

Data File : VL034609.D
Acq On : 6 Feb 2020 21:36
Operator : SY/AP
Sample : L1435-05
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-5

Quant Time: Feb 07 07:38:58 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL013020AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020
QLast Update : Thu Jan 30 17:16:44 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	895422	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.22	114	1861120	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	1810100	10.00	ppbv	0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.49	95	1586993	10.37	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.70%

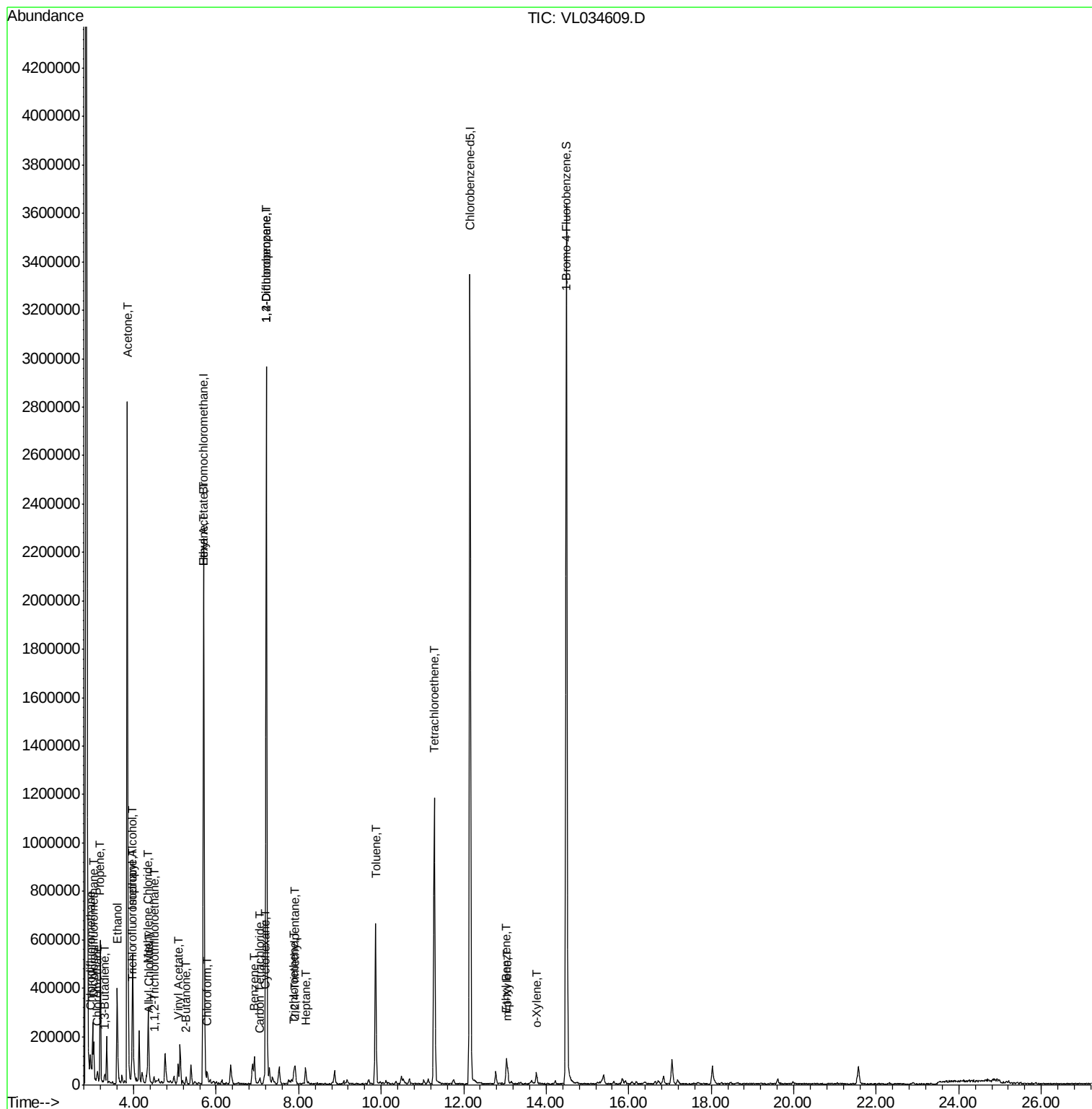
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.03	85	95628	0.485	ppbv #	84
3) Chlorodifluoromethane	2.94	51	74524	0.689	ppbv #	74
4) Chloromethane	3.12	50	25895	0.391	ppbv	99
9) Propene	3.19	41	144378	3.427	ppbv	95
10) Heptane	8.18	43	6079	0.057	ppbv #	26
11) Trichlorofluoromethane	3.95	101	45597	0.255	ppbv	84
12) 1,1,2-Trichlorotrifluoroet	4.49	101	4595	0.039	ppbv #	14
13) Ethanol	3.60	45	353396	31.318	ppbv	99
15) Acetone	3.84	43	2832219	21.521	ppbv	97
16) 1,3-Butadiene	3.29	39	9573	0.183	ppbv #	50
19) Isopropyl Alcohol	3.97	45	498091	6.486	ppbv #	94
20) Methylene Chloride	4.35	84	100622	2.008	ppbv	95
21) Allyl Chloride	4.38	41	6710	0.082	ppbv #	17
23) Vinyl Acetate	5.08	43	51119	0.340	ppbv #	58
25) Ethyl Acetate	5.71	43	117793	0.553	ppbv #	92
26) Hexane	5.71	57	56308	0.631	ppbv #	61
29) Chloroform	5.77	83	14463	0.092	ppbv	87
30) Cyclohexane	7.18	84	2432	0.037	ppbv #	1
34) 2-Butanone	5.27	43	14666	0.109	ppbv #	65
35) Carbon Tetrachloride	7.06	117	8357	0.047	ppbv	84
36) Benzene	6.93	78	32571	0.197	ppbv	93
38) Trichloroethene	7.88	130	5163	0.074	ppbv #	44
39) 1,2-Dichloropropane	7.21	63	543473	7.921	ppbv #	19
44) 2,2,4-Trimethylpentane	7.91	57	25292	0.084	ppbv #	13
52) Tetrachloroethene	11.29	164	252393	3.796	ppbv	97
53) Toluene	9.86	91	453746	2.496	ppbv	97
58) Ethyl Benzene	13.04	91	33144	0.137	ppbv	100
59) m/p-Xylene	13.06	91	18244	0.085	ppbv #	32
60) o-Xylene	13.76	91	32489	0.151	ppbv	93

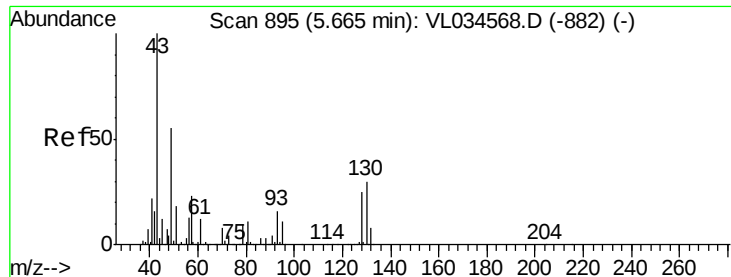
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 904

Delta R.T. 0.03 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

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MSVOA_L

ClientSampleId :

IA-5

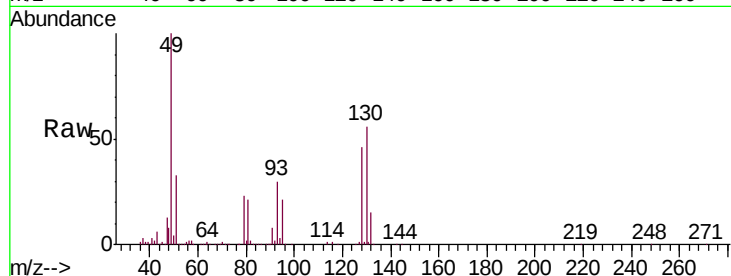
Tgt Ion: 49 Resp: 895422

Ion Ratio Lower Upper

49 100

128 45.8 22.7 68.1

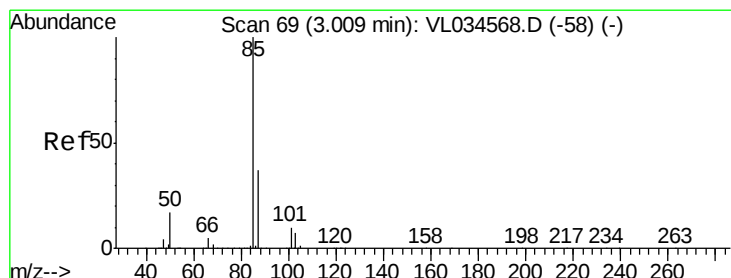
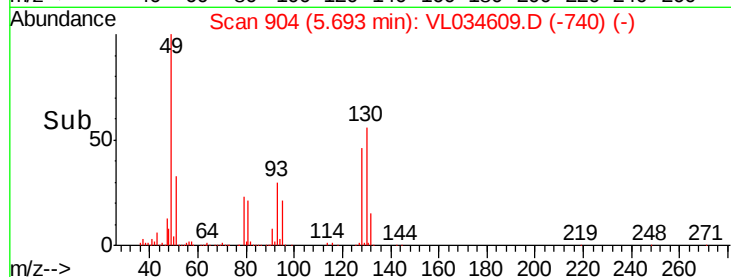
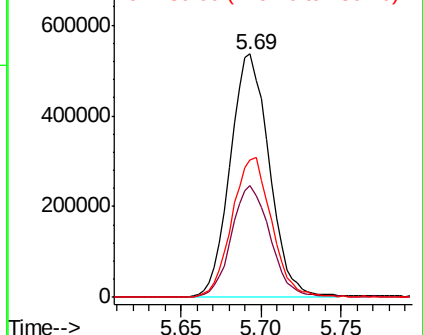
130 58.0 28.6 85.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.485 ppbv

RT: 3.03 min Scan# 76

Delta R.T. 0.02 min

Lab File: VL034609.D

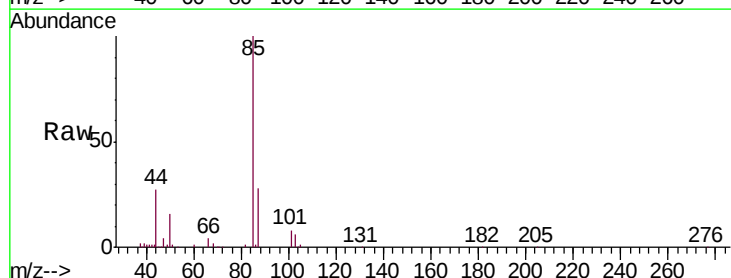
Acq: 6 Feb 2020 21:36

Tgt Ion: 85 Resp: 95628

Ion Ratio Lower Upper

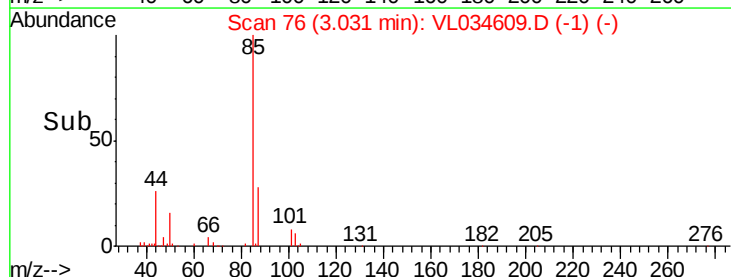
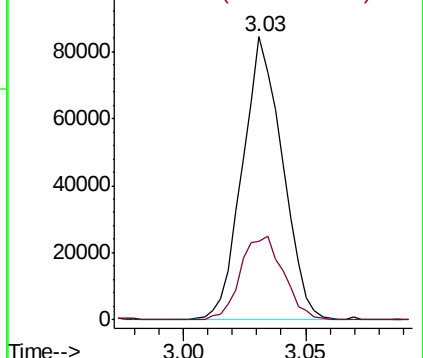
85 100

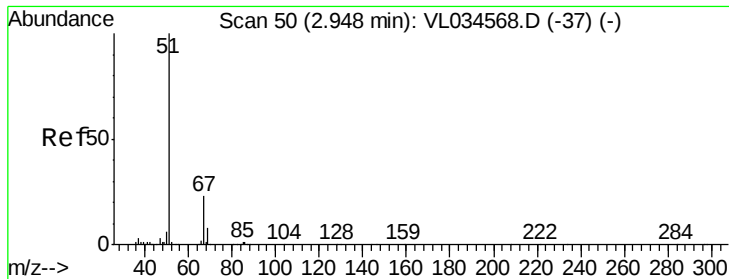
87 27.4 29.5 44.3#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.689 ppbv

RT: 2.94 min Scan# 49

Delta R.T. -0.00 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

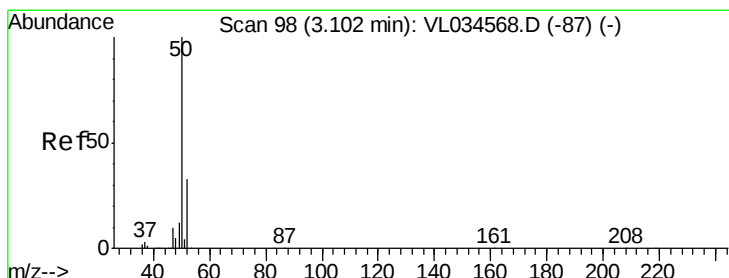
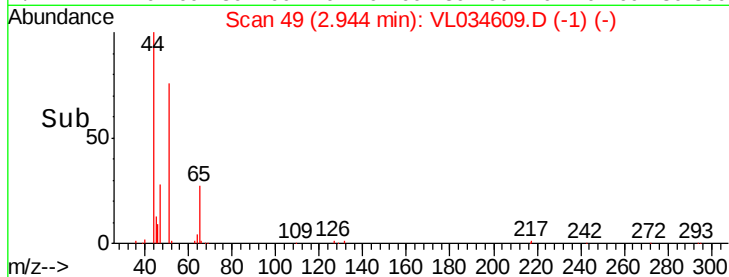
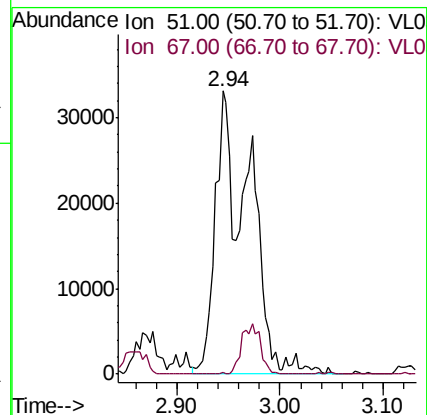
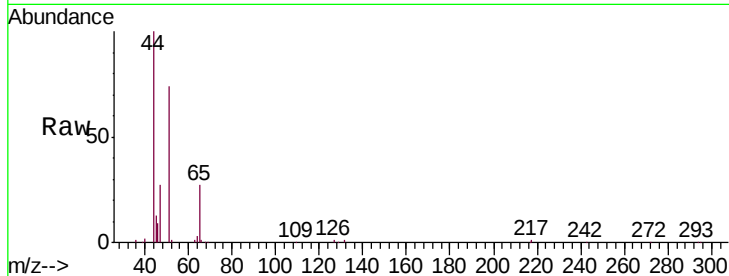
IA-5

Tgt Ion: 51 Resp: 74524

Ion Ratio Lower Upper

51 100

67 10.0 17.8 26.8#



#4

Chloromethane

Concen: 0.391 ppbv

RT: 3.12 min Scan# 105

Delta R.T. 0.02 min

Lab File: VL034609.D

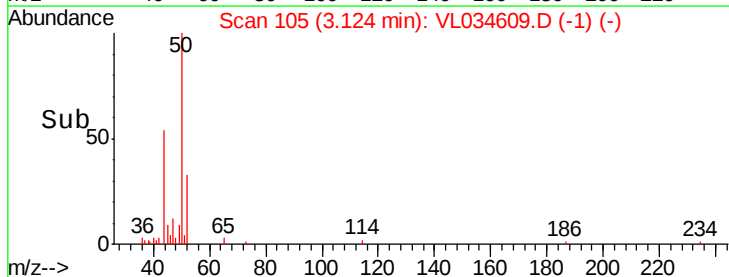
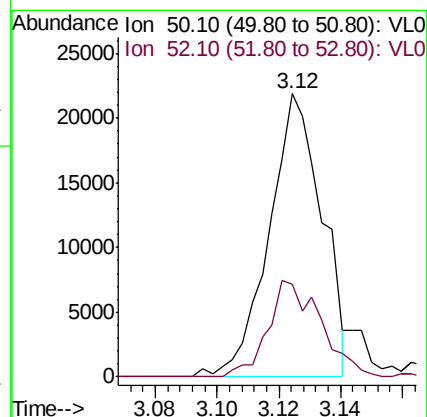
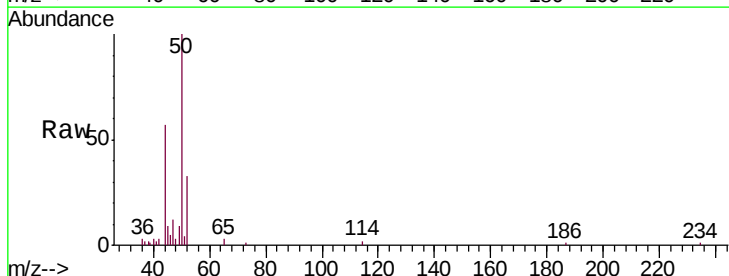
Acq: 6 Feb 2020 21:36

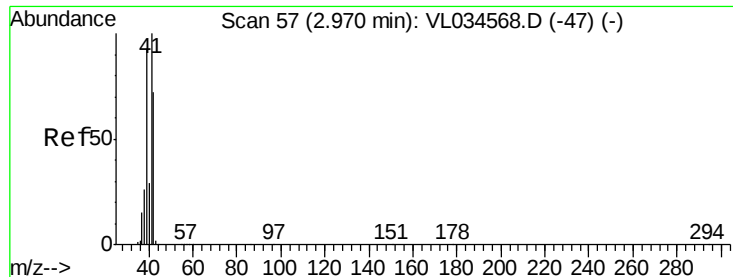
Tgt Ion: 50 Resp: 25895

Ion Ratio Lower Upper

50 100

52 32.6 26.6 39.8





#9

Propene

Concen: 3.427 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.22 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

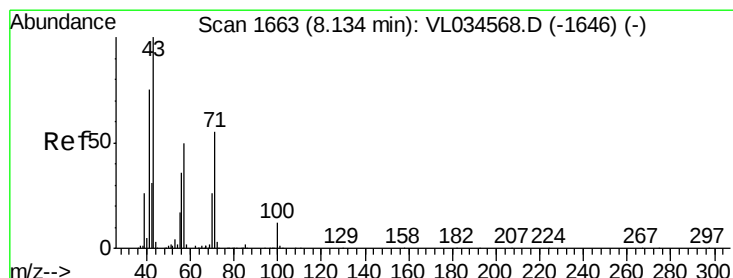
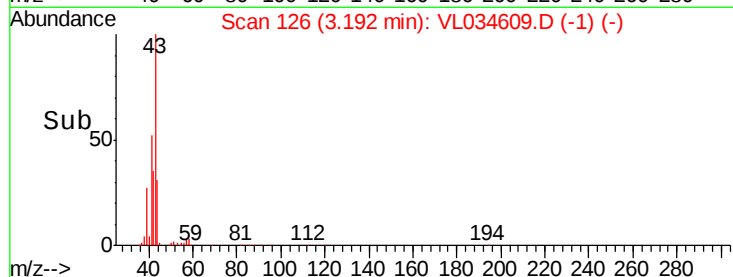
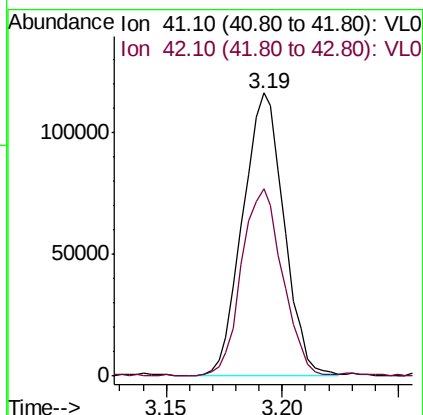
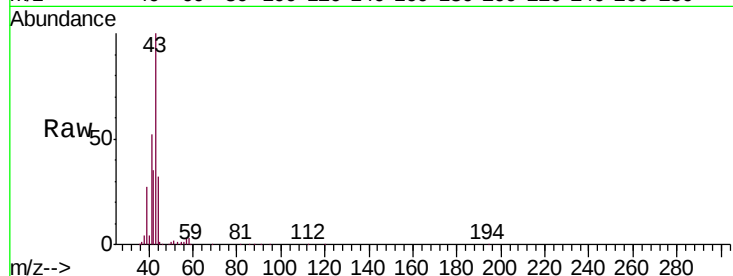
IA-5

Tgt Ion: 41 Resp: 144378

Ion Ratio Lower Upper

41 100

42 67.1 57.0 85.4



#10

Heptane

Concen: 0.057 ppbv

RT: 8.18 min Scan# 1677

Delta R.T. 0.04 min

Lab File: VL034609.D

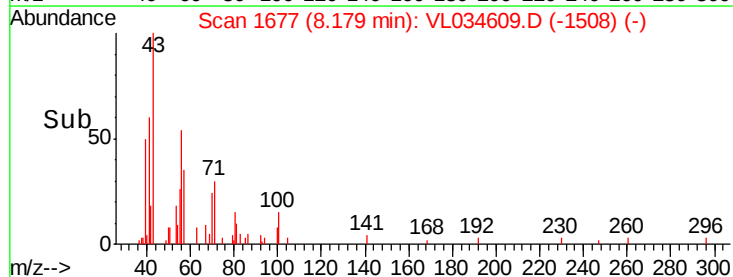
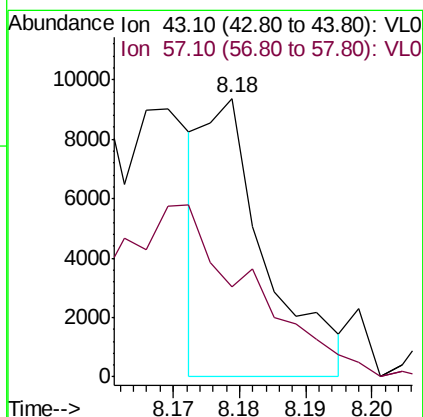
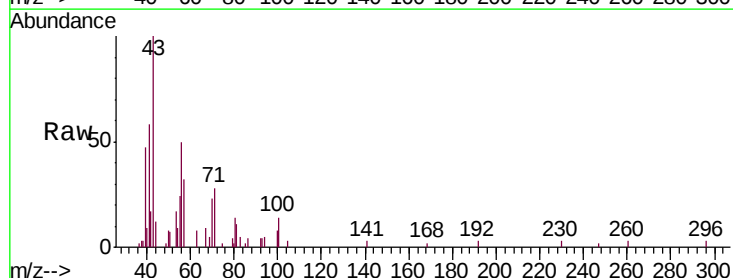
Acq: 6 Feb 2020 21:36

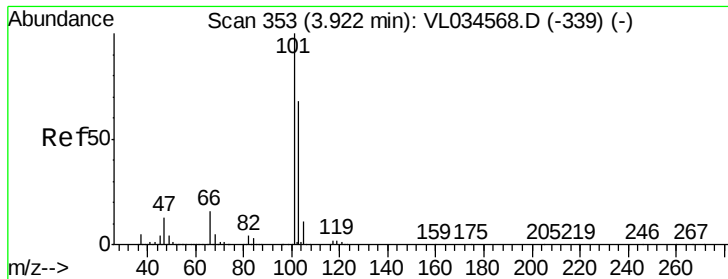
Tgt Ion: 43 Resp: 6079

Ion Ratio Lower Upper

43 100

57 0.0 41.2 61.8#

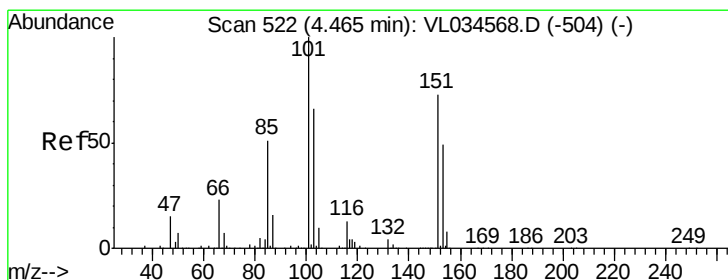
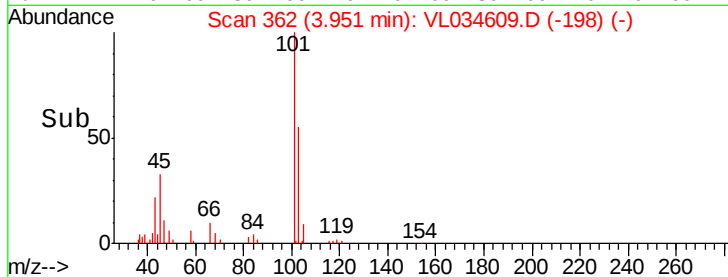
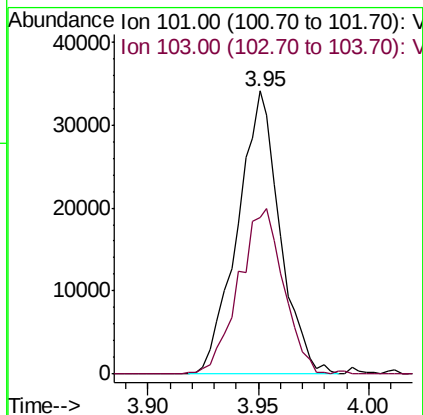
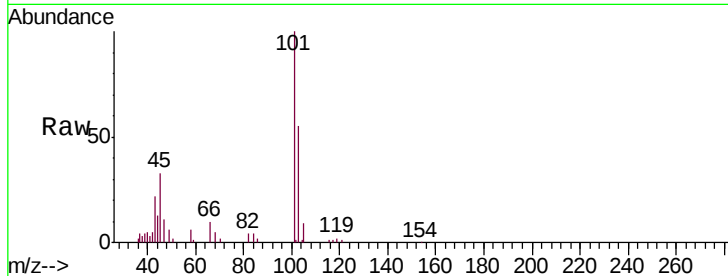




#11
 Trichlorofluoromethane
 Concen: 0.255 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.03 min
 Lab File: VL034609.D
 Acq: 6 Feb 2020 21:36

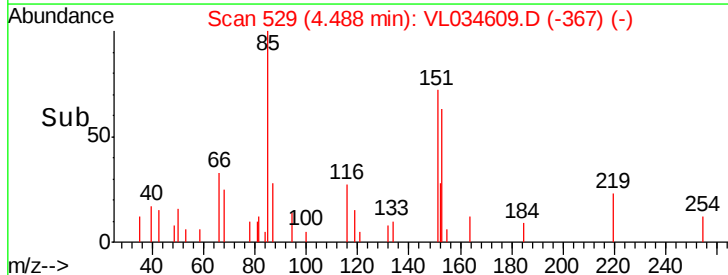
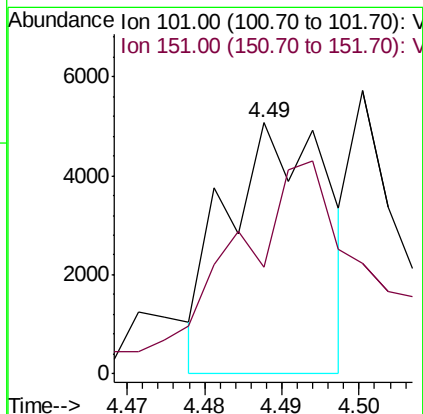
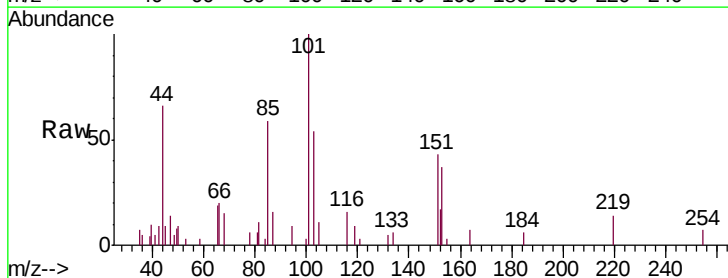
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5

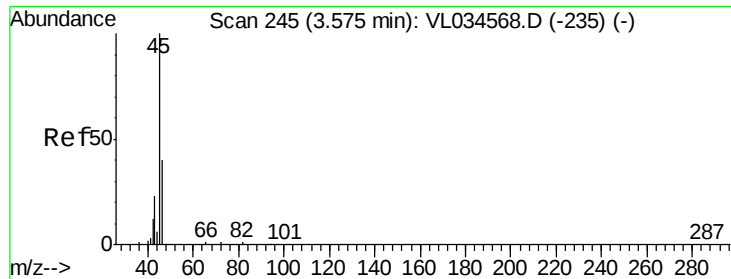
Tgt Ion:101 Resp: 45597
 Ion Ratio Lower Upper
 101 100
 103 54.8 54.4 81.6



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.039 ppbv
 RT: 4.49 min Scan# 529
 Delta R.T. 0.02 min
 Lab File: VL034609.D
 Acq: 6 Feb 2020 21:36

Tgt Ion:101 Resp: 4595
 Ion Ratio Lower Upper
 101 100
 151 0.0 57.0 85.6#





#13

Ethanol

Concen: 31.318 ppbv

RT: 3.60 min Scan# 253

Delta R.T. 0.03 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

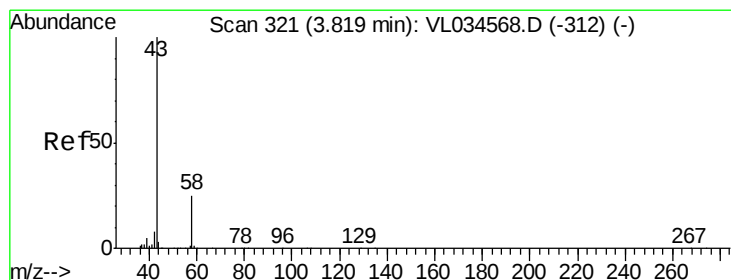
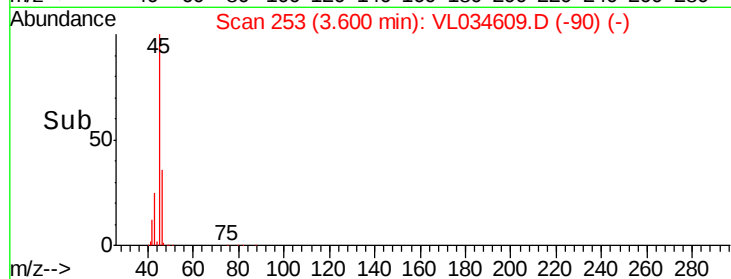
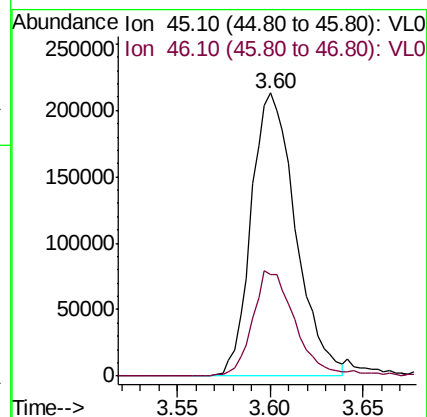
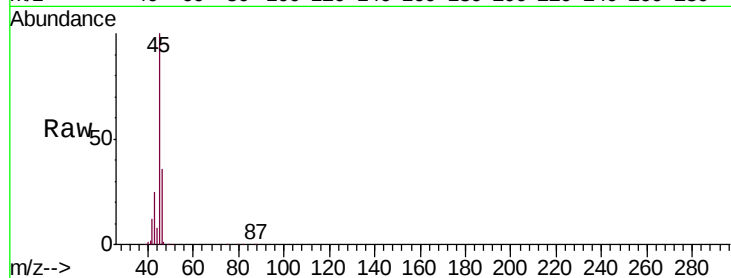
IA-5

Tgt Ion: 45 Resp: 353396

Ion Ratio Lower Upper

45 100

46 36.7 14.8 59.2



#15

Acetone

Concen: 21.521 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.03 min

Lab File: VL034609.D

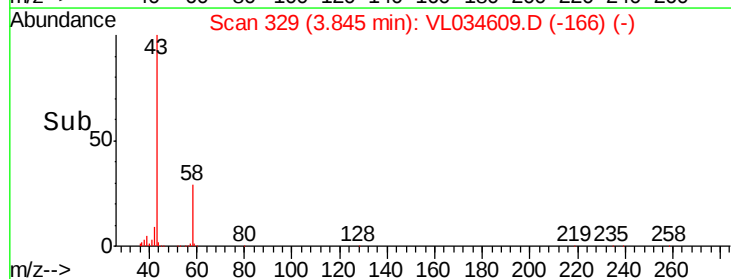
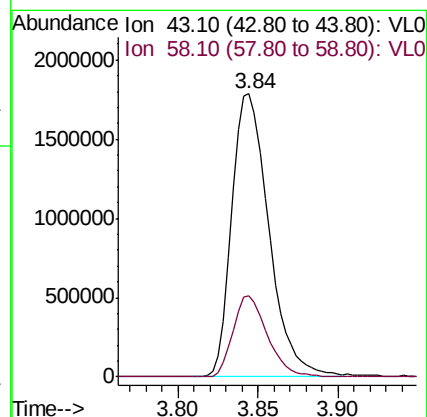
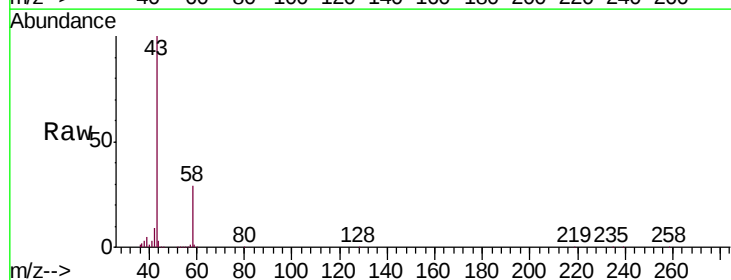
Acq: 6 Feb 2020 21:36

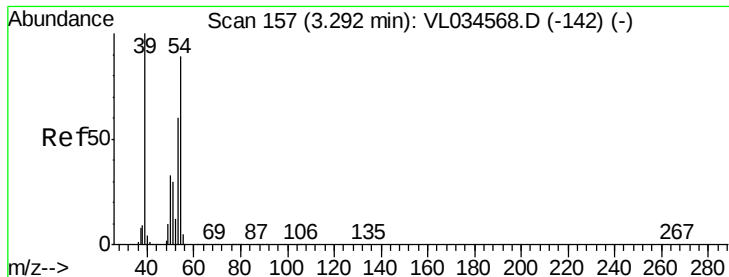
Tgt Ion: 43 Resp: 2832219

Ion Ratio Lower Upper

43 100

58 26.7 20.3 30.5





#16

1,3-Butadiene

Concen: 0.183 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.00 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

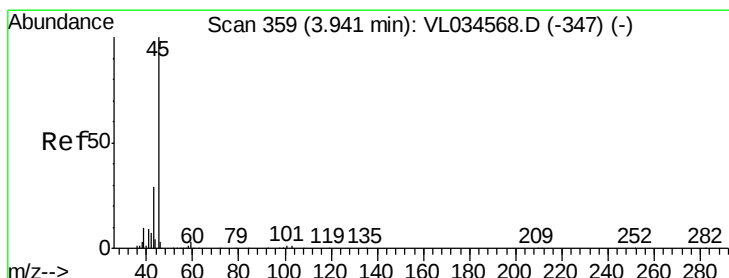
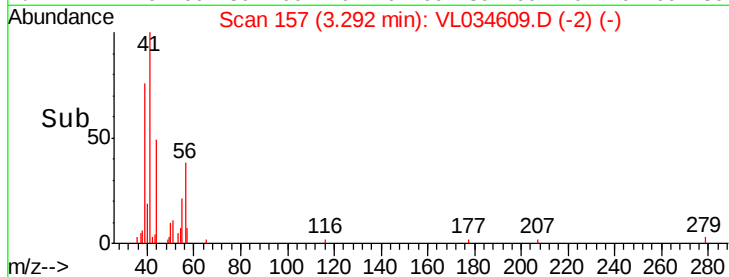
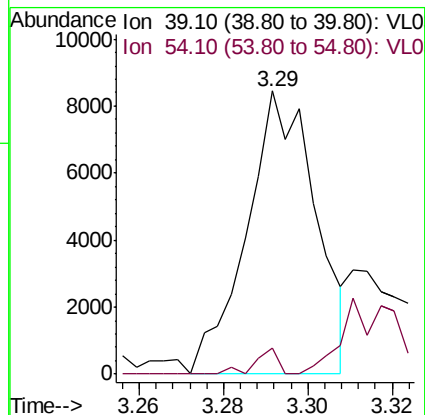
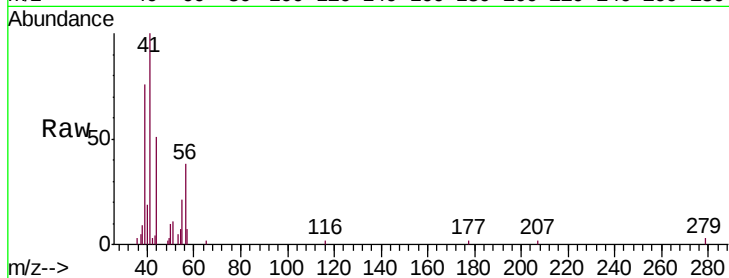
IA-5

Tgt Ion: 39 Resp: 9573

Ion Ratio Lower Upper

39 100

54 38.0 66.7 100.1#



#19

Isopropyl Alcohol

Concen: 6.486 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.03 min

Lab File: VL034609.D

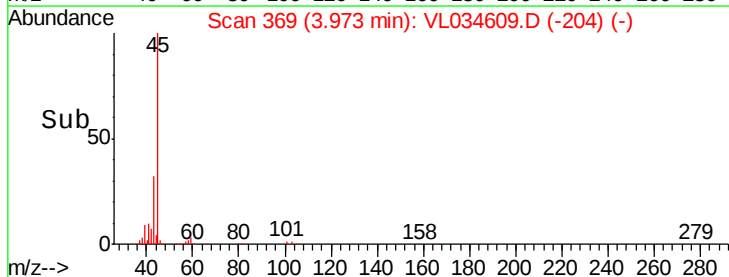
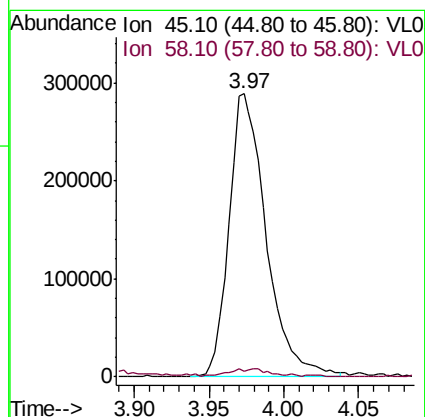
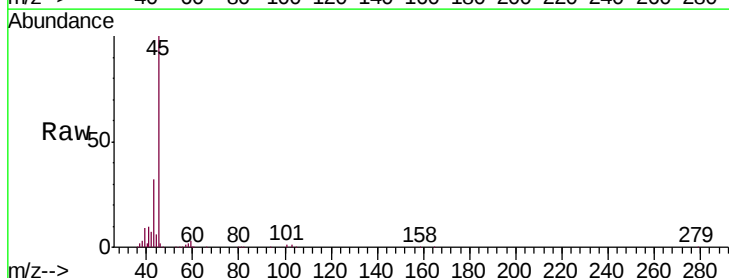
Acq: 6 Feb 2020 21:36

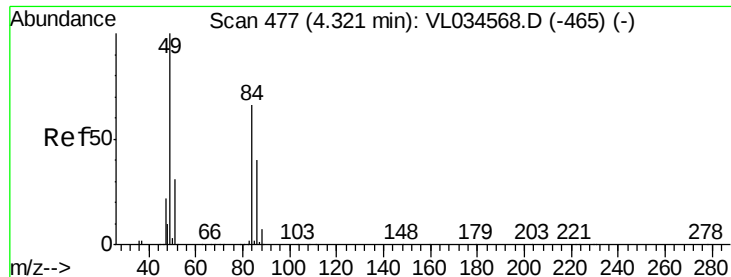
Tgt Ion: 45 Resp: 498091

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#





#20

Methylene Chloride

Concen: 2.008 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.03 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampled :

IA-5

Tgt Ion: 84 Resp: 100622

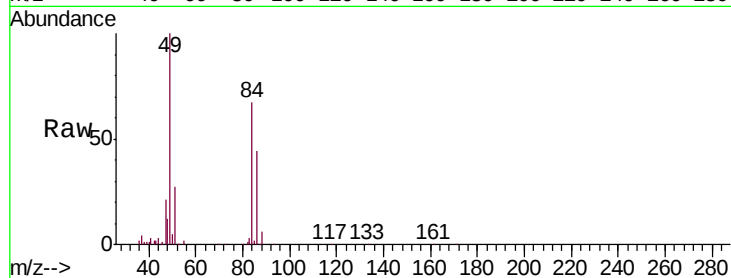
Ion Ratio Lower Upper

84 100

49 150.0 122.4 183.6

51 40.8 38.6 57.8

86 65.9 49.0 73.6

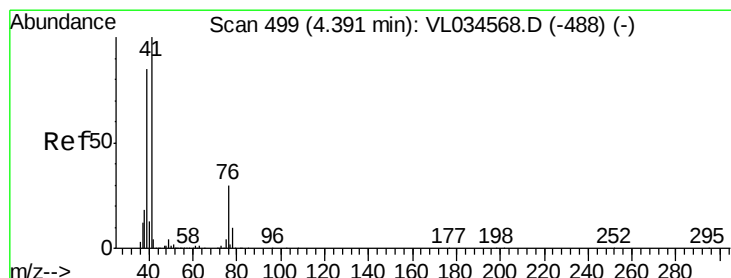
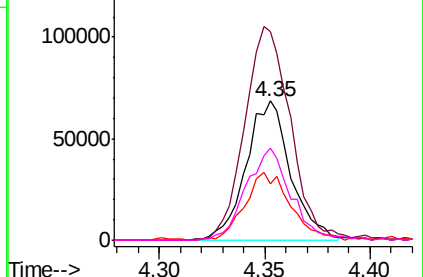
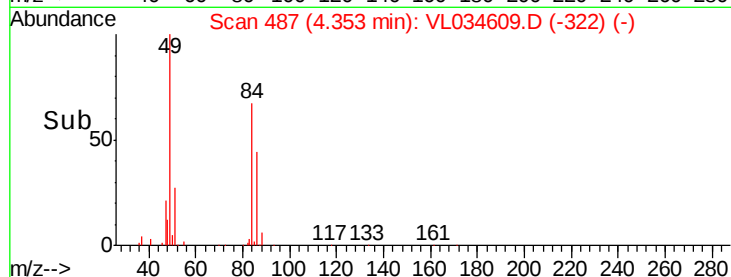


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21

Allyl Chloride

Concen: 0.082 ppbv

RT: 4.38 min Scan# 495

Delta R.T. -0.01 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

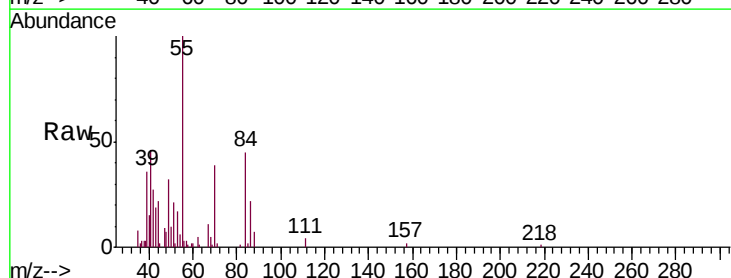
Tgt Ion: 41 Resp: 6710

Ion Ratio Lower Upper

41 100

76 2.0 24.2 36.2#

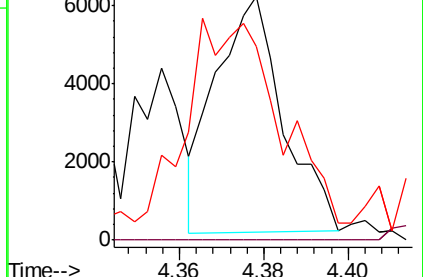
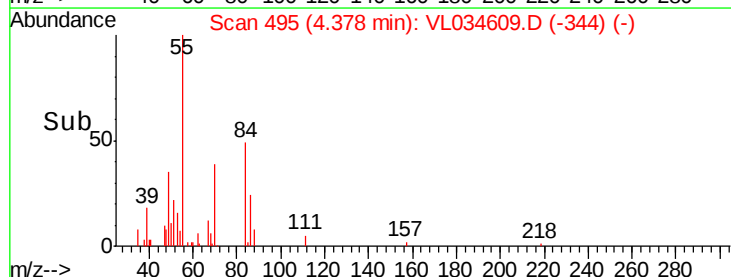
39 0.0 68.3 102.5#

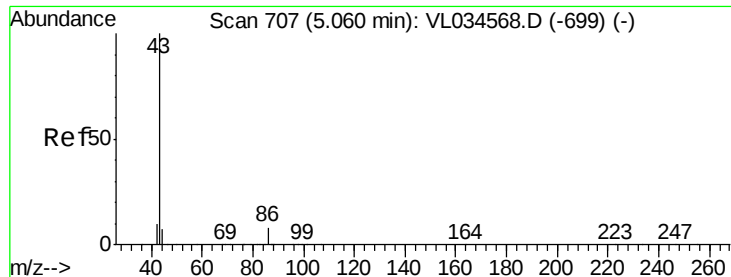


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.340 ppbv

RT: 5.08 min Scan# 712

Delta R.T. 0.02 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampled :

IA-5

Tgt Ion: 43 Resp: 51119

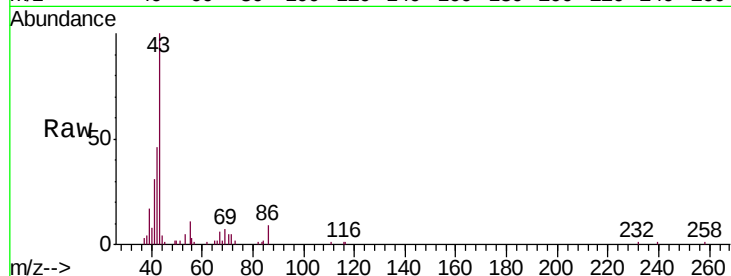
Ion Ratio Lower Upper

43 100

86 9.2 5.9 8.9#

42 43.1 8.8 13.2#

44 1.9 5.0 7.6#

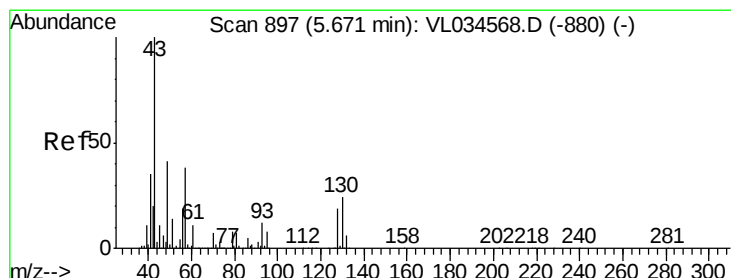
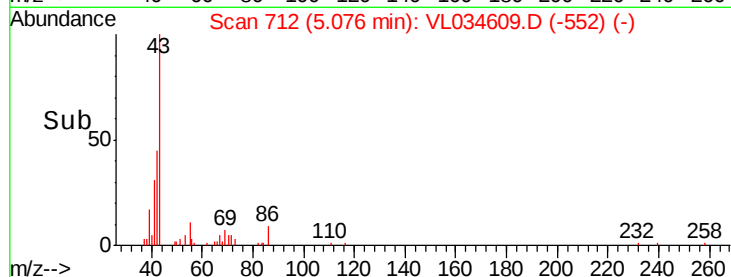
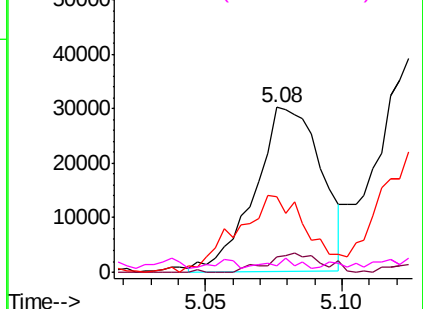


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.553 ppbv

RT: 5.71 min Scan# 909

Delta R.T. 0.04 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Tgt Ion: 43 Resp: 117793

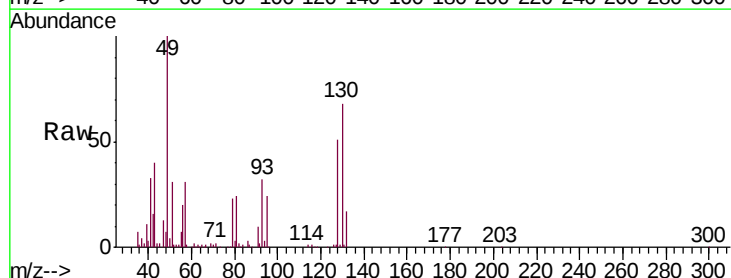
Ion Ratio Lower Upper

43 100

45 7.8 8.5 12.7#

61 5.9 7.8 11.6#

70 5.2 5.8 8.8#

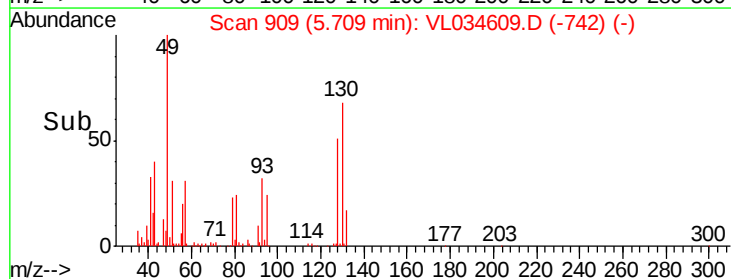
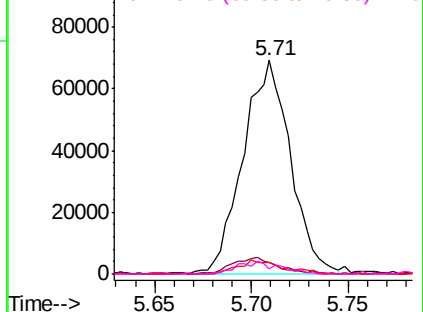


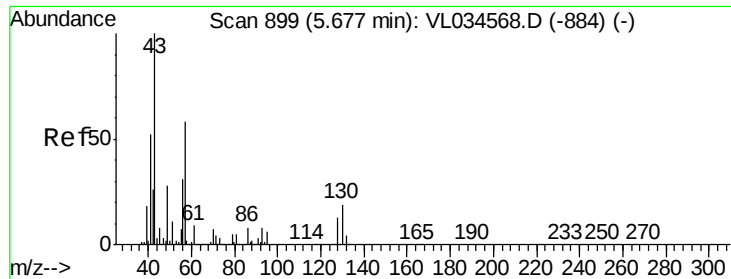
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 0.631 ppbv

RT: 5.71 min Scan# 909

Delta R.T. 0.03 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

IA-5

Tgt Ion: 57 Resp: 56308

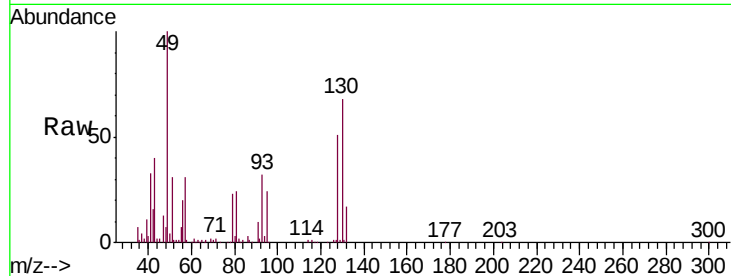
Ion Ratio Lower Upper

57 100

41 172.6 76.2 114.2#

43 213.2 189.9 284.9

56 0.0 43.6 65.4#

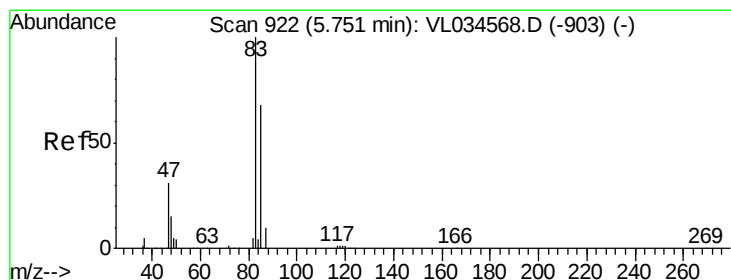
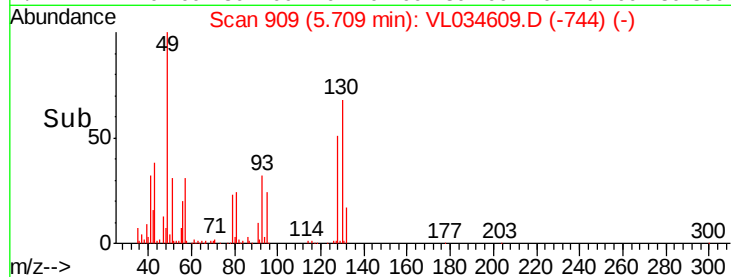
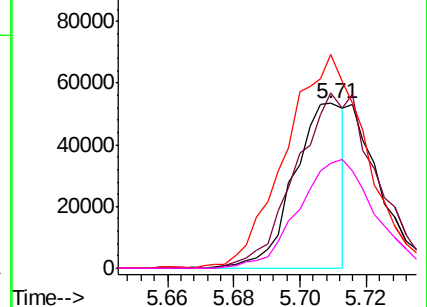


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.092 ppbv

RT: 5.77 min Scan# 929

Delta R.T. 0.02 min

Lab File: VL034609.D

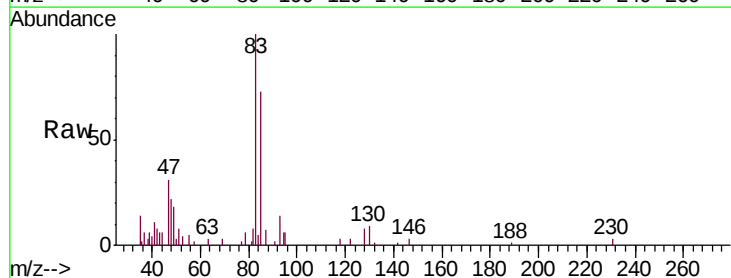
Acq: 6 Feb 2020 21:36

Tgt Ion: 83 Resp: 14463

Ion Ratio Lower Upper

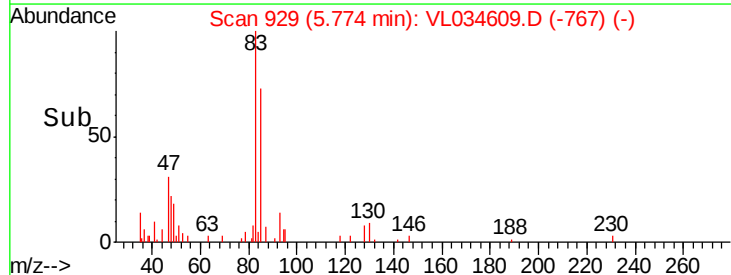
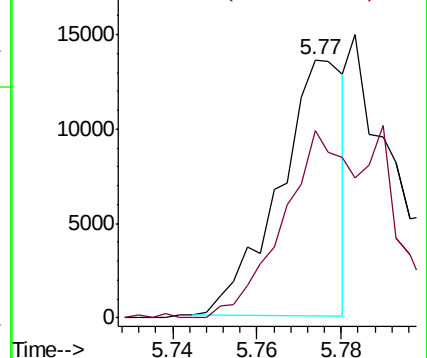
83 100

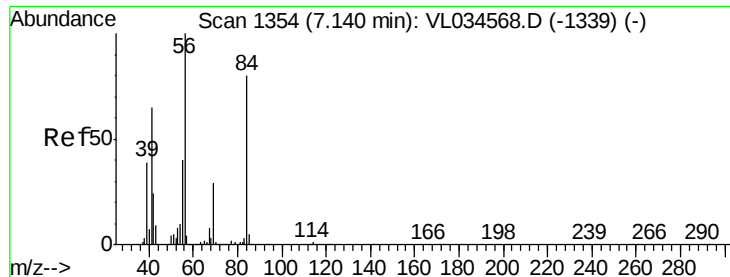
85 77.7 54.0 81.0



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

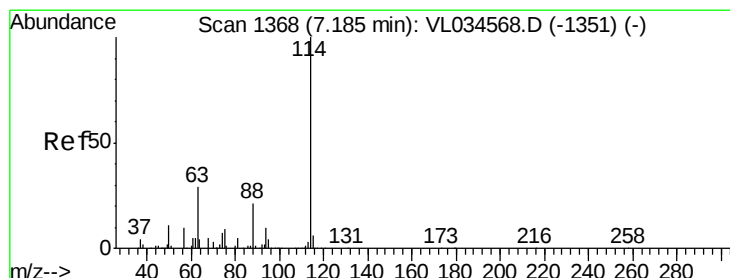
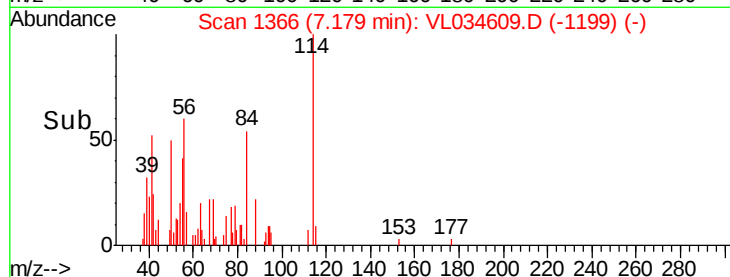
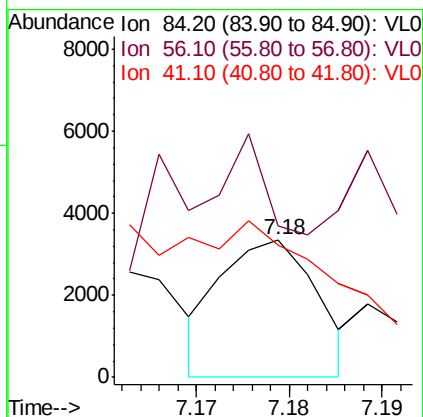
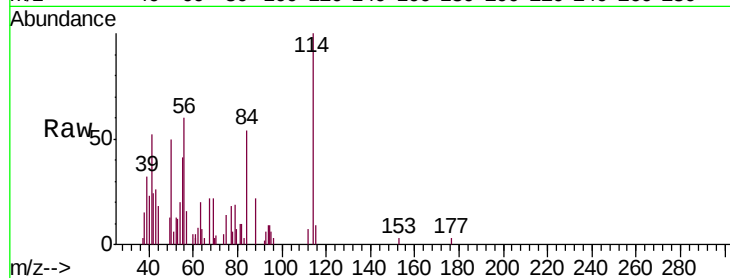




#30
Cyclohexane
Concen: 0.037 ppbv
RT: 7.18 min Scan# 1366
Delta R.T. 0.04 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

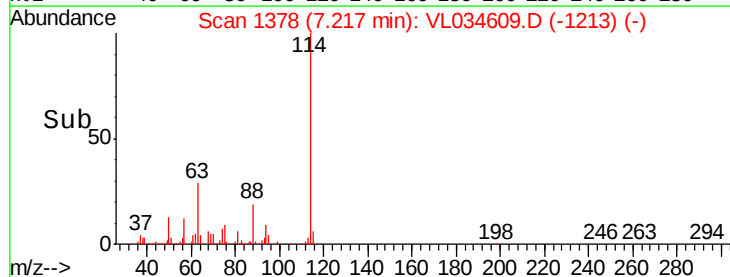
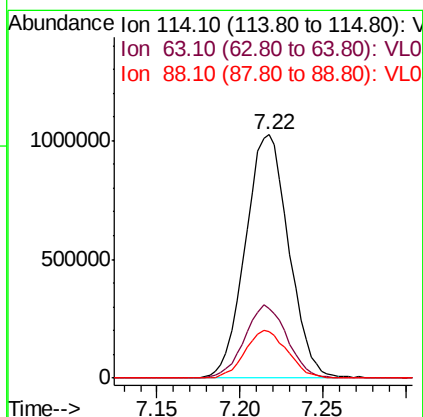
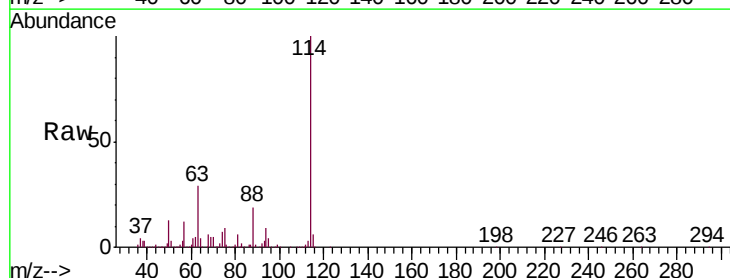
Instrument :
MSVOA_L
ClientSampleId :
IA-5

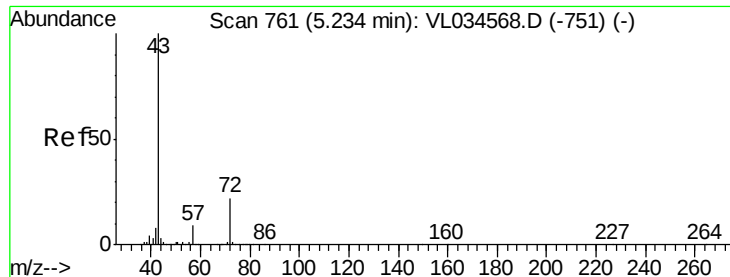
Tgt Ion: 84 Resp: 2432
Ion Ratio Lower Upper
84 100
56 0.0 110.5 165.7#
41 365.2 71.9 107.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.22 min Scan# 1378
Delta R.T. 0.03 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

Tgt Ion: 114 Resp: 1861120
Ion Ratio Lower Upper
114 100
63 29.5 24.1 36.1
88 19.2 15.9 23.9

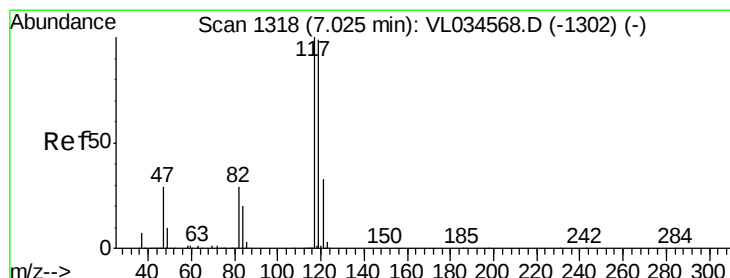
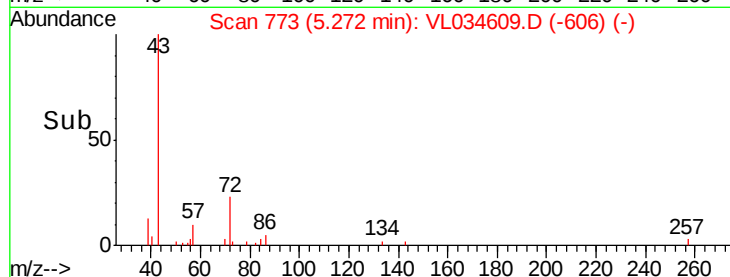
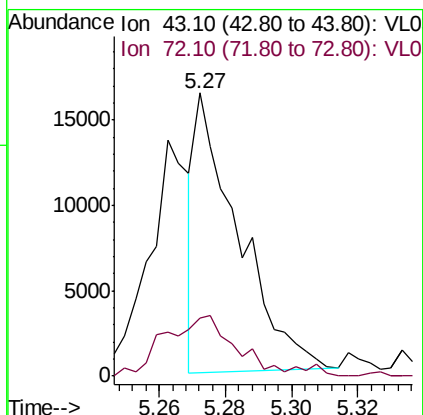
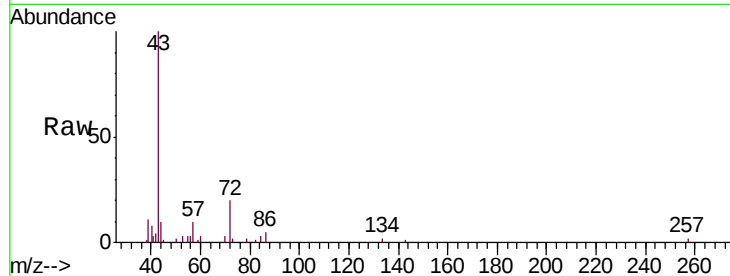




#34
2-Butanone
Concen: 0.109 ppbv
RT: 5.27 min Scan# 773
Delta R.T. 0.04 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

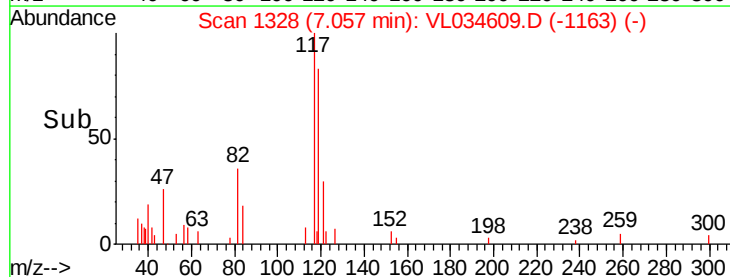
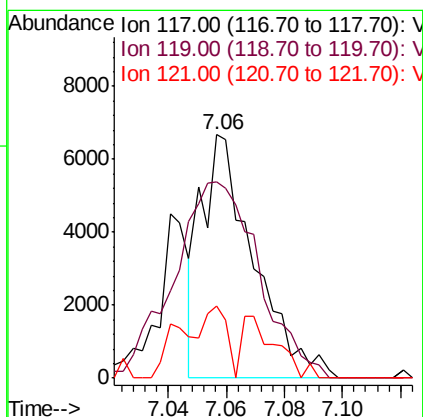
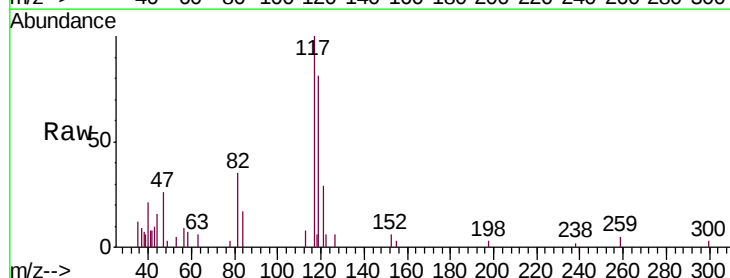
Instrument :
MSVOA_L
ClientSampleId :
IA-5

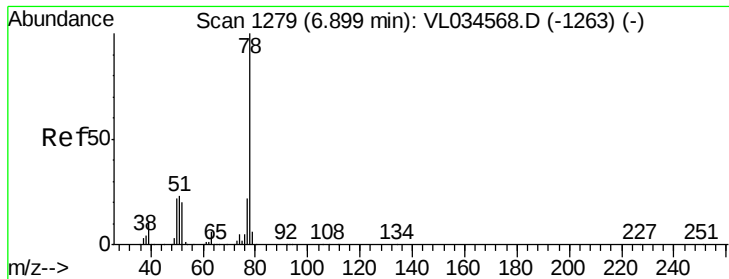
Tgt Ion: 43 Resp: 14666
Ion Ratio Lower Upper
43 100
72 38.2 17.2 25.8#



#35
Carbon Tetrachloride
Concen: 0.047 ppbv
RT: 7.06 min Scan# 1328
Delta R.T. 0.03 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

Tgt Ion: 117 Resp: 8357
Ion Ratio Lower Upper
117 100
119 80.6 79.5 119.3
121 29.5 26.2 39.2





#36

Benzene

Concen: 0.197 ppbv

RT: 6.93 min Scan# 1289

Delta R.T. 0.03 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

IA-5

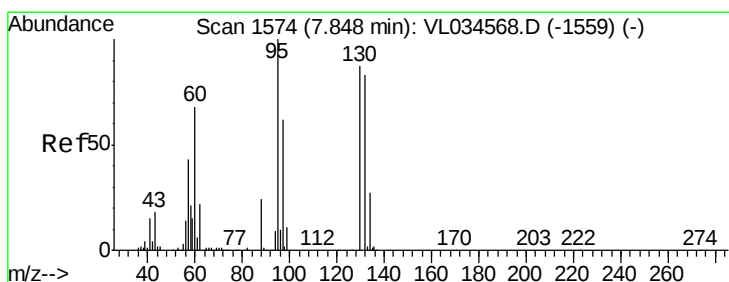
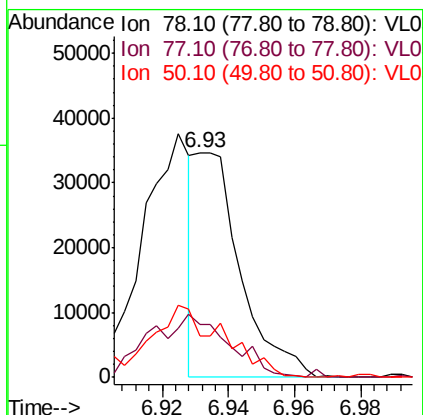
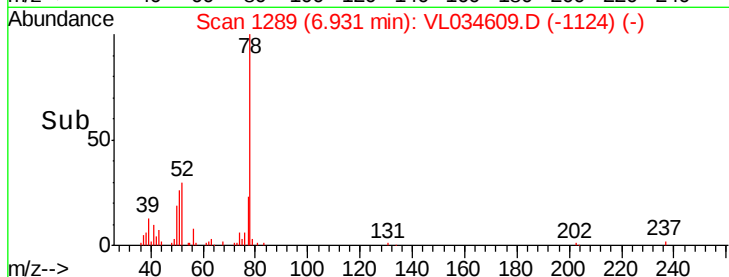
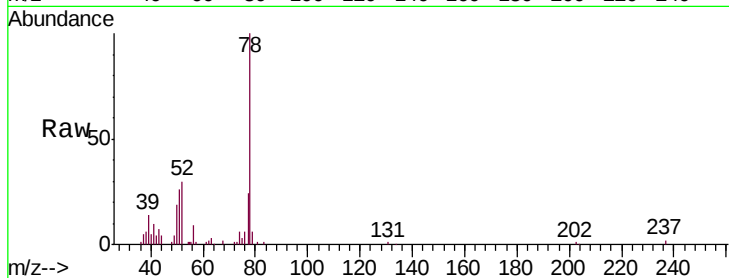
Tgt Ion: 78 Resp: 32571

Ion Ratio Lower Upper

78 100

77 23.8 17.3 25.9

50 17.5 17.4 26.2



#38

Trichloroethene

Concen: 0.074 ppbv

RT: 7.88 min Scan# 1585

Delta R.T. 0.04 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Tgt Ion: 130 Resp: 5163

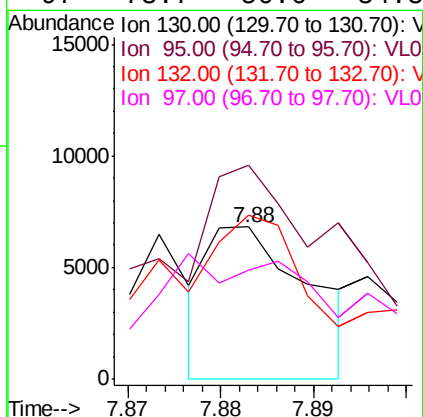
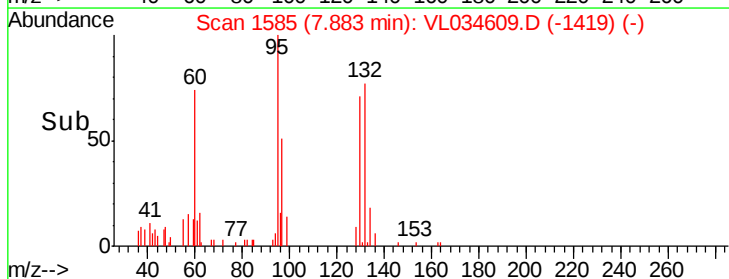
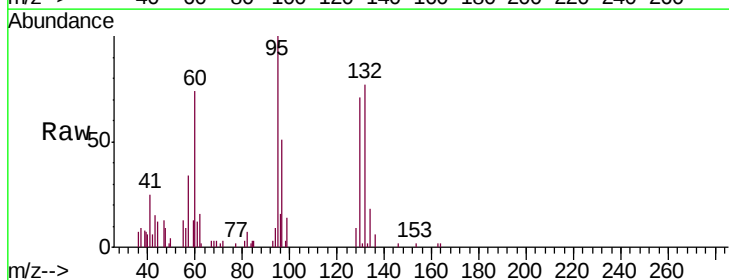
Ion Ratio Lower Upper

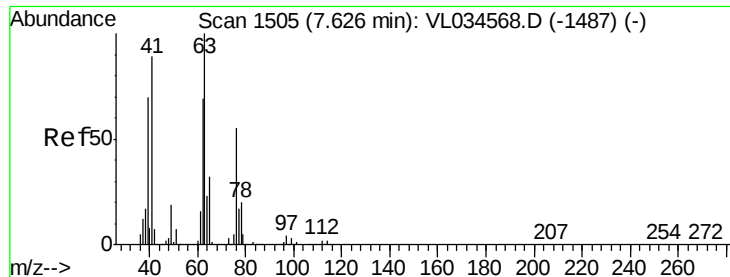
130 100

95 186.0 91.6 137.4#

132 176.8 76.1 114.1#

97 73.7 56.6 84.8

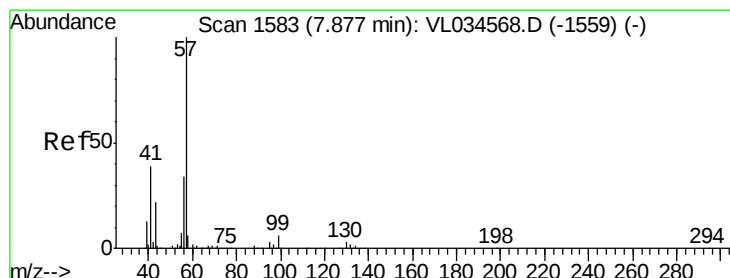
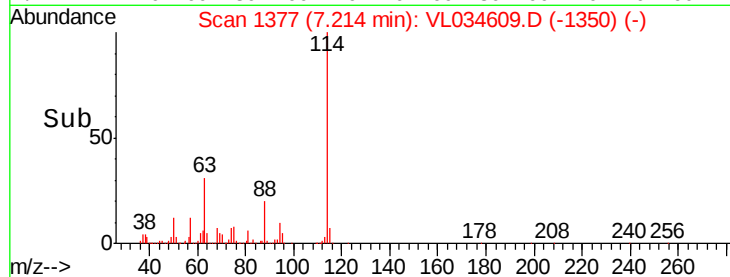
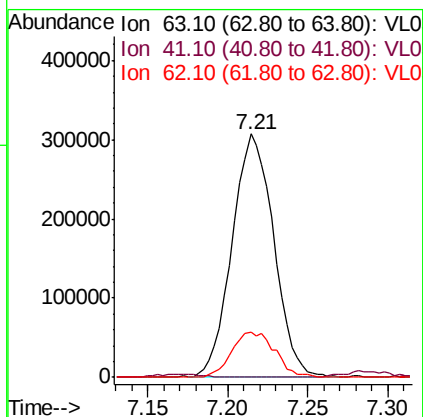
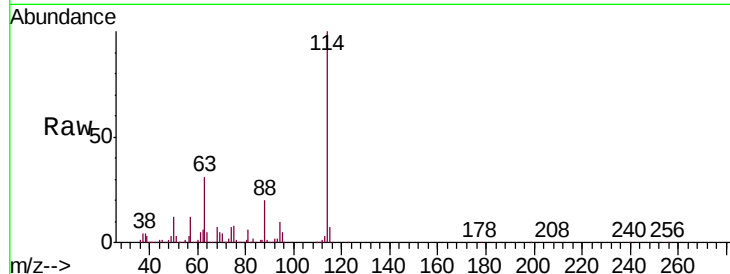




#39
 1,2-Dichloropropane
 Concen: 7.921 ppbv
 RT: 7.21 min Scan# 1377
 Delta R.T. -0.41 min
 Lab File: VL034609.D
 Acq: 6 Feb 2020 21:36

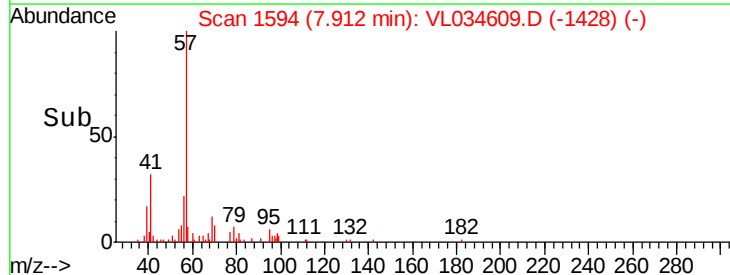
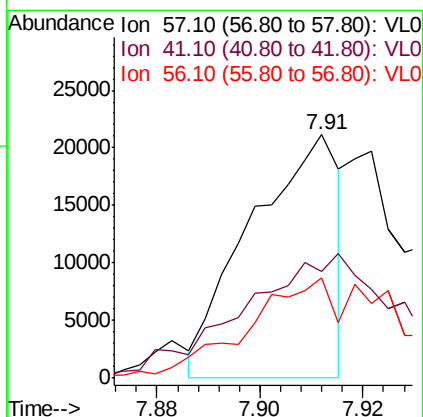
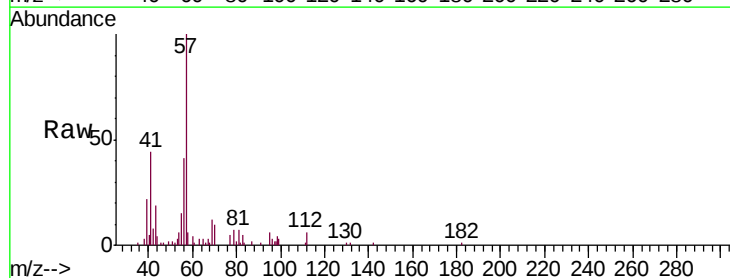
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5

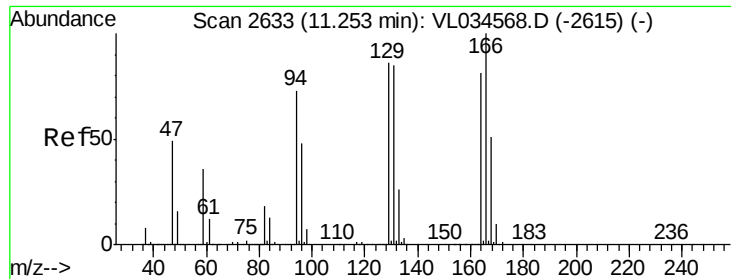
Tgt Ion: 63 Resp: 543473
 Ion Ratio Lower Upper
 63 100
 41 0.0 71.0 106.4#
 62 18.4 55.4 83.0#



#44
 2,2,4-Trimethylpentane
 Concen: 0.084 ppbv
 RT: 7.91 min Scan# 1594
 Delta R.T. 0.04 min
 Lab File: VL034609.D
 Acq: 6 Feb 2020 21:36

Tgt Ion: 57 Resp: 25292
 Ion Ratio Lower Upper
 57 100
 41 95.0 28.9 43.3#
 56 71.6 25.5 38.3#





#52

Tetrachloroethene

Concen: 3.796 ppbv

RT: 11.29 min Scan# 2644

Delta R.T. 0.04 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

IA-5

Tgt Ion:164 Resp: 252393

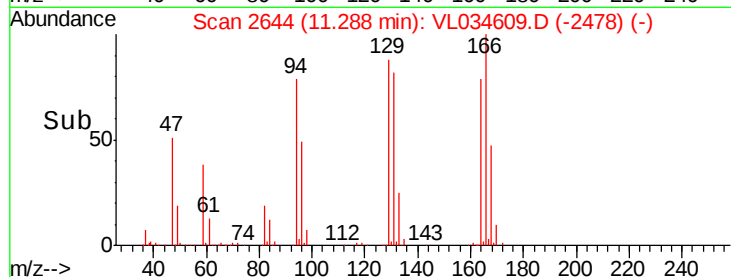
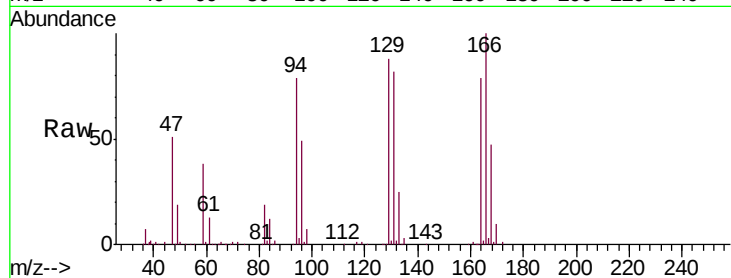
Ion Ratio Lower Upper

164 100

166 126.4 99.0 148.4

129 111.4 85.3 127.9

131 104.0 84.2 126.2

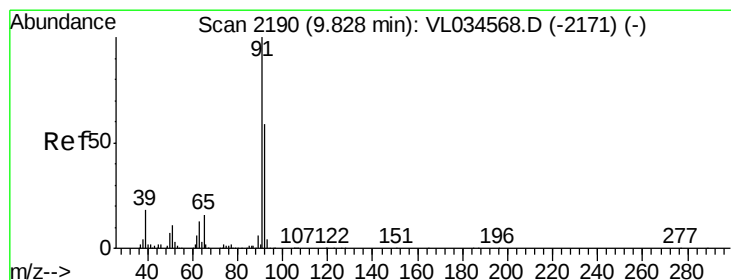
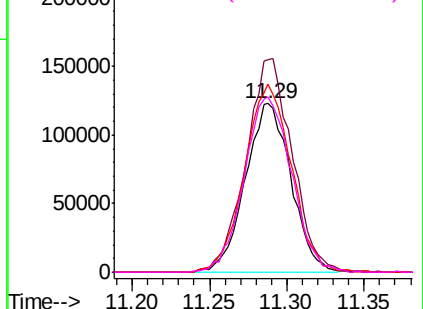


Abundance Ion 163.90 (163.60 to 164.60): V

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: 2.496 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. 0.04 min

Lab File: VL034609.D

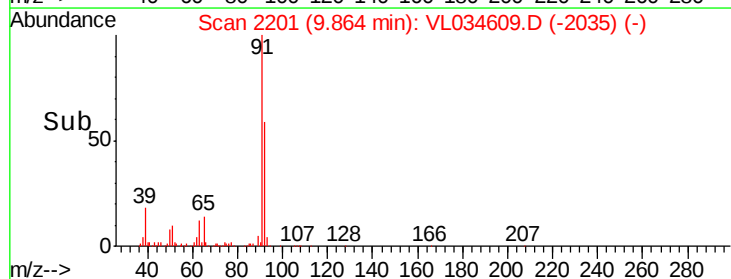
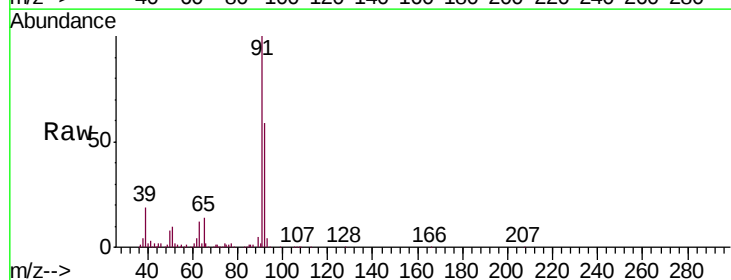
Acq: 6 Feb 2020 21:36

Tgt Ion: 91 Resp: 453746

Ion Ratio Lower Upper

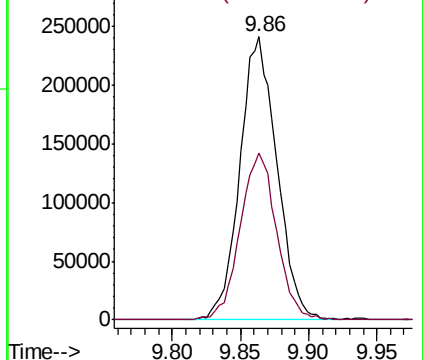
91 100

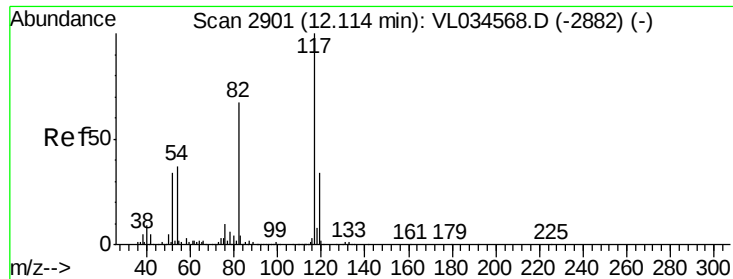
92 58.2 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

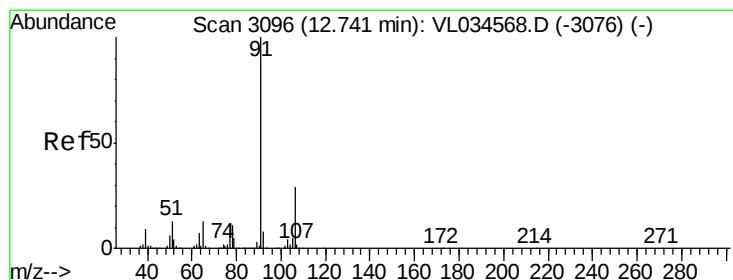
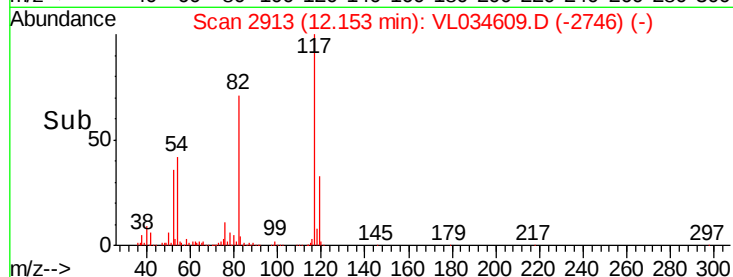
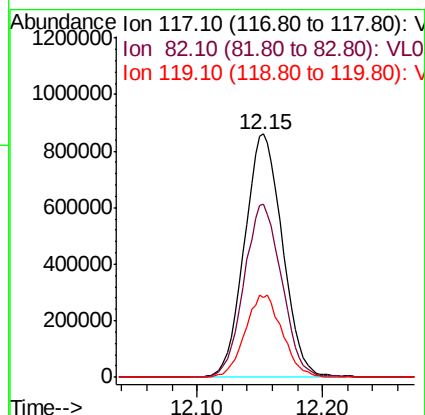
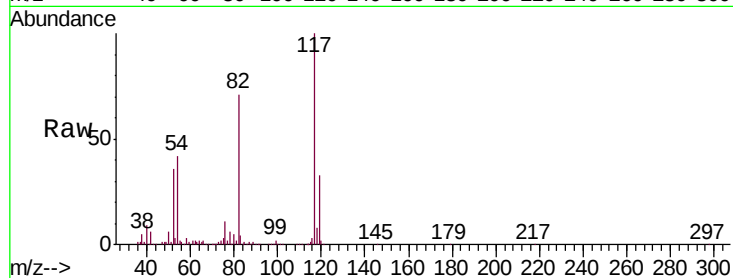




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2913
Delta R.T. 0.04 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

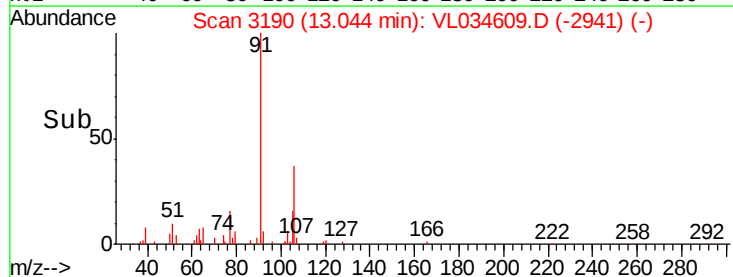
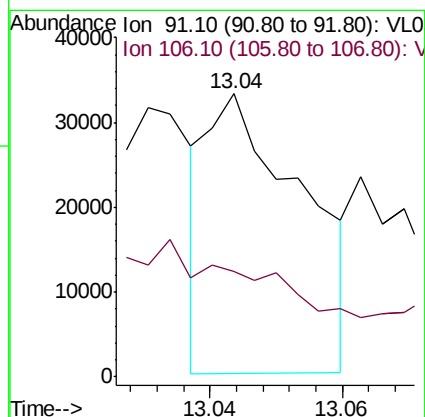
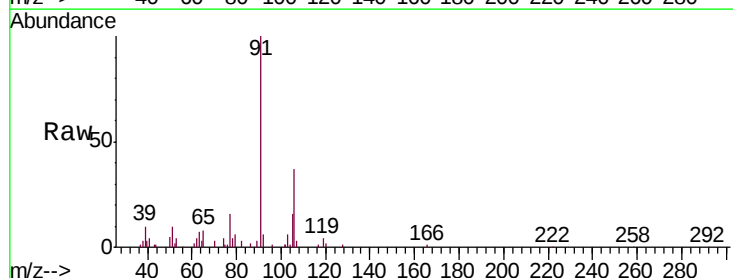
Instrument :
MSVOA_L
ClientSampleId :
IA-5

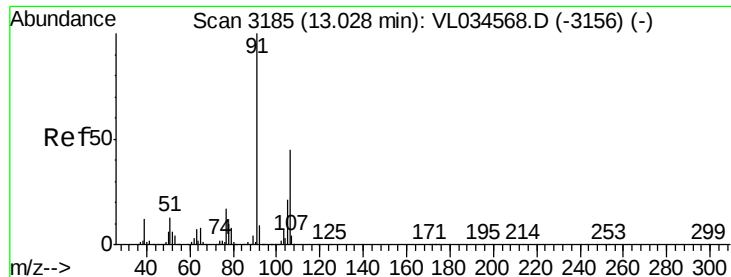
Tgt Ion:117 Resp: 1810100
Ion Ratio Lower Upper
117 100
82 71.0 54.2 81.4
119 33.3 26.1 39.1



#58
Ethyl Benzene
Concen: 0.137 ppbv
RT: 13.04 min Scan# 3190
Delta R.T. 0.30 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

Tgt Ion: 91 Resp: 33144
Ion Ratio Lower Upper
91 100
106 29.3 23.3 34.9

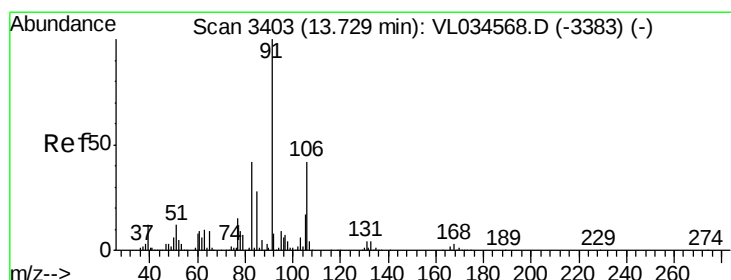
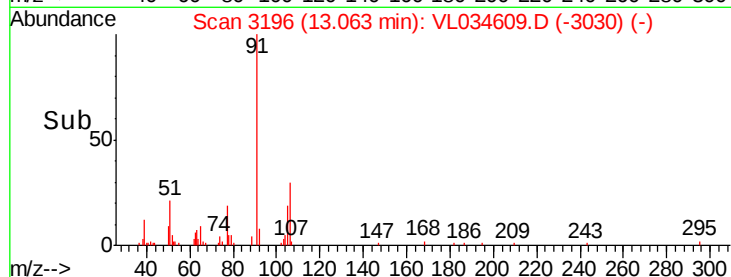
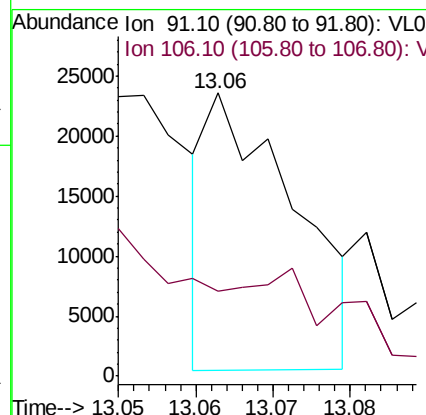
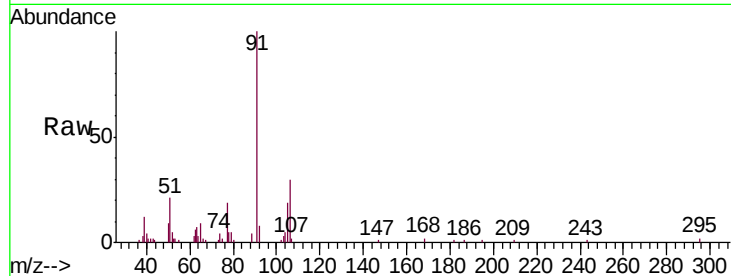




#59
m/p-Xylene
Concen: 0.085 ppbv
RT: 13.06 min Scan# 3196
Delta R.T. 0.04 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

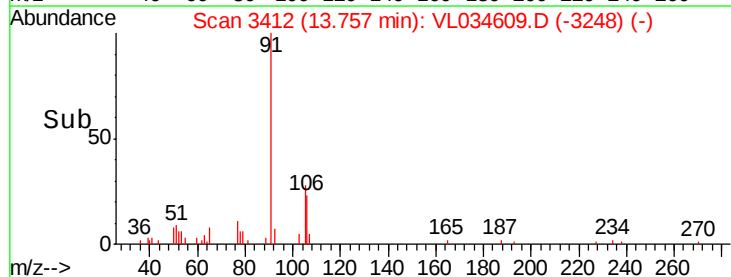
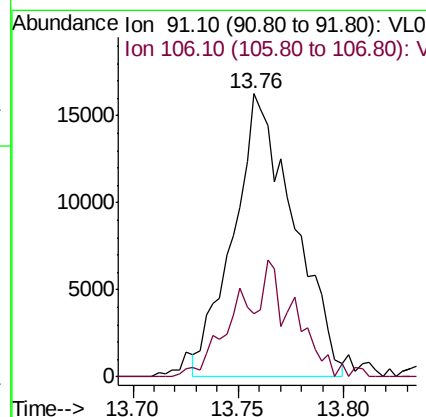
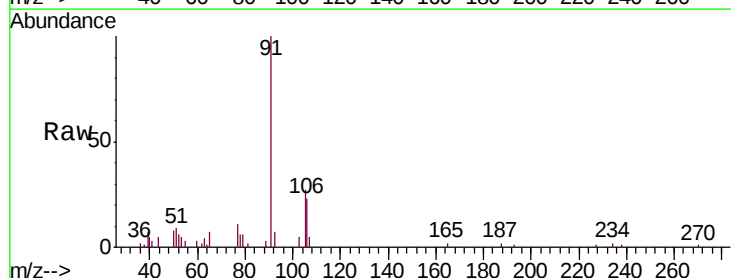
Instrument :
MSVOA_L
ClientSampleId :
IA-5

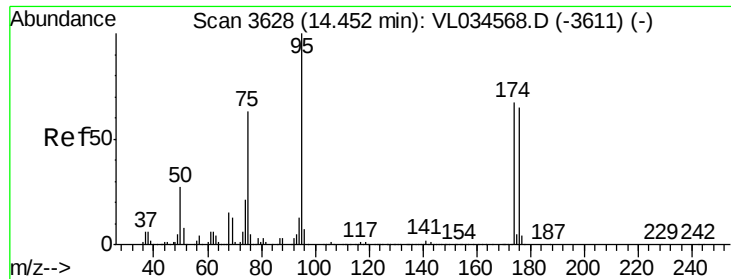
Tgt Ion: 91 Resp: 18244
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#



#60
o-Xylene
Concen: 0.151 ppbv
RT: 13.76 min Scan# 3412
Delta R.T. 0.03 min
Lab File: VL034609.D
Acq: 6 Feb 2020 21:36

Tgt Ion: 91 Resp: 32489
Ion Ratio Lower Upper
91 100
106 38.7 21.6 65.0





#68

1-Bromo-4-Fluorobenzene

Concen: 10.374 ppbv

RT: 14.49 min Scan# 3639

Delta R.T. 0.04 min

Lab File: VL034609.D

Acq: 6 Feb 2020 21:36

Instrument :

MSVOA_L

ClientSampleId :

IA-5

Tgt Ion: 95 Resp: 1586993

Ion Ratio Lower Upper

95 100

174 64.7 52.3 78.5

175 4.5 3.8 5.6

