

Data File : VL034612.D
Acq On : 6 Feb 2020 23:39
Operator : SY/AP
Sample : L1435-08
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-8

Quant Time: Feb 07 07:39:48 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL013020AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu 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	943329	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.21	114	1941856	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	1892432	10.00	ppbv	0.04

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.49 95 1669472 10.44 ppbv 0.04
Spiked Amount 10.000 Range 65 - 135 Recovery = 104.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	2.94	51	116332	1.021	ppbv #	69
4) Chloromethane	3.13	50	31300	0.449	ppbv	93
9) Propene	3.00	41	26720	0.602	ppbv	83
10) Heptane	8.17	43	7589	0.068	ppbv #	1
11) Trichlorofluoromethane	3.95	101	44122	0.234	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.49	101	4918	0.040	ppbv #	3
13) Ethanol	3.63	45	10626408	893.898	ppbv	89
15) Acetone	3.84	43	2612363	18.843	ppbv	99
16) 1,3-Butadiene	3.29	39	9866	0.179	ppbv #	61
17) tert-Butyl alcohol	4.00	59	77195	0.757	ppbv	97
19) Isopropyl Alcohol	4.00	45	2057446	25.430	ppbv	100
20) Methylene Chloride	4.35	84	94408	1.788	ppbv	93
21) Allyl Chloride	4.38	41	2596	0.030	ppbv #	1
23) Vinyl Acetate	5.08	43	22141	0.140	ppbv #	44
25) Ethyl Acetate	5.70	43	209795	0.935	ppbv	99
26) Hexane	5.71	57	91091	0.969	ppbv	95
29) Chloroform	5.78	83	24361	0.147	ppbv	85
34) 2-Butanone	5.26	43	6316	0.045	ppbv #	54
35) Carbon Tetrachloride	7.06	117	8846	0.048	ppbv #	93
36) Benzene	6.93	78	38618	0.224	ppbv	94
39) 1,2-Dichloropropane	7.21	63	572314	7.995	ppbv #	19
44) 2,2,4-Trimethylpentane	7.91	57	26601	0.085	ppbv #	12
52) Tetrachloroethene	11.29	164	128834	1.857	ppbv	93
53) Toluene	9.86	91	460127	2.425	ppbv	100
58) Ethyl Benzene	12.78	91	38775	0.153	ppbv	97
59) m/p-Xylene	13.07	91	16055	0.072	ppbv #	32
60) o-Xylene	13.76	91	20362	0.091	ppbv #	33

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

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IA-8

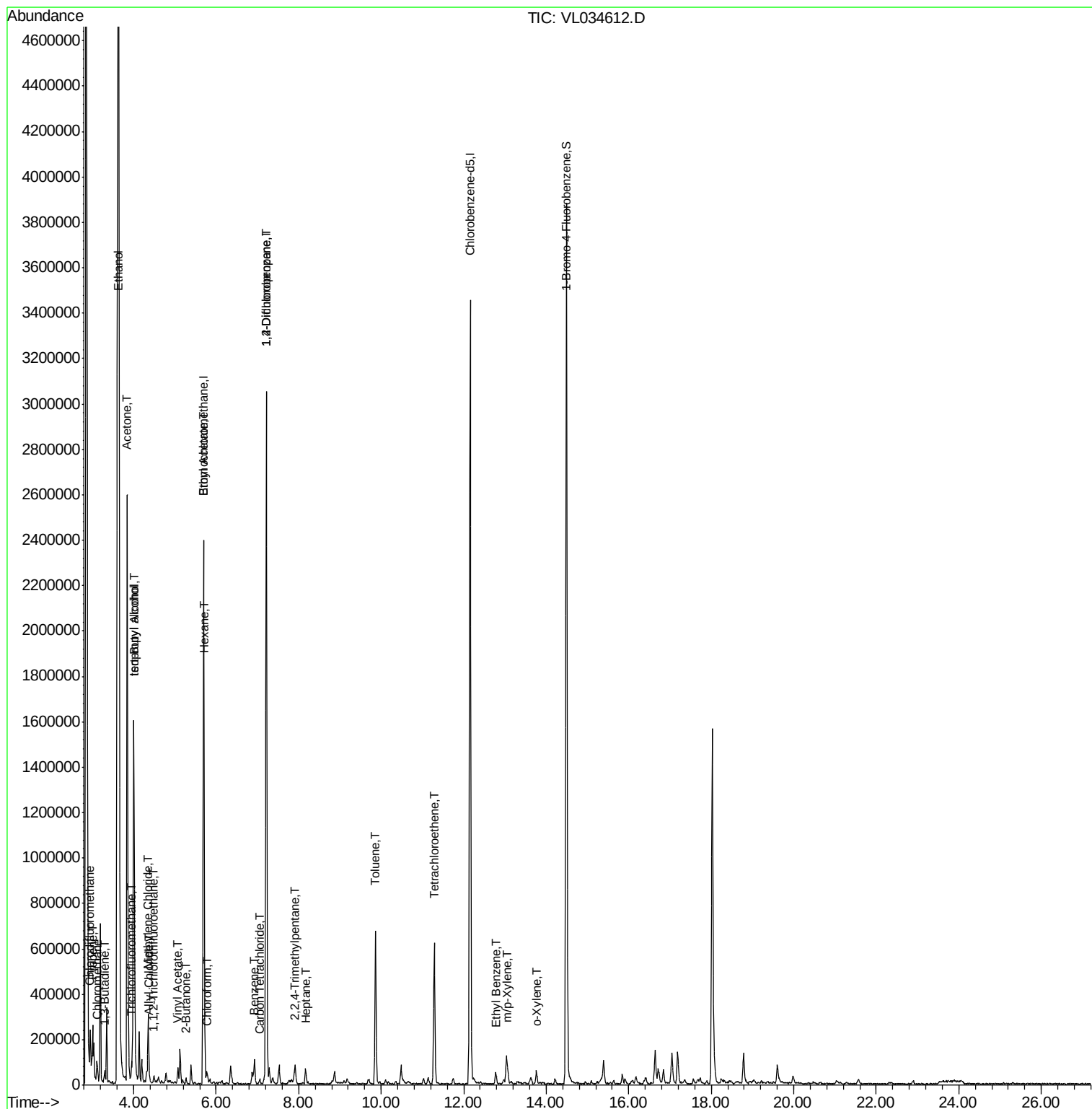
Quant Time: Feb 07 07:39:48 2020

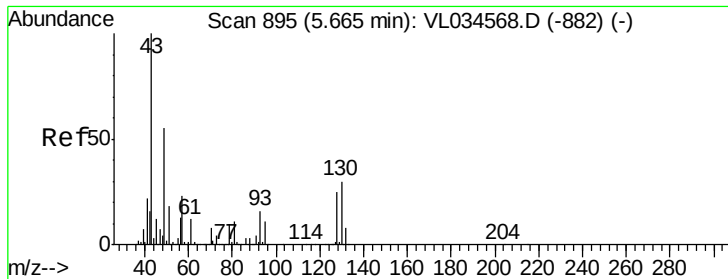
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL013020AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020

QLast Update : Thu Jan 30 17:16:44 2020

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

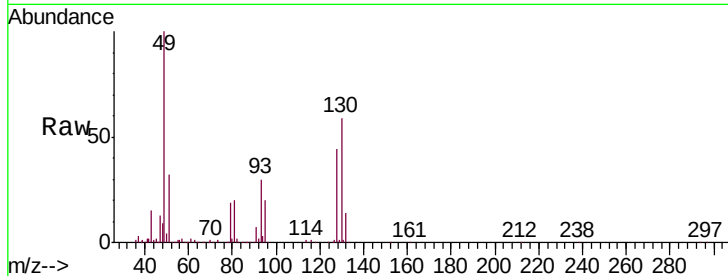
Tgt Ion: 49 Resp: 943329

Ion Ratio Lower Upper

49 100

128 46.8 22.7 68.1

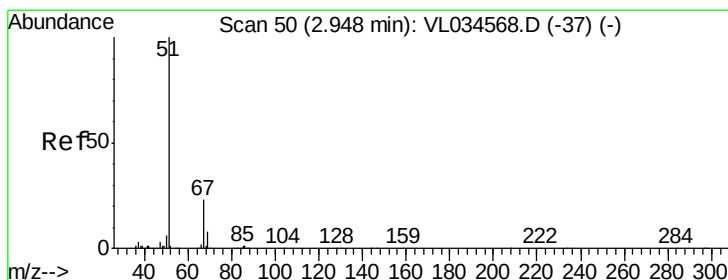
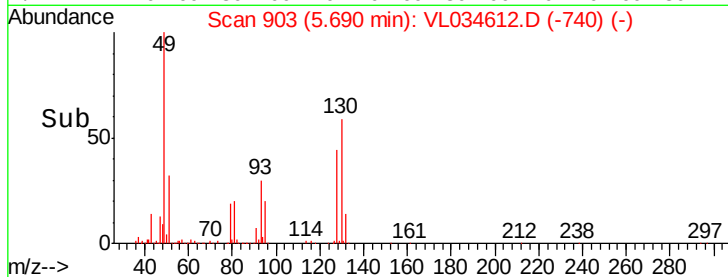
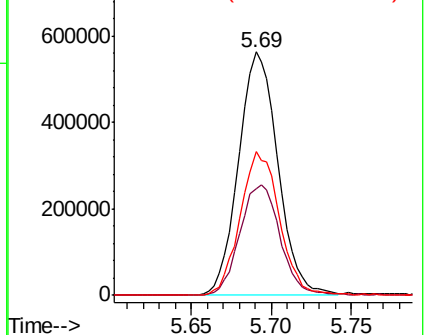
130 59.6 28.6 85.8



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



#3

Chlorodifluoromethane

Concen: 1.021 ppbv

RT: 2.94 min Scan# 49

Delta R.T. -0.00 min

Lab File: VL034612.D

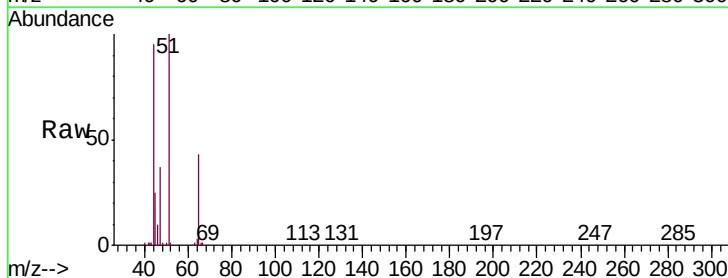
Acq: 6 Feb 2020 23:39

Tgt Ion: 51 Resp: 116332

Ion Ratio Lower Upper

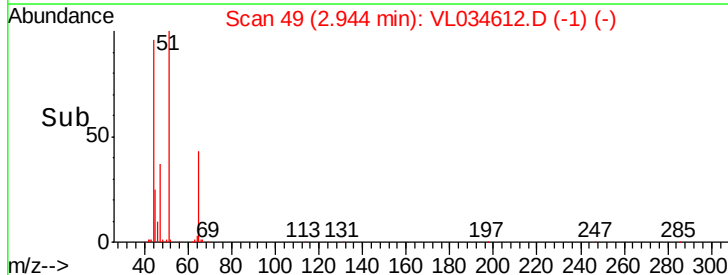
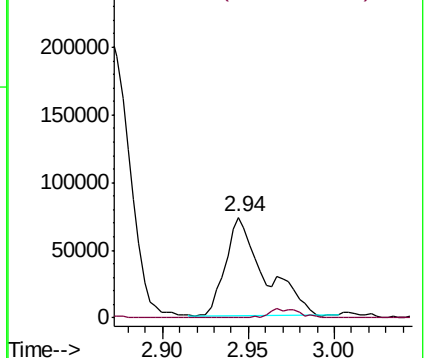
51 100

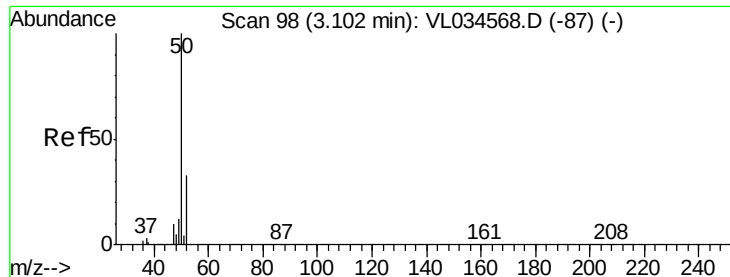
67 7.4 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.449 ppbv

RT: 3.13 min Scan# 106

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampled :

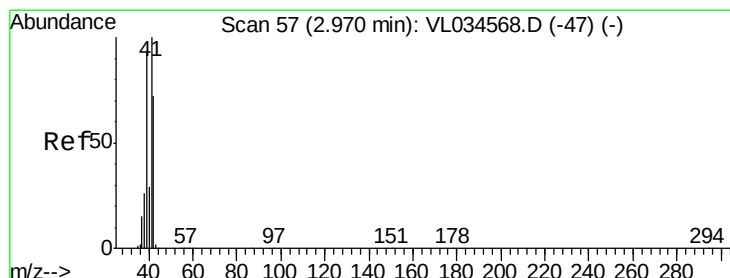
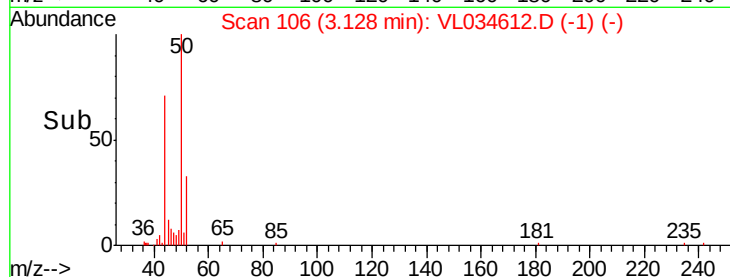
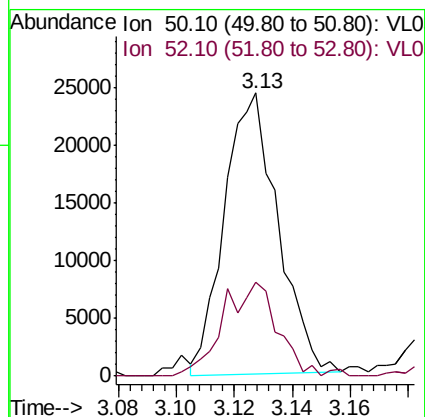
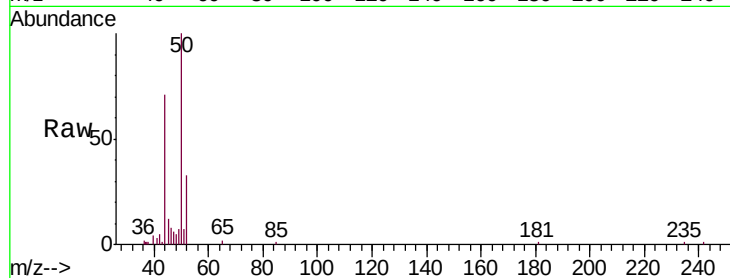
IA-8

Tgt Ion: 50 Resp: 31300

Ion Ratio Lower Upper

50 100

52 29.1 26.6 39.8



#9

Propene

Concen: 0.602 ppbv

RT: 3.00 min Scan# 66

Delta R.T. 0.03 min

Lab File: VL034612.D

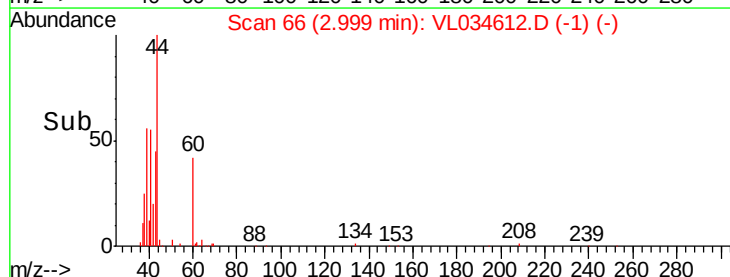
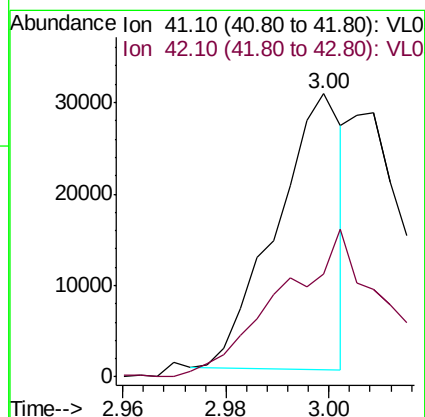
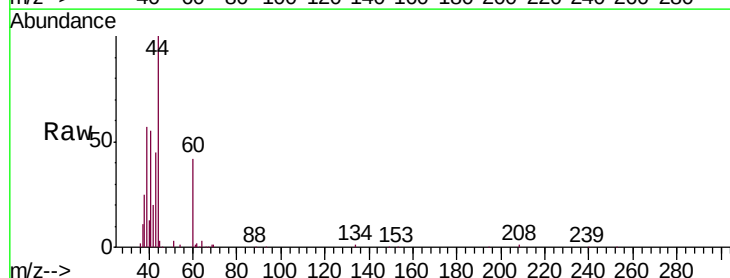
Acq: 6 Feb 2020 23:39

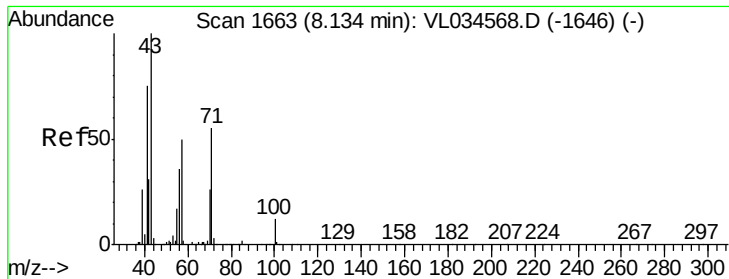
Tgt Ion: 41 Resp: 26720

Ion Ratio Lower Upper

41 100

42 85.3 57.0 85.4





#10

Heptane

Concen: 0.068 ppbv

RT: 8.17 min Scan# 1674

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

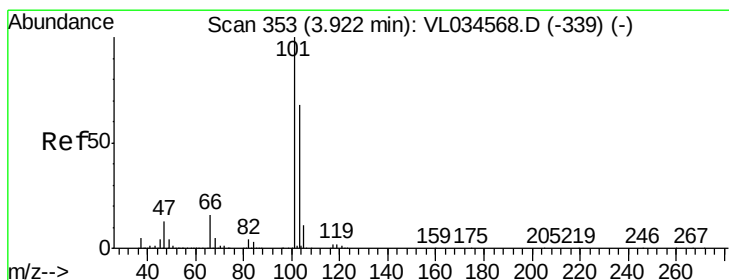
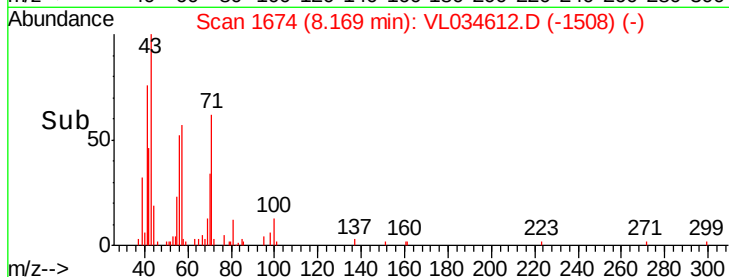
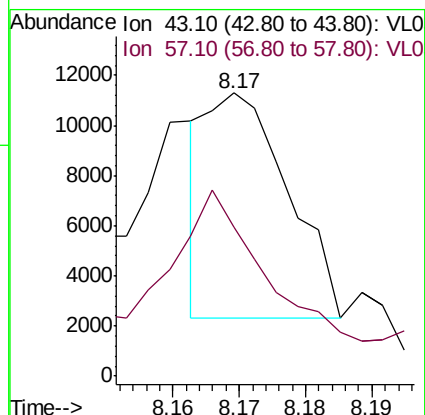
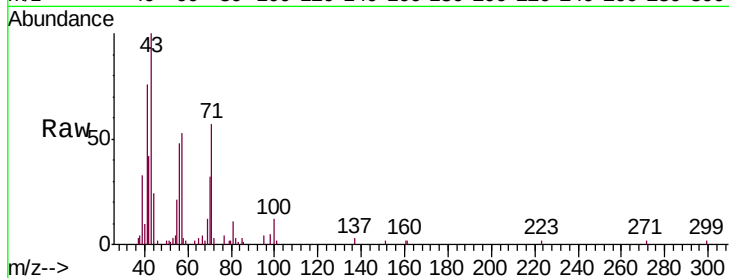
IA-8

Tgt Ion: 43 Resp: 7589

Ion Ratio Lower Upper

43 100

57 145.1 41.2 61.8#



#11

Trichlorofluoromethane

Concen: 0.234 ppbv

RT: 3.95 min Scan# 362

Delta R.T. 0.03 min

Lab File: VL034612.D

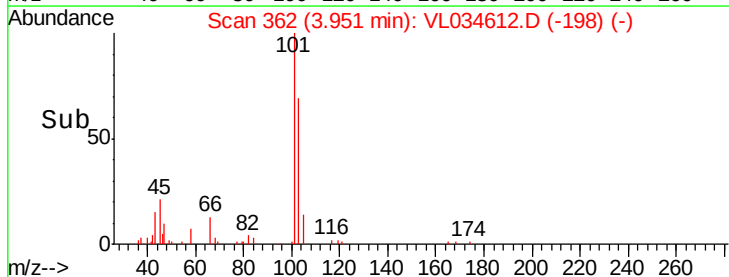
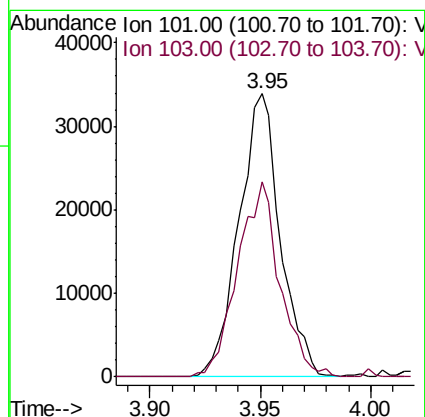
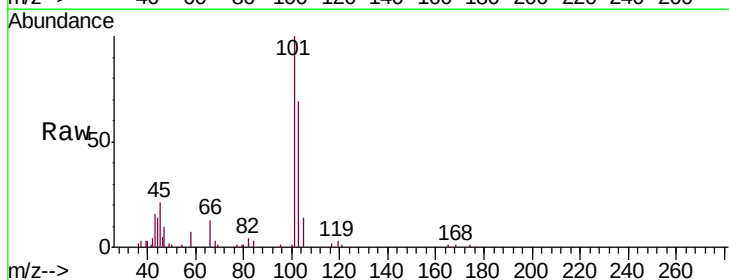
Acq: 6 Feb 2020 23:39

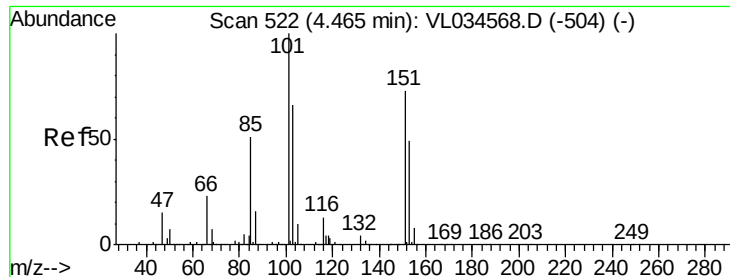
Tgt Ion: 101 Resp: 44122

Ion Ratio Lower Upper

101 100

103 68.9 54.4 81.6





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.040 ppbv

RT: 4.49 min Scan# 530

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

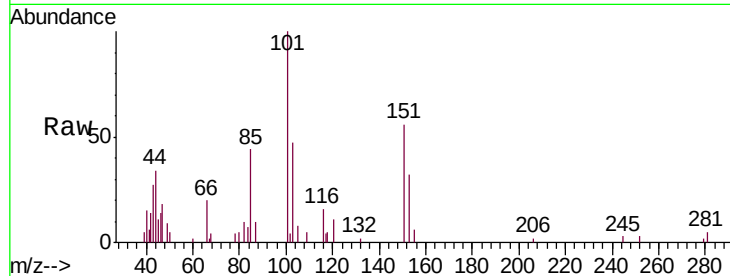
IA-8

Tgt Ion:101 Resp: 4918

Ion Ratio Lower Upper

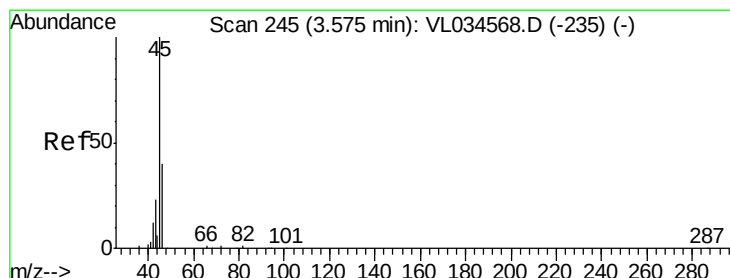
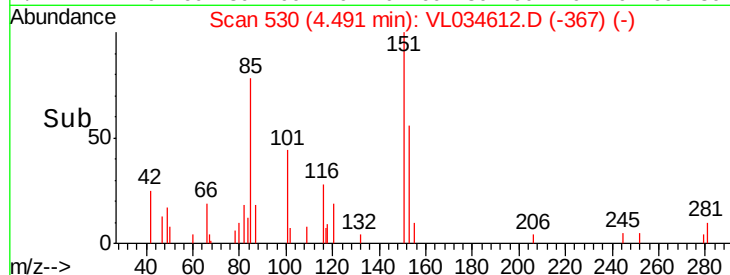
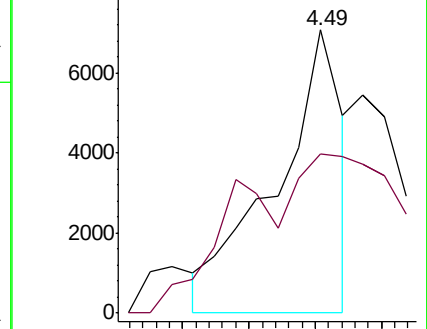
101 100

151 152.0 57.0 85.6#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 893.898 ppbv

RT: 3.63 min Scan# 262

Delta R.T. 0.05 min

Lab File: VL034612.D

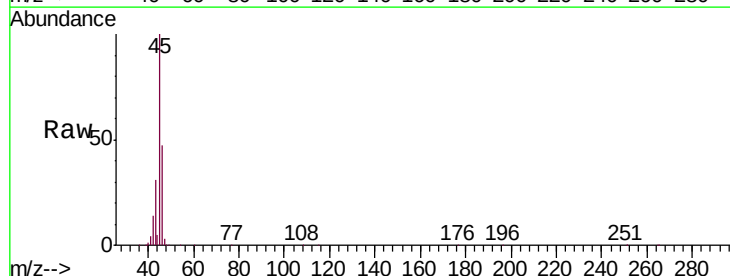
Acq: 6 Feb 2020 23:39

Tgt Ion: 45 Resp:10626408

Ion Ratio Lower Upper

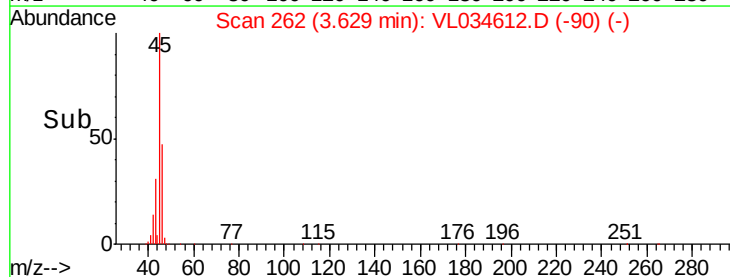
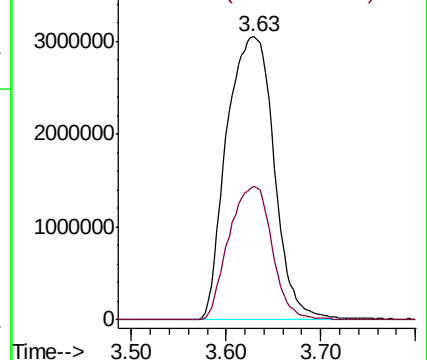
45 100

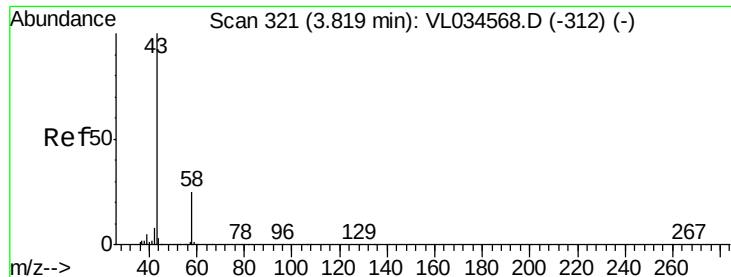
46 43.3 14.8 59.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 18.843 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.02 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

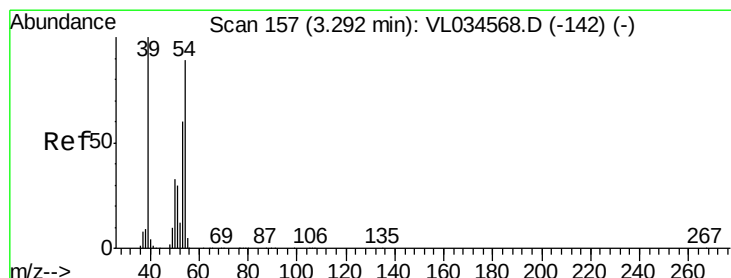
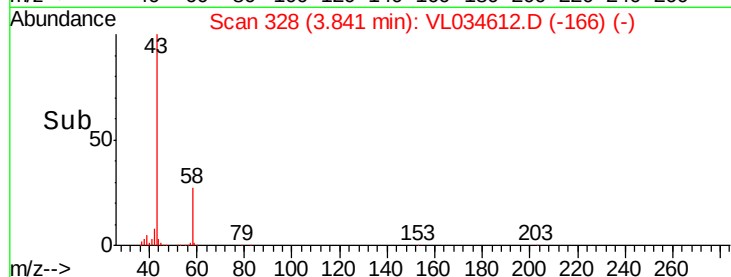
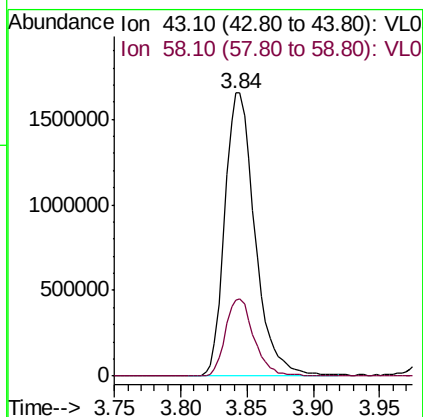
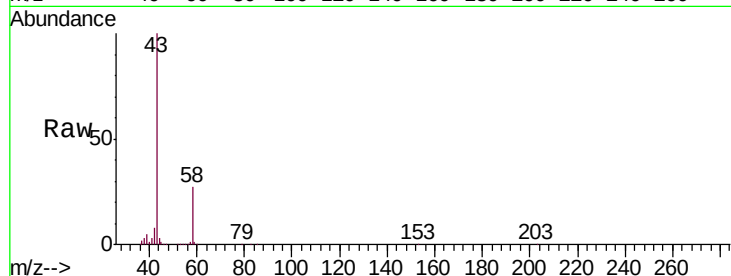
IA-8

Tgt Ion: 43 Resp: 2612363

Ion Ratio Lower Upper

43 100

58 26.0 20.3 30.5



#16

1,3-Butadiene

Concen: 0.179 ppbv

RT: 3.29 min Scan# 158

Delta R.T. 0.00 min

Lab File: VL034612.D

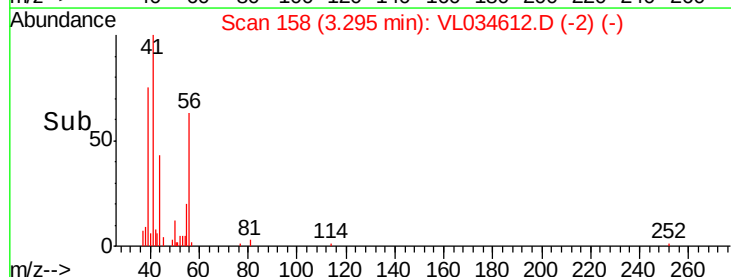
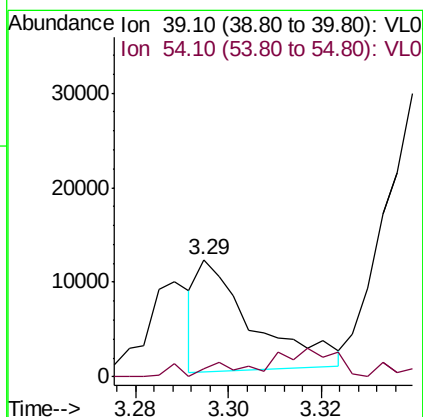
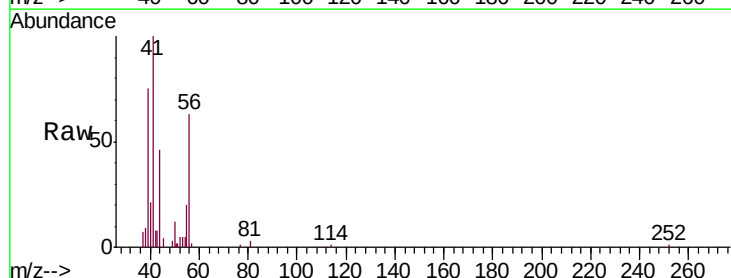
Acq: 6 Feb 2020 23:39

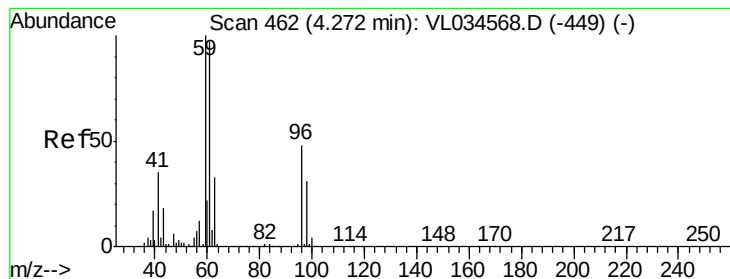
Tgt Ion: 39 Resp: 9866

Ion Ratio Lower Upper

39 100

54 48.1 66.7 100.1#





#17

tert-Butyl alcohol

Concen: 0.757 ppbv

RT: 4.00 min Scan# 378

Delta R.T. -0.27 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

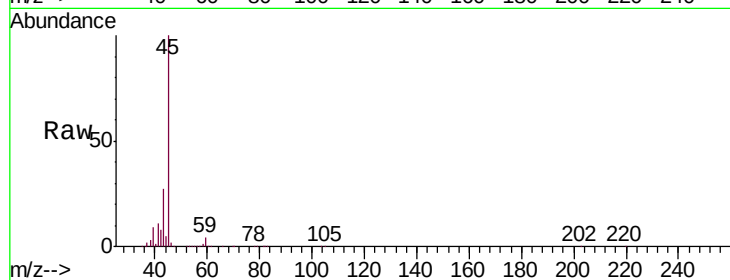
IA-8

Tgt Ion: 59 Resp: 77195

Ion Ratio Lower Upper

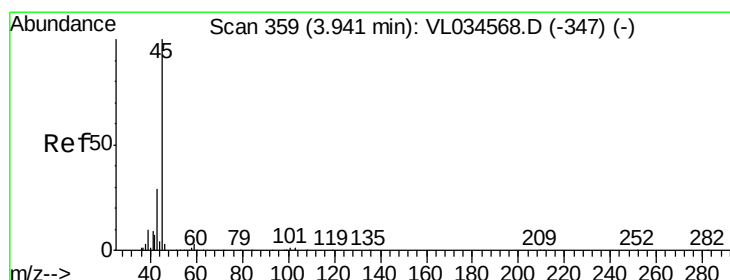
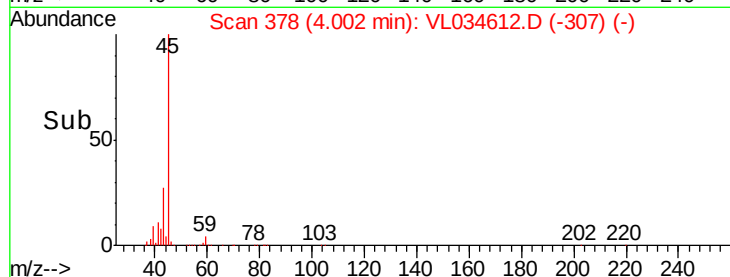
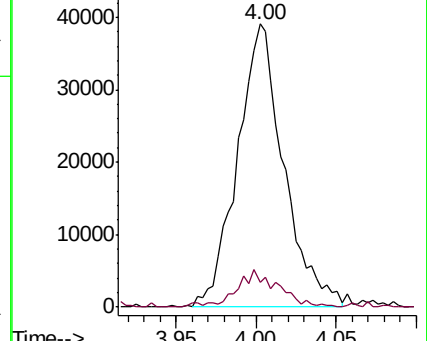
59 100

57 12.0 8.7 13.1



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 25.430 ppbv

RT: 4.00 min Scan# 378

Delta R.T. 0.06 min

Lab File: VL034612.D

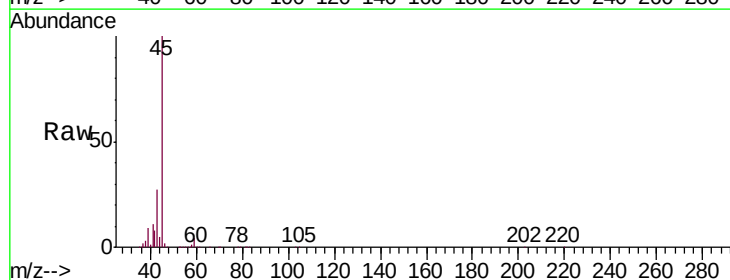
Acq: 6 Feb 2020 23:39

Tgt Ion: 45 Resp: 2057446

Ion Ratio Lower Upper

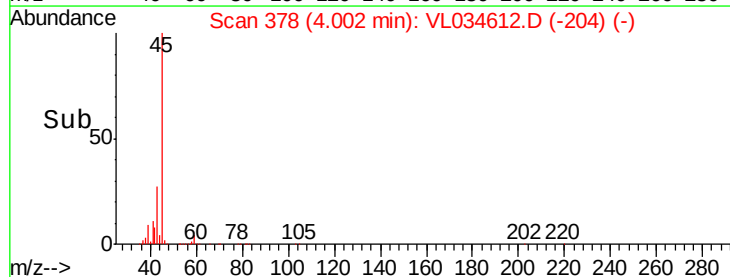
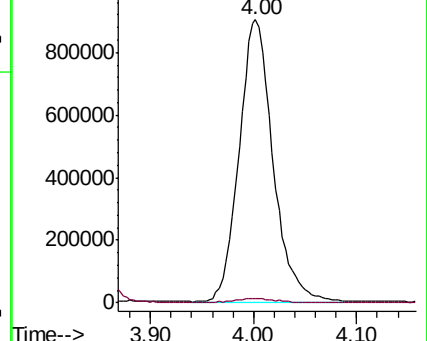
45 100

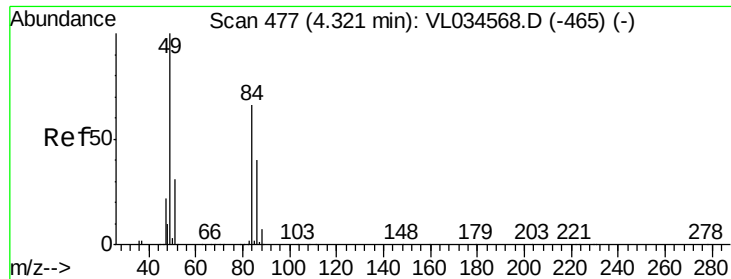
58 1.9 1.7 2.5



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

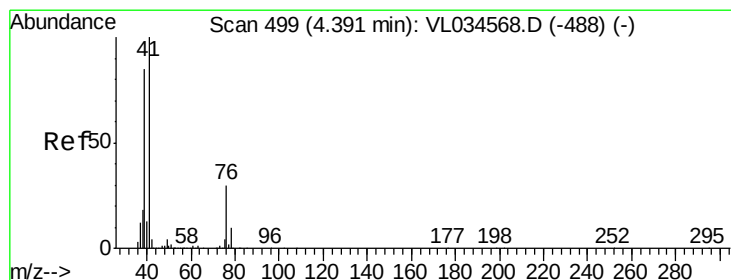
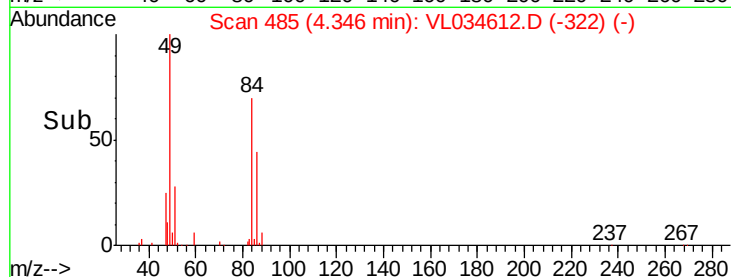
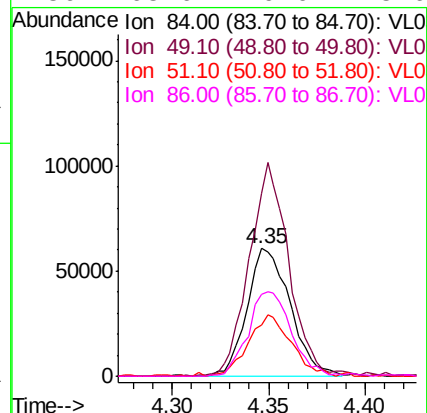
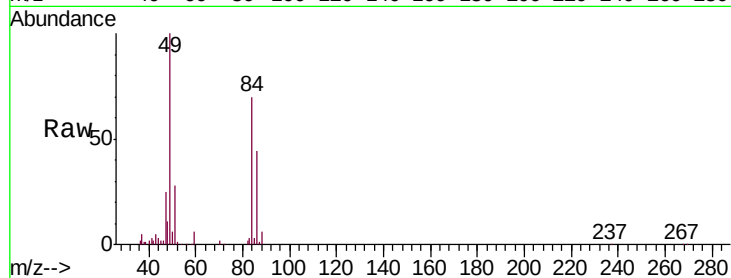




#20
Methylene Chloride
Concen: 1.788 ppbv
RT: 4.35 min Scan# 485
Delta R.T. 0.03 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

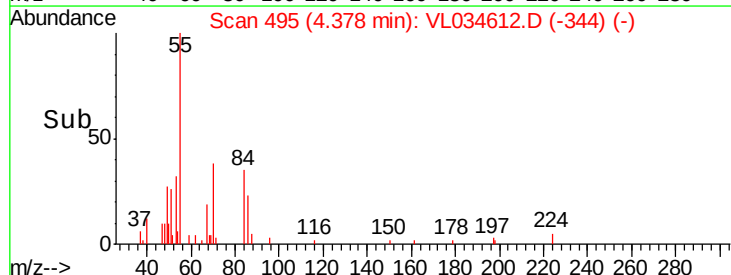
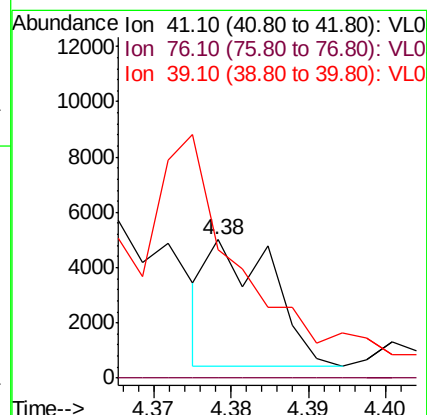
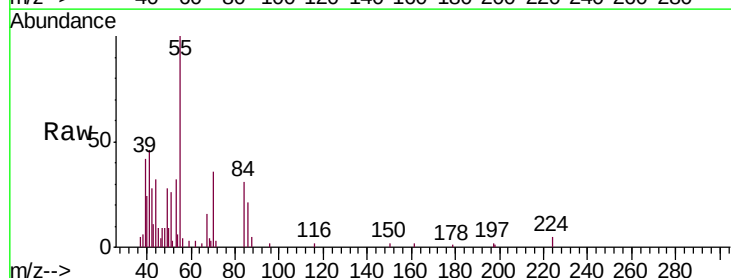
Instrument :
MSVOA_L
ClientSampleId :
IA-8

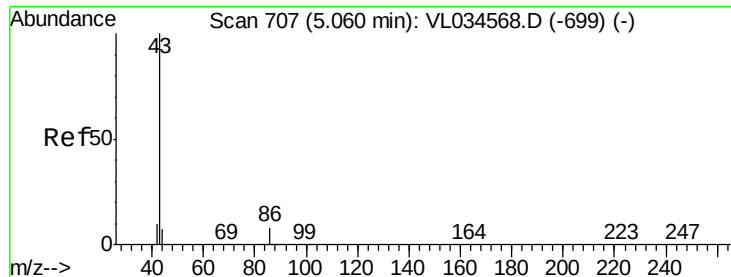
Tgt Ion:	84	Resp:	94408
Ion	Ratio	Lower	Upper
84	100		
49	143.0	122.4	183.6
51	40.3	38.6	57.8
86	63.6	49.0	73.6



#21
Allyl Chloride
Concen: 0.030 ppbv
RT: 4.38 min Scan# 495
Delta R.T. -0.01 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion:	41	Resp:	2596
Ion	Ratio	Lower	Upper
41	100		
76	57.3	24.2	36.2#
39	404.0	68.3	102.5#





#23

Vinyl Acetate

Concen: 0.140 ppbv

RT: 5.08 min Scan# 713

Delta R.T. 0.02 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

Tgt Ion: 43 Resp: 22141

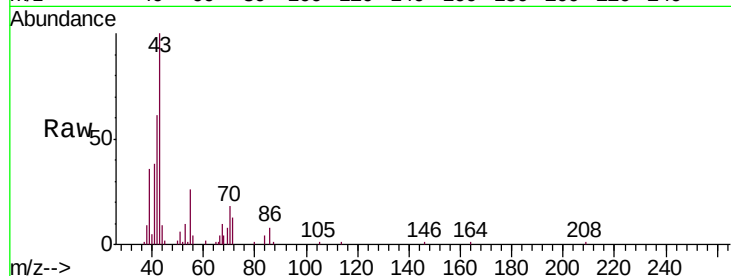
Ion Ratio Lower Upper

43 100

86 8.2 5.9 8.9

42 54.0 8.8 13.2#

44 0.0 5.0 7.6#

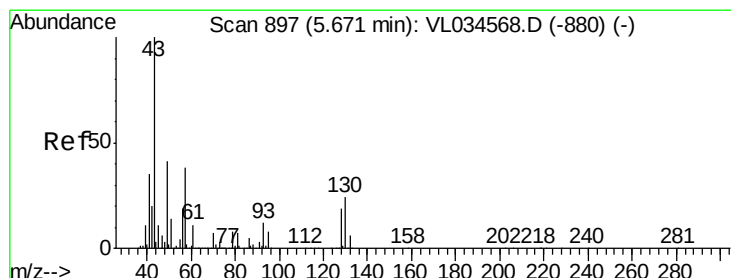
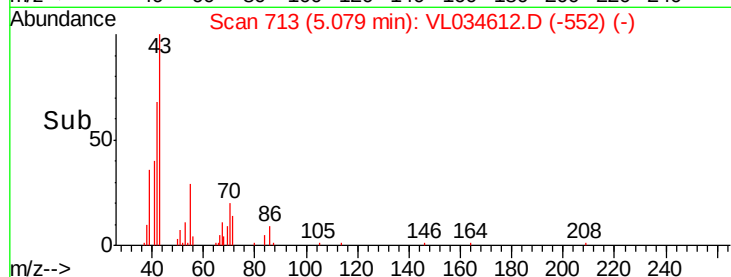
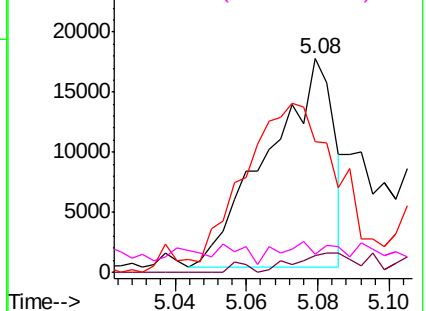


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.935 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Tgt Ion: 43 Resp: 209795

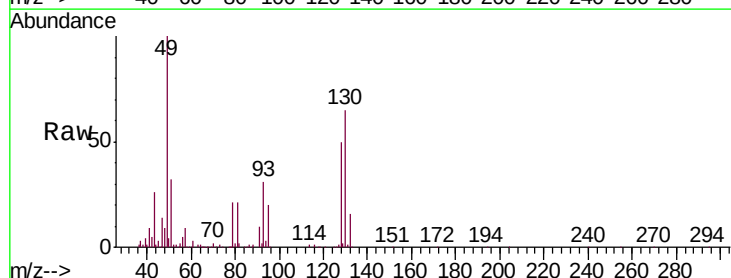
Ion Ratio Lower Upper

43 100

45 10.6 8.5 12.7

61 9.0 7.8 11.6

70 7.8 5.8 8.8

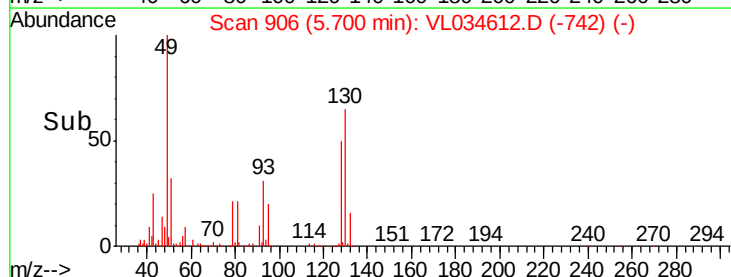
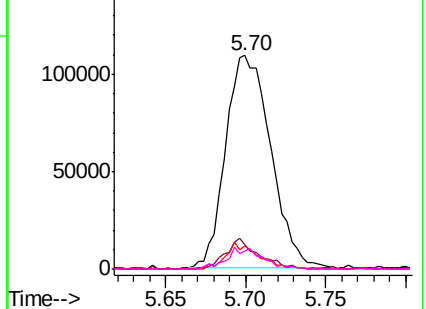


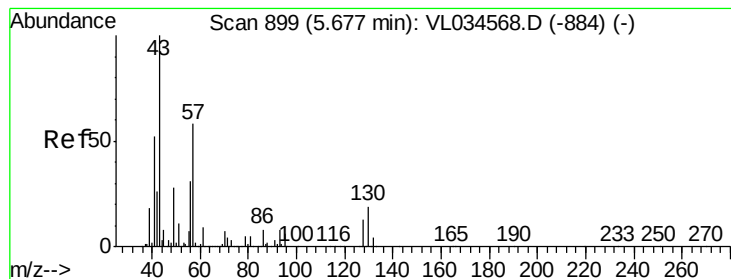
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.969 ppbv

RT: 5.71 min Scan# 910

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

Tgt Ion: 57 Resp: 91091

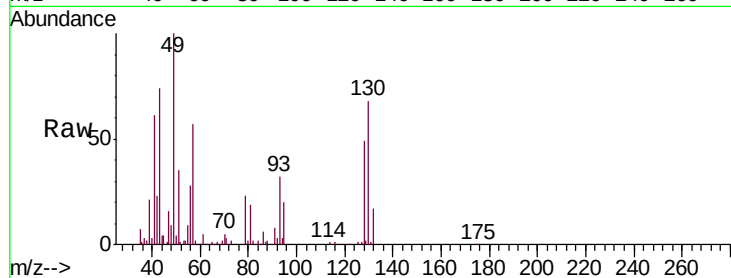
Ion Ratio Lower Upper

57 100

41 107.1 76.2 114.2

43 235.1 189.9 284.9

56 59.1 43.6 65.4

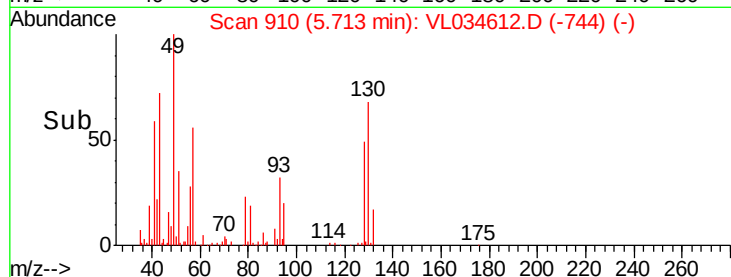
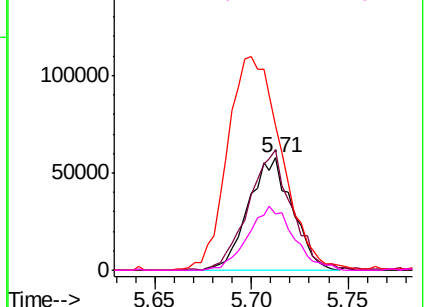


Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.147 ppbv

RT: 5.78 min Scan# 931

Delta R.T. 0.03 min

Lab File: VL034612.D

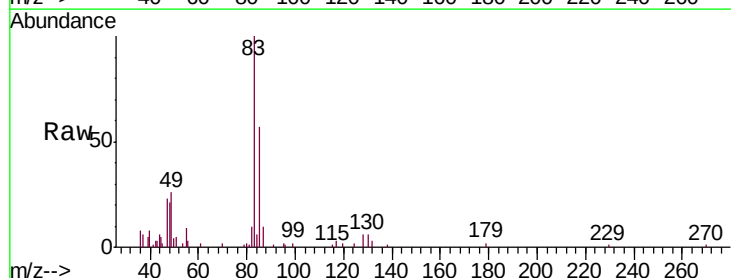
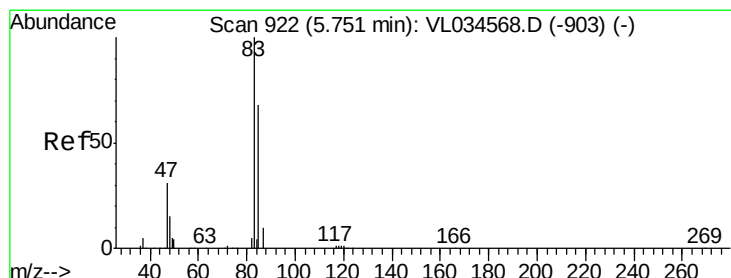
Acq: 6 Feb 2020 23:39

Tgt Ion: 83 Resp: 24361

Ion Ratio Lower Upper

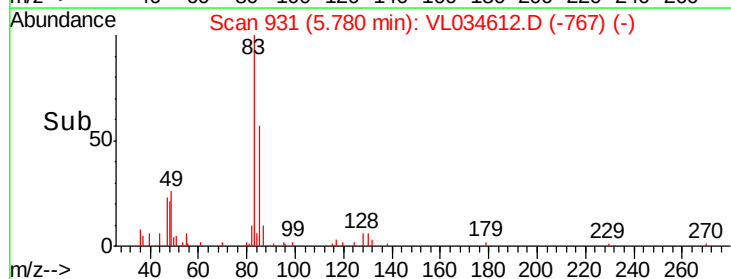
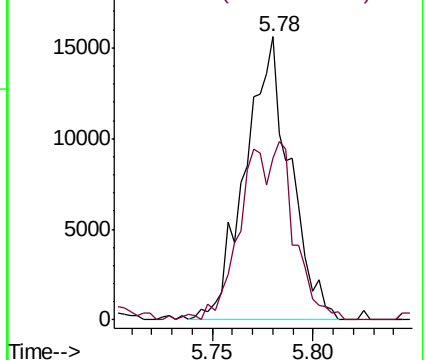
83 100

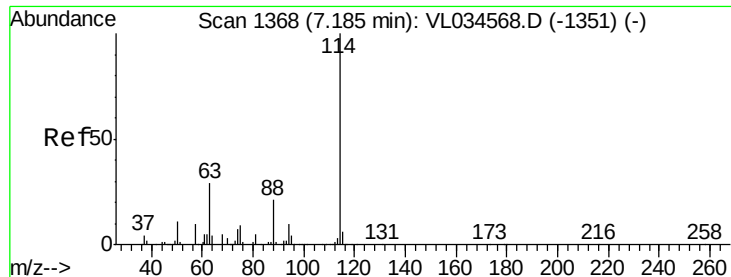
85 55.1 54.0 81.0



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

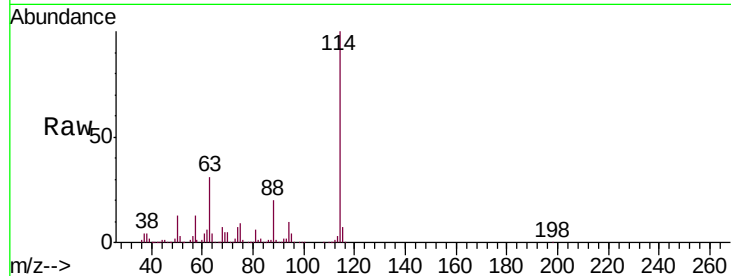




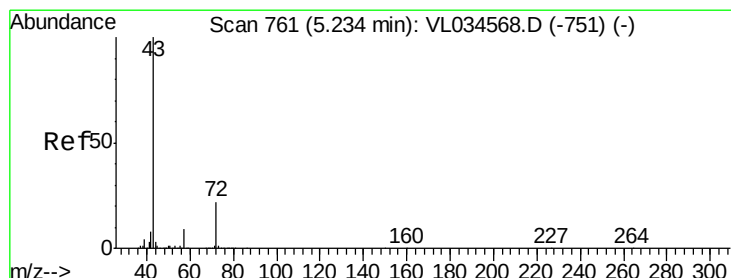
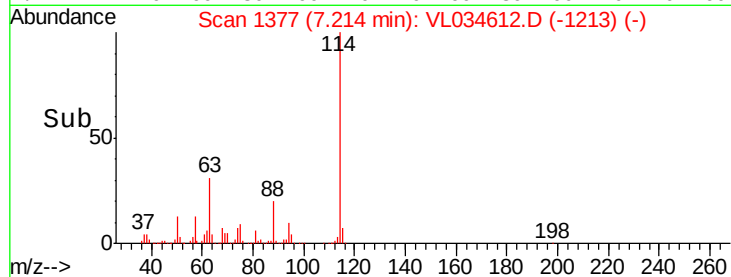
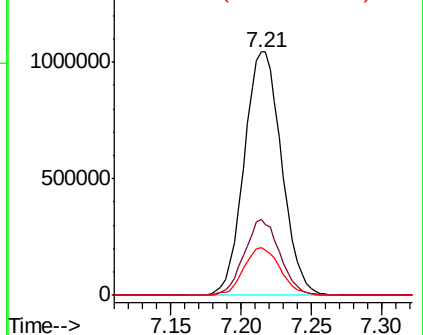
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.21 min Scan# 1377
 Delta R.T. 0.03 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-8

Tgt Ion:114 Resp: 1941856
 Ion Ratio Lower Upper
 114 100
 63 29.7 24.1 36.1
 88 19.1 15.9 23.9

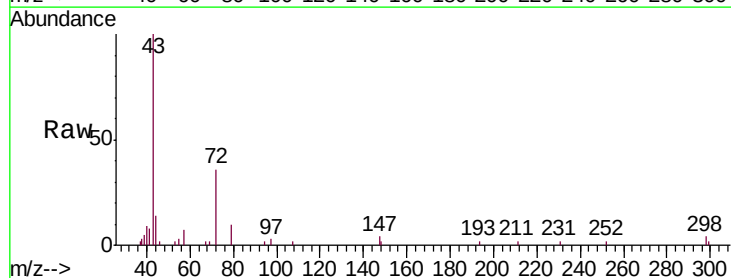


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

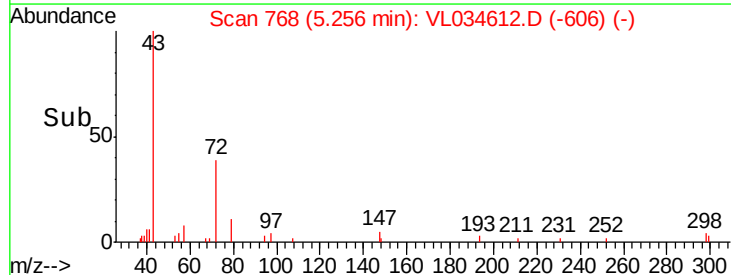
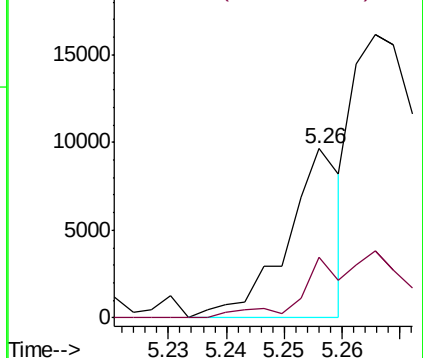


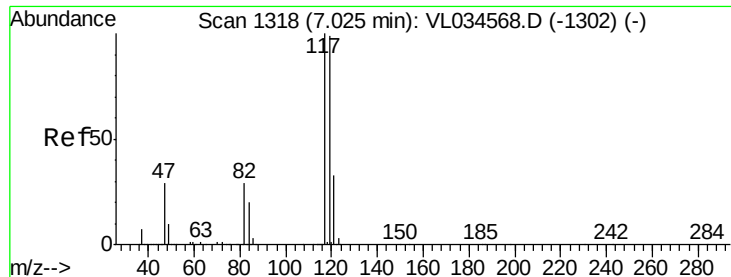
#34
 2-Butanone
 Concen: 0.045 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. 0.02 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

Tgt Ion: 43 Resp: 6316
 Ion Ratio Lower Upper
 43 100
 72 0.0 17.2 25.8#



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





#35

Carbon Tetrachloride

Concen: 0.048 ppbv

RT: 7.06 min Scan# 1328

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

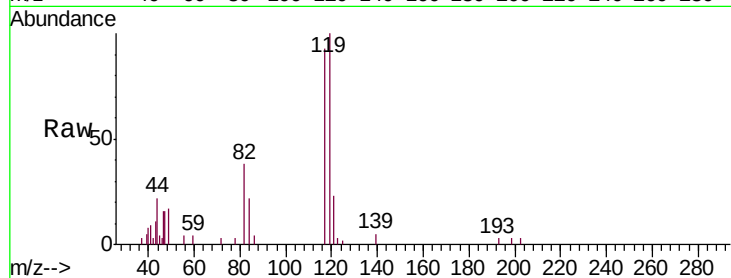
Tgt Ion: 117 Resp: 8846

Ion Ratio Lower Upper

117 100

119 104.3 79.5 119.3

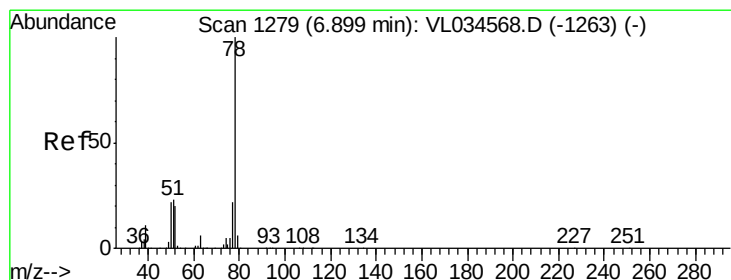
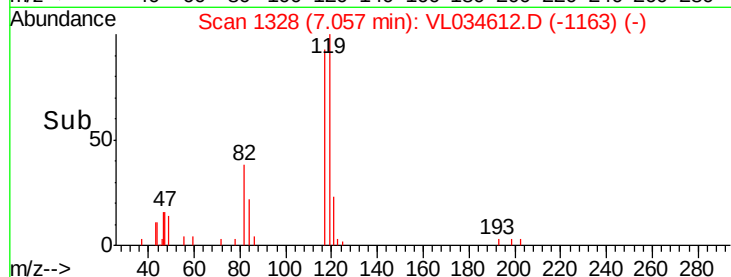
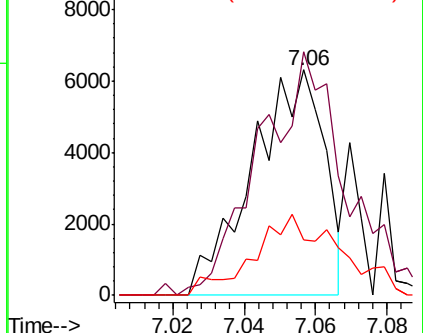
121 24.4 26.2 39.2#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.224 ppbv

RT: 6.93 min Scan# 1288

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

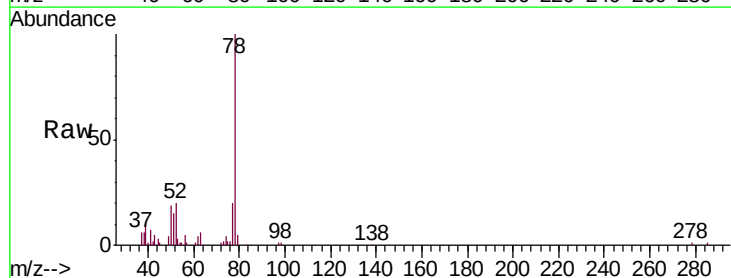
Tgt Ion: 78 Resp: 38618

Ion Ratio Lower Upper

78 100

77 19.2 17.3 25.9

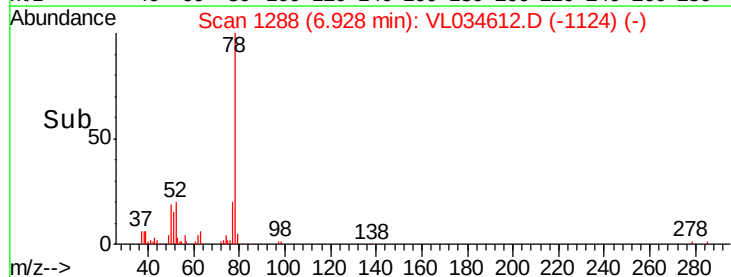
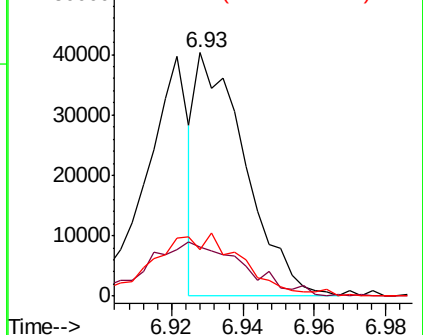
50 18.8 17.4 26.2

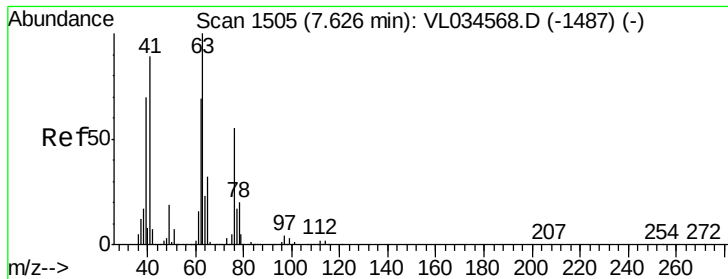


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

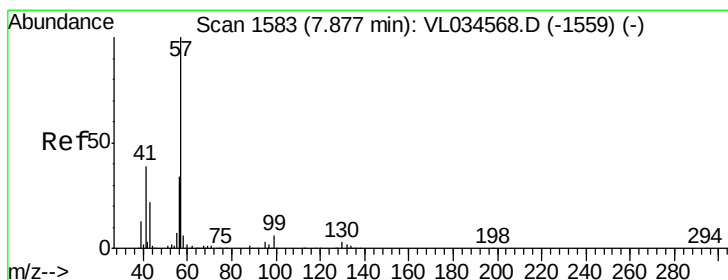
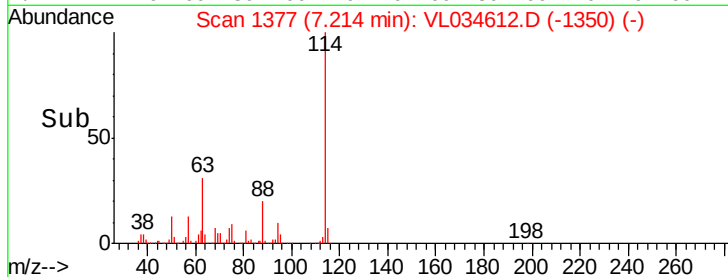
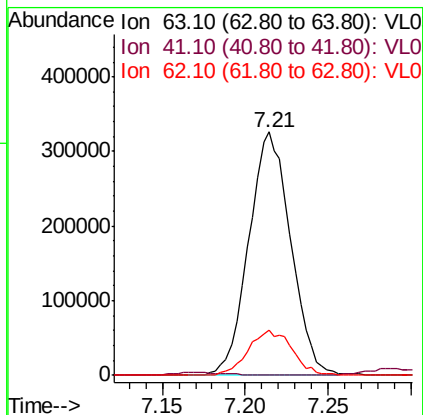
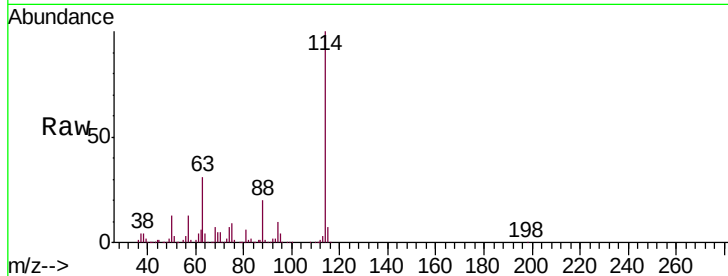




#39
 1,2-Dichloropropane
 Concen: 7.995 ppbv
 RT: 7.21 min Scan# 1377
 Delta R.T. -0.41 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

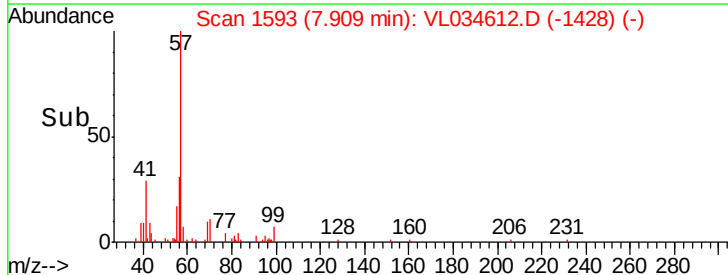
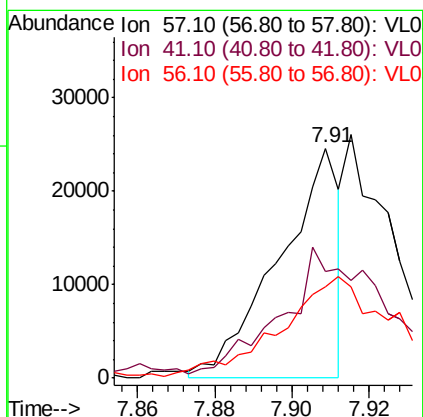
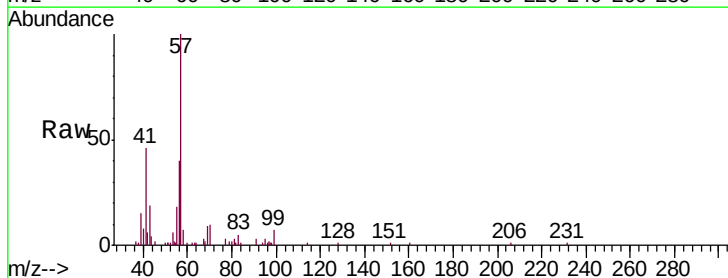
Instrument :
 MSVOA_L
 ClientSampleID :
 IA-8

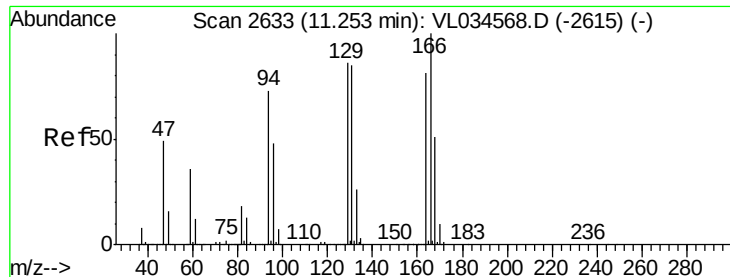
Tgt Ion: 63 Resp: 572314
 Ion Ratio Lower Upper
 63 100
 41 0.0 71.0 106.4#
 62 18.4 55.4 83.0#



#44
 2,2,4-Trimethylpentane
 Concen: 0.085 ppbv
 RT: 7.91 min Scan# 1593
 Delta R.T. 0.03 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

Tgt Ion: 57 Resp: 26601
 Ion Ratio Lower Upper
 57 100
 41 104.0 28.9 43.3#
 56 0.0 25.5 38.3#





#52

Tetrachloroethene

Concen: 1.857 ppbv

RT: 11.29 min Scan# 2644

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

Tgt Ion:164 Resp: 128834

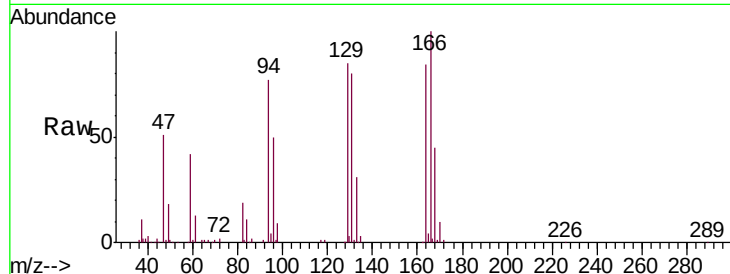
Ion Ratio Lower Upper

164 100

166 117.4 99.0 148.4

129 100.4 85.3 127.9

131 94.1 84.2 126.2

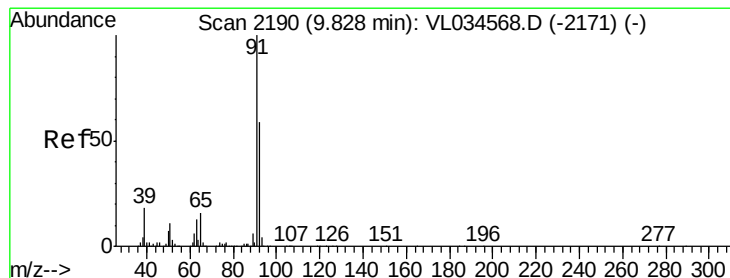
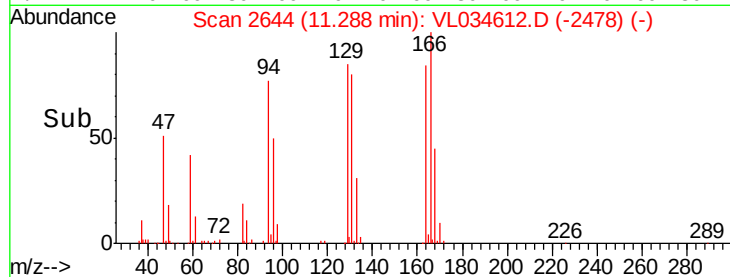
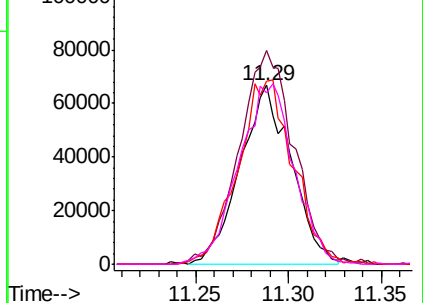


Abundance Ion 163.90 (163.60 to 164.60): V

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: 2.425 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. 0.03 min

Lab File: VL034612.D

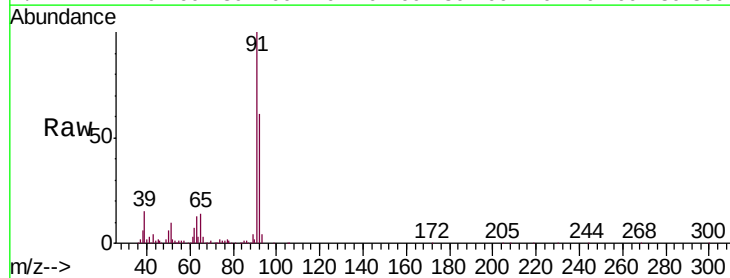
Acq: 6 Feb 2020 23:39

Tgt Ion: 91 Resp: 460127

Ion Ratio Lower Upper

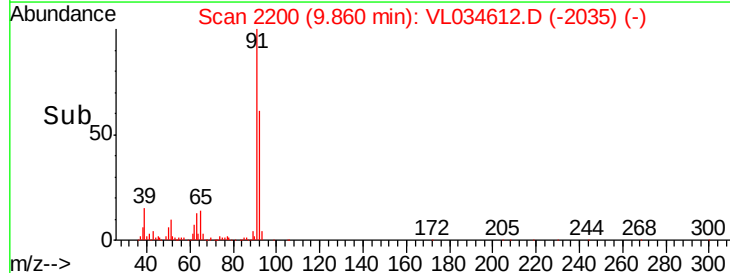
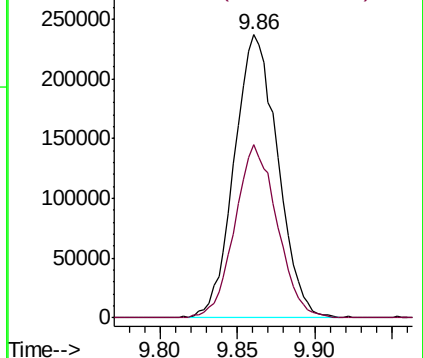
91 100

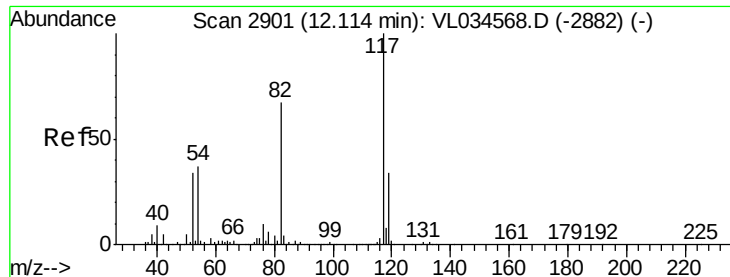
92 60.2 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

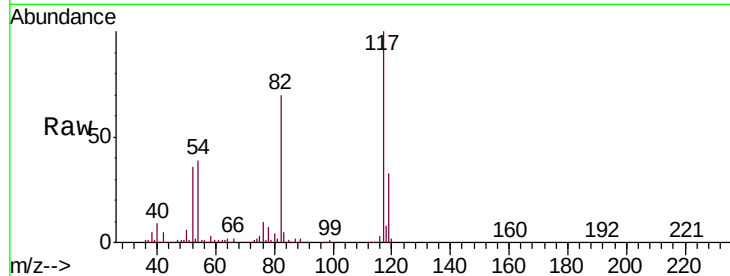




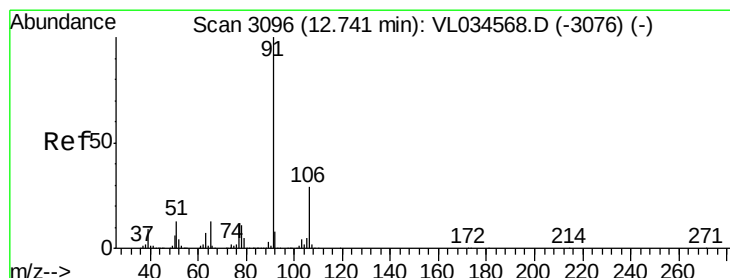
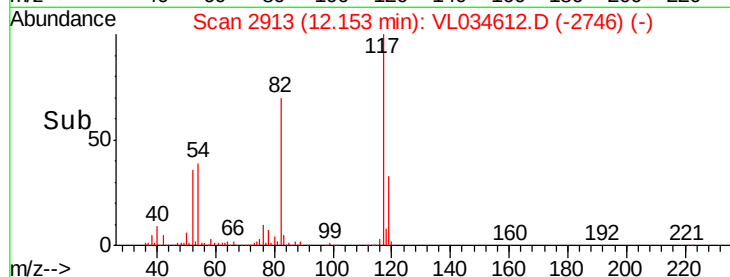
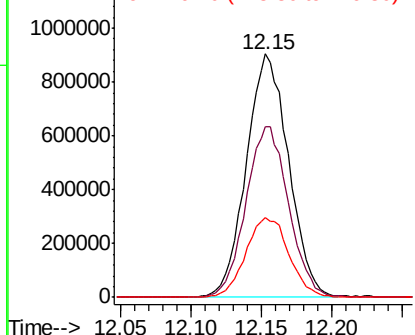
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2913
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Instrument :
MSVOA_L
ClientSampleId :
IA-8

Tgt Ion: 117 Resp: 1892432
Ion Ratio Lower Upper
117 100
82 71.4 54.2 81.4
119 33.6 26.1 39.1

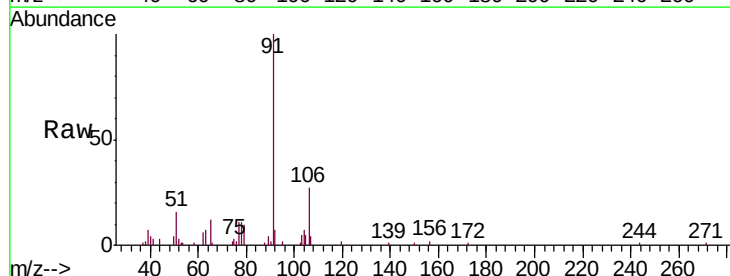


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

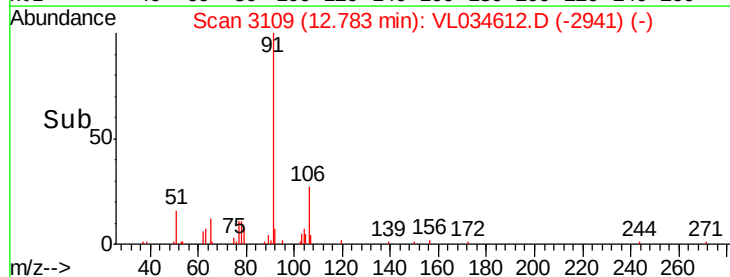
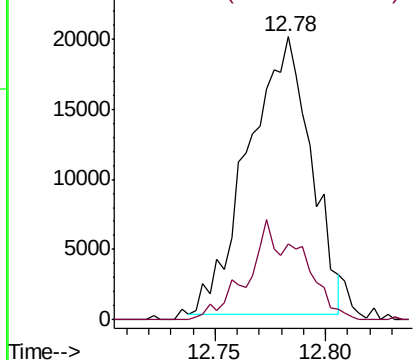


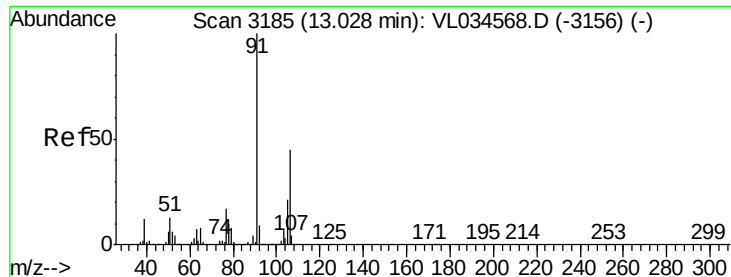
#58
Ethyl Benzene
Concen: 0.153 ppbv
RT: 12.78 min Scan# 3109
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion: 91 Resp: 38775
Ion Ratio Lower Upper
91 100
106 27.4 23.3 34.9



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





#59

m/p-Xylene

Concen: 0.072 ppbv

RT: 13.07 min Scan# 3198

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

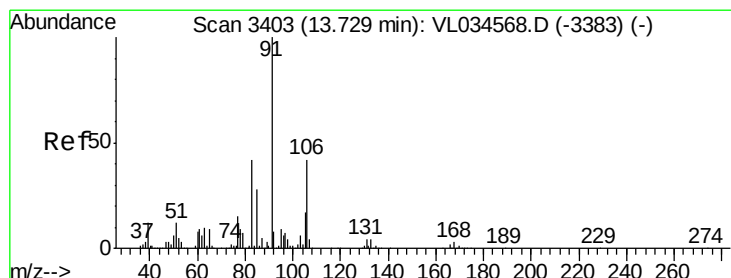
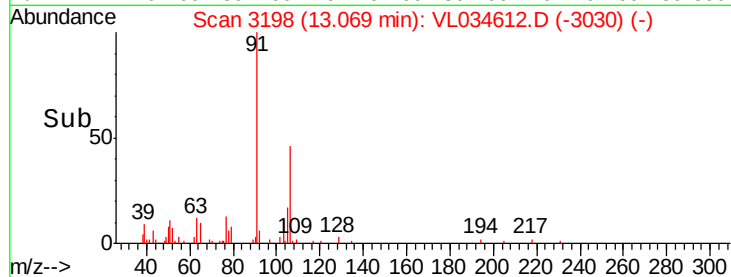
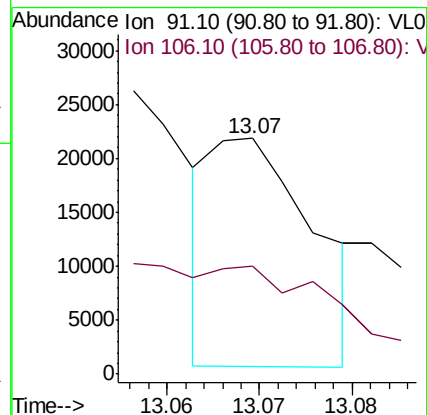
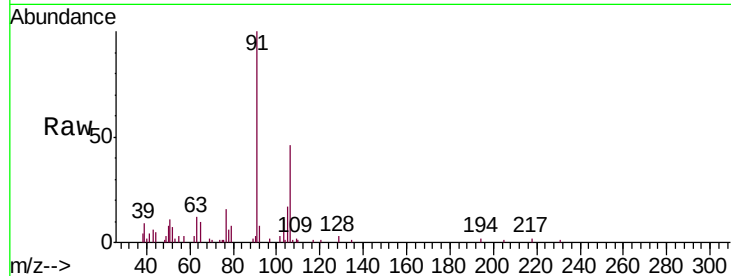
IA-8

Tgt Ion: 91 Resp: 16055

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#



#60

o-Xylene

Concen: 0.091 ppbv

RT: 13.76 min Scan# 3414

Delta R.T. 0.04 min

Lab File: VL034612.D

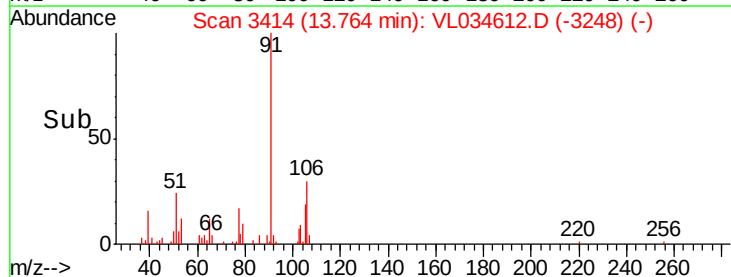
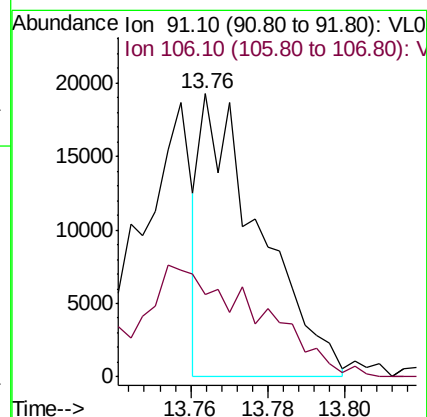
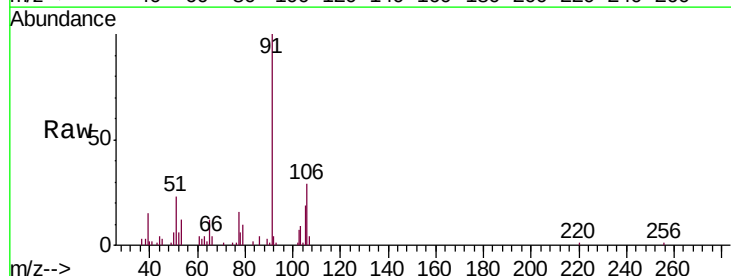
Acq: 6 Feb 2020 23:39

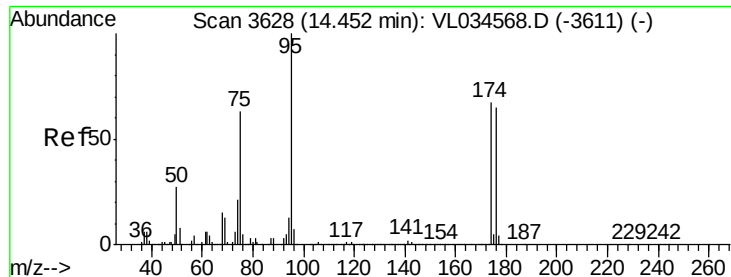
Tgt Ion: 91 Resp: 20362

Ion Ratio Lower Upper

91 100

106 0.0 21.6 65.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.438 ppbv

RT: 14.49 min Scan# 3640

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

Tgt Ion: 95 Resp: 1669472

Ion Ratio Lower Upper

95 100

174 64.0 52.3 78.5

175 4.5 3.8 5.6

