

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL021419\
 Data File : VL033212.D
 Acq On : 15 Feb 2019 00:12
 Operator : SY/AP
 Sample : K1483-05DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 15 04:20:22 2019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020519AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 06 09:13:11 2019

QLast Update : Wed Feb 06 09:13:11 2019

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	942149	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2106945	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2104678	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1688047	10.41	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.10%

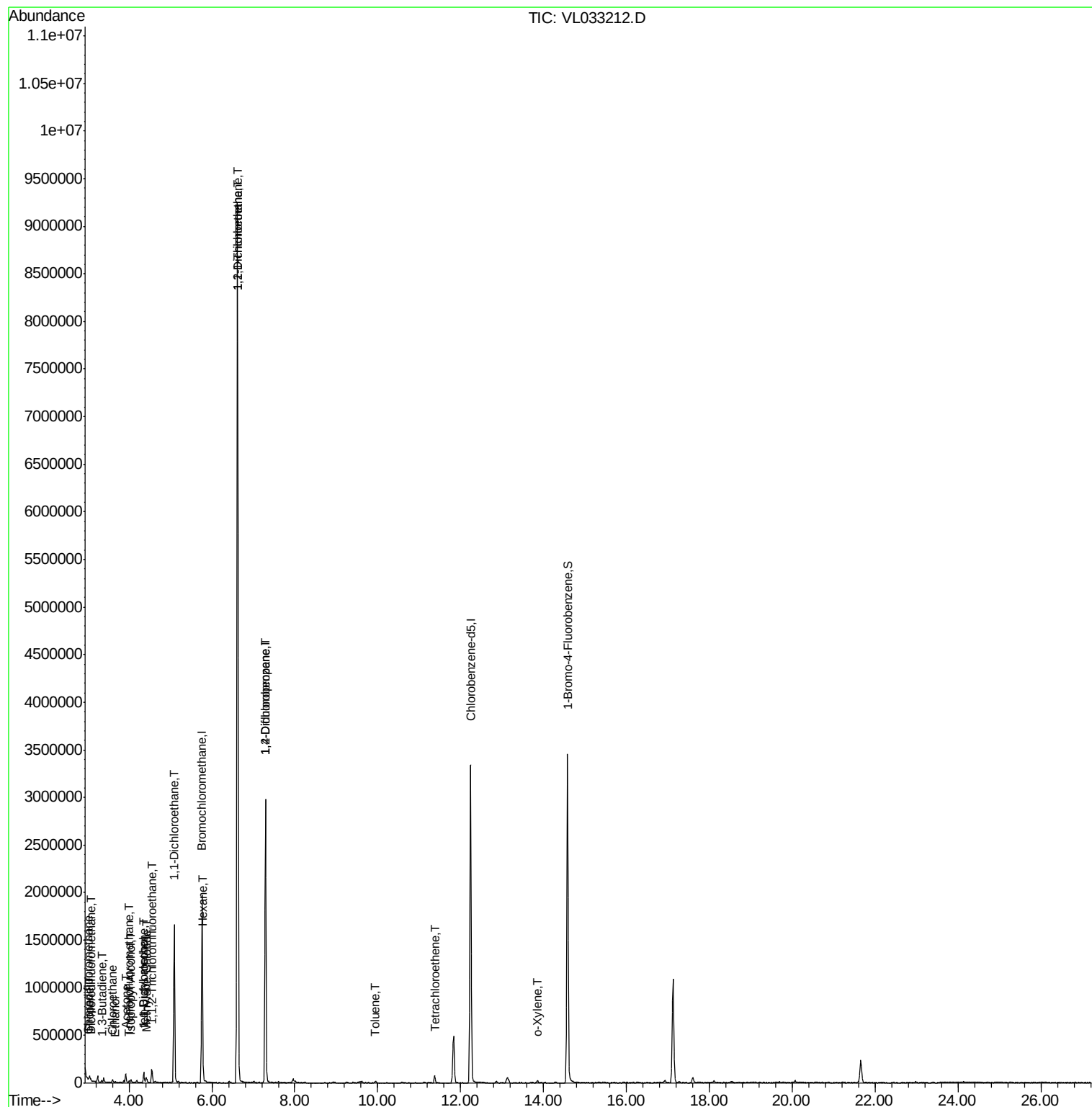
Target Compounds

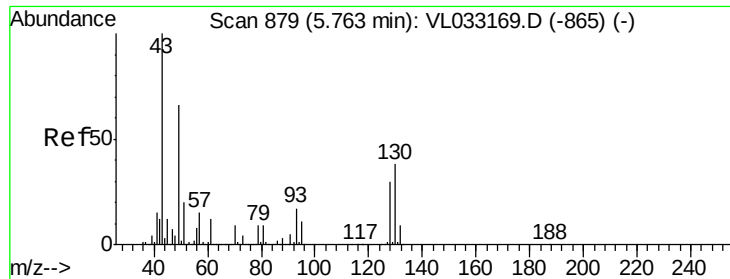
						Qvalue
2) Dichlorodifluoromethane	3.08	85	9143	0.051	ppbv	89
3) Chlorodifluoromethane	3.02	51	4749	0.042	ppbv	97
7) Chloroethane	3.60	64	20169	0.986	ppbv #	88
9) Propene	3.04	41	3324	0.061	ppbv #	58
11) Trichlorofluoromethane	4.00	101	13169	0.090	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.55	101	49014	0.485	ppbv	99
13) Ethanol	3.66	45	2526	0.138	ppbv #	37
15) Acetone	3.92	43	64416	0.607	ppbv #	90
16) 1,3-Butadiene	3.34	39	5565	0.110	ppbv #	7
17) tert-Butyl alcohol	4.36	59	689	0.034	ppbv #	74
18) 1,1-Dichloroethene	4.35	96	30425	0.673	ppbv	94
19) Isopropyl Alcohol	4.04	45	26007	0.361	ppbv #	96
20) Methylene Chloride	4.41	84	17553	0.416	ppbv	92
24) 1,1-Dichloroethane	5.09	63	1387706	10.665	ppbv	100
26) Hexane	5.78	57	12230	0.109	ppbv #	44
32) 1,1,1-Trichloroethane	6.62	97	6141216	32.484	ppbv	99
37) 1,2-Dichloroethane	6.62	62	429186	3.627	ppbv #	1
39) 1,2-Dichloropropane	7.29	63	567184	6.726	ppbv #	24
52) Tetrachloroethene	11.37	164	6394	0.078	ppbv	93
53) Toluene	9.94	91	7823	0.031	ppbv #	63
60) o-Xylene	13.85	91	13523	0.049	ppbv	89

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

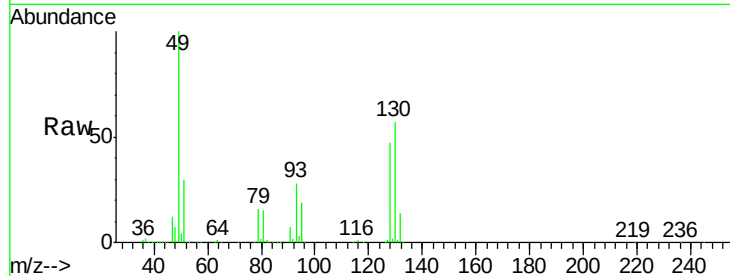
Tgt Ion: 49 Resp: 942149

Ion Ratio Lower Upper

49 100

128 45.9 23.6 71.0

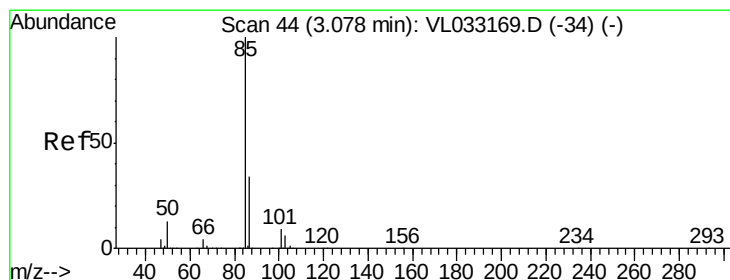
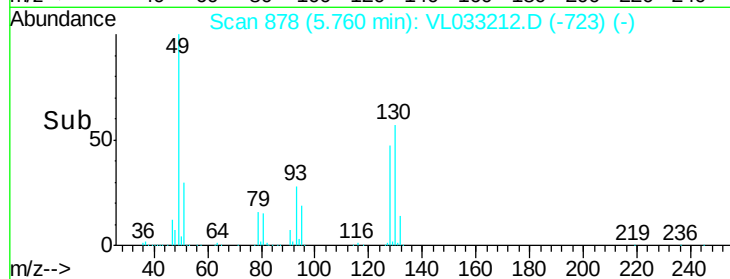
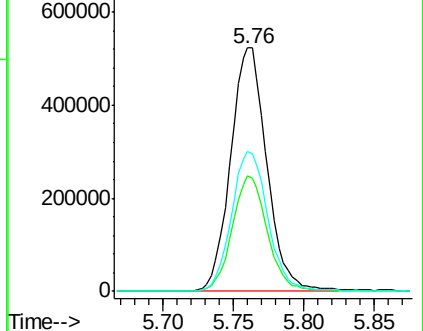
130 58.5 30.3 91.0



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: 0.051 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033212.D

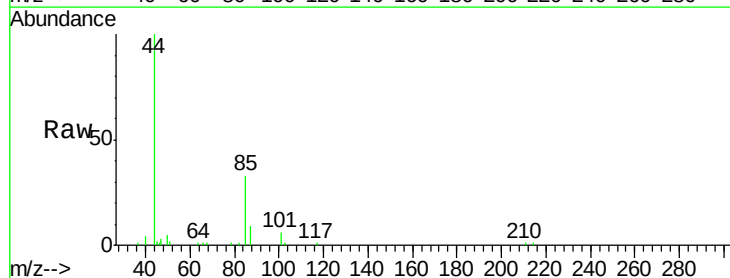
Acq: 15 Feb 2019 00:12

Tgt Ion: 85 Resp: 9143

Ion Ratio Lower Upper

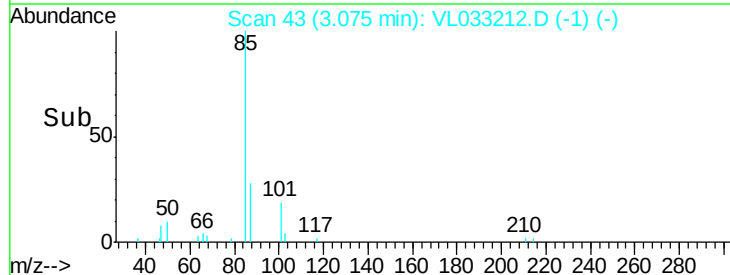
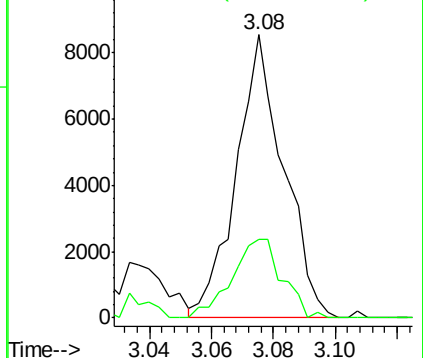
85 100

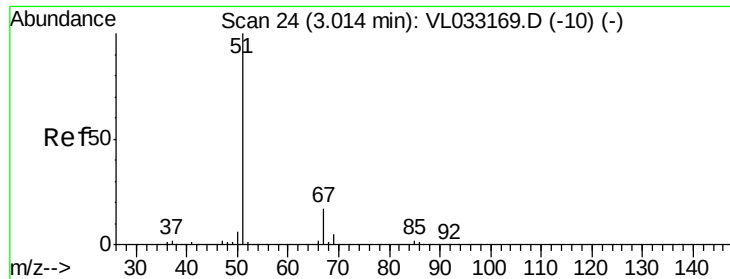
87 27.8 27.4 41.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.042 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL033212.D

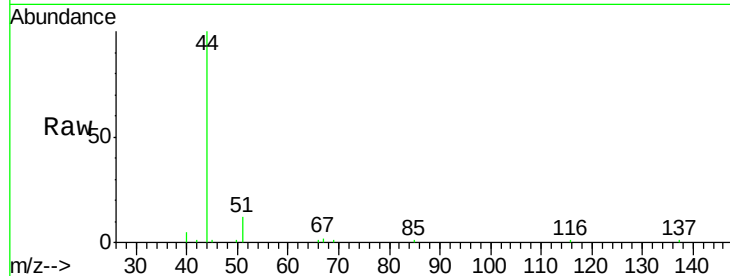
Acq: 15 Feb 2019 00:12

Tgt Ion: 51 Resp: 4749

Ion Ratio Lower Upper

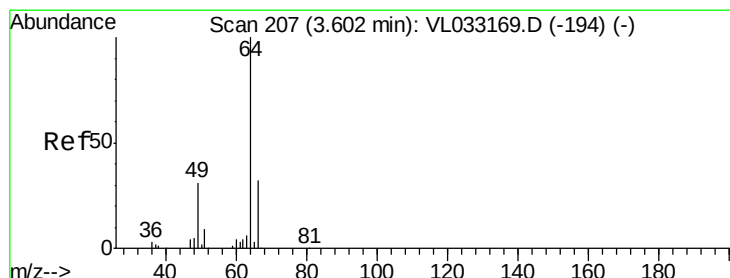
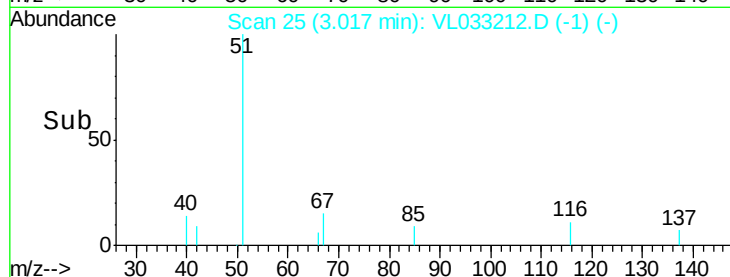
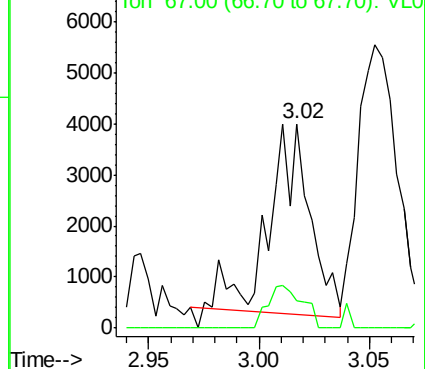
51 100

67 19.0 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#7

Chloroethane

Concen: 0.986 ppbv

RT: 3.60 min Scan# 207

Delta R.T. 0.00 min

Lab File: VL033212.D

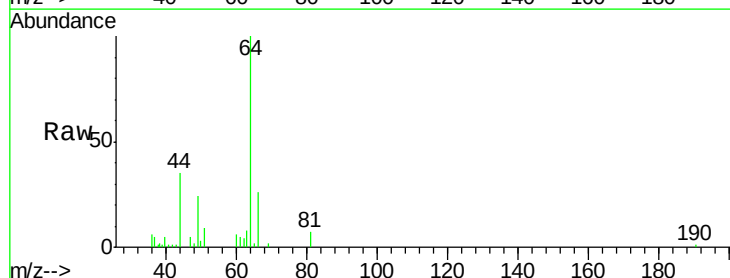
Acq: 15 Feb 2019 00:12

Tgt Ion: 64 Resp: 20169

Ion Ratio Lower Upper

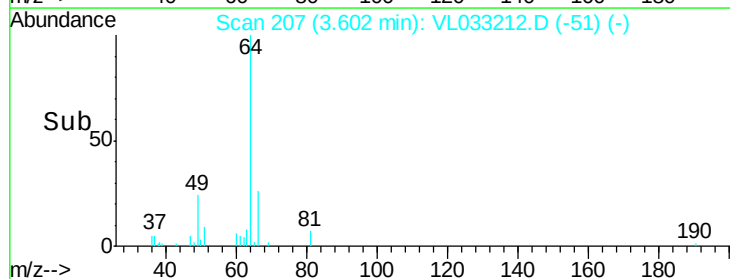
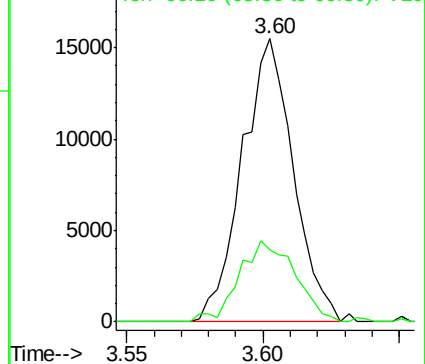
64 100

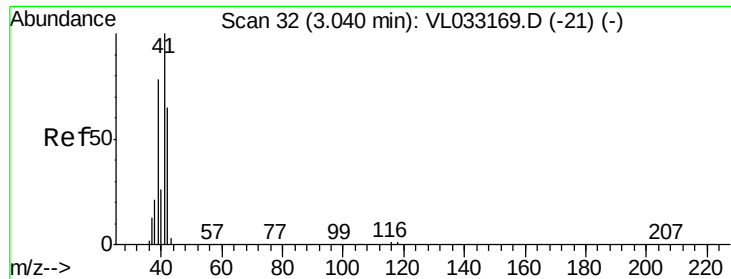
66 25.5 26.0 39.0#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.061 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.00 min

Lab File: VL033212.D

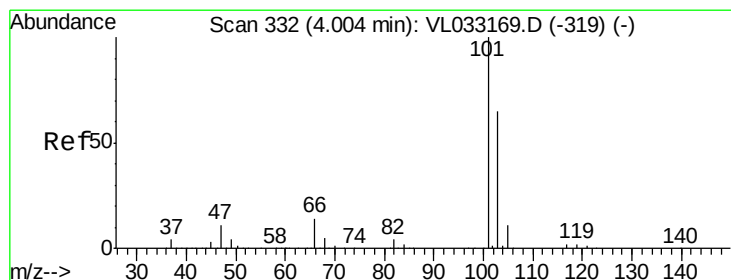
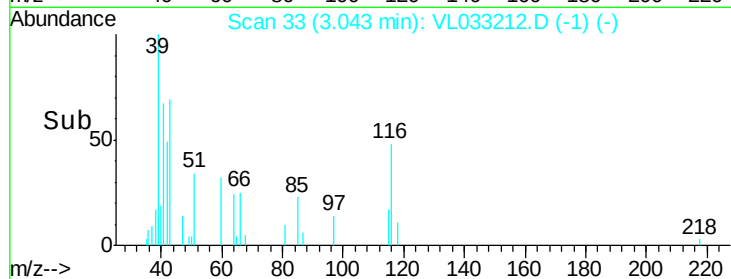
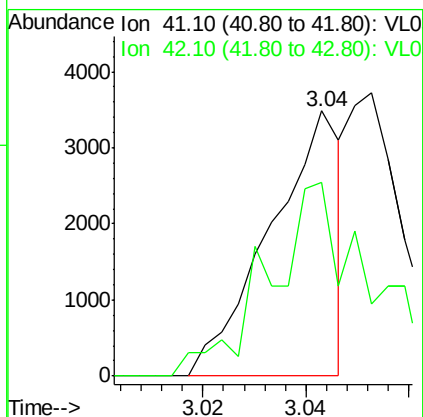
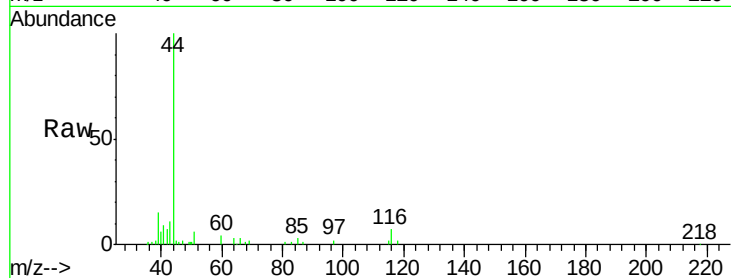
Acq: 15 Feb 2019 00:12

Tgt Ion: 41 Resp: 3324

Ion Ratio Lower Upper

41 100

42 103.1 55.0 82.6#



#11

Trichlorofluoromethane

Concen: 0.090 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL033212.D

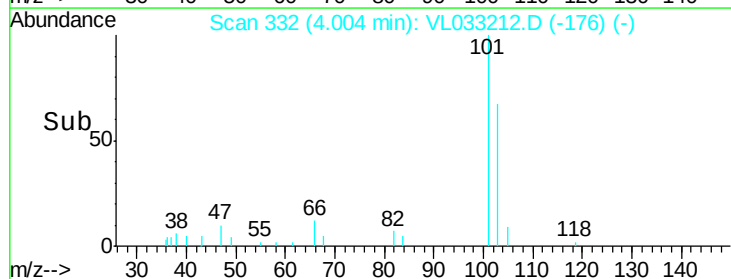
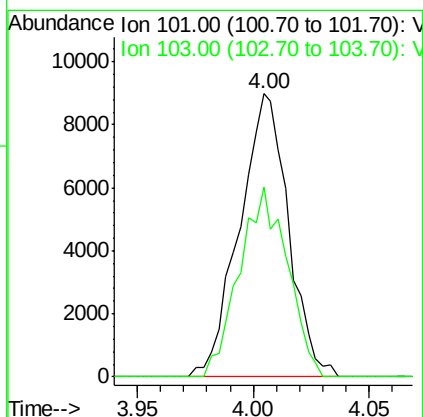
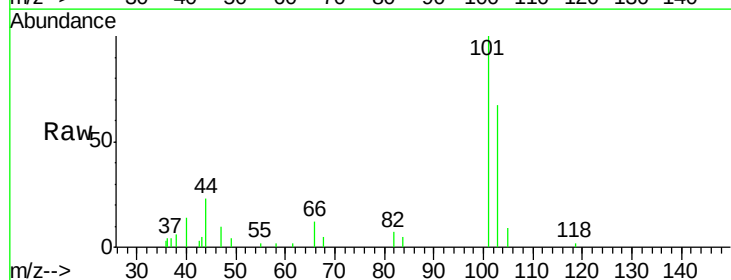
Acq: 15 Feb 2019 00:12

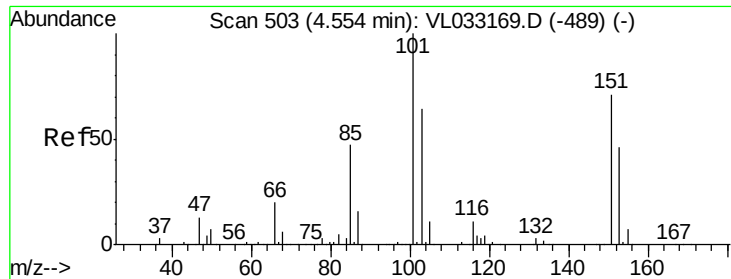
Tgt Ion: 101 Resp: 13169

Ion Ratio Lower Upper

101 100

103 66.9 51.7 77.5





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.485 ppbv

RT: 4.55 min Scan# 502

Delta R.T. -0.00 min

Lab File: VL033212.D

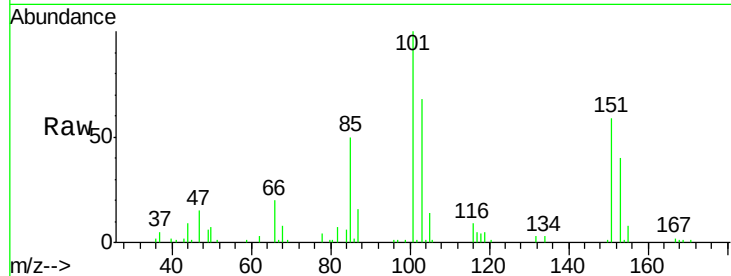
Acq: 15 Feb 2019 00:12

Tgt Ion: 101 Resp: 49014

Ion Ratio Lower Upper

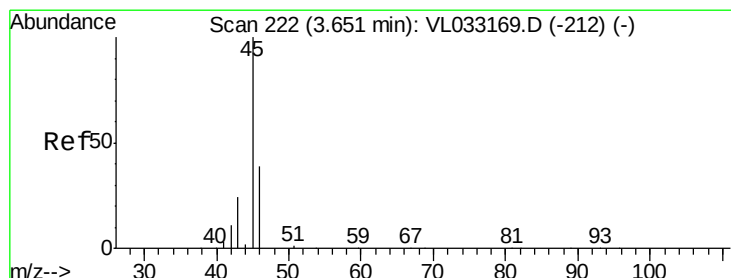
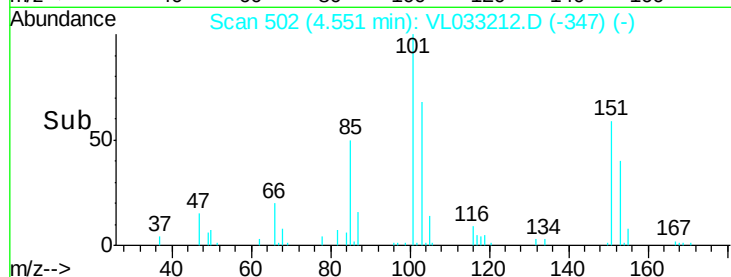
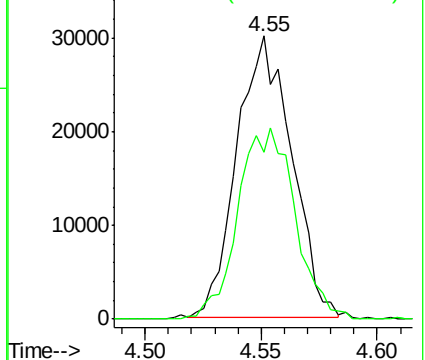
101 100

151 70.6 57.4 86.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 0.138 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033212.D

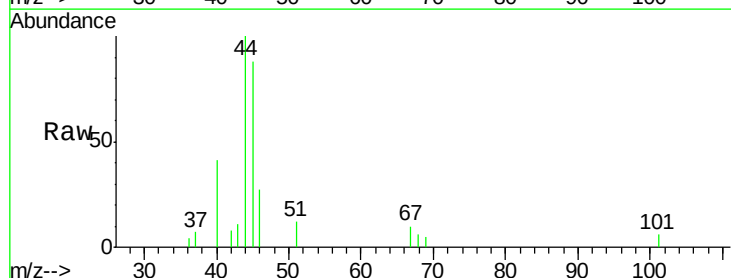
Acq: 15 Feb 2019 00:12

Tgt Ion: 45 Resp: 2526

Ion Ratio Lower Upper

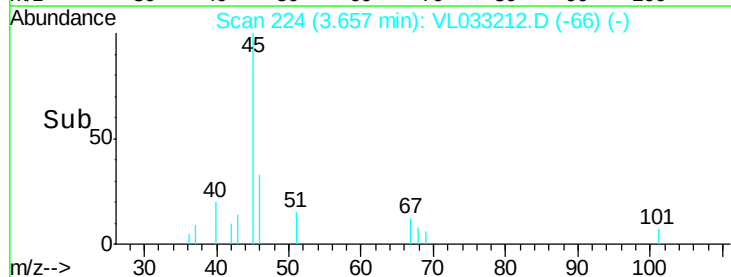
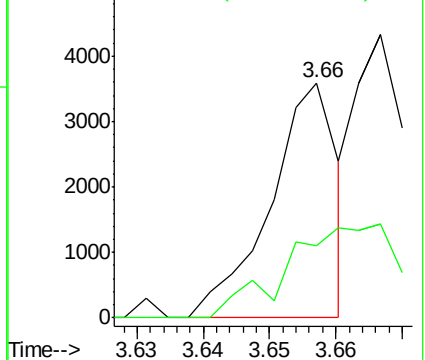
45 100

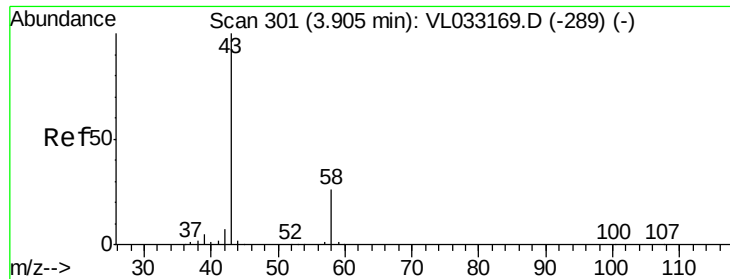
46 0.0 15.0 60.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 0.607 ppbv

RT: 3.92 min Scan# 305

Delta R.T. 0.01 min

Lab File: VL033212.D

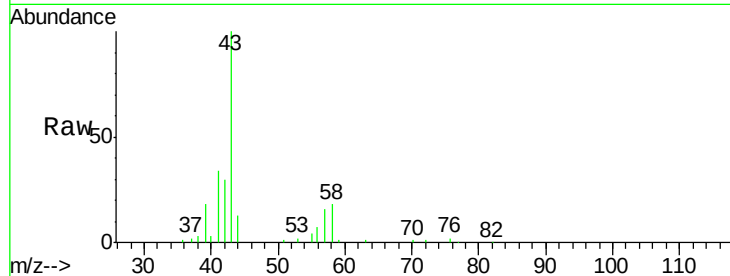
Acq: 15 Feb 2019 00:12

Tgt Ion: 43 Resp: 64416

Ion Ratio Lower Upper

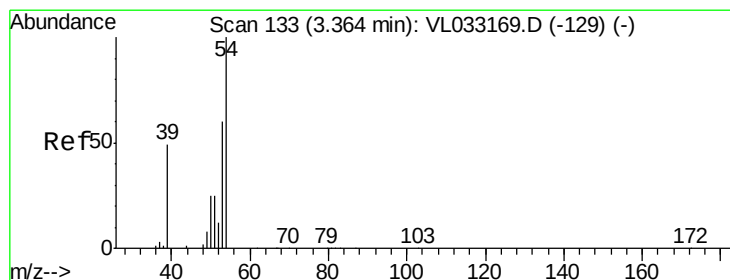
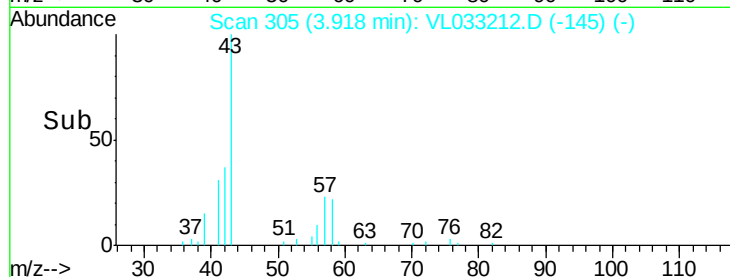
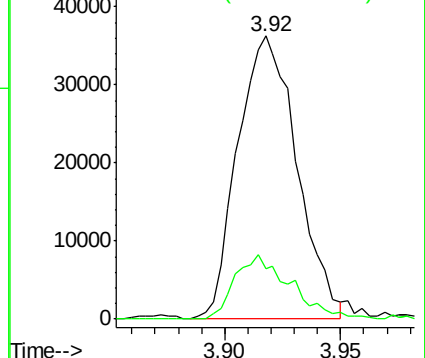
43 100

58 21.1 21.1 31.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.110 ppbv

RT: 3.34 min Scan# 125

Delta R.T. -0.03 min

Lab File: VL033212.D

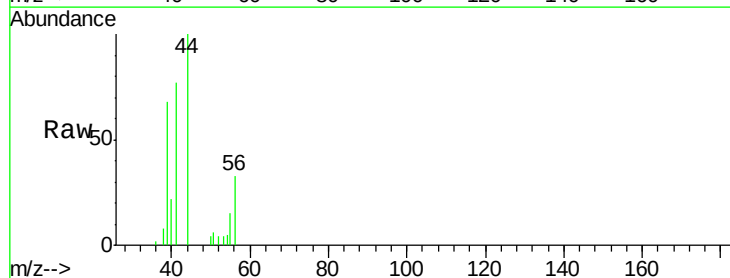
Acq: 15 Feb 2019 00:12

Tgt Ion: 39 Resp: 5565

Ion Ratio Lower Upper

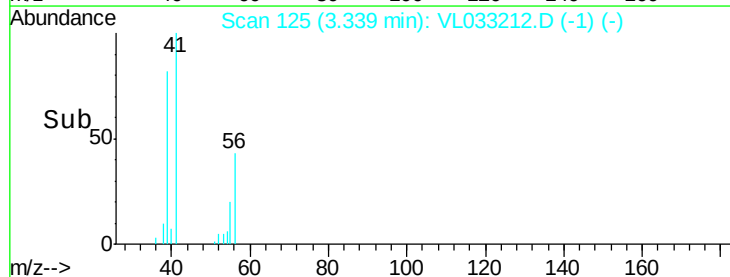
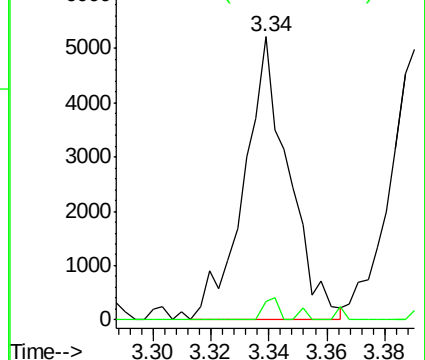
39 100

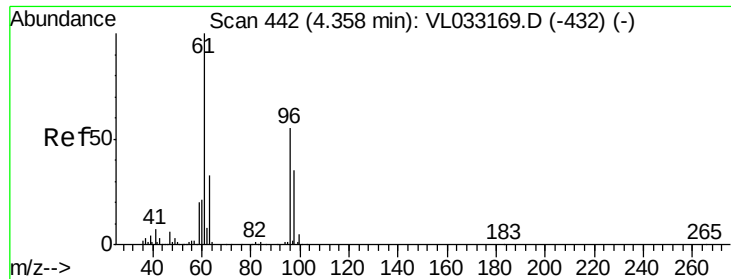
54 1.7 71.3 106.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 0.034 ppbv

RT: 4.36 min Scan# 443

Delta R.T. 0.00 min

Lab File: VL033212.D

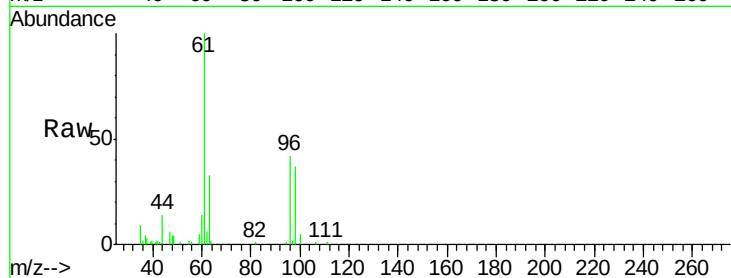
Acq: 15 Feb 2019 00:12

Tgt Ion: 59 Resp: 689

Ion Ratio Lower Upper

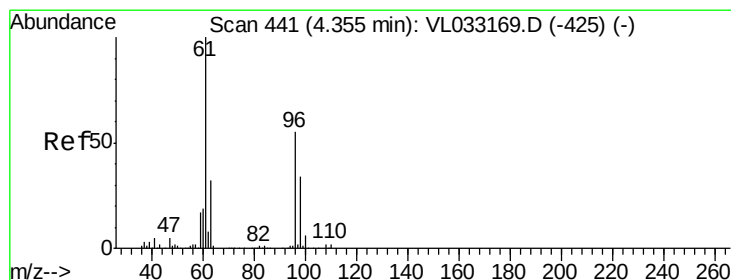
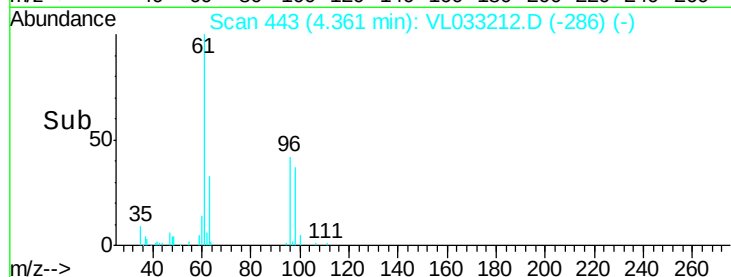
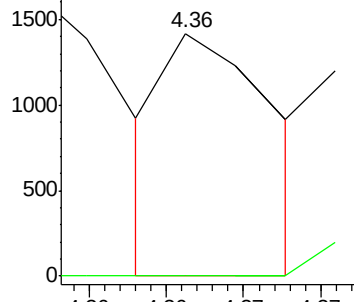
59 100

57 0.0 7.6 11.4#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#18

1,1-Dichloroethene

Concen: 0.673 ppbv

RT: 4.35 min Scan# 440

Delta R.T. -0.00 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

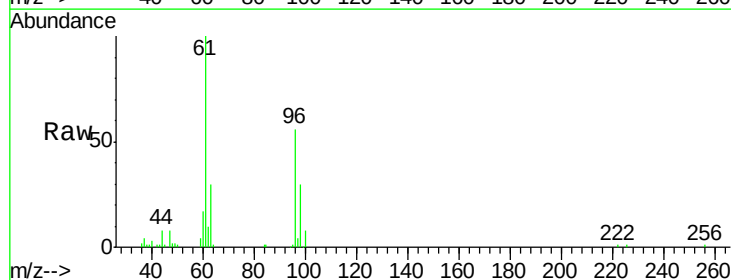
Tgt Ion: 96 Resp: 30425

Ion Ratio Lower Upper

96 100

61 175.6 145.0 217.6

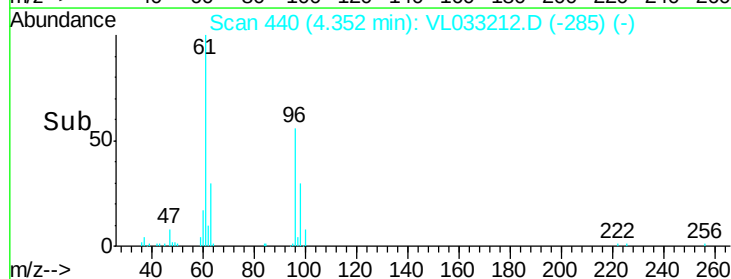
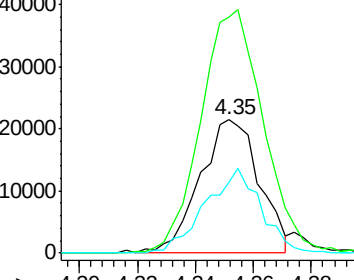
98 52.8 50.0 75.0

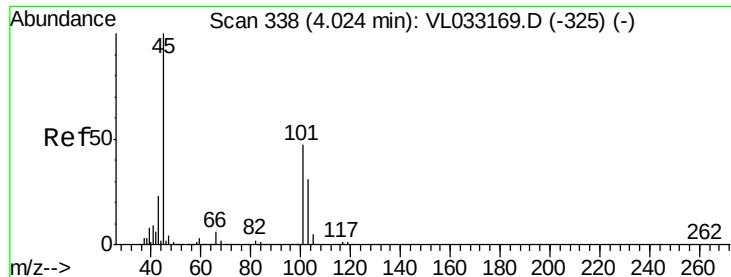


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 0.361 ppbv

RT: 4.04 min Scan# 344

Delta R.T. 0.02 min

Lab File: VL033212.D

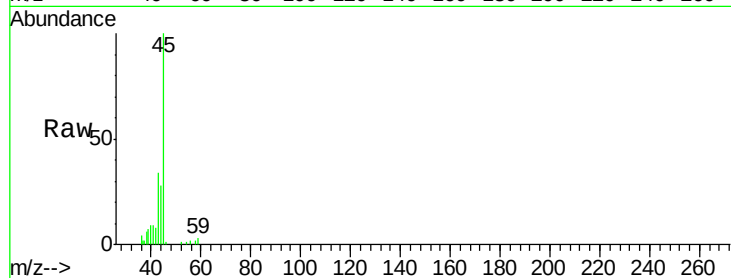
Acq: 15 Feb 2019 00:12

Tgt Ion: 45 Resp: 26007

Ion Ratio Lower Upper

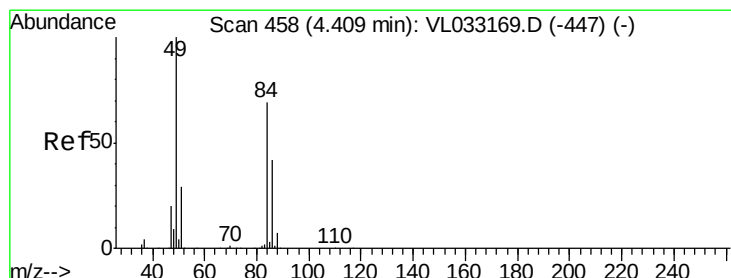
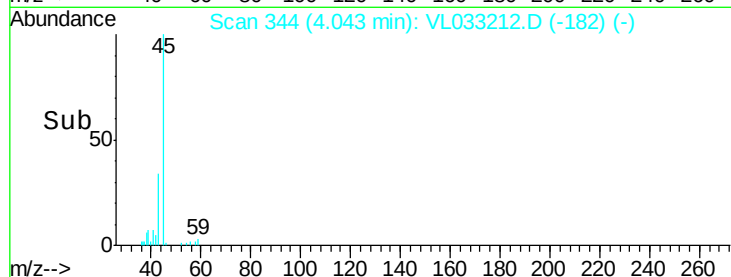
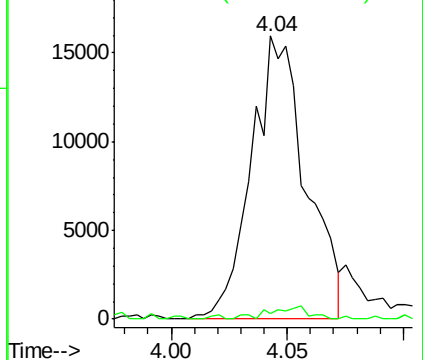
45 100

58 3.4 1.5 2.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.416 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

Tgt Ion: 84 Resp: 17553

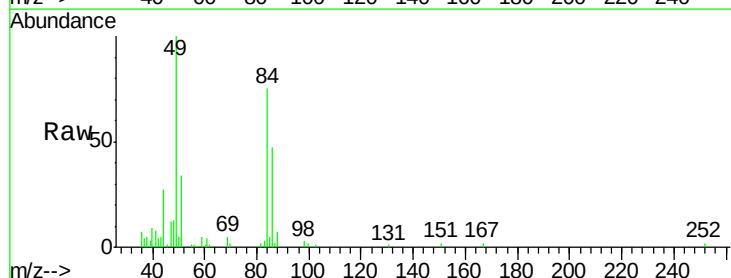
Ion Ratio Lower Upper

84 100

49 130.8 115.8 173.8

51 43.4 33.0 49.6

86 62.3 48.2 72.2

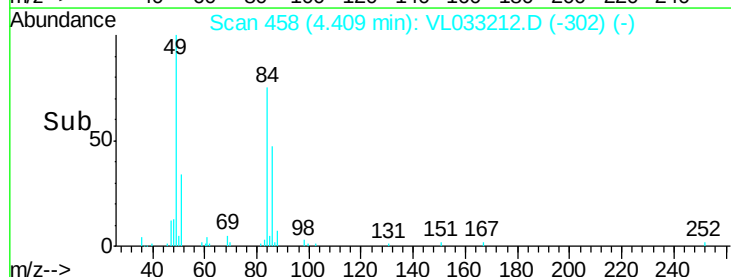
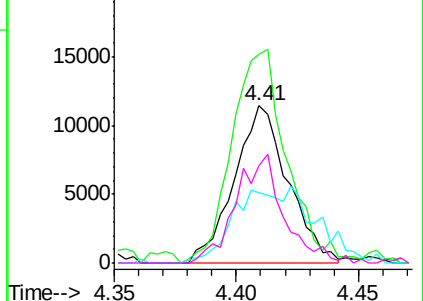


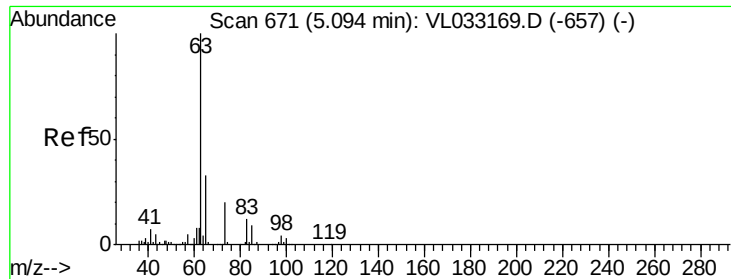
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#24

1,1-Dichloroethane

Concen: 10.665 ppbv

RT: 5.09 min Scan# 669

Delta R.T. -0.01 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

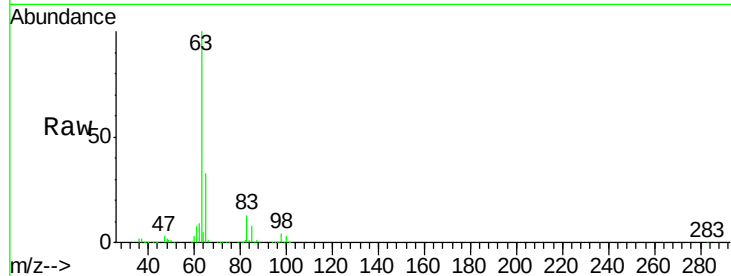
Tgt Ion: 63 Resp: 1387706

Ion Ratio Lower Upper

63 100

98 4.4 2.1 6.5

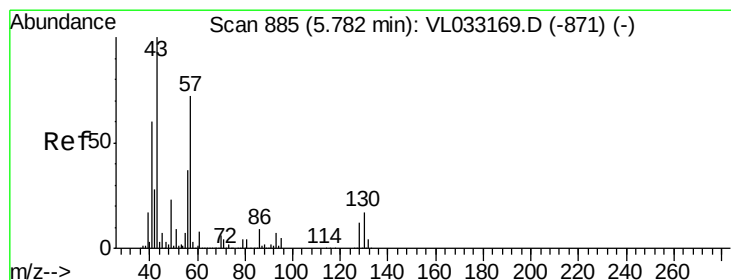
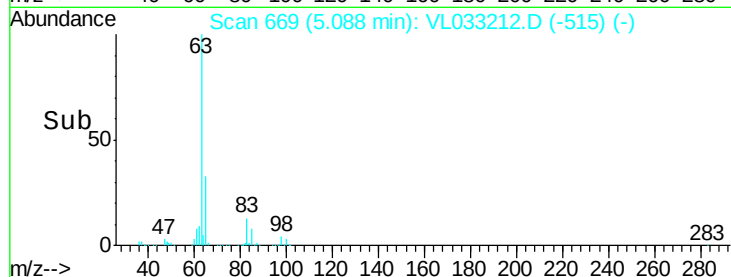
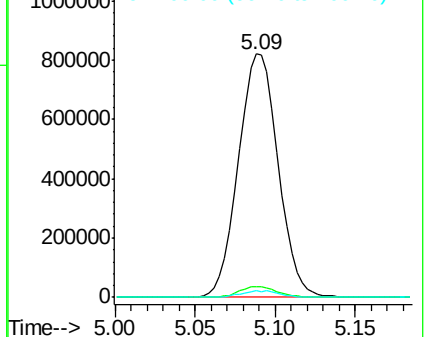
100 2.8 1.4 4.2



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#26

Hexane

Concen: 0.109 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.00 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

Tgt Ion: 57 Resp: 12230

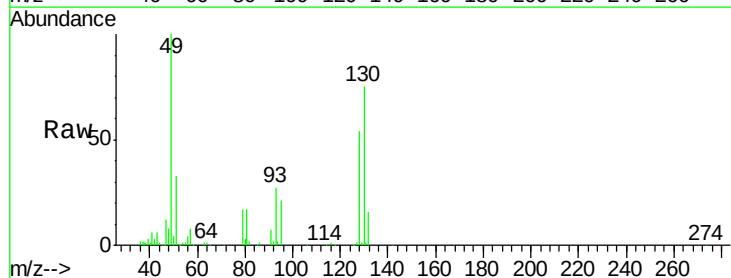
Ion Ratio Lower Upper

57 100

41 97.9 69.4 104.2

43 83.8 176.7 265.1#

56 56.9 41.4 62.0

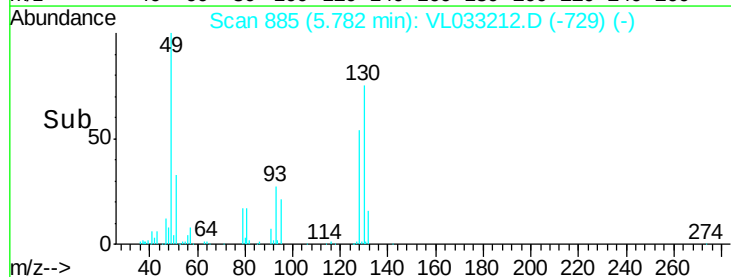
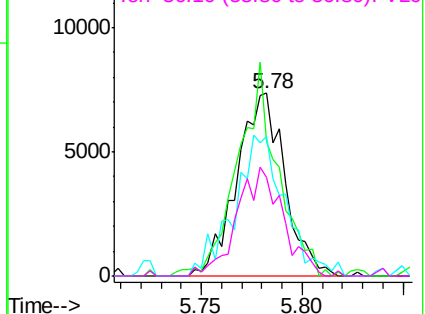


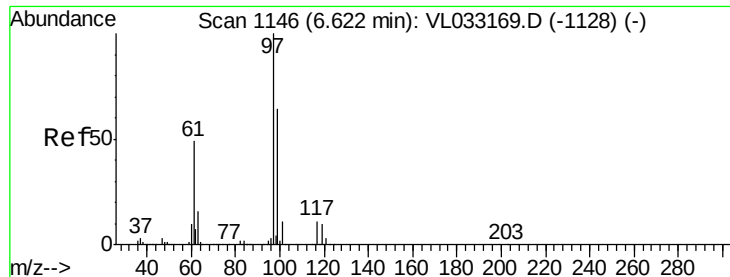
Abundance Ion 57.10 (56.80 to 57.80): VL0

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





#32

1,1,1-Trichloroethane

Concen: 32.484 ppbv

RT: 6.62 min Scan# 1145

Delta R.T. -0.00 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

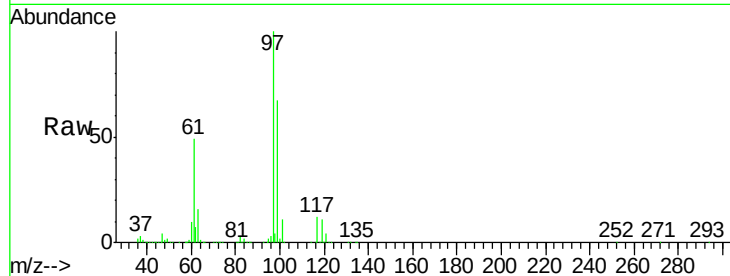
Tgt Ion: 97 Resp: 6141216

Ion Ratio Lower Upper

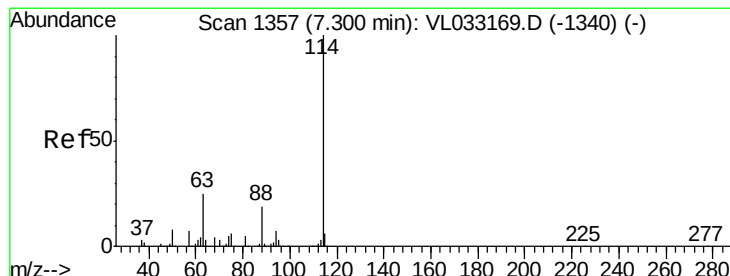
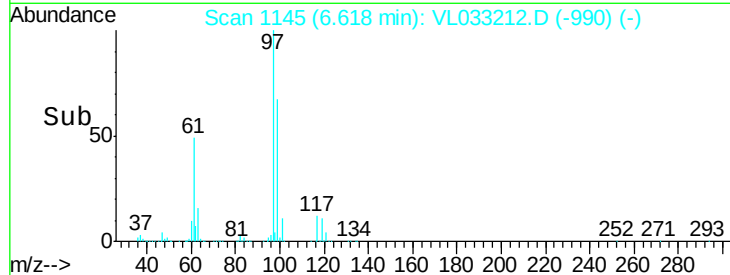
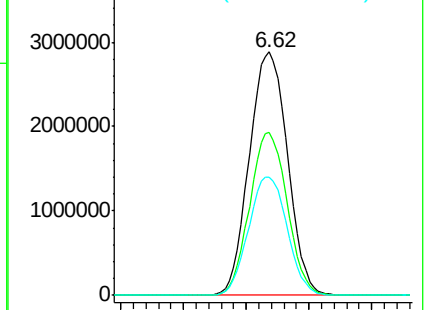
97 100

99 65.5 51.4 77.2

61 49.2 38.9 58.3



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.01 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

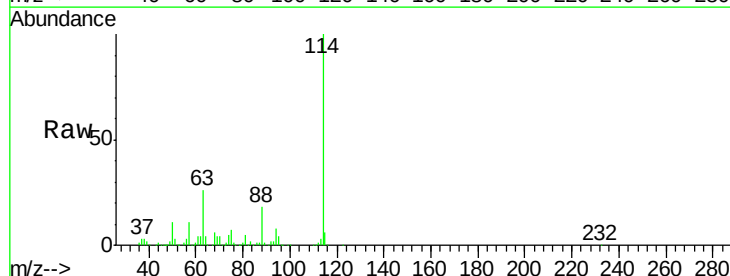
Tgt Ion: 114 Resp: 2106945

Ion Ratio Lower Upper

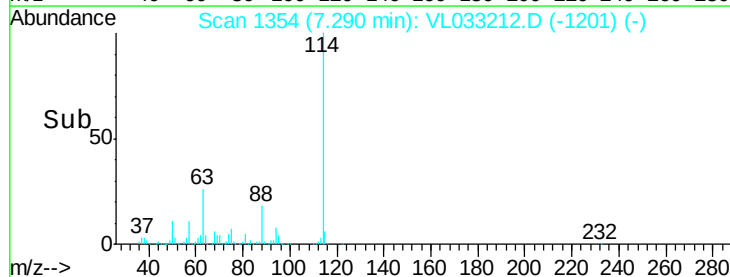
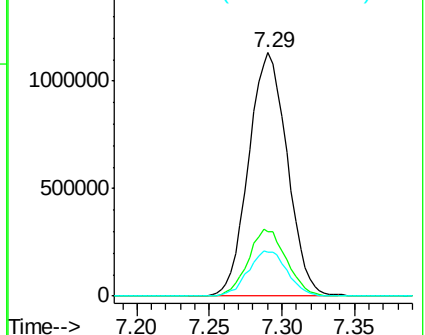
114 100

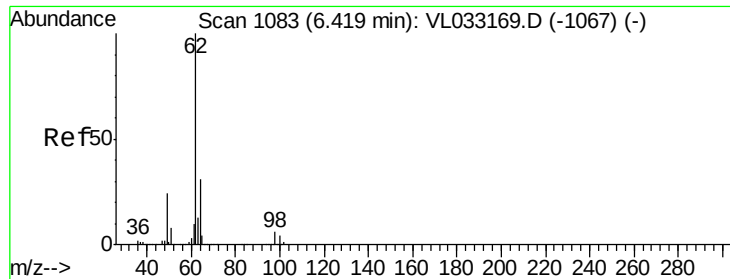
63 27.0 20.8 31.2

88 18.6 14.6 22.0



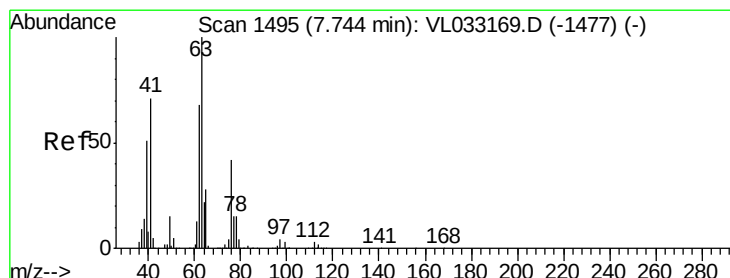
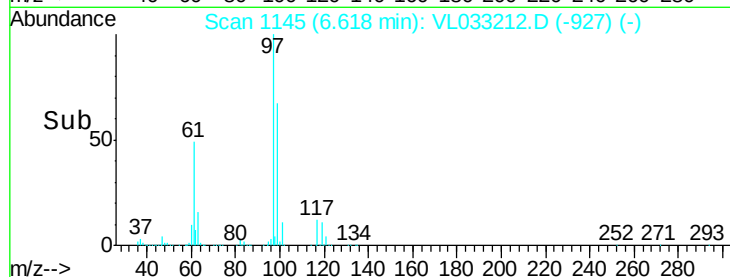
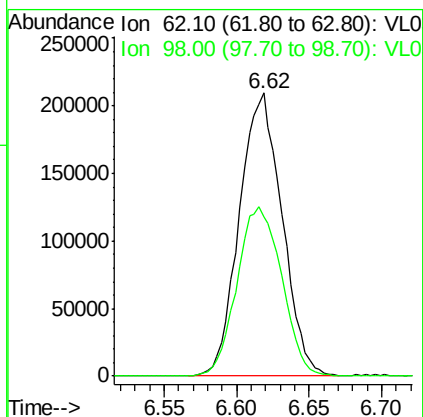
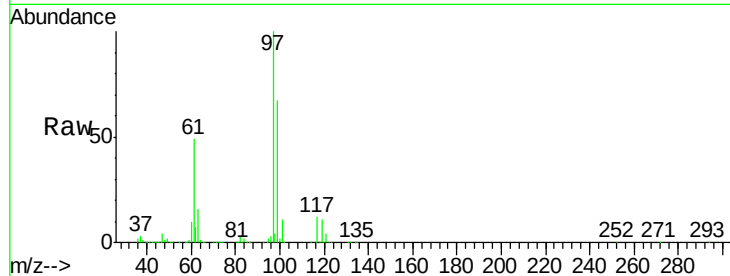
Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





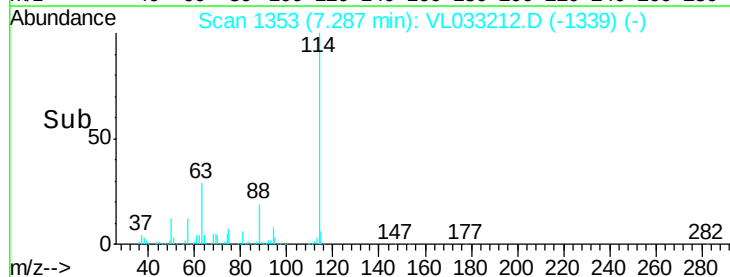
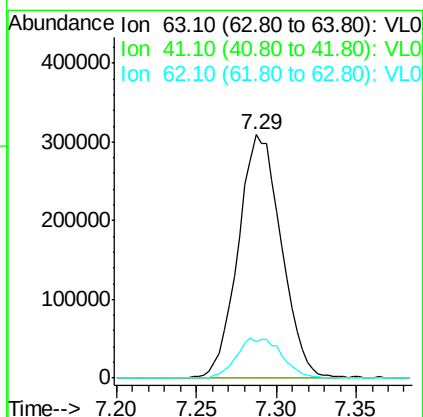
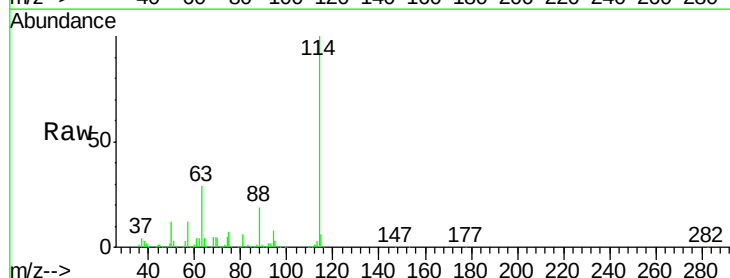
#37
 1,2-Dichloroethane
 Concen: 3.627 ppbv
 RT: 6.62 min Scan# 1145
 Delta R.T. 0.20 min
 Lab File: VL033212.D
 Acq: 15 Feb 2019 00:12

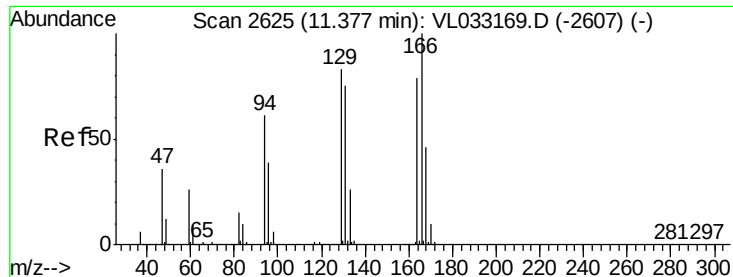
Tgt Ion: 62 Resp: 429186
 Ion Ratio Lower Upper
 62 100
 98 62.8 4.7 7.1#



#39
 1,2-Dichloropropane
 Concen: 6.726 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.46 min
 Lab File: VL033212.D
 Acq: 15 Feb 2019 00:12

Tgt Ion: 63 Resp: 567184
 Ion Ratio Lower Upper
 63 100
 41 0.0 56.4 84.6#
 62 14.6 54.2 81.4#





#52

Tetrachloroethene

Concen: 0.078 ppbv

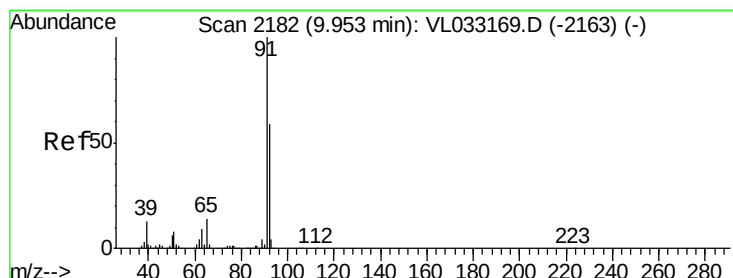
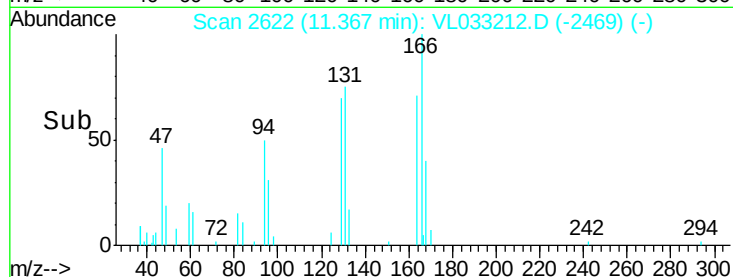
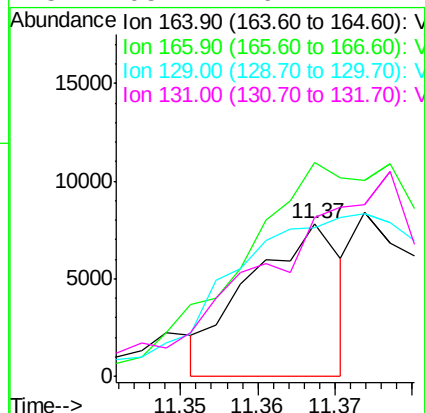
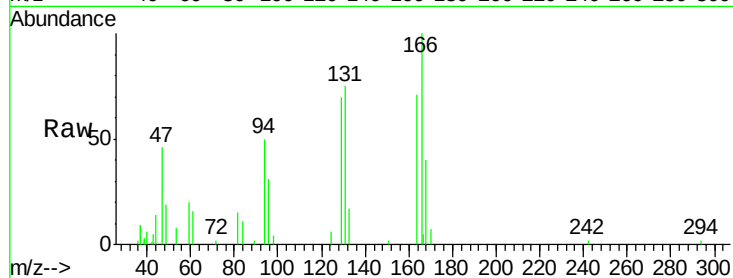
RT: 11.37 min Scan# 2622

Delta R.T. -0.01 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

Tgt Ion:	164	Resp:	6394
Ion	Ratio	Lower	Upper
164	100		
166	131.8	100.9	151.3
129	95.7	83.9	125.9
131	103.2	76.2	114.2



#53

Toluene

Concen: 0.031 ppbv

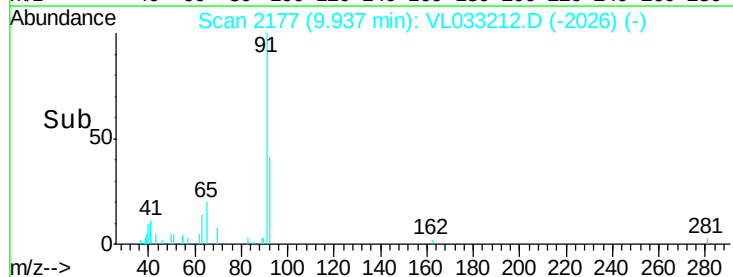
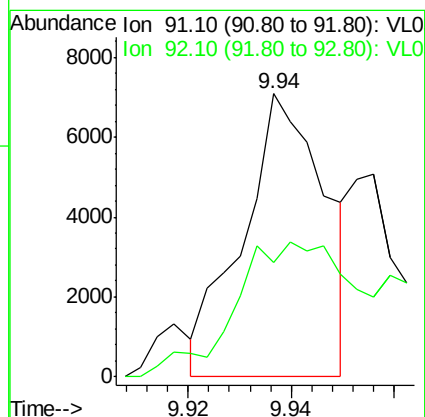
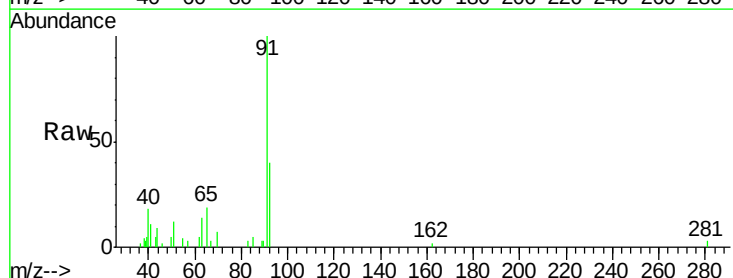
RT: 9.94 min Scan# 2177

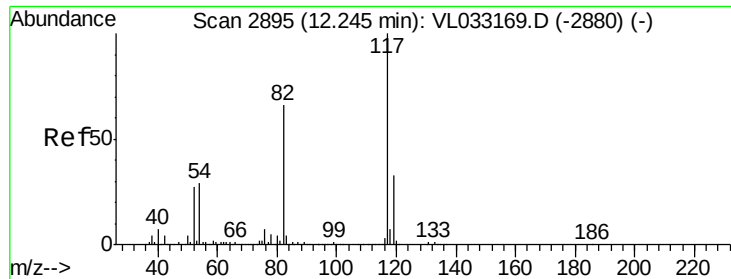
Delta R.T. -0.02 min

Lab File: VL033212.D

Acq: 15 Feb 2019 00:12

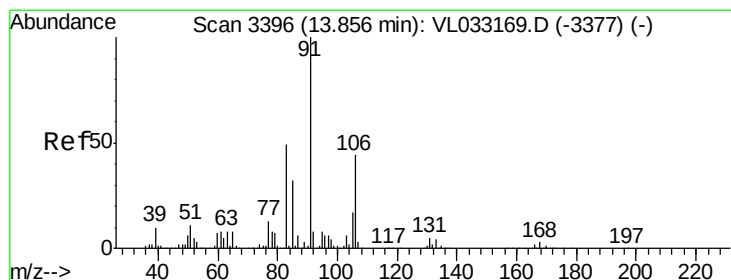
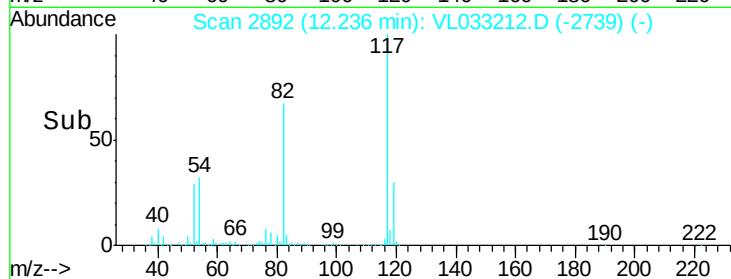
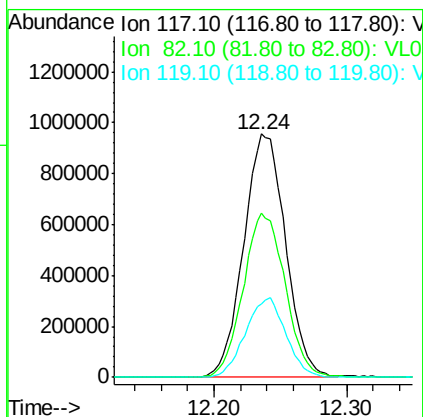
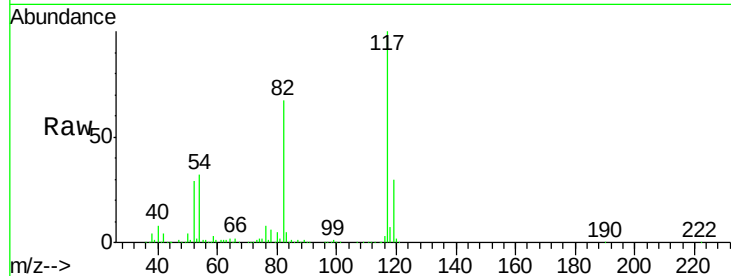
Tgt Ion:	91	Resp:	7823
Ion	Ratio	Lower	Upper
91	100		
92	87.6	48.0	72.0#





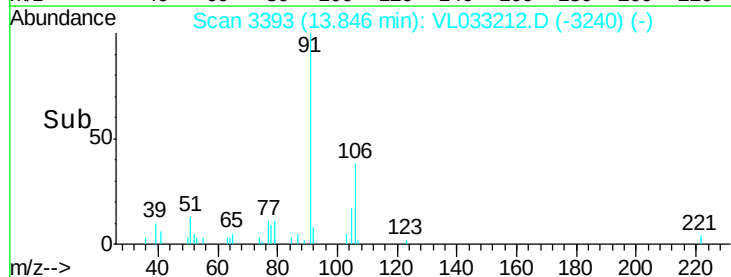
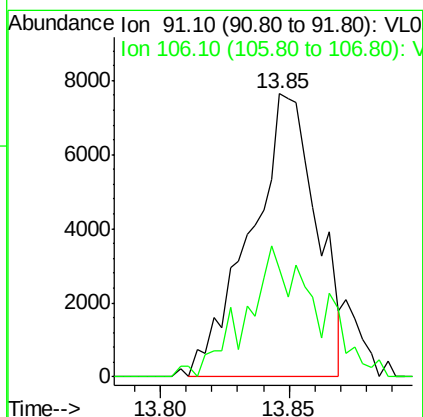
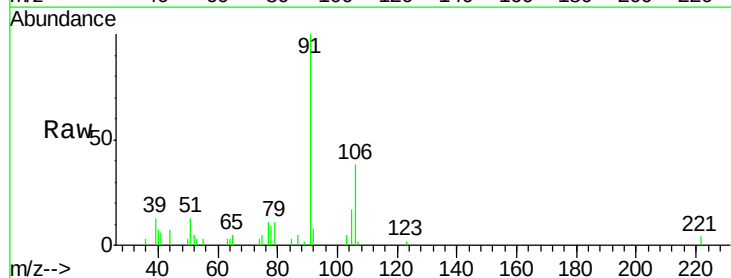
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL033212.D
Acq: 15 Feb 2019 00:12

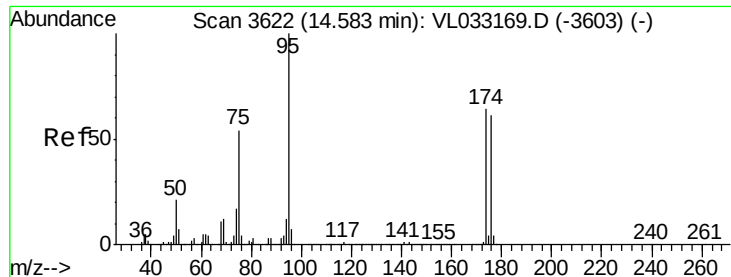
Tgt Ion: 117 Resp: 2104678
Ion Ratio Lower Upper
117 100
82 67.9 49.5 74.3
119 31.8 24.4 36.6



#60
o-Xylene
Concen: 0.049 ppbv
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033212.D
Acq: 15 Feb 2019 00:12

Tgt Ion: 91 Resp: 13523
Ion Ratio Lower Upper
91 100
106 50.4 21.8 65.3





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.414 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. -0.01 min
 Lab File: VL033212.D
 Acq: 15 Feb 2019 00:12

Tgt Ion: 95 Resp: 1688047
 Ion Ratio Lower Upper
 95 100
 174 63.0 51.2 76.8
 175 4.5 3.8 5.6

