

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
 Data File : VL034245.D
 Acq On : 8 Oct 2019 9:14
 Operator : SY/AP
 Sample : K5225-02DL2 40X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL2

Quant Time: Oct 09 02:24:47 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 18 12:53:31 2019
 QLast Update : Wed Sep 18 12:53:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	901768	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.21	114	1676196	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1687136	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.48	95	1479002	10.09	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.90%

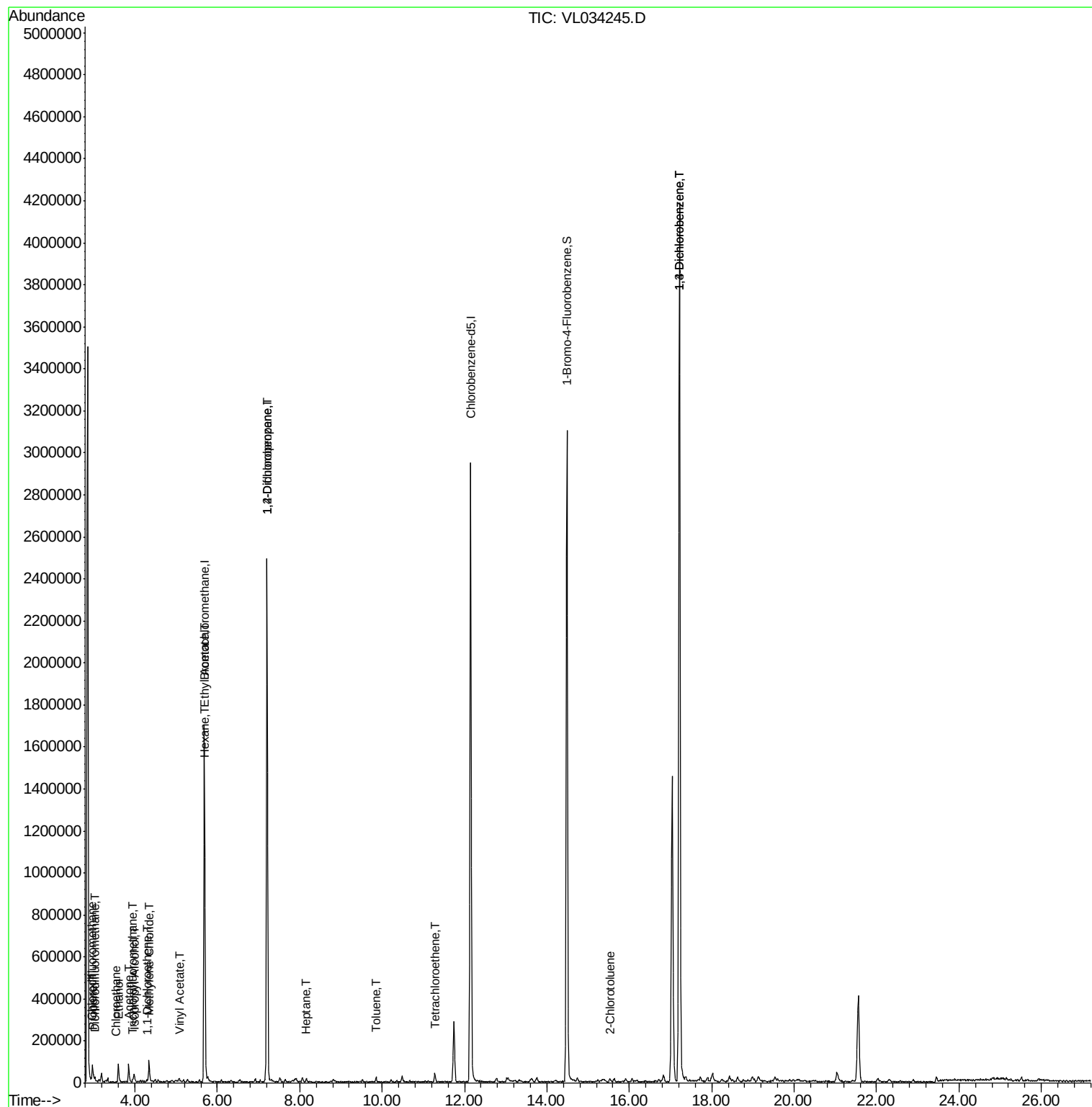
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	11629	0.087	ppbv #	72
3) Chlorodifluoromethane	2.97	51	63883	0.604	ppbv	96
7) Chloroethane	3.54	64	819	0.041	ppbv	95
9) Propene	2.99	41	6474	0.124	ppbv	95
10) Heptane	8.16	43	6096	0.045	ppbv #	30
11) Trichlorofluoromethane	3.94	101	5582	0.046	ppbv	87
13) Ethanol	3.59	45	80814	6.398	ppbv	100
15) Acetone	3.85	43	75987	0.629	ppbv	98
18) 1,1-Dichloroethene	4.29	96	1404	0.041	ppbv #	12
19) Isopropyl Alcohol	3.98	45	32956	0.443	ppbv #	90
20) Methylene Chloride	4.34	84	28760	0.825	ppbv #	80
23) Vinyl Acetate	5.09	43	5352	0.030	ppbv #	79
25) Ethyl Acetate	5.70	43	22709	0.099	ppbv #	95
26) Hexane	5.70	57	16143	0.170	ppbv #	67
39) 1,2-Dichloropropane	7.21	63	507692	6.104	ppbv #	19
52) Tetrachloroethene	11.28	164	2228	0.036	ppbv #	14
53) Toluene	9.86	91	11063	0.055	ppbv #	70
71) 2-Chlorotoluene	15.53	91	7779	0.033	ppbv	81
75) 1,3-Dichlorobenzene	17.21	146	2030463	14.483	ppbv	97
76) 1,4-Dichlorobenzene	17.21	146	2030463	14.142	ppbv	99

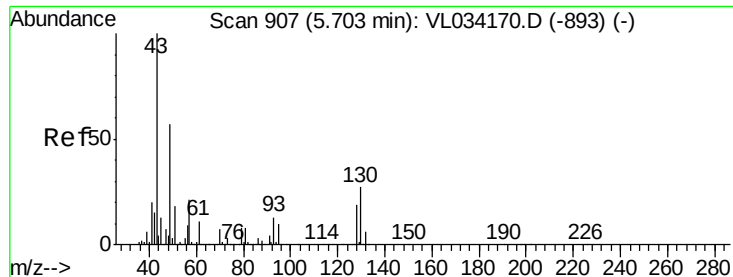
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
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QLast Update : Wed Sep 18 12:53:31 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.02 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

IA3DL2

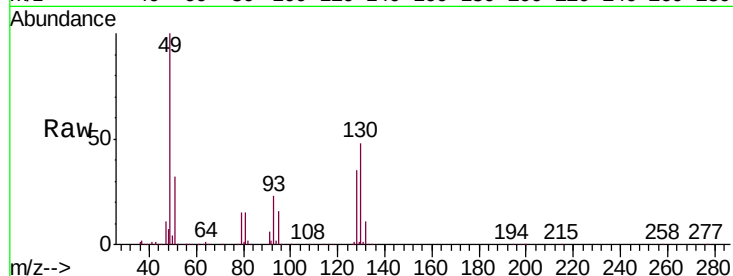
Tgt Ion: 49 Resp: 901768

Ion Ratio Lower Upper

49 100

128 37.2 17.6 52.9

130 47.0 22.3 66.9



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

5.68

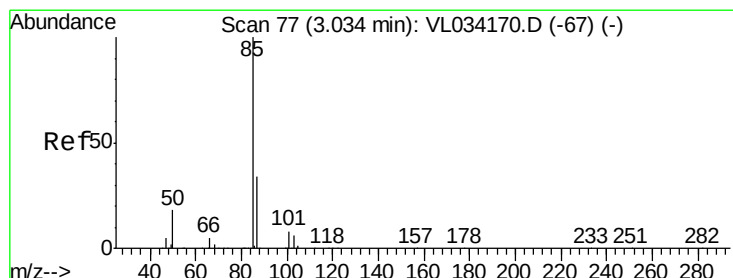
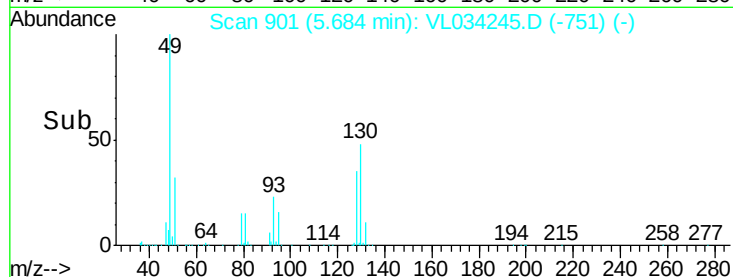
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.087 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.01 min

Lab File: VL034245.D

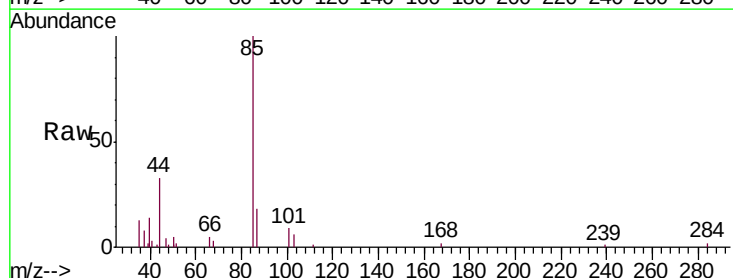
Acq: 8 Oct 2019 9:14

Tgt Ion: 85 Resp: 11629

Ion Ratio Lower Upper

85 100

87 17.8 27.2 40.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

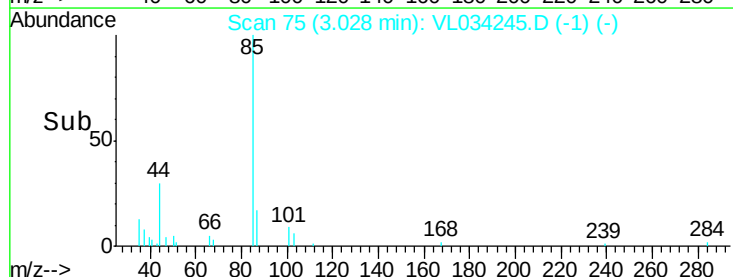
15000

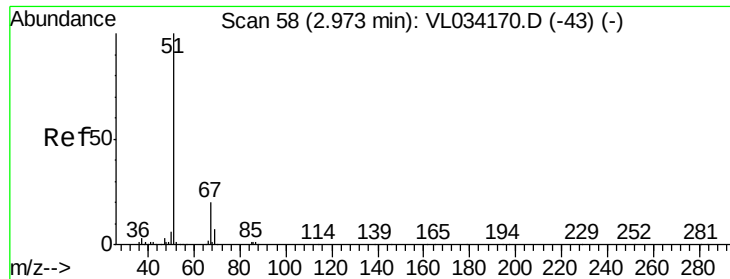
10000

5000

0

Time-->





#3

Chlorodifluoromethane

Concen: 0.604 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

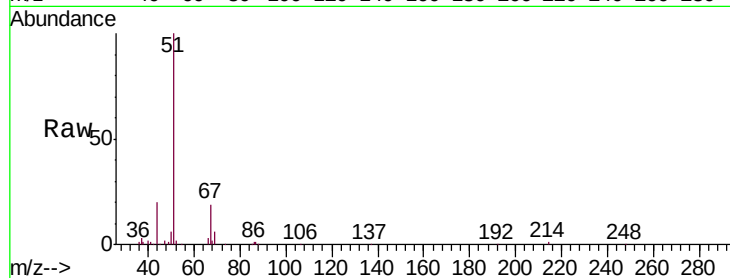
IA3DL2

Tgt Ion: 51 Resp: 63883

Ion Ratio Lower Upper

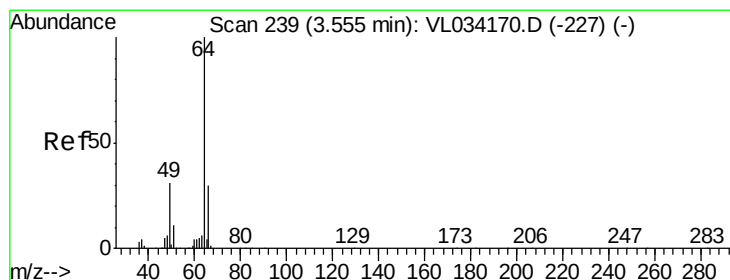
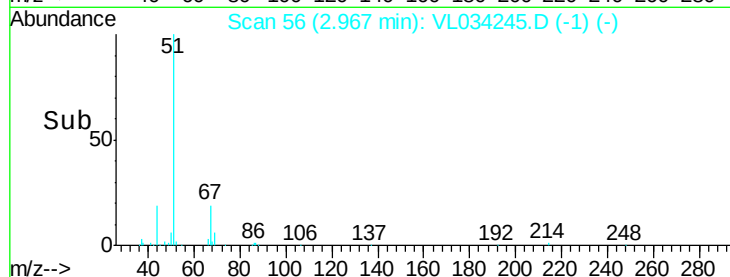
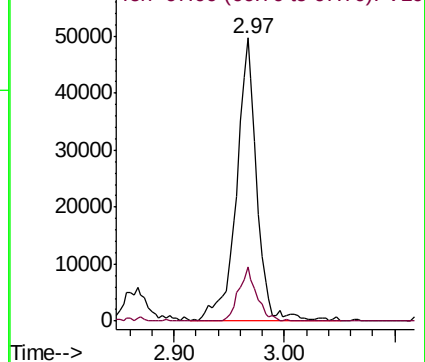
51 100

67 16.8 14.8 22.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#7

Chloroethane

Concen: 0.041 ppbv

RT: 3.54 min Scan# 235

Delta R.T. -0.01 min

Lab File: VL034245.D

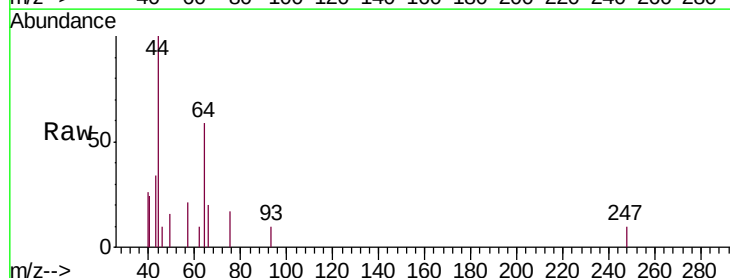
Acq: 8 Oct 2019 9:14

Tgt Ion: 64 Resp: 819

Ion Ratio Lower Upper

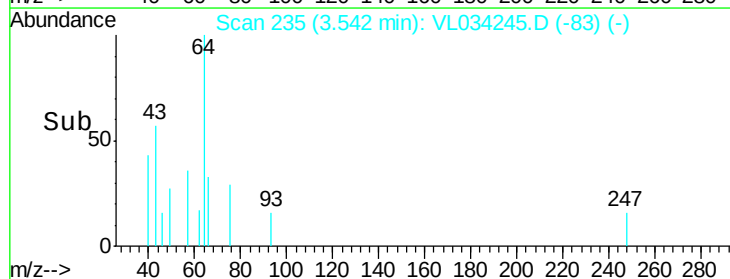
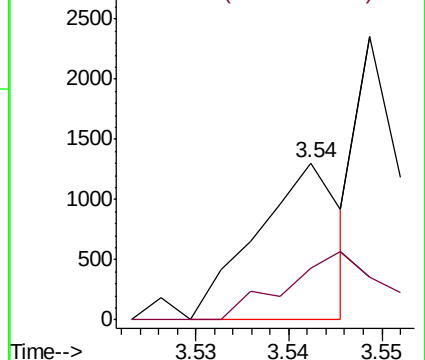
64 100

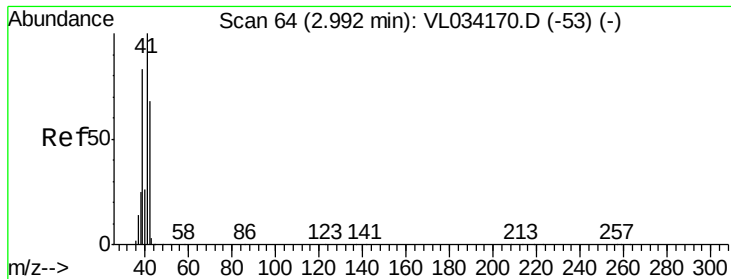
66 33.1 24.2 36.4



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.124 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

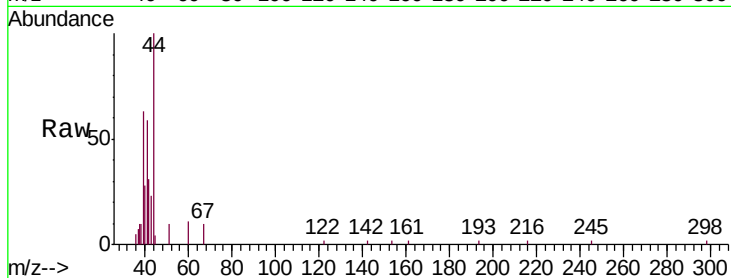
IA3DL2

Tgt Ion: 41 Resp: 6474

Ion Ratio Lower Upper

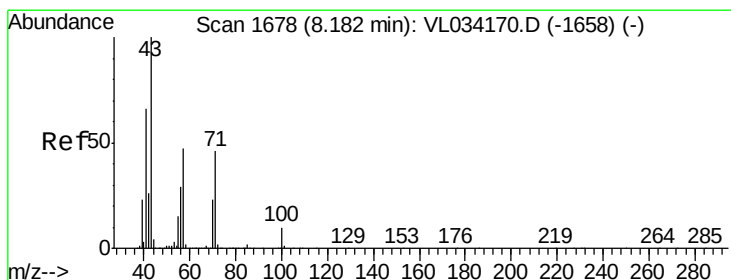
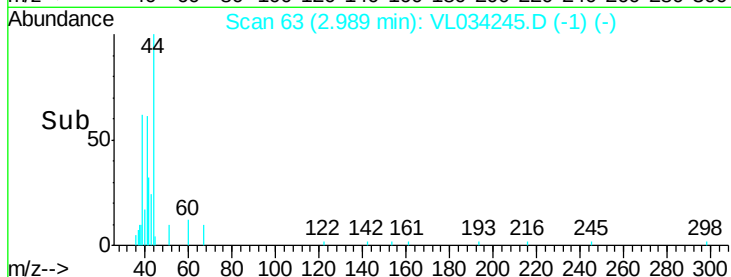
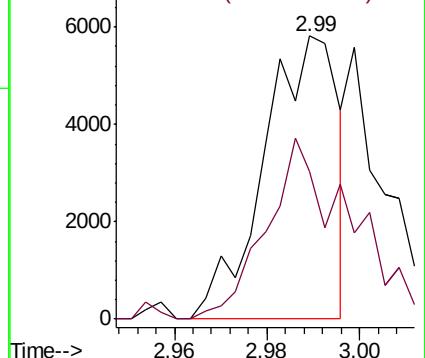
41 100

42 73.7 55.8 83.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.045 ppbv

RT: 8.16 min Scan# 1672

Delta R.T. -0.02 min

Lab File: VL034245.D

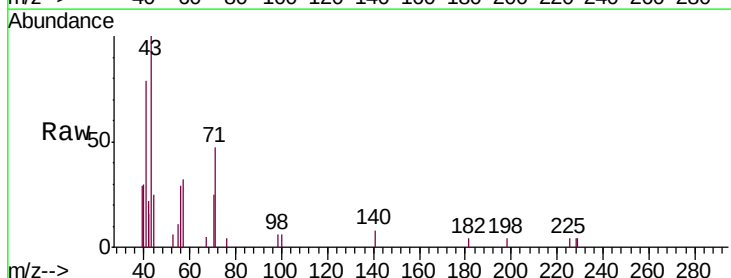
Acq: 8 Oct 2019 9:14

Tgt Ion: 43 Resp: 6096

Ion Ratio Lower Upper

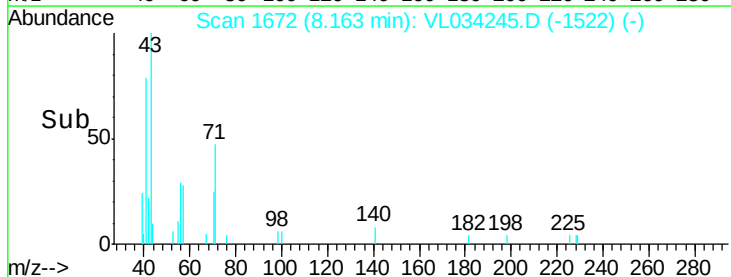
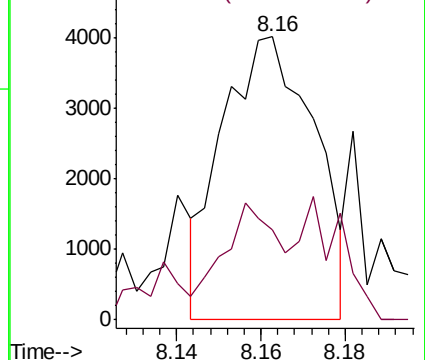
43 100

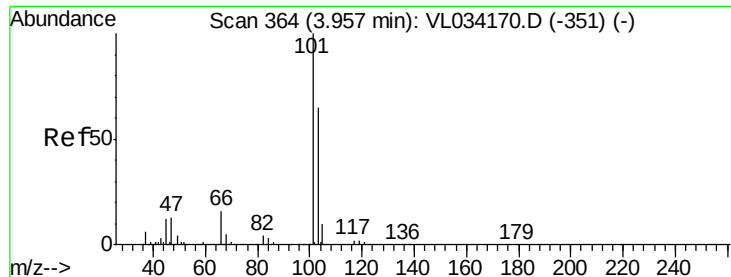
57 0.0 37.5 56.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

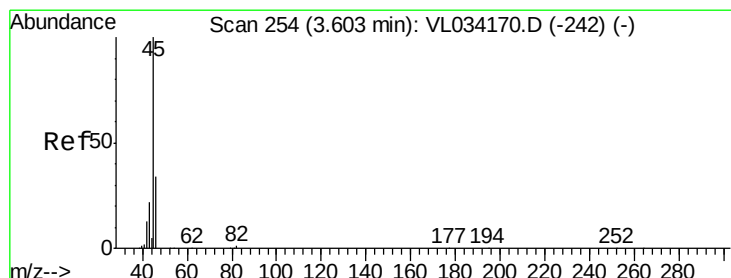
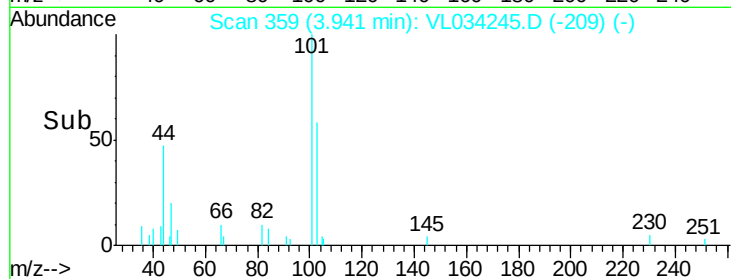
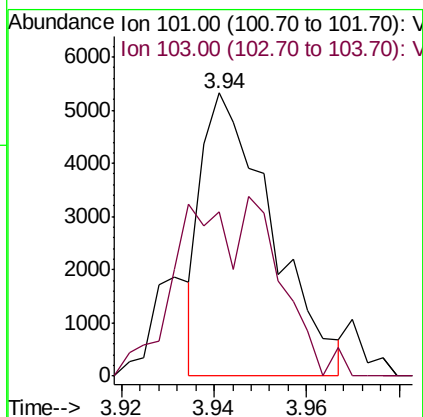
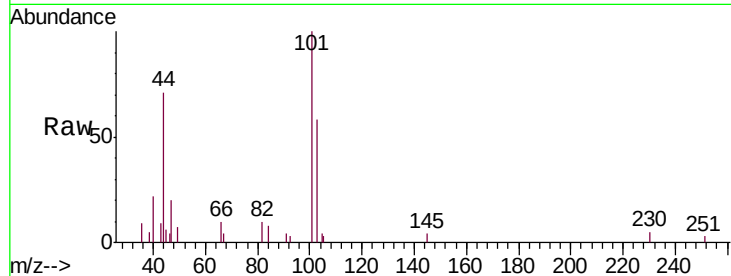




#11
 Trichlorofluoromethane
 Concen: 0.046 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.02 min
 Lab File: VL034245.D
 Acq: 8 Oct 2019 9:14

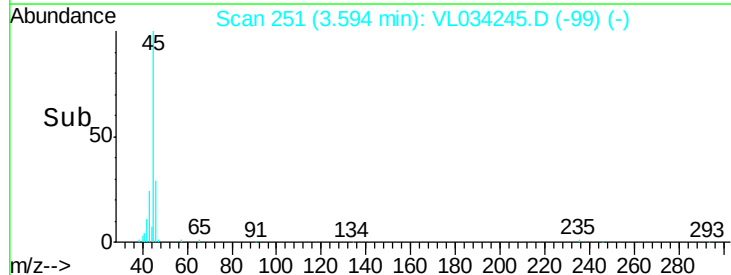
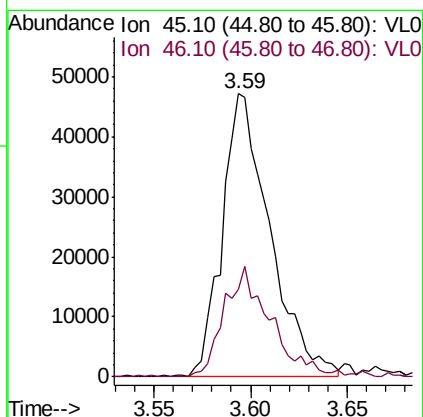
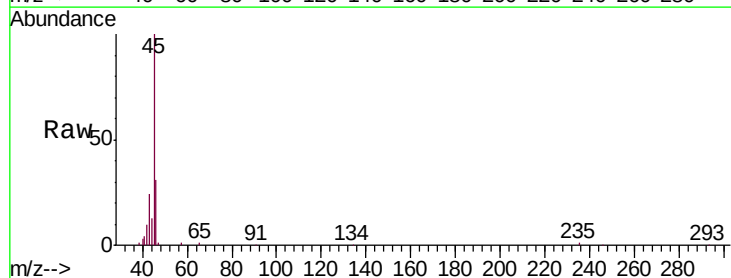
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL2

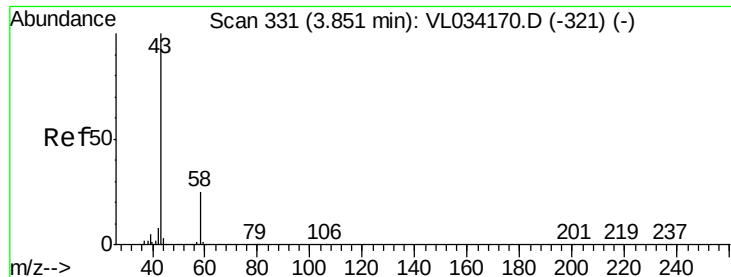
Tgt Ion: 101 Resp: 5582
 Ion Ratio Lower Upper
 101 100
 103 54.9 52.1 78.1



#13
 Ethanol
 Concen: 6.398 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.01 min
 Lab File: VL034245.D
 Acq: 8 Oct 2019 9:14

Tgt Ion: 45 Resp: 80814
 Ion Ratio Lower Upper
 45 100
 46 38.9 15.5 61.9





#15

Acetone

Concen: 0.629 ppbv

RT: 3.85 min Scan# 331

Delta R.T. -0.00 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

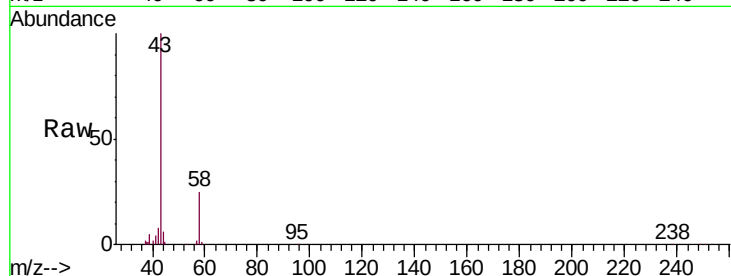
IA3DL2

Tgt Ion: 43 Resp: 75987

Ion Ratio Lower Upper

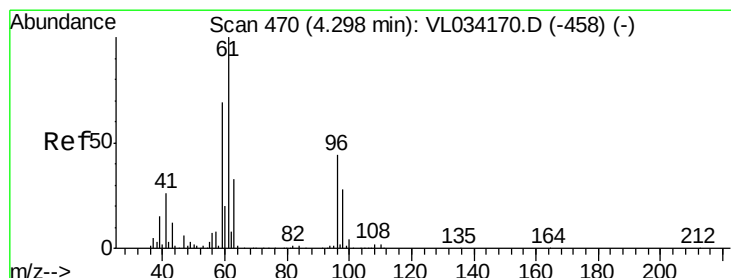
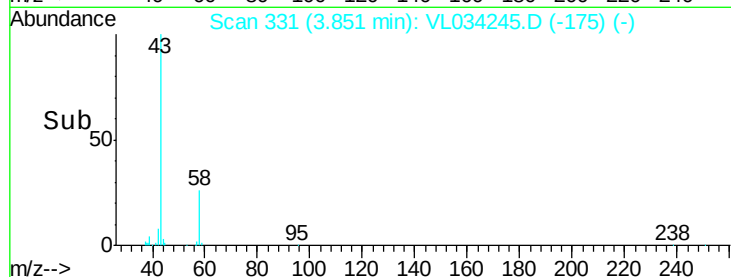
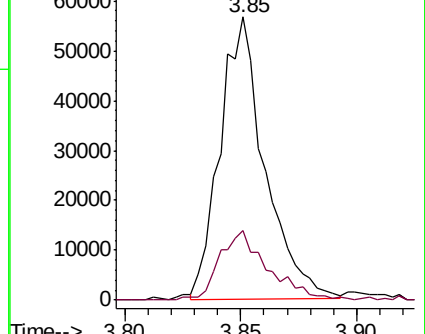
43 100

58 26.7 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#18

1,1-Dichloroethene

Concen: 0.041 ppbv

RT: 4.29 min Scan# 468

Delta R.T. -0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

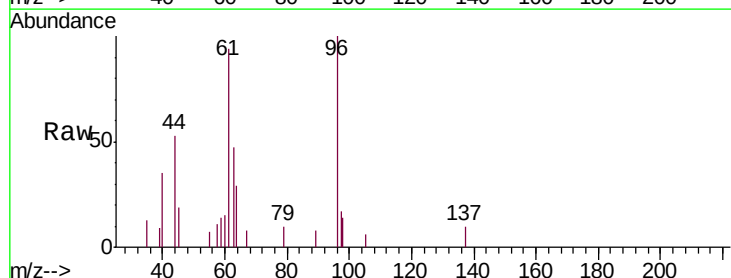
Tgt Ion: 96 Resp: 1404

Ion Ratio Lower Upper

96 100

61 71.7 183.3 274.9#

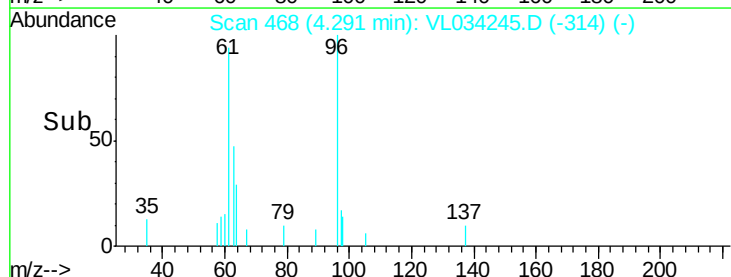
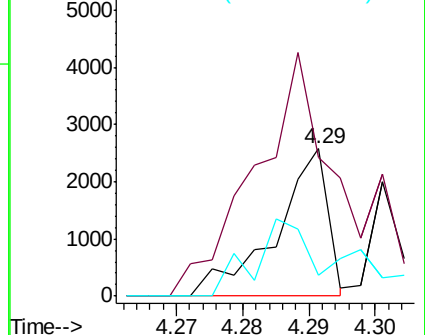
98 14.4 51.4 77.2#

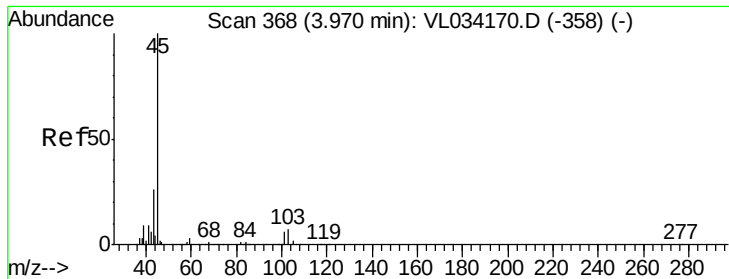


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 0.443 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

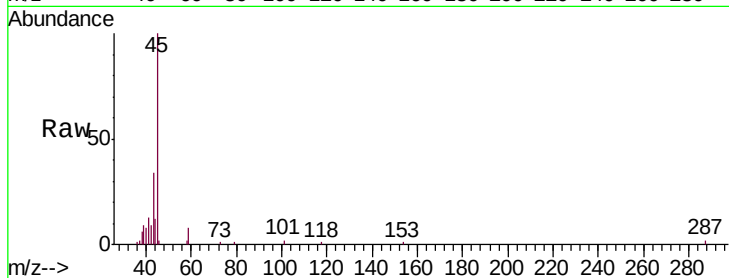
IA3DL2

Tgt Ion: 45 Resp: 32956

Ion Ratio Lower Upper

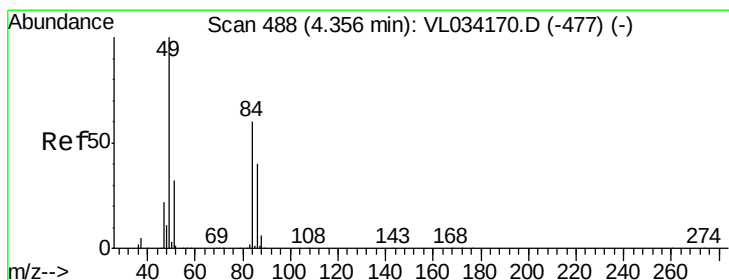
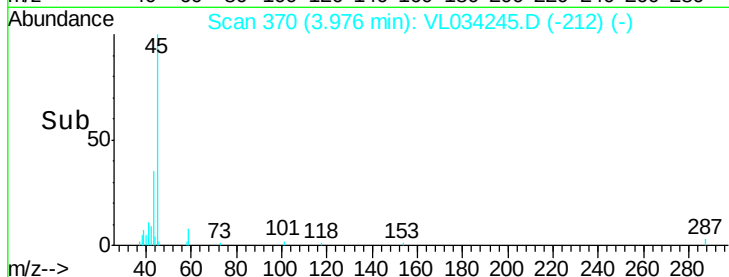
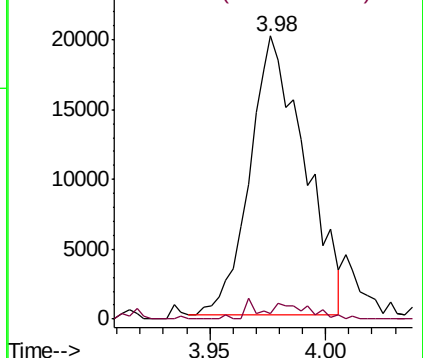
45 100

58 5.5 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.825 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Tgt Ion: 84 Resp: 28760

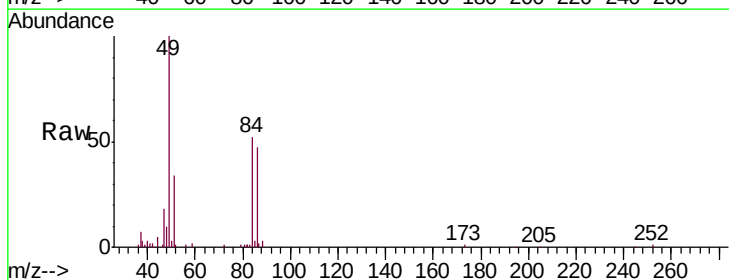
Ion Ratio Lower Upper

84 100

49 191.6 133.8 200.8

51 64.5 43.6 65.4

86 89.4 53.1 79.7#

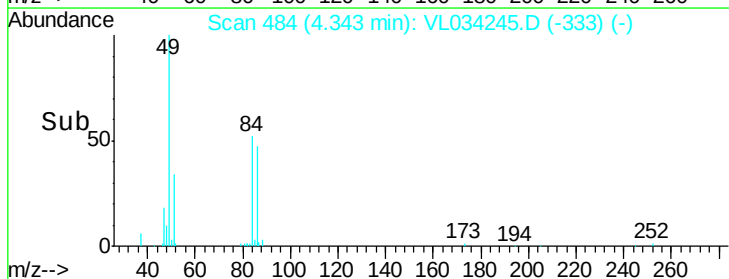
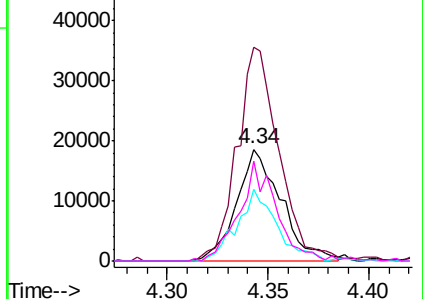


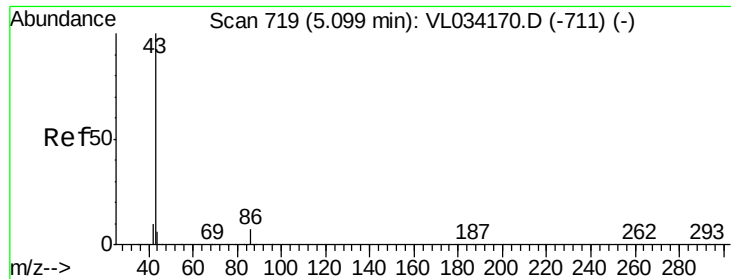
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#23

Vinyl Acetate

Concen: 0.030 ppbv

RT: 5.09 min Scan# 715

Delta R.T. -0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

IA3DL2

Tgt Ion: 43 Resp: 5352

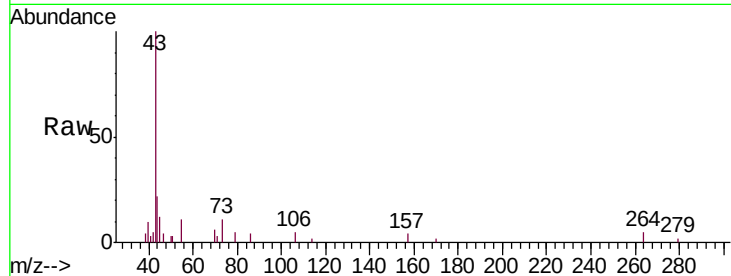
Ion Ratio Lower Upper

43 100

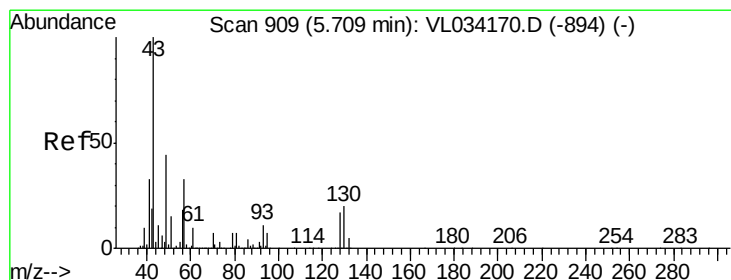
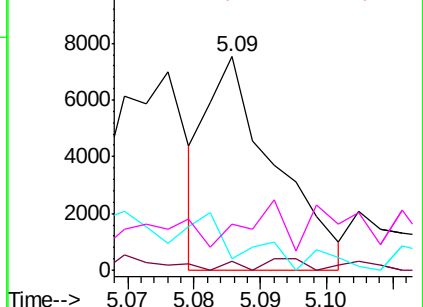
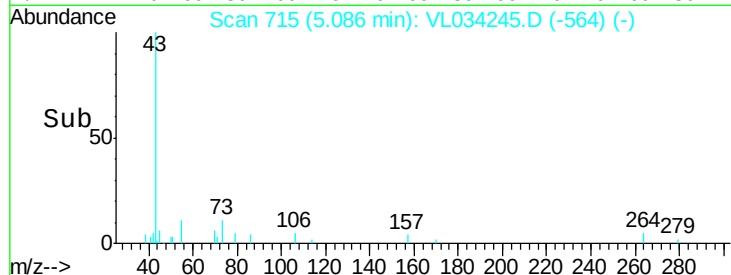
86 2.3 5.1 7.7#

42 0.0 8.6 12.8#

44 0.3 4.7 7.1#



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: 0.099 ppbv

RT: 5.70 min Scan# 906

Delta R.T. -0.01 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Tgt Ion: 43 Resp: 22709

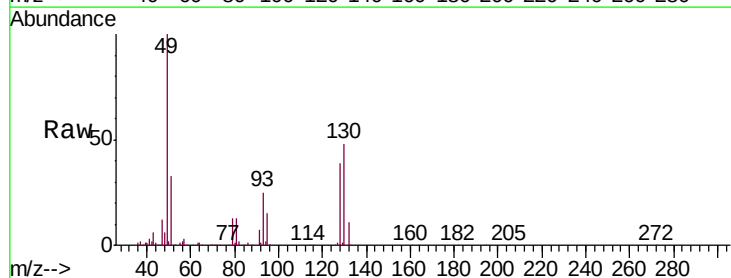
Ion Ratio Lower Upper

43 100

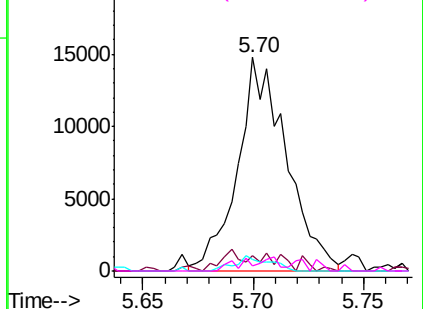
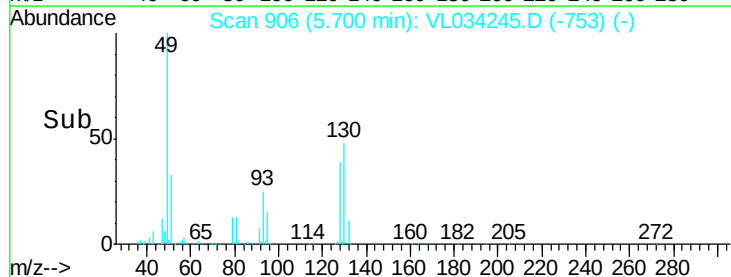
45 11.3 8.4 12.6

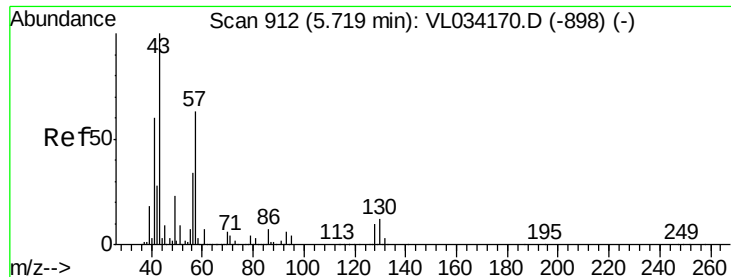
61 5.2 7.2 10.8#

70 7.4 5.3 7.9



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: 0.170 ppbv

RT: 5.70 min Scan# 907

Delta R.T. -0.02 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

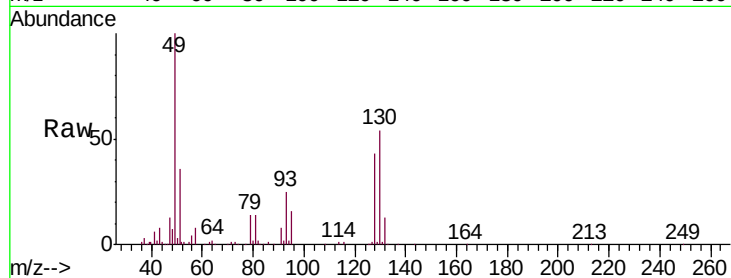
ClientSampleId :

IA3DL2

Tgt Ion: 57 Resp: 16143

Ion Ratio Lower Upper

57	100		
41	98.0	78.5	117.7
43	148.1	189.5	284.3#
56	56.6	43.2	64.8

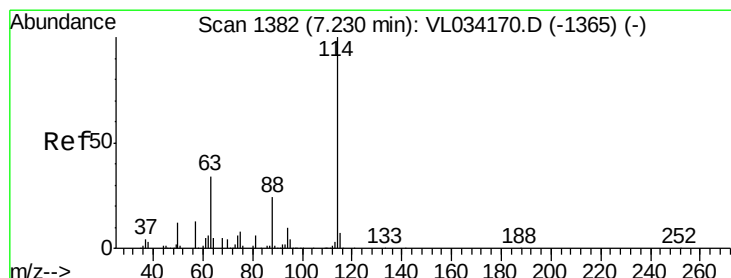
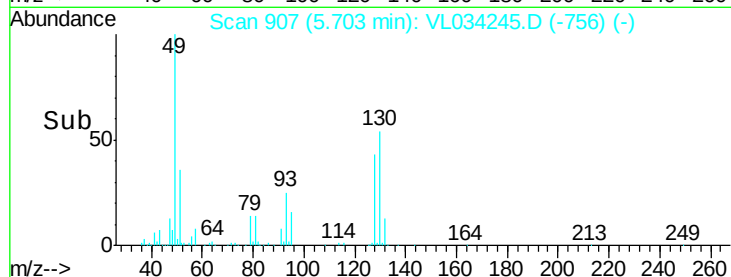
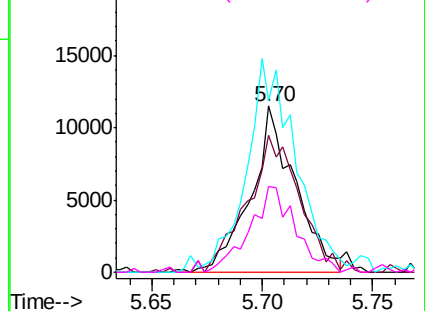


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. -0.02 min

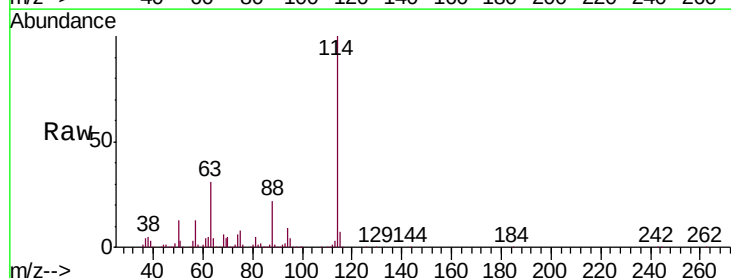
Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Tgt Ion: 114 Resp: 1676196

Ion Ratio Lower Upper

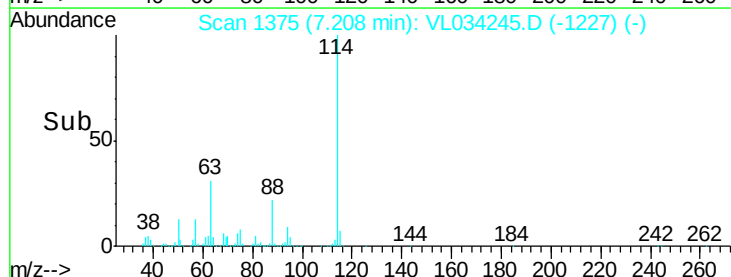
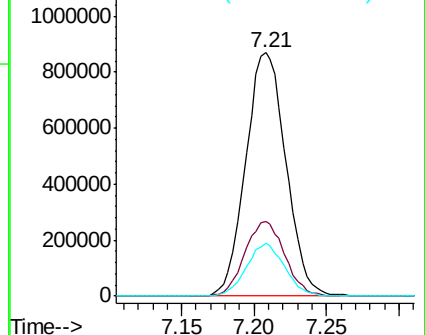
114	100		
63	30.6	27.8	41.6
88	20.6	17.1	25.7

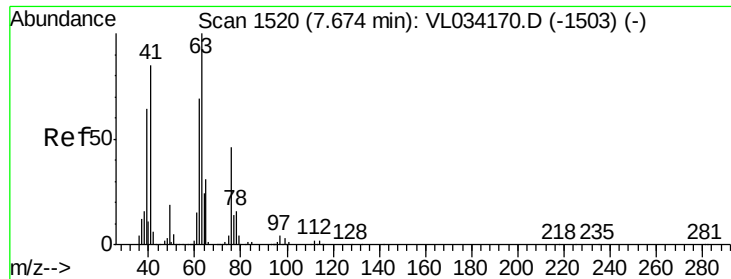


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#39

1,2-Dichloropropane

Concen: 6.104 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. -0.47 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

IA3DL2

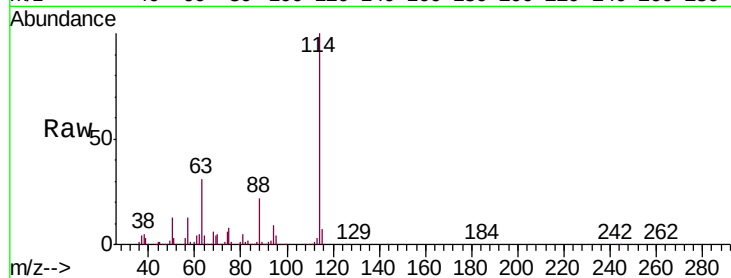
Tgt Ion: 63 Resp: 507692

Ion Ratio Lower Upper

63 100

41 0.0 68.4 102.6#

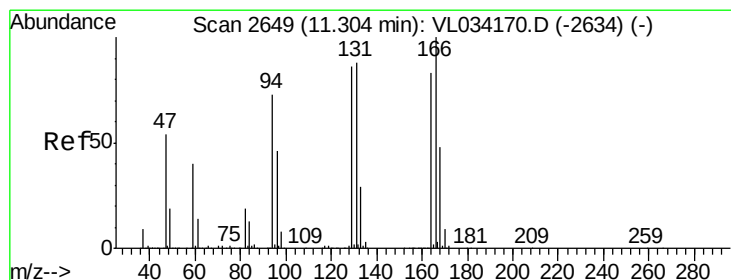
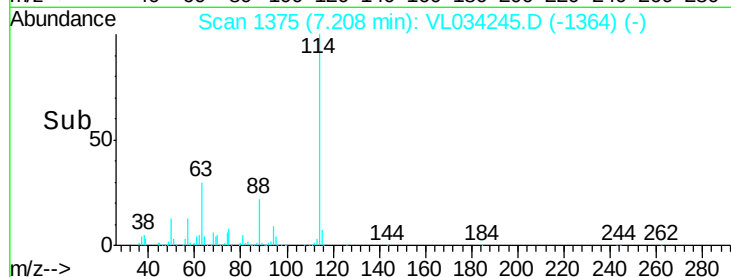
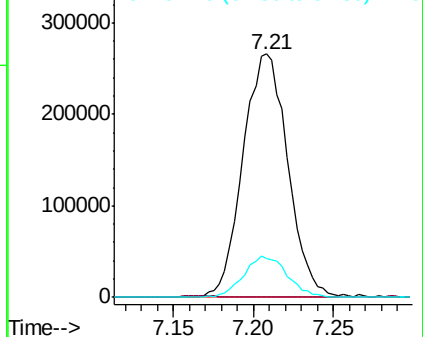
62 16.0 55.4 83.2#



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: 0.036 ppbv

RT: 11.28 min Scan# 2640

Delta R.T. -0.03 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Tgt Ion: 164 Resp: 2228

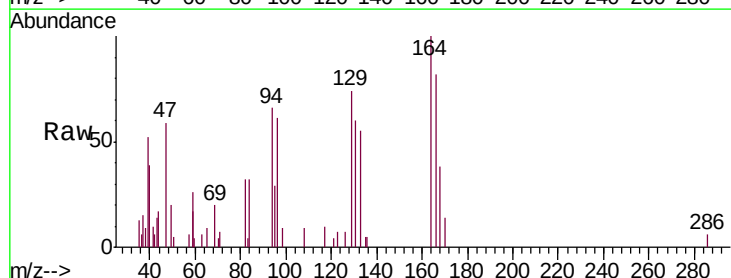
Ion Ratio Lower Upper

164 100

166 35.1 96.7 145.1#

129 21.0 82.8 124.2#

131 1.6 85.0 127.6#

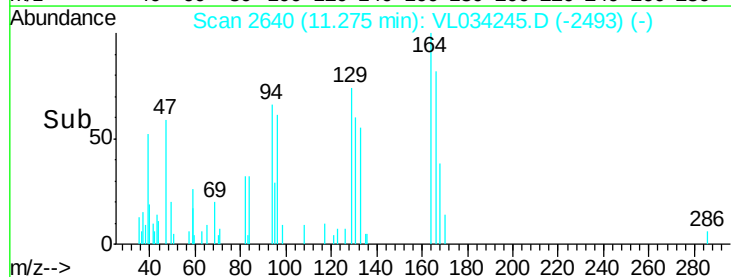
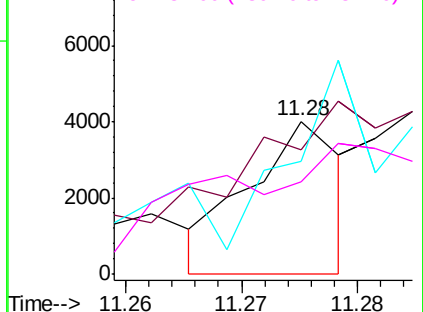


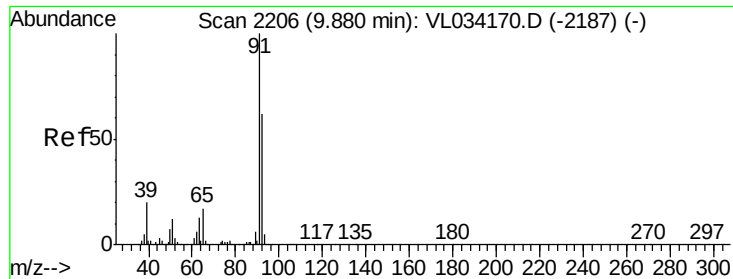
Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.055 ppbv

RT: 9.86 min Scan# 2199

Delta R.T. -0.02 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

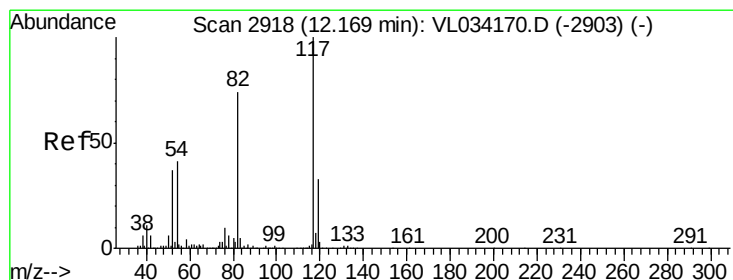
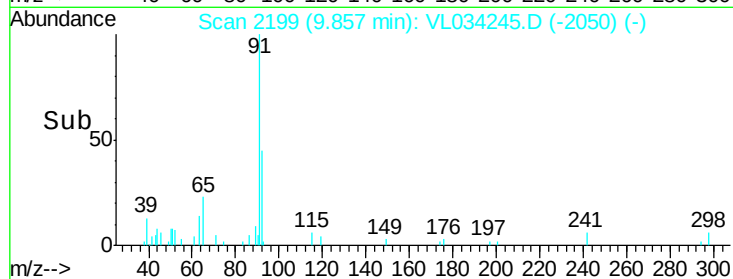
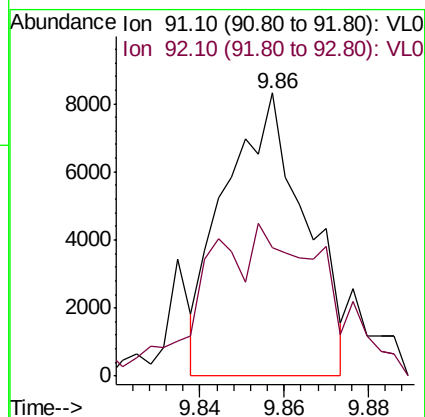
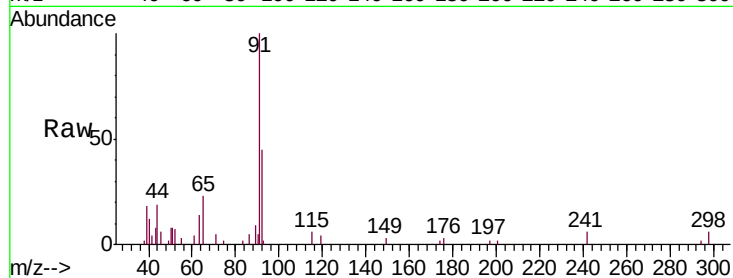
IA3DL2

Tgt Ion: 91 Resp: 11063

Ion Ratio Lower Upper

91 100

92 84.0 49.0 73.6#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. -0.02 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

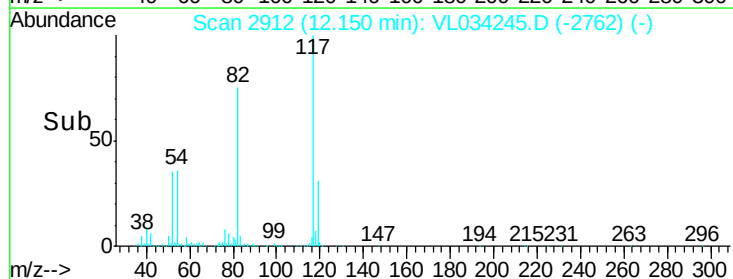
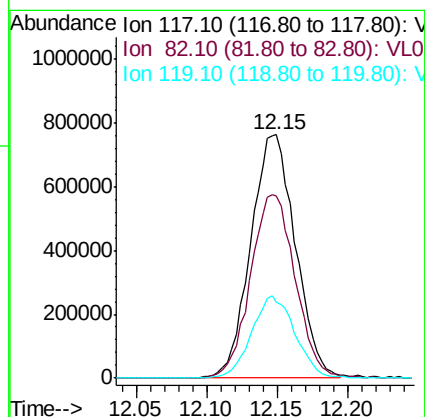
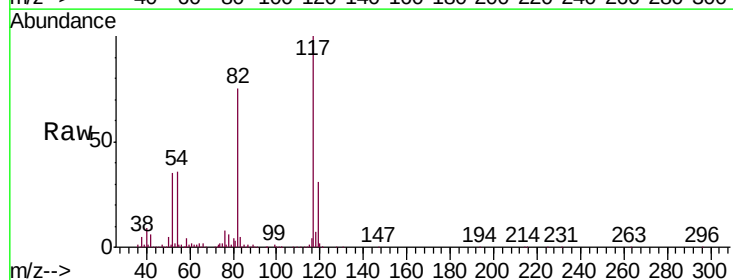
Tgt Ion: 117 Resp: 1687136

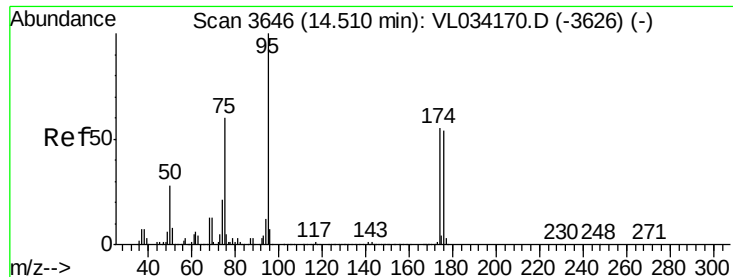
Ion Ratio Lower Upper

117 100

82 76.0 58.2 87.4

119 33.2 23.7 35.5

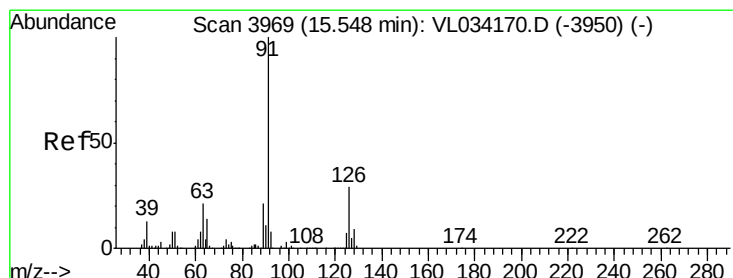
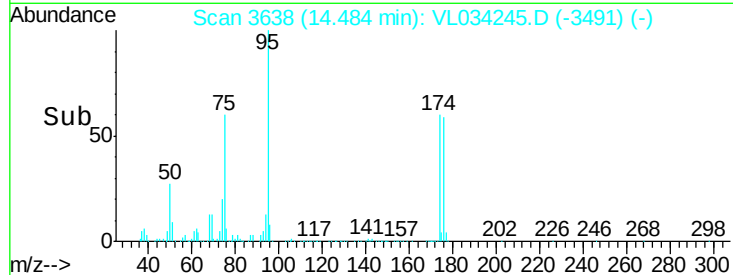
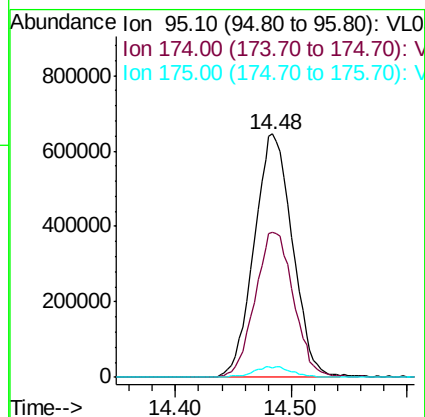
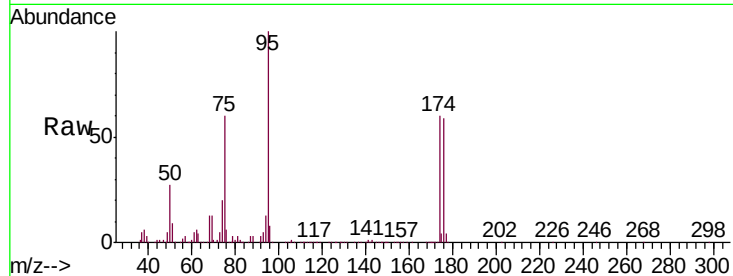




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.089 ppbv
 RT: 14.48 min Scan# 3638
 Delta R.T. -0.03 min
 Lab File: VL034245.D
 Acq: 8 Oct 2019 9:14

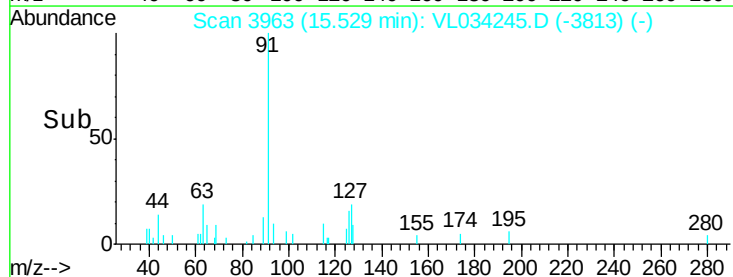
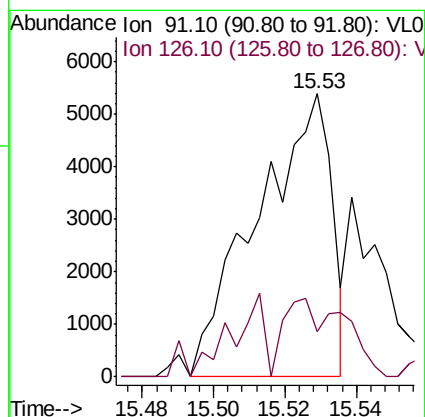
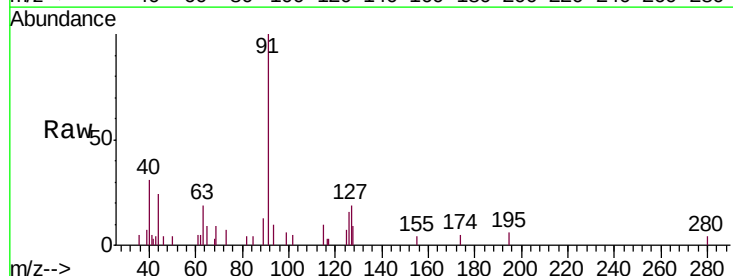
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL2

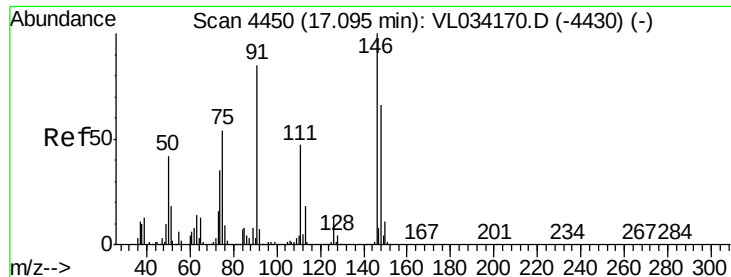
Tgt Ion: 95 Resp: 1479002
 Ion Ratio Lower Upper
 95 100
 174 60.1 45.1 67.7
 175 4.4 3.3 4.9



#71
 2-Chlorotoluene
 Concen: 0.033 ppbv
 RT: 15.53 min Scan# 3963
 Delta R.T. -0.02 min
 Lab File: VL034245.D
 Acq: 8 Oct 2019 9:14

Tgt Ion: 91 Resp: 7779
 Ion Ratio Lower Upper
 91 100
 126 38.2 11.2 45.0





#75

1,3-Dichlorobenzene

Concen: 14.483 ppbv

RT: 17.21 min Scan# 4487

Delta R.T. 0.12 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

Instrument :

MSVOA_L

ClientSampleId :

IA3DL2

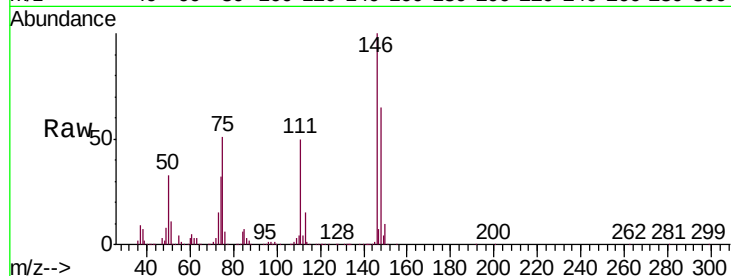
Tgt Ion:146 Resp: 2030463

Ion Ratio Lower Upper

146 100

111 47.7 25.9 77.8

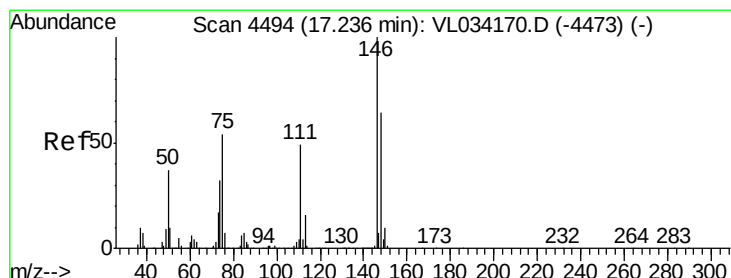
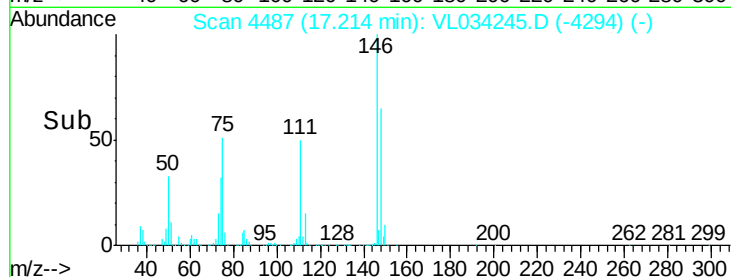
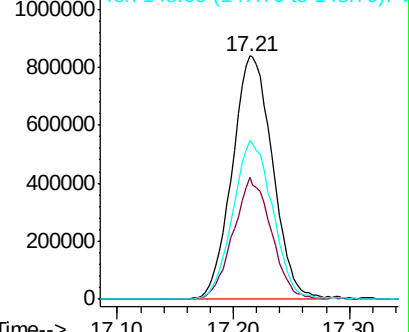
148 64.7 32.6 97.7



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 14.142 ppbv

RT: 17.21 min Scan# 4487

Delta R.T. -0.02 min

Lab File: VL034245.D

Acq: 8 Oct 2019 9:14

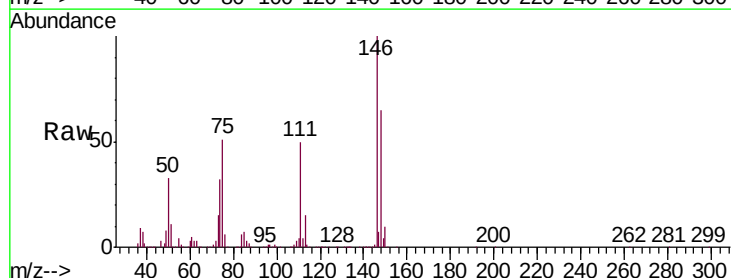
Tgt Ion:146 Resp: 2030463

Ion Ratio Lower Upper

146 100

111 47.7 24.6 74.0

148 64.7 32.4 97.0



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

