

Data File : VL033221.D
Acq On : 15 Feb 2019 6:08
Operator : SY/AP
Sample : K1483-07
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 15 06:47:45 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	859741	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1904332	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1859147	10.00	ppbv	0.00

System Monitoring Compounds

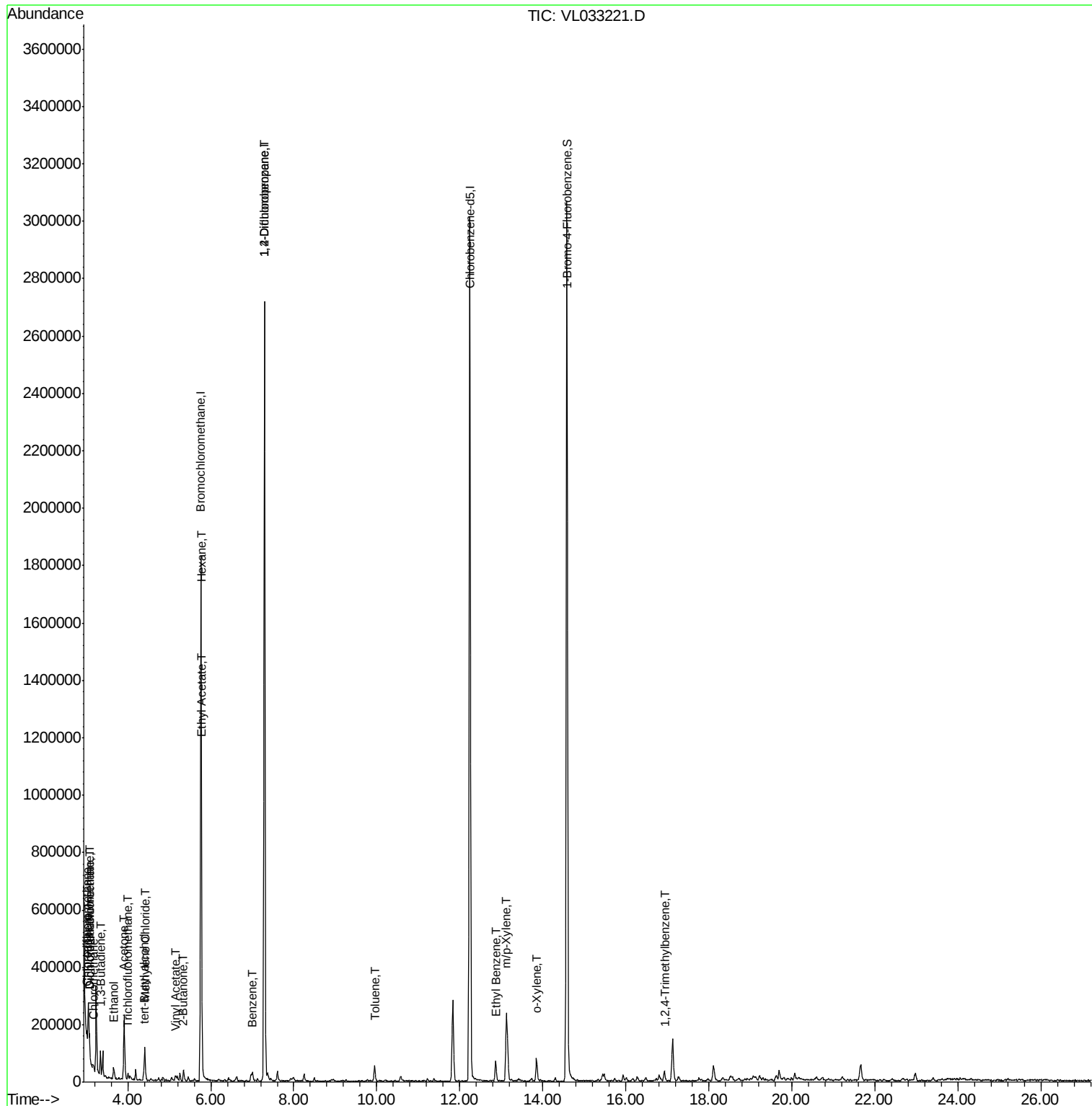
68) 1-Bromo-4-Fluorobenzene	14.58	95	1495320	10.44	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.40%

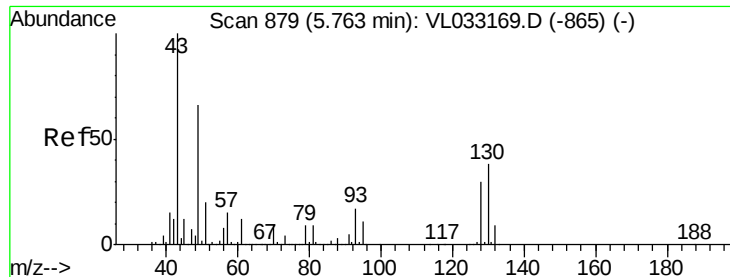
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.08	85	56428	0.343 ppbv	92
3) Chlorodifluoromethane	3.02	51	40451	0.391 ppbv	95
4) Chloromethane	3.17	50	13991	0.256 ppbv	96
8) Dichlorotetrafluoroethane	3.08	85	56428	0.439 ppbv #	17
9) Propene	3.05	41	37083	0.742 ppbv #	66
11) Trichlorofluoromethane	4.01	101	12703	0.095 ppbv	98
13) Ethanol	3.66	45	19992	1.199 ppbv #	28
15) Acetone	3.91	43	230157	2.376 ppbv	92
16) 1,3-Butadiene	3.34	39	23646	0.514 ppbv #	11
17) tert-Butyl alcohol	4.38	59	9912	0.537 ppbv #	49
20) Methylene Chloride	4.41	84	35779	0.929 ppbv	93
23) Vinyl Acetate	5.16	43	9331	0.056 ppbv #	91
25) Ethyl Acetate	5.79	43	21781	0.100 ppbv #	83
26) Hexane	5.78	57	34706	0.339 ppbv #	42
34) 2-Butanone	5.35	43	44611	0.369 ppbv	98
36) Benzene	7.01	78	16347	0.085 ppbv #	86
39) 1,2-Dichloropropane	7.29	63	523329	6.866 ppbv #	25
53) Toluene	9.95	91	36156	0.158 ppbv	98
58) Ethyl Benzene	12.87	91	58490	0.194 ppbv	96
59) m/p-Xylene	13.13	91	261852	1.043 ppbv #	100
60) o-Xylene	13.85	91	60892	0.249 ppbv	98
74) 1,2,4-Trimethylbenzene	16.93	105	22183	0.079 ppbv #	64

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. 0.00 min

Lab File: VL033221.D

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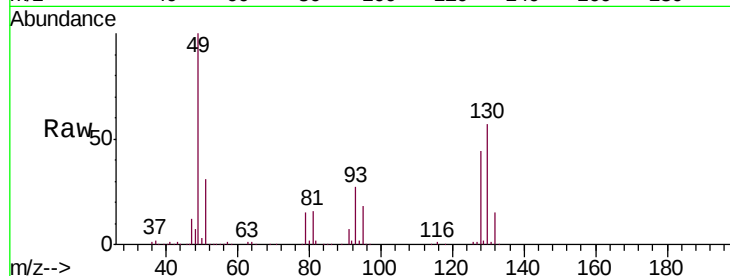
Tgt Ion: 49 Resp: 859741

Ion Ratio Lower Upper

49 100

128 45.5 23.6 71.0

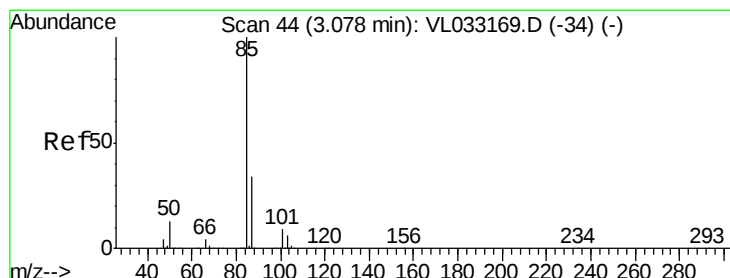
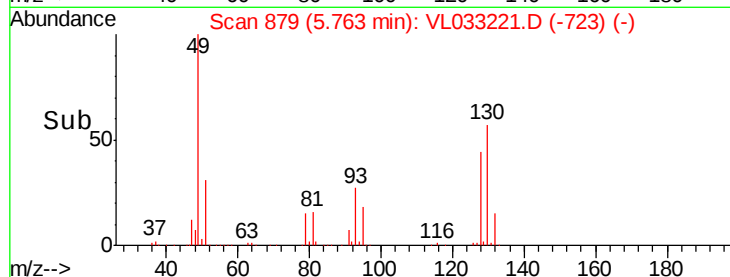
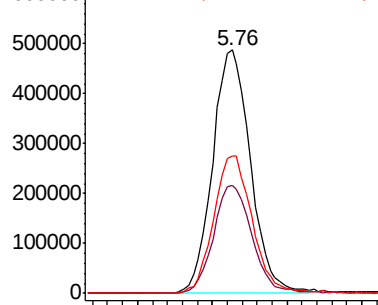
130 58.0 30.3 91.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.343 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL033221.D

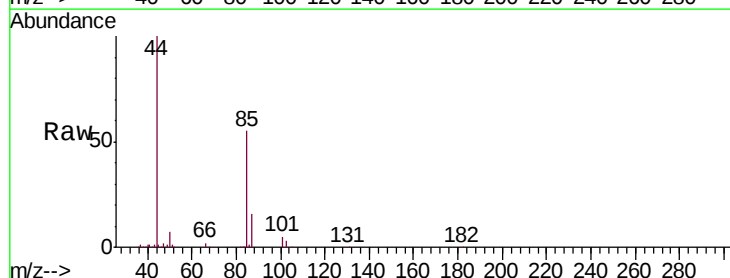
Acq: 15 Feb 2019 6:08

Tgt Ion: 85 Resp: 56428

Ion Ratio Lower Upper

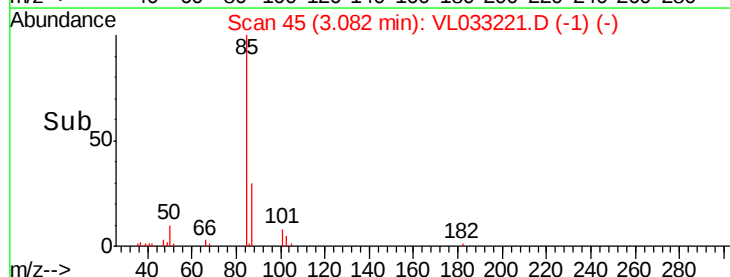
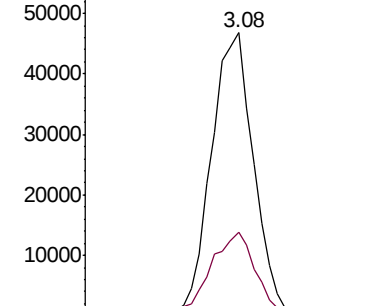
85 100

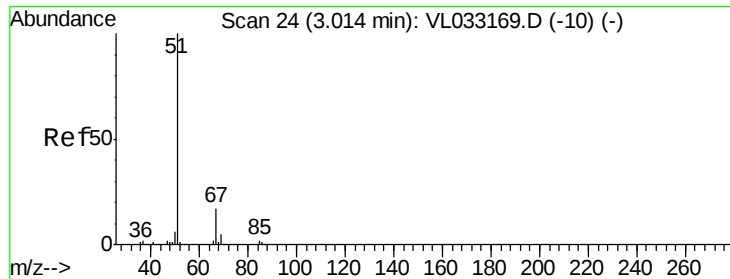
87 29.7 27.4 41.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.391 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL033221.D

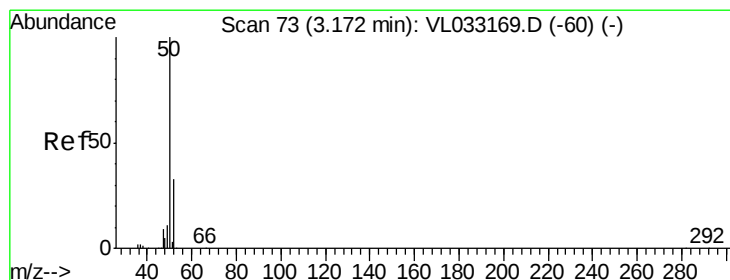
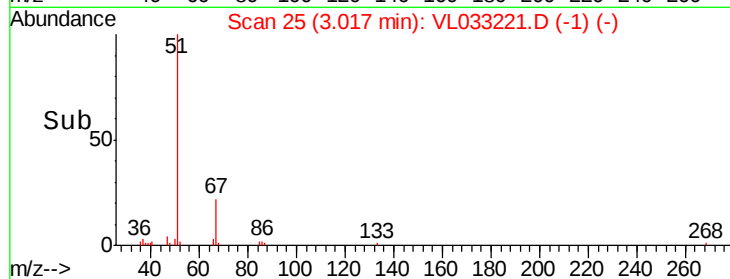
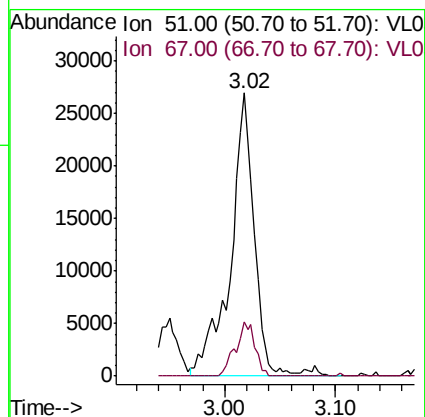
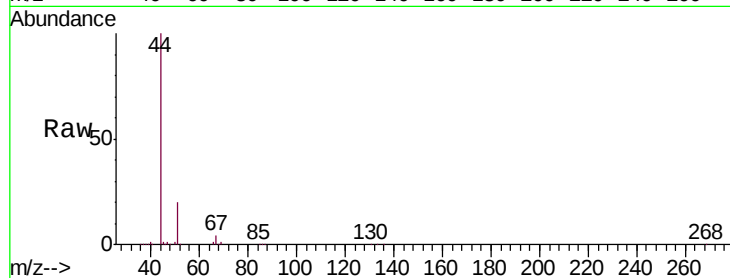
Acq: 15 Feb 2019 6:08

Tgt Ion: 51 Resp: 40451

Ion Ratio Lower Upper

51 100

67 15.5 14.0 21.0



#4

Chloromethane

Concen: 0.256 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033221.D

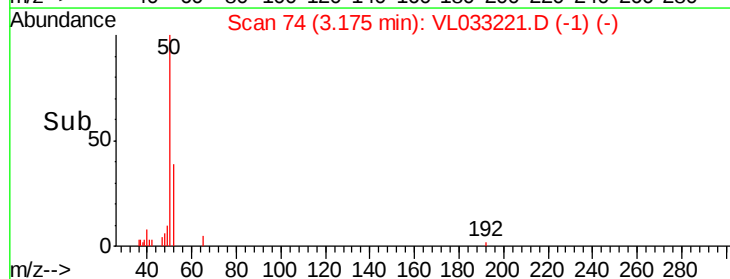
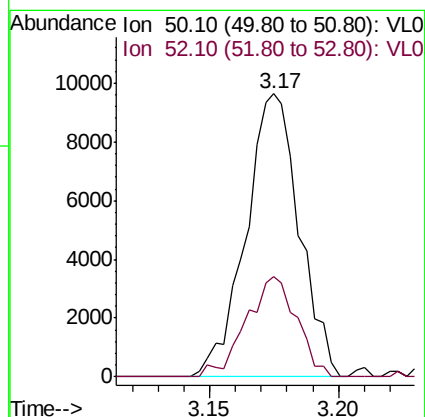
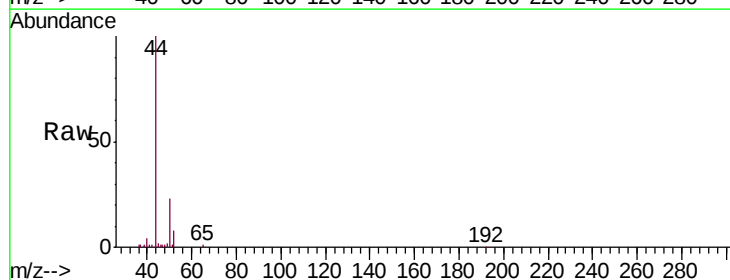
Acq: 15 Feb 2019 6:08

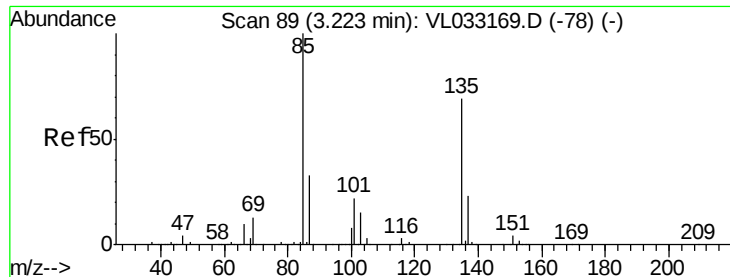
Tgt Ion: 50 Resp: 13991

Ion Ratio Lower Upper

50 100

52 35.6 26.5 39.7





#8

Dichlorotetrafluoroethane

Concen: 0.439 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.14 min

Lab File: VL033221.D

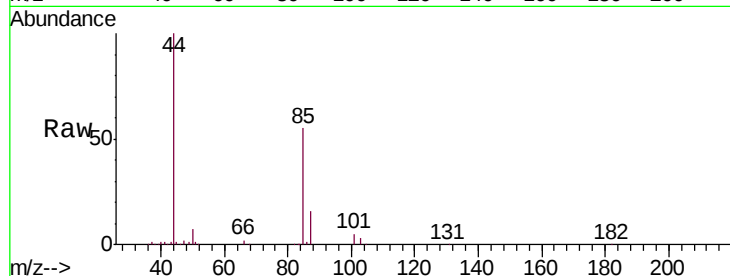
Acq: 15 Feb 2019 6:08

Tgt Ion: 85 Resp: 56428

Ion Ratio Lower Upper

85 100

135 0.7 54.3 81.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

3.08

50000

40000

30000

20000

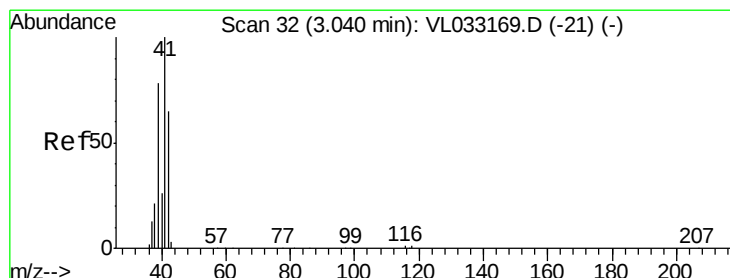
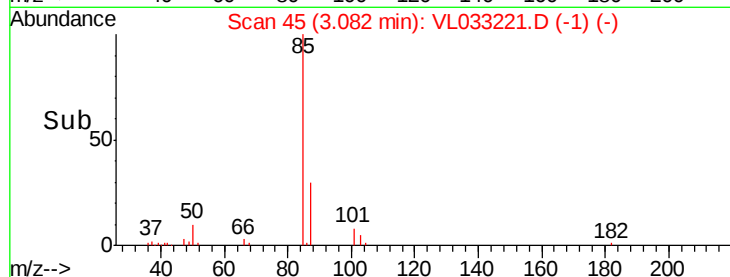
10000

0

Time-->

3.05

3.10



#9

Propene

Concen: 0.742 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033221.D

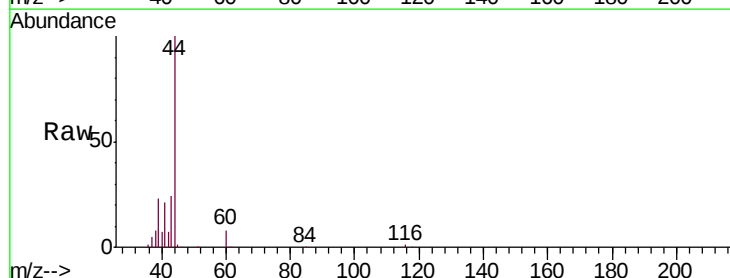
Acq: 15 Feb 2019 6:08

Tgt Ion: 41 Resp: 37083

Ion Ratio Lower Upper

41 100

42 40.8 55.0 82.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.05

30000

25000

20000

15000

10000

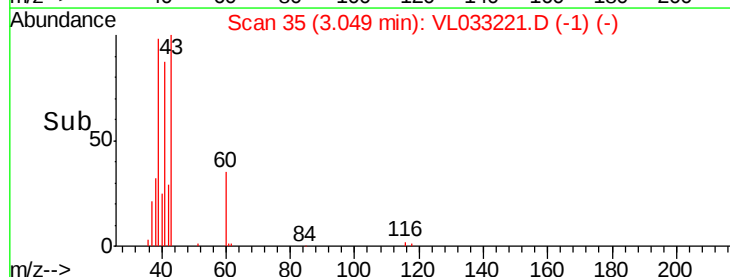
5000

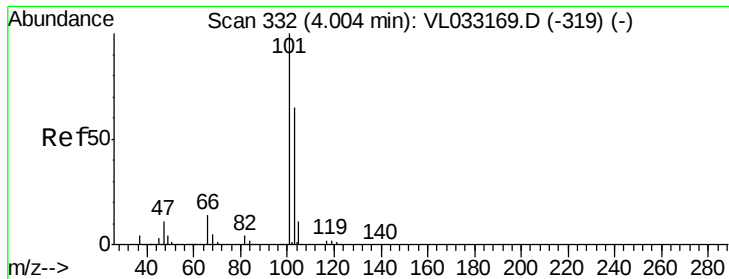
0

Time-->

3.00

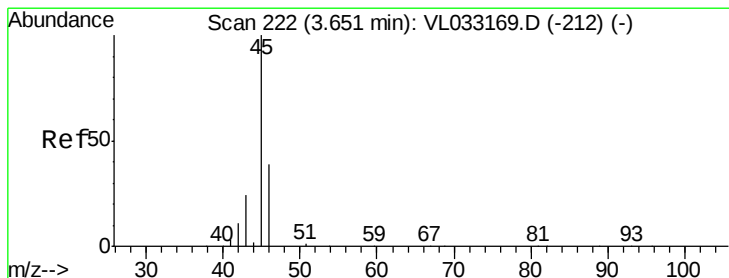
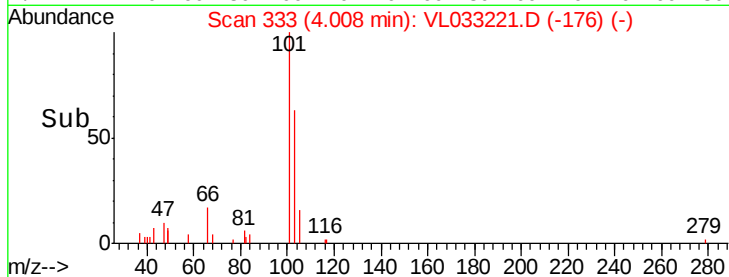
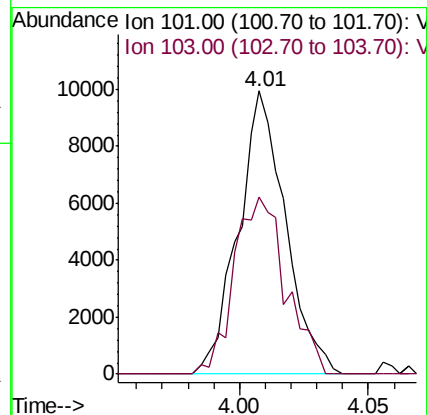
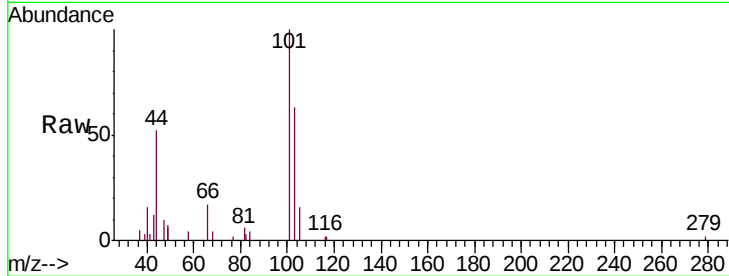
3.05





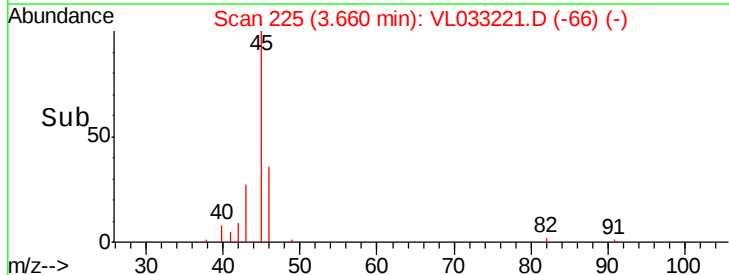
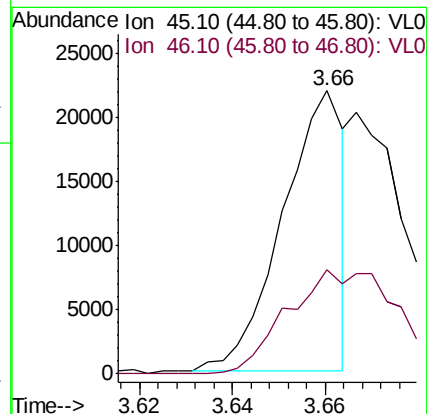
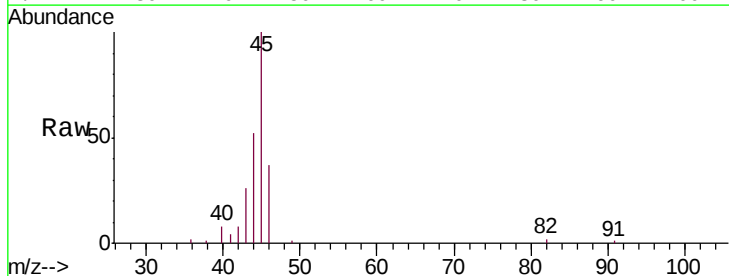
#11
 Trichlorofluoromethane
 Concen: 0.095 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. 0.00 min
 Lab File: VL033221.D
 Acq: 15 Feb 2019 6:08

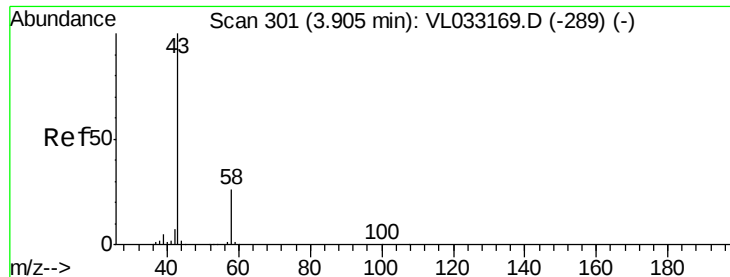
Tgt Ion: 101 Resp: 12703
 Ion Ratio Lower Upper
 101 100
 103 62.6 51.7 77.5



#13
 Ethanol
 Concen: 1.199 ppbv
 RT: 3.66 min Scan# 225
 Delta R.T. 0.01 min
 Lab File: VL033221.D
 Acq: 15 Feb 2019 6:08

Tgt Ion: 45 Resp: 19992
 Ion Ratio Lower Upper
 45 100
 46 80.9 15.0 60.2#





#15

Acetone

Concen: 2.376 ppbv

RT: 3.91 min Scan# 303

Delta R.T. 0.01 min

Lab File: VL033221.D

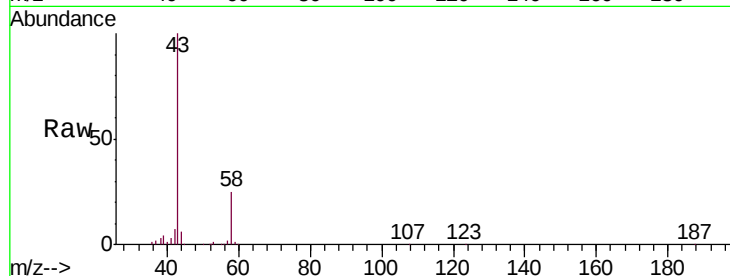
Acq: 15 Feb 2019 6:08

Tgt Ion: 43 Resp: 230157

Ion Ratio Lower Upper

43 100

58 30.3 21.1 31.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

150000

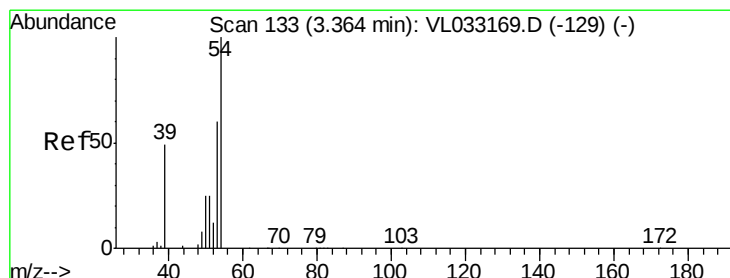
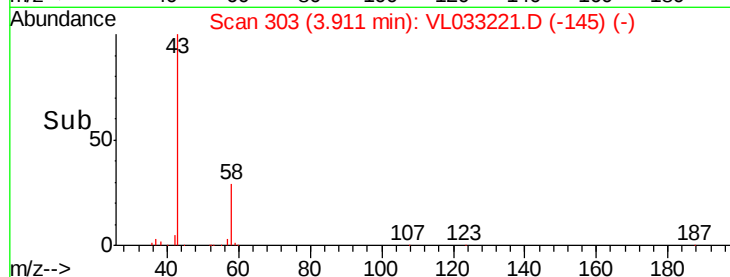
100000

50000

0

3.85 3.90 3.95

Time-->



#16

1,3-Butadiene

Concen: 0.514 ppbv

RT: 3.34 min Scan# 126

Delta R.T. -0.02 min

Lab File: VL033221.D

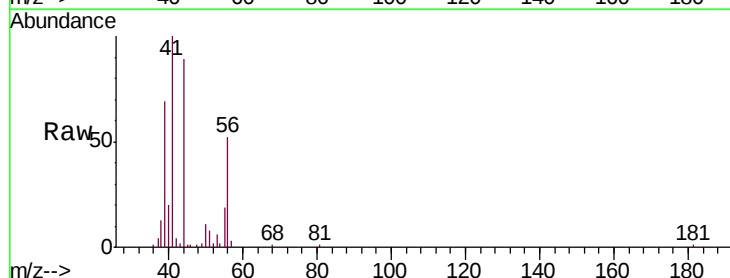
Acq: 15 Feb 2019 6:08

Tgt Ion: 39 Resp: 23646

Ion Ratio Lower Upper

39 100

54 5.3 71.3 106.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

20000

15000

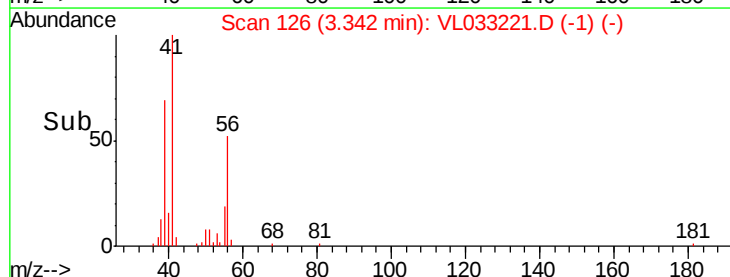
10000

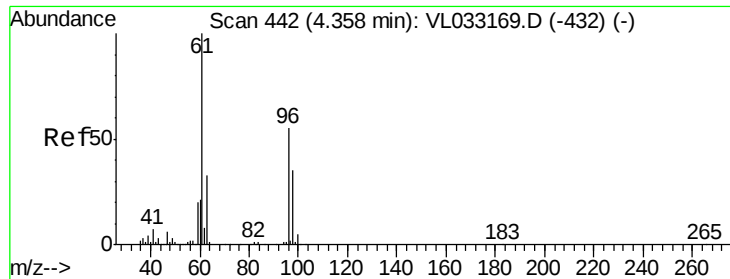
5000

0

3.30 3.35

Time-->

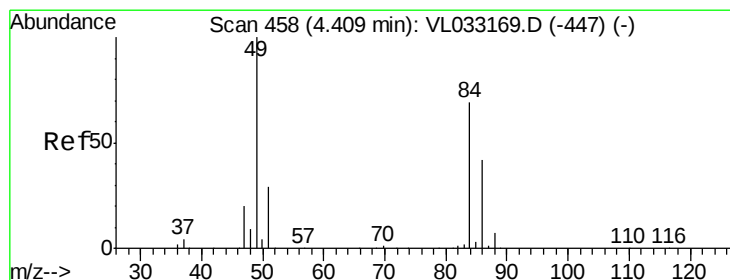
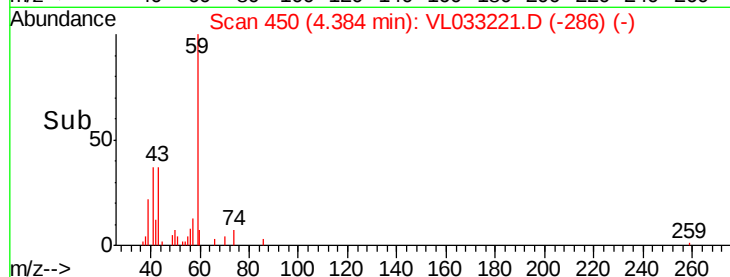
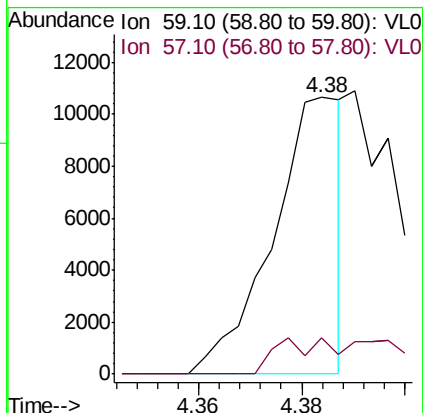
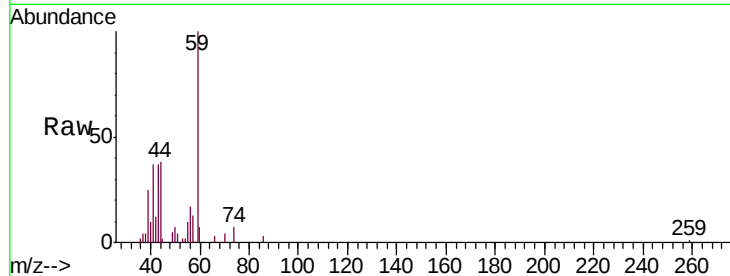




#17

tert-Butyl alcohol
Concen: 0.537 ppbv
RT: 4.38 min Scan# 450
Delta R.T. 0.03 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

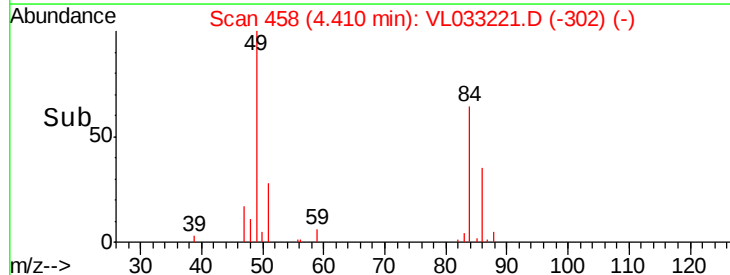
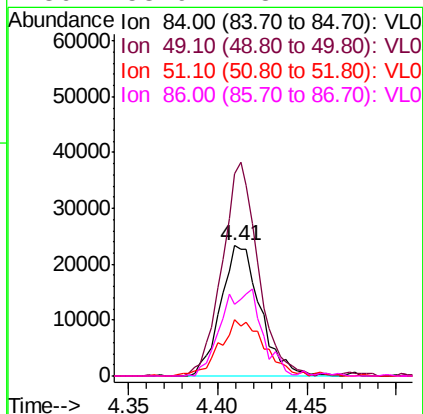
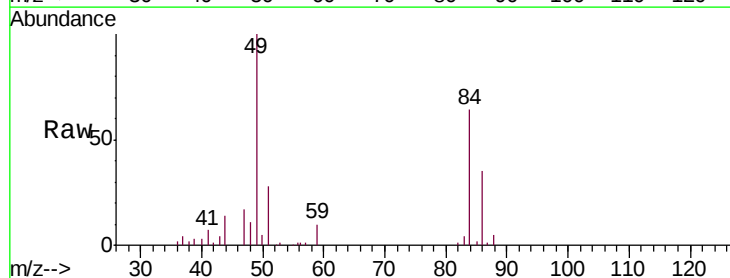
Tgt Ion: 59 Resp: 9912
Ion Ratio Lower Upper
59 100
57 28.2 7.6 11.4#

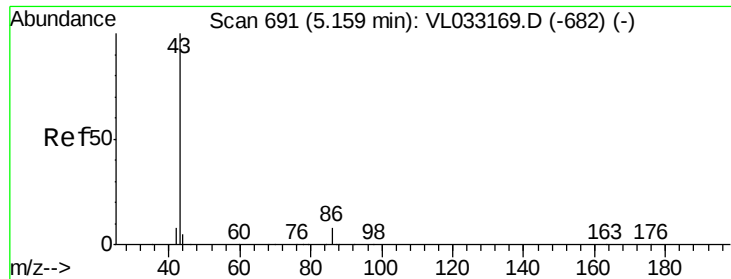


#20

Methylene Chloride
Concen: 0.929 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

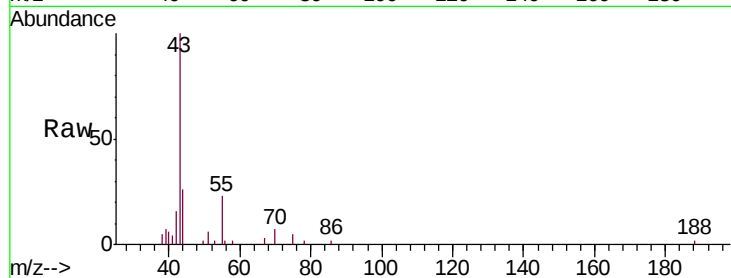
Tgt Ion: 84 Resp: 35779
Ion Ratio Lower Upper
84 100
49 153.9 115.8 173.8
51 42.5 33.0 49.6
86 53.9 48.2 72.2



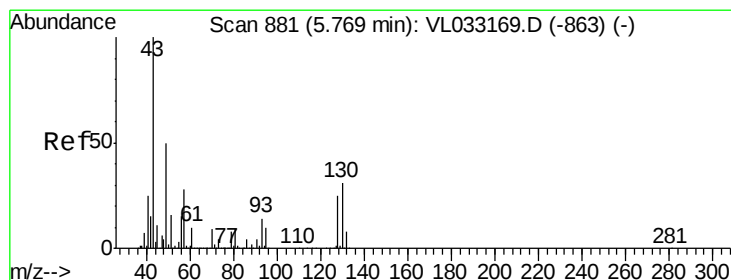
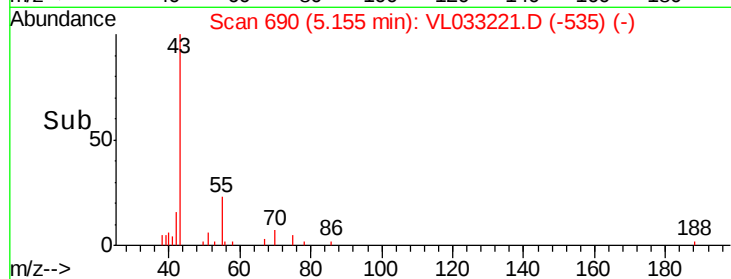
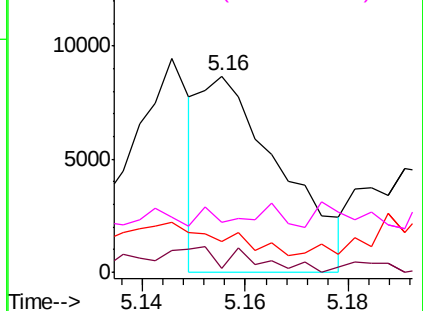


#23
 Vinyl Acetate
 Concen: 0.056 ppbv
 RT: 5.16 min Scan# 690
 Delta R.T. -0.00 min
 Lab File: VL033221.D
 Acq: 15 Feb 2019 6:08

Tgt Ion:	43	Resp:	9331
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.8	8.8#
42	9.4	7.4	11.0
44	2.8	3.7	5.5#

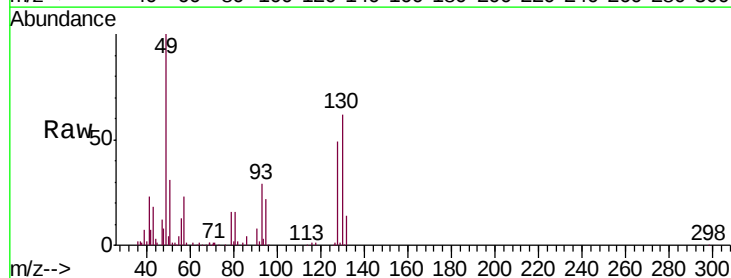


Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 86.10 (85.80 to 86.80): VL0
 Ion 42.10 (41.80 to 42.80): VL0
 Ion 44.10 (43.80 to 44.80): VL0

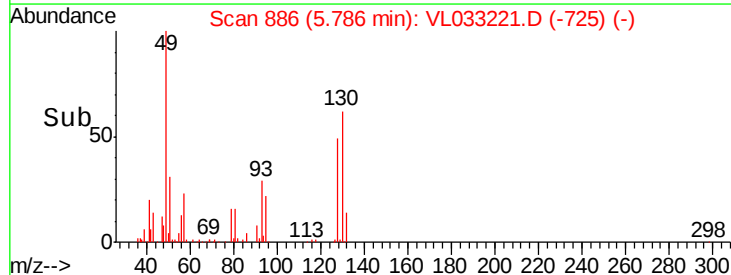
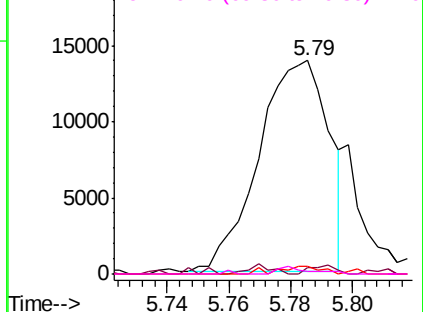


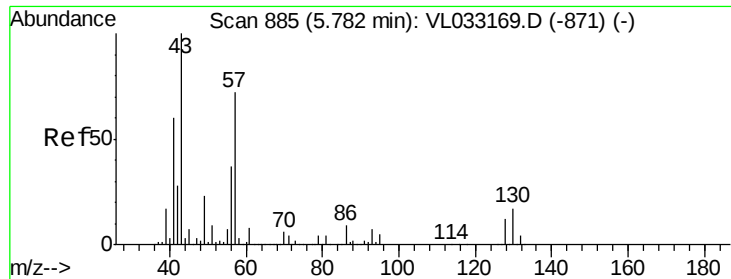
#25
 Ethyl Acetate
 Concen: 0.100 ppbv
 RT: 5.79 min Scan# 886
 Delta R.T. 0.02 min
 Lab File: VL033221.D
 Acq: 15 Feb 2019 6:08

Tgt Ion:	43	Resp:	21781
Ion	Ratio	Lower	Upper
43	100		
45	4.1	7.9	11.9#
61	2.6	7.5	11.3#
70	1.8	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: 0.339 ppbv

RT: 5.78 min Scan# 884

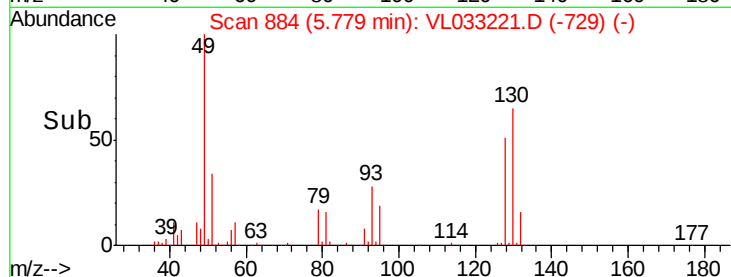
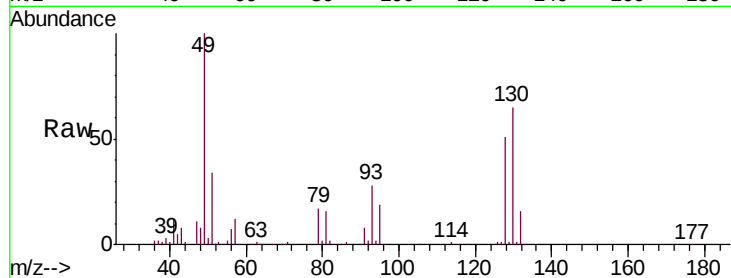
Delta R.T. -0.00 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

Tgt Ion: 57 Resp: 34706

Ion	Ratio	Lower	Upper
57	100		
41	97.7	69.4	104.2
43	78.5	176.7	265.1#
56	54.3	41.4	62.0

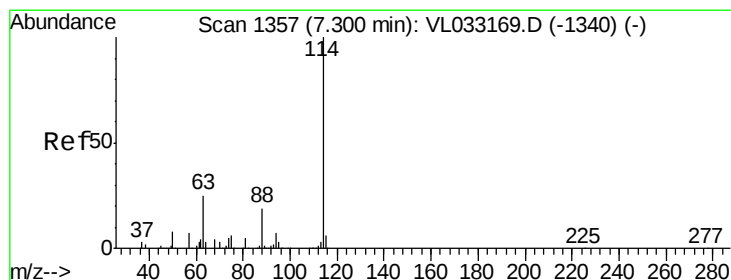
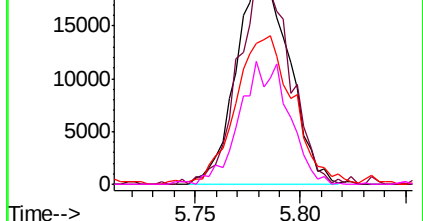


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1355

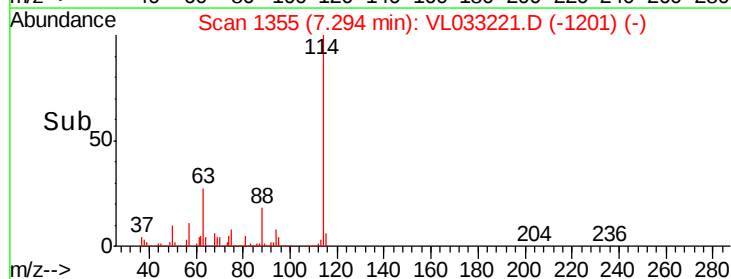
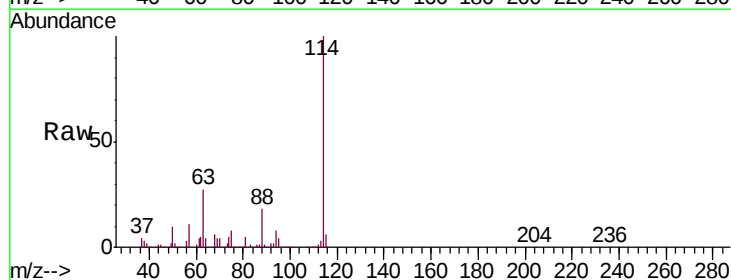
Delta R.T. -0.01 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

Tgt Ion: 114 Resp: 1904332

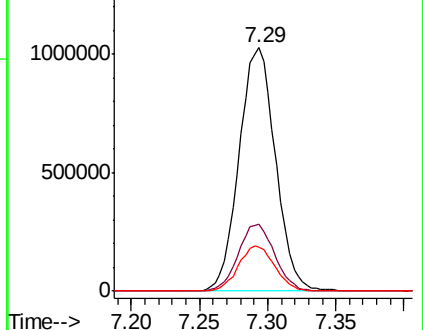
Ion	Ratio	Lower	Upper
114	100		
63	27.6	20.8	31.2
88	18.5	14.6	22.0

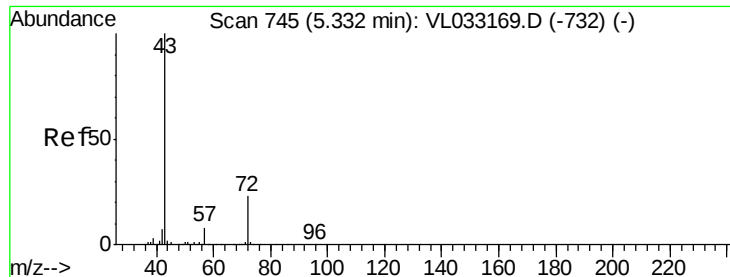


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

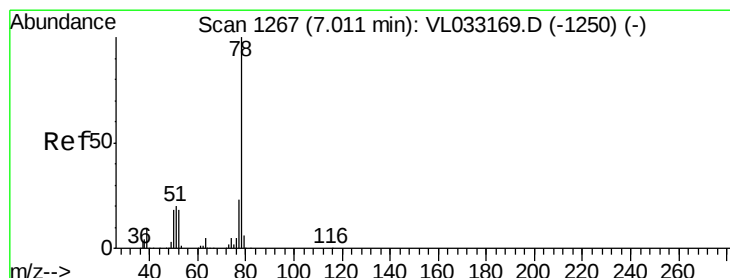
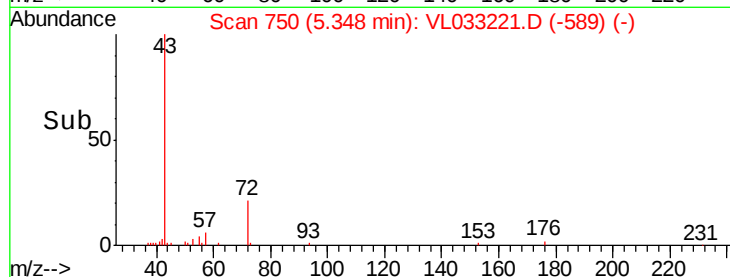
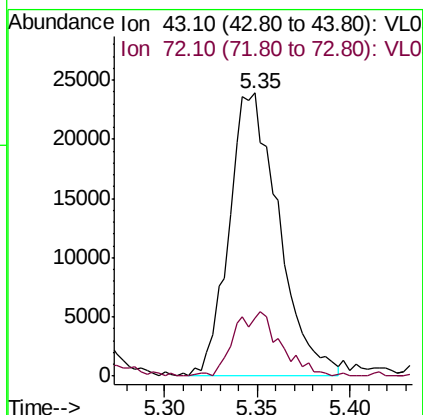
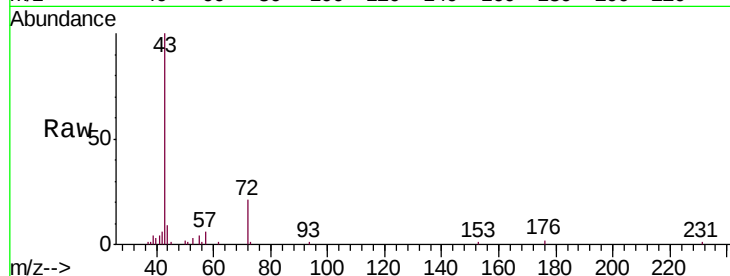
Ion 88.10 (87.80 to 88.80): VL0





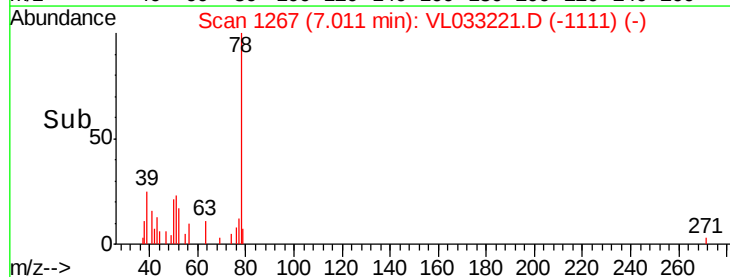
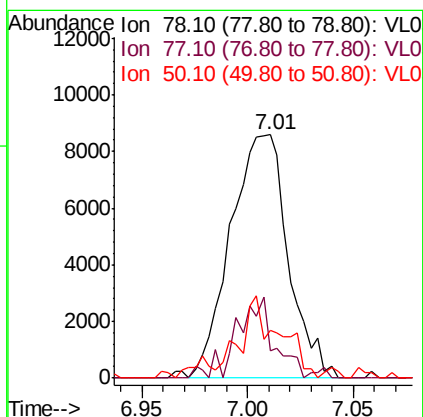
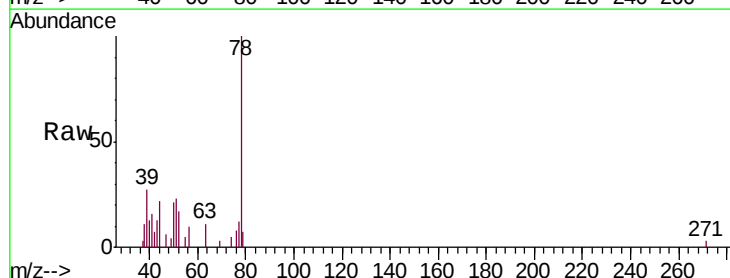
#34
2-Butanone
Concen: 0.369 ppbv
RT: 5.35 min Scan# 750
Delta R.T. 0.02 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

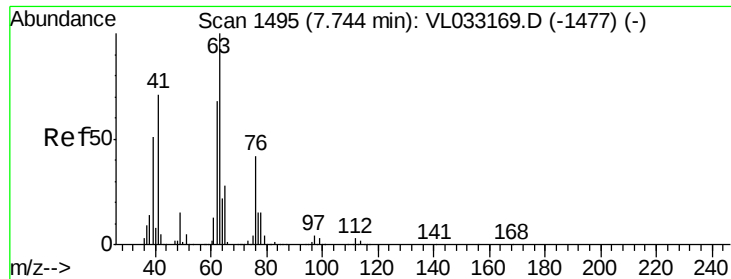
Tgt Ion: 43 Resp: 44611
Ion Ratio Lower Upper
43 100
72 21.5 17.8 26.6



#36
Benzene
Concen: 0.085 ppbv
RT: 7.01 min Scan# 1267
Delta R.T. 0.00 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

Tgt Ion: 78 Resp: 16347
Ion Ratio Lower Upper
78 100
77 11.5 18.0 27.0#
50 16.8 14.2 21.2





#39

1,2-Dichloropropane

Concen: 6.866 ppbv

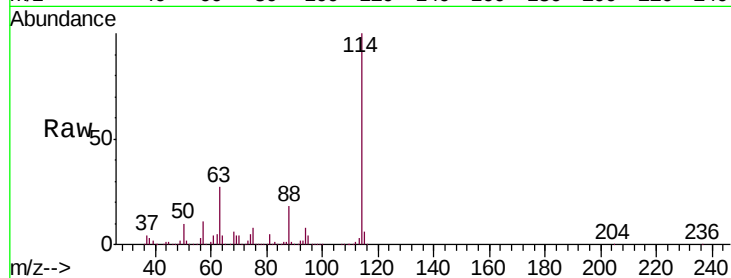
RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

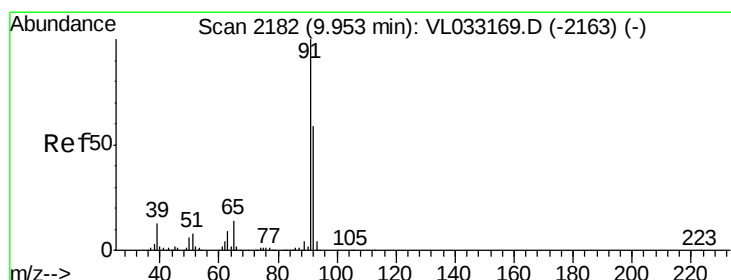
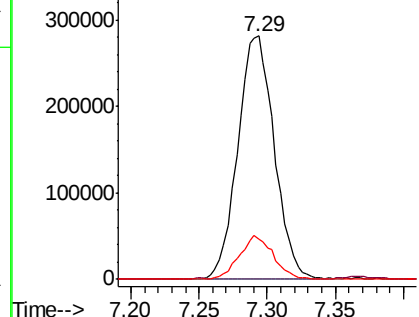
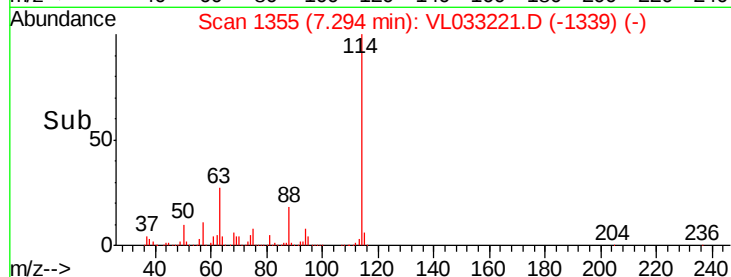
Tgt Ion:	63	Resp:	523329
Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.4	84.6#
62	16.7	54.2	81.4#



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



#53

Toluene

Concen: 0.158 ppbv

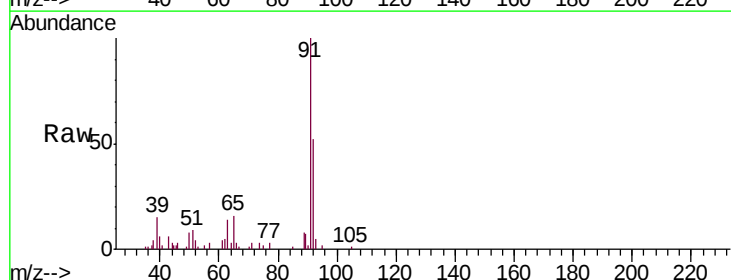
RT: 9.95 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL033221.D

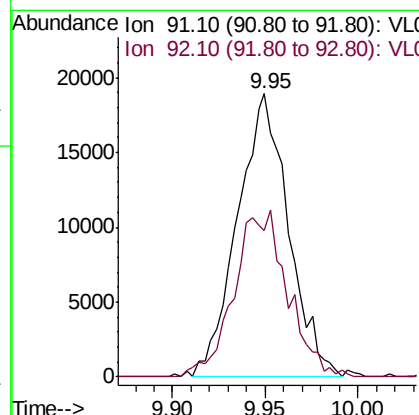
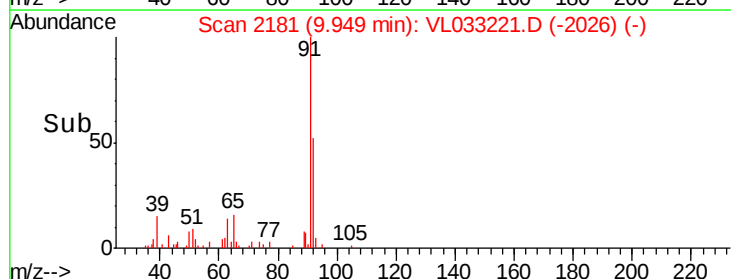
Acq: 15 Feb 2019 6:08

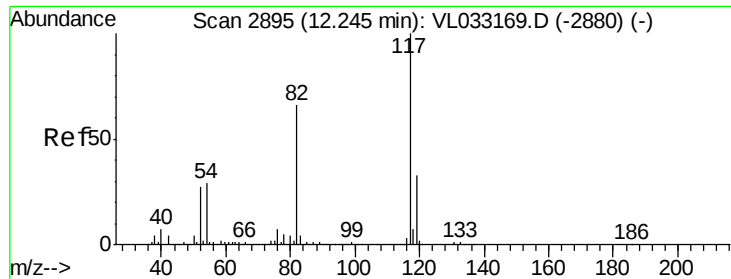
Tgt Ion:	91	Resp:	36156
Ion	Ratio	Lower	Upper
91	100		
92	61.4	48.0	72.0



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: 12.24 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

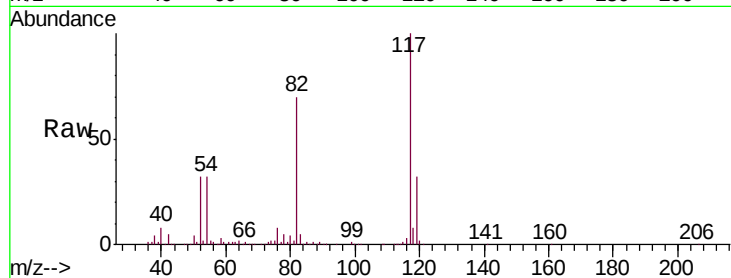
Tgt Ion: 117 Resp: 1859147

Ion Ratio Lower Upper

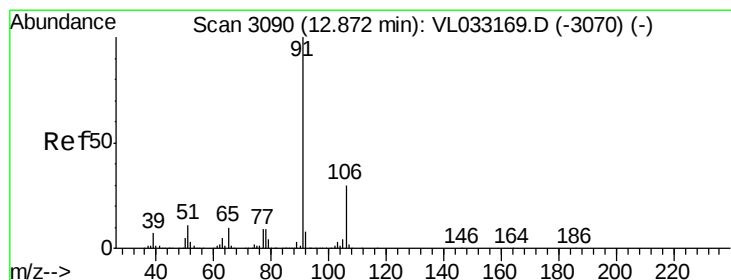
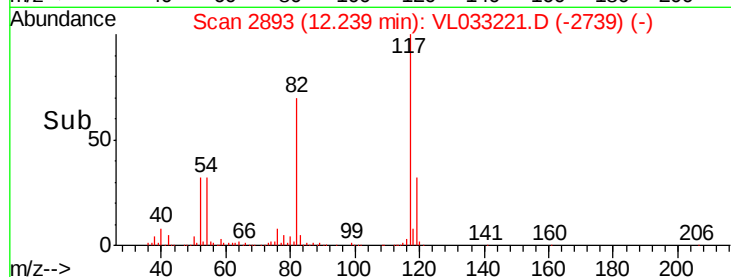
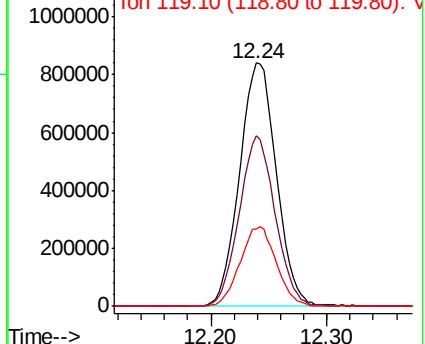
117 100

82 68.5 49.5 74.3

119 32.3 24.4 36.6



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: 0.194 ppbv

RT: 12.87 min Scan# 3088

Delta R.T. -0.01 min

Lab File: VL033221.D

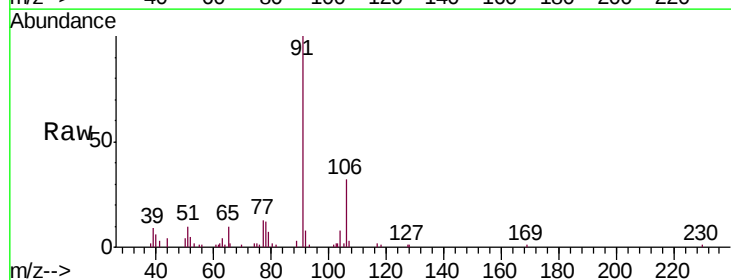
Acq: 15 Feb 2019 6:08

Tgt Ion: 91 Resp: 58490

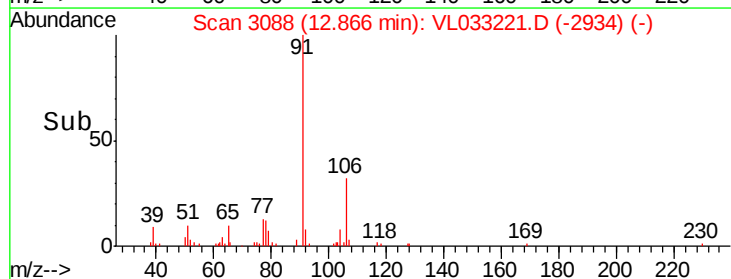
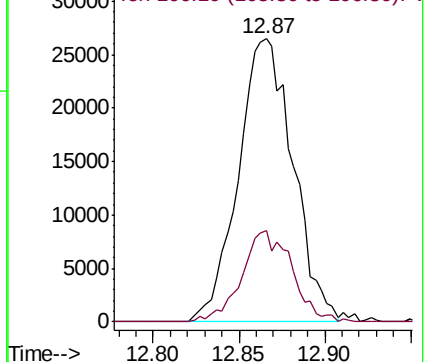
Ion Ratio Lower Upper

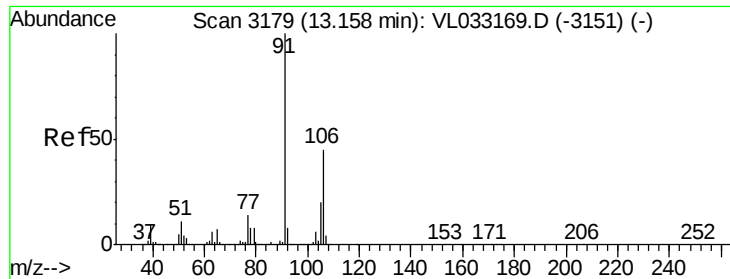
91 100

106 32.1 23.8 35.8



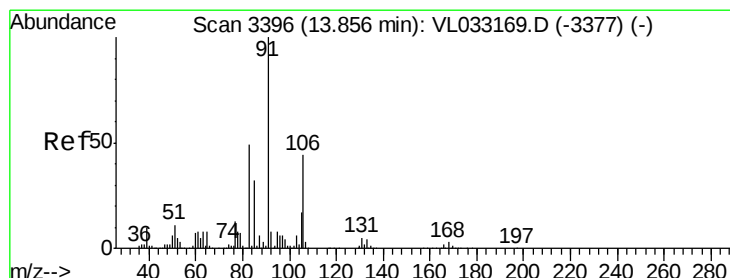
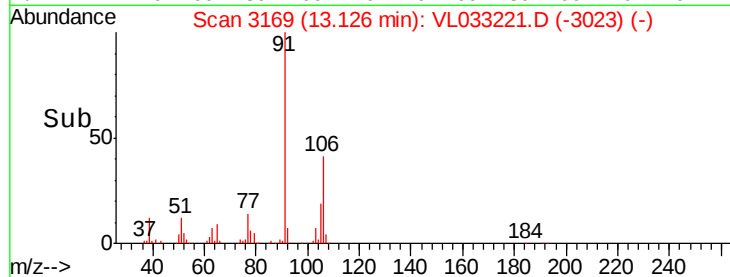
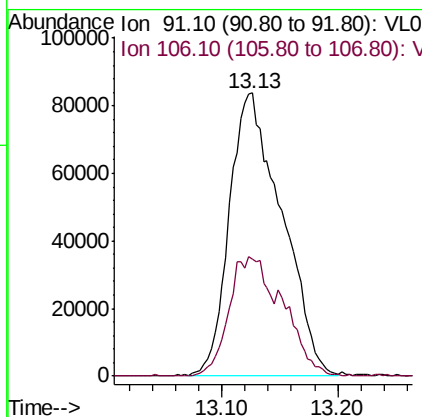
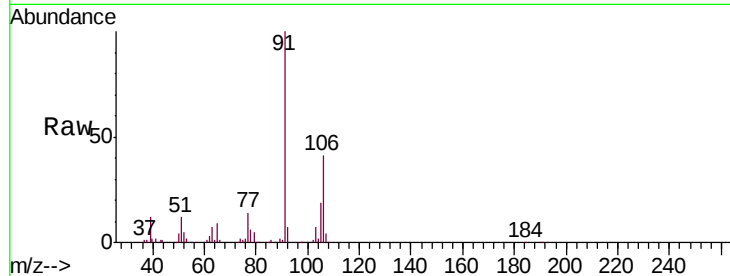
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





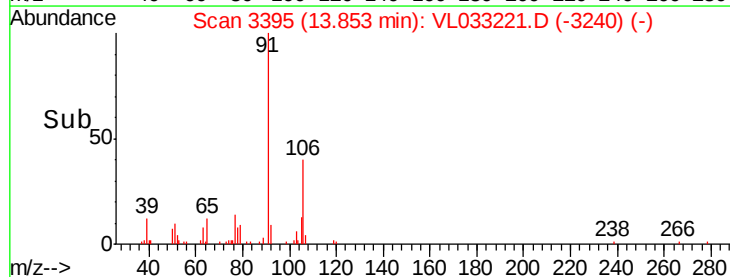
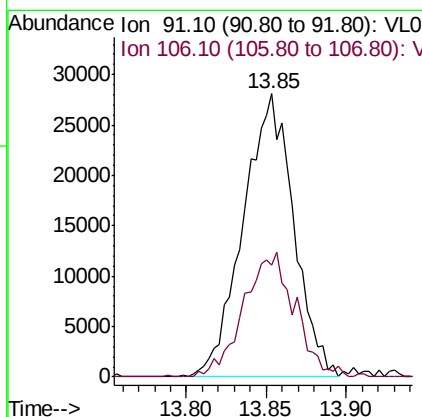
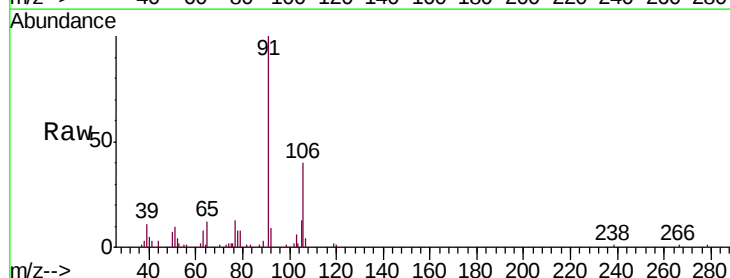
#59
m/p-Xylene
Concen: 1.043 ppbv
RT: 13.13 min Scan# 3169
Delta R.T. -0.03 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

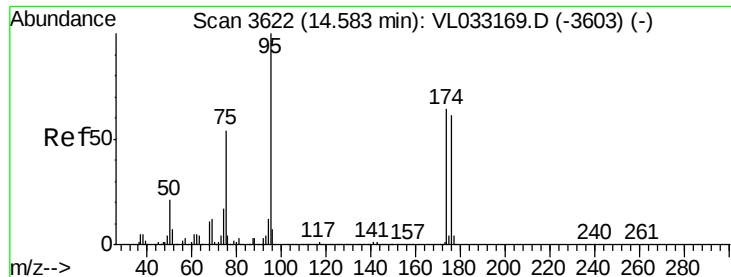
Tgt Ion: 91 Resp: 261852
Ion Ratio Lower Upper
91 100
106 43.3 0.0 0.0#



#60
o-Xylene
Concen: 0.249 ppbv
RT: 13.85 min Scan# 3395
Delta R.T. -0.00 min
Lab File: VL033221.D
Acq: 15 Feb 2019 6:08

Tgt Ion: 91 Resp: 60892
Ion Ratio Lower Upper
91 100
106 45.0 21.8 65.3





#68

1-Bromo-4-Fluorobenzene

Concen: 10.444 ppbv

RT: 14.58 min Scan# 3621

Delta R.T. -0.00 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

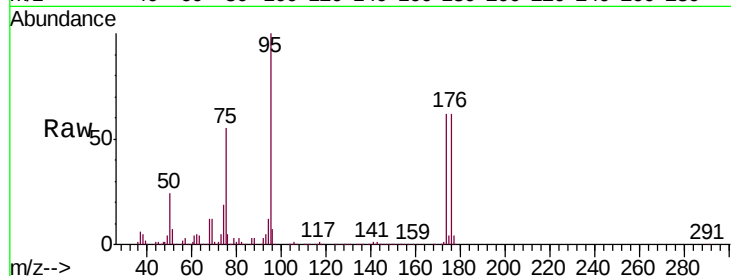
Tgt Ion: 95 Resp: 1495320

Ion Ratio Lower Upper

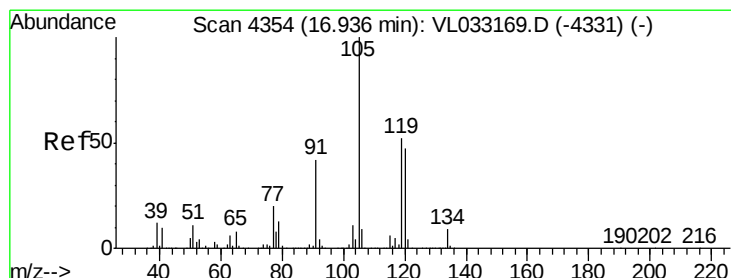
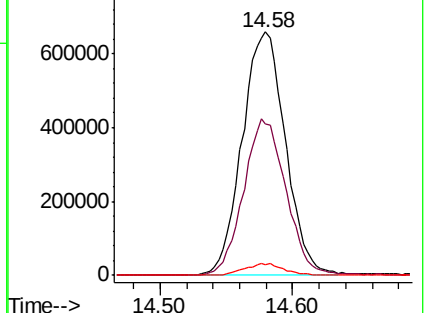
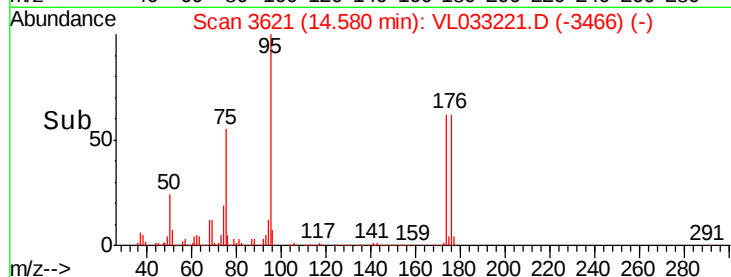
95 100

174 63.5 51.2 76.8

175 4.5 3.8 5.6



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



#74

1,2,4-Trimethylbenzene

Concen: 0.079 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.01 min

Lab File: VL033221.D

Acq: 15 Feb 2019 6:08

Tgt Ion: 105 Resp: 22183

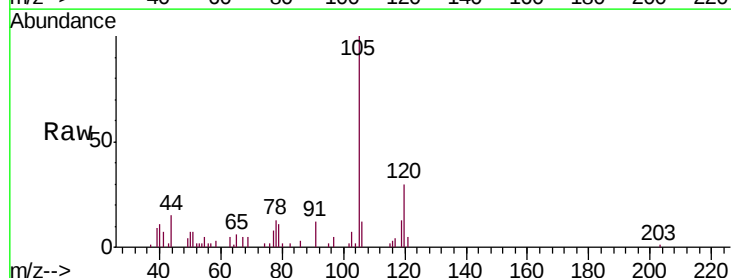
Ion Ratio Lower Upper

105 100

120 28.5 37.9 56.9#

91 12.3 34.0 51.0#

77 5.2 15.7 23.5#



Abundance Ion 105.10 (104.80 to 105.80): V
Ion 120.20 (119.90 to 120.90): V
Ion 91.10 (90.80 to 91.80): VL0
Ion 77.10 (76.80 to 77.80): VL0

