

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL072718\
 Data File : VL032323.D
 Acq On : 27 Jul 2018 17:45
 Operator : SY/AP
 Sample : J4131-02DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 27 23:19:16 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL072718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jul 27 07:05:37 2018
 QLast Update : Fri Jul 27 07:05:37 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.83	49	1852023	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.37	114	3969664	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.32	117	4596734	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.66	95	3717411	10.42	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

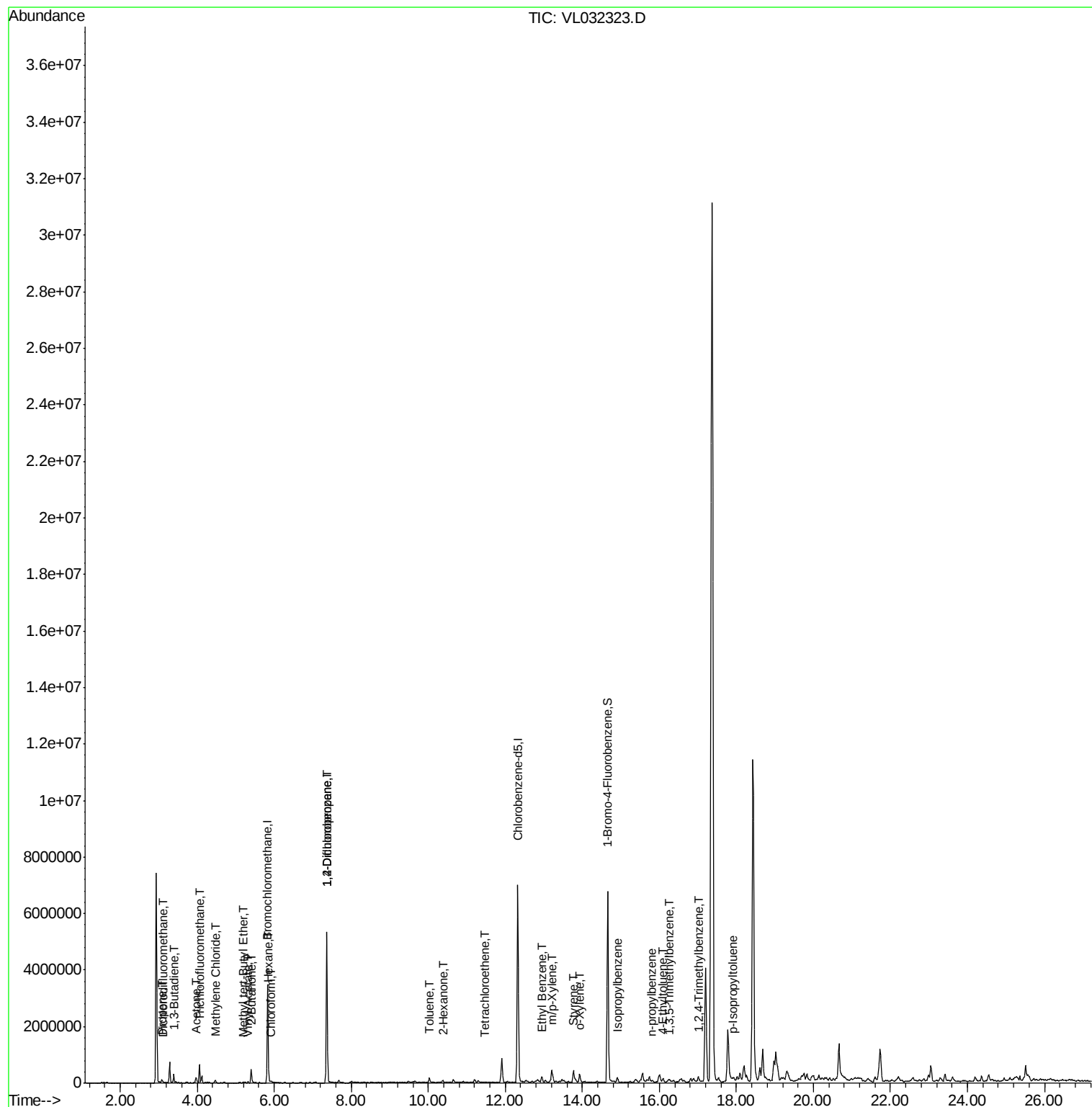
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.12	85	10408	0.047	ppbv	97
9) Propene	3.08	41	42115	0.506	ppbv	93
11) Trichlorofluoromethane	4.06	101	431063	2.020	ppbv	100
15) Acetone	3.97	43	168418	0.965	ppbv #	63
16) 1,3-Butadiene	3.40	39	69712	0.770	ppbv #	11
20) Methylene Chloride	4.47	84	28909	0.412	ppbv	87
23) Vinyl Acetate	5.33	43	9868	0.032	ppbv #	25
26) Hexane	5.85	57	11006	0.062	ppbv #	1
28) Methyl tert-Butyl Ether	5.20	73	10434	0.044	ppbv #	87
29) Chloroform	5.91	83	26069	0.101	ppbv	88
34) 2-Butanone	5.40	43	564401	2.197	ppbv	100
39) 1,2-Dichloropropane	7.36	63	1061120	6.028	ppbv #	27
51) 2-Hexanone	10.38	43	71686	0.207	ppbv #	98
52) Tetrachloroethene	11.45	164	5779	0.049	ppbv #	64
53) Toluene	10.03	91	131208	0.314	ppbv	97
58) Ethyl Benzene	12.95	91	148153	0.257	ppbv	92
59) m/p-Xylene	13.21	91	230295	0.469	ppbv #	31
60) o-Xylene	13.94	91	217602	0.452	ppbv	98
61) Styrene	13.77	104	241619	0.682	ppbv	98
62) Isopropylbenzene	14.91	105	141883	0.208	ppbv	99
64) n-propylbenzene	15.80	120	5542	0.031	ppbv #	1
69) p-Isopropyltoluene	17.90	119	40765	0.061	ppbv #	86
72) 4-Ethyltoluene	16.08	105	22371	0.041	ppbv #	55
73) 1,3,5-Trimethylbenzene	16.24	105	31165	0.059	ppbv #	78
74) 1,2,4-Trimethylbenzene	17.01	105	117232	0.210	ppbv #	71

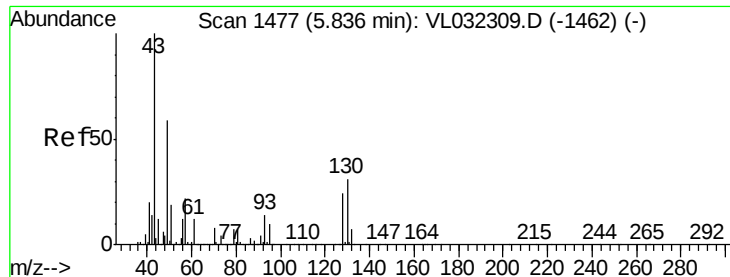
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jul 27 07:05:37 2018
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.83 min Scan# 1475

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

ClientSampleId :

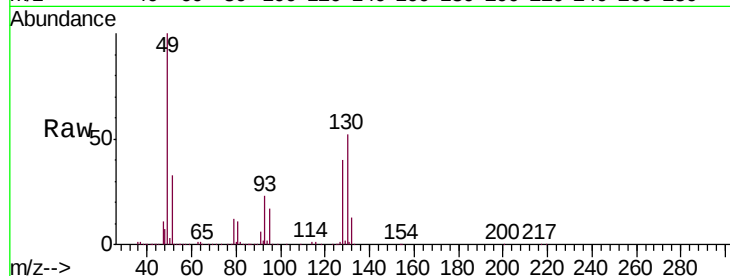
Tot Ion: 49 Resp: 1852023

Ion Ratio Lower Upper

49 100

128 41.4 20.2 60.6

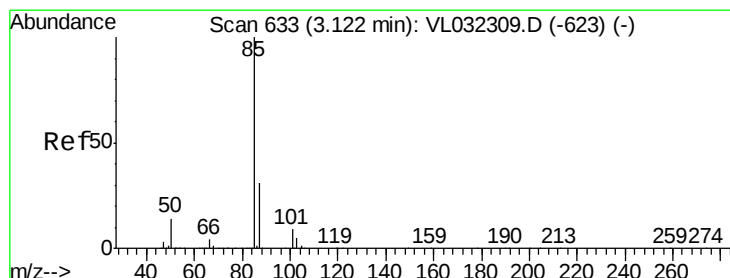
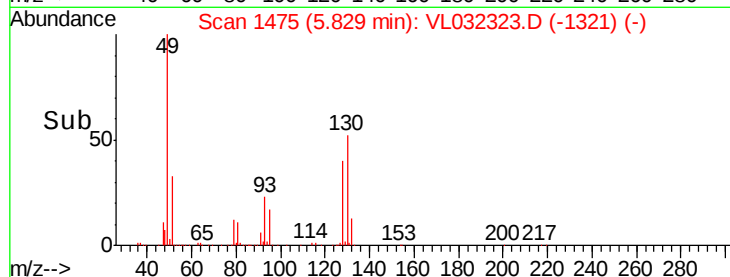
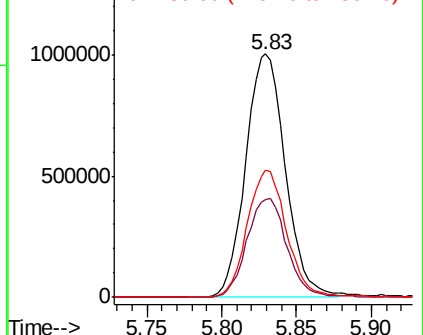
130 52.3 25.8 77.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.047 ppbv

RT: 3.12 min Scan# 632

Delta R.T. -0.00 min

Lab File: VL032323.D

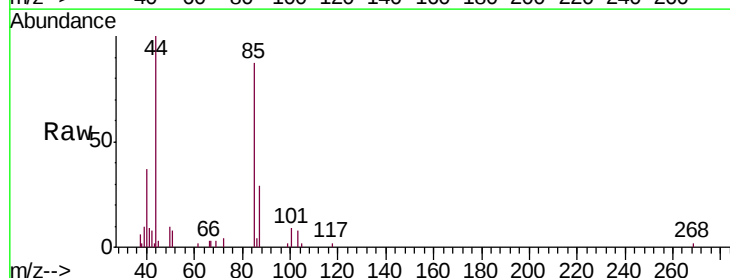
Acq: 27 Jul 2018 17:45

Tgt Ion: 85 Resp: 10408

Ion Ratio Lower Upper

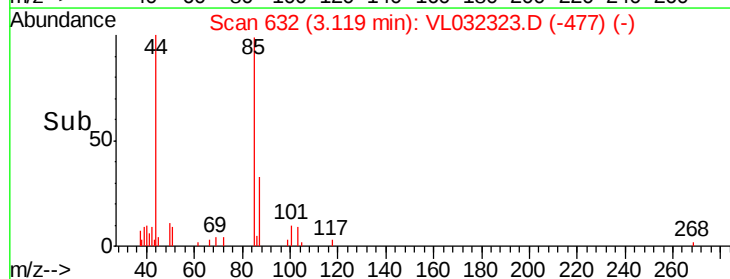
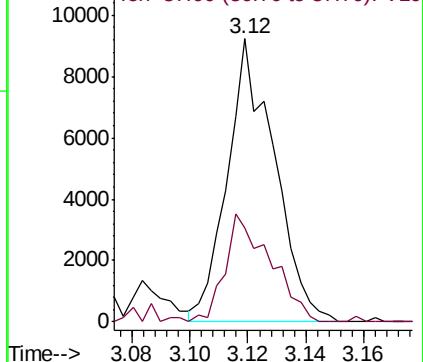
85 100

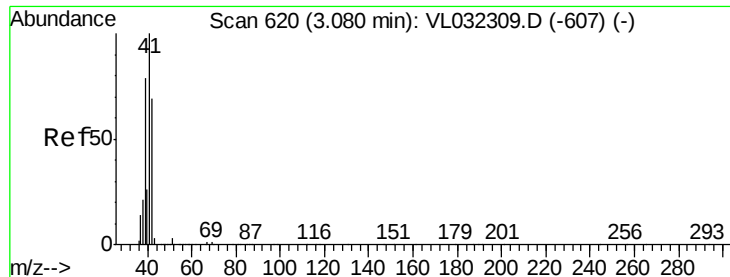
87 33.0 25.2 37.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#9

Propene

Concen: 0.506 ppbv

RT: 3.08 min Scan# 620

Delta R.T. 0.00 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

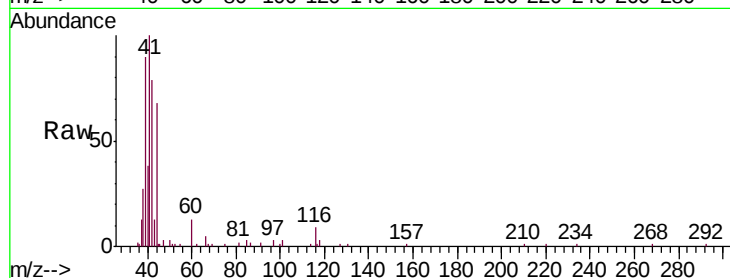
ClientSampleId :

Tot Ion: 41 Resp: 42115

Ion Ratio Lower Upper

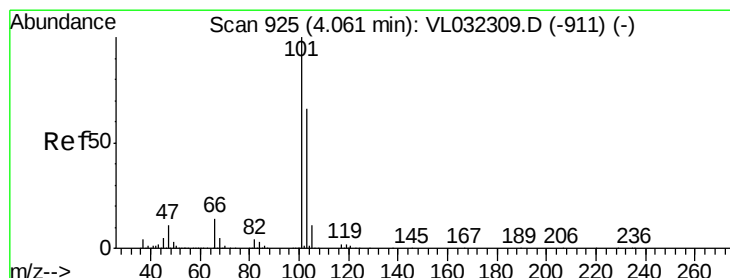
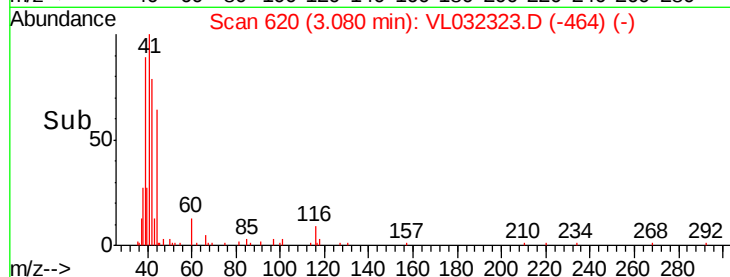
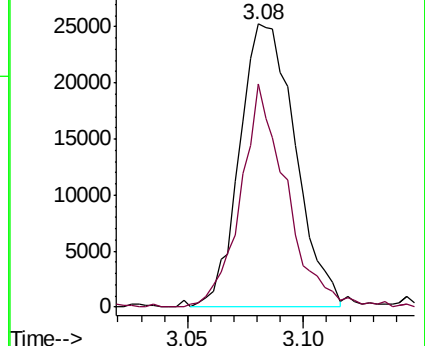
41 100

42 65.3 56.8 85.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 2.020 ppbv

RT: 4.06 min Scan# 925

Delta R.T. 0.00 min

Lab File: VL032323.D

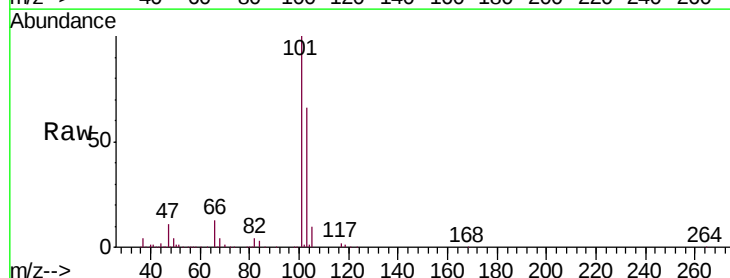
Acq: 27 Jul 2018 17:45

Tgt Ion: 101 Resp: 431063

Ion Ratio Lower Upper

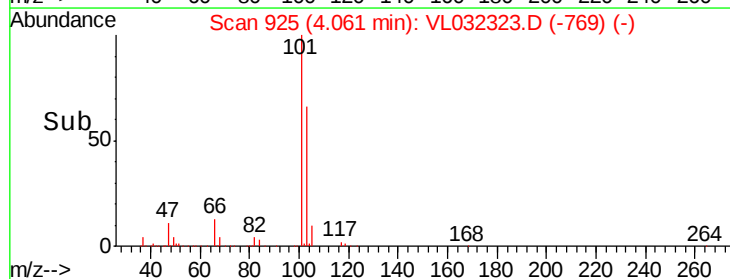
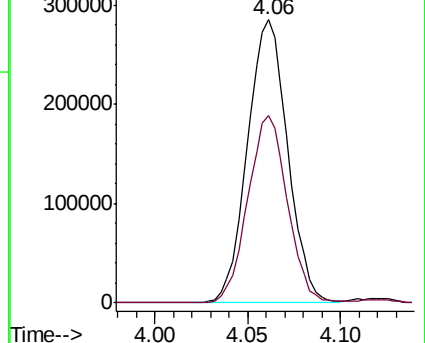
101 100

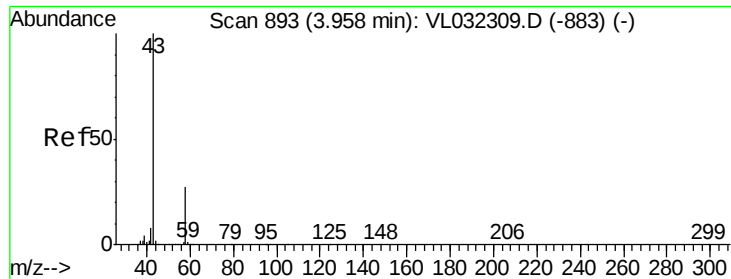
103 66.0 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#15

Acetone

Concen: 0.965 ppbv

RT: 3.97 min Scan# 896

Delta R.T. 0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

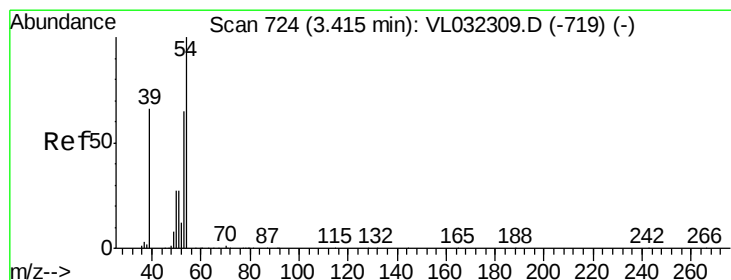
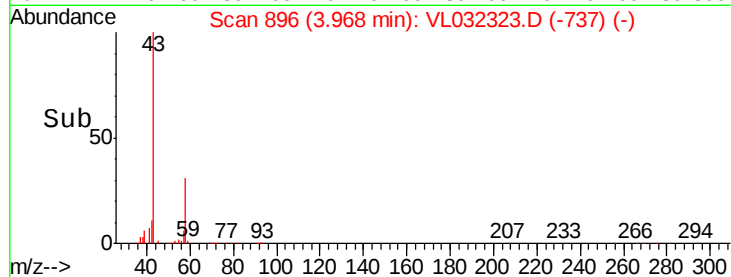
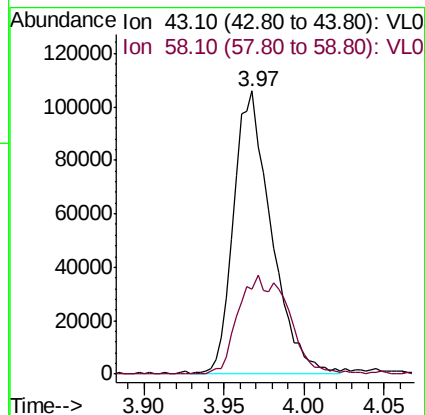
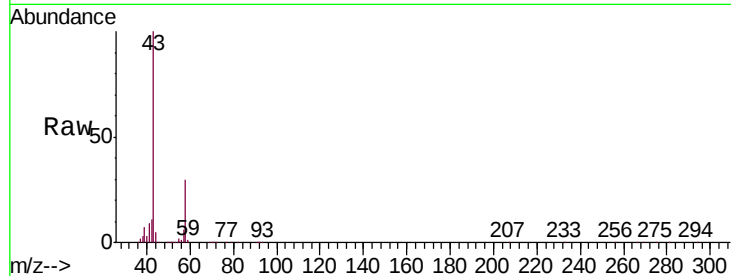
ClientSampleId :

Tot Ion: 43 Resp: 168418

Ion Ratio Lower Upper

43 100

58 47.6 22.5 33.7#



#16

1,3-Butadiene

Concen: 0.770 ppbv

RT: 3.40 min Scan# 718

Delta R.T. -0.02 min

Lab File: VL032323.D

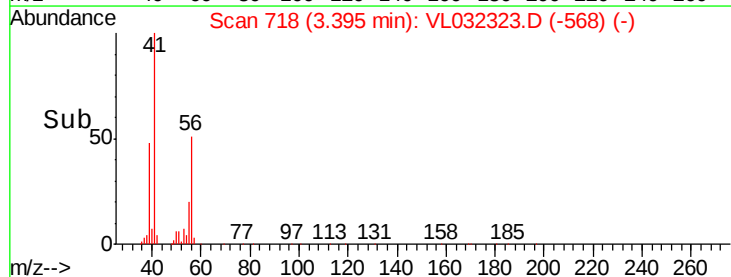
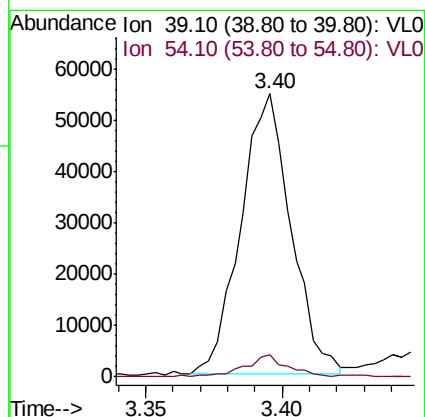
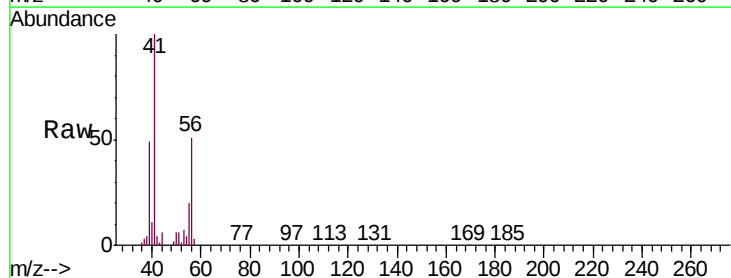
Acq: 27 Jul 2018 17:45

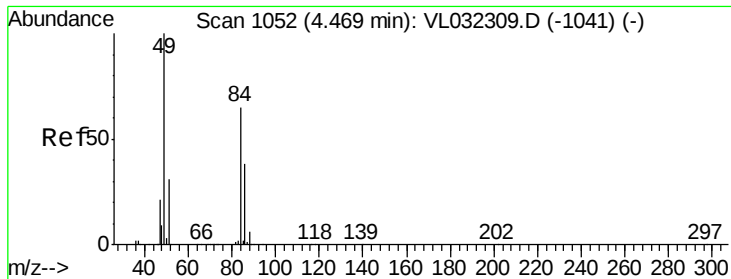
Tgt Ion: 39 Resp: 69712

Ion Ratio Lower Upper

39 100

54 7.2 74.3 111.5#

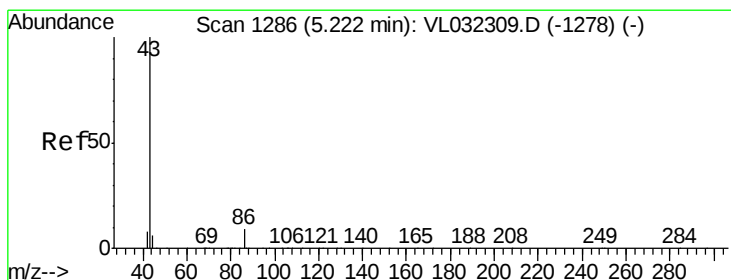
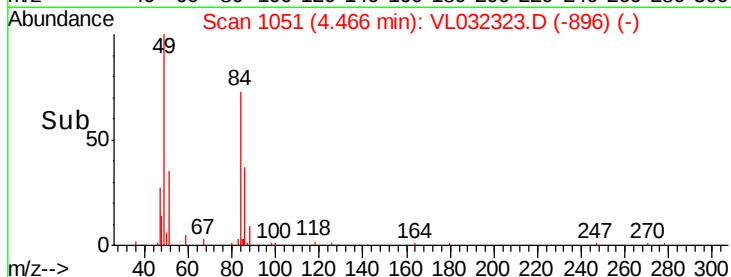
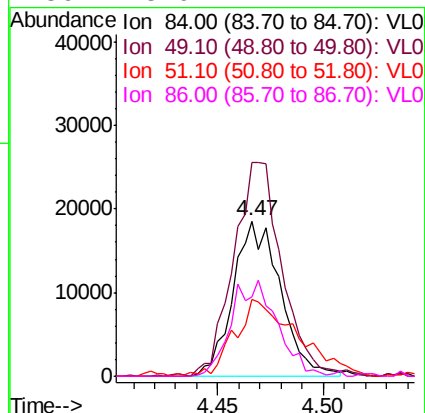
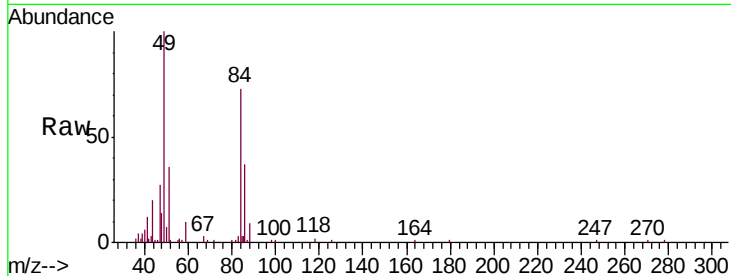




#20
Methvlene Chloride
Concen: 0.412 ppbv
RT: 4.47 min Scan# 1051
Delta R.T. -0.00 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

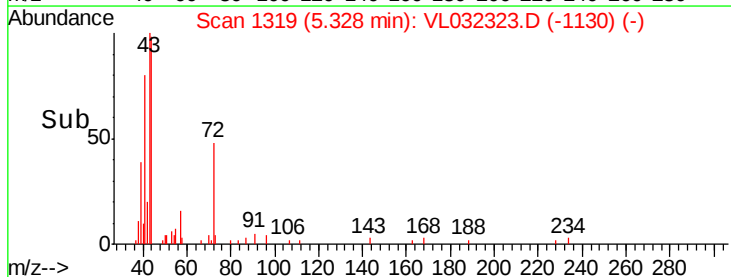
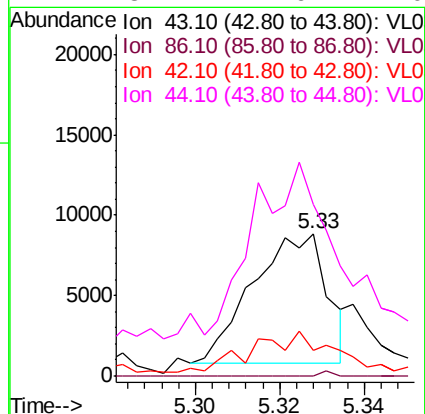
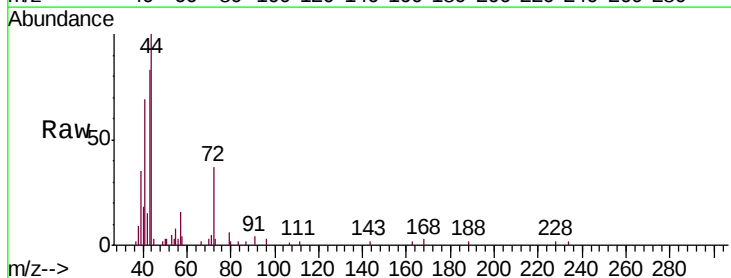
Instrument :
MSVOA_L
ClientSampleId :

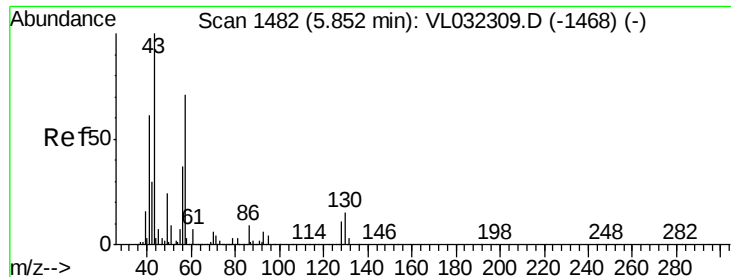
Tot Ion:	84	Resp:	28909
Ion	Ratio	Lower	Upper
84	100		
49	131.8	123.4	185.0
51	47.3	38.2	57.2
86	48.9	47.4	71.2



#23
Vinyl Acetate
Concen: 0.032 ppbv
RT: 5.33 min Scan# 1319
Delta R.T. 0.11 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

Tgt Ion:	43	Resp:	9868
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.3	9.5#
42	14.3	7.0	10.4#
44	84.7	4.6	7.0#

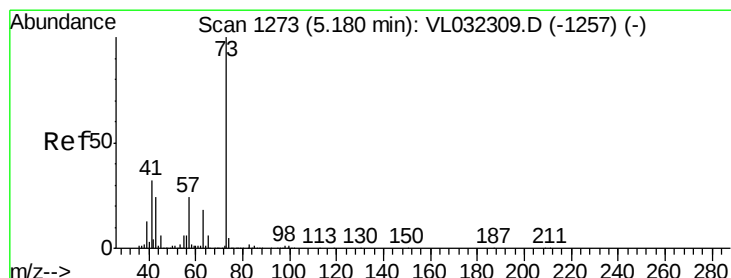
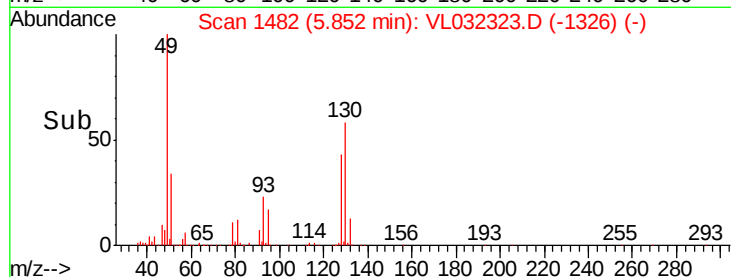
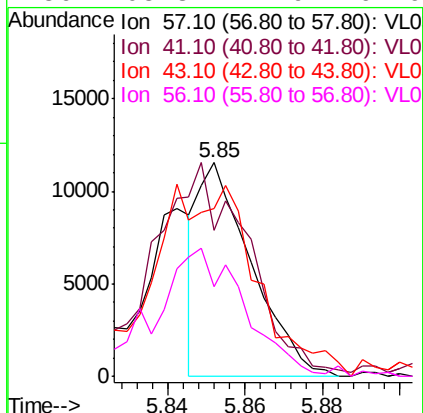
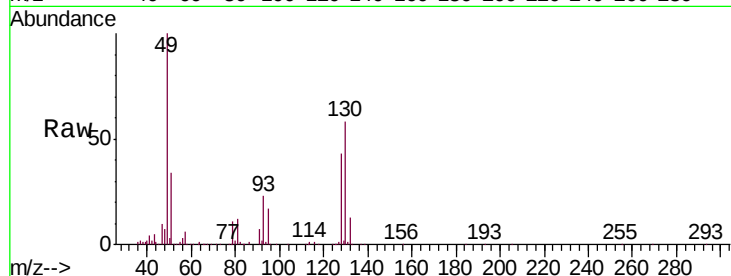




#26
Hexane
Concen: 0.062 ppbv
RT: 5.85 min Scan# 1482
Delta R.T. 0.00 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

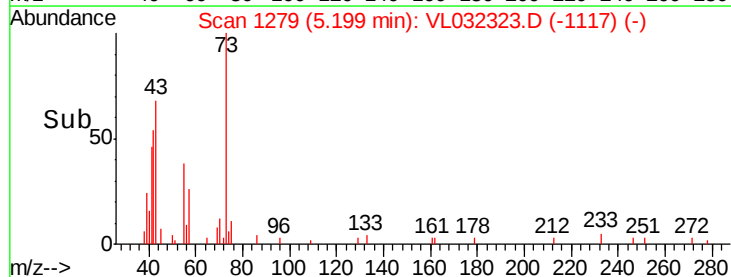
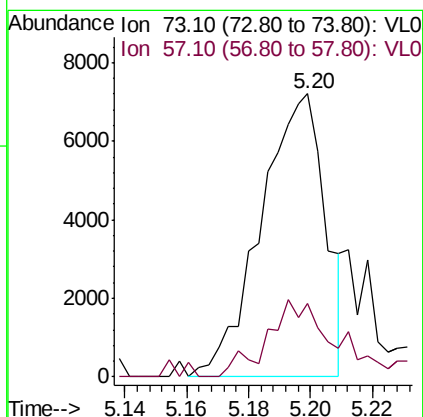
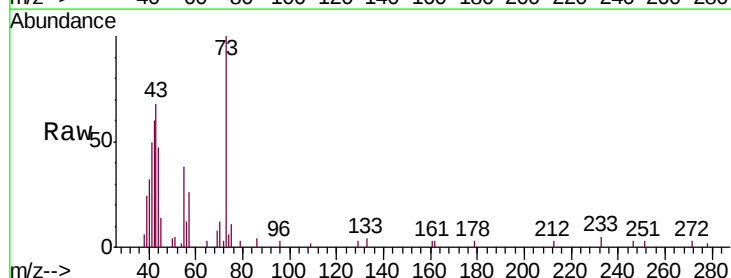
Instrument :
MSVOA_L
ClientSampleId :

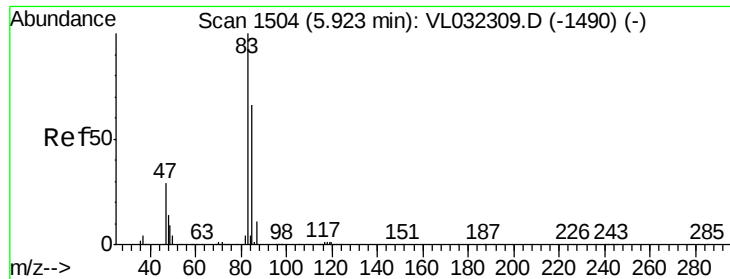
Tot Ion: 57 Resp: 11006
Ion Ratio Lower Upper
57 100
41 194.7 68.1 102.1#
43 0.0 177.4 266.2#
56 105.3 41.9 62.9#



#28
Methyl tert-Butyl Ether
Concen: 0.044 ppbv
RT: 5.20 min Scan# 1279
Delta R.T. 0.02 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

Tgt Ion: 73 Resp: 10434
Ion Ratio Lower Upper
73 100
57 30.8 19.4 29.0#

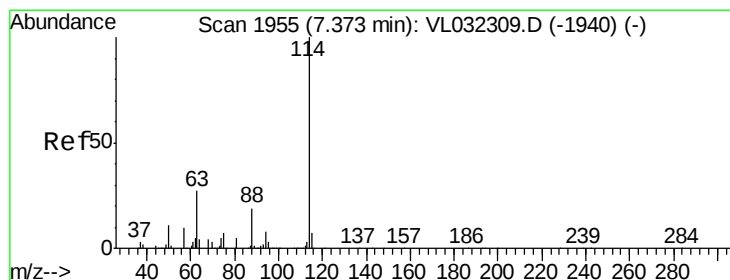
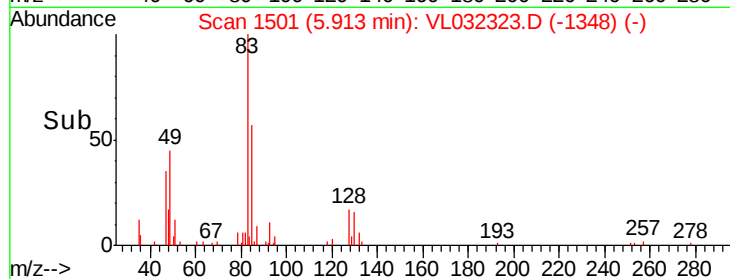
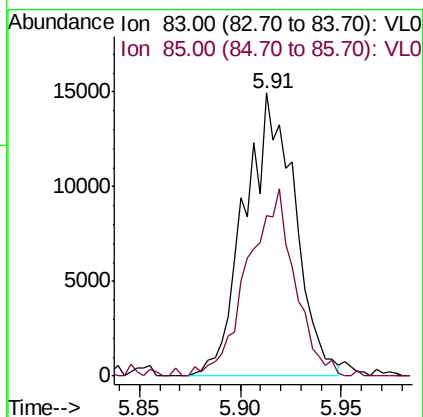
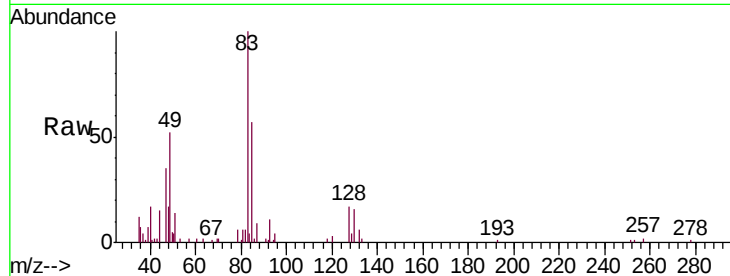




#29
Chloroform
Concen: 0.101 ppbv
RT: 5.91 min Scan# 1501
Delta R.T. -0.01 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

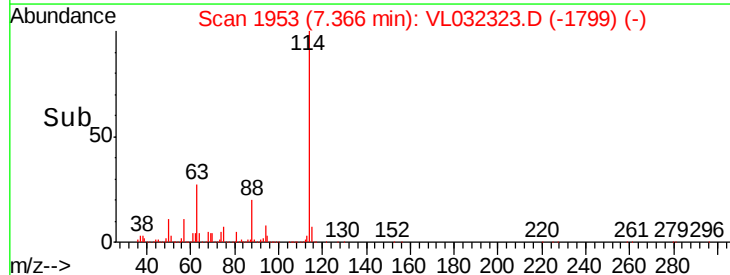
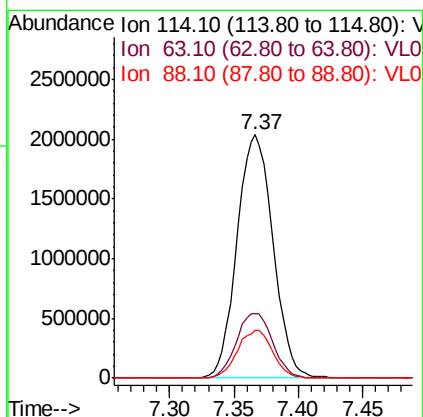
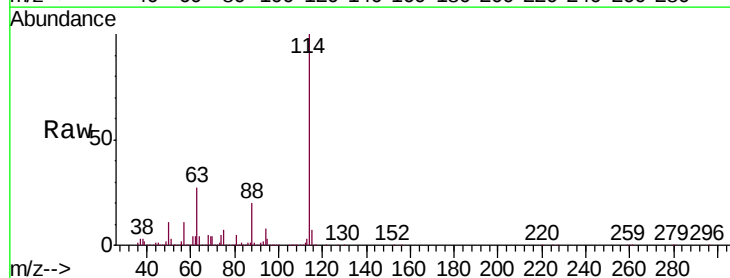
Instrument :
MSVOA_L
ClientSampleId :

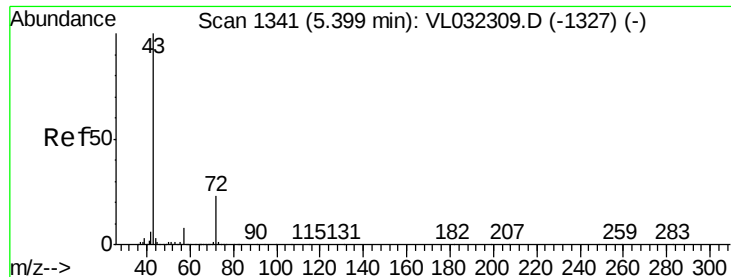
Tot Ion: 83 Resp: 26069
Ion Ratio Lower Upper
83 100
85 56.6 52.9 79.3



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.37 min Scan# 1953
Delta R.T. -0.01 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

Tgt Ion: 114 Resp: 3969664
Ion Ratio Lower Upper
114 100
63 27.0 22.4 33.6
88 19.2 15.3 22.9

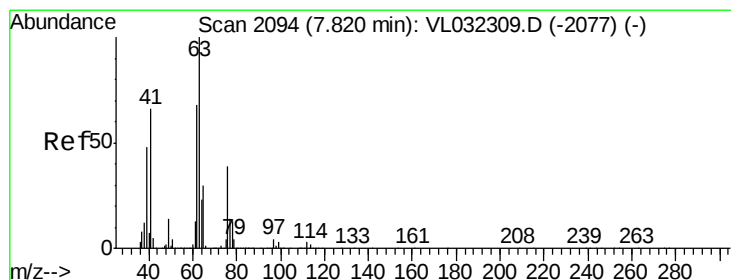
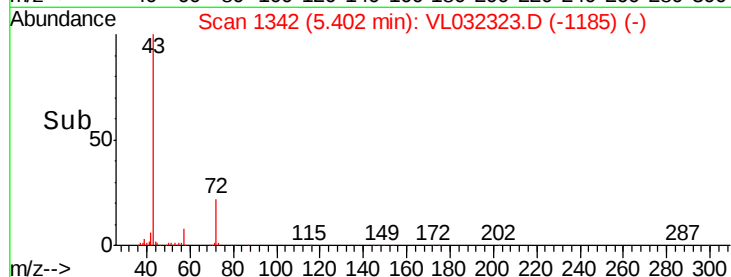
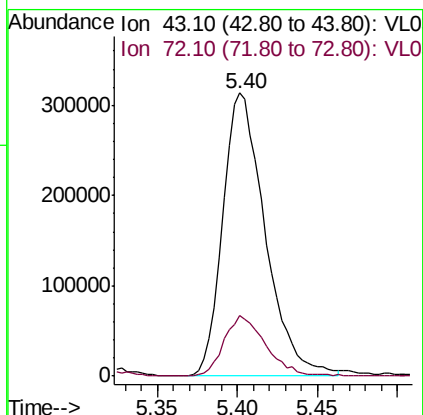
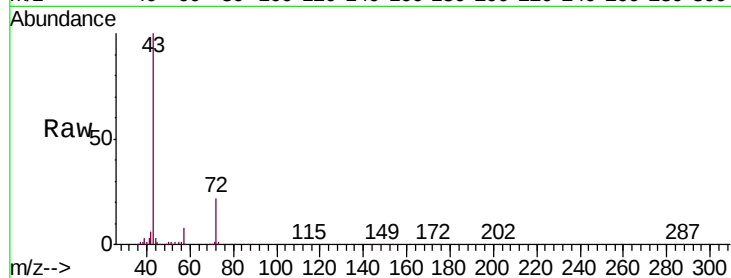




#34
2-Butanone
Concen: 2.197 ppbv
RT: 5.40 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

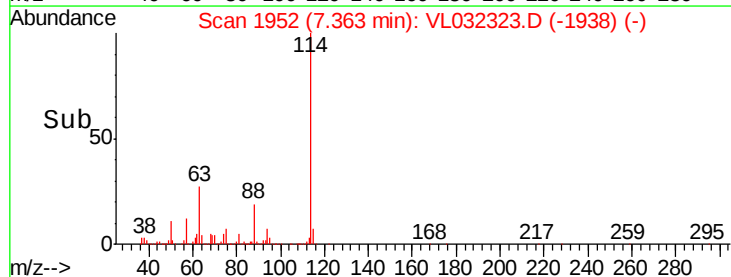
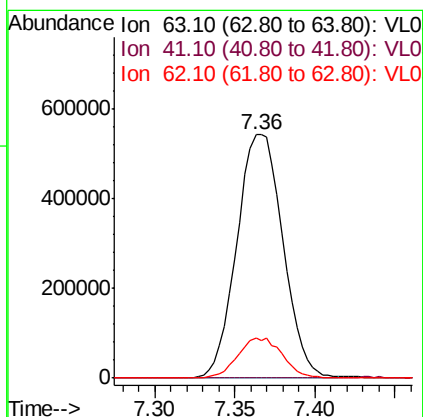
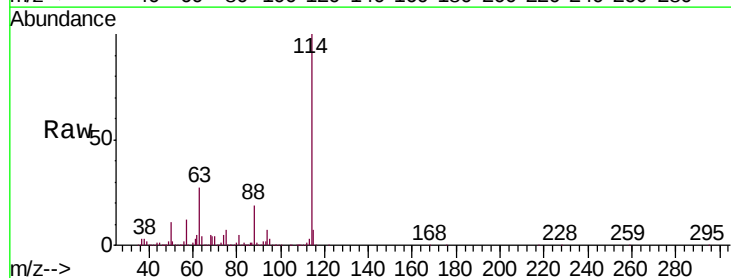
Instrument :
MSVOA_L
ClientSampleId :

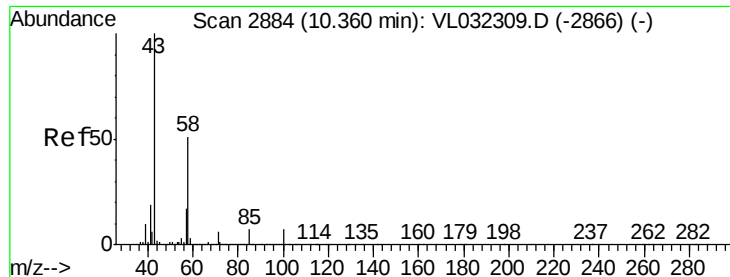
Tot Ion: 43 Resp: 564401
Ion Ratio Lower Upper
43 100
72 21.7 17.4 26.2



#39
1,2-Dichloropropane
Concen: 6.028 ppbv
RT: 7.36 min Scan# 1952
Delta R.T. -0.46 min
Lab File: VL032323.D
Acq: 27 Jul 2018 17:45

Tgt Ion: 63 Resp: 1061120
Ion Ratio Lower Upper
63 100
41 0.1 52.5 78.7#
62 16.7 54.6 81.8#





#51

2-Hexanone

Concen: 0.207 ppbv

RT: 10.38 min Scan# 2889

Delta R.T. 0.02 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

ClientSampleId :

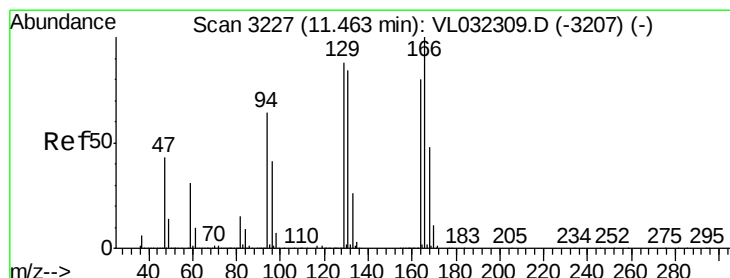
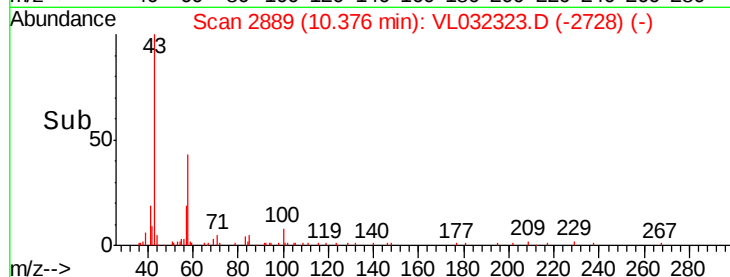
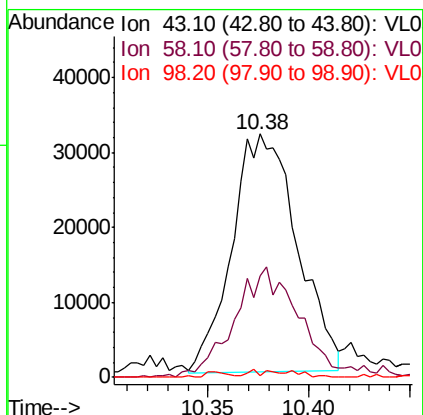
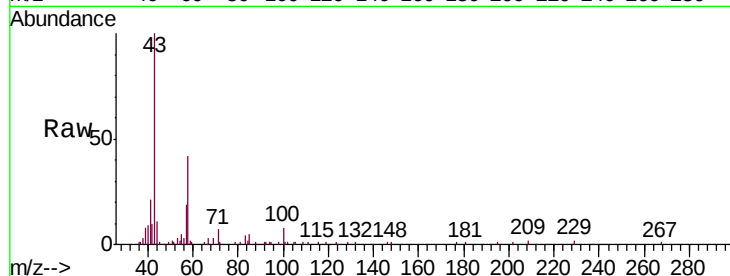
Tot Ion: 43 Resp: 71686

Ion Ratio Lower Upper

43 100

58 47.7 39.1 58.7

98 2.9 0.3 0.5#



#52

Tetrachloroethene

Concen: 0.049 ppbv

RT: 11.45 min Scan# 3224

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Tgt Ion:164 Resp: 5779

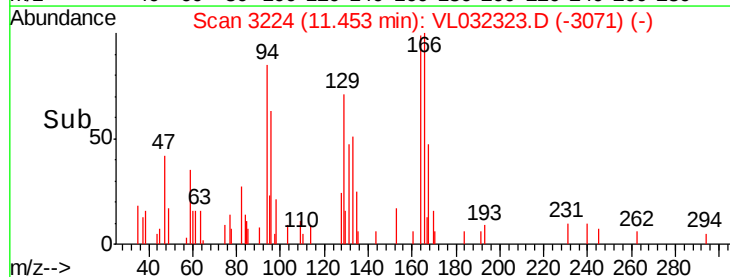
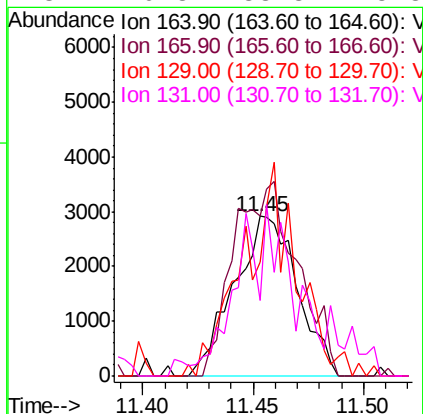
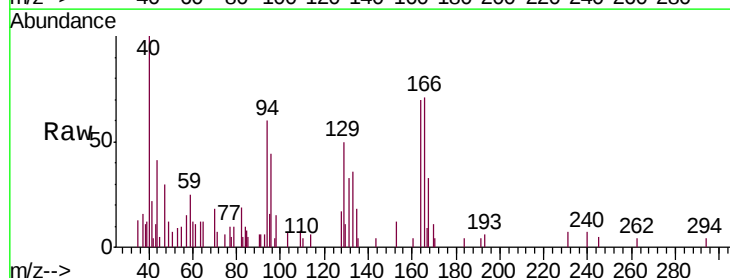
Ion Ratio Lower Upper

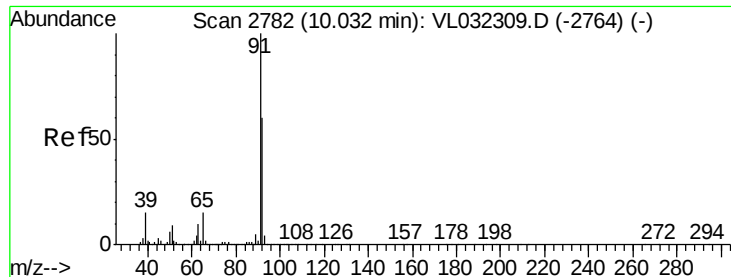
164 100

166 100.7 100.0 150.0

129 79.8 87.9 131.9#

131 40.8 83.8 125.8#





#53

Toluene

Concen: 0.314 ppbv

RT: 10.03 min Scan# 2782

Delta R.T. 0.00 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

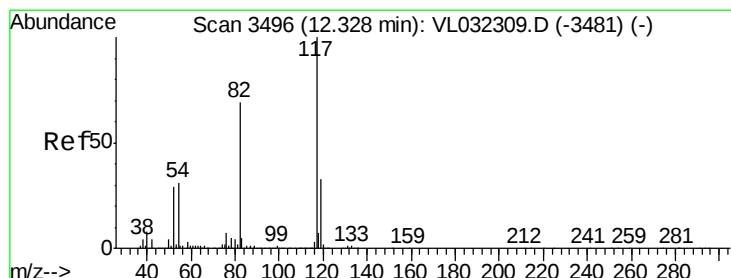
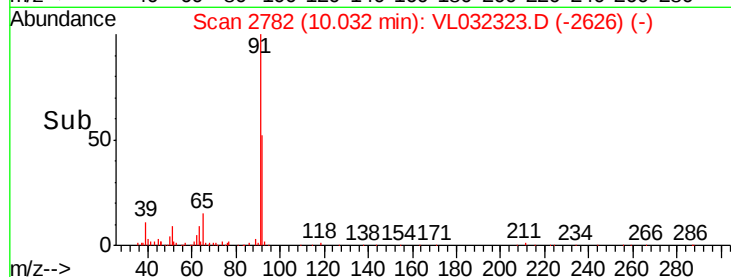
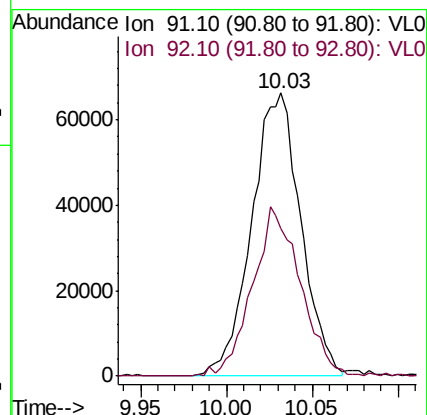
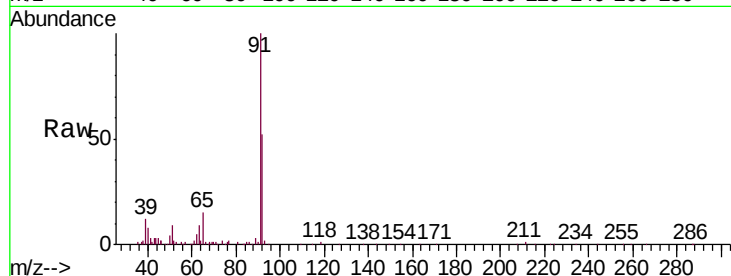
ClientSampleId :

Tot Ion: 91 Resp: 131208

Ion Ratio Lower Upper

91 100

92 58.8 48.6 72.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.32 min Scan# 3494

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

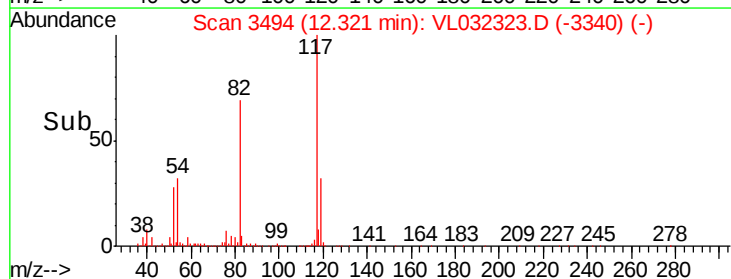
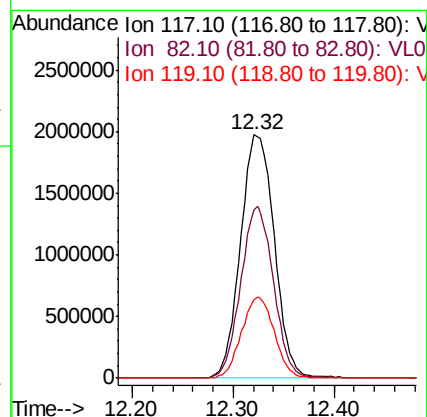
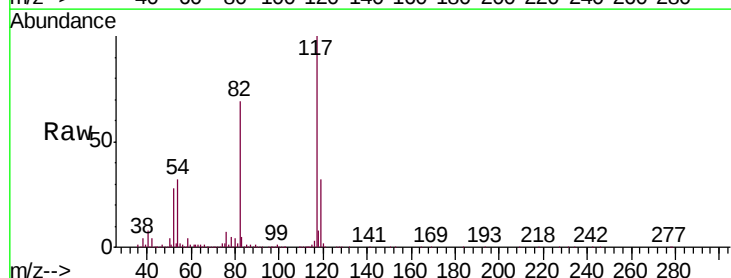
Tgt Ion: 117 Resp: 4596734

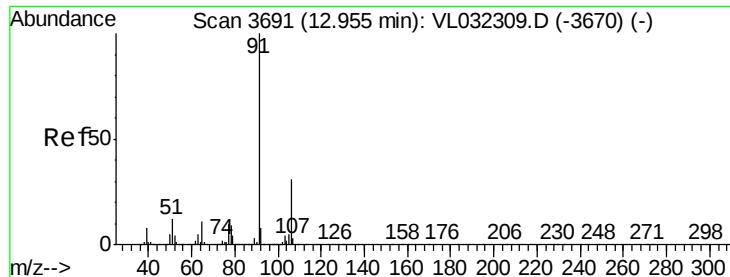
Ion Ratio Lower Upper

117 100

82 68.7 52.6 78.8

119 32.5 25.7 38.5





#58

Ethyl Benzene

Concen: 0.257 ppbv

RT: 12.95 min Scan# 3689

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

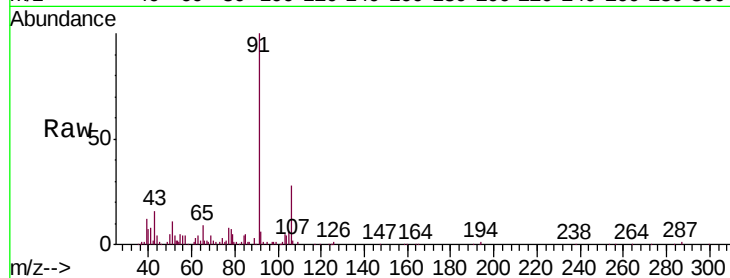
ClientSampleId :

Tot Ion: 91 Resp: 148153

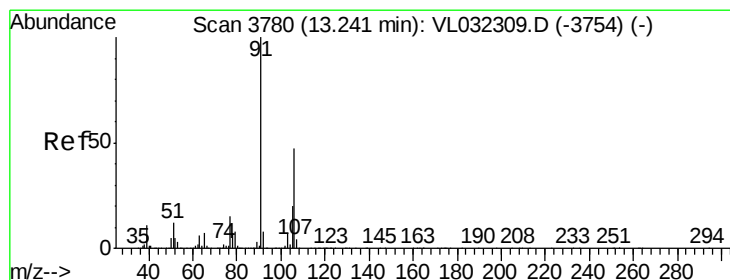
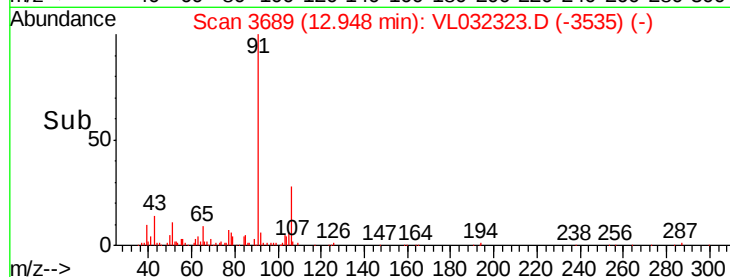
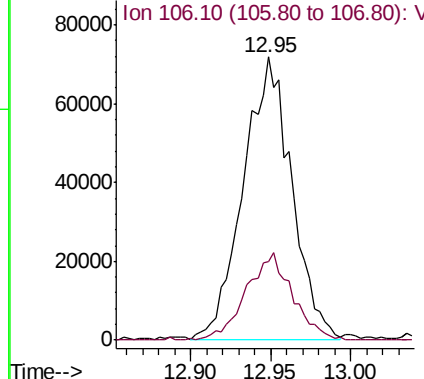
Ion Ratio Lower Upper

91 100

106 27.0 25.0 37.4



Abundance Ion 91.10 (90.80 to 91.80): VL0



#59

m/p-Xylene

Concen: 0.469 ppbv

RT: 13.21 min Scan# 3771

Delta R.T. -0.03 min

Lab File: VL032323.D

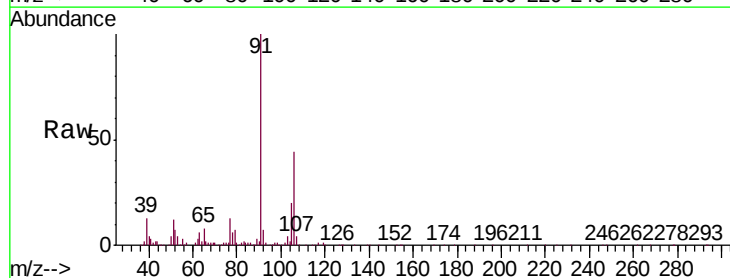
Acq: 27 Jul 2018 17:45

Tgt Ion: 91 Resp: 230295

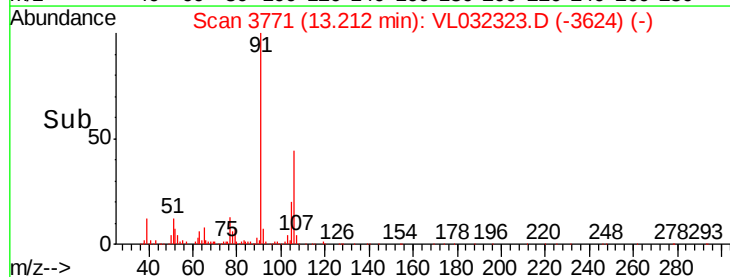
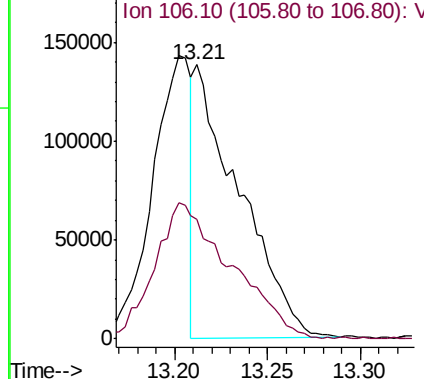
Ion Ratio Lower Upper

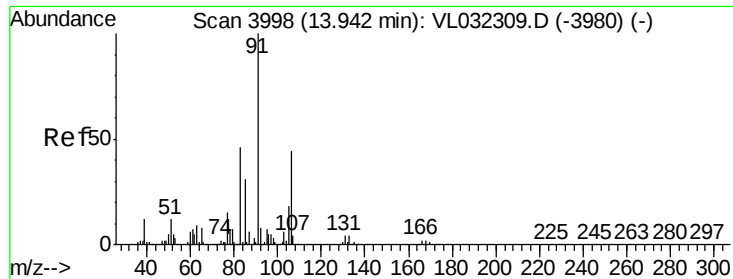
91 100

106 0.0 36.4 54.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0





#60

o-Xylene

Concen: 0.452 ppbv

RT: 13.94 min Scan# 3997

Delta R.T. -0.00 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

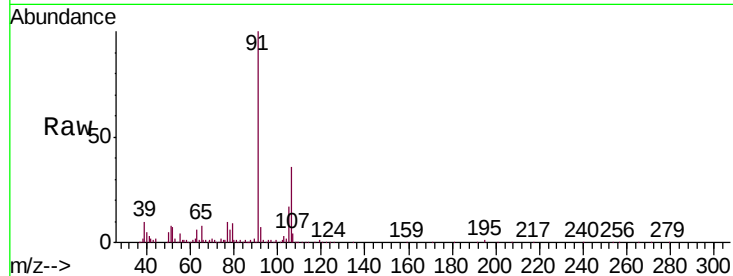
ClientSampleId :

Tot Ion: 91 Resp: 217602

Ion Ratio Lower Upper

91 100

106 43.2 22.4 67.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

120000

100000

80000

60000

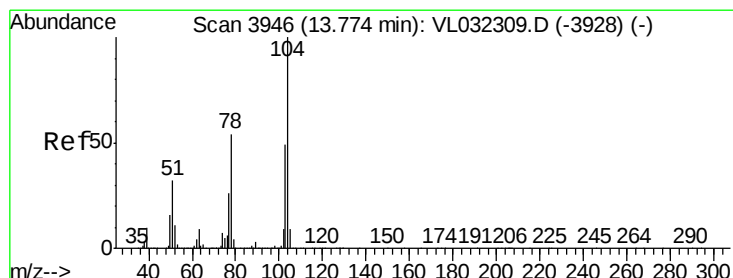
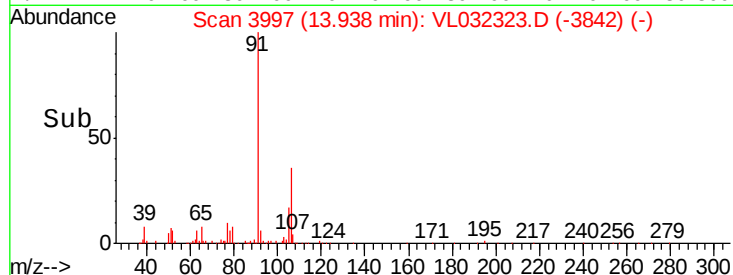
40000

20000

0

13.85 13.90 13.95 14.00

Time-->



#61

Styrene

Concen: 0.682 ppbv

RT: 13.77 min Scan# 3945

Delta R.T. -0.00 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

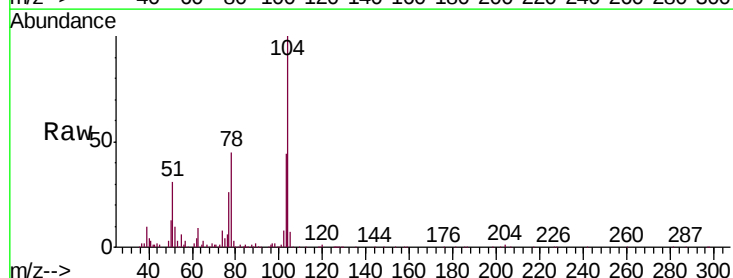
Tgt Ion: 104 Resp: 241619

Ion Ratio Lower Upper

104 100

78 50.7 42.6 63.8

103 47.1 38.0 57.0



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V

150000

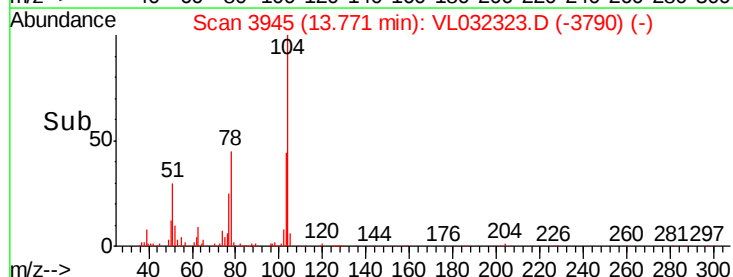
100000

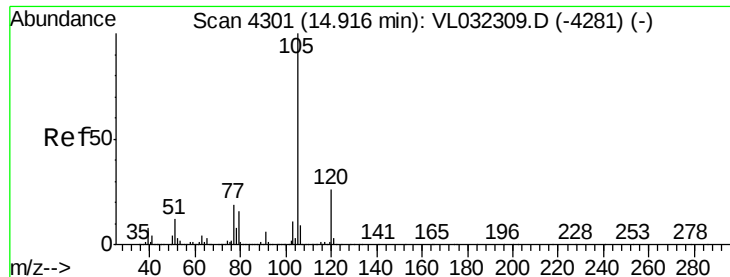
50000

0

13.70 13.75 13.80 13.85

Time-->





#62

Isopropylbenzene

Concen: 0.208 ppbv

RT: 14.91 min Scan# 4300

Delta R.T. -0.00 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

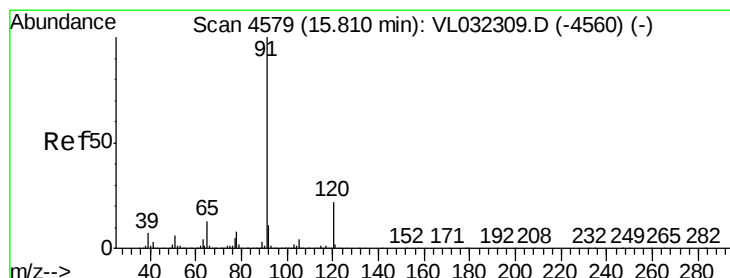
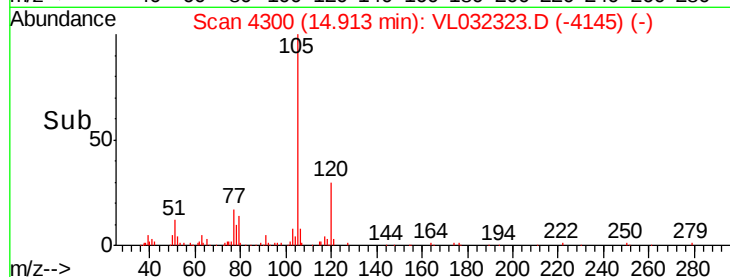
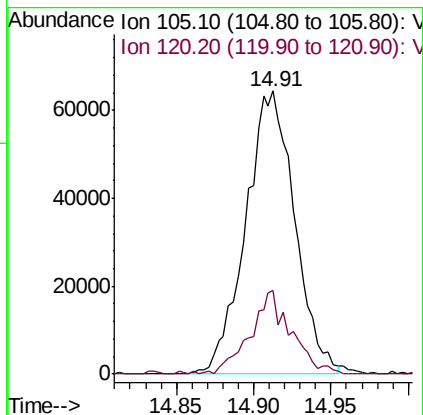
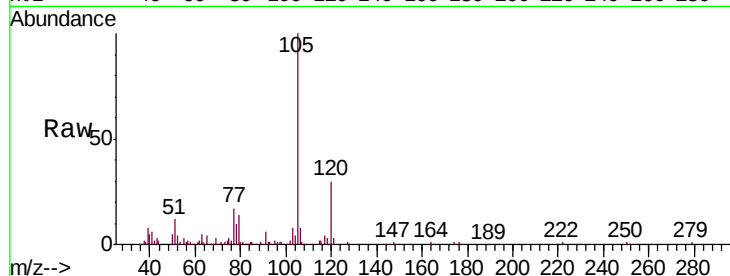
ClientSampleId :

Tot Ion:105 Resp: 141883

Ion Ratio Lower Upper

105 100

120 25.2 20.4 30.6



#64

n-propylbenzene

Concen: 0.031 ppbv

RT: 15.80 min Scan# 4576

Delta R.T. -0.01 min

Lab File: VL032323.D

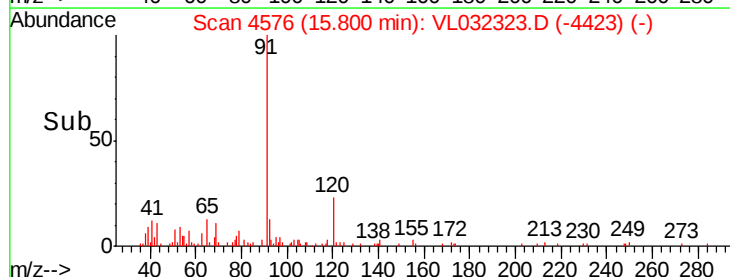
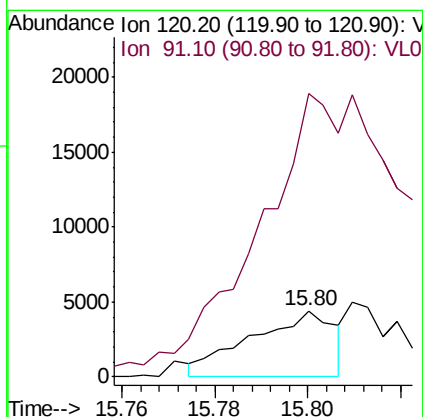
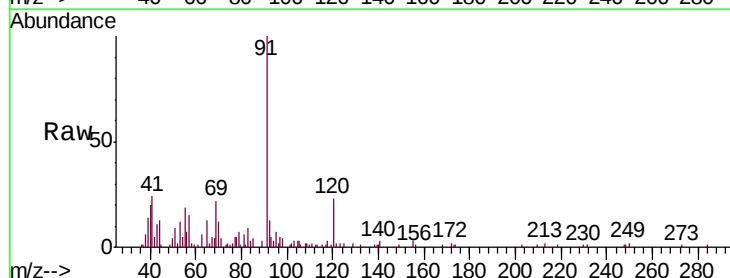
Acq: 27 Jul 2018 17:45

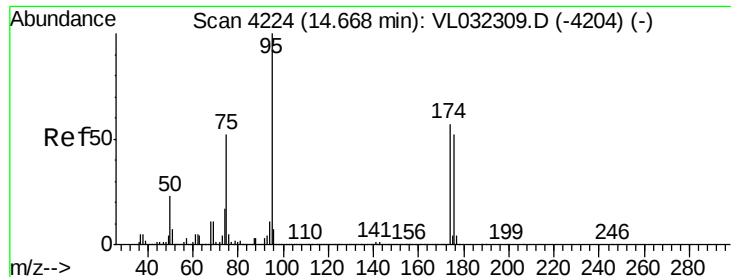
Tgt Ion:120 Resp: 5542

Ion Ratio Lower Upper

120 100

91 848.9 381.8 572.8#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.419 ppbv

RT: 14.66 min Scan# 4222

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

ClientSampleId :

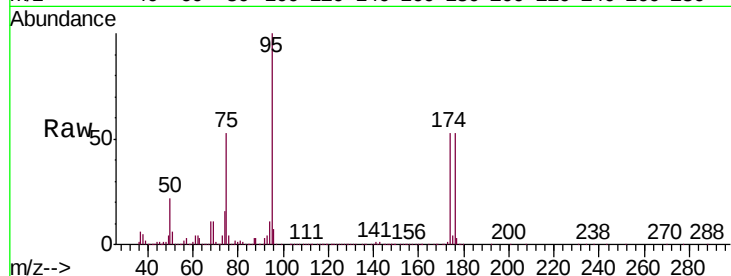
Tot Ion: 95 Resp: 3717411

Ion Ratio Lower Upper

95 100

174 55.2 45.5 68.3

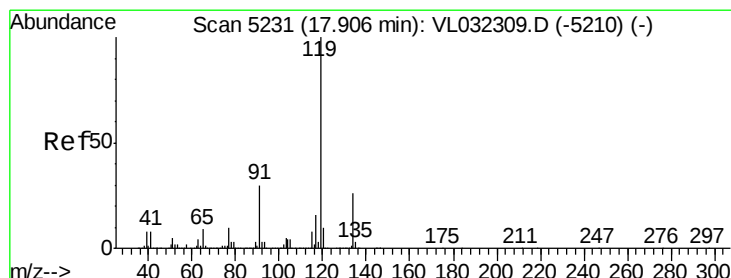
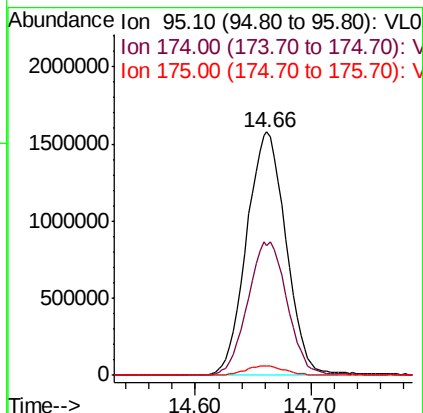
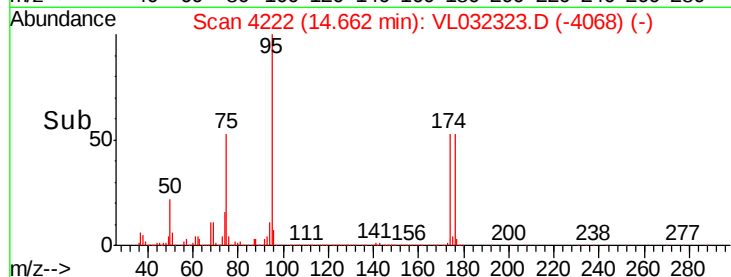
175 4.1 3.3 4.9



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



#69

p-Isopropyltoluene

Concen: 0.061 ppbv

RT: 17.90 min Scan# 5229

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

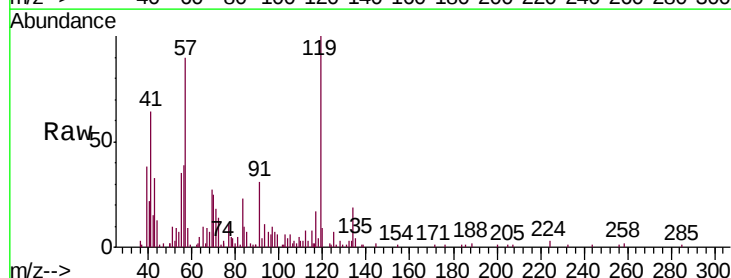
Tgt Ion: 119 Resp: 40765

Ion Ratio Lower Upper

119 100

134 26.8 20.3 30.5

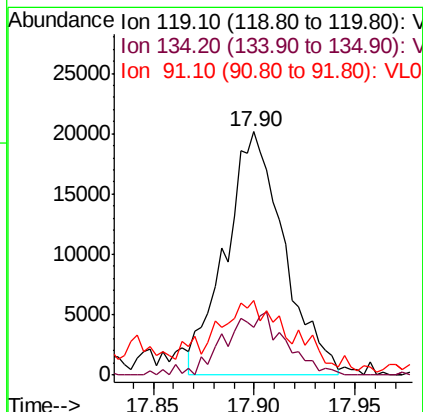
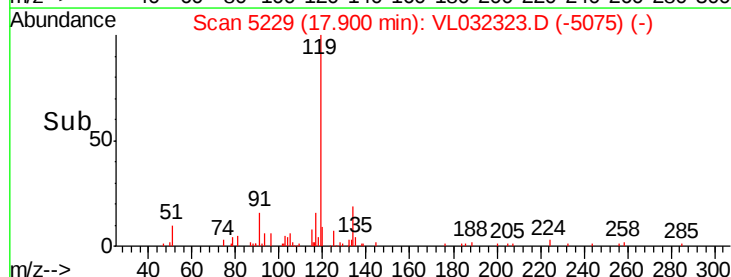
91 42.1 23.8 35.6#

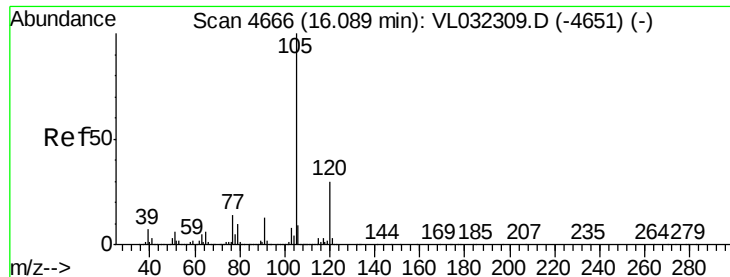


Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VL0





#72

4-Ethyltoluene

Concen: 0.041 ppbv

RT: 16.08 min Scan# 4663

Delta R.T. -0.01 min

Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp: 22371

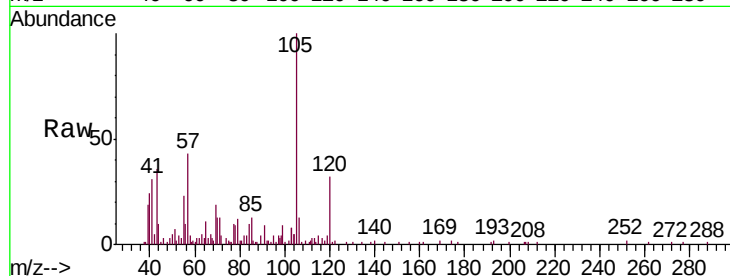
Ion Ratio Lower Upper

105 100

120 59.1 23.1 34.7#

91 0.0 10.0 15.0#

77 0.0 11.5 17.3#

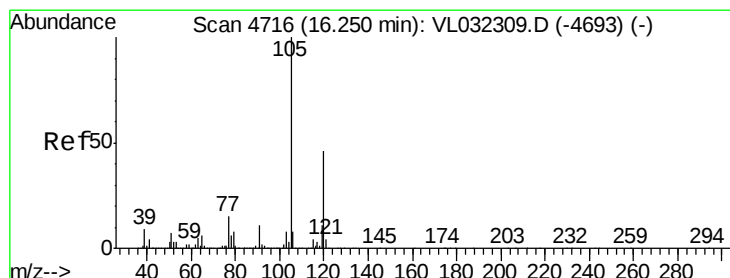
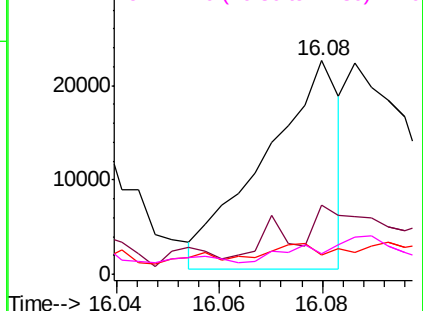
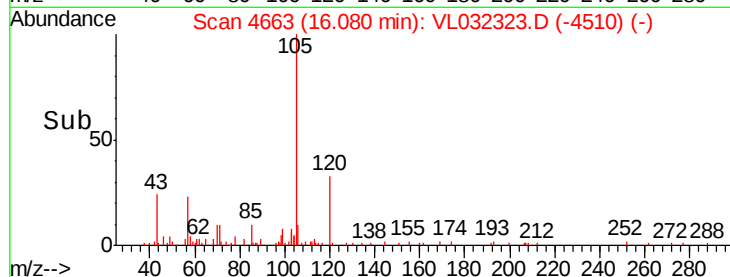


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.059 ppbv

RT: 16.24 min Scan# 4713

Delta R.T. -0.01 min

Lab File: VL032323.D

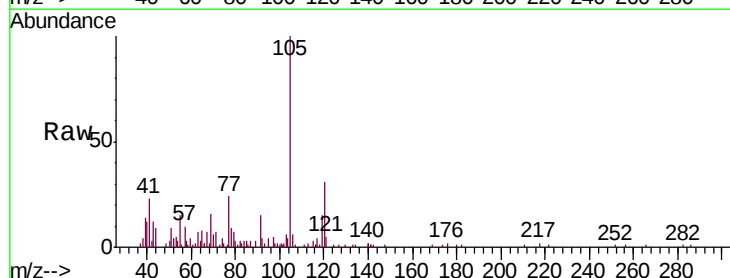
Acq: 27 Jul 2018 17:45

Tgt Ion:105 Resp: 31165

Ion Ratio Lower Upper

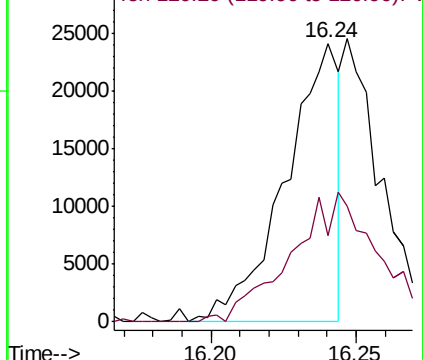
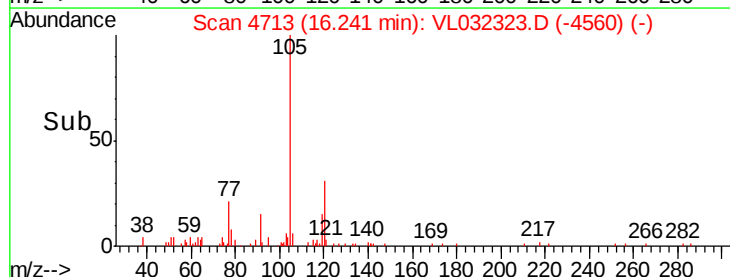
105 100

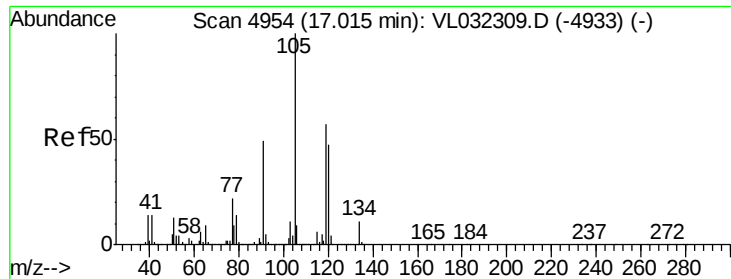
120 31.0 36.5 54.7#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74

1,2,4-Trimethylbenzene

Concen: 0.210 ppbv

RT: 17.01 min Scan# 4953

Delta R.T. -0.00 min

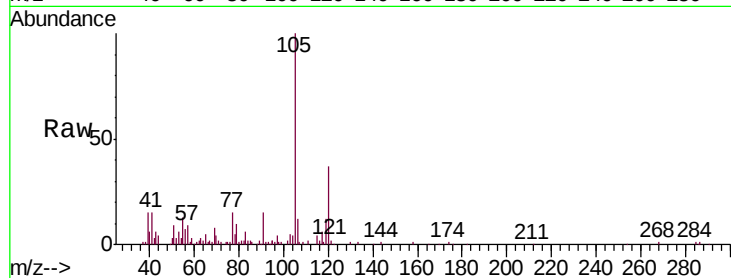
Lab File: VL032323.D

Acq: 27 Jul 2018 17:45

Instrument :

MSVOA_L

ClientSampleId :



Tot Ion:	105	Resp:	117232
Ion	Ratio	Lower	Upper
105	100		
120	37.1	37.8	56.6#
91	15.2	39.4	59.0#
77	14.8	17.6	26.4#

