

Data File : VL033848.D
Acq On : 29 May 2019 23:32
Operator : SY/AP
Sample : K3067-03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG-6-20190523-0

Quant Time: May 30 02:14:10 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 17 08:15:41 2019
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	763127	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1721219	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1816149	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.56	95	1432014	9.73	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.30%

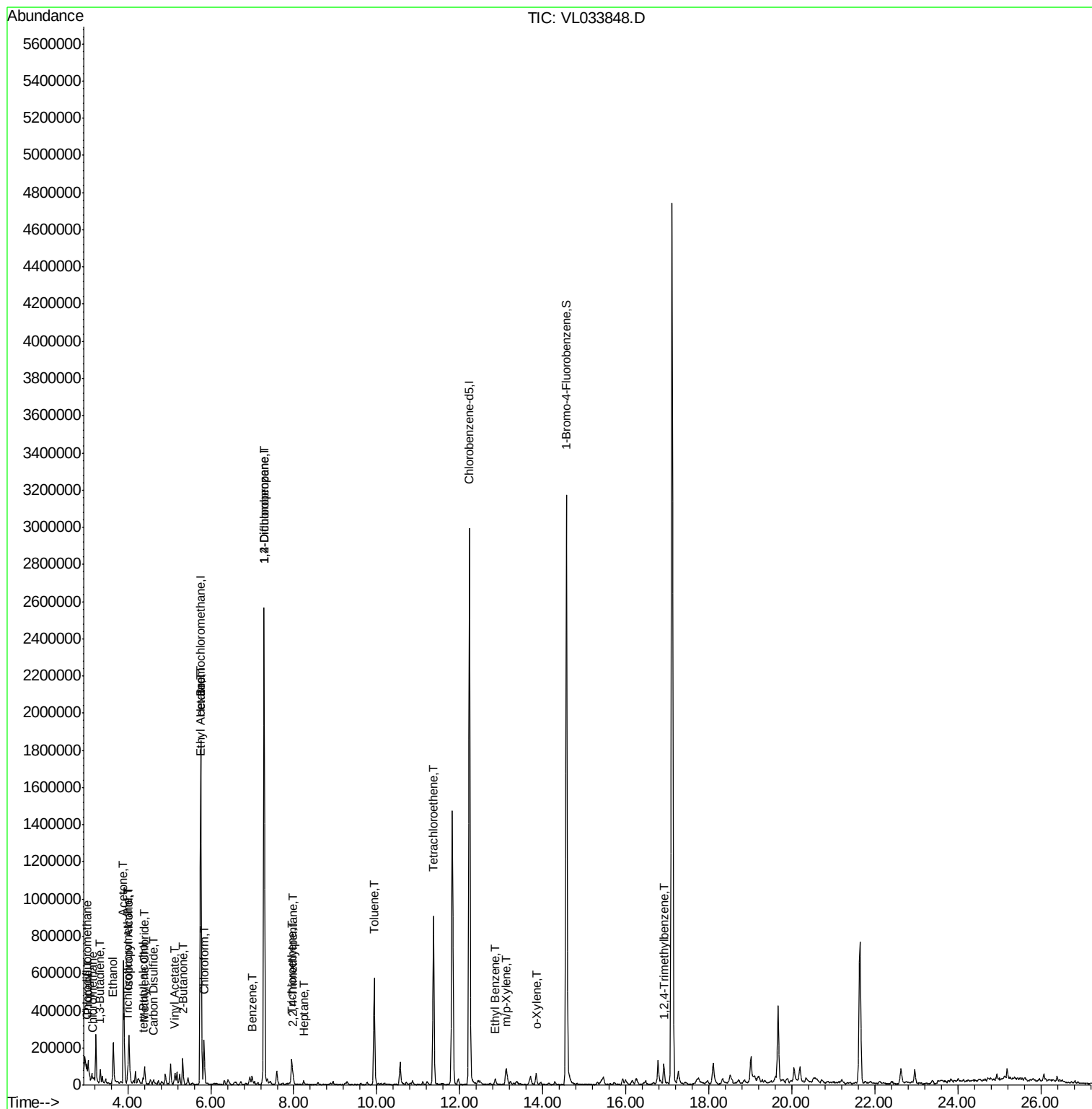
Target Compounds						Qvalue
3) Chlorodifluoromethane	3.01	51	31524	0.361	ppbv #	87
4) Chloromethane	3.16	50	4015	0.080	ppbv #	81
9) Propene	3.04	41	12005	0.323	ppbv	90
10) Heptane	8.24	43	4308	0.041	ppbv #	73
11) Trichlorofluoromethane	4.00	101	44750	0.292	ppbv	96
13) Ethanol	3.65	45	222490	18.514	ppbv	100
15) Acetone	3.89	43	657880	6.213	ppbv	97
16) 1,3-Butadiene	3.34	39	16008	0.380	ppbv #	15
17) tert-Butyl alcohol	4.36	59	20235	0.236	ppbv	95
19) Isopropyl Alcohol	4.03	45	262008	3.838	ppbv #	95
20) Methylene Chloride	4.40	84	29261	0.718	ppbv #	95
23) Vinyl Acetate	5.14	43	35561	0.255	ppbv #	80
25) Ethyl Acetate	5.77	43	96496	0.519	ppbv #	85
26) Hexane	5.77	57	109718	1.372	ppbv #	44
27) Carbon Disulfide	4.62	76	19823	0.181	ppbv #	83
29) Chloroform	5.84	83	157536	1.070	ppbv	99
34) 2-Butanone	5.33	43	143918	1.349	ppbv	98
36) Benzene	7.00	78	20527	0.131	ppbv	94
38) Trichloroethene	7.95	130	39014	0.672	ppbv	88
39) 1,2-Dichloropropane	7.28	63	458503	7.855	ppbv #	23
44) 2,2,4-Trimethylpentane	7.98	57	16700	0.063	ppbv #	17
52) Tetrachloroethene	11.37	164	212780	3.866	ppbv	99
53) Toluene	9.94	91	396925	2.350	ppbv	97
58) Ethyl Benzene	12.86	91	12756	0.053	ppbv #	83
59) m/p-Xylene	13.14	91	23910	0.114	ppbv #	31
60) o-Xylene	13.84	91	45974	0.217	ppbv	95
74) 1,2,4-Trimethylbenzene	16.91	105	61629	0.240	ppbv #	77

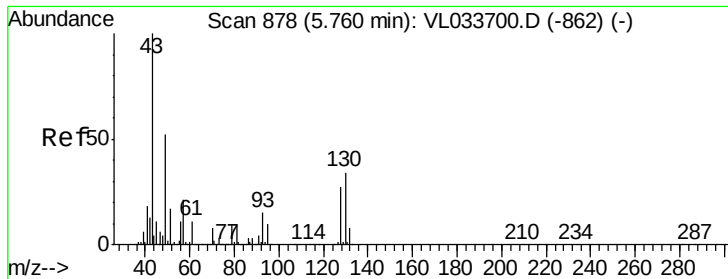
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.00 min

Lab File: VL033848.D

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Instrument :

MSVOA_L

ClientSampleId :

SG-6-20190523-0

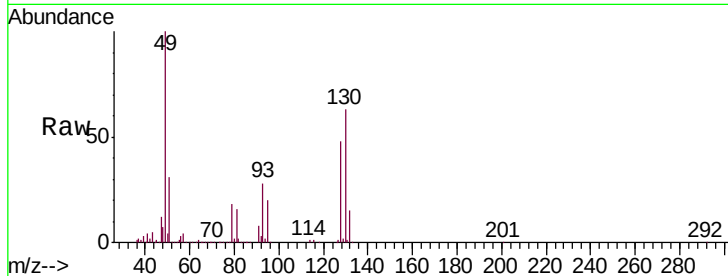
Tgt Ion: 49 Resp: 763127

Ion Ratio Lower Upper

49 100

128 49.5 25.2 75.6

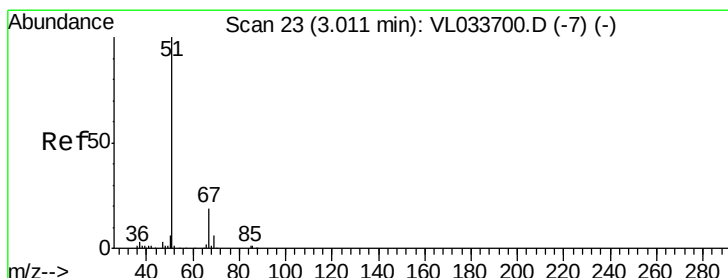
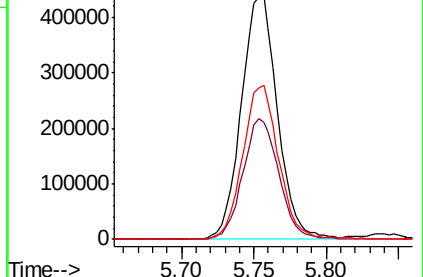
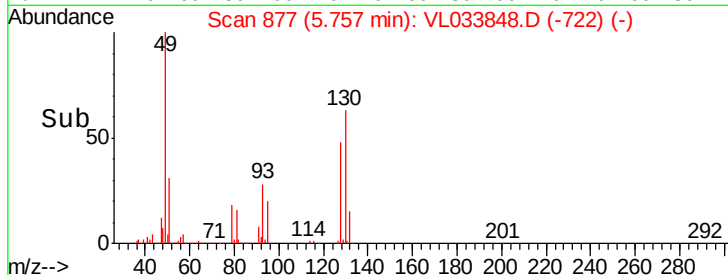
130 63.3 32.5 97.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.361 ppbv

RT: 3.01 min Scan# 23

Delta R.T. 0.00 min

Lab File: VL033848.D

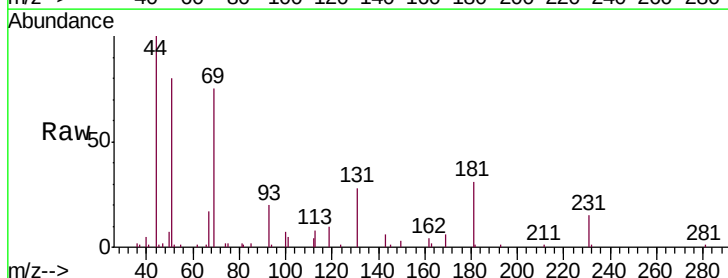
Acq: 29 May 2019 23:32

Tgt Ion: 51 Resp: 31524

Ion Ratio Lower Upper

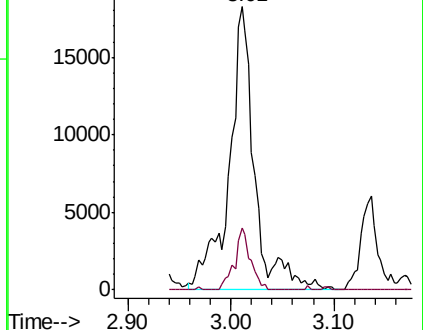
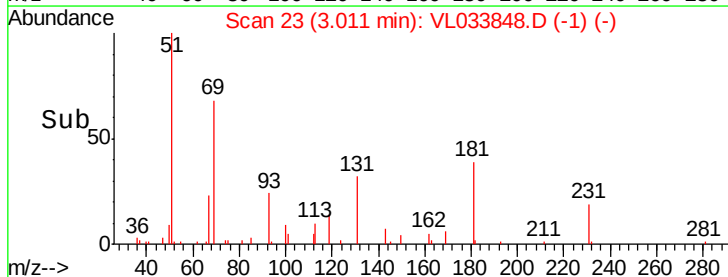
51 100

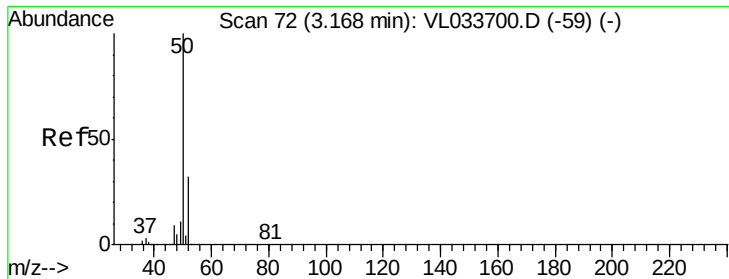
67 13.5 15.6 23.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.080 ppbv

RT: 3.16 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

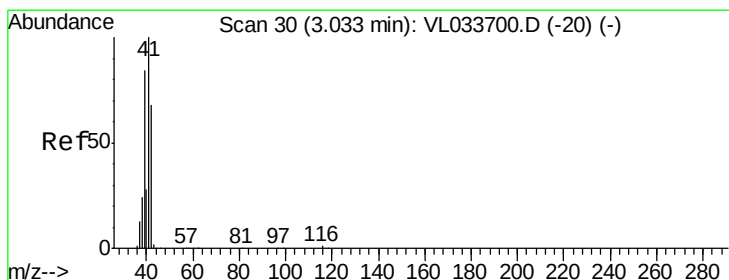
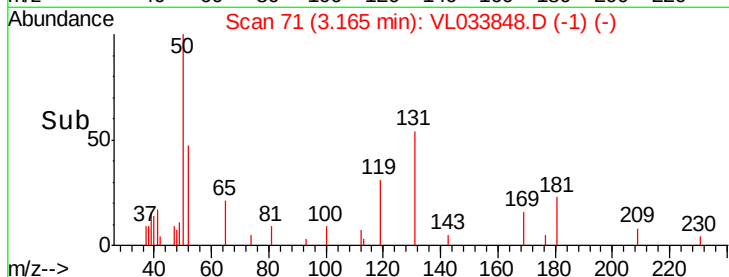
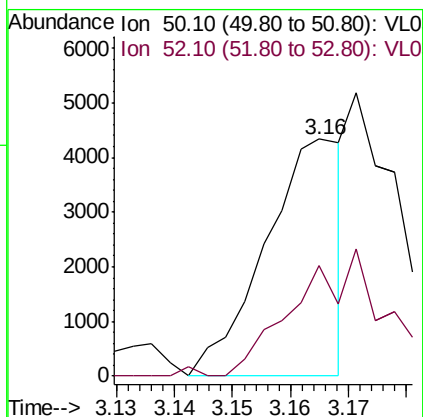
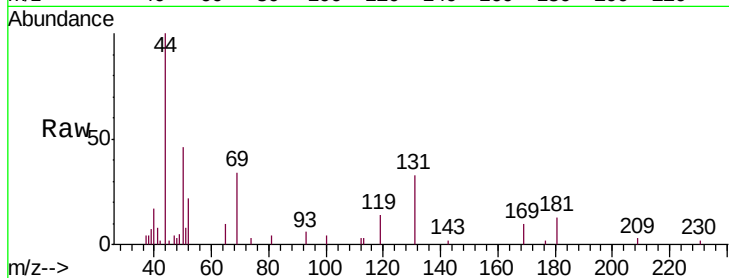
SG-6-20190523-0

Tgt Ion: 50 Resp: 4015

Ion Ratio Lower Upper

50 100

52 42.7 25.7 38.5#



#9

Propene

Concen: 0.323 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033848.D

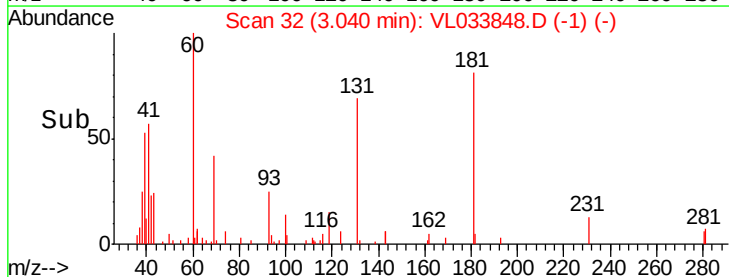
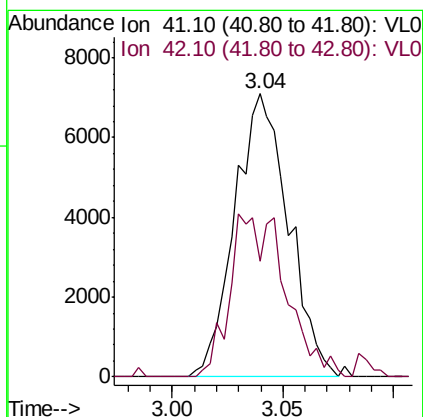
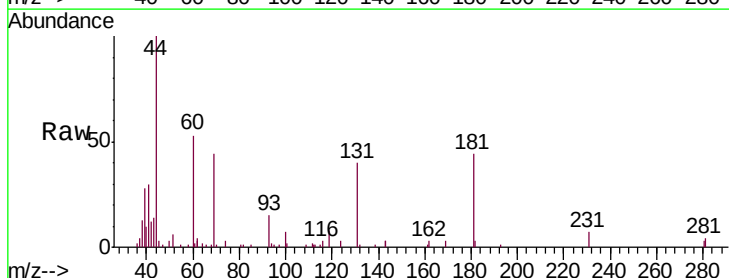
Acq: 29 May 2019 23:32

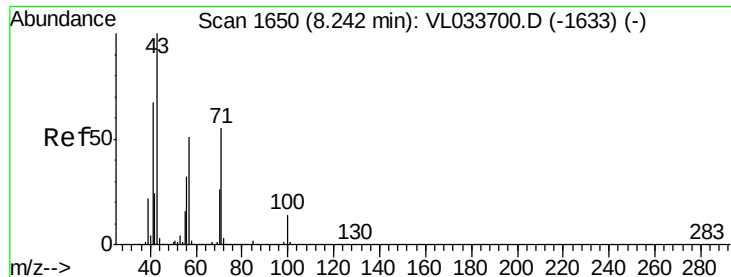
Tgt Ion: 41 Resp: 12005

Ion Ratio Lower Upper

41 100

42 61.8 56.1 84.1

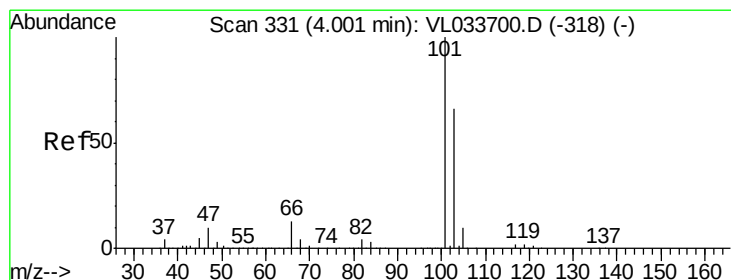
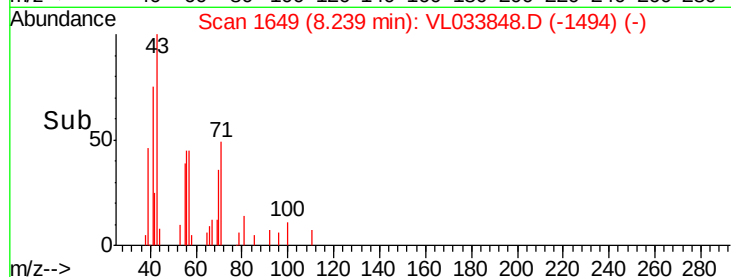
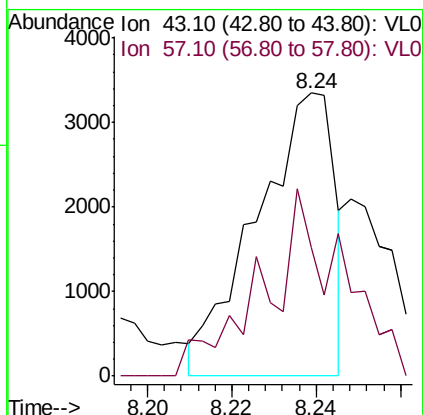
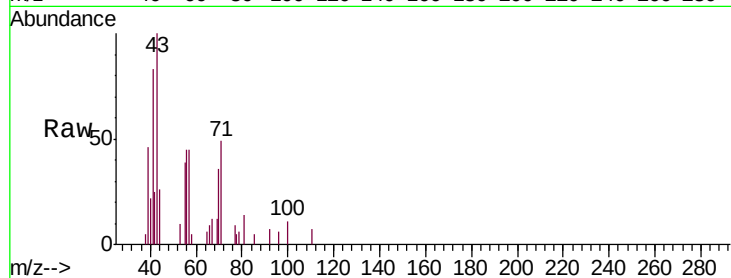




#10
 Heptane
 Concen: 0.041 ppbv
 RT: 8.24 min Scan# 1649
 Delta R.T. -0.00 min
 Lab File: VL033848.D
 Acq: 29 May 2019 23:32

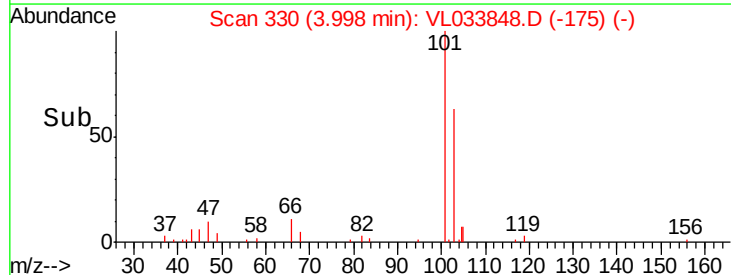
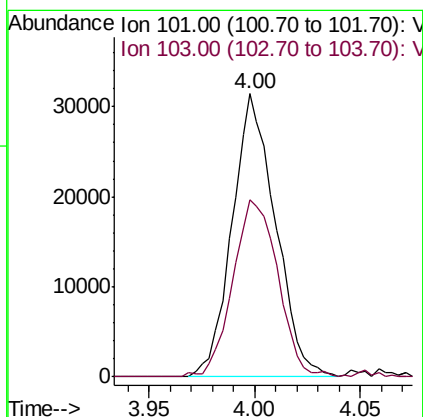
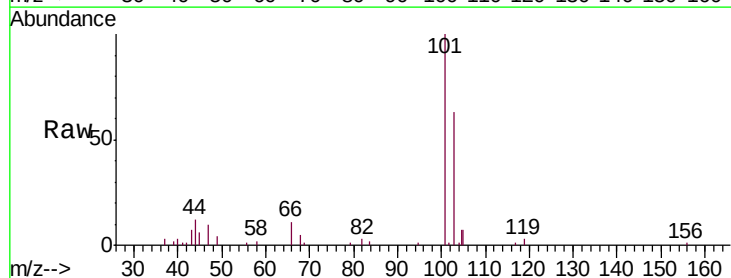
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-20190523-0

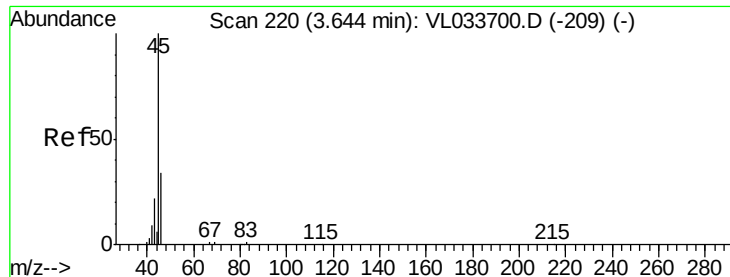
Tgt Ion: 43 Resp: 4308
 Ion Ratio Lower Upper
 43 100
 57 70.9 41.4 62.0#



#11
 Trichlorofluoromethane
 Concen: 0.292 ppbv
 RT: 4.00 min Scan# 330
 Delta R.T. -0.00 min
 Lab File: VL033848.D
 Acq: 29 May 2019 23:32

Tgt Ion: 101 Resp: 44750
 Ion Ratio Lower Upper
 101 100
 103 62.8 52.6 78.8





#13

Ethanol

Concen: 18.514 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

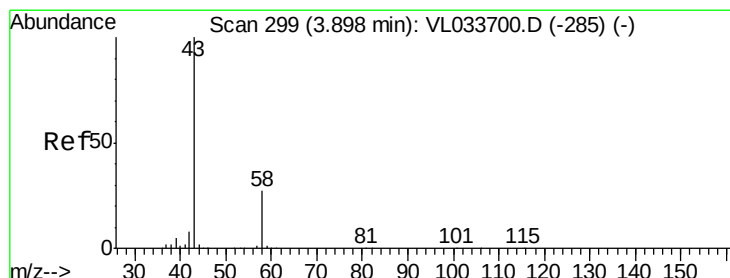
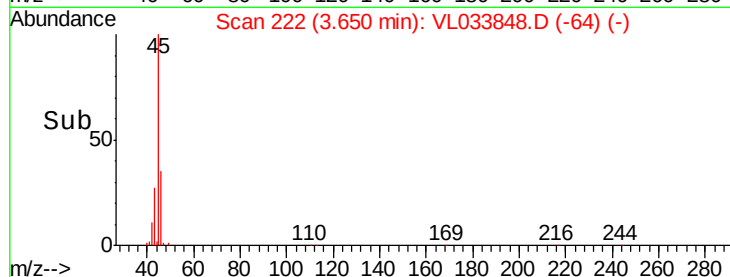
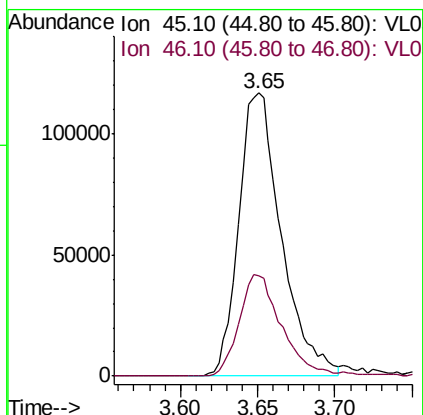
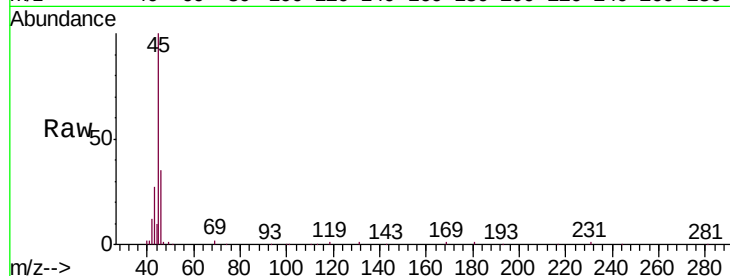
SG-6-20190523-0

Tgt Ion: 45 Resp: 222490

Ion Ratio Lower Upper

45 100

46 36.9 14.8 59.0



#15

Acetone

Concen: 6.213 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033848.D

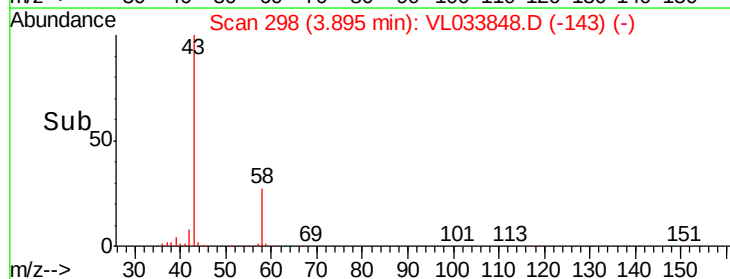
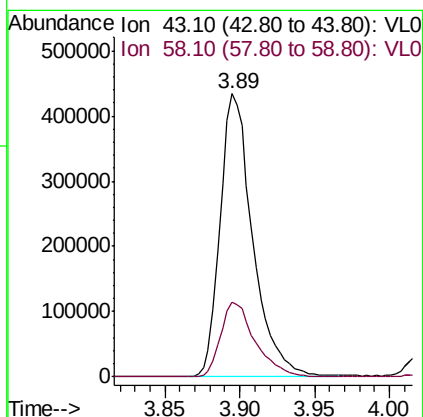
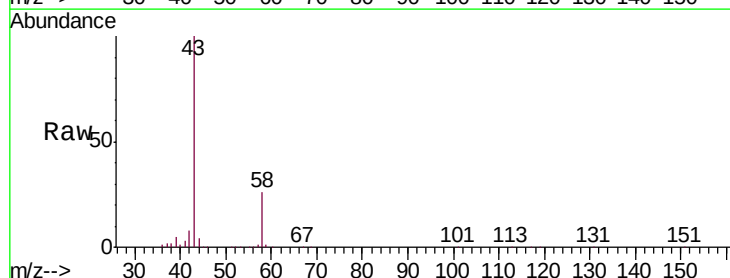
Acq: 29 May 2019 23:32

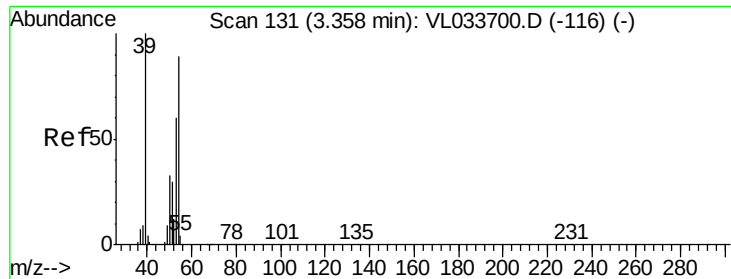
Tgt Ion: 43 Resp: 657880

Ion Ratio Lower Upper

43 100

58 28.0 21.3 31.9





#16

1,3-Butadiene

Concen: 0.380 ppbv

RT: 3.34 min Scan# 125

Delta R.T. -0.02 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

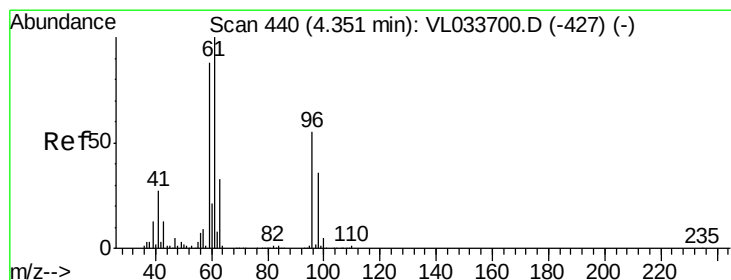
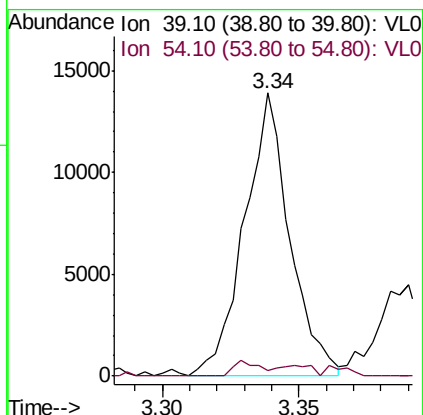
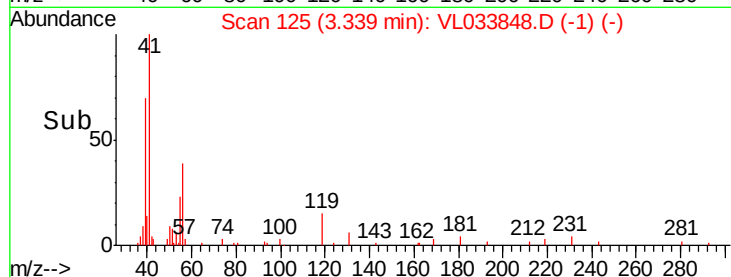
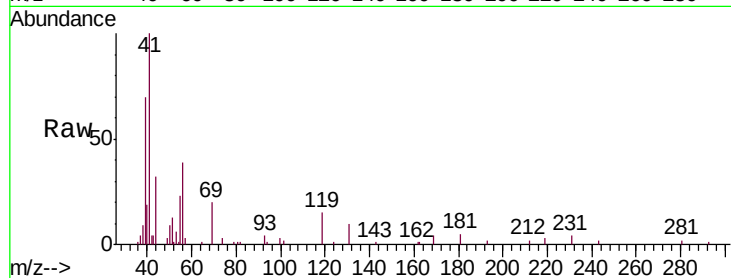
SG-6-20190523-0

Tgt Ion: 39 Resp: 16008

Ion Ratio Lower Upper

39 100

54 7.8 69.0 103.6#



#17

tert-Butyl alcohol

Concen: 0.236 ppbv

RT: 4.36 min Scan# 444

Delta R.T. 0.01 min

Lab File: VL033848.D

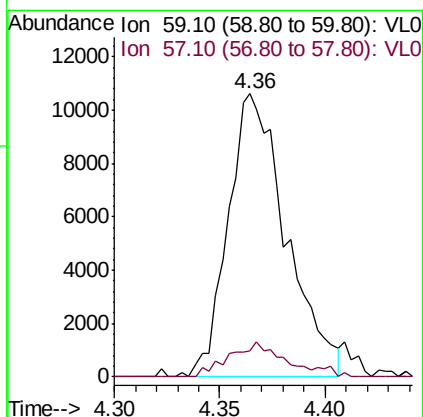
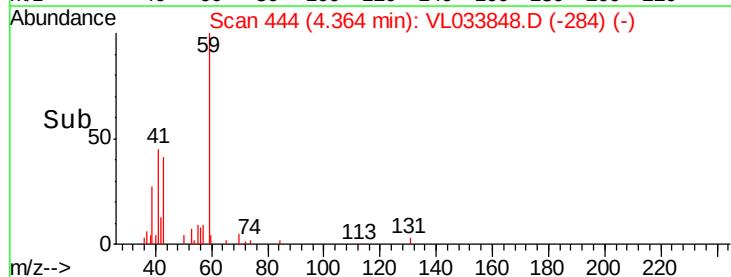
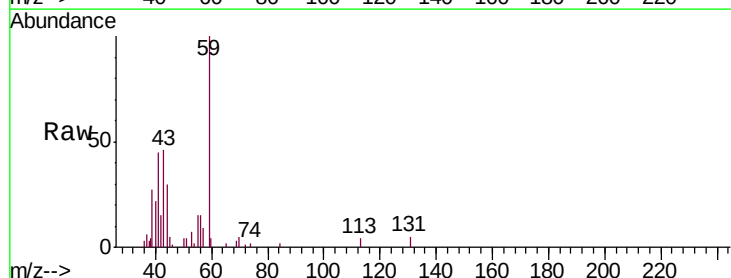
Acq: 29 May 2019 23:32

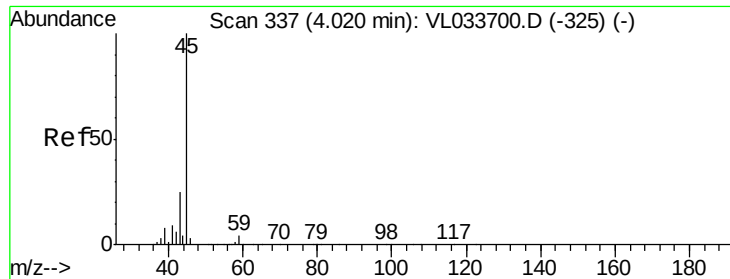
Tgt Ion: 59 Resp: 20235

Ion Ratio Lower Upper

59 100

57 12.2 8.4 12.6





#19

Isopropyl Alcohol

Concen: 3.838 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

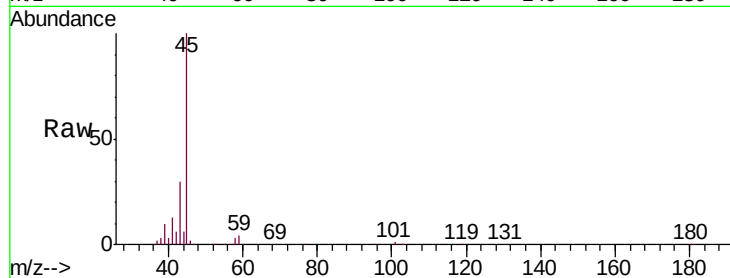
SG-6-20190523-0

Tgt Ion: 45 Resp: 262008

Ion Ratio Lower Upper

45 100

58 3.7 1.6 2.4#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

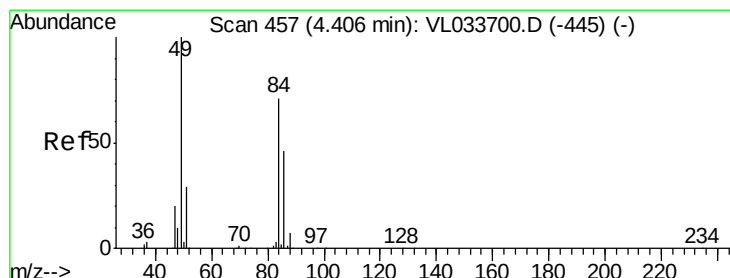
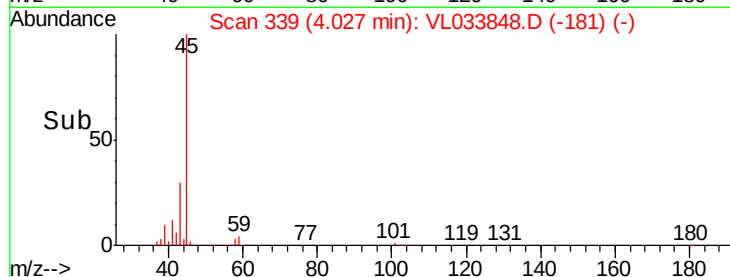
150000

100000

50000

0

Time-->



#20

Methylene Chloride

Concen: 0.718 ppbv

RT: 4.40 min Scan# 456

Delta R.T. -0.00 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Tgt Ion: 84 Resp: 29261

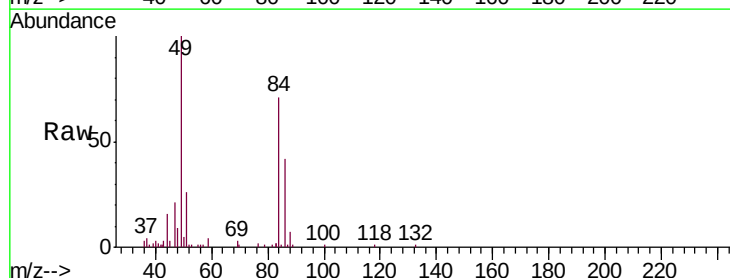
Ion Ratio Lower Upper

84 100

49 139.5 112.8 169.2

51 32.5 33.4 50.0#

86 59.3 51.7 77.5



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

40000

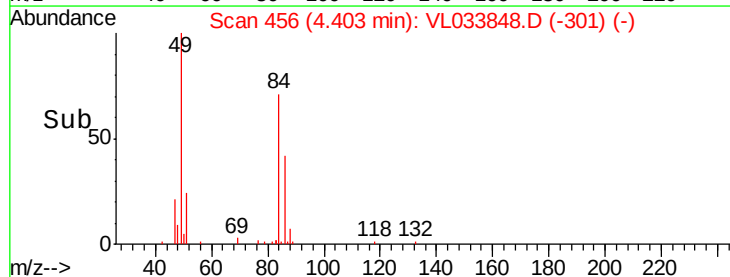
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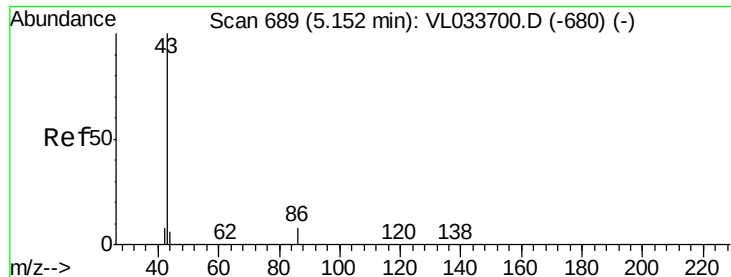
20000

10000

0

Time-->





#23

Vinyl Acetate

Concen: 0.255 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

SG-6-20190523-0

Tgt Ion: 43 Resp: 35561

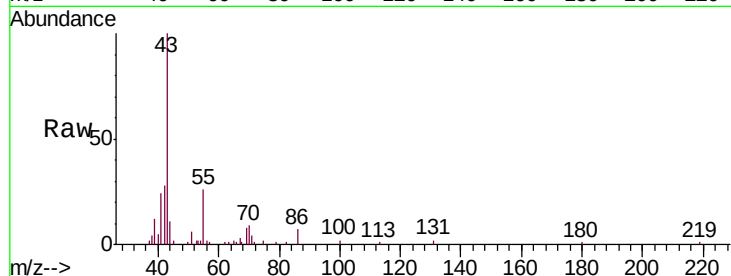
Ion Ratio Lower Upper

43 100

86 7.9 6.0 9.0

42 26.0 7.5 11.3#

44 6.8 4.4 6.6#

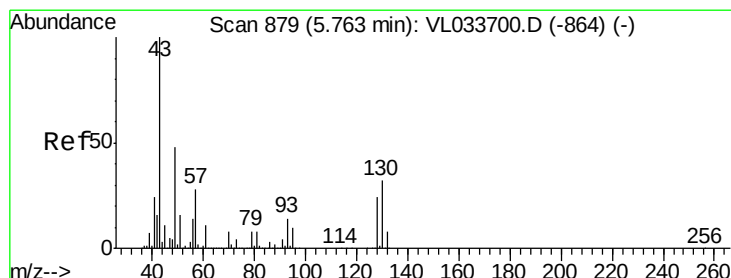
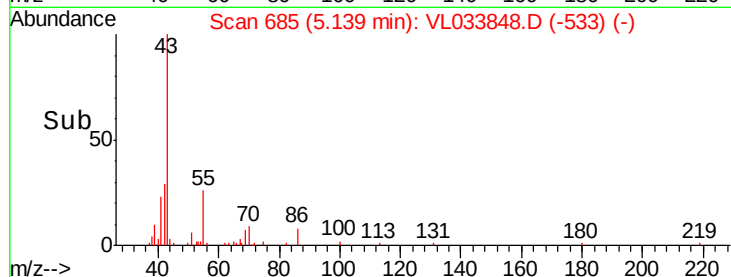
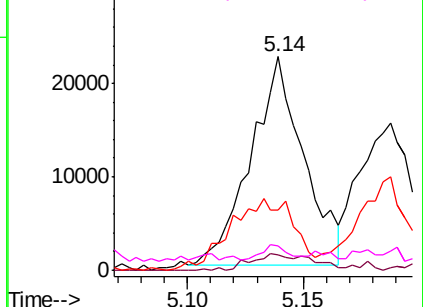


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.519 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Tgt Ion: 43 Resp: 96496

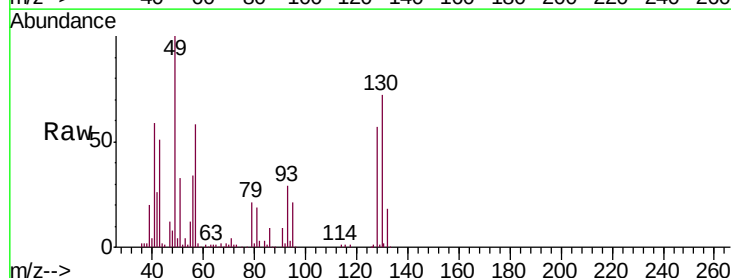
Ion Ratio Lower Upper

43 100

45 4.2 7.9 11.9#

61 3.3 7.7 11.5#

70 3.8 5.8 8.6#

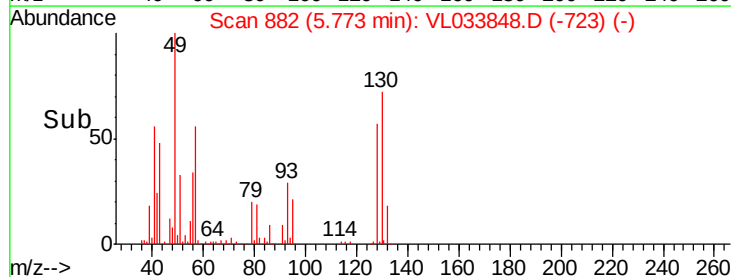
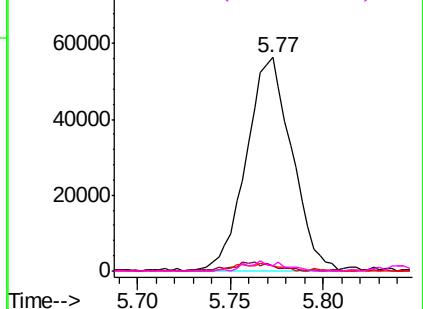


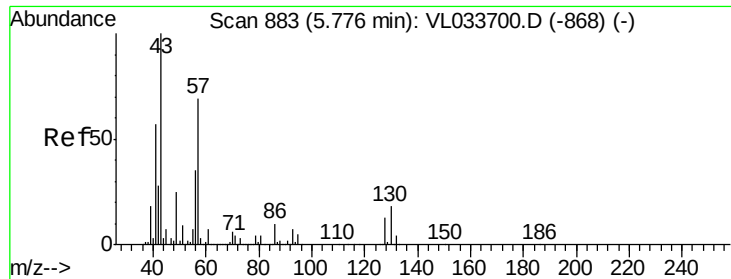
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.372 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

SG-6-20190523-0

Tgt Ion: 57 Resp: 109718

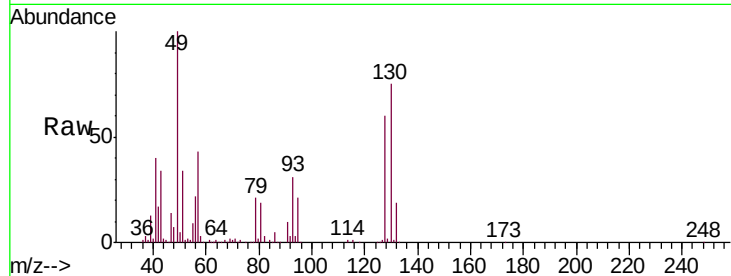
Ion Ratio Lower Upper

57 100

41 98.4 69.8 104.6

43 89.5 181.8 272.6#

56 60.1 42.1 63.1

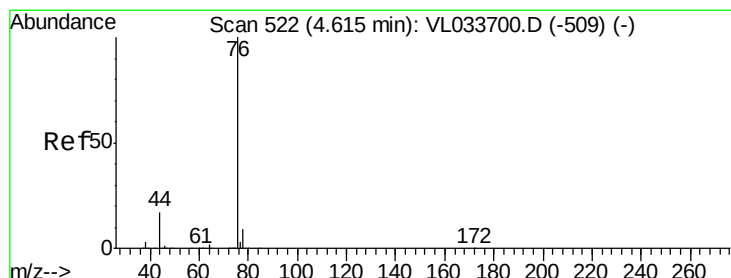
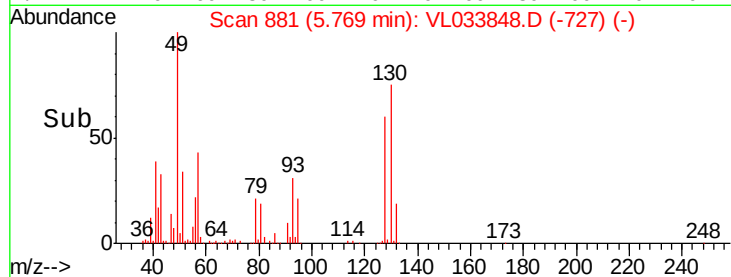
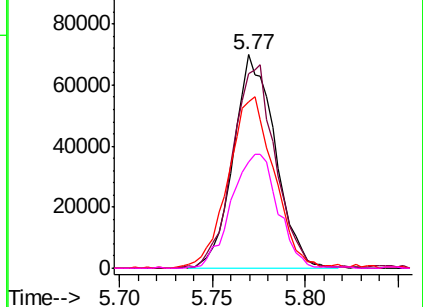


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#27

Carbon Disulfide

Concen: 0.181 ppbv

RT: 4.62 min Scan# 524

Delta R.T. 0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

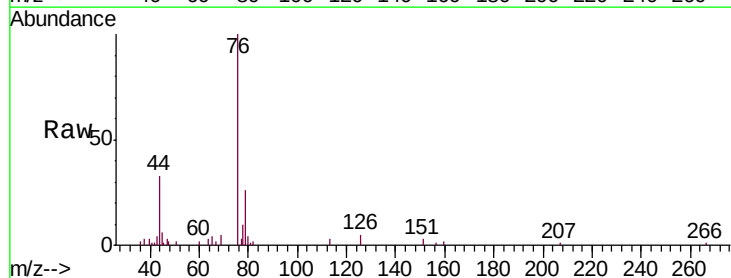
Tgt Ion: 76 Resp: 19823

Ion Ratio Lower Upper

76 100

44 27.7 13.8 20.8#

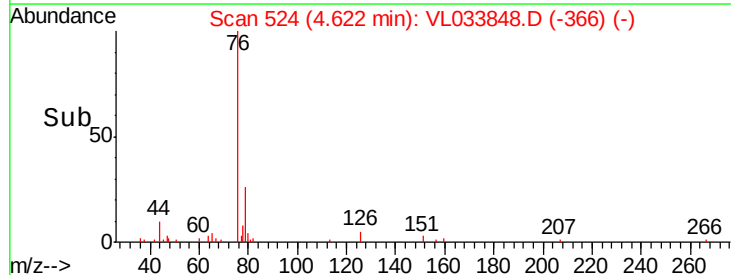
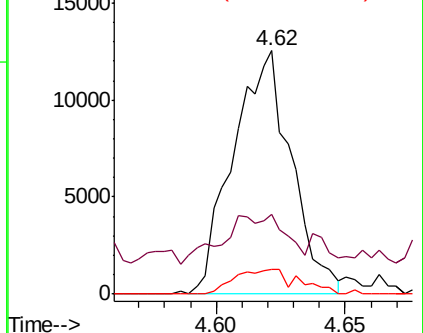
78 11.1 7.4 11.0#

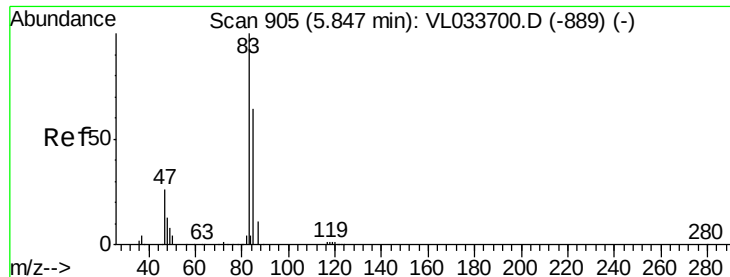


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

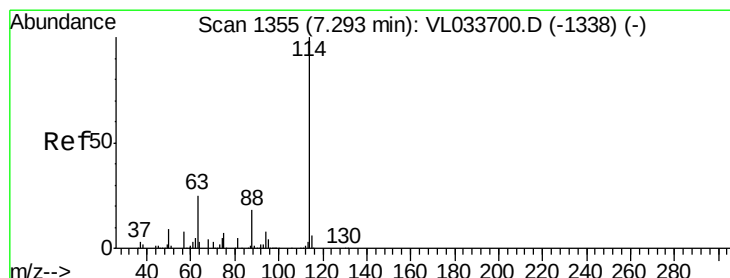
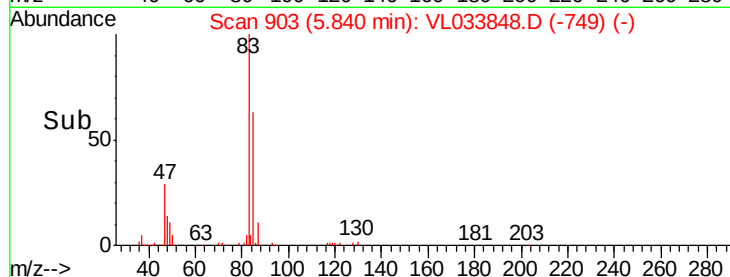
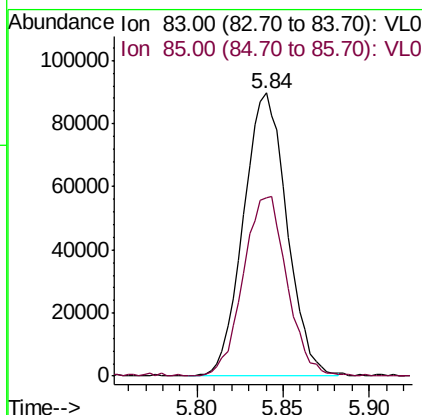
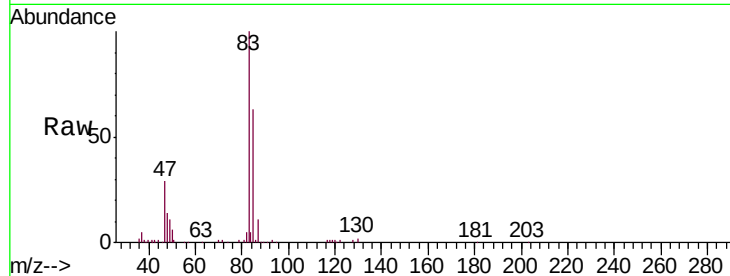




#29
Chloroform
Concen: 1.070 ppbv
RT: 5.84 min Scan# 903
Delta R.T. -0.01 min
Lab File: VL033848.D
Acq: 29 May 2019 23:32

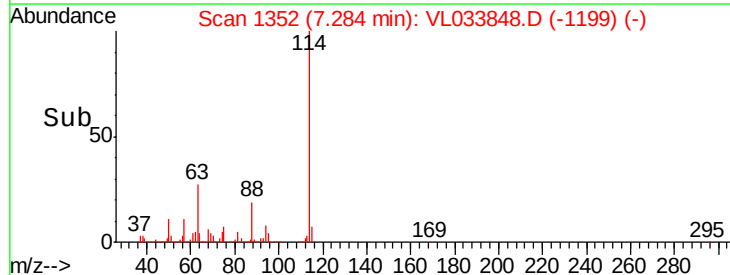
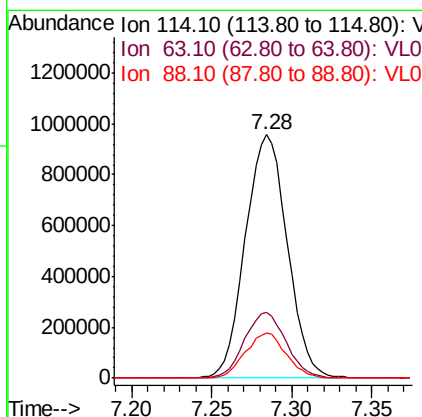
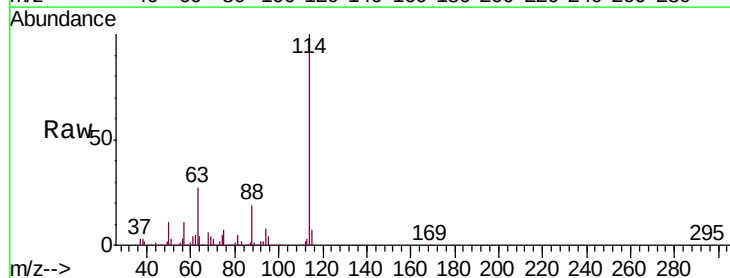
Instrument :
MSVOA_L
ClientSampleId :
SG-6-20190523-0

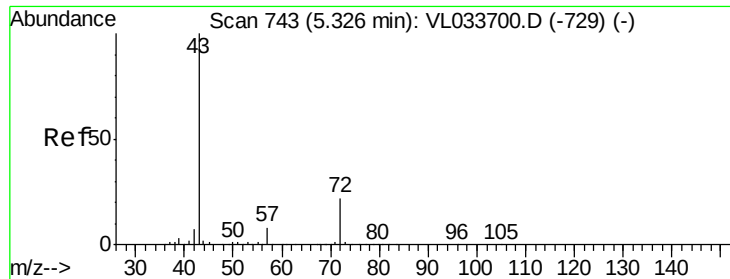
Tgt Ion: 83 Resp: 157536
Ion Ratio Lower Upper
83 100
85 63.3 51.5 77.3



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.28 min Scan# 1352
Delta R.T. -0.01 min
Lab File: VL033848.D
Acq: 29 May 2019 23:32

Tgt Ion: 114 Resp: 1721219
Ion Ratio Lower Upper
114 100
63 26.8 20.9 31.3
88 18.2 14.3 21.5

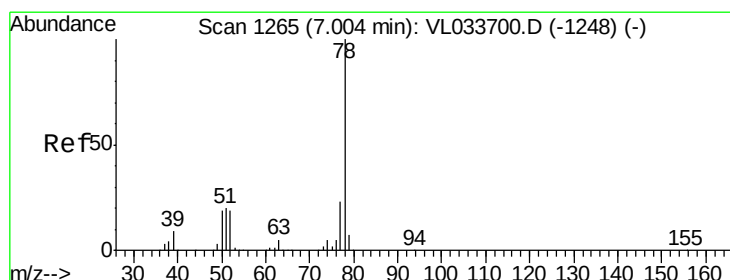
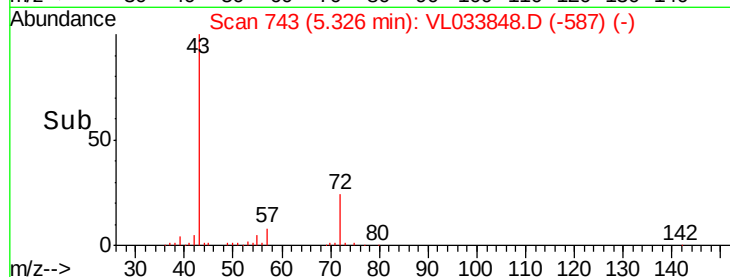
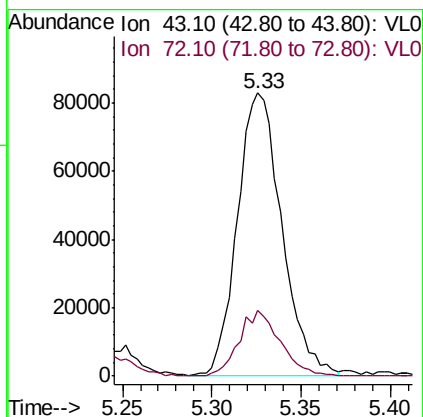
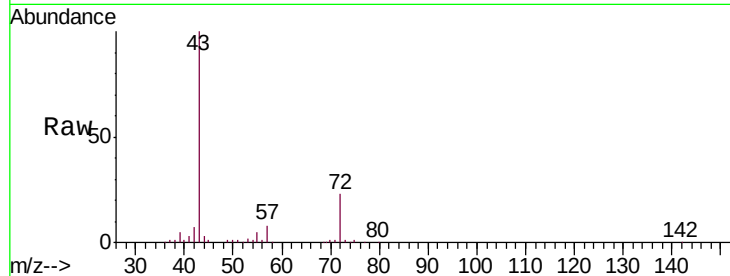




#34
 2-Butanone
 Concen: 1.349 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033848.D
 Acq: 29 May 2019 23:32

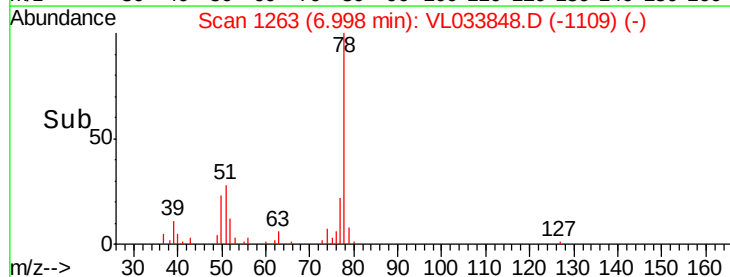
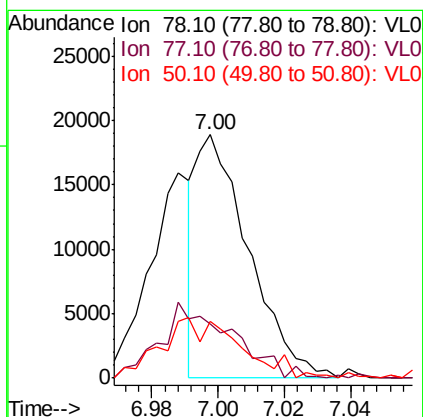
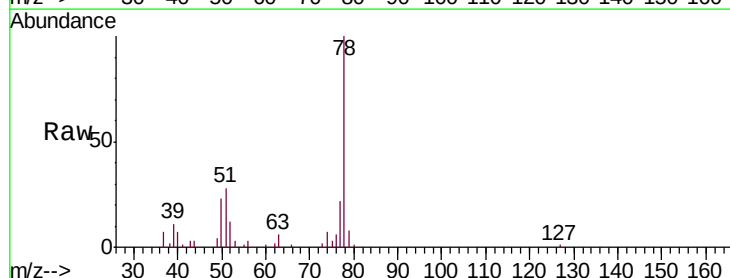
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-20190523-0

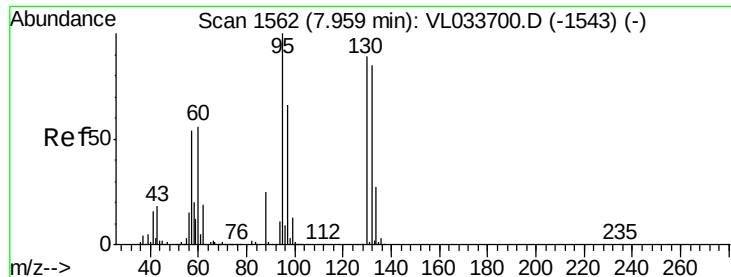
Tgt Ion: 43 Resp: 143918
 Ion Ratio Lower Upper
 43 100
 72 21.5 17.8 26.6



#36
 Benzene
 Concen: 0.131 ppbv
 RT: 7.00 min Scan# 1263
 Delta R.T. -0.01 min
 Lab File: VL033848.D
 Acq: 29 May 2019 23:32

Tgt Ion: 78 Resp: 20527
 Ion Ratio Lower Upper
 78 100
 77 21.3 18.4 27.6
 50 23.2 15.5 23.3





#38

Trichloroethene

Concen: 0.672 ppbv

RT: 7.95 min Scan# 1559

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

SG-6-20190523-0

Tgt Ion:130 Resp: 39014

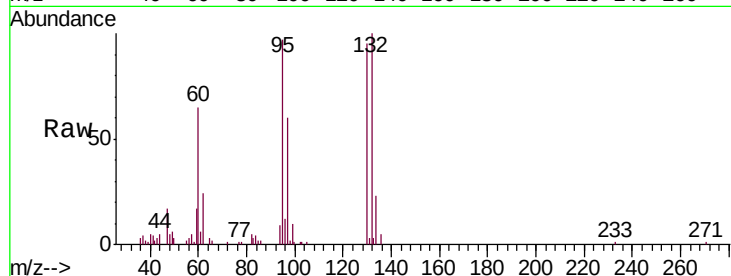
Ion Ratio Lower Upper

130 100

95 101.6 90.2 135.4

132 107.9 76.4 114.6

97 63.1 59.8 89.6

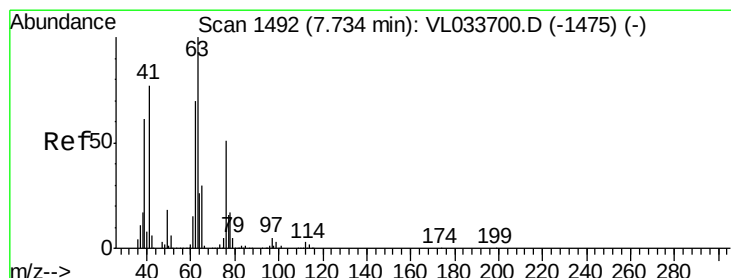
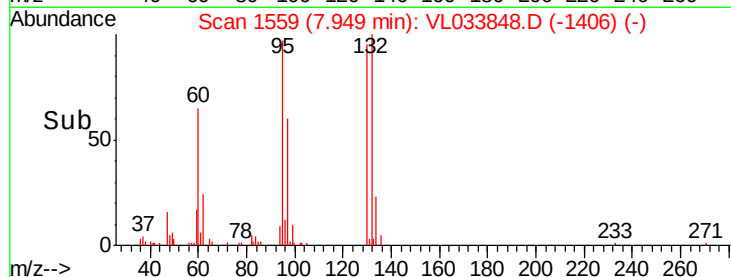
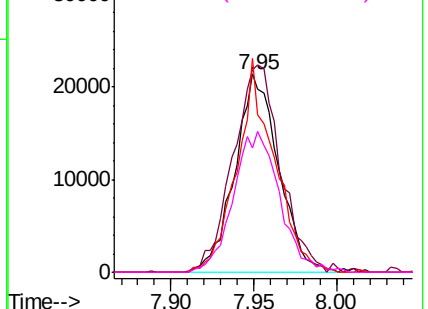


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.855 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.45 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

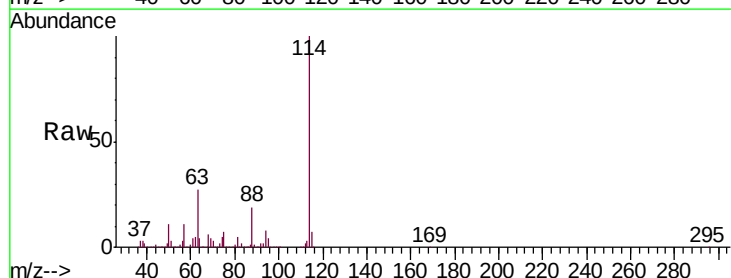
Tgt Ion: 63 Resp: 458503

Ion Ratio Lower Upper

63 100

41 0.0 61.5 92.3#

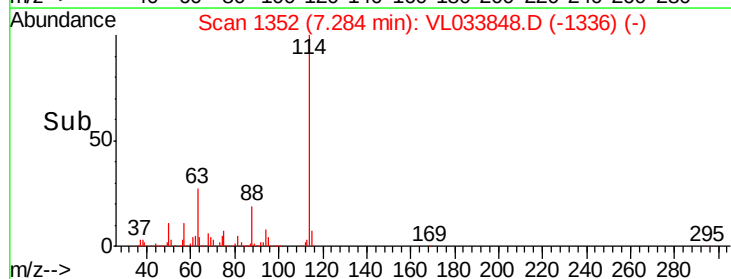
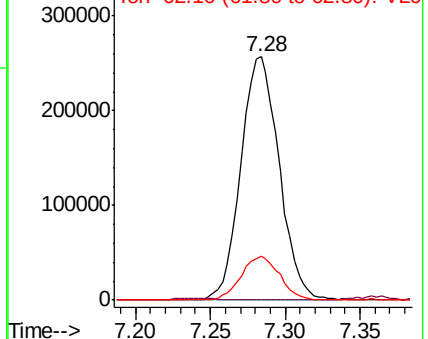
62 18.1 56.2 84.4#

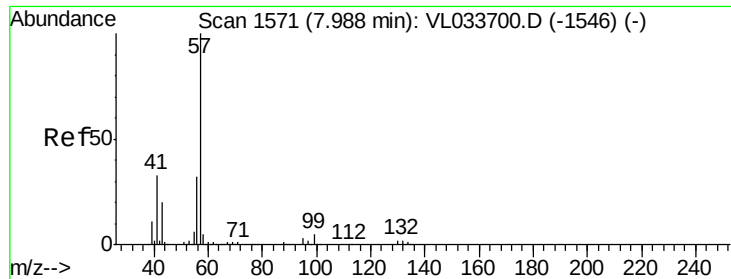


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.063 ppbv

RT: 7.98 min Scan# 1569

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampled :

SG-6-20190523-0

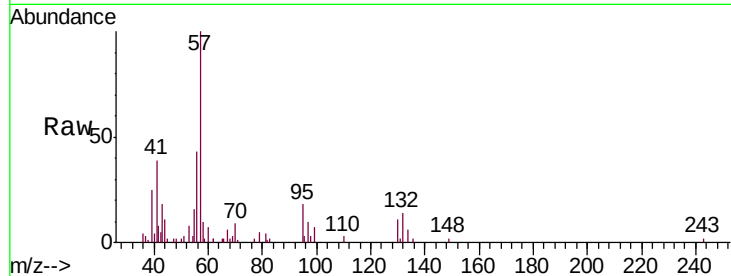
Tgt Ion: 57 Resp: 16700

Ion Ratio Lower Upper

57 100

41 86.2 25.4 38.0#

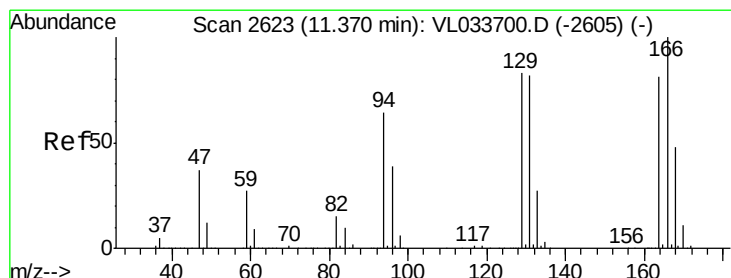
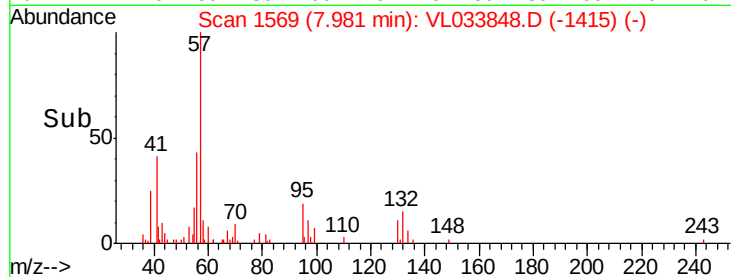
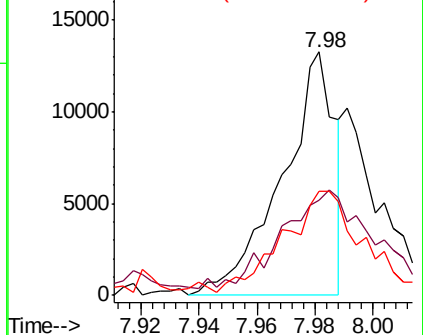
56 68.3 24.7 37.1#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 3.866 ppbv

RT: 11.37 min Scan# 2622

Delta R.T. -0.00 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Tgt Ion: 164 Resp: 212780

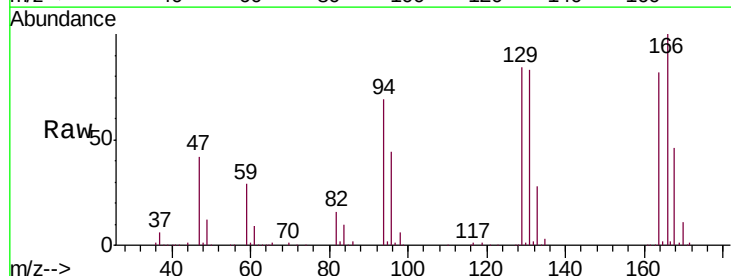
Ion Ratio Lower Upper

164 100

166 122.0 98.9 148.3

129 102.9 81.8 122.6

131 100.6 81.1 121.7

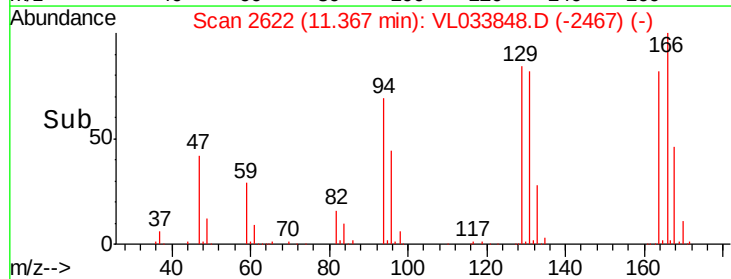
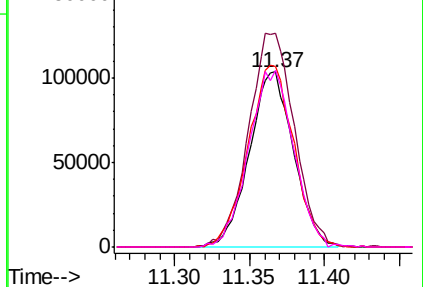


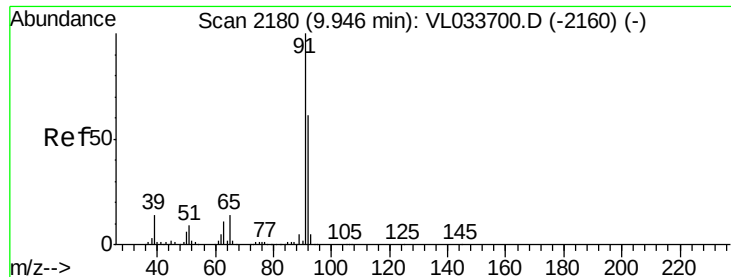
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 2.350 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

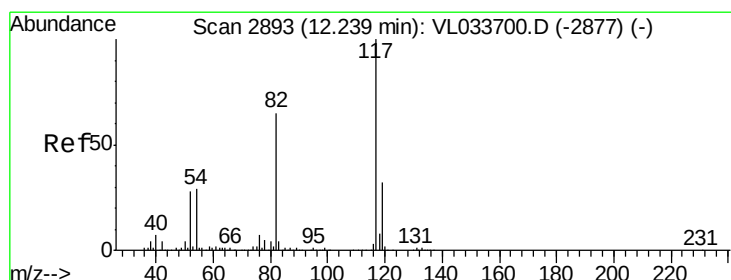
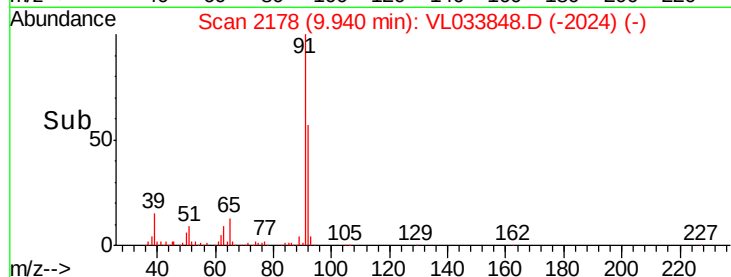
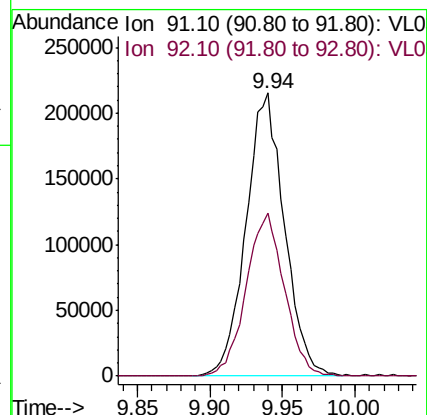
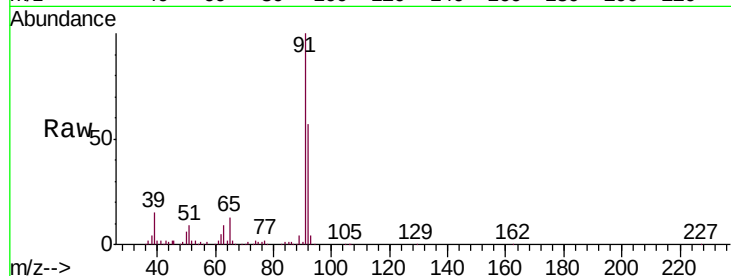
SG-6-20190523-0

Tgt Ion: 91 Resp: 396925

Ion Ratio Lower Upper

91 100

92 57.5 47.6 71.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2890

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

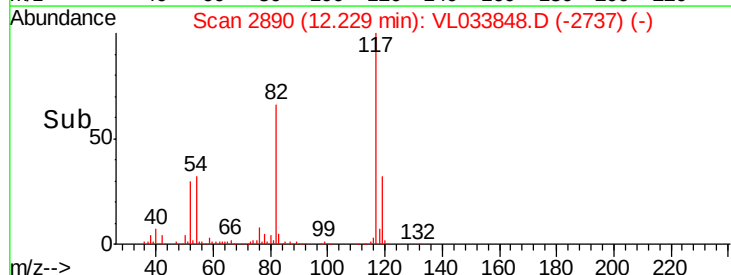
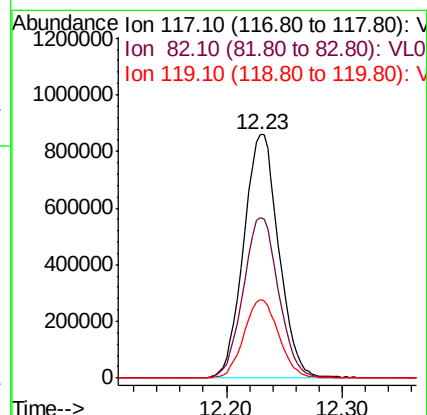
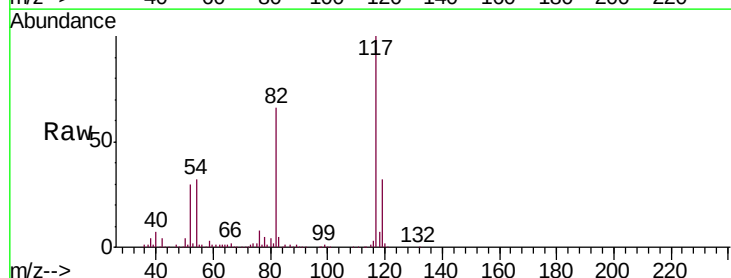
Tgt Ion: 117 Resp: 1816149

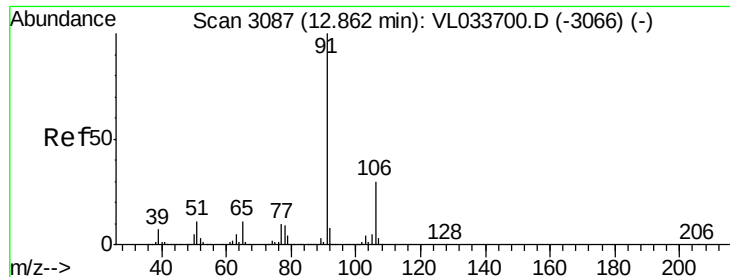
Ion Ratio Lower Upper

117 100

82 66.8 49.4 74.0

119 32.3 24.9 37.3





#58

Ethyl Benzene

Concen: 0.053 ppbv

RT: 12.86 min Scan# 3085

Delta R.T. -0.01 min

Lab File: VL033848.D

Acq: 29 May 2019 23:32

Instrument :

MSVOA_L

ClientSampleId :

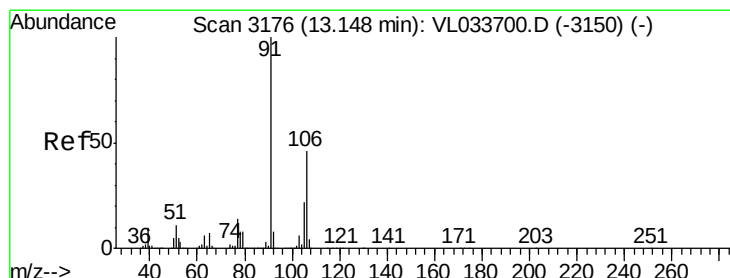
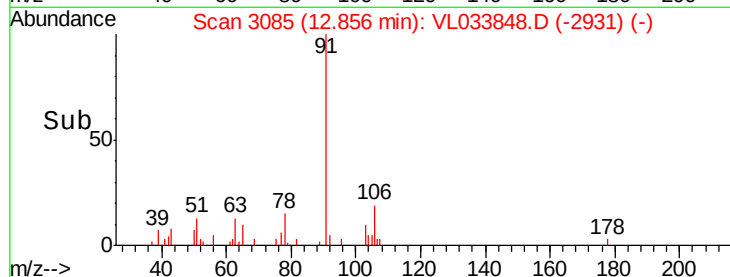
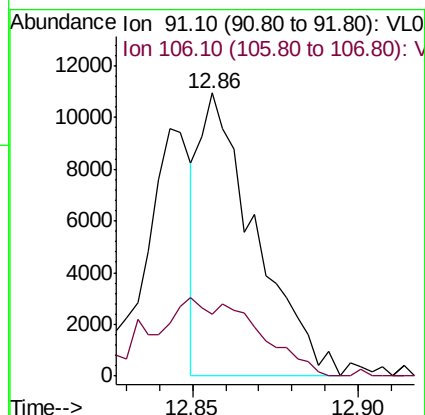
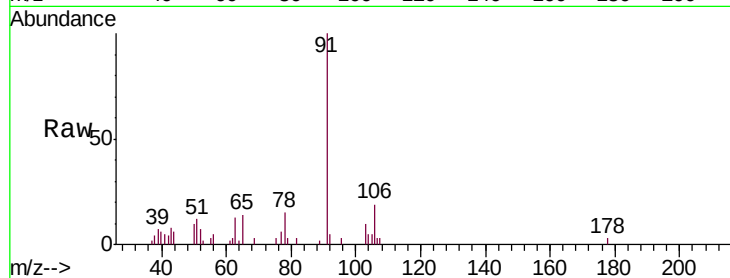
SG-6-20190523-0

Tgt Ion: 91 Resp: 12756

Ion Ratio Lower Upper

91 100

106 20.8 23.9 35.9#



#59

m/p-Xylene

Concen: 0.114 ppbv

RT: 13.14 min Scan# 3172

Delta R.T. -0.01 min

Lab File: VL033848.D

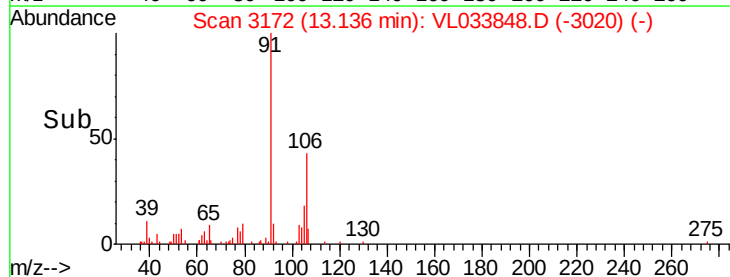
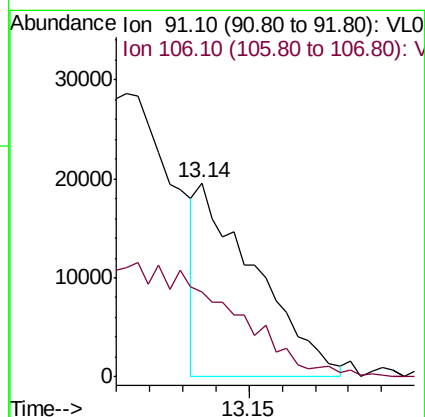
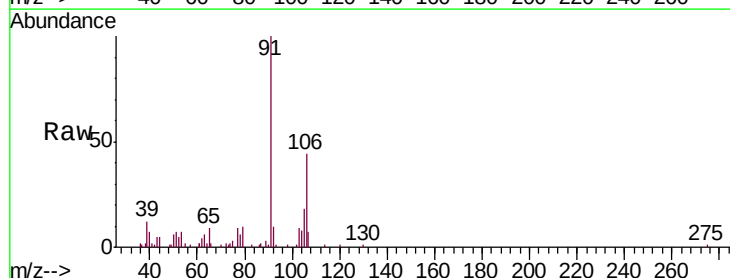
Acq: 29 May 2019 23:32

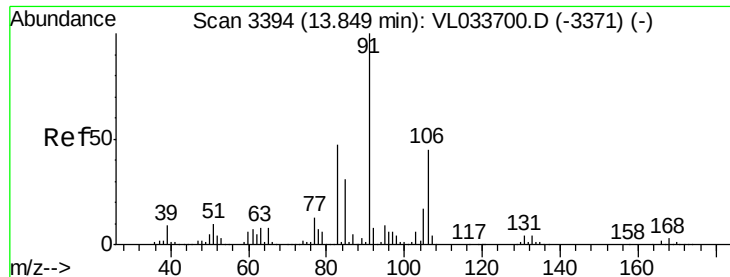
Tgt Ion: 91 Resp: 23910

Ion Ratio Lower Upper

91 100

106 0.0 35.8 53.6#

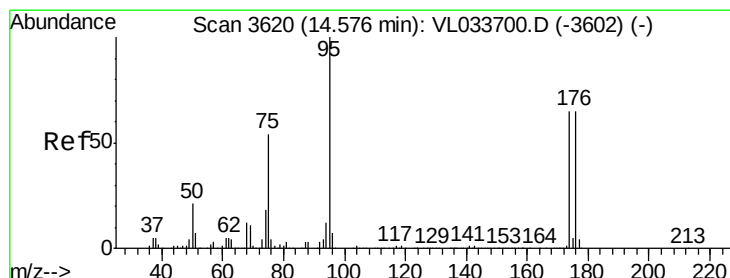
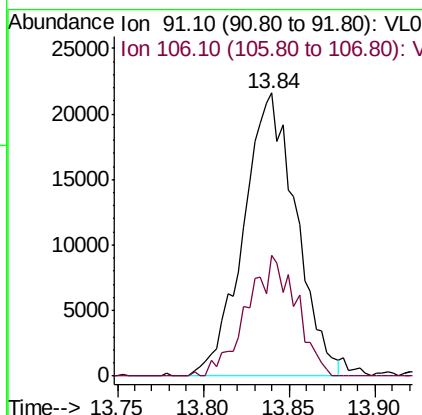
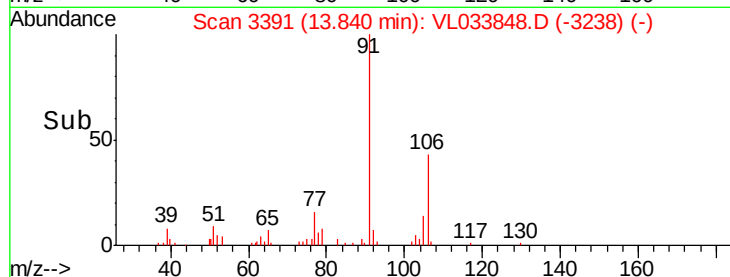
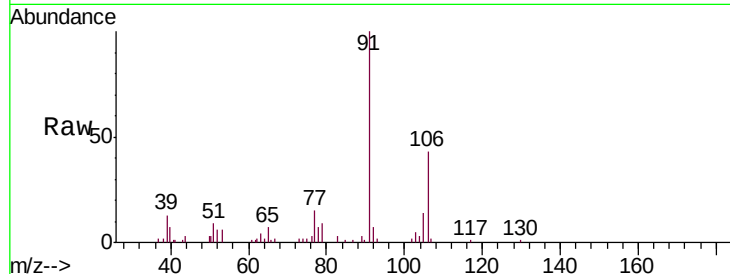




#60
o-Xylene
Concen: 0.217 ppbv
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033848.D
Acq: 29 May 2019 23:32

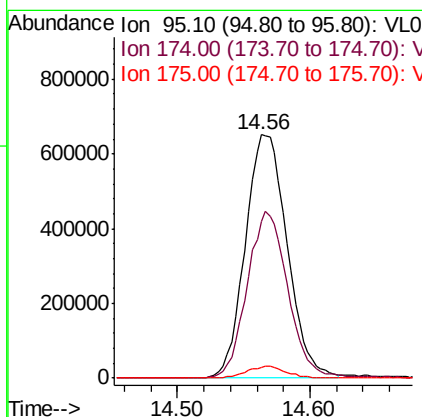
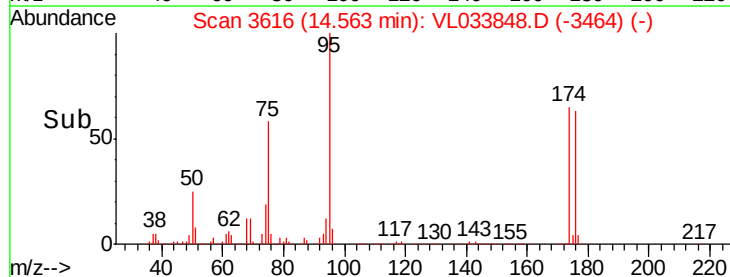
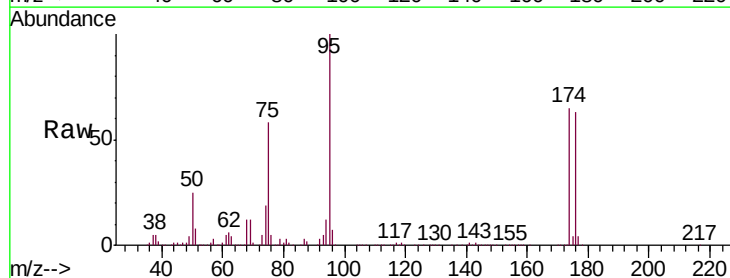
Instrument :
MSVOA_L
ClientSampleId :
SG-6-20190523-0

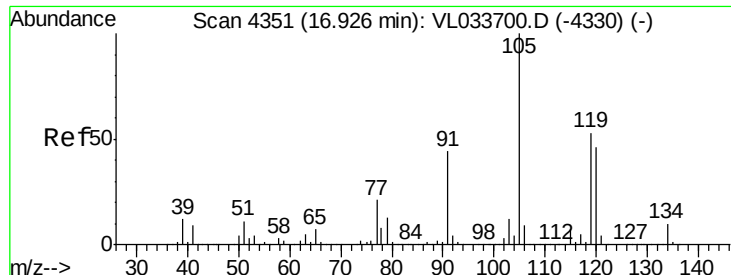
Tgt Ion: 91 Resp: 45974
Ion Ratio Lower Upper
91 100
106 39.7 21.6 64.8



#68
1-Bromo-4-Fluorobenzene
Concen: 9.726 ppbv
RT: 14.56 min Scan# 3616
Delta R.T. -0.01 min
Lab File: VL033848.D
Acq: 29 May 2019 23:32

Tgt Ion: 95 Resp: 1432014
Ion Ratio Lower Upper
95 100
174 66.6 53.9 80.9
175 4.7 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.240 ppbv
 RT: 16.91 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL033848.D
 Acq: 29 May 2019 23:32

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-20190523-0

Tgt Ion:	105	Resp:	61629
Ion	Ratio	Lower	Upper
105	100		
120	44.9	36.8	55.2
91	12.3	35.4	53.0#
77	15.2	16.8	25.2#

