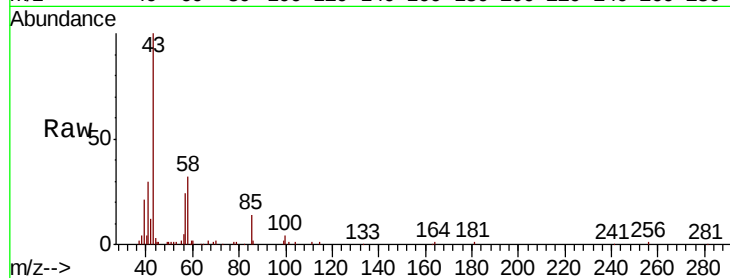




#50
4-Methyl-2-Pentanone
Concen: 0.162 ppbv
RT: 8.77 min Scan# 1860
Delta R.T. 0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

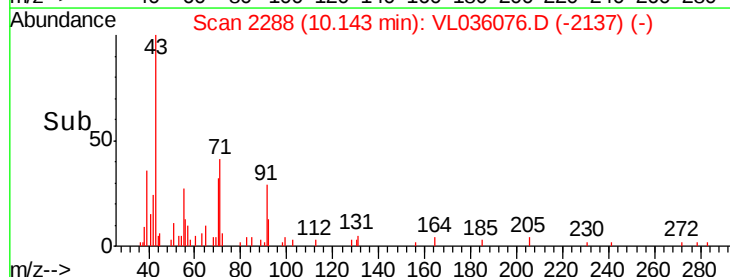
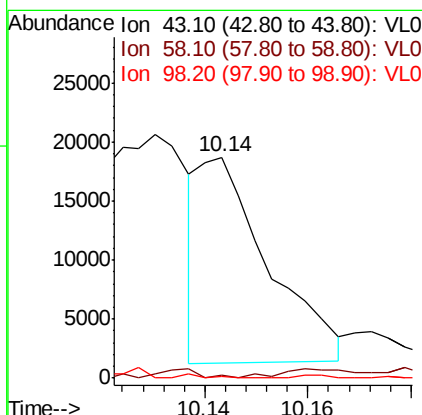
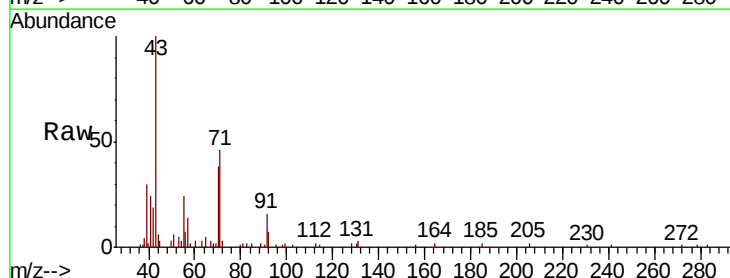
Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

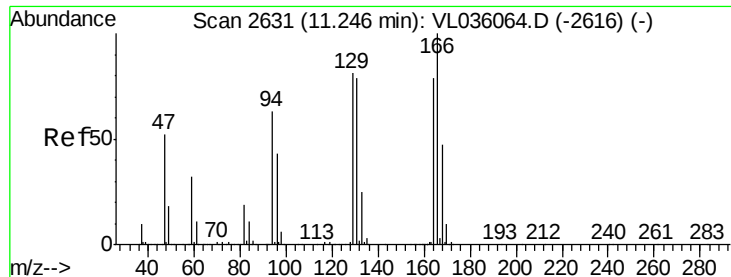
Tot Ion: 43 Resp: 46591
Ion Ratio Lower Upper
43 100
58 0.0 27.4 41.2#



#51
2-Hexanone
Concen: 0.071 ppbv
RT: 10.14 min Scan# 2288
Delta R.T. -0.01 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 43 Resp: 16018
Ion Ratio Lower Upper
43 100
58 3.2 38.7 58.1#
98 0.0 0.1 0.1#





#52

Tetrachloroethene

Concen: 0.034 ppbv

RT: 11.25 min Scan# 2632

Delta R.T. 0.00 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

Tot Ion:164 Resp: 3003

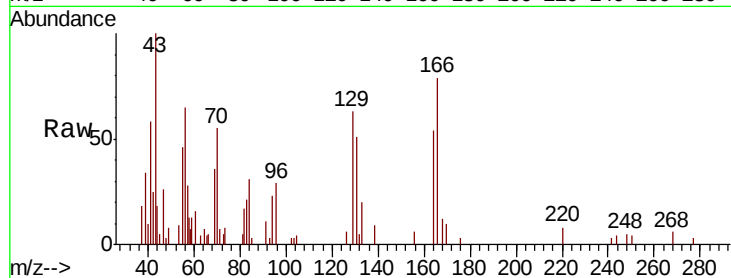
Ion Ratio Lower Upper

164 100

166 145.7 101.9 152.9

129 115.9 82.1 123.1

131 93.9 80.8 121.2

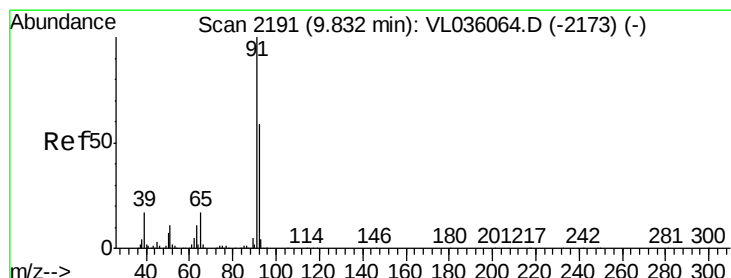
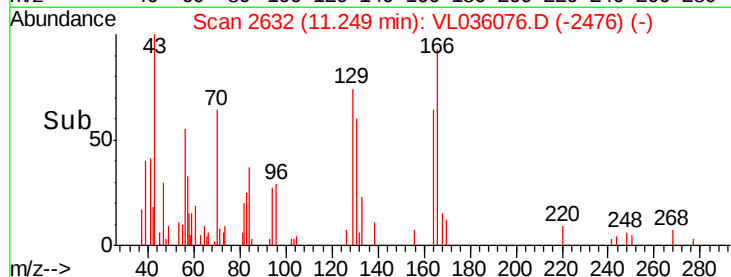
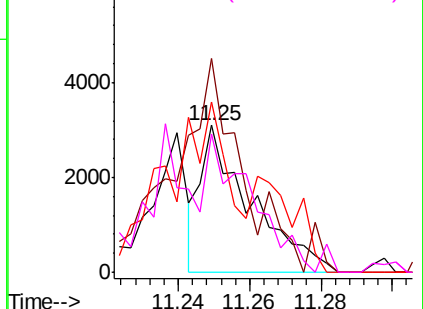


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 24.041 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. -0.00 min

Lab File: VL036076.D

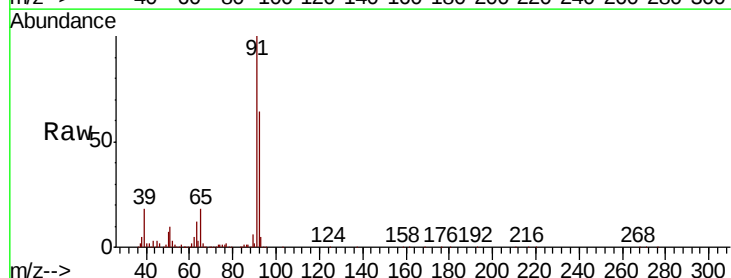
Acq: 7 Dec 2020 22:26

Tgt Ion: 91 Resp: 6663868

Ion Ratio Lower Upper

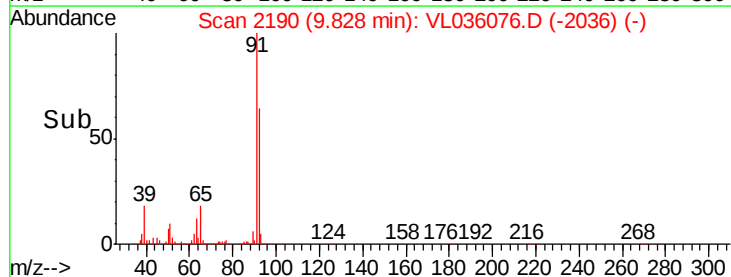
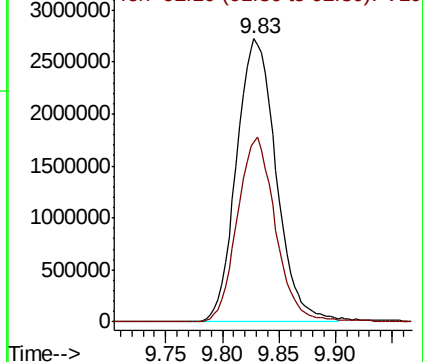
91 100

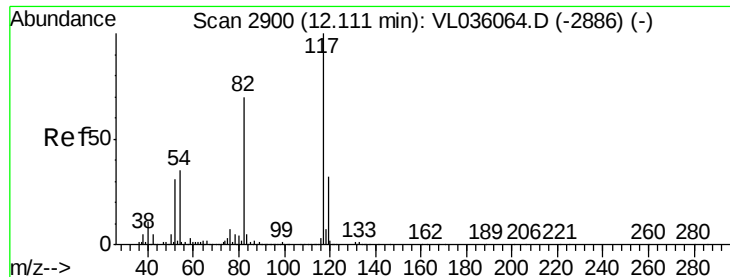
92 63.2 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

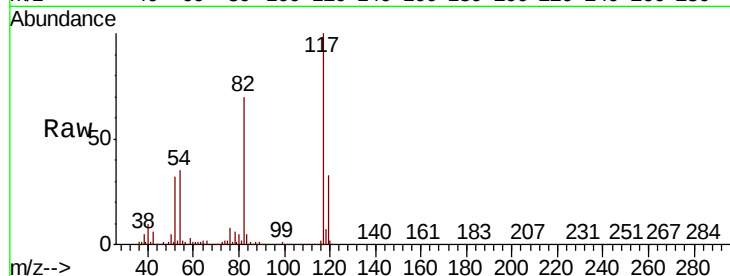




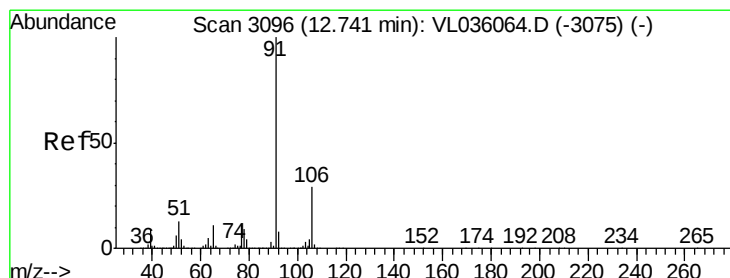
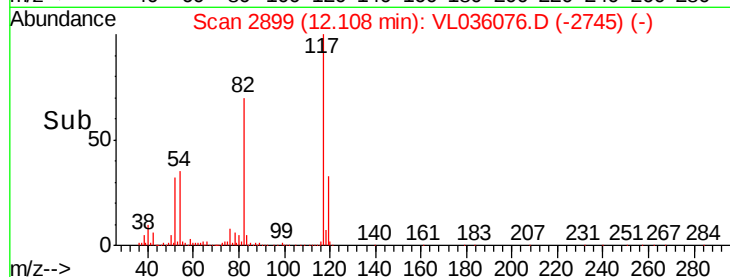
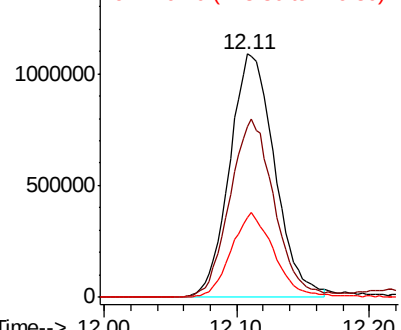
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2899
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

Tot Ion:117 Resp: 2568397
Ion Ratio Lower Upper
117 100
82 72.6 0.0 0.0#
119 33.5 0.0 0.0#

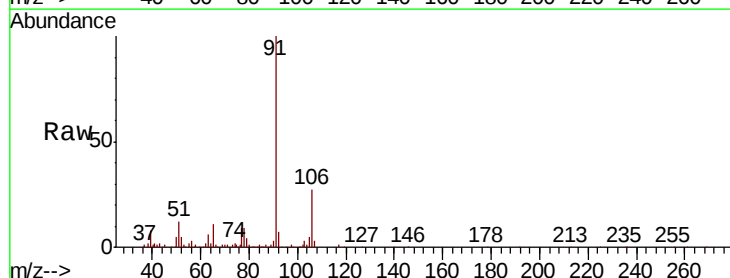


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

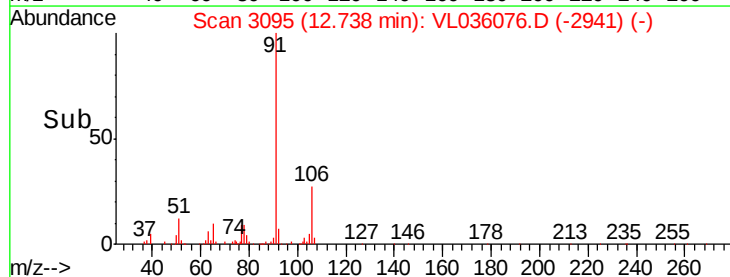
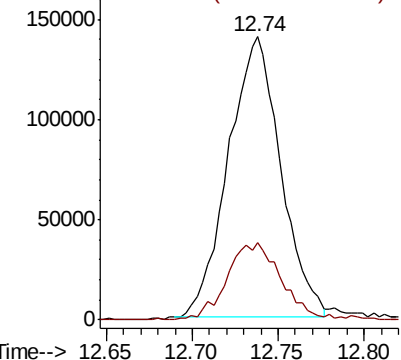


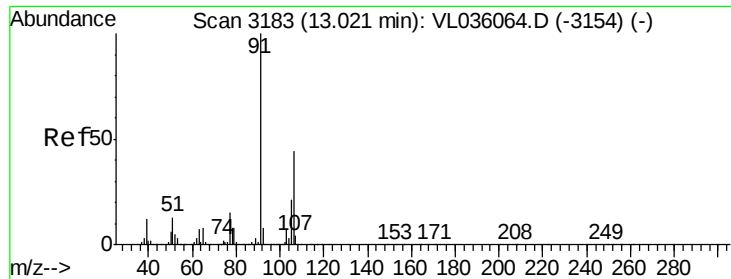
#58
Ethyl Benzene
Concen: 0.845 ppbv
RT: 12.74 min Scan# 3095
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 91 Resp: 297289
Ion Ratio Lower Upper
91 100
106 27.3 23.0 34.4



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

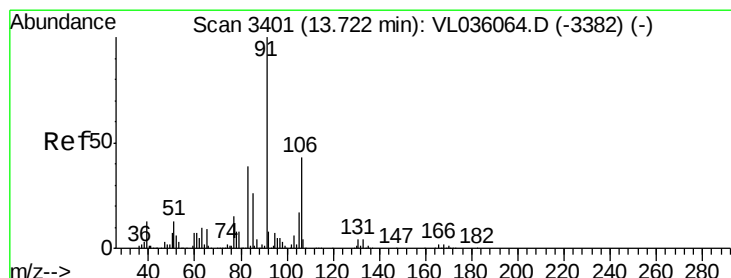
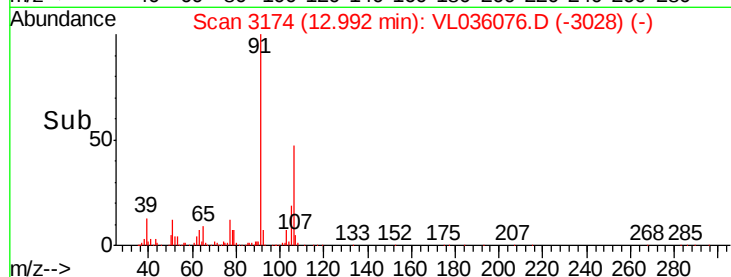
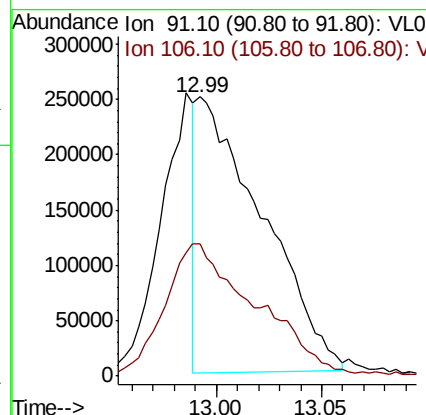
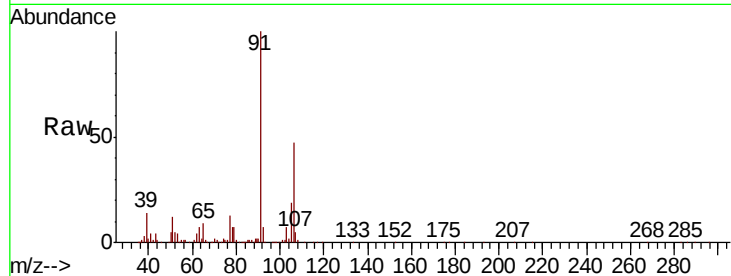




#59
m/p-Xylene
Concen: 1.800 ppbv
RT: 12.99 min Scan# 3174
Delta R.T. -0.03 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

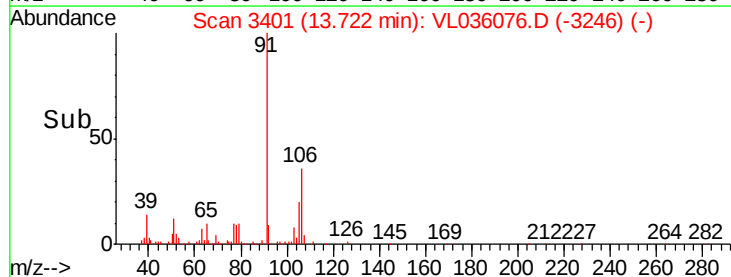
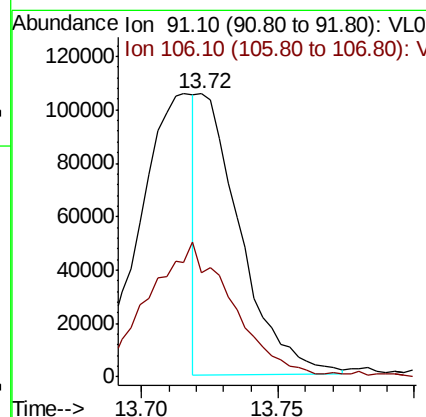
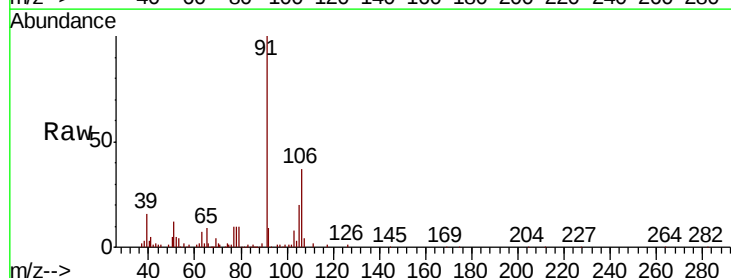
Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

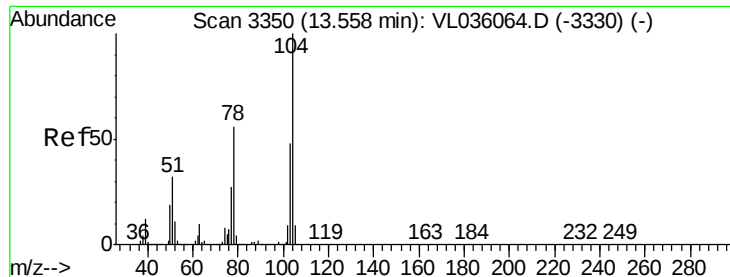
Tot Ion: 91 Resp: 533618
Ion Ratio Lower Upper
91 100
106 0.0 33.6 50.4#



#60
o-Xylene
Concen: 0.405 ppbv
RT: 13.72 min Scan# 3401
Delta R.T. -0.00 min
Lab File: VL036076.D
Acq: 7 Dec 2020 22:26

Tgt Ion: 91 Resp: 113033
Ion Ratio Lower Upper
91 100
106 97.5 21.6 64.6#





#61

Stvrene

Concen: 0.176 ppbv

RT: 13.56 min Scan# 3350

Delta R.T. -0.00 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

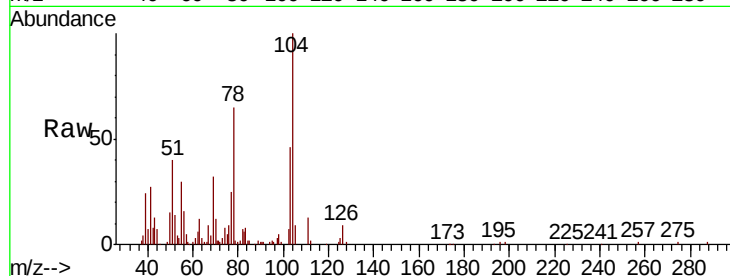
Tot Ion:104 Resp: 31577

Ion Ratio Lower Upper

104 100

78 164.0 45.8 68.8#

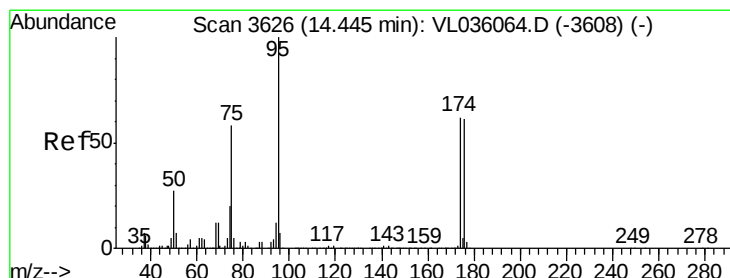
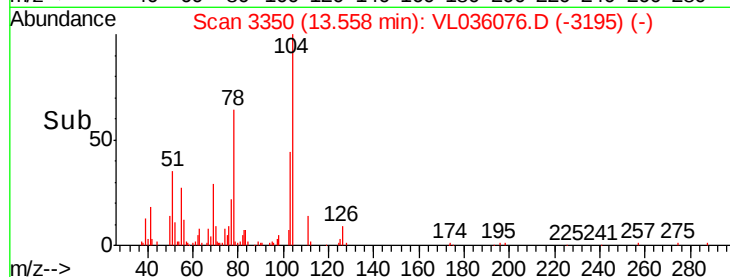
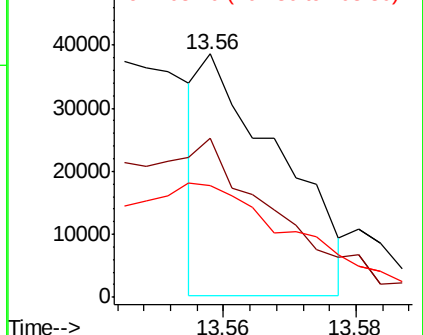
103 136.3 38.6 57.8#



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



#68

1-Bromo-4-Fluorobenzene

Concen: 10.484 ppbv

RT: 14.44 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

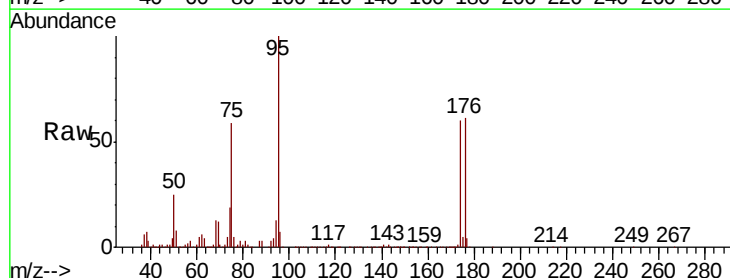
Tgt Ion: 95 Resp: 2138135

Ion Ratio Lower Upper

95 100

174 62.6 50.7 76.1

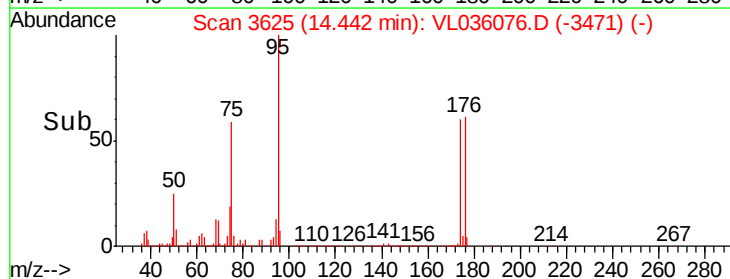
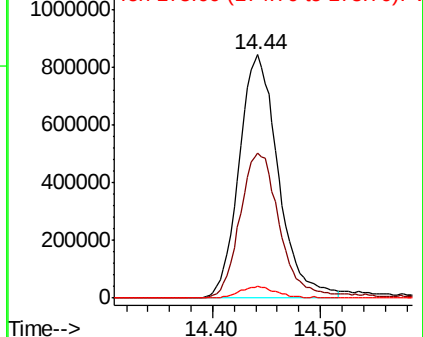
175 4.5 4.0 6.0

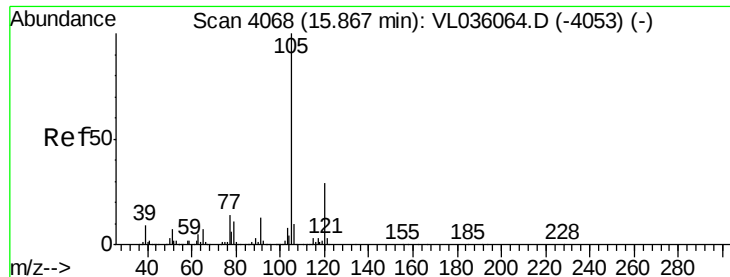


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.170 ppbv

RT: 15.86 min Scan# 4067

Delta R.T. -0.00 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

Tot Ion:105 Resp: 51330

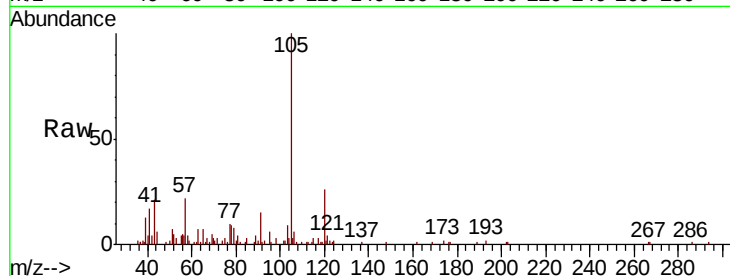
Ion Ratio Lower Upper

105 100

120 30.2 23.6 35.4

91 16.0 11.4 17.0

77 23.8 12.1 18.1#

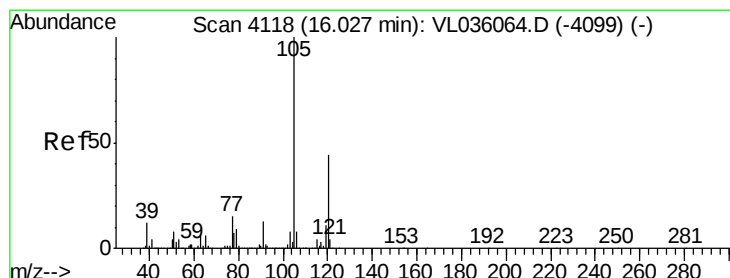
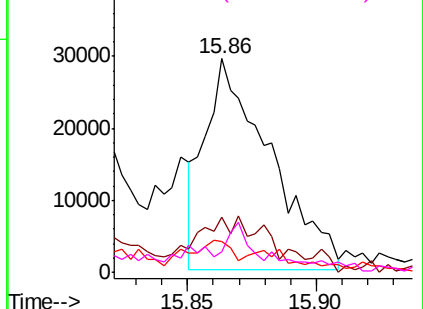
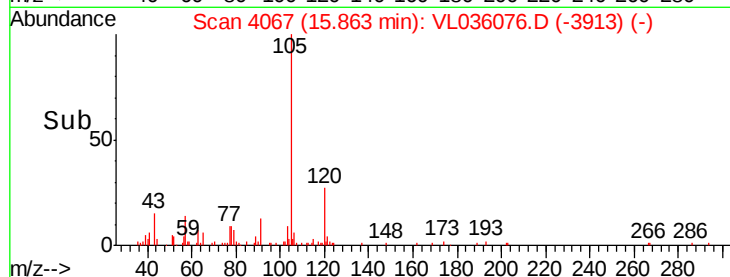


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.039 ppbv

RT: 16.02 min Scan# 4116

Delta R.T. -0.01 min

Lab File: VL036076.D

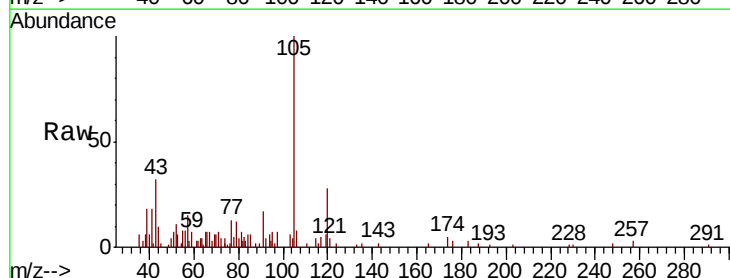
Acq: 7 Dec 2020 22:26

Tgt Ion:105 Resp: 11215

Ion Ratio Lower Upper

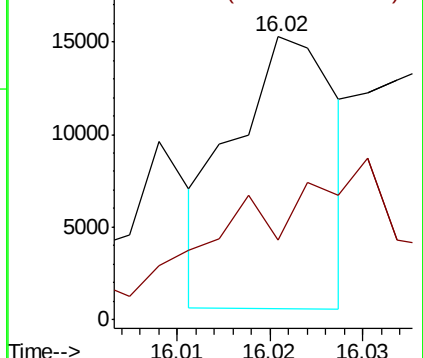
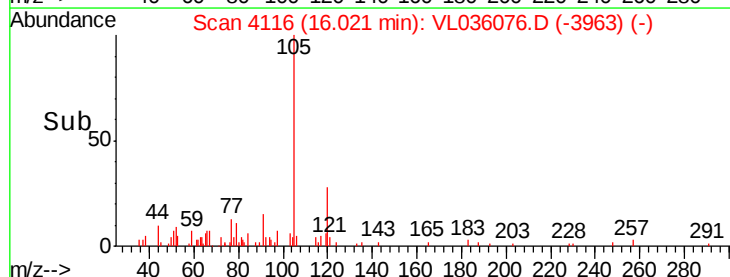
105 100

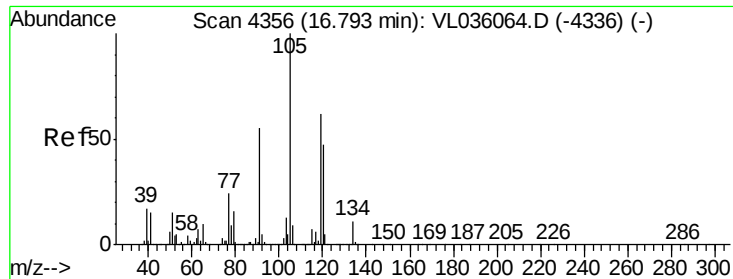
120 3.5 35.4 53.2#



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: 0.164 ppbv

RT: 16.79 min Scan# 4356

Delta R.T. -0.00 min

Lab File: VL036076.D

Acq: 7 Dec 2020 22:26

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

Tot Ion:105 Resp: 47447

Ion Ratio Lower Upper

105 100

120 37.2 37.4 56.0#

91 13.6 45.6 68.4#

77 15.7 19.4 29.2#

