

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091620\
 Data File : VL035641.D
 Acq On : 16 Sep 2020 23:04
 Operator : SY/AP
 Sample : L4036-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 DB-IA-Y03

Quant Time: Sep 17 07:09:40 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1052598	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4119276	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	4136805	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3070496	10.45	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	47553	0.261	ppbv	94
3) Chlorodifluoromethane	2.98	51	37971	0.326	ppbv	94
4) Chloromethane	3.13	50	29317	0.470	ppbv	89
9) Propene	3.02	41	10321	0.230	ppbv	94
11) Trichlorofluoromethane	3.94	101	66192	0.249	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.48	101	14582	0.073	ppbv	98
13) Ethanol	3.60	45	68245	6.133	ppbv	97
15) Acetone	3.85	43	301612	2.598	ppbv	95
16) 1,3-Butadiene	3.30	39	2185	0.051	ppbv #	16
19) Isopropyl Alcohol	3.98	45	18107	0.261	ppbv #	93
20) Methylene Chloride	4.34	84	97535	1.128	ppbv	93
23) Vinyl Acetate	5.06	43	7118	0.048	ppbv #	78
25) Ethyl Acetate	5.68	43	137590	0.671	ppbv #	74
26) Hexane	5.68	57	233885	2.013	ppbv #	48
27) Carbon Disulfide	4.55	76	81499	0.489	ppbv	97
34) 2-Butanone	5.26	43	24409	0.200	ppbv	97
35) Carbon Tetrachloride	7.02	117	14774	0.071	ppbv	95
36) Benzene	6.89	78	15916	0.060	ppbv	96
39) 1,2-Dichloropropane	7.17	63	794087	8.816	ppbv #	32
52) Tetrachloroethene	11.23	164	31375	0.201	ppbv	95
53) Toluene	9.81	91	191824	0.572	ppbv	97

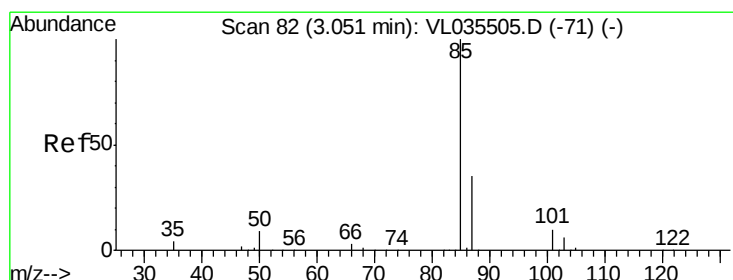
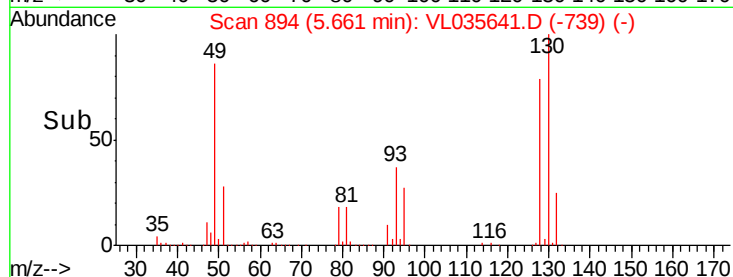
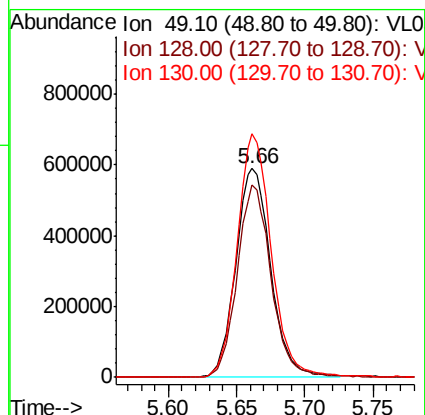
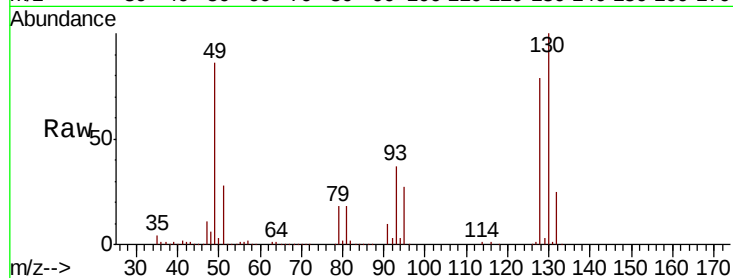
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66 min Scan# 894
 Delta R.T. -0.00 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

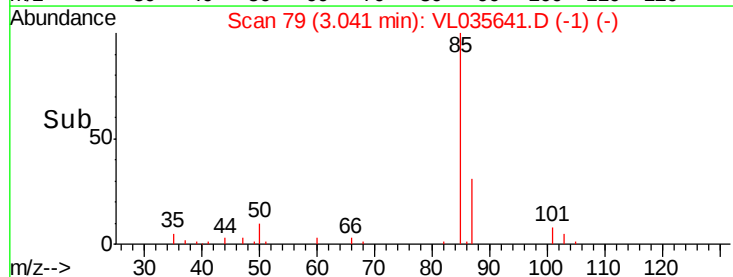
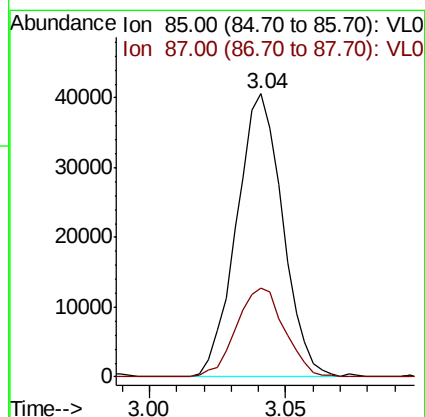
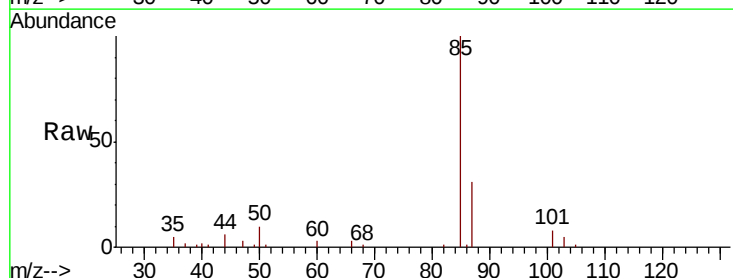
Instrument :
 MSVOA_L
 ClientSampleId :
 DB-IA-Y03

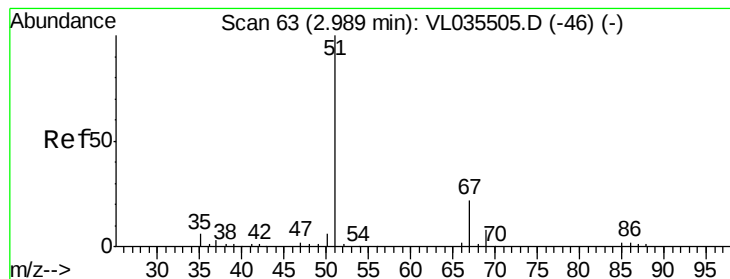
Tot Ion: 49 Resp: 1052598
 Ion Ratio Lower Upper
 49 100
 128 90.1 50.0 150.1
 130 114.5 64.4 193.2



#2
 Dichlorodifluoromethane
 Concen: 0.261 ppbv
 RT: 3.04 min Scan# 79
 Delta R.T. 0.01 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

Tgt Ion: 85 Resp: 47553
 Ion Ratio Lower Upper
 85 100
 87 31.4 28.0 42.0





#3

Chlorodifluoromethane

Concen: 0.326 ppbv

RT: 2.98 min Scan# 60

Delta R.T. 0.01 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

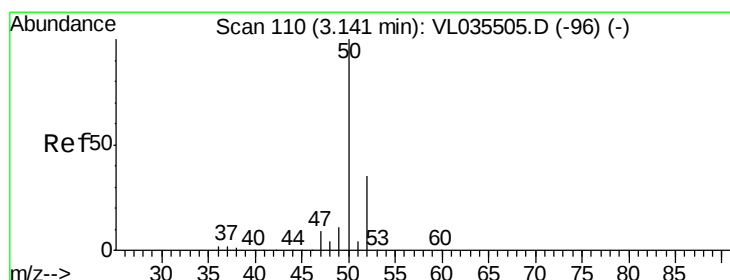
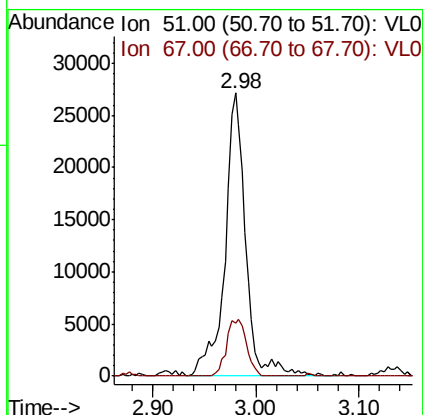
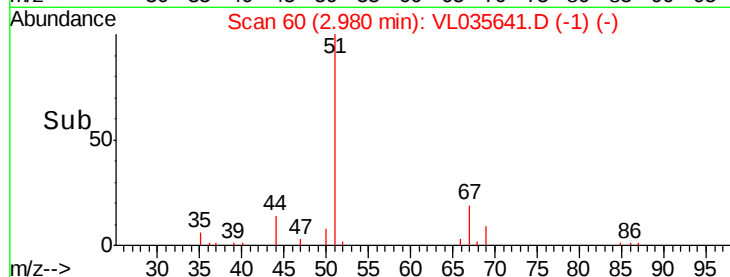
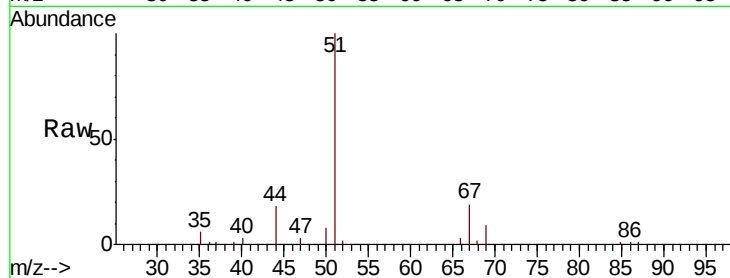
DB-IA-Y03

Tot Ion: 51 Resp: 37971

Ion Ratio Lower Upper

51 100

67 19.3 17.8 26.8



#4

Chloromethane

Concen: 0.470 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.01 min

Lab File: VL035641.D

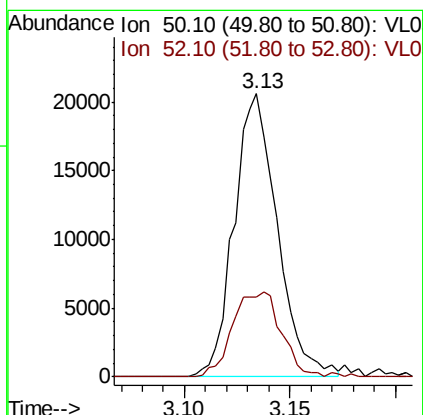
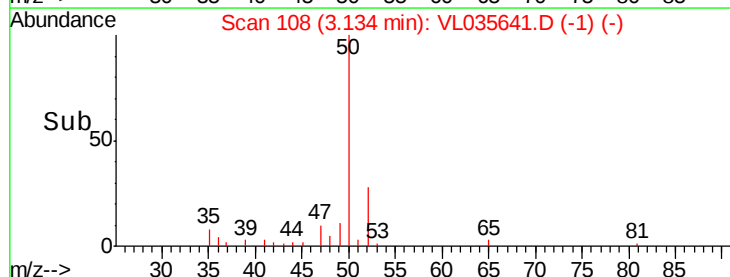
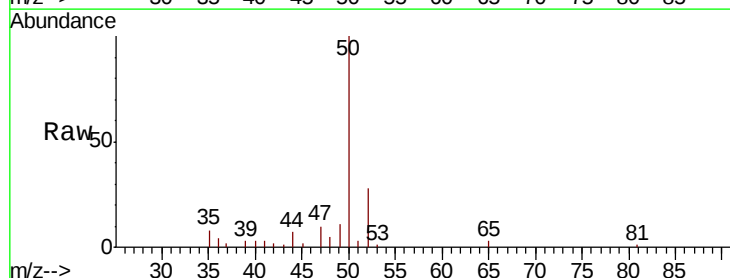
Acq: 16 Sep 2020 23:04

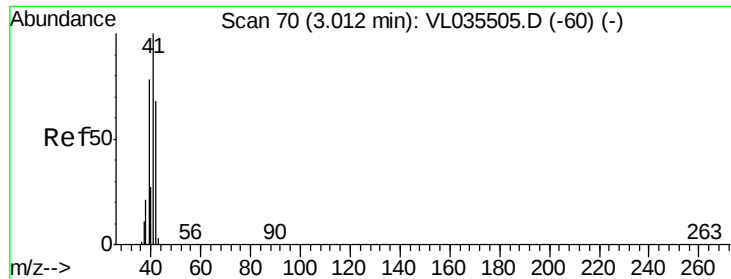
Tgt Ion: 50 Resp: 29317

Ion Ratio Lower Upper

50 100

52 28.1 27.7 41.5





#9

Propene

Concen: 0.230 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.02 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

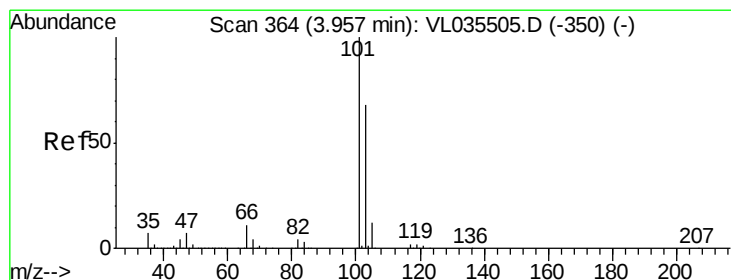
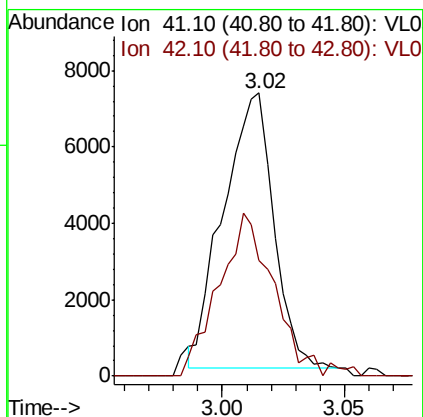
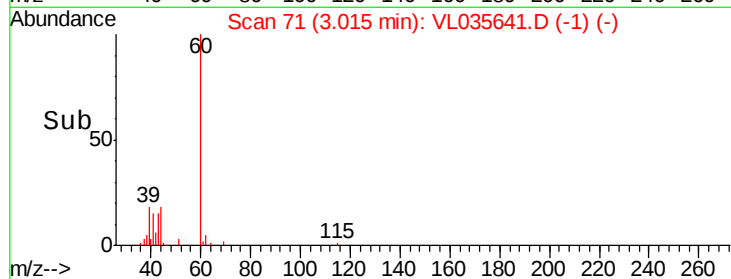
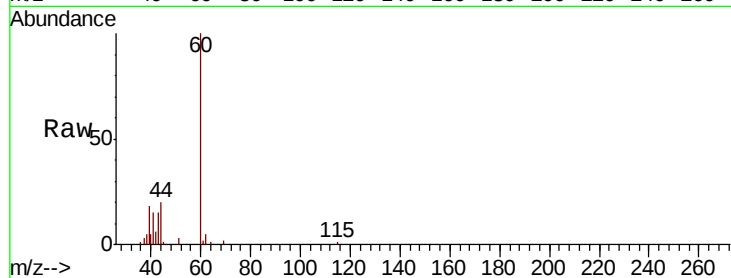
DB-IA-Y03

Tot Ion: 41 Resp: 10321

Ion Ratio Lower Upper

41 100

42 65.6 56.3 84.5



#11

Trichlorofluoromethane

Concen: 0.249 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.00 min

Lab File: VL035641.D

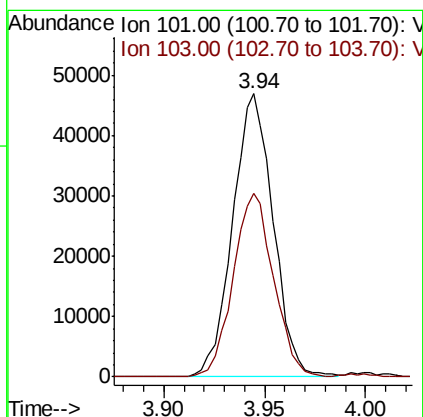
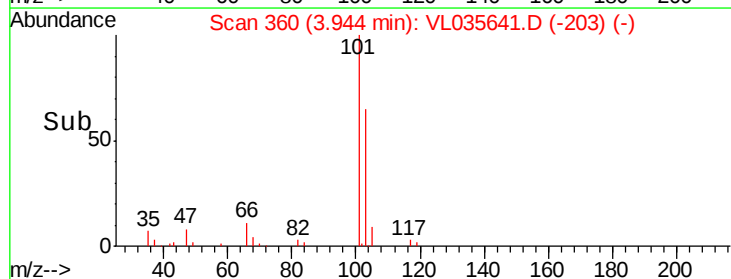
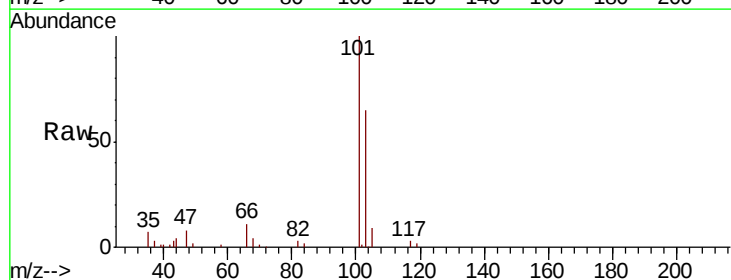
Acq: 16 Sep 2020 23:04

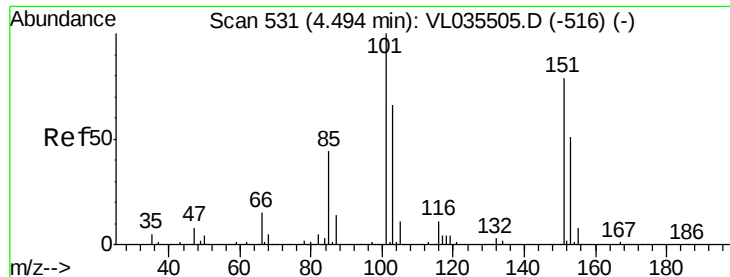
Tgt Ion: 101 Resp: 66192

Ion Ratio Lower Upper

101 100

103 64.9 54.5 81.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.073 ppbv

RT: 4.48 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

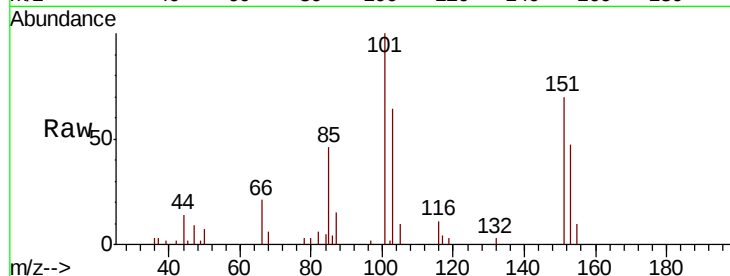
DB-IA-Y03

Tot Ion:101 Resp: 14582

Ion Ratio Lower Upper

101 100

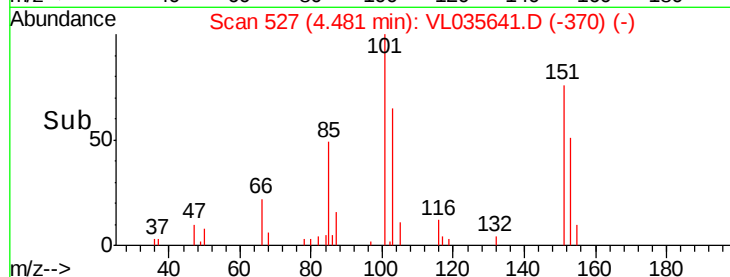
151 80.8 63.5 95.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

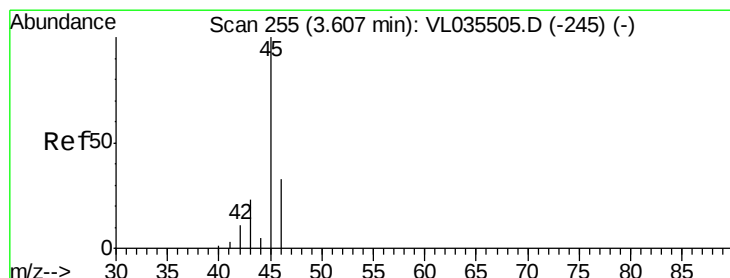
Time-->



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

Time-->



#13

Ethanol

Concen: 6.133 ppbv

RT: 3.60 min Scan# 254

Delta R.T. 0.01 min

Lab File: VL035641.D

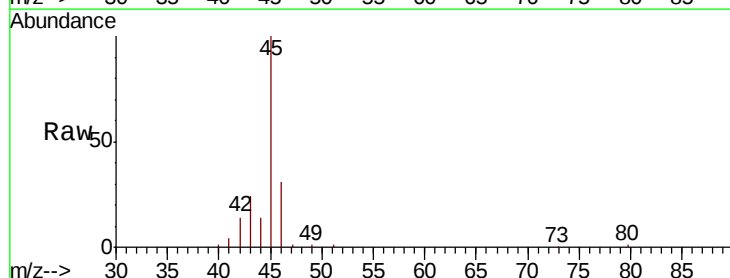
Acq: 16 Sep 2020 23:04

Tgt Ion: 45 Resp: 68245

Ion Ratio Lower Upper

45 100

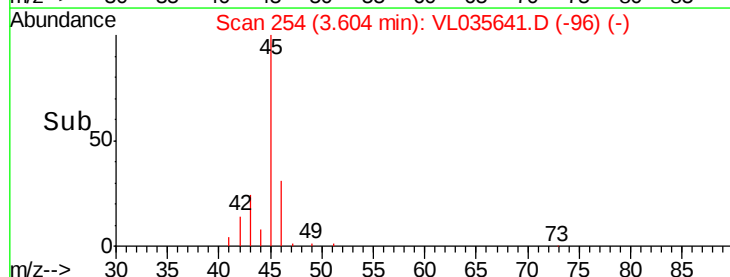
46 36.1 15.2 60.6



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

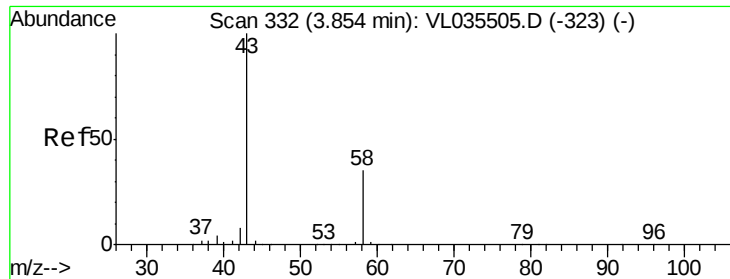
Time-->



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

Time-->



#15

Acetone

Concen: 2.598 ppbv

RT: 3.85 min Scan# 330

Delta R.T. 0.01 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

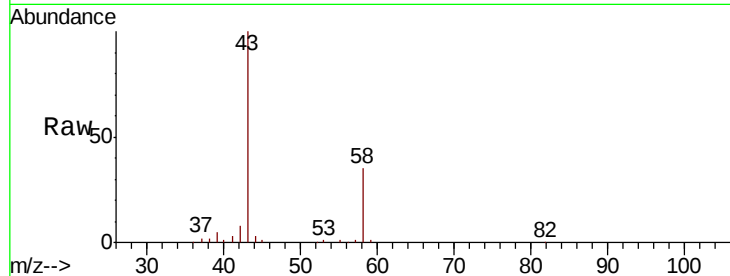
DB-IA-Y03

Tot Ion: 43 Resp: 301612

Ion Ratio Lower Upper

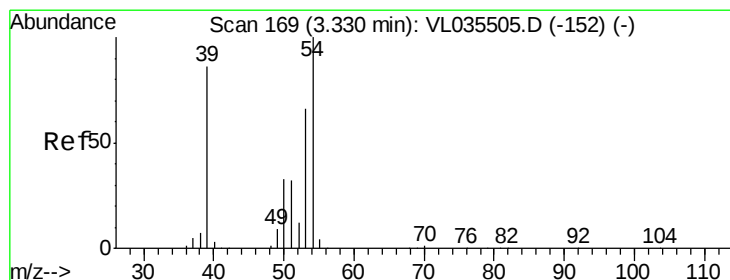
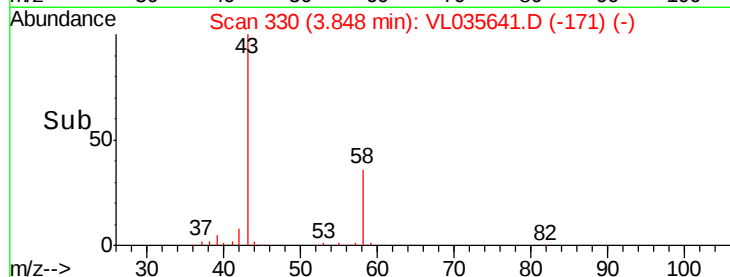
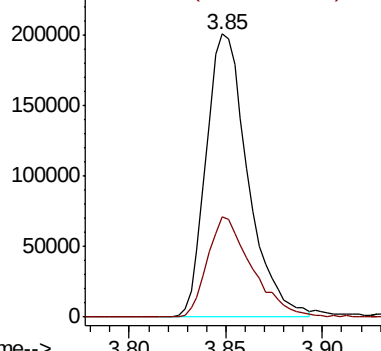
43 100

58 38.3 28.4 42.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.051 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.02 min

Lab File: VL035641.D

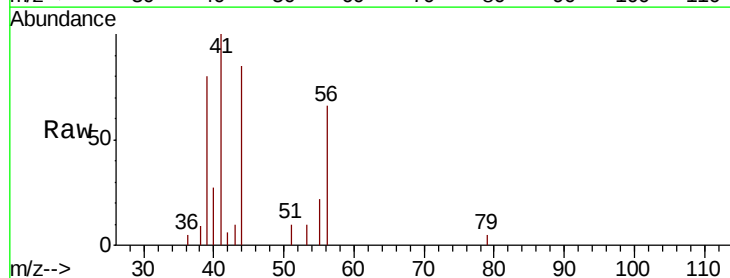
Acq: 16 Sep 2020 23:04

Tgt Ion: 39 Resp: 2185

Ion Ratio Lower Upper

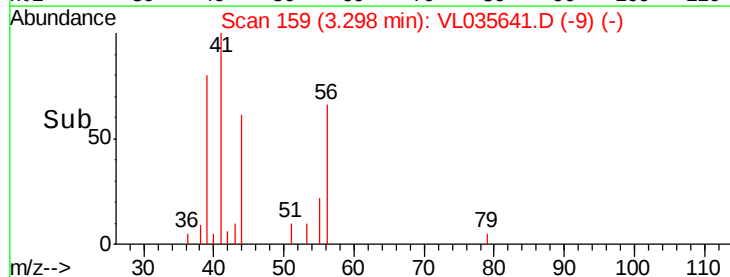
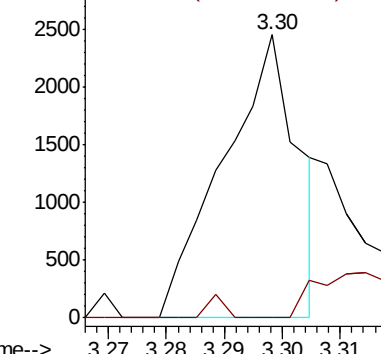
39 100

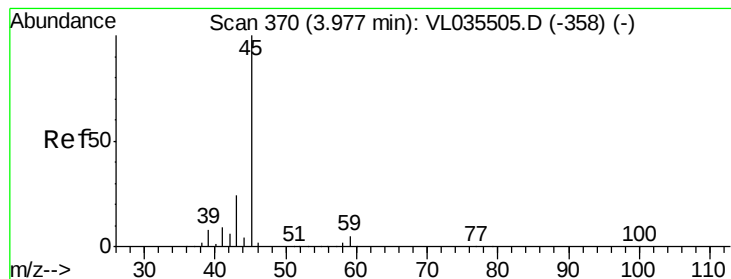
54 21.9 88.4 132.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 0.261 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampled :

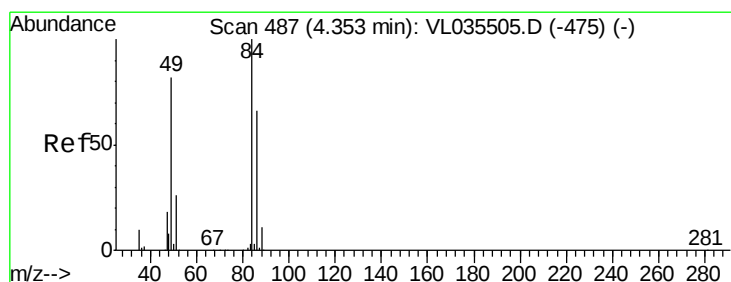
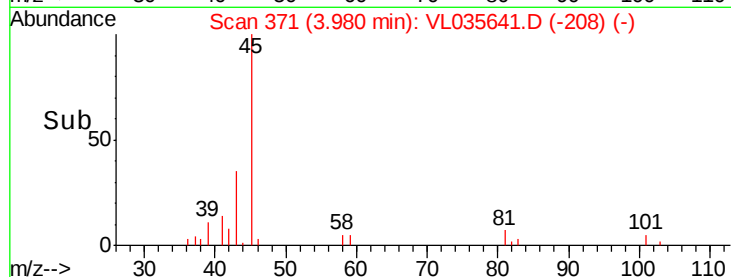
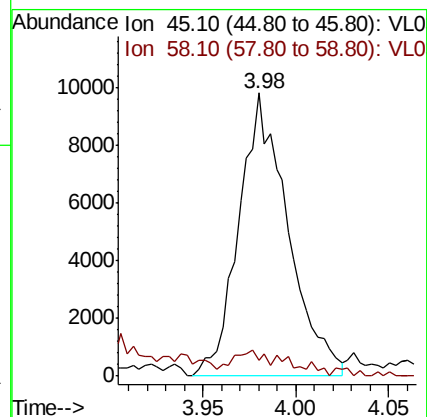
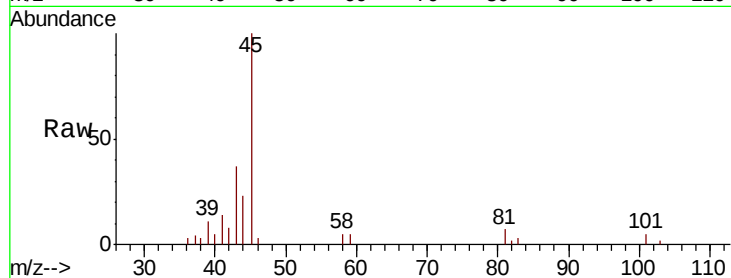
DB-IA-Y03

Tot Ion: 45 Resp: 18107

Ion Ratio Lower Upper

45 100

58 0.0 2.0 3.0#



#20

Methylene Chloride

Concen: 1.128 ppbv

RT: 4.34 min Scan# 482

Delta R.T. 0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Tgt Ion: 84 Resp: 97535

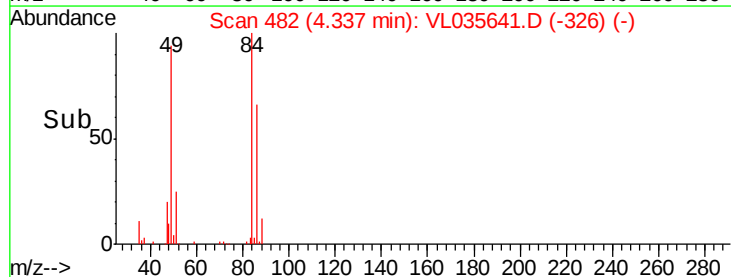
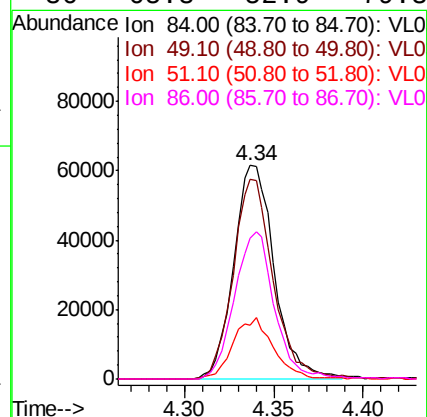
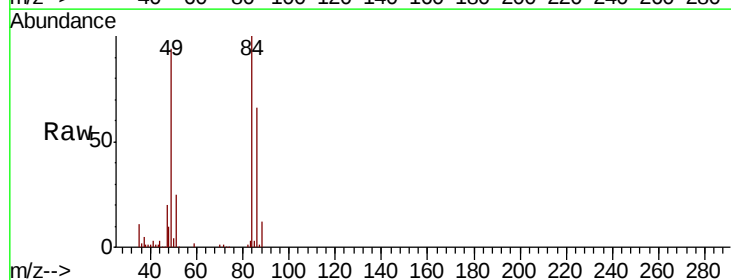
Ion Ratio Lower Upper

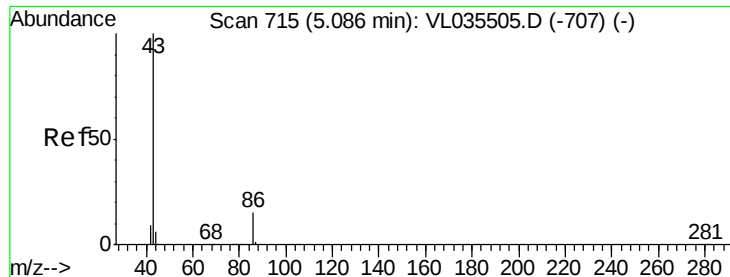
84 100

49 93.7 65.4 98.0

51 25.2 21.5 32.3

86 65.8 52.9 79.3

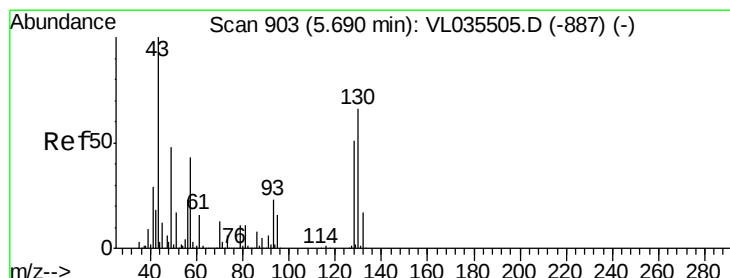
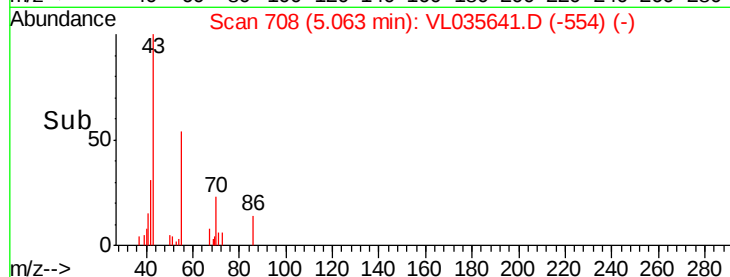
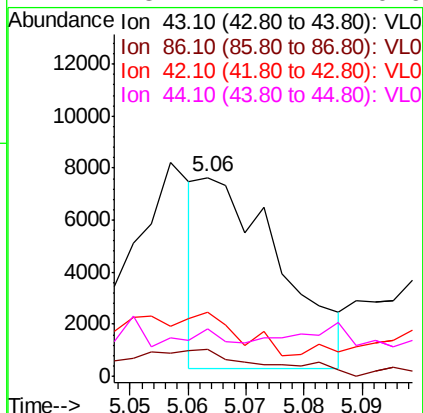
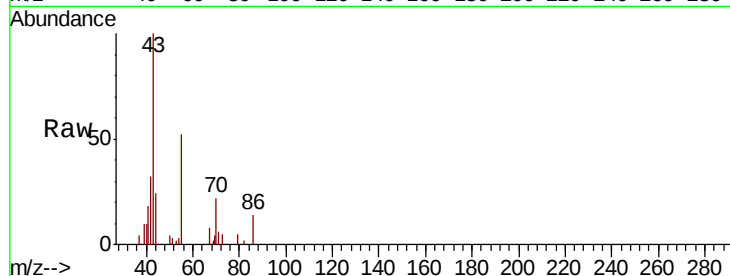




#23
 Vinyl Acetate
 Concen: 0.048 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. -0.01 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

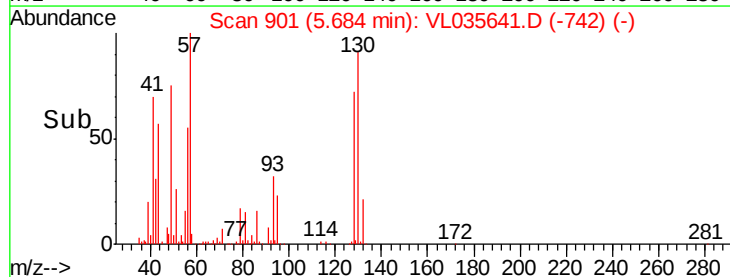
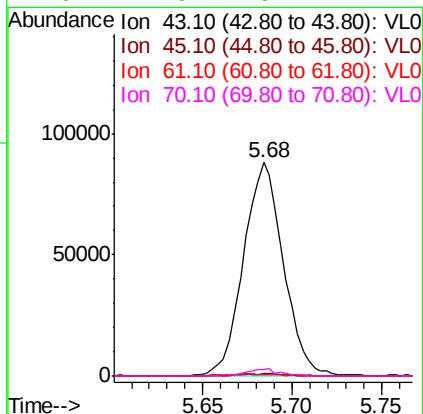
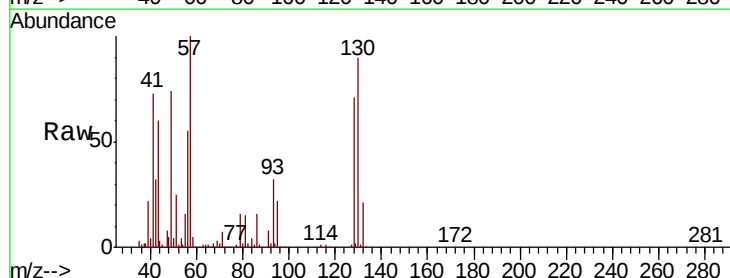
Instrument :
 MSVOA_L
 ClientSampleId :
 DB-IA-Y03

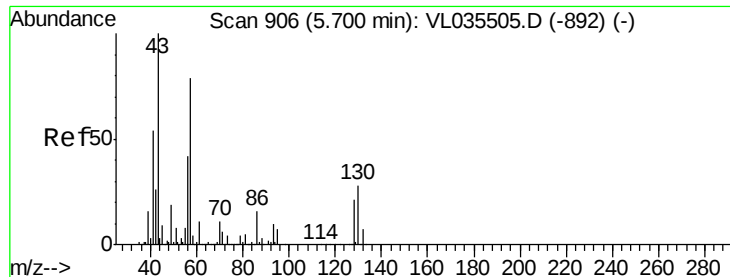
Tot Ion:	43	Resp:	7118
Ion	Ratio	Lower	Upper
43	100		
86	15.3	10.6	16.0
42	29.7	7.5	11.3#
44	8.2	4.4	6.6#



#25
 Ethyl Acetate
 Concen: 0.671 ppbv
 RT: 5.68 min Scan# 901
 Delta R.T. 0.01 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

Tgt Ion:	43	Resp:	137590
Ion	Ratio	Lower	Upper
43	100		
45	1.7	8.4	12.6#
61	0.9	10.6	16.0#
70	2.9	9.4	14.2#

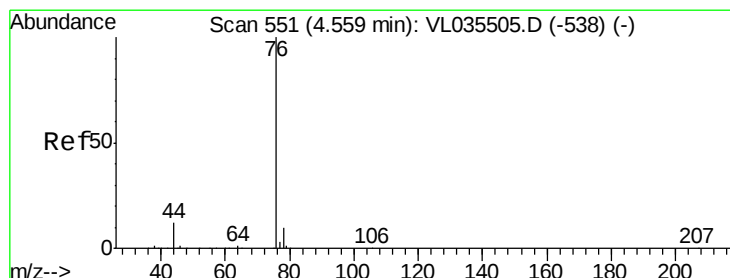
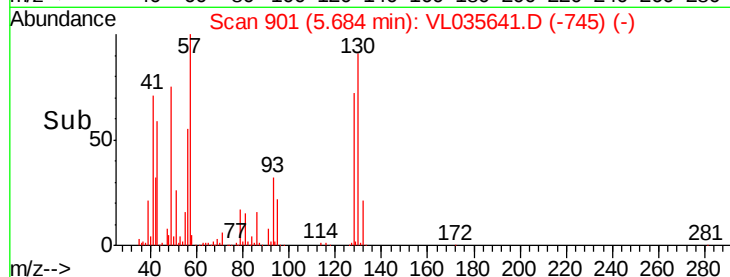
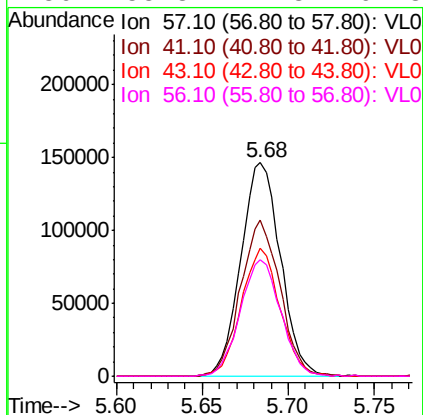
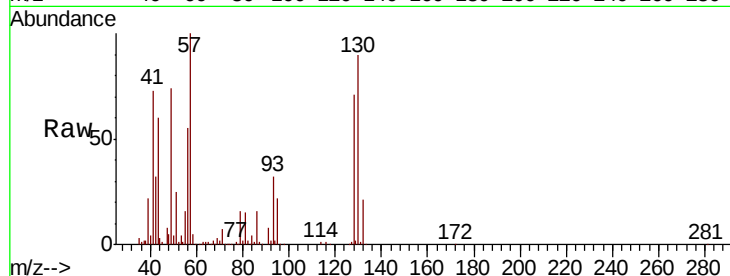




#26
Hexane
Concen: 2.013 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.00 min
Lab File: VL035641.D
Acq: 16 Sep 2020 23:04

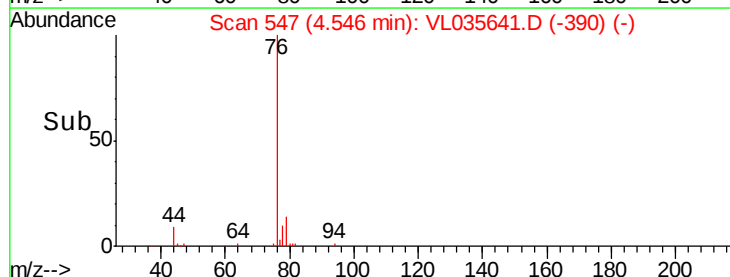
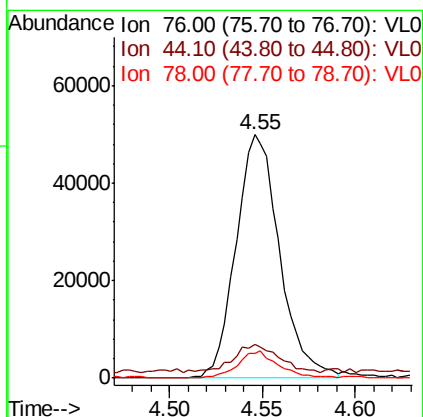
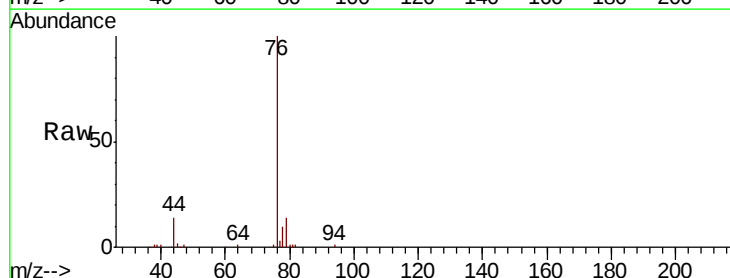
Instrument :
MSVOA_L
ClientSampleId :
DB-IA-Y03

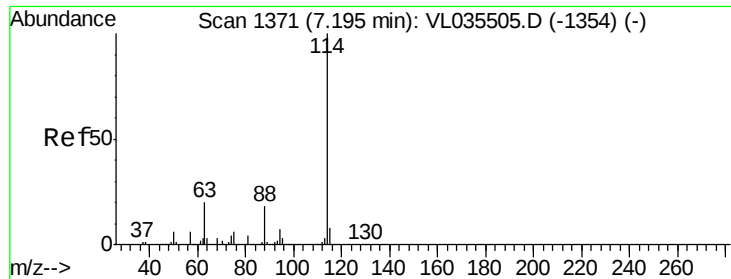
Tot Ion:	57	Resp:	233885
Ion	Ratio	Lower	Upper
57	100		
41	73.1	55.9	83.9
43	59.1	141.8	212.8#
56	55.8	41.8	62.8



#27
Carbon Disulfide
Concen: 0.489 ppbv
RT: 4.55 min Scan# 547
Delta R.T. 0.00 min
Lab File: VL035641.D
Acq: 16 Sep 2020 23:04

Tgt Ion:	76	Resp:	81499
Ion	Ratio	Lower	Upper
76	100		
44	12.5	9.3	13.9
78	10.8	7.8	11.6

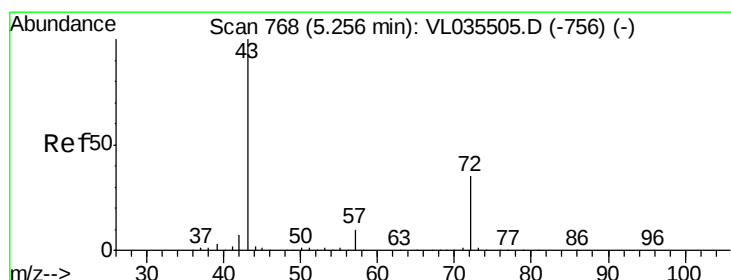
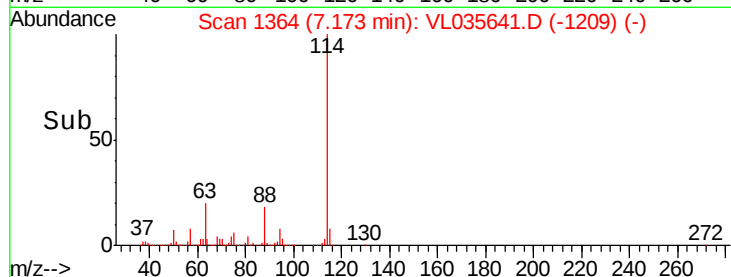
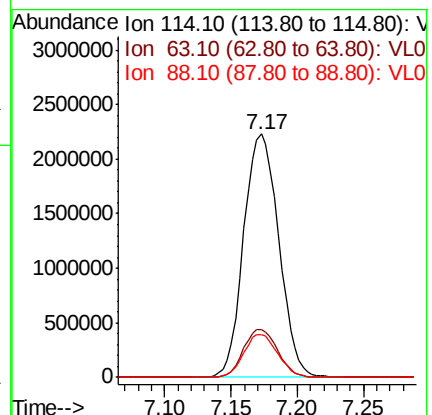
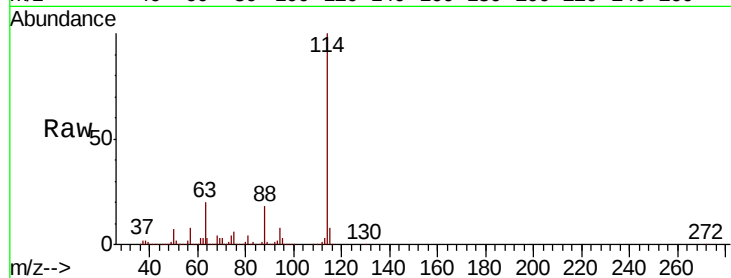




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.00 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

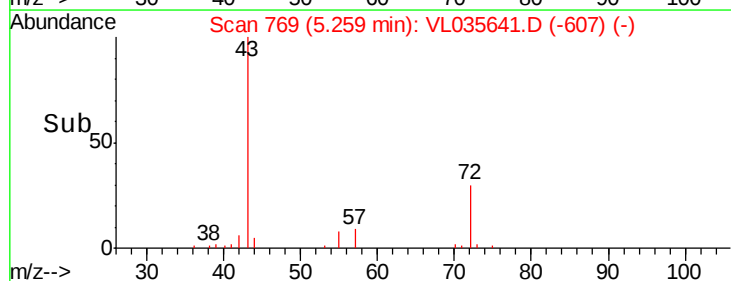
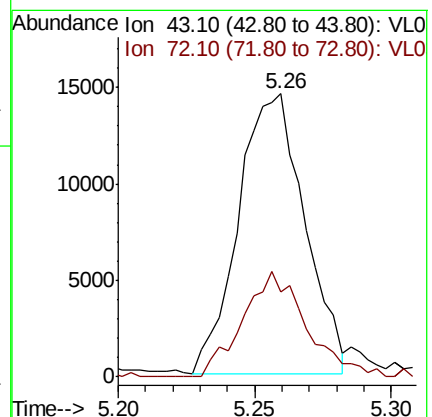
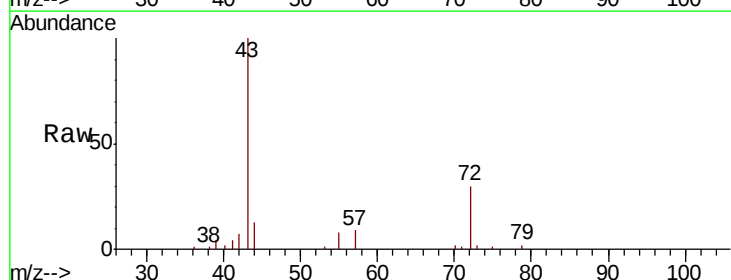
Instrument :
 MSVOA_L
 ClientSampleId :
 DB-IA-Y03

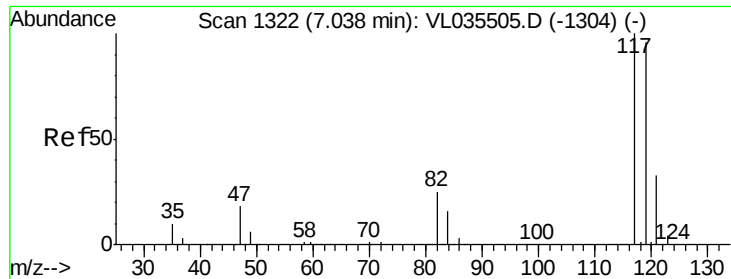
Tot Ion:114 Resp: 4119276
 Ion Ratio Lower Upper
 114 100
 63 19.4 14.7 22.1
 88 17.1 13.4 20.2



#34
 2-Butanone
 Concen: 0.200 ppbv
 RT: 5.26 min Scan# 769
 Delta R.T. 0.02 min
 Lab File: VL035641.D
 Acq: 16 Sep 2020 23:04

Tgt Ion: 43 Resp: 24409
 Ion Ratio Lower Upper
 43 100
 72 36.5 27.7 41.5





#35

Carbon Tetrachloride

Concen: 0.071 ppbv

RT: 7.02 min Scan# 1315

Delta R.T. -0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y03

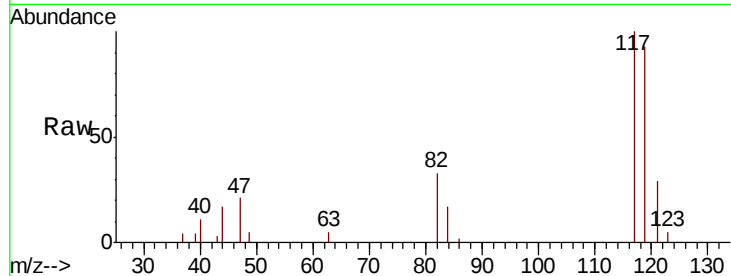
Tot Ion:117 Resp: 14774

Ion Ratio Lower Upper

117 100

119 92.6 77.2 115.8

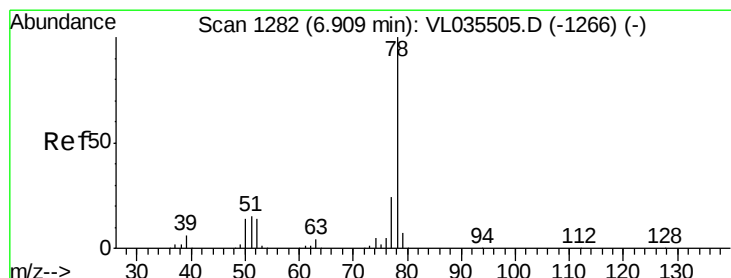
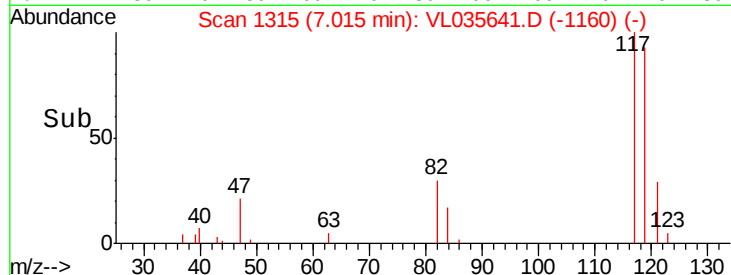
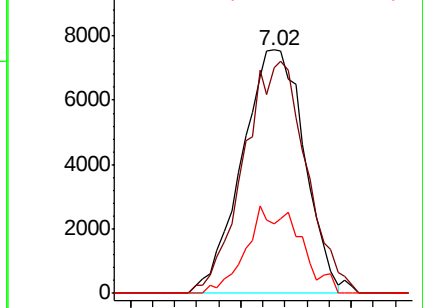
121 28.6 26.1 39.1



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: 0.060 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.01 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

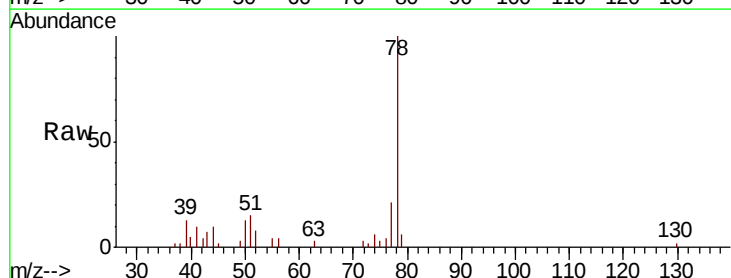
Tgt Ion: 78 Resp: 15916

Ion Ratio Lower Upper

78 100

77 21.0 19.3 28.9

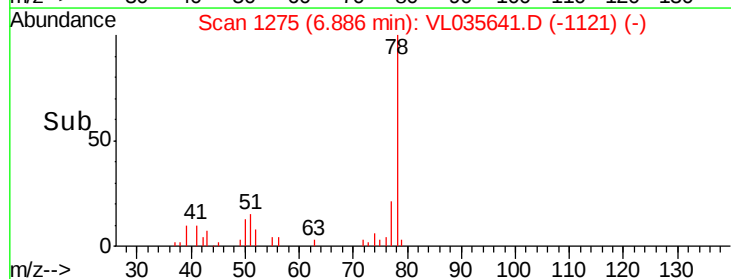
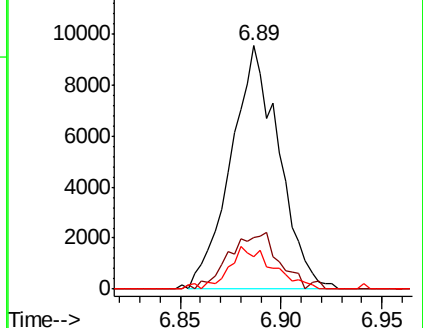
50 13.4 11.0 16.6

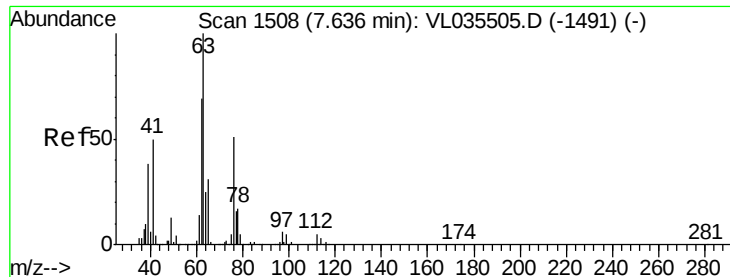


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.816 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.44 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y03

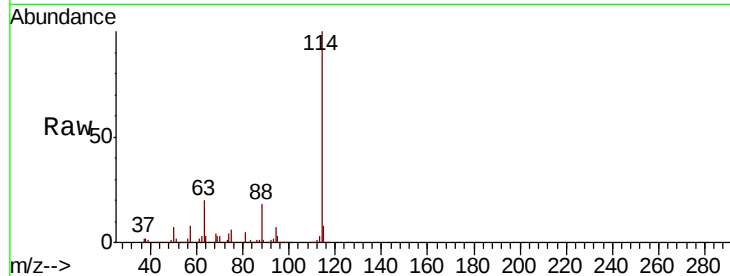
Tot Ion: 63 Resp: 794087

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

62 16.6 55.4 83.0#

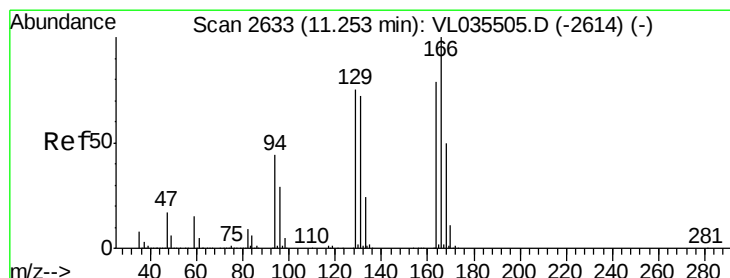
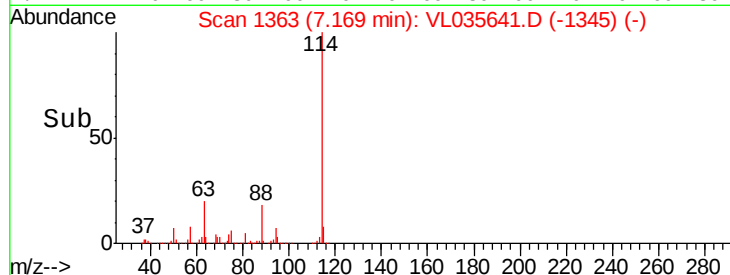
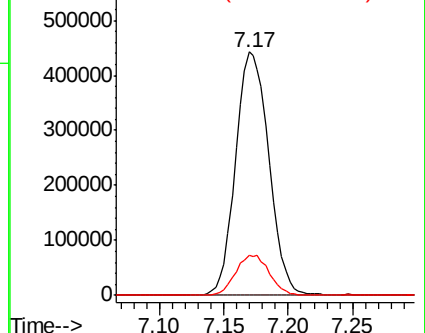


Abundance

Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#52

Tetrachloroethene

Concen: 0.201 ppbv

RT: 11.23 min Scan# 2626

Delta R.T. 0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Tgt Ion: 164 Resp: 31375

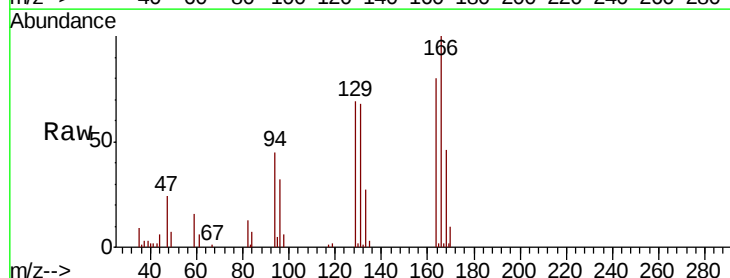
Ion Ratio Lower Upper

164 100

166 124.7 100.9 151.3

129 85.8 75.3 112.9

131 85.1 73.0 109.4



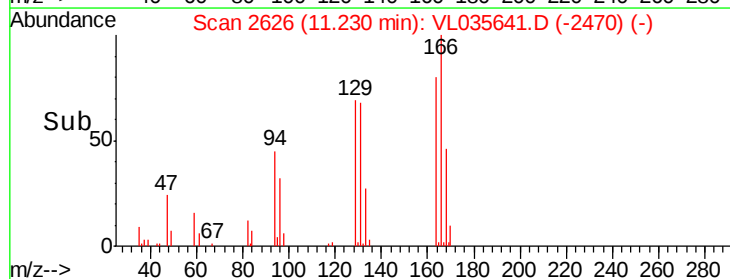
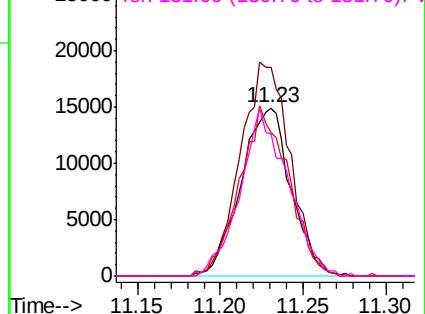
Abundance

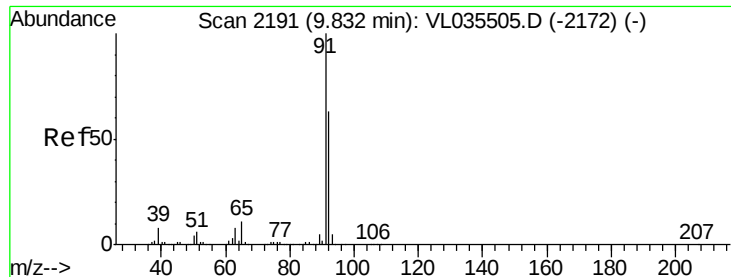
Ion 163.90 (163.60 to 164.60): V

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: 0.572 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampled :

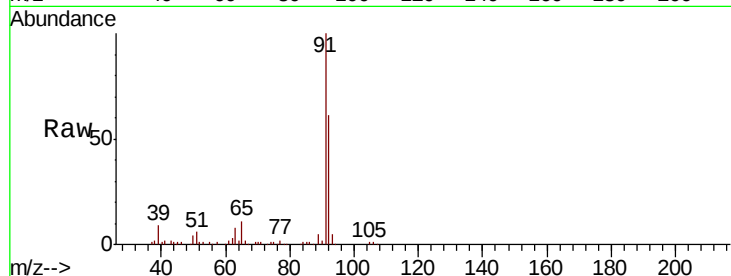
DB-IA-Y03

Tot Ion: 91 Resp: 191824

Ion Ratio Lower Upper

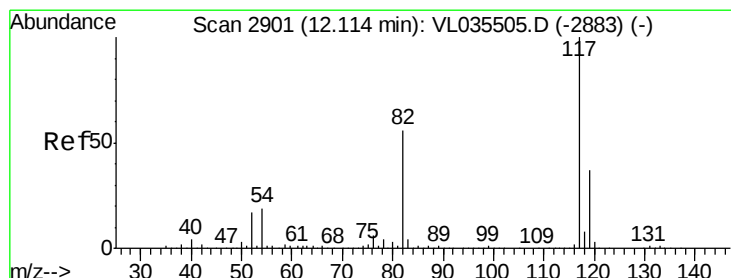
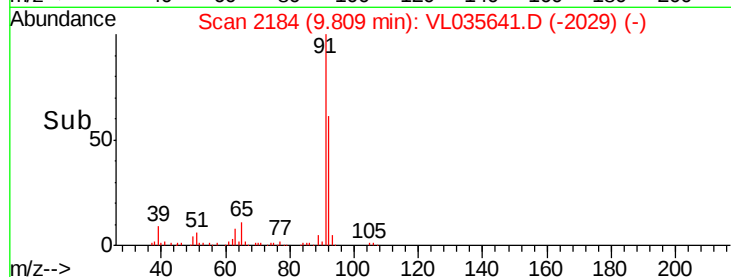
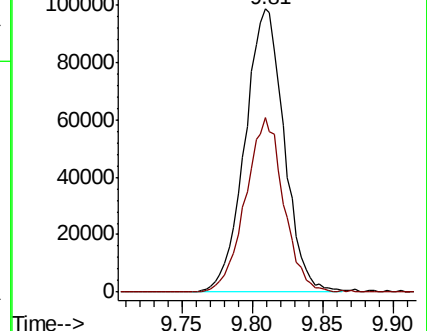
91 100

92 60.1 49.8 74.8



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: 12.09 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

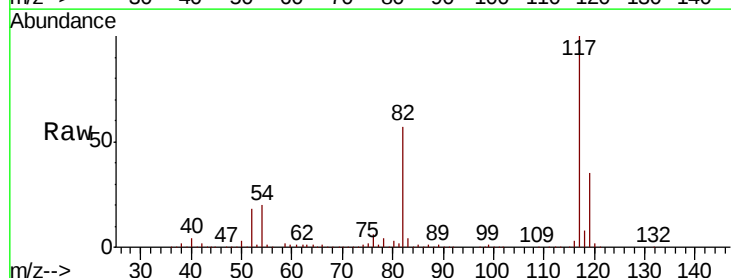
Tgt Ion: 117 Resp: 4136805

Ion Ratio Lower Upper

117 100

82 57.2 41.6 62.4

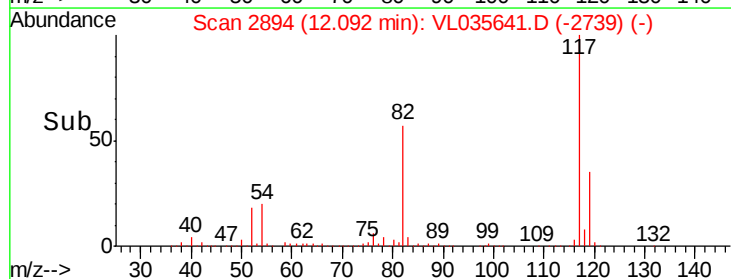
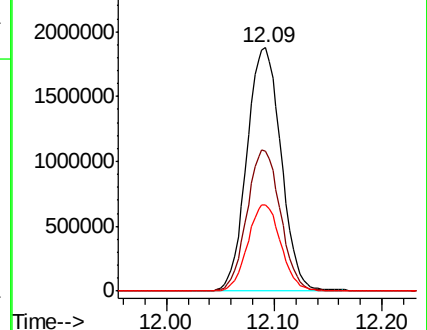
119 34.6 29.3 43.9

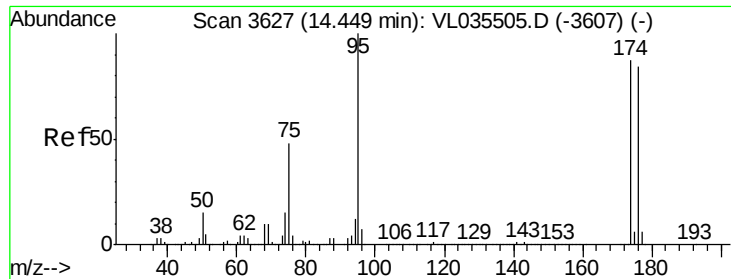


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.452 ppbv

RT: 14.42 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL035641.D

Acq: 16 Sep 2020 23:04

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y03

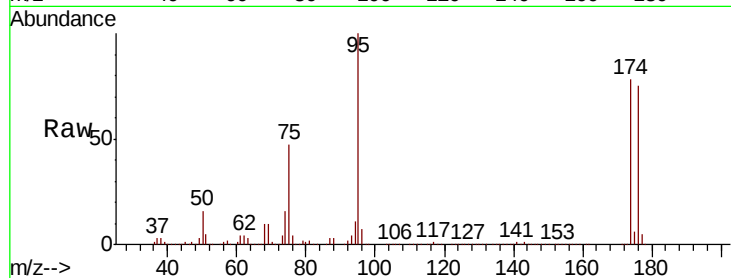
Tot Ion: 95 Resp: 3070496

Ion Ratio Lower Upper

95 100

174 79.1 69.6 104.4

175 5.7 5.1 7.7



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

