

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121118\
 Data File : VL032957.D
 Acq On : 11 Dec 2018 16:41
 Operator : SY/AP
 Sample : J6338-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 12 00:50:56 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07 09:35:17 2018
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1272463	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	2995663	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3047568	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	2273682	10.10	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

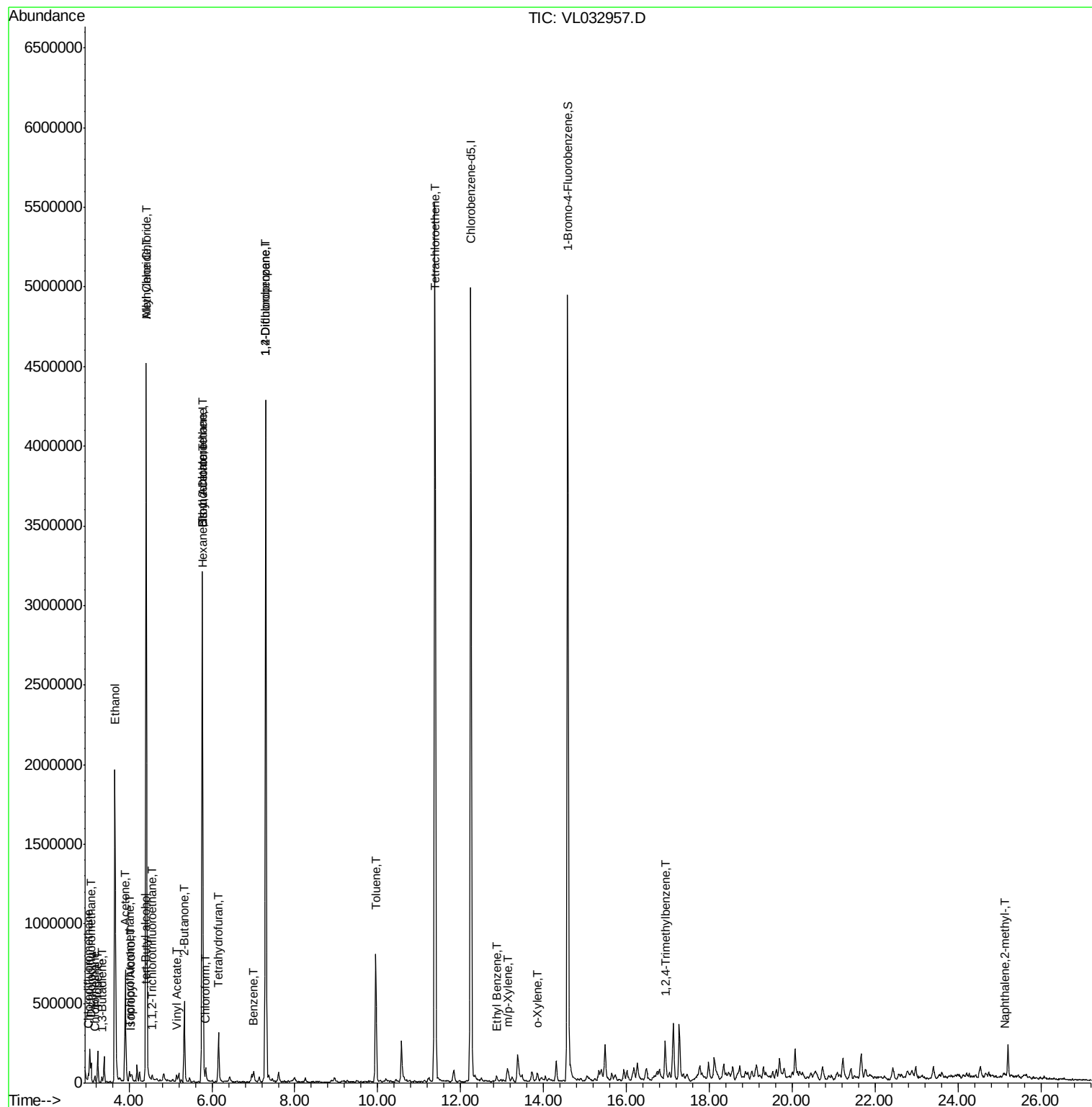
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	87065	0.513	ppbv	94
3) Chlorodifluoromethane	3.02	51	47543	0.493	ppbv	93
4) Chloromethane	3.17	50	29351	0.523	ppbv	95
9) Propene	3.24	41	39597	1.039	ppbv	85
11) Trichlorofluoromethane	4.01	101	38860	0.243	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.55	101	8499	0.062	ppbv #	72
13) Ethanol	3.66	45	2210176	168.459	ppbv	97
15) Acetone	3.91	43	683893	6.262	ppbv	100
16) 1,3-Butadiene	3.35	39	10102	0.233	ppbv #	38
17) tert-Butyl alcohol	4.38	59	8306	0.299	ppbv #	98
19) Isopropyl Alcohol	4.04	45	37856	0.552	ppbv #	1
20) Methylene Chloride	4.41	84	1636993	30.666	ppbv	96
21) Allyl Chloride	4.42	41	59876	0.673	ppbv #	20
23) Vinyl Acetate	5.15	43	17552	0.095	ppbv #	71
25) Ethyl Acetate	5.78	43	216726	0.840	ppbv #	93
26) Hexane	5.78	57	171149	1.437	ppbv #	65
29) Chloroform	5.85	83	47823	0.225	ppbv	95
31) cis-1,2-Dichloroethene	5.78	61	6902	0.063	ppbv #	33
34) 2-Butanone	5.34	43	527518	4.043	ppbv	99
36) Benzene	7.01	78	46467	0.211	ppbv #	90
39) 1,2-Dichloropropane	7.29	63	746002	8.927	ppbv #	21
41) Tetrahydrofuran	6.16	42	144116	1.776	ppbv	97
52) Tetrachloroethene	11.38	164	1336753	16.679	ppbv	99
53) Toluene	9.95	91	572946	2.452	ppbv	99
58) Ethyl Benzene	12.87	91	17315	0.053	ppbv	95
59) m/p-Xylene	13.15	91	19951	0.068	ppbv #	100
60) o-Xylene	13.86	91	37203	0.125	ppbv	97
74) 1,2,4-Trimethylbenzene	16.93	105	122397	0.334	ppbv #	67
80) Naphthalene,2-methyl-	25.13	142	8490	0.168	ppbv #	80

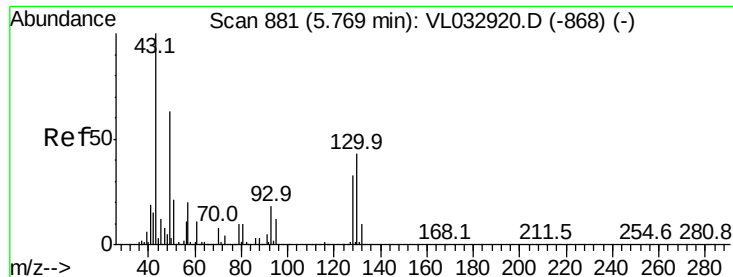
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121118\
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Instrument :
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ClientSampleId :

Quant Time: Dec 12 00:50:56 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07 09:35:17 2018
QLast Update : Fri Dec 07 09:35:17 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

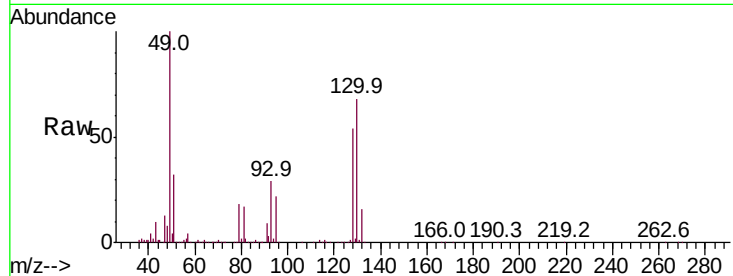
Tot Ion: 49 Resp: 1272463

Ion Ratio Lower Upper

49 100

128 51.6 26.3 78.8

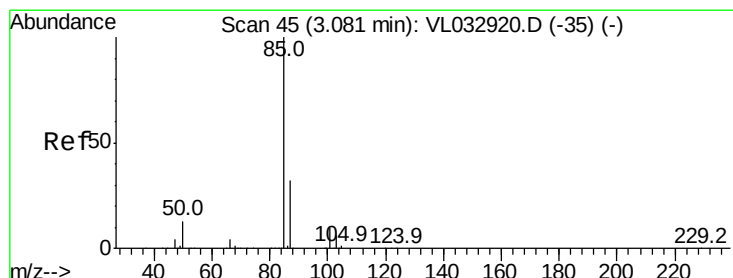
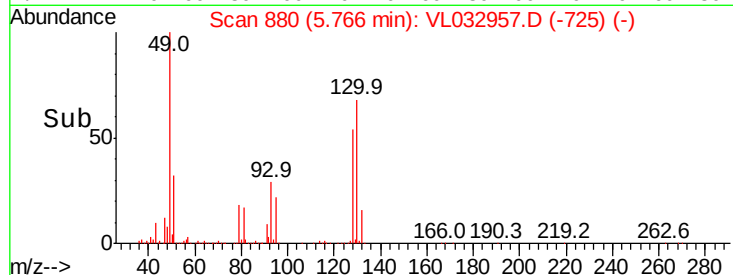
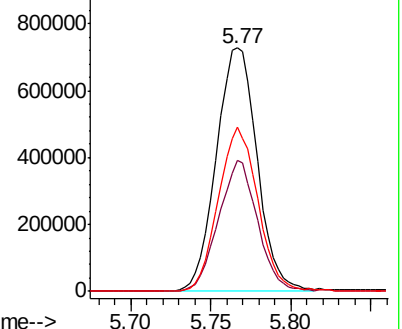
130 65.6 33.9 101.7



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: 0.513 ppbv

RT: 3.08 min Scan# 46

Delta R.T. 0.00 min

Lab File: VL032957.D

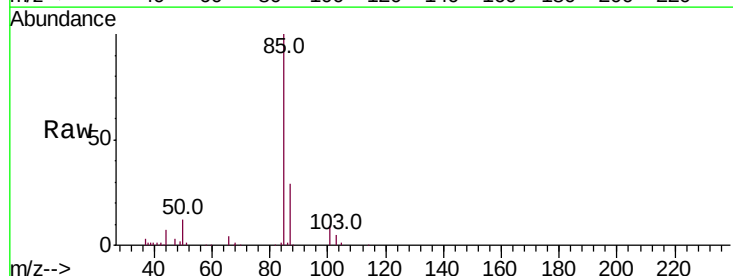
Acq: 11 Dec 2018 16:41

Tgt Ion: 85 Resp: 87065

Ion Ratio Lower Upper

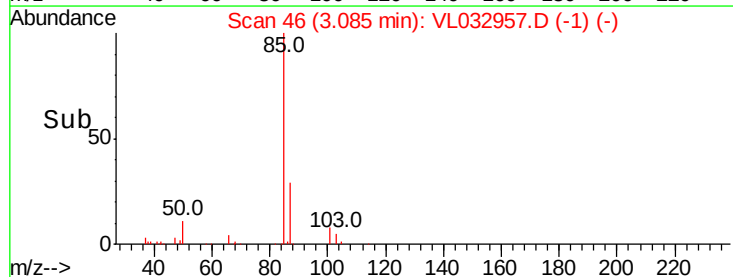
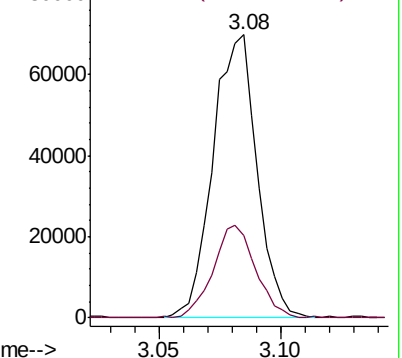
85 100

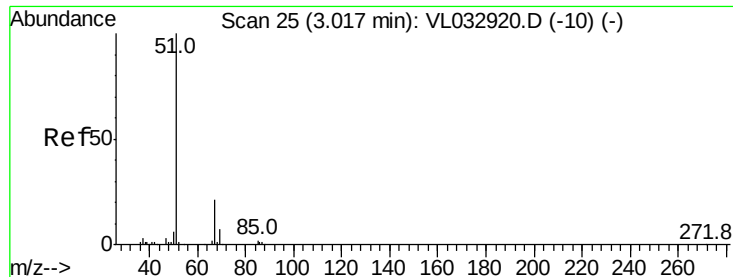
87 28.6 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.493 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

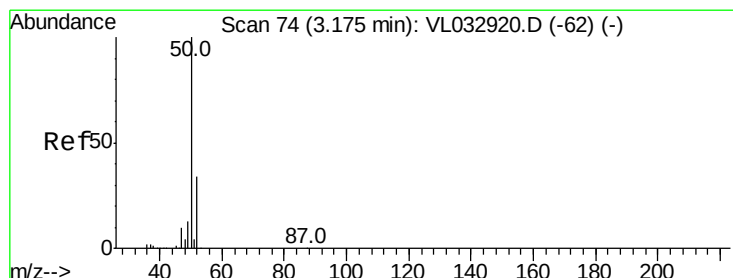
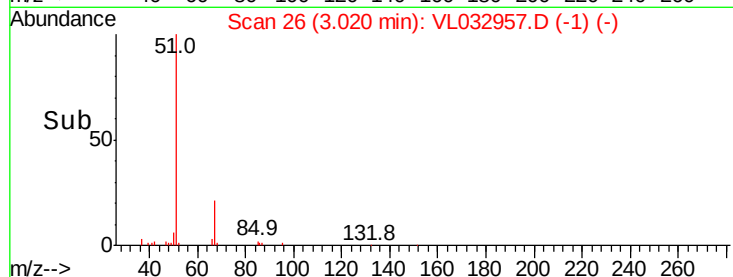
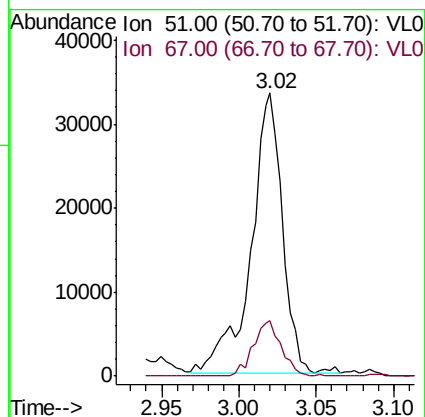
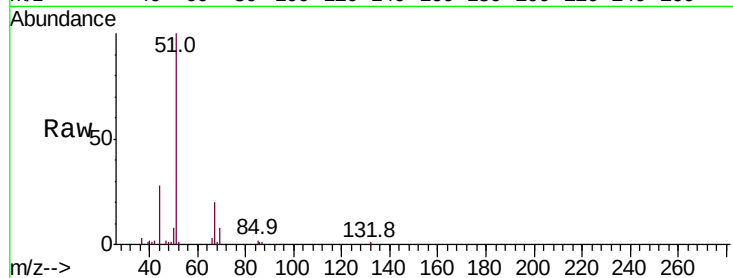
ClientSampleId :

Tot Ion: 51 Resp: 47543

Ion Ratio Lower Upper

51 100

67 17.6 16.8 25.2



#4

Chloromethane

Concen: 0.523 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL032957.D

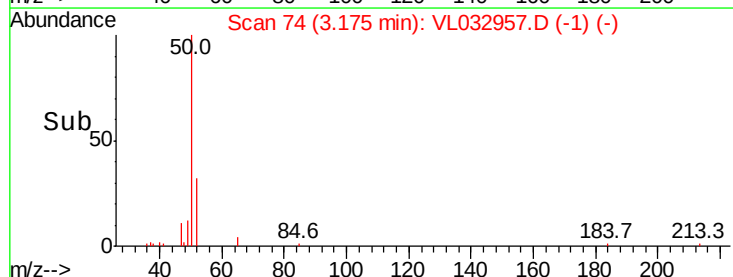
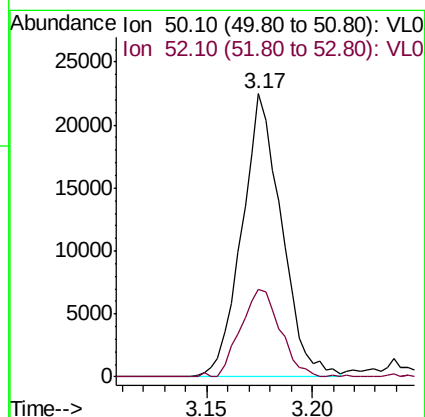
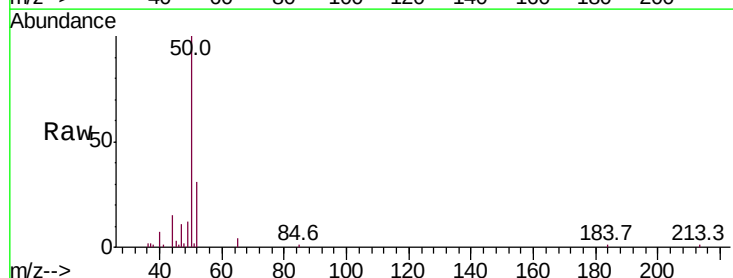
Acq: 11 Dec 2018 16:41

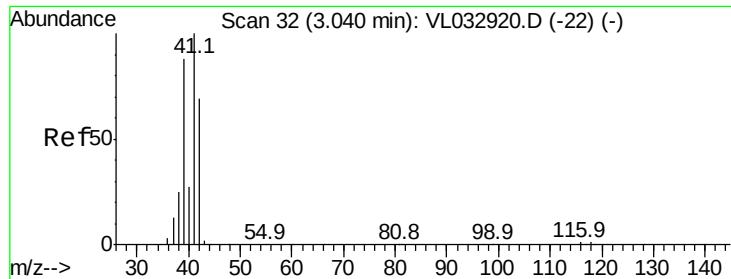
Tgt Ion: 50 Resp: 29351

Ion Ratio Lower Upper

50 100

52 31.1 27.3 40.9





#9

Propene

Concen: 1.039 ppbv

RT: 3.24 min Scan# 95

Delta R.T. 0.20 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

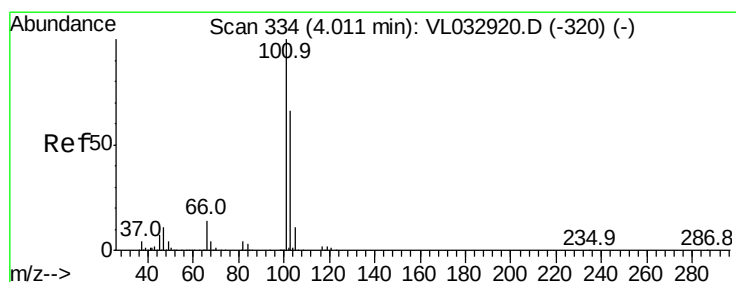
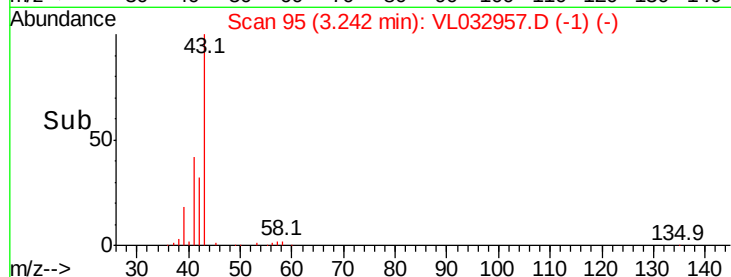
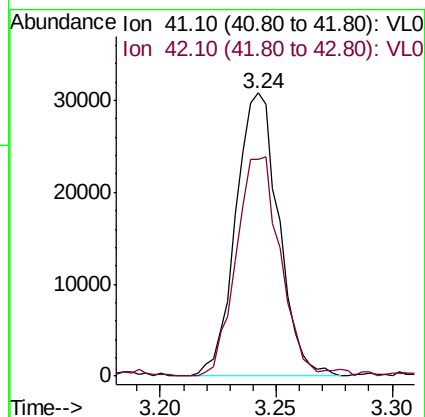
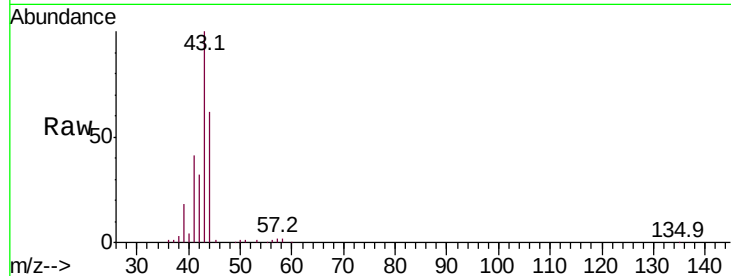
ClientSampleId :

Tot Ion: 41 Resp: 39597

Ion Ratio Lower Upper

41 100

42 82.1 56.2 84.2



#11

Trichlorofluoromethane

Concen: 0.243 ppbv

RT: 4.01 min Scan# 333

Delta R.T. -0.00 min

Lab File: VL032957.D

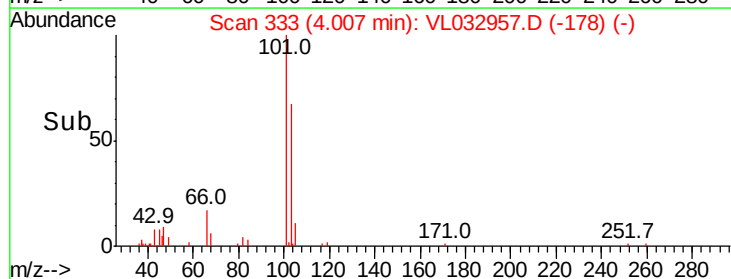
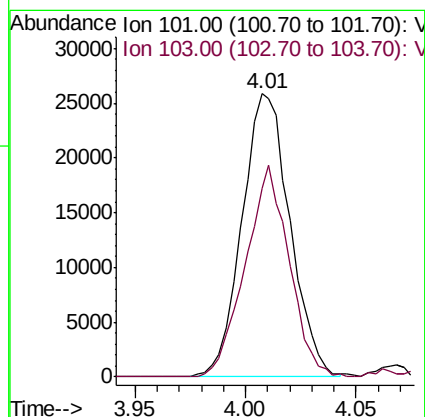
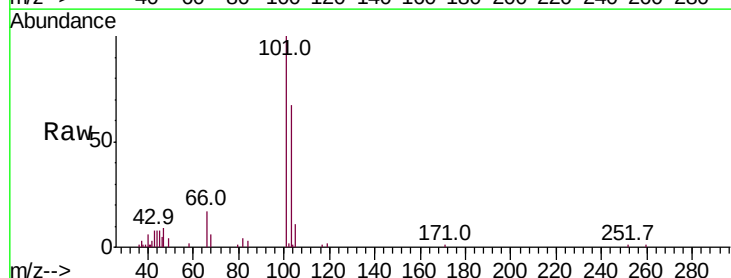
Acq: 11 Dec 2018 16:41

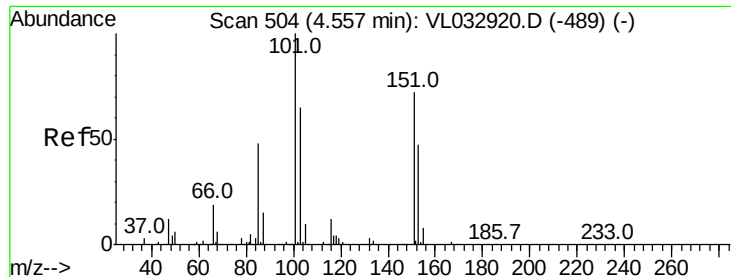
Tgt Ion: 101 Resp: 38860

Ion Ratio Lower Upper

101 100

103 66.6 52.7 79.1





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.062 ppbv

RT: 4.55 min Scan# 502

Delta R.T. -0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

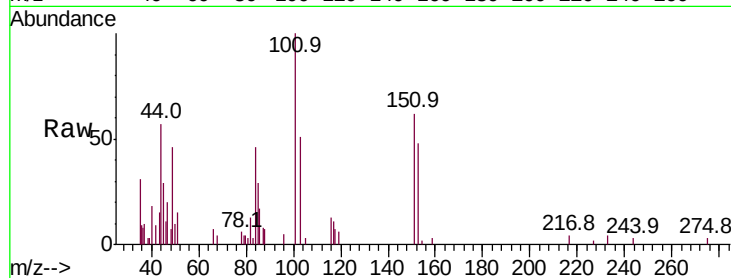
ClientSampleId :

Tot Ion:101 Resp: 8499

Ion Ratio Lower Upper

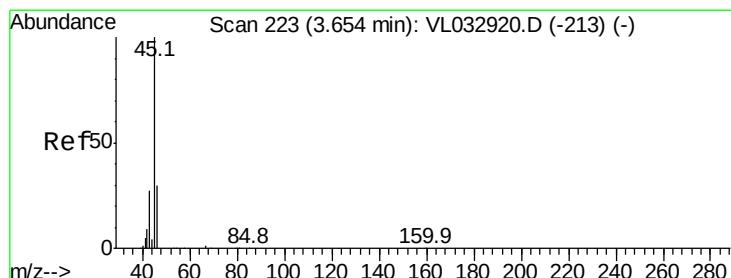
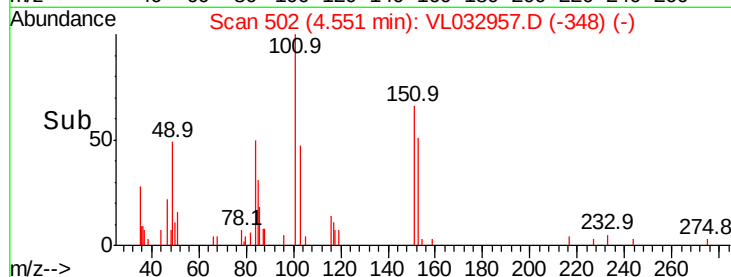
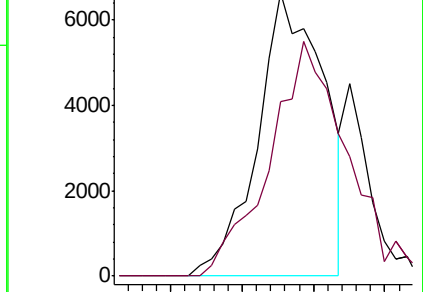
101 100

151 97.4 59.3 88.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 168.459 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.01 min

Lab File: VL032957.D

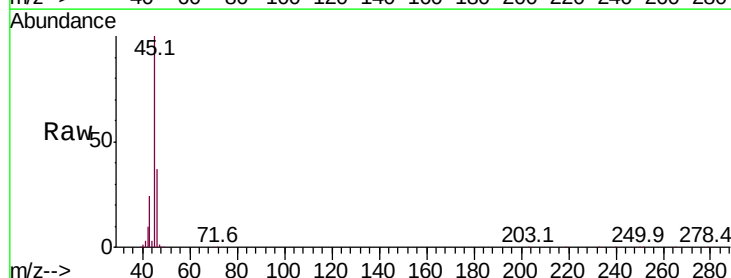
Acq: 11 Dec 2018 16:41

Tgt Ion: 45 Resp: 2210176

Ion Ratio Lower Upper

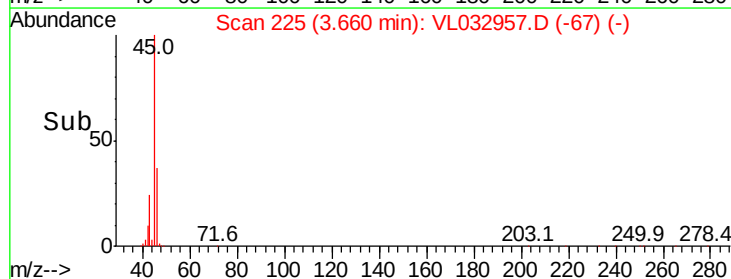
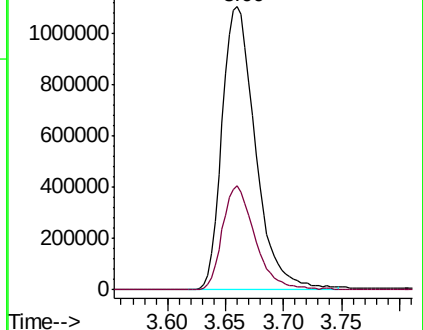
45 100

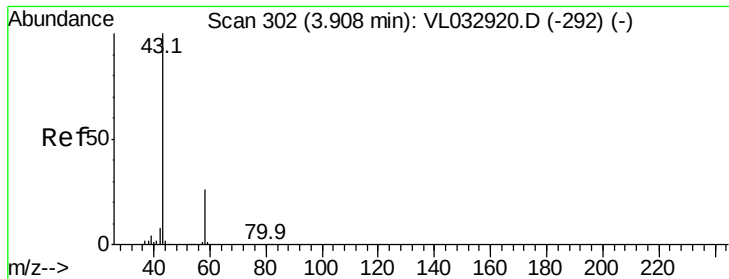
46 36.2 13.8 55.4



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 6.262 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

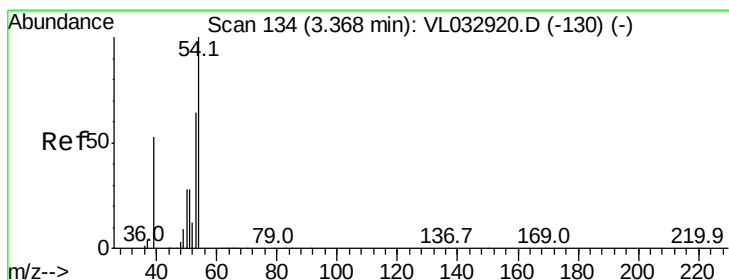
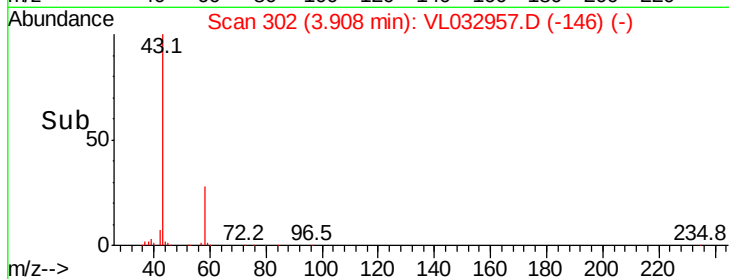
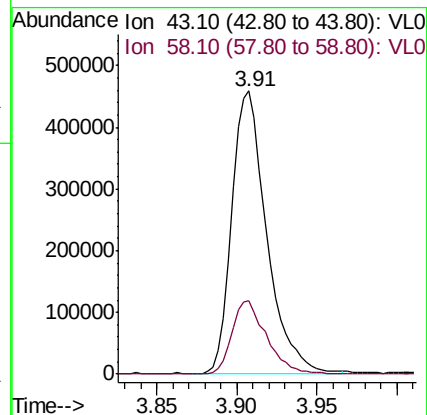
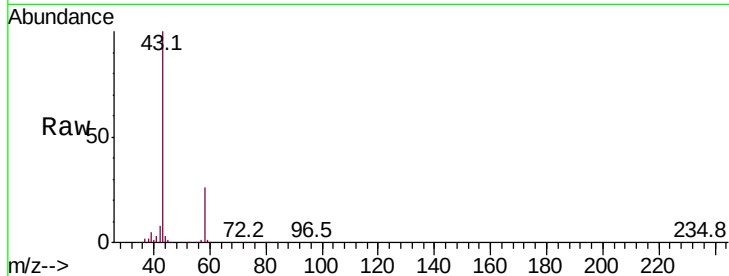
ClientSampleId :

Tot Ion: 43 Resp: 683893

Ion Ratio Lower Upper

43 100

58 25.9 20.6 30.8



#16

1,3-Butadiene

Concen: 0.233 ppbv

RT: 3.35 min Scan# 128

Delta R.T. -0.02 min

Lab File: VL032957.D

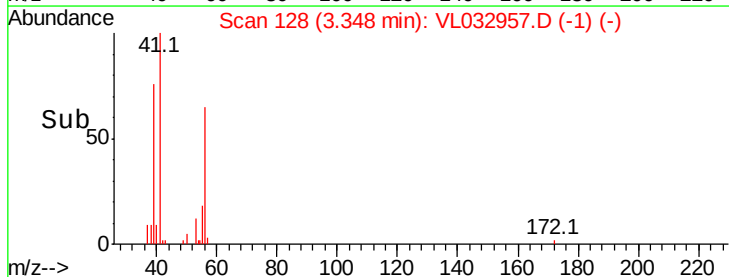
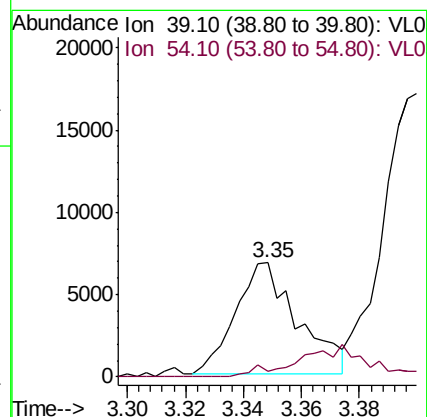
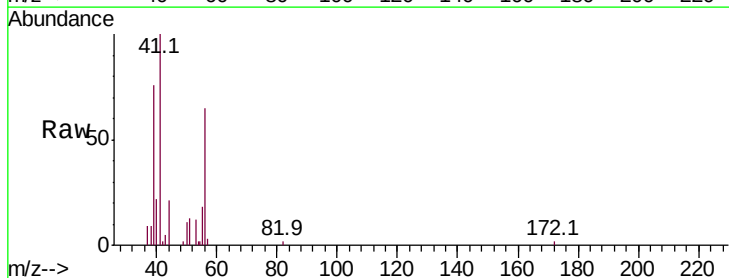
Acq: 11 Dec 2018 16:41

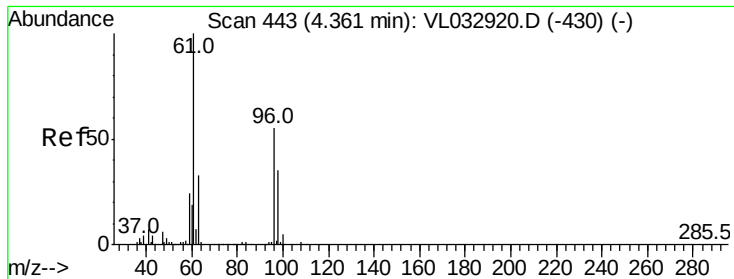
Tgt Ion: 39 Resp: 10102

Ion Ratio Lower Upper

39 100

54 31.8 72.7 109.1#



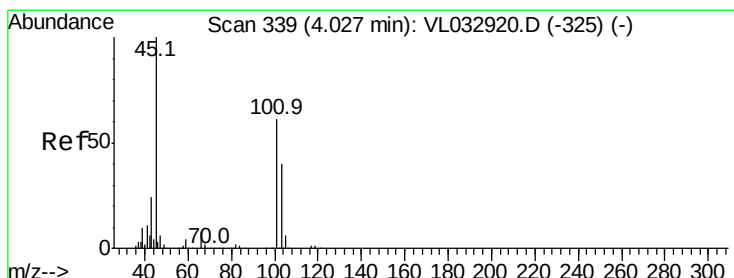
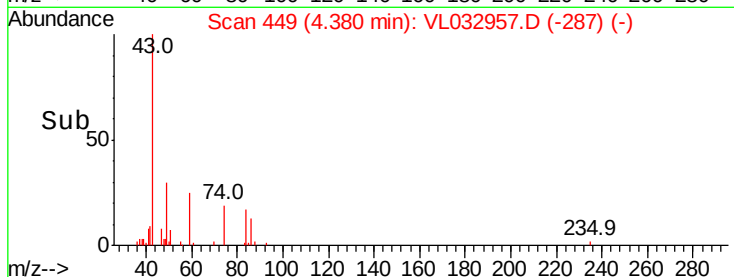
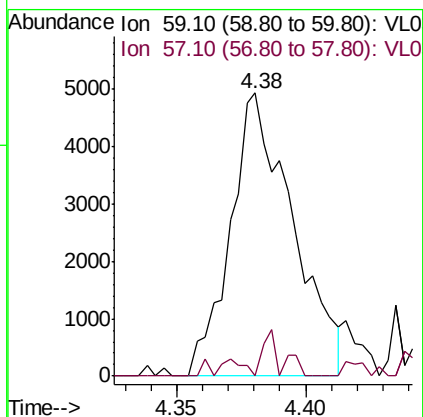
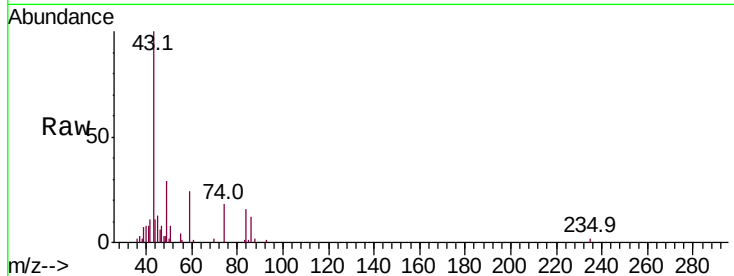


#17

tert-Butyl alcohol
 Concen: 0.299 ppbv
 RT: 4.38 min Scan# 449
 Delta R.T. 0.02 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

Instrument :
 MSVOA_L
 ClientSampled :

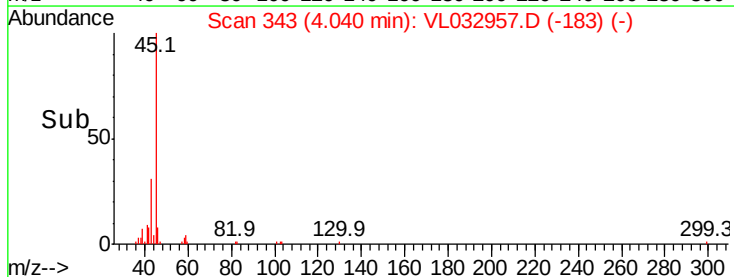
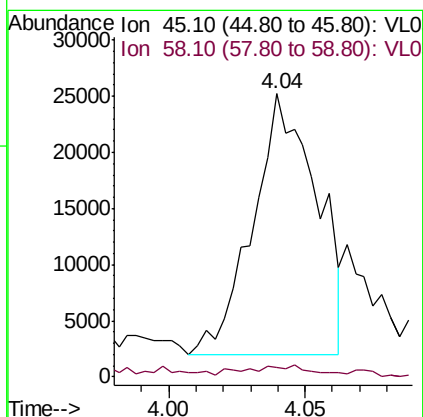
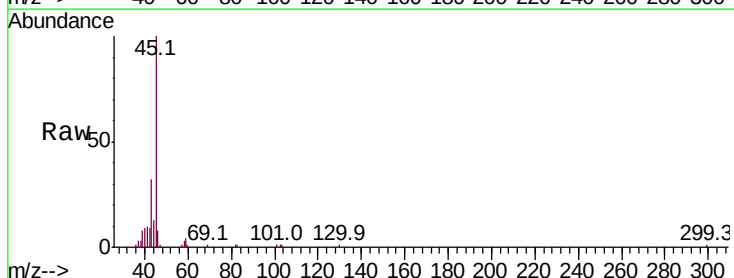
Tot Ion: 59 Resp: 8306
 Ion Ratio Lower Upper
 59 100
 57 0.0 0.6 1.0#

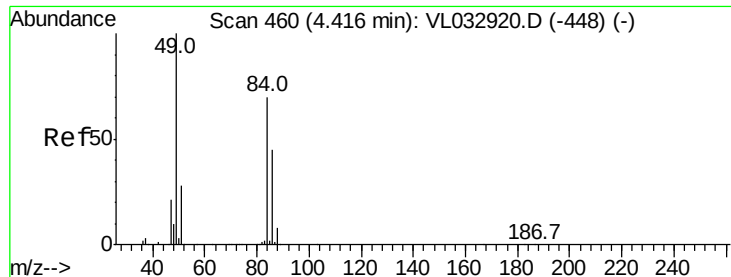


#19

Isopropyl Alcohol
 Concen: 0.552 ppbv
 RT: 4.04 min Scan# 343
 Delta R.T. 0.01 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

Tgt Ion: 45 Resp: 37856
 Ion Ratio Lower Upper
 45 100
 58 469.9 1.4 2.2#





#20

Methylene Chloride

Concen: 30.666 ppbv

RT: 4.41 min Scan# 459

Delta R.T. -0.00 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 84 Resp: 1636993

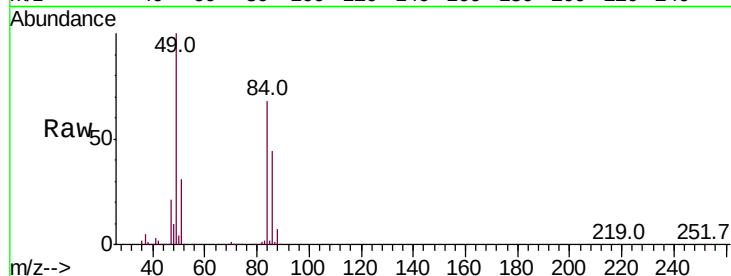
Ion Ratio Lower Upper

84 100

49 146.3 113.8 170.8

51 45.9 31.8 47.8

86 63.6 50.8 76.2

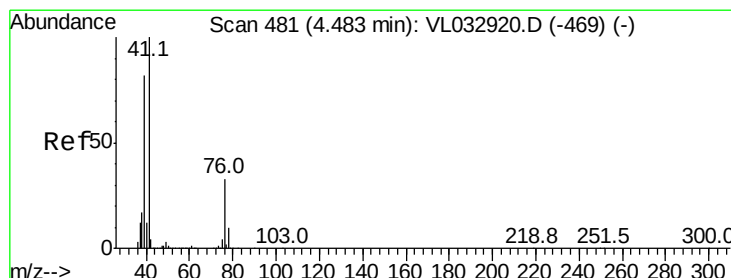
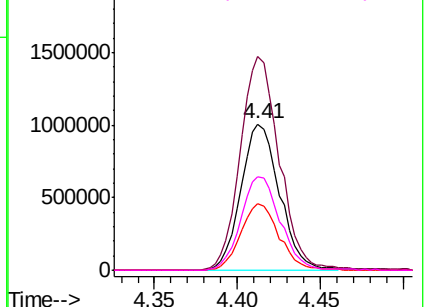
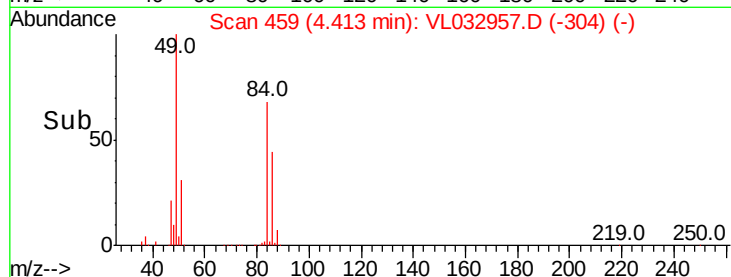


Abundance Ion 84.00 (83.70 to 84.70): VL0

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



#21

Allyl Chloride

Concen: 0.673 ppbv

RT: 4.42 min Scan# 460

Delta R.T. -0.07 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

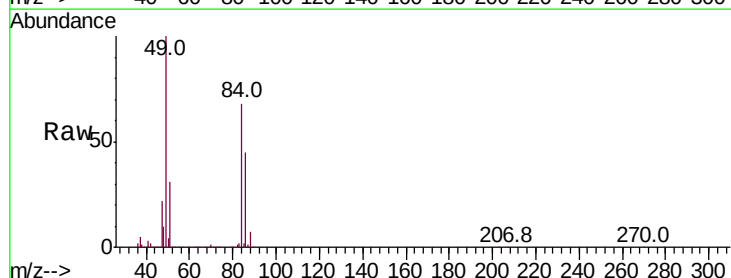
Tgt Ion: 41 Resp: 59876

Ion Ratio Lower Upper

41 100

76 0.0 25.2 37.8#

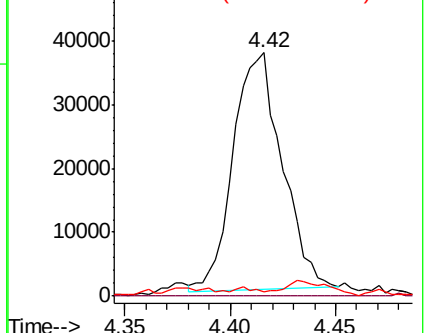
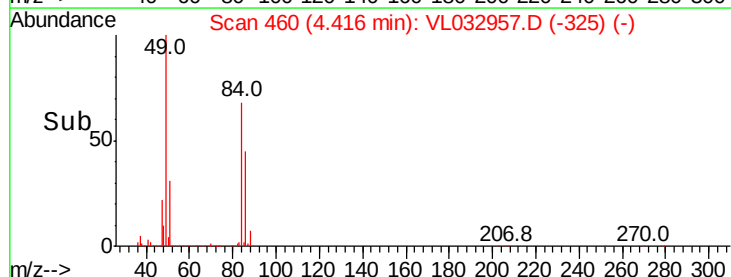
39 1.7 65.2 97.8#

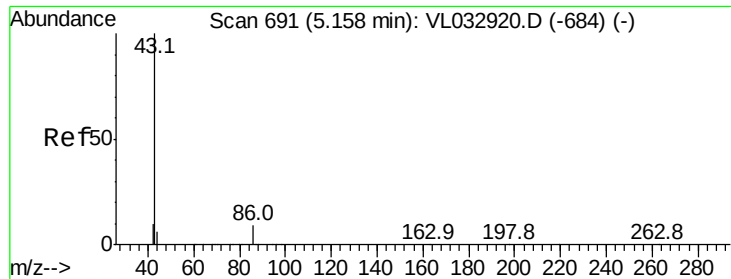


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.095 ppbv

RT: 5.15 min Scan# 688

Delta R.T. -0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 17552

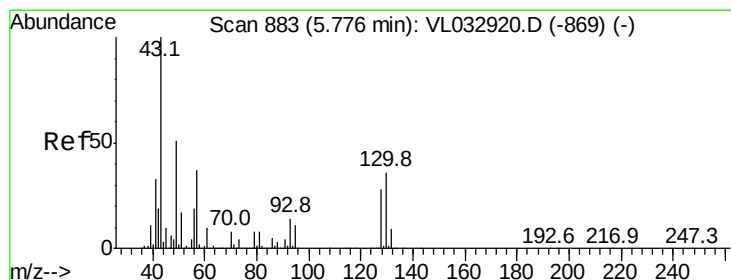
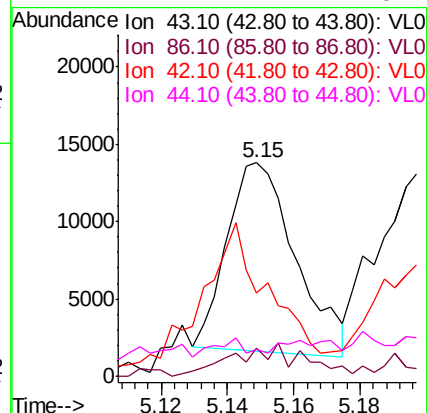
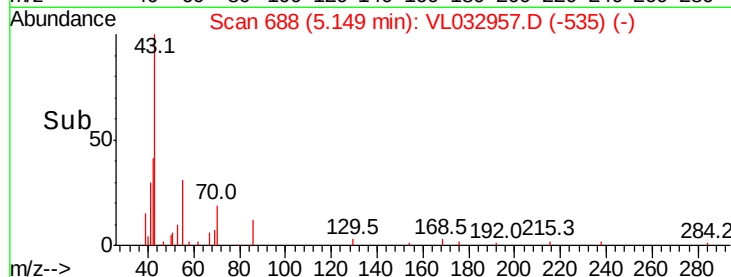
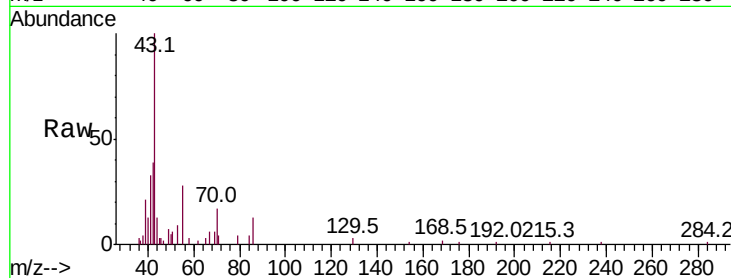
Ion Ratio Lower Upper

43 100

86 12.1 6.6 9.8#

42 31.2 8.3 12.5#

44 4.1 4.2 6.4#



#25

Ethyl Acetate

Concen: 0.840 ppbv

RT: 5.78 min Scan# 883

Delta R.T. 0.00 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Tgt Ion: 43 Resp: 216726

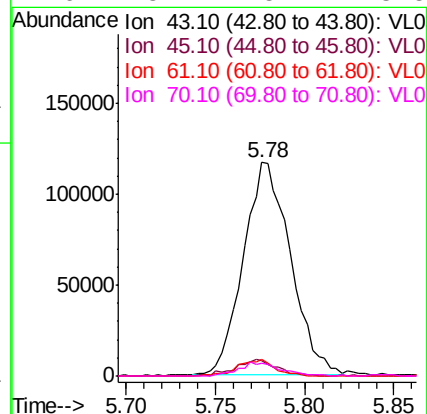
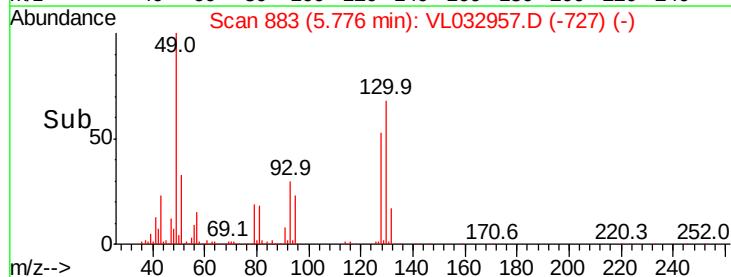
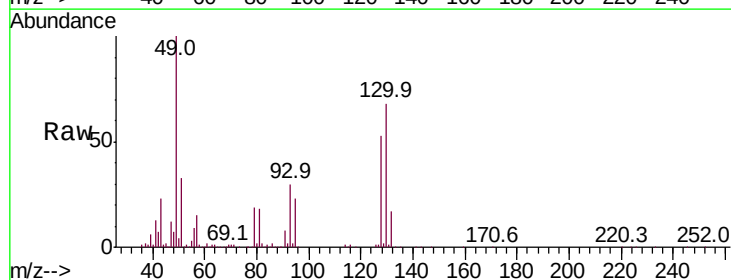
Ion Ratio Lower Upper

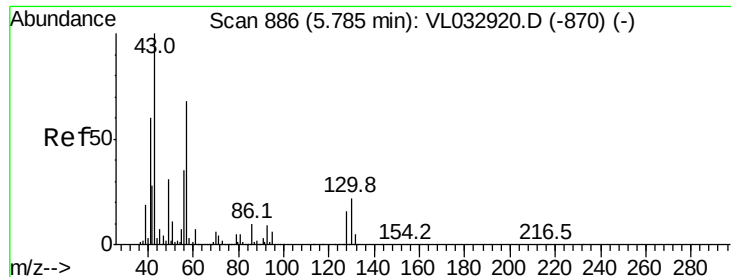
43 100

45 6.9 7.8 11.6#

61 6.1 7.4 11.2#

70 5.7 5.7 8.5#





#26

Hexane

Concen: 1.437 ppbv

RT: 5.78 min Scan# 885

Delta R.T. -0.00 min

Lab File: VL032957.D

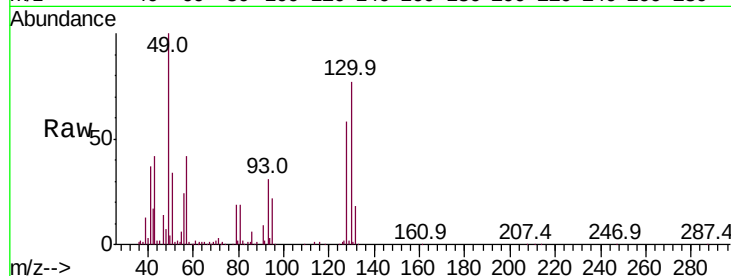
Acq: 11 Dec 2018 16:41

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 171149

Ion Ratio Lower Upper

57	100		
41	97.2	72.2	108.2
43	128.9	171.9	257.9#
56	56.6	42.2	63.2

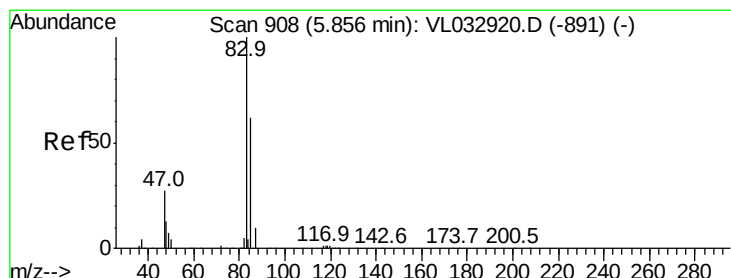
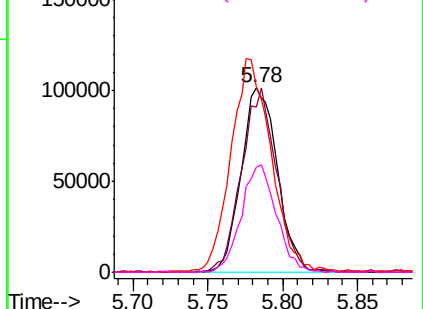
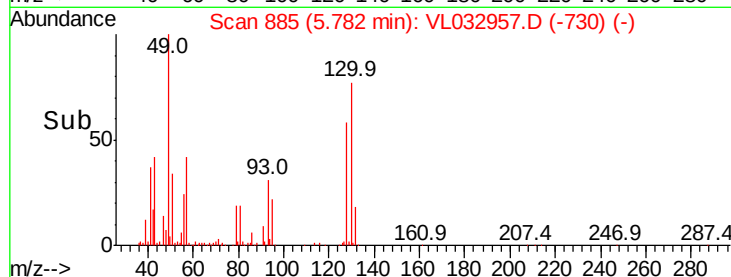


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#29

Chloroform

Concen: 0.225 ppbv

RT: 5.85 min Scan# 907

Delta R.T. -0.00 min

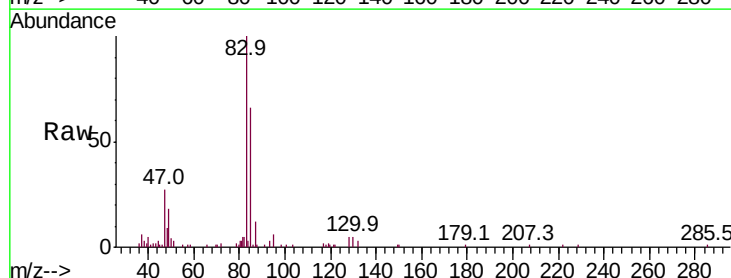
Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Tgt Ion: 83 Resp: 47823

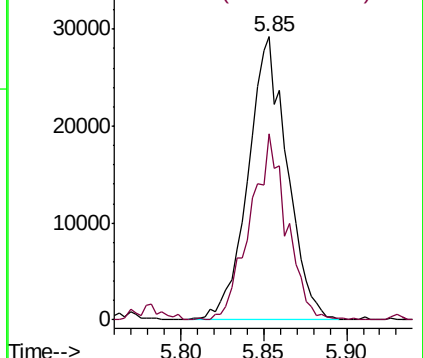
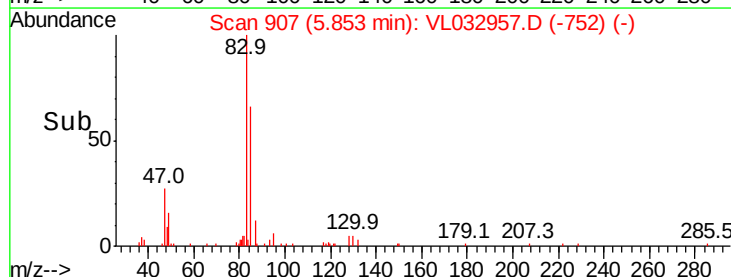
Ion Ratio Lower Upper

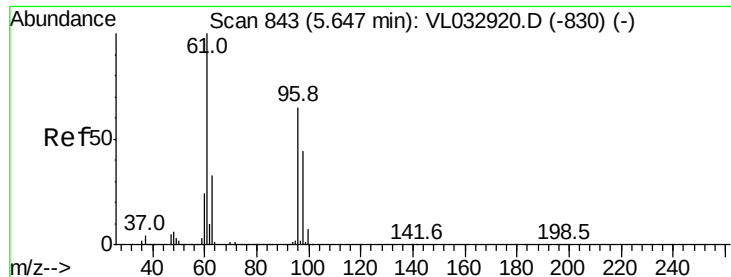
83	100		
85	65.9	49.8	74.8



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



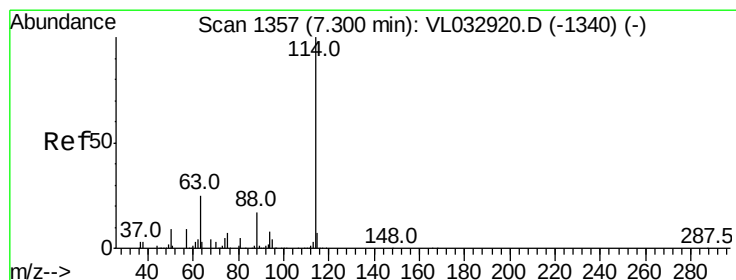
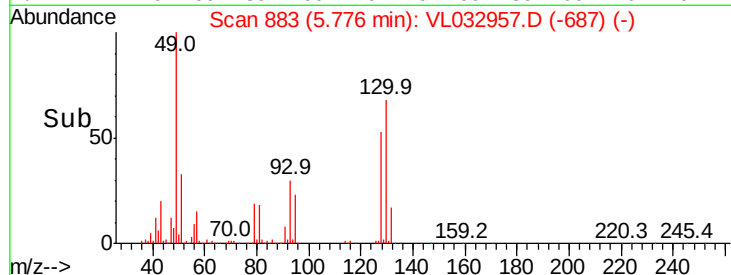
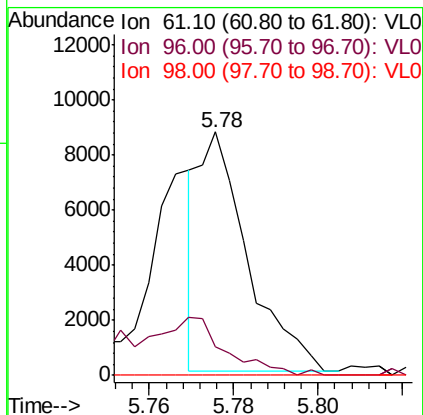
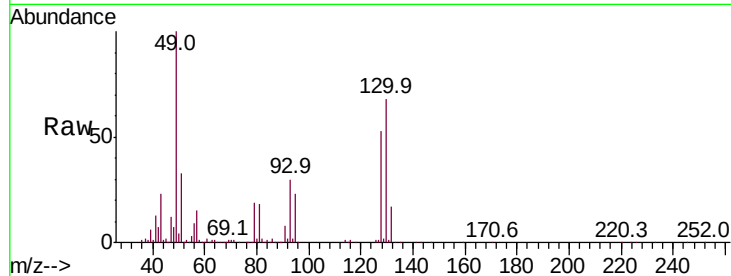


#31

cis-1,2-Dichloroethene
 Concen: 0.063 ppbv
 RT: 5.78 min Scan# 883
 Delta R.T. 0.13 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

Instrument :
 MSVOA_L
 ClientSampled :

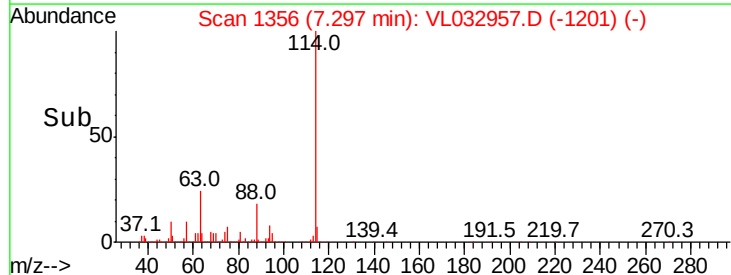
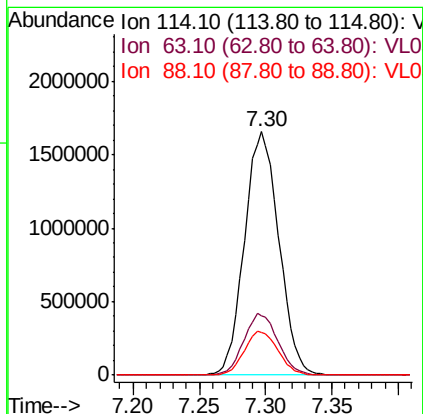
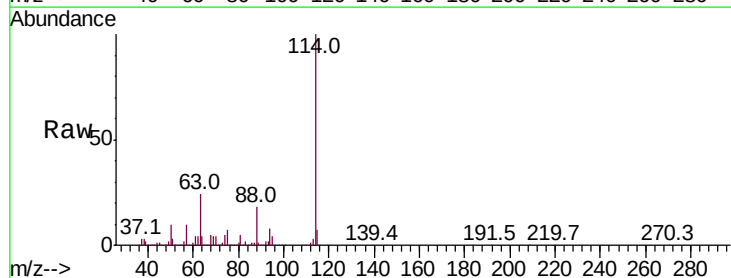
Tot Ion: 61 Resp: 6902
 Ion Ratio Lower Upper
 61 100
 96 12.0 51.9 77.9#
 98 0.0 35.0 52.4#

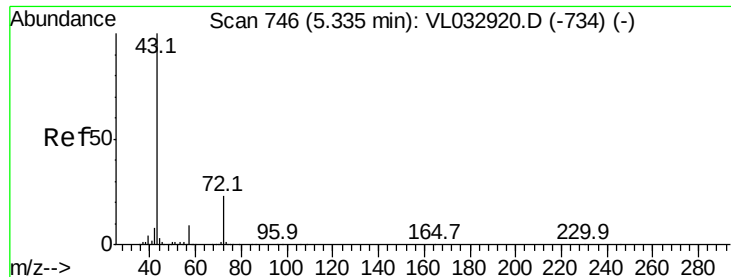


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.00 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

Tgt Ion: 114 Resp: 2995663
 Ion Ratio Lower Upper
 114 100
 63 25.1 20.1 30.1
 88 17.8 14.2 21.4

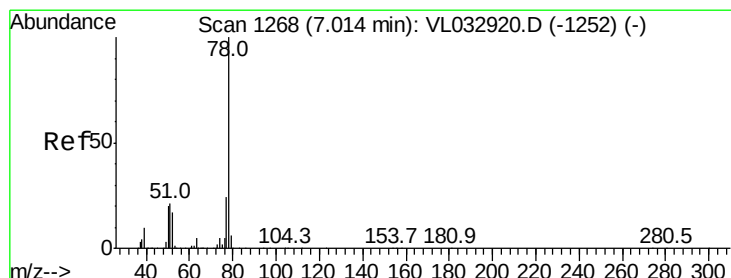
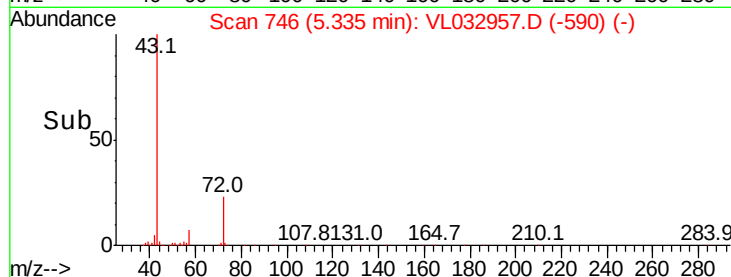
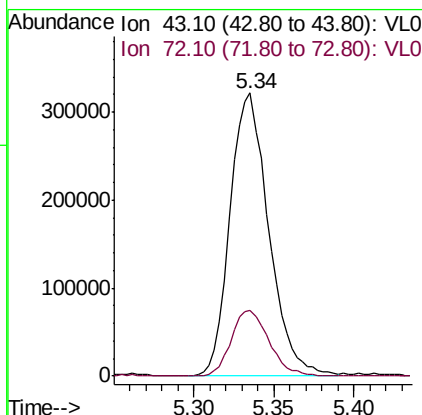
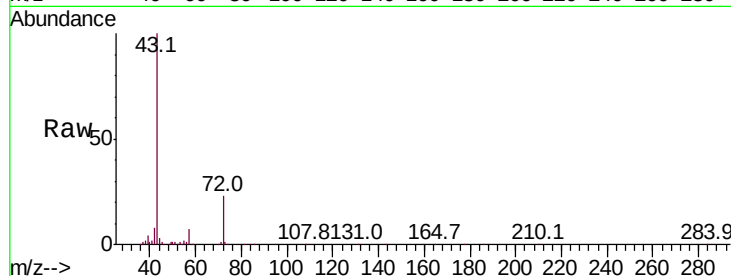




#34
2-Butanone
Concen: 4.043 ppbv
RT: 5.34 min Scan# 746
Delta R.T. 0.00 min
Lab File: VL032957.D
Acq: 11 Dec 2018 16:41

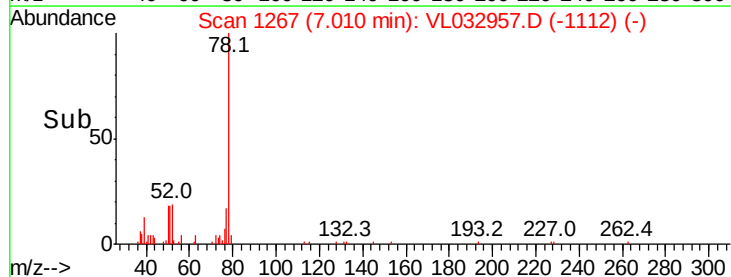
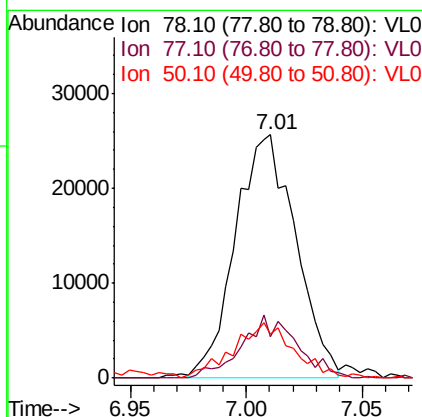
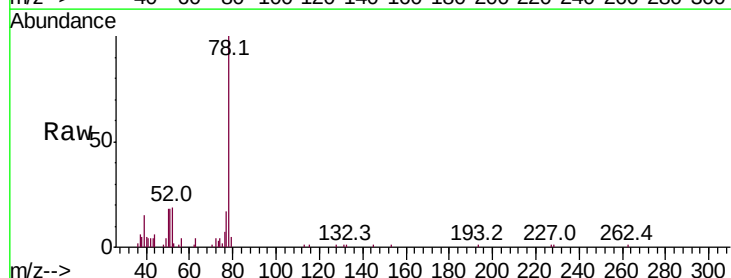
Instrument :
MSVOA_L
ClientSampleId :

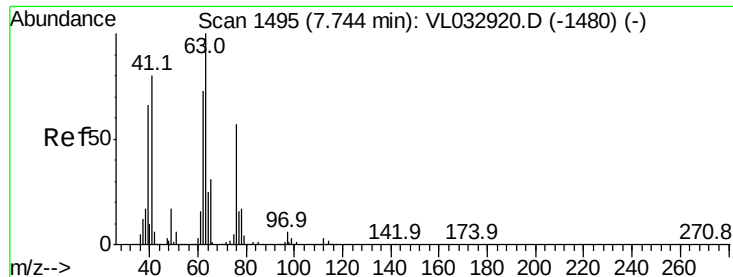
Tot Ion: 43 Resp: 527518
Ion Ratio Lower Upper
43 100
72 23.2 18.8 28.2



#36
Benzene
Concen: 0.211 ppbv
RT: 7.01 min Scan# 1267
Delta R.T. -0.00 min
Lab File: VL032957.D
Acq: 11 Dec 2018 16:41

Tgt Ion: 78 Resp: 46467
Ion Ratio Lower Upper
78 100
77 17.2 18.9 28.3#
50 17.2 16.1 24.1





#39

1,2-Dichloropropane

Concen: 8.927 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

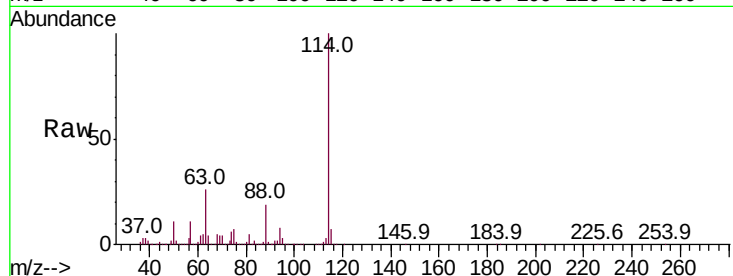
Tot Ion: 63 Resp: 746002

Ion Ratio Lower Upper

63 100

41 0.0 63.9 95.9#

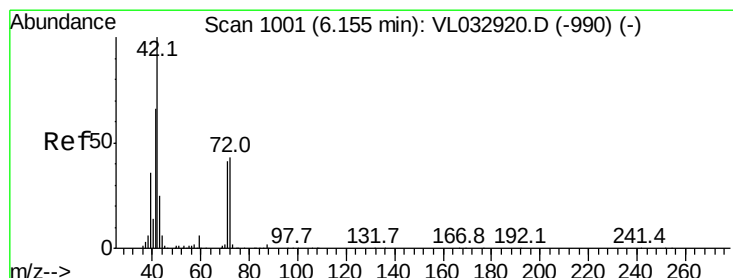
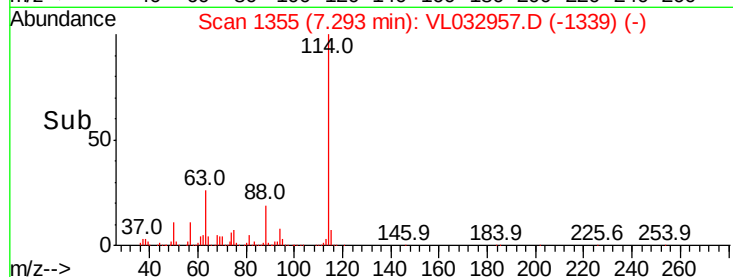
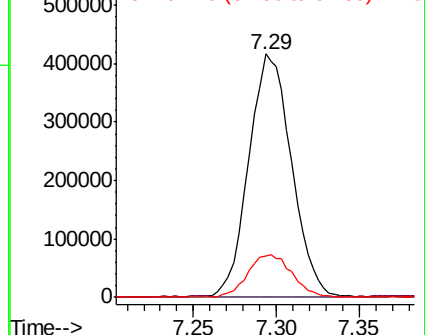
62 17.0 58.8 88.2#



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



#41

Tetrahydrofuran

Concen: 1.776 ppbv

RT: 6.16 min Scan# 1003

Delta R.T. 0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

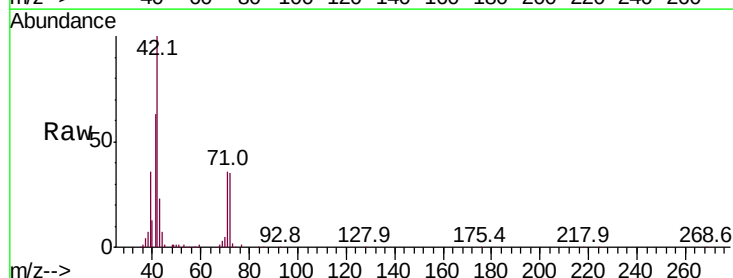
Tgt Ion: 42 Resp: 144116

Ion Ratio Lower Upper

42 100

72 40.1 32.9 49.3

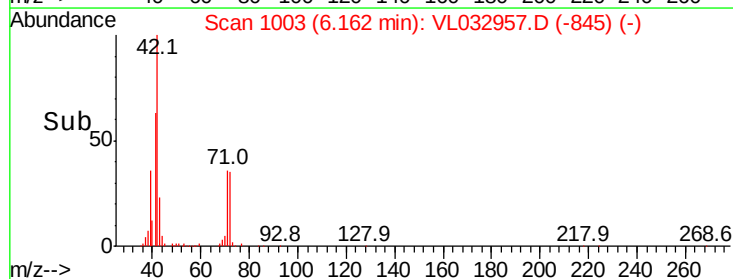
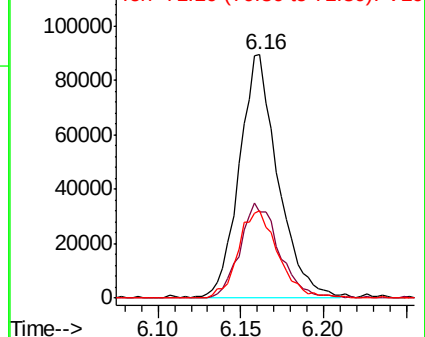
71 37.2 32.0 48.0

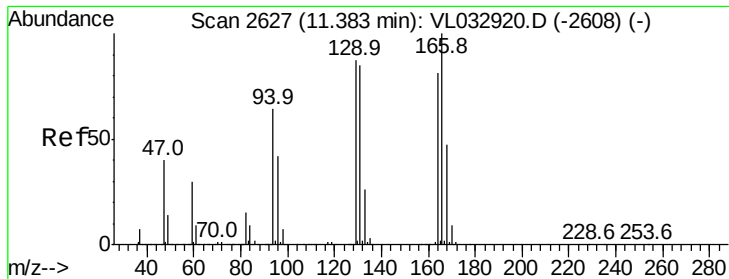


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#52

Tetrachloroethene

Concen: 16.679 ppbv

RT: 11.38 min Scan# 2625

Delta R.T. -0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 1336753

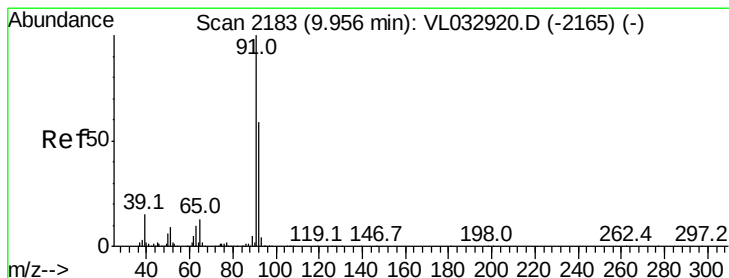
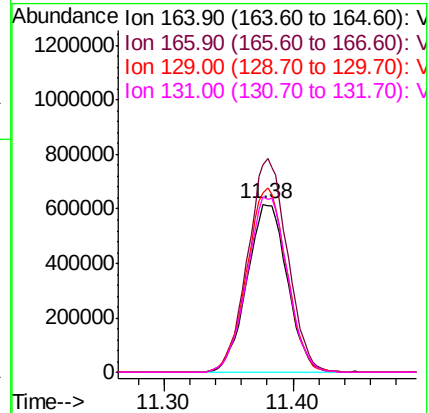
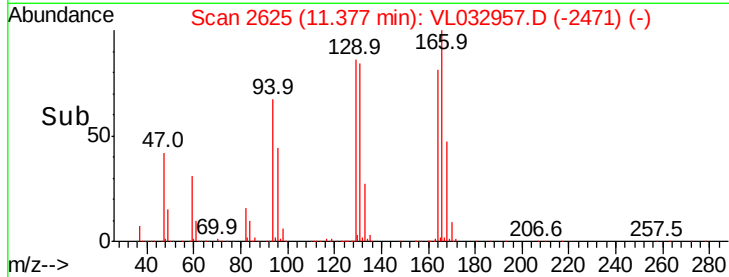
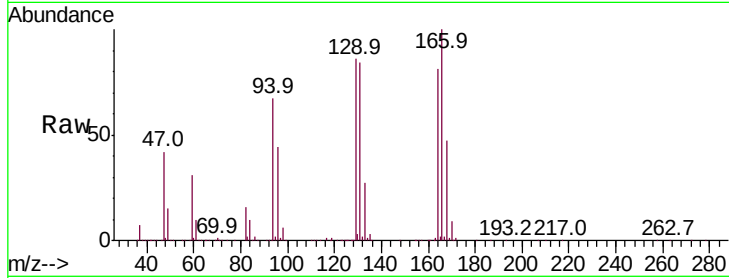
Ion Ratio Lower Upper

164 100

166 123.4 98.8 148.2

129 106.5 85.5 128.3

131 104.1 84.4 126.6



#53

Toluene

Concen: 2.452 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL032957.D

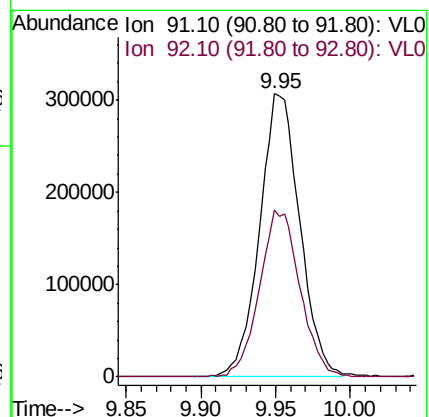
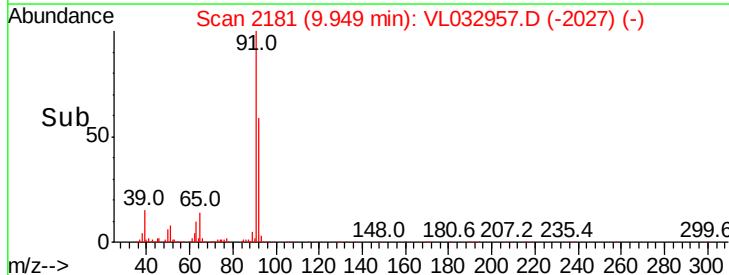
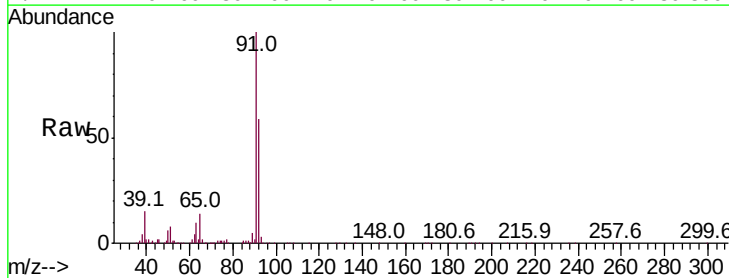
Acq: 11 Dec 2018 16:41

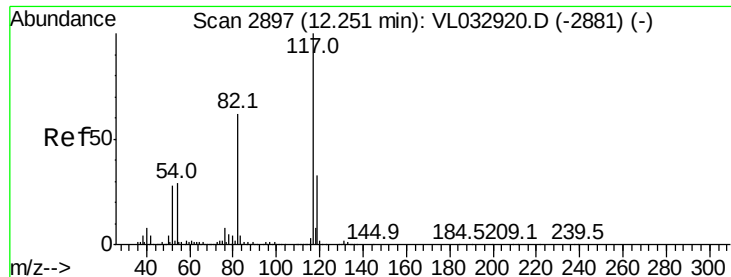
Tgt Ion: 91 Resp: 572946

Ion Ratio Lower Upper

91 100

92 59.8 47.4 71.0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

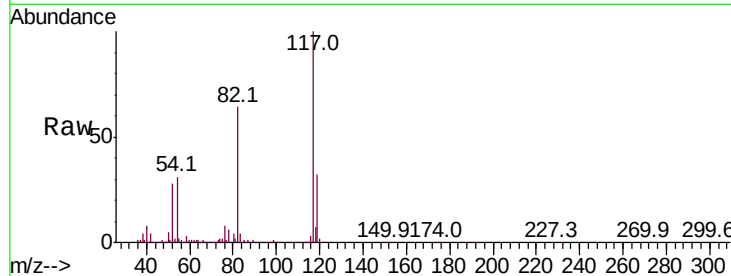
Tot Ion:117 Resp: 3047568

Ion Ratio Lower Upper

117 100

82 64.6 47.8 71.8

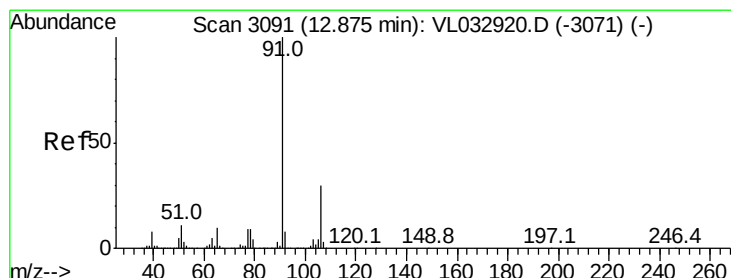
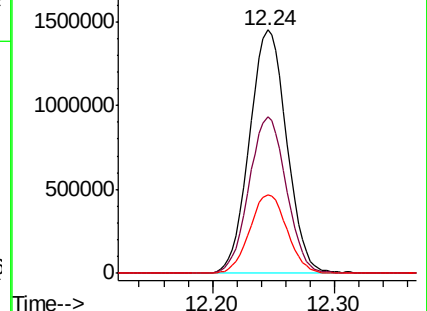
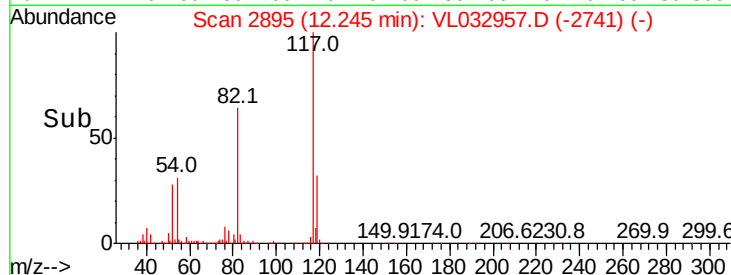
119 32.6 43.1 64.7#



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: 0.053 ppbv

RT: 12.87 min Scan# 3090

Delta R.T. -0.00 min

Lab File: VL032957.D

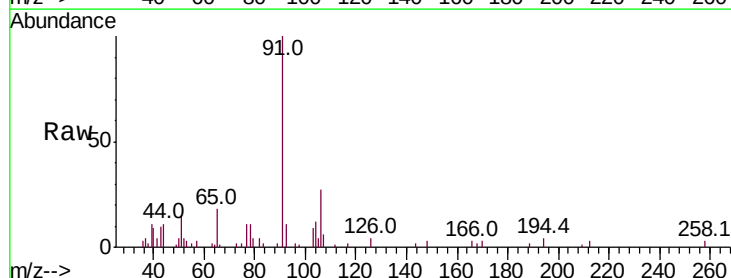
Acq: 11 Dec 2018 16:41

Tgt Ion: 91 Resp: 17315

Ion Ratio Lower Upper

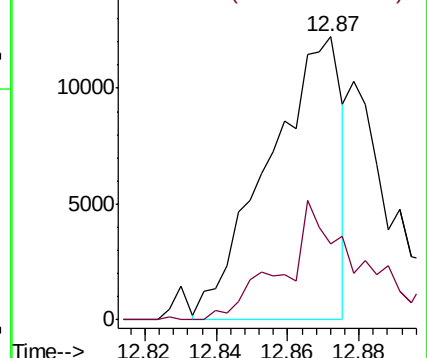
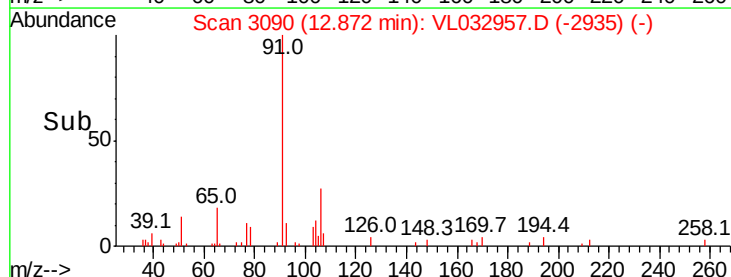
91 100

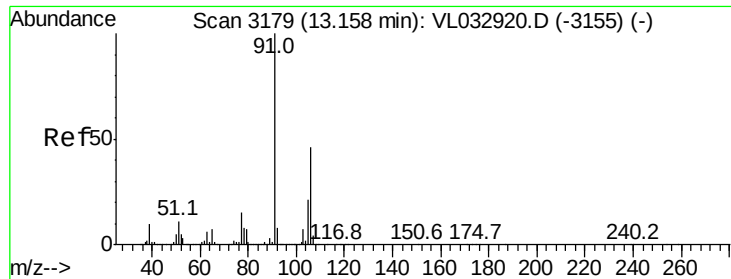
106 27.3 23.9 35.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

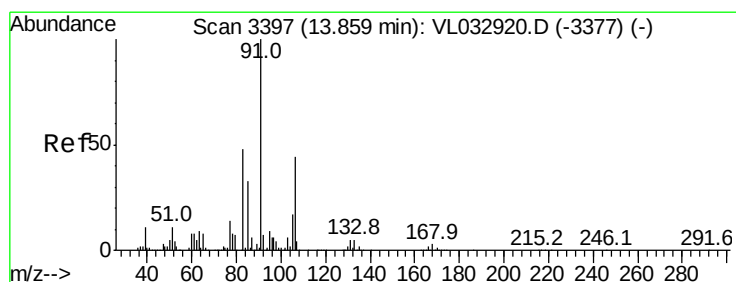
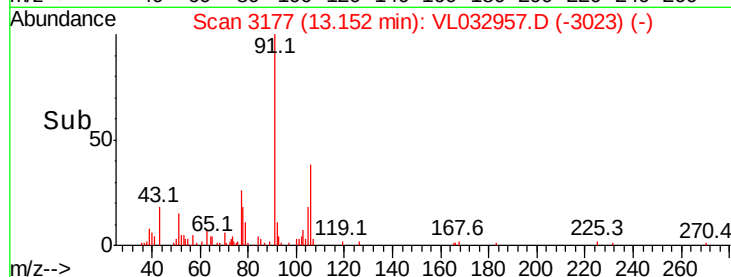
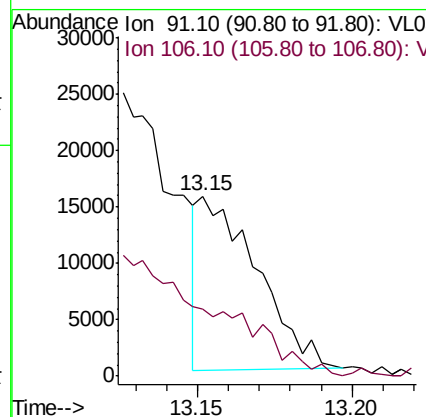
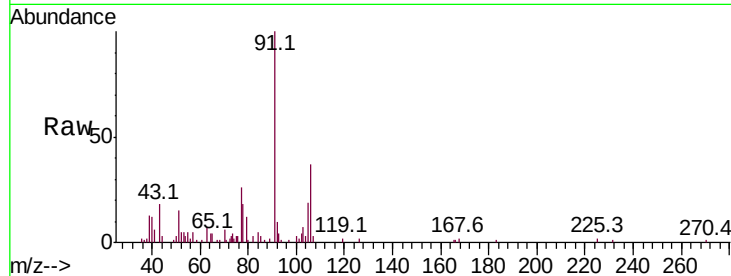




#59
m/p-Xylene
Concen: 0.068 ppbv
RT: 13.15 min Scan# 3177
Delta R.T. -0.01 min
Lab File: VL032957.D
Acq: 11 Dec 2018 16:41

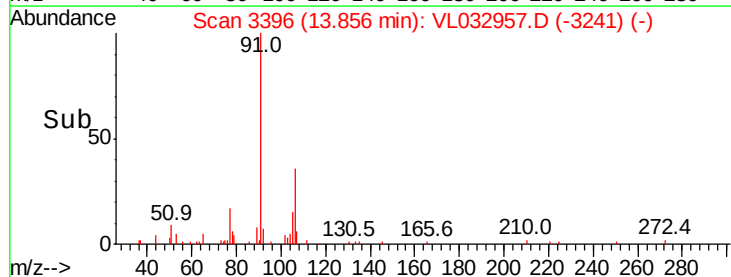
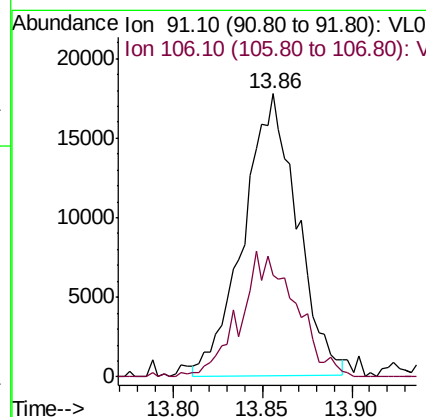
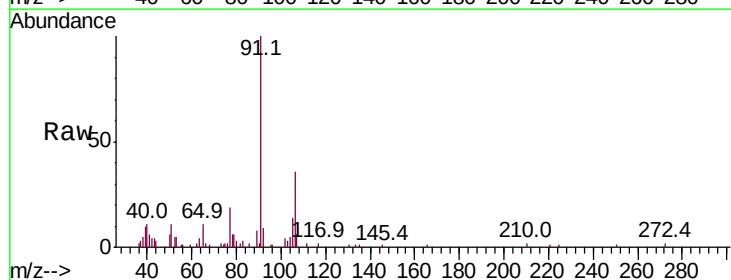
Instrument :
MSVOA_L
ClientSampleId :

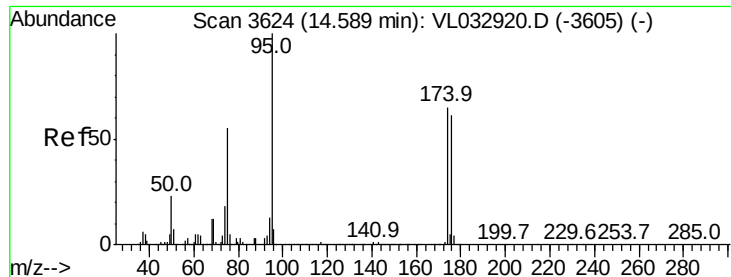
Tot Ion: 91 Resp: 19951
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.125 ppbv
RT: 13.86 min Scan# 3396
Delta R.T. -0.00 min
Lab File: VL032957.D
Acq: 11 Dec 2018 16:41

Tgt Ion: 91 Resp: 37203
Ion Ratio Lower Upper
91 100
106 46.2 21.9 65.8



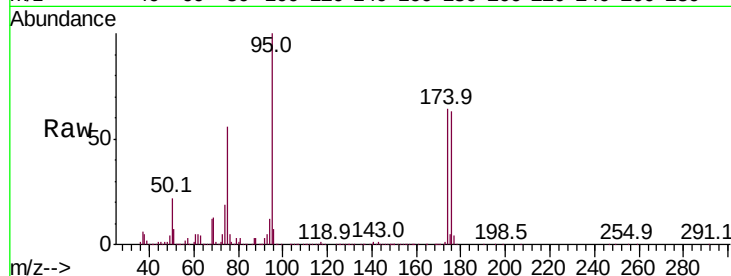


#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.099 ppbv
 RT: 14.58 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

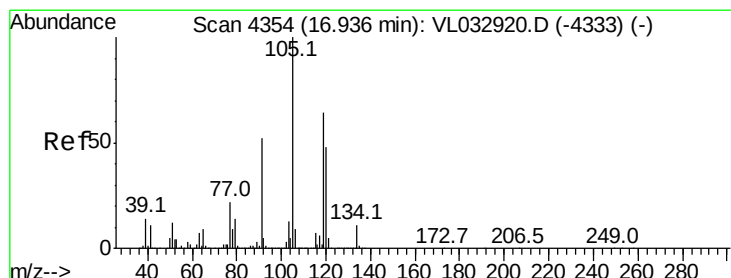
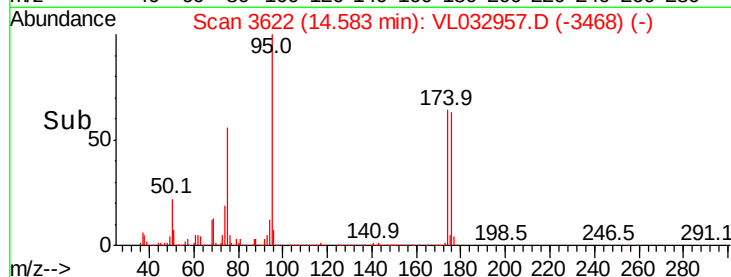
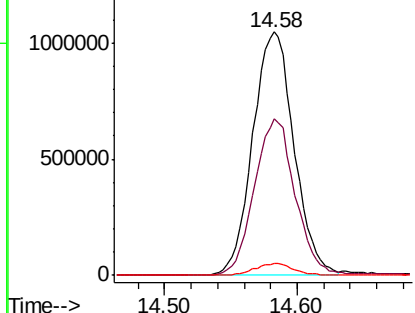
Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2273682

Ion	Ratio	Lower	Upper
95	100		
174	64.6	51.4	77.0
175	4.7	3.8	5.6



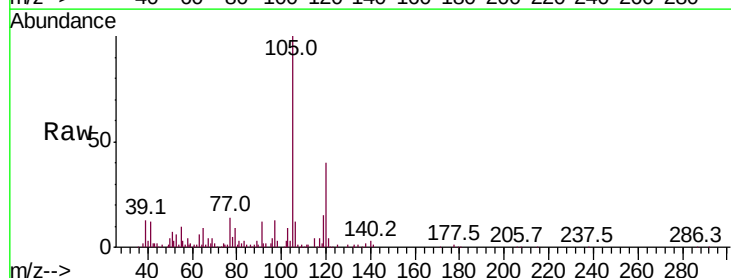
Abundance Ion 95.10 (94.80 to 95.80): VL0
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V



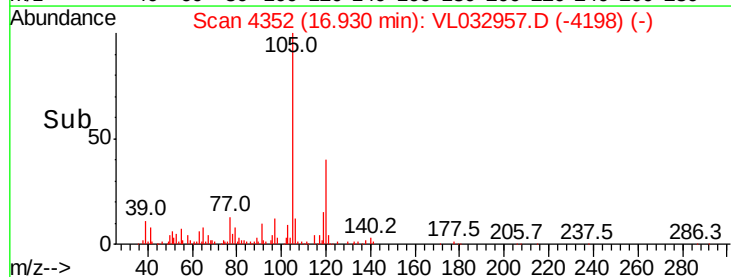
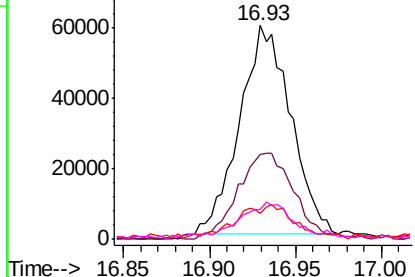
#74
 1,2,4-Trimethylbenzene
 Concen: 0.334 ppbv
 RT: 16.93 min Scan# 4352
 Delta R.T. -0.01 min
 Lab File: VL032957.D
 Acq: 11 Dec 2018 16:41

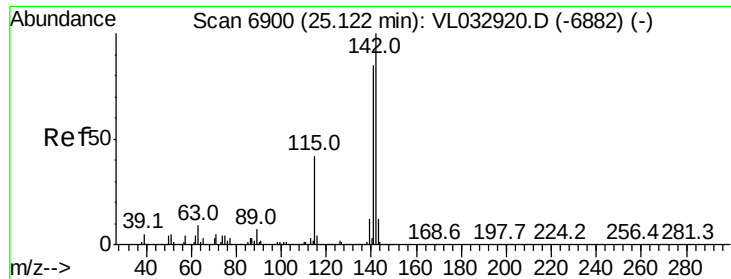
Tgt Ion: 105 Resp: 122397

Ion	Ratio	Lower	Upper
105	100		
120	40.6	38.6	58.0
91	11.0	41.7	62.5#
77	12.9	17.4	26.2#



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





#80

Naphthalene, 2-methyl-

Concen: 0.168 ppbv

RT: 25.13 min Scan# 6902

Delta R.T. 0.01 min

Lab File: VL032957.D

Acq: 11 Dec 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:142 Resp: 8490

Ion Ratio Lower Upper

142 100

141 94.2 68.2 102.2

115 69.3 35.1 52.7#

