

Data File : VL032225.D
Acq On : 6 Jul 2018 8:55
Operator : SY/AP
Sample : J3867-01DUP 2X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
539BDL

Quant Time: Jul 06 12:49:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062918AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 29 22:27:58 2018
QLast Update : Fri Jun 29 22:27:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.84	49	1660620	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.38	114	4076300	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.34	117	4136780	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.67	95	3120469	9.87	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.70%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.13	85	55491	0.254	ppbv	94
3) Chlorodifluoromethane	3.07	51	78039	0.385	ppbv	95
4) Chloromethane	3.22	50	35376	0.327	ppbv #	86
9) Propene	3.10	41	62593	0.662	ppbv	85
10) Heptane	8.33	43	22723	0.082	ppbv #	76
11) Trichlorofluoromethane	4.07	101	38514	0.163	ppbv	99
13) Ethanol	3.73	45	545997	19.045	ppbv	99
15) Acetone	3.96	43	2666342	13.732	ppbv	99
16) 1,3-Butadiene	3.40	39	11601	0.125	ppbv #	9
19) Isopropyl Alcohol	4.12	45	121417	0.753	ppbv #	1
20) Methylene Chloride	4.48	84	1324652	18.668	ppbv	96
21) Allyl Chloride	4.48	41	26680	0.201	ppbv #	33
23) Vinyl Acetate	5.22	43	77796	0.221	ppbv #	39
25) Ethyl Acetate	5.86	43	2077778	5.172	ppbv #	77
26) Hexane	5.86	57	2975825	16.085	ppbv #	45
27) Carbon Disulfide	4.69	76	43266	0.235	ppbv #	56
29) Chloroform	5.93	83	9739	0.036	ppbv	99
30) Cyclohexane	7.33	84	8840	0.051	ppbv #	1
34) 2-Butanone	5.41	43	116968	0.452	ppbv	100
36) Benzene	7.08	78	56616	0.144	ppbv #	93
38) Trichloroethene	8.04	130	9535	0.062	ppbv #	81
39) 1,2-Dichloropropane	7.38	63	1136681	7.305	ppbv #	26
41) Tetrahydrofuran	6.50	42	14003	0.090	ppbv #	37
44) 2,2,4-Trimethylpentane	8.08	57	115363	0.167	ppbv #	77
53) Toluene	10.04	91	165297	0.347	ppbv	99
58) Ethyl Benzene	12.96	91	29625	0.044	ppbv	95
59) m/p-Xylene	13.24	91	25011	0.047	ppbv #	29
60) o-Xylene	13.94	91	41075	0.077	ppbv	97
73) 1,3,5-Trimethylbenzene	16.25	105	47694	0.074	ppbv	96
74) 1,2,4-Trimethylbenzene	17.02	105	110431	0.169	ppbv #	71

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

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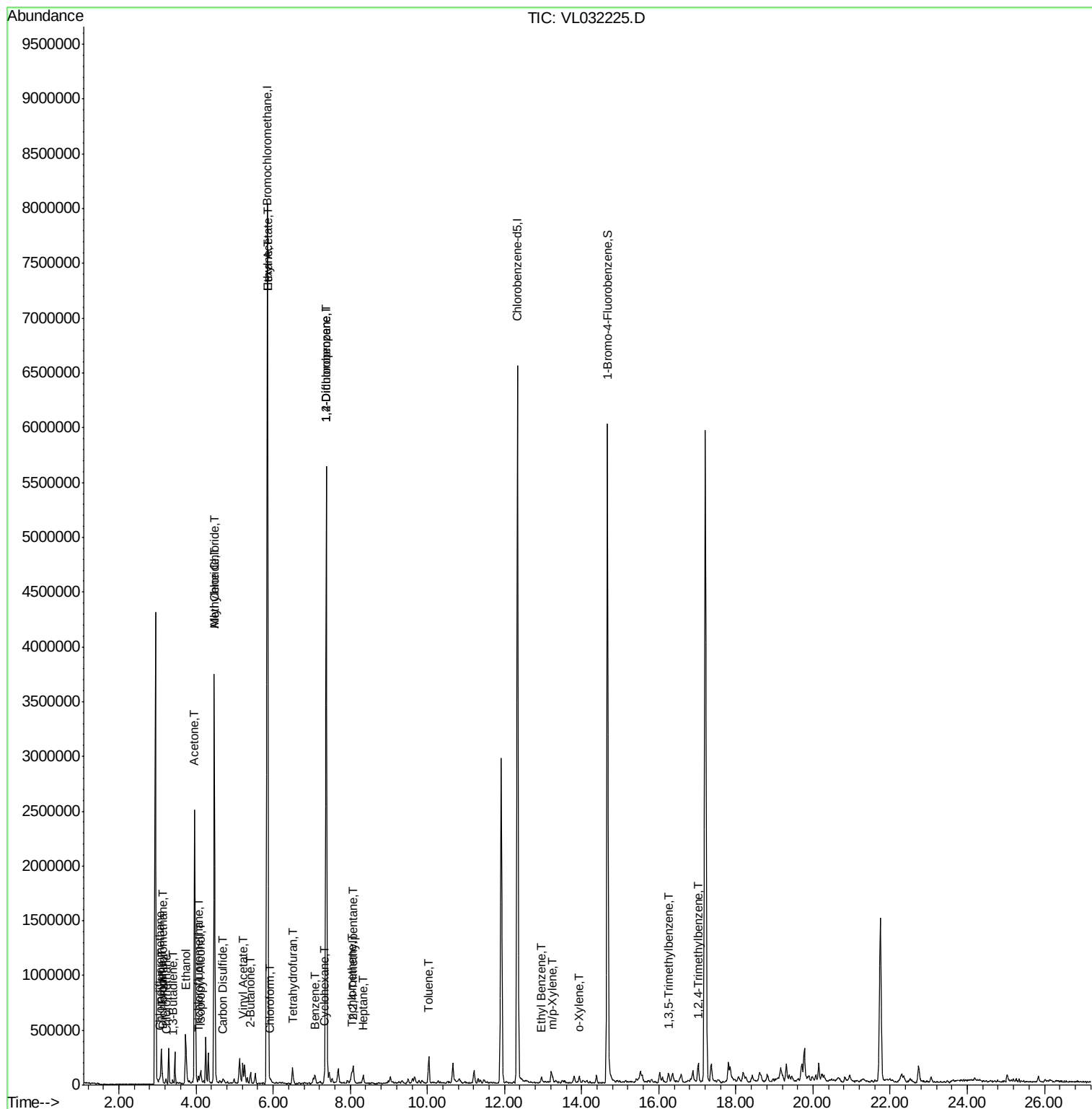
Quant Time: Jul 06 12:49:51 2018

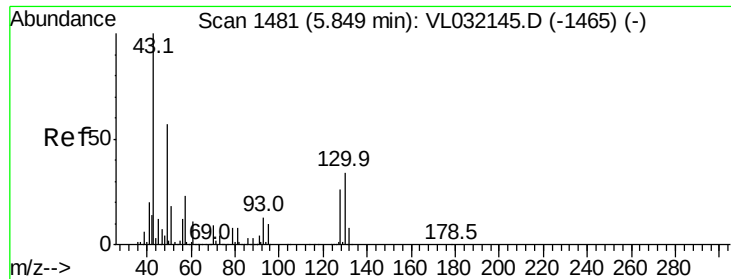
Quant Method : Z:\VOASRV\HPCHEM1\MSV0A_L\METHODS\VL062918AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LFri Jun 29 22:27:58 2018

QLast Update : Fri Jun 29 22:27:58 2018

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.84 min Scan# 1478

Delta R.T. -0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

539BDL

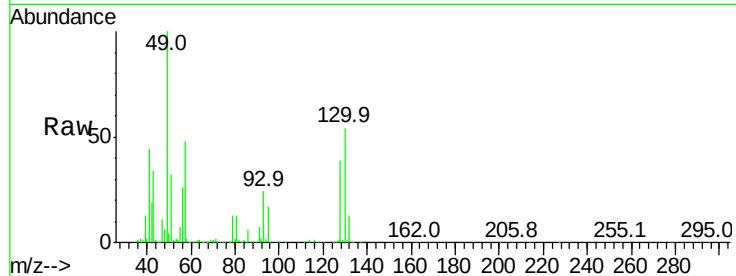
Tgt Ion: 49 Resp: 1660620

Ion Ratio Lower Upper

49 100

128 41.5 23.4 70.0

130 53.2 30.3 90.9



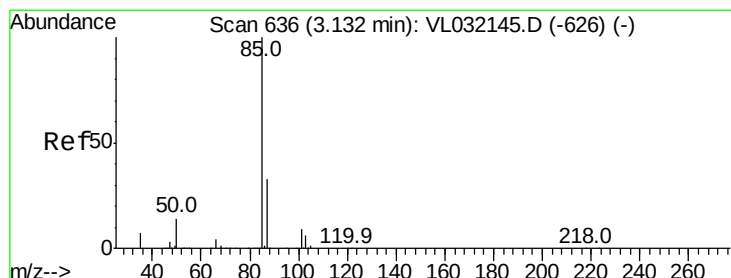
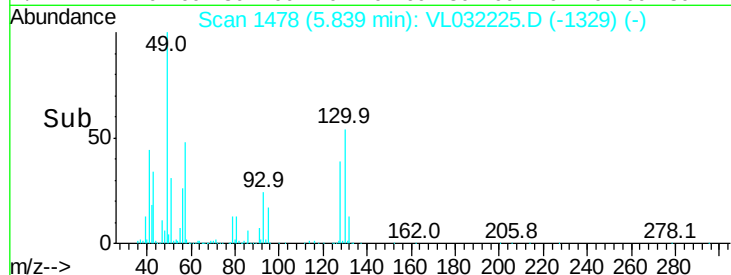
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.84

Time-->



#2

Dichlorodifluoromethane

Concen: 0.254 ppbv

RT: 3.13 min Scan# 635

Delta R.T. -0.01 min

Lab File: VL032225.D

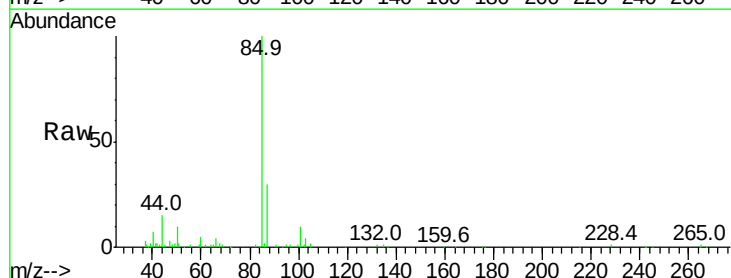
Acq: 6 Jul 2018 8:55

Tgt Ion: 85 Resp: 55491

Ion Ratio Lower Upper

85 100

87 30.2 26.7 40.1

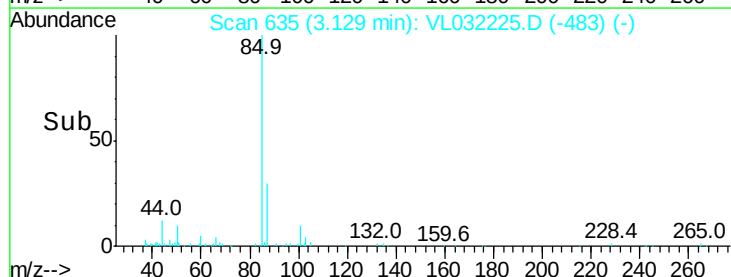


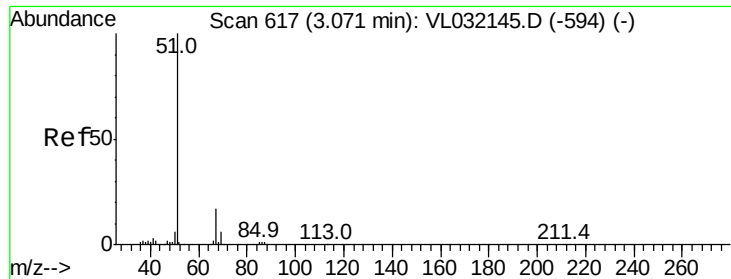
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.13

Time-->





#3

Chlorodifluoromethane

Concen: 0.385 ppbv

RT: 3.07 min Scan# 616

Delta R.T. -0.01 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

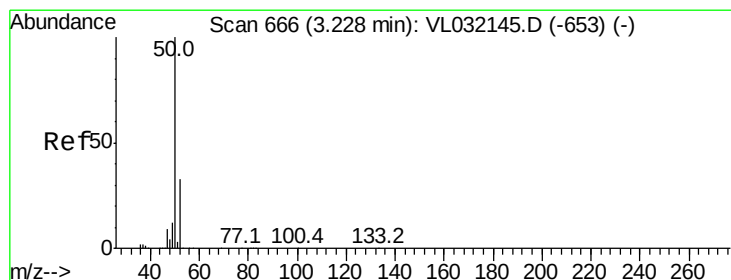
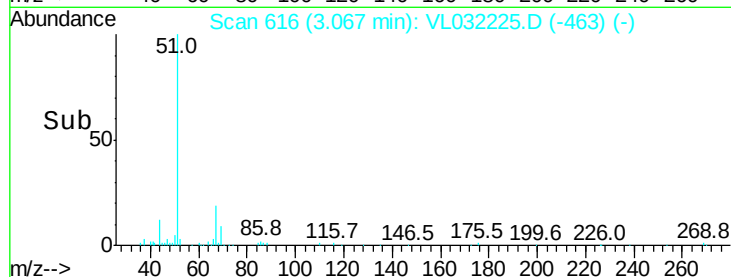
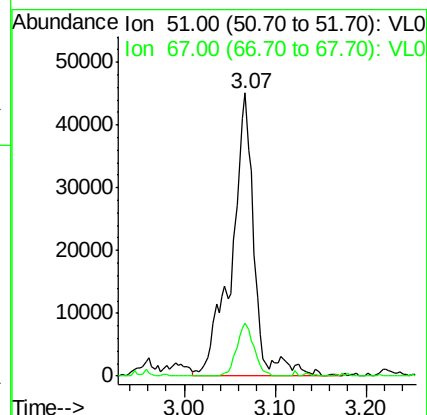
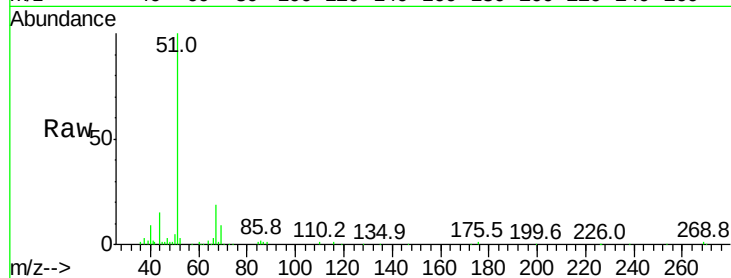
539BDL

Tgt Ion: 51 Resp: 78039

Ion Ratio Lower Upper

51 100

67 14.2 13.2 19.8



#4

Chloromethane

Concen: 0.327 ppbv

RT: 3.22 min Scan# 664

Delta R.T. -0.02 min

Lab File: VL032225.D

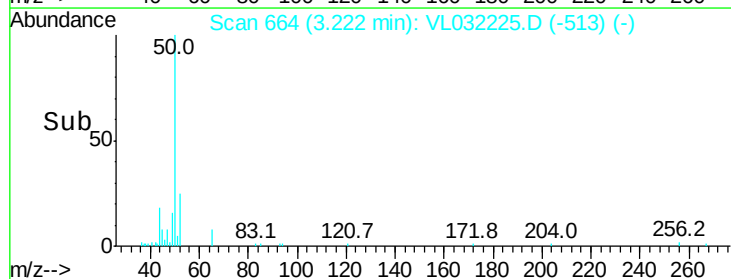
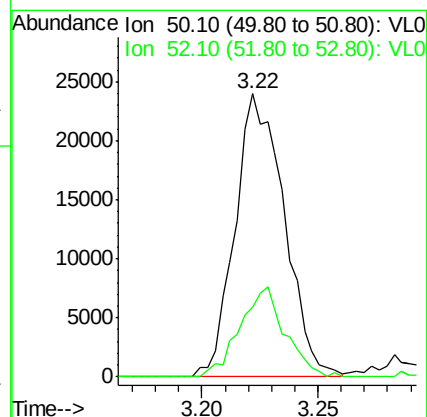
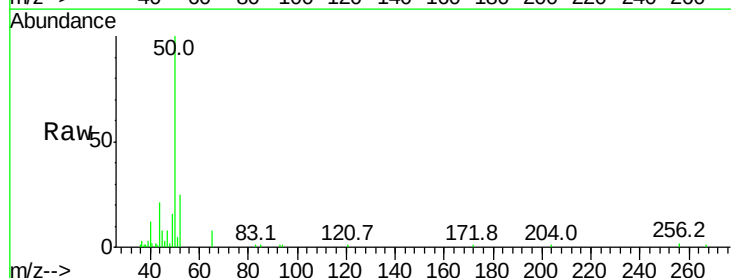
Acq: 6 Jul 2018 8:55

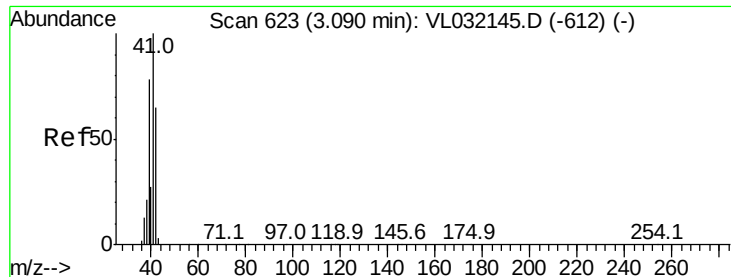
Tgt Ion: 50 Resp: 35376

Ion Ratio Lower Upper

50 100

52 24.6 26.0 39.0#





#9

Propene

Concen: 0.662 ppbv

RT: 3.10 min Scan# 626

Delta R.T. 0.00 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

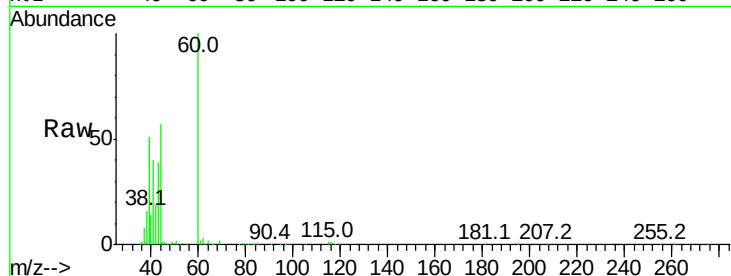
539BDL

Tgt Ion: 41 Resp: 62593

Ion Ratio Lower Upper

41 100

42 57.6 56.2 84.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.10

40000

30000

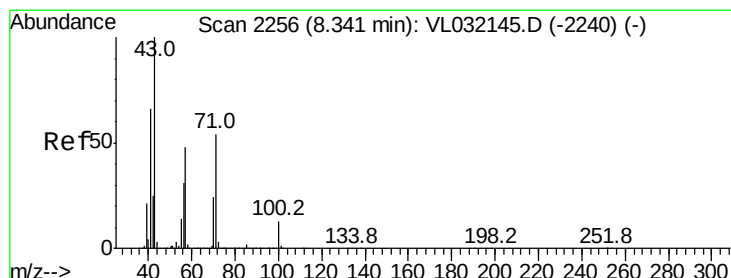
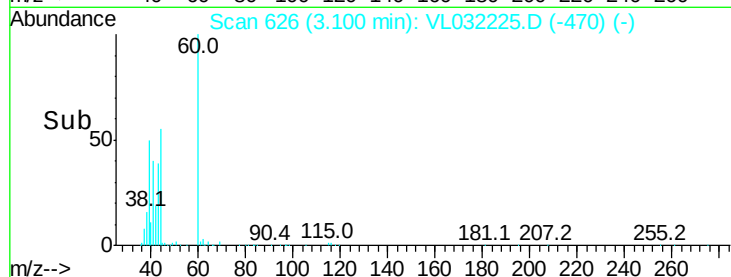
20000

10000

0

Time-->

3.05 3.10 3.15



#10

Heptane

Concen: 0.082 ppbv

RT: 8.33 min Scan# 2253

Delta R.T. -0.03 min

Lab File: VL032225.D

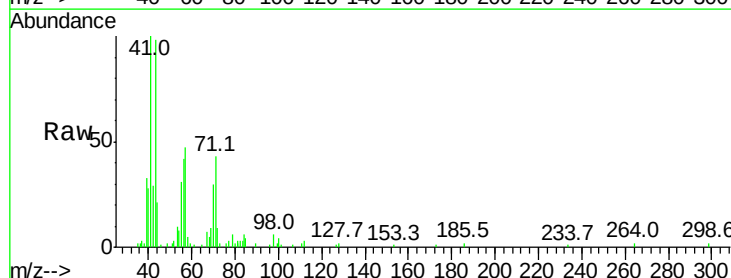
Acq: 6 Jul 2018 8:55

Tgt Ion: 43 Resp: 22723

Ion Ratio Lower Upper

43 100

57 66.5 39.8 59.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

8.33

15000

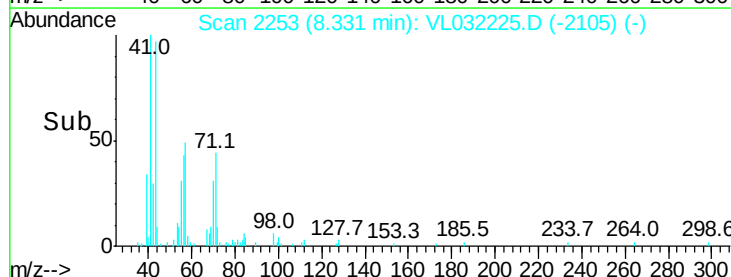
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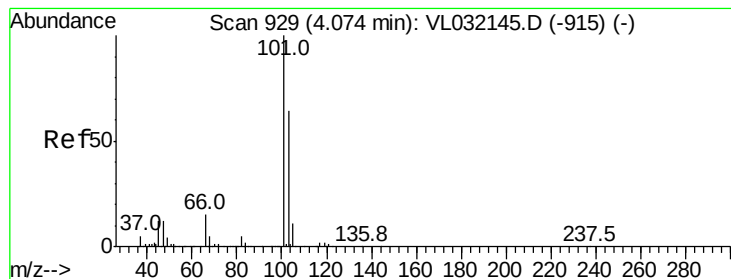
5000

0

Time-->

8.28 8.30 8.32 8.34 8.36





#11

Trichlorofluoromethane

Concen: 0.163 ppbv

RT: 4.07 min Scan# 928

Delta R.T. -0.01 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

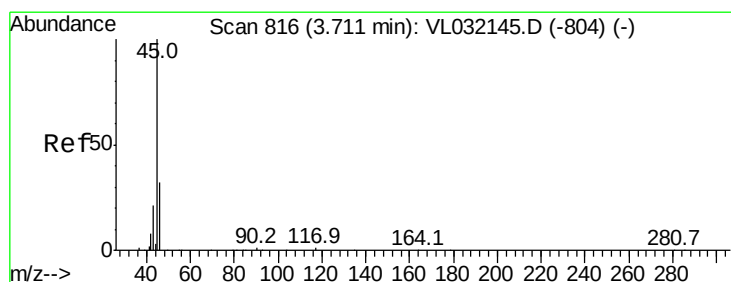
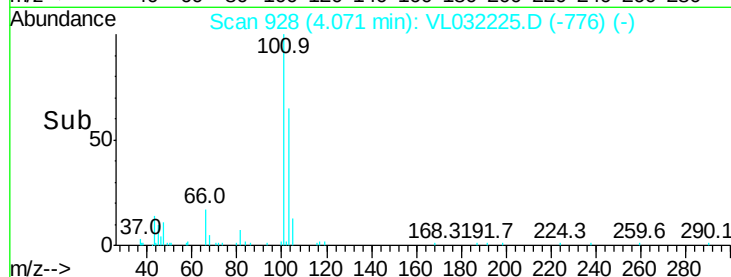
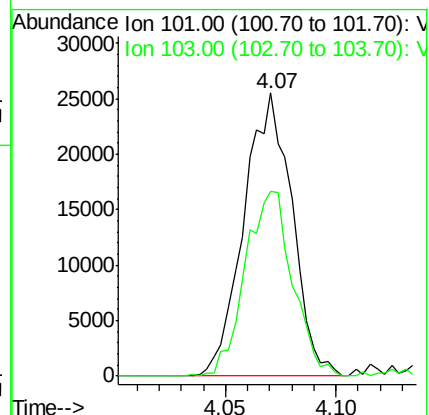
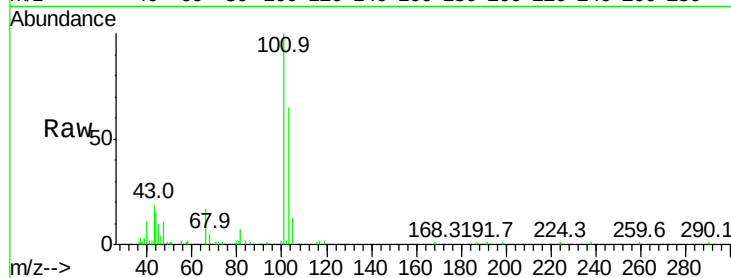
539BDL

Tgt Ion: 101 Resp: 38514

Ion Ratio Lower Upper

101 100

103 65.2 51.4 77.0



#13

Ethanol

Concen: 19.045 ppbv

RT: 3.73 min Scan# 823

Delta R.T. 0.01 min

Lab File: VL032225.D

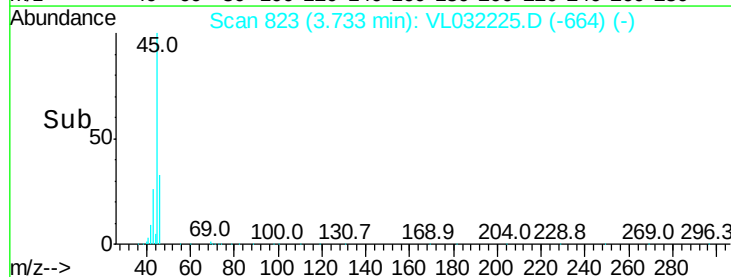
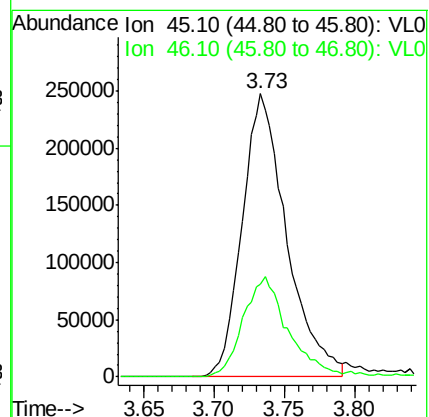
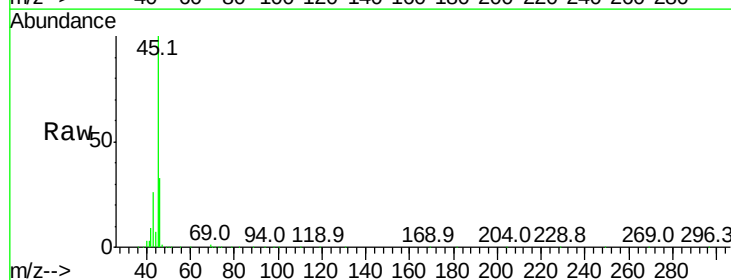
Acq: 6 Jul 2018 8:55

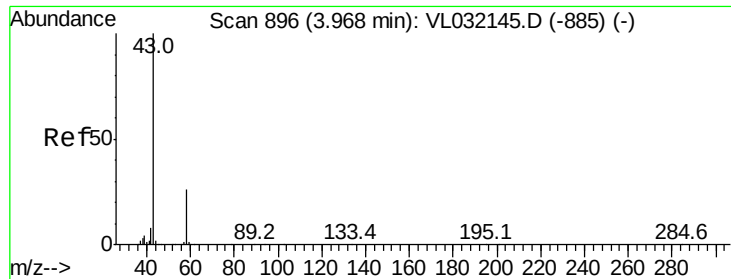
Tgt Ion: 45 Resp: 545997

Ion Ratio Lower Upper

45 100

46 37.1 14.6 58.4





#15

Acetone

Concen: 13.732 ppbv

RT: 3.96 min Scan# 894

Delta R.T. -0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

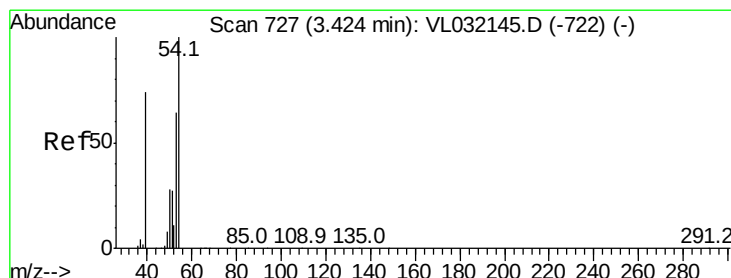
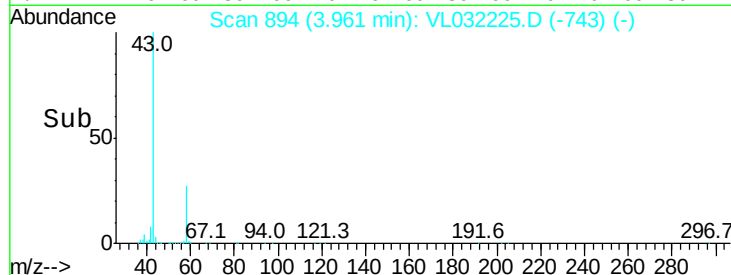
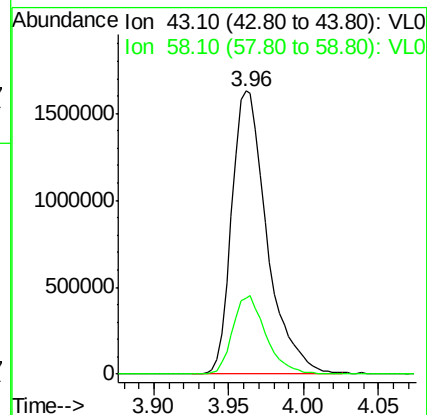
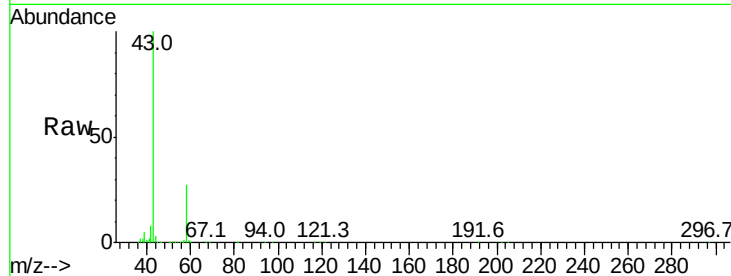
539BDL

Tgt Ion: 43 Resp: 2666342

Ion Ratio Lower Upper

43 100

58 26.3 21.4 32.0



#16

1,3-Butadiene

Concen: 0.125 ppbv

RT: 3.40 min Scan# 720

Delta R.T. -0.03 min

Lab File: VL032225.D

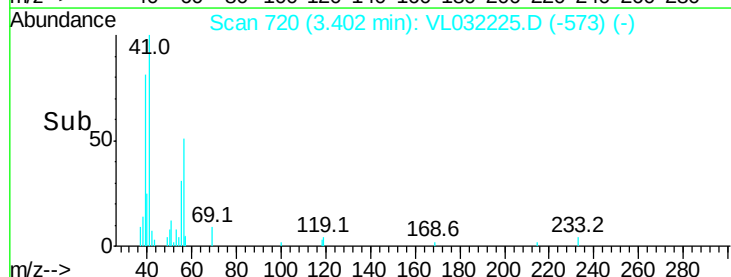
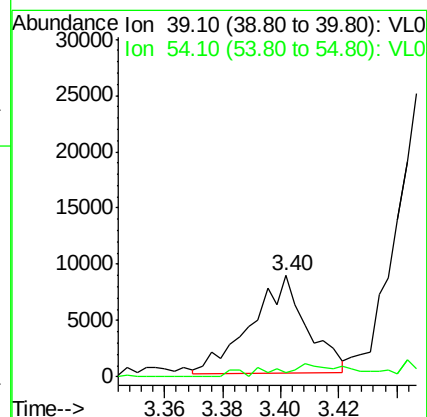
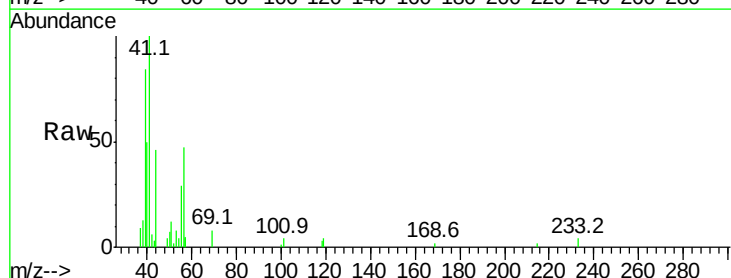
Acq: 6 Jul 2018 8:55

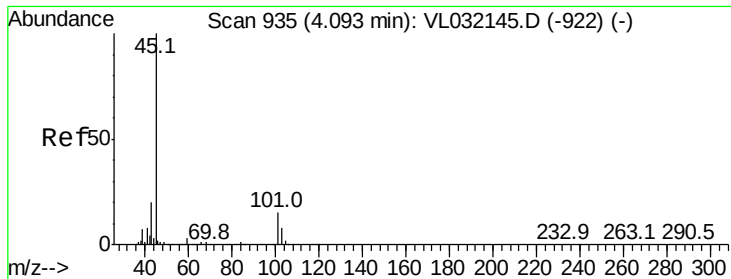
Tgt Ion: 39 Resp: 11601

Ion Ratio Lower Upper

39 100

54 6.0 75.8 113.6#





#19

Isopropyl Alcohol

Concen: 0.753 ppbv

RT: 4.12 min Scan# 943

Delta R.T. 0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

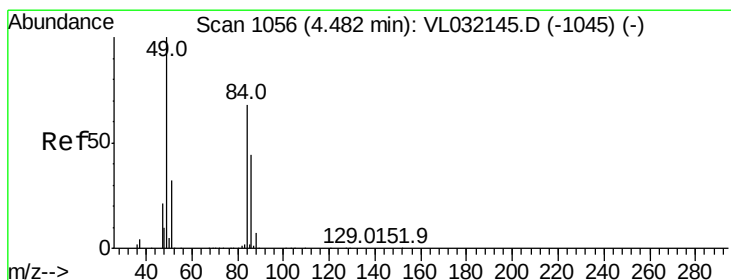
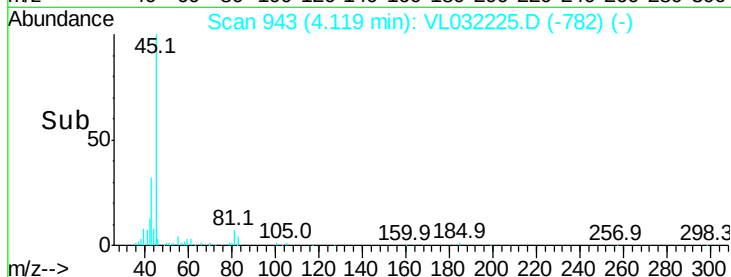
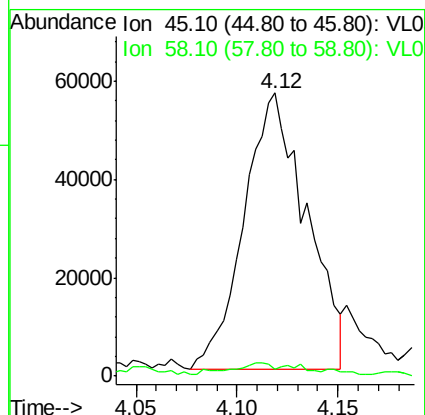
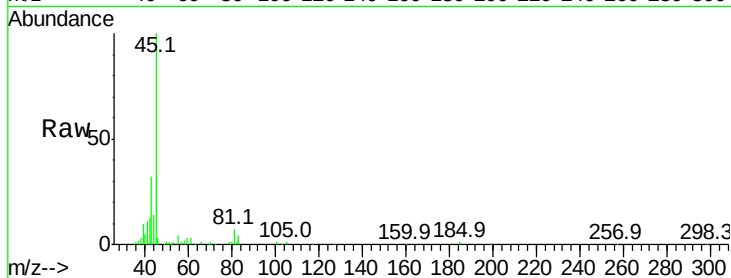
539BDL

Tgt Ion: 45 Resp: 121417

Ion Ratio Lower Upper

45 100

58 577.1 29.4 44.0#



#20

Methylene Chloride

Concen: 18.668 ppbv

RT: 4.48 min Scan# 1054

Delta R.T. -0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Tgt Ion: 84 Resp: 1324652

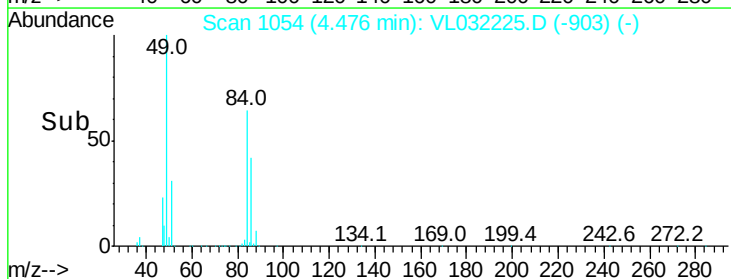
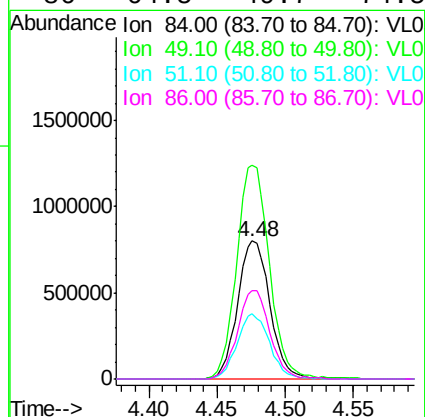
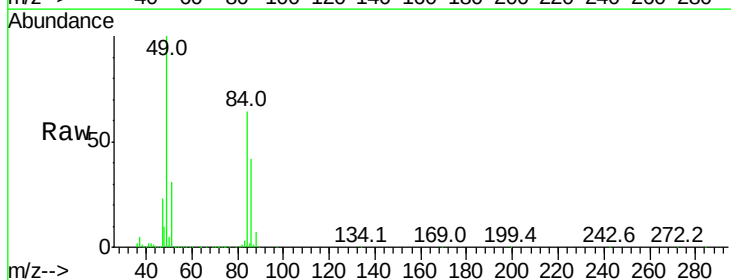
Ion Ratio Lower Upper

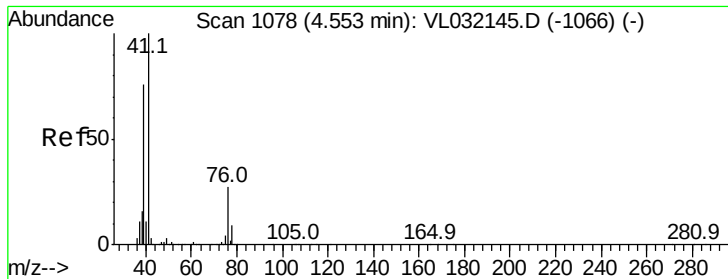
84 100

49 155.2 119.6 179.4

51 47.8 36.3 54.5

86 64.5 49.7 74.5

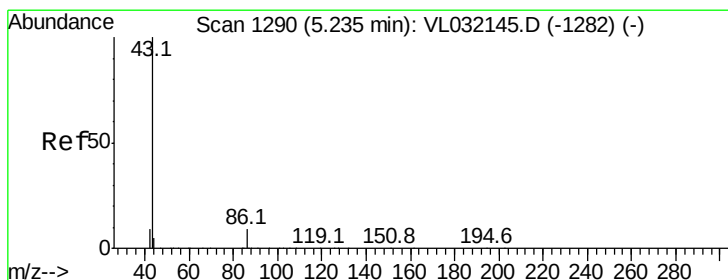
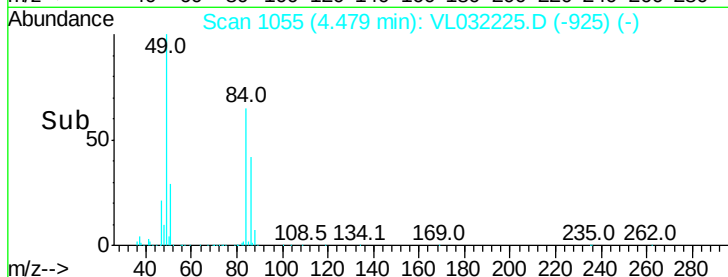
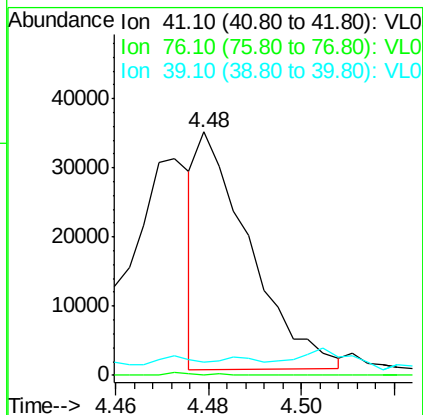
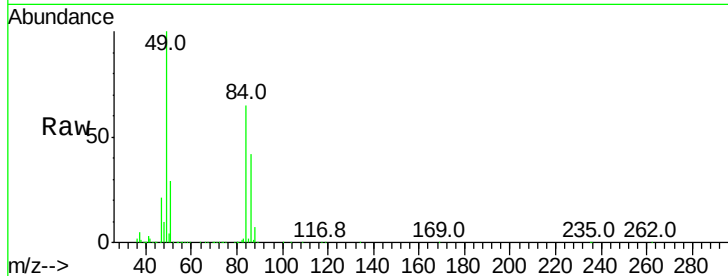




#21
 Allyl Chloride
 Concen: 0.201 ppbv
 RT: 4.48 min Scan# 1055
 Delta R.T. -0.08 min
 Lab File: VL032225.D
 Acq: 6 Jul 2018 8:55

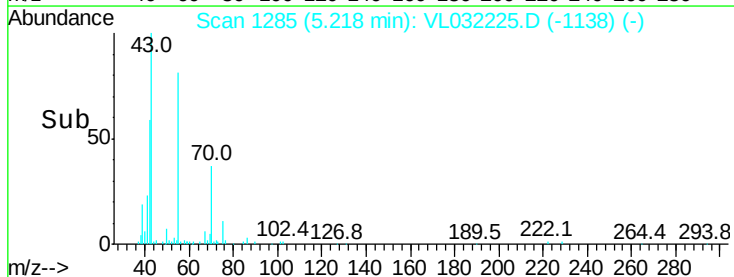
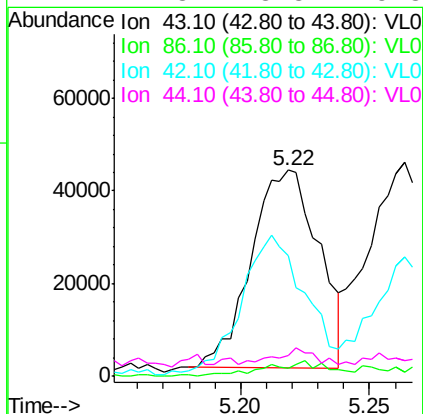
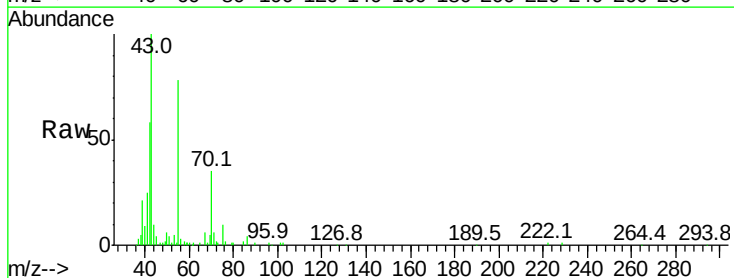
Instrument :
 MSVOA_L
 ClientSampleId :
 539BDL

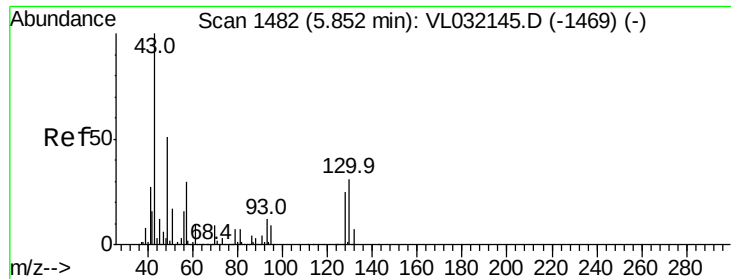
Tgt Ion: 41 Resp: 26680
 Ion Ratio Lower Upper
 41 100
 76 0.0 22.5 33.7#
 39 14.2 60.5 90.7#



#23
 Vinyl Acetate
 Concen: 0.221 ppbv
 RT: 5.22 min Scan# 1285
 Delta R.T. -0.03 min
 Lab File: VL032225.D
 Acq: 6 Jul 2018 8:55

Tgt Ion: 43 Resp: 77796
 Ion Ratio Lower Upper
 43 100
 86 3.8 6.2 9.4#
 42 58.6 6.9 10.3#
 44 4.8 3.8 5.8

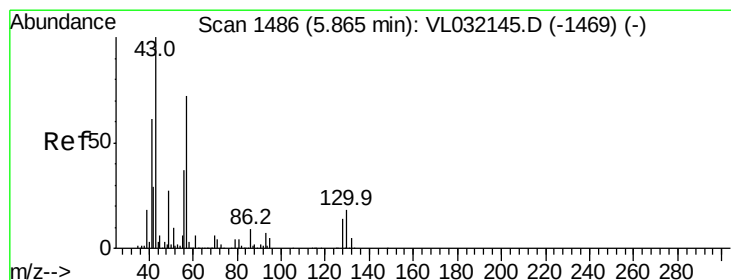
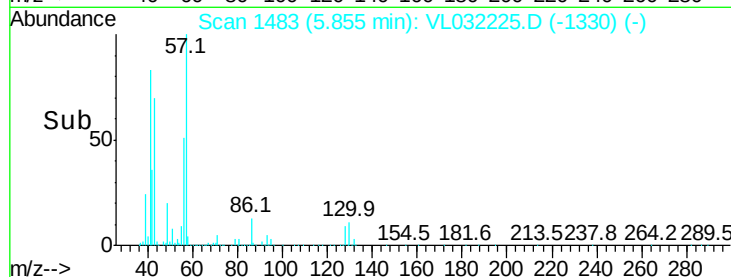
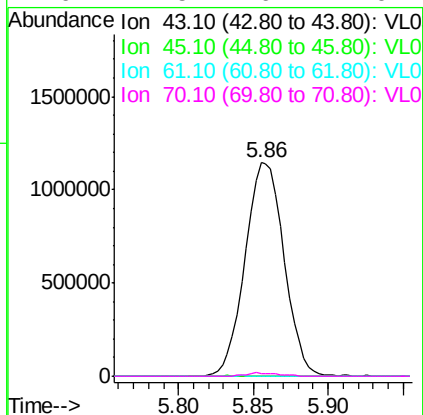
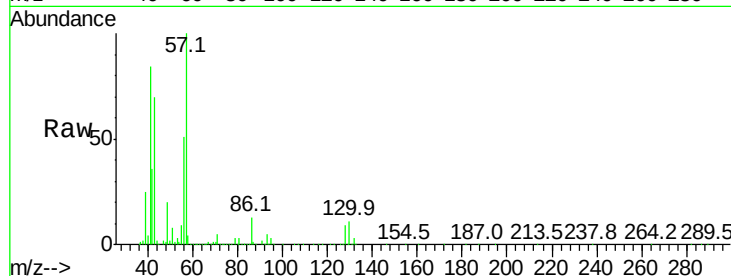




#25
Ethyl Acetate
Concen: 5.172 ppbv
RT: 5.86 min Scan# 1483
Delta R.T. -0.01 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

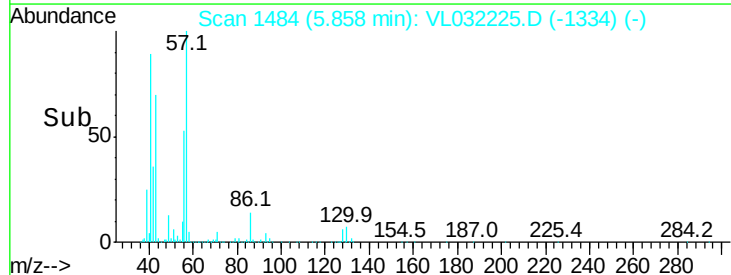
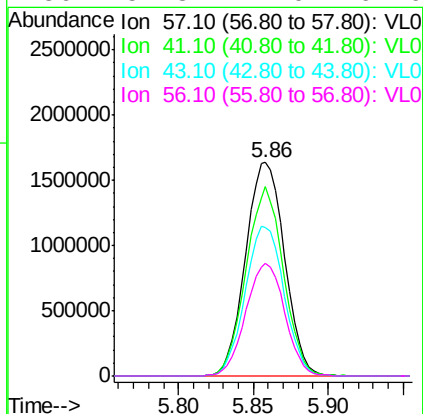
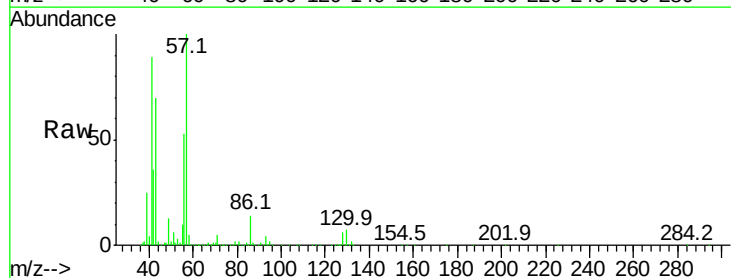
Instrument :
MSVOA_L
ClientSampleId :
539BDL

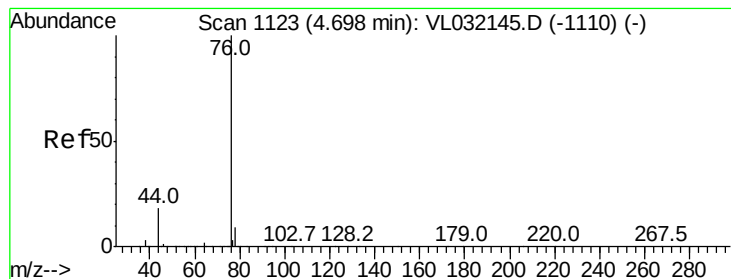
Tgt Ion: 43 Resp: 2077778
Ion Ratio Lower Upper
43 100
45 0.4 7.8 11.8#
61 0.3 7.4 11.0#
70 1.5 6.1 9.1#



#26
Hexane
Concen: 16.085 ppbv
RT: 5.86 min Scan# 1484
Delta R.T. -0.02 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

Tgt Ion: 57 Resp: 2975825
Ion Ratio Lower Upper
57 100
41 85.2 68.6 103.0
43 69.9 168.6 252.8#
56 52.8 41.0 61.6





#27

Carbon Disulfide

Concen: 0.235 ppbv

RT: 4.69 min Scan# 1122

Delta R.T. -0.01 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

539BDL

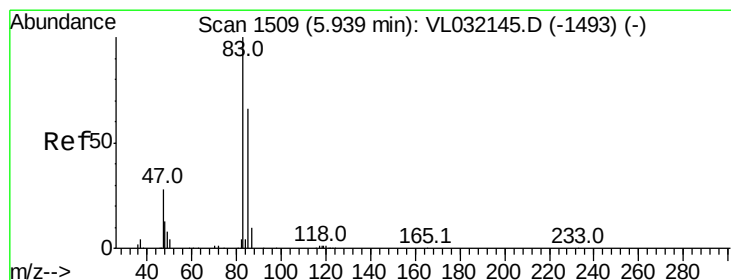
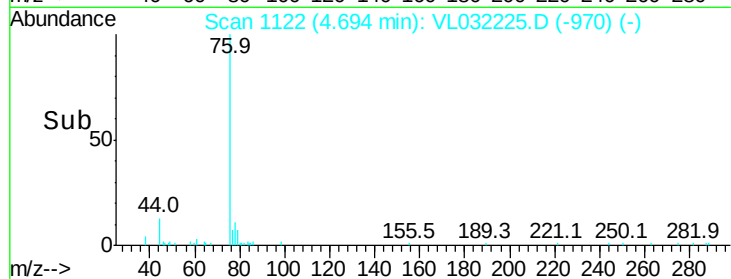
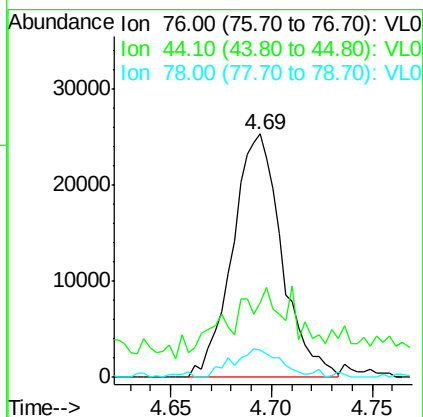
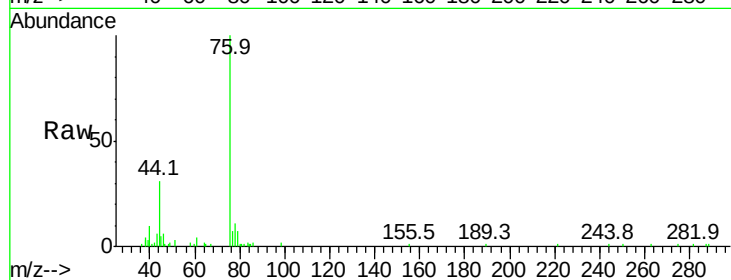
Tgt Ion: 76 Resp: 43266

Ion Ratio Lower Upper

76 100

44 45.7 15.1 22.7#

78 12.9 7.2 10.8#



#29

Chloroform

Concen: 0.036 ppbv

RT: 5.93 min Scan# 1505

Delta R.T. -0.02 min

Lab File: VL032225.D

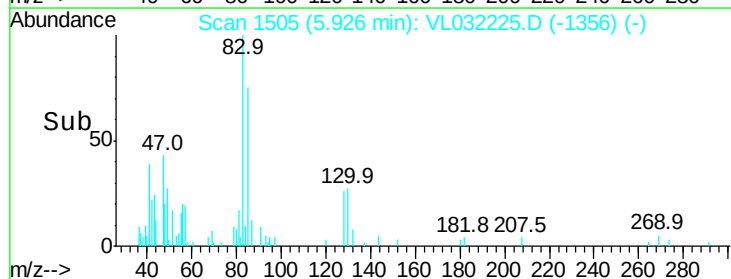
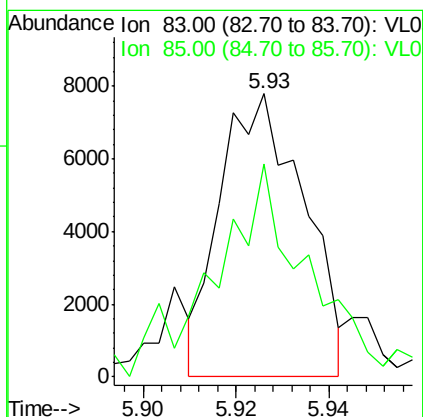
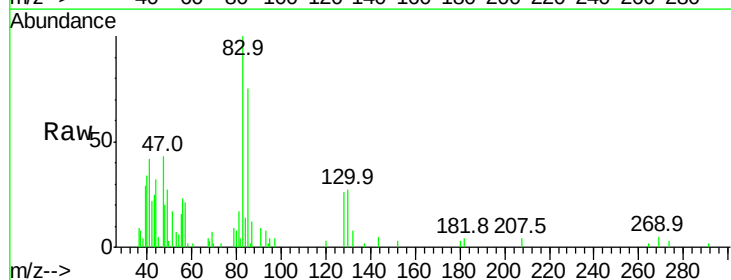
Acq: 6 Jul 2018 8:55

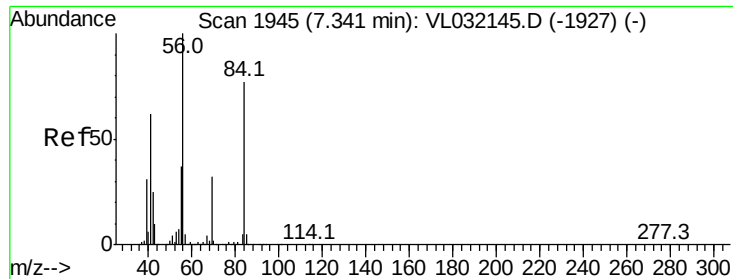
Tgt Ion: 83 Resp: 9739

Ion Ratio Lower Upper

83 100

85 65.0 51.6 77.4

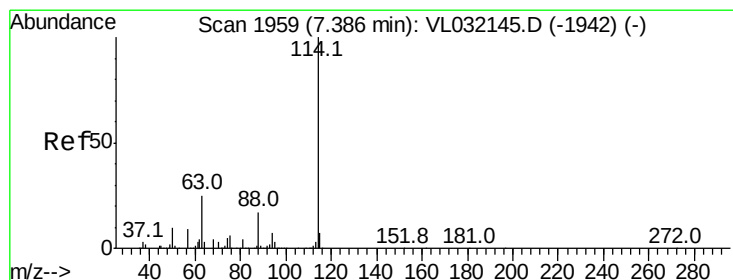
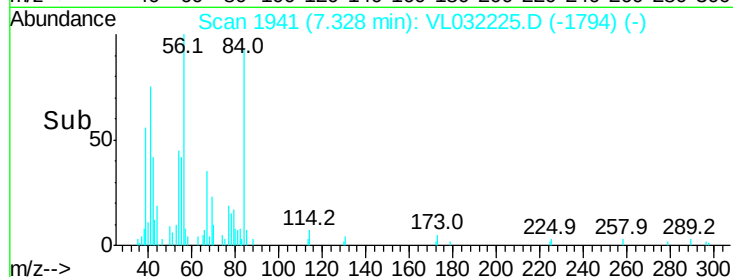
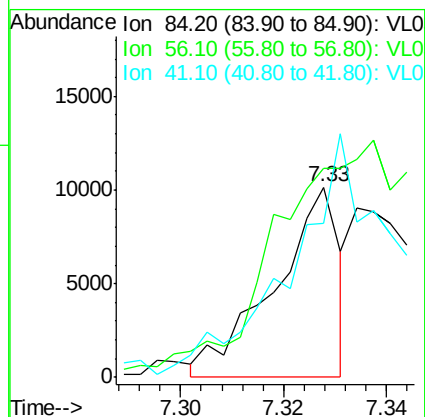
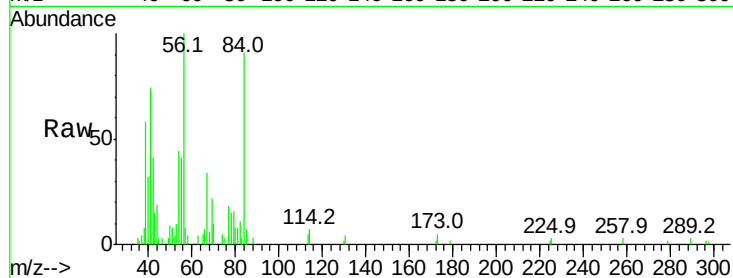




#30
Cyclohexane
Concen: 0.051 ppbv
RT: 7.33 min Scan# 1941
Delta R.T. -0.03 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

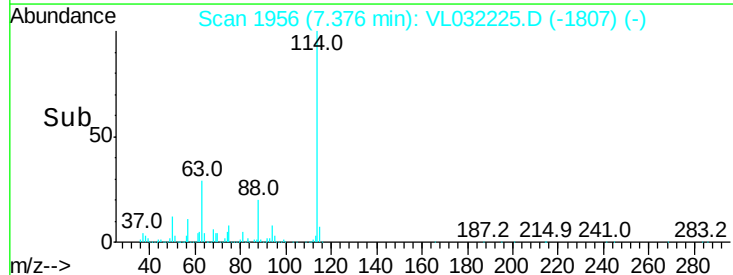
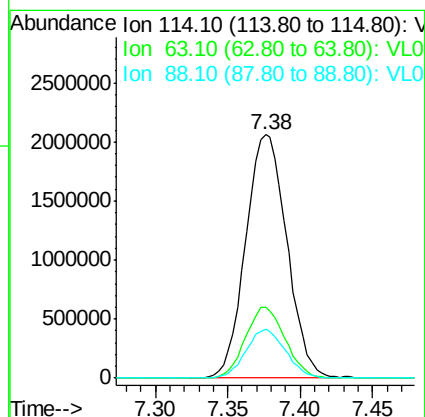
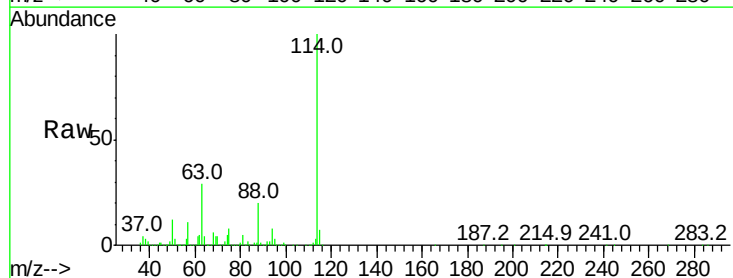
Instrument :
MSVOA_L
ClientSampleId :
539BDL

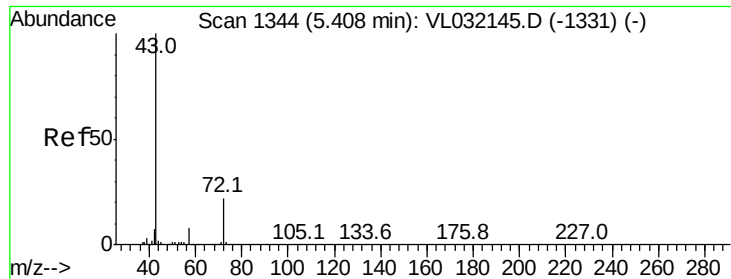
Tgt Ion: 84 Resp: 8840
Ion Ratio Lower Upper
84 100
56 0.0 109.1 163.7#
41 0.0 64.6 96.8#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.38 min Scan# 1956
Delta R.T. -0.02 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

Tgt Ion: 114 Resp: 4076300
Ion Ratio Lower Upper
114 100
63 28.2 19.1 28.7
88 19.3 13.9 20.9

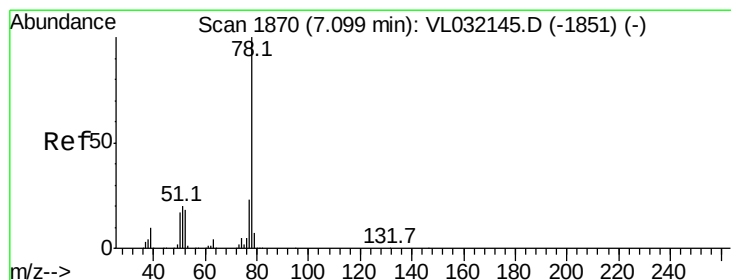
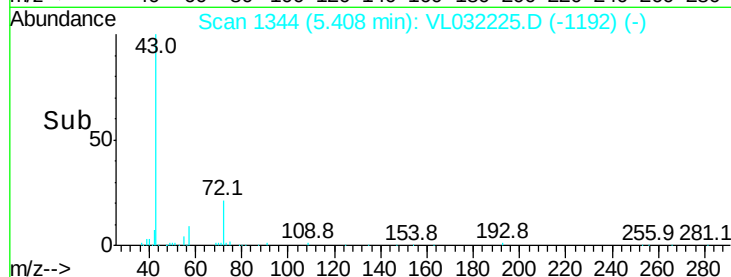
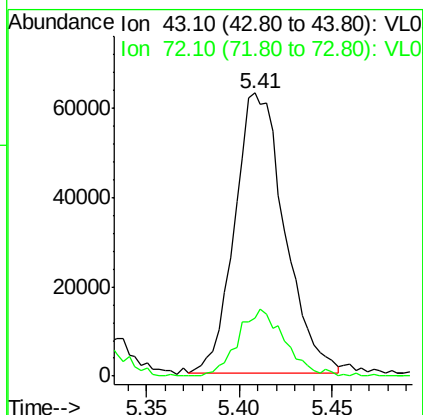
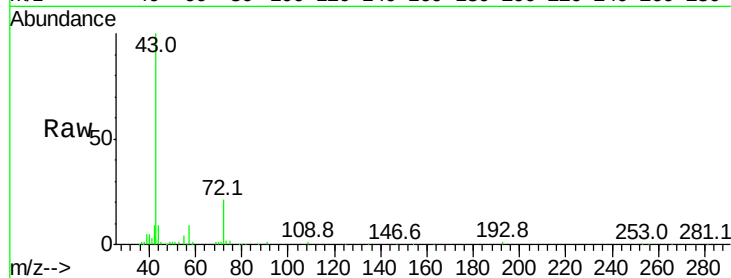




#34
 2-Butanone
 Concen: 0.452 ppbv
 RT: 5.41 min Scan# 1344
 Delta R.T. -0.01 min
 Lab File: VL032225.D
 Acq: 6 Jul 2018 8:55

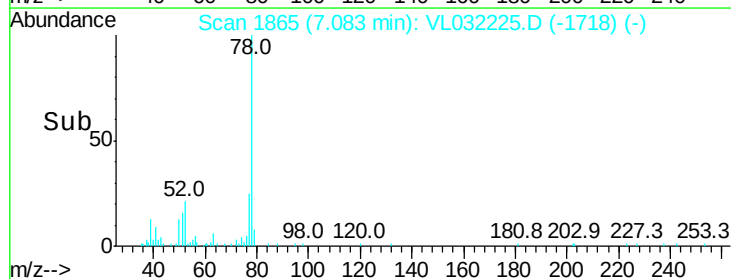
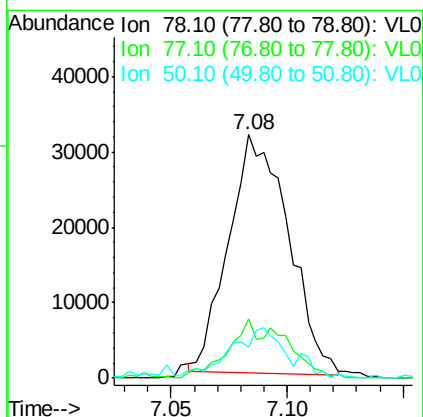
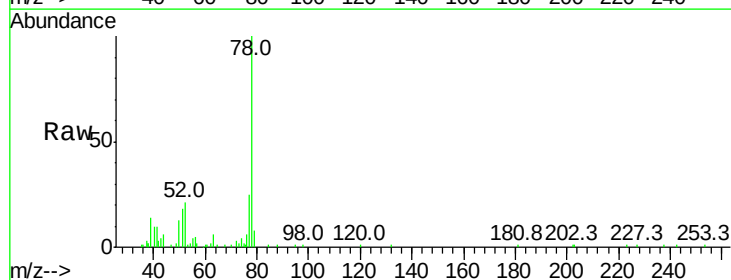
Instrument :
 MSVOA_L
 ClientSampleId :
 539BDL

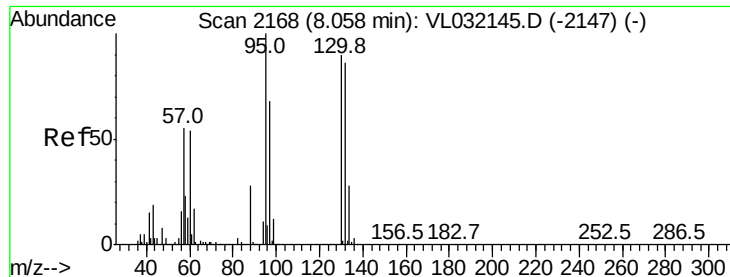
Tgt Ion: 43 Resp: 116968
 Ion Ratio Lower Upper
 43 100
 72 22.8 18.4 27.6



#36
 Benzene
 Concen: 0.144 ppbv
 RT: 7.08 min Scan# 1865
 Delta R.T. -0.03 min
 Lab File: VL032225.D
 Acq: 6 Jul 2018 8:55

Tgt Ion: 78 Resp: 56616
 Ion Ratio Lower Upper
 78 100
 77 21.1 17.7 26.5
 50 11.6 14.0 21.0#





#38

Trichloroethene

Concen: 0.062 ppbv

RT: 8.04 min Scan# 2163

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

539BDL

Tgt Ion:130 Resp: 9535

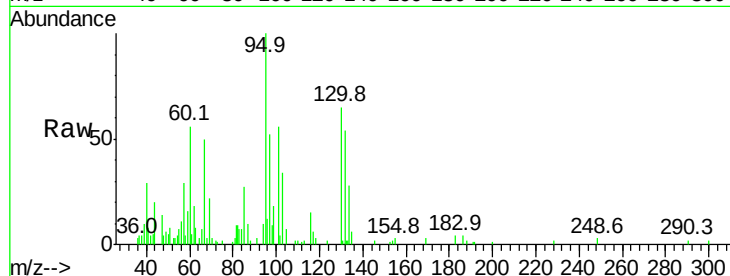
Ion Ratio Lower Upper

130 100

95 138.0 88.1 132.1#

132 77.1 74.6 112.0

97 65.7 58.6 88.0

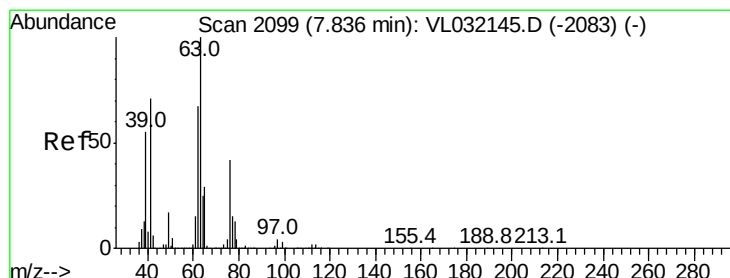
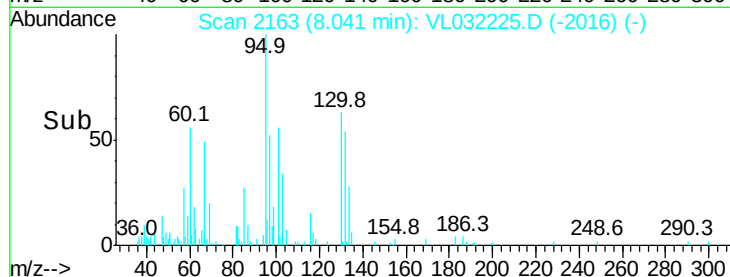
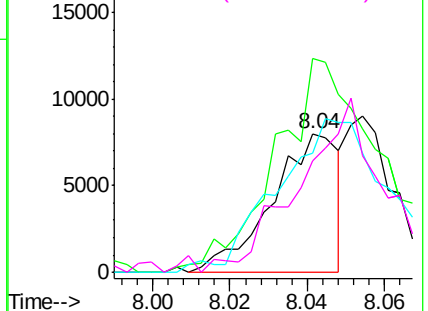


Abundance Ion 130.00 (129.70 to 130.70): V

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: 7.305 ppbv

RT: 7.38 min Scan# 1956

Delta R.T. -0.47 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

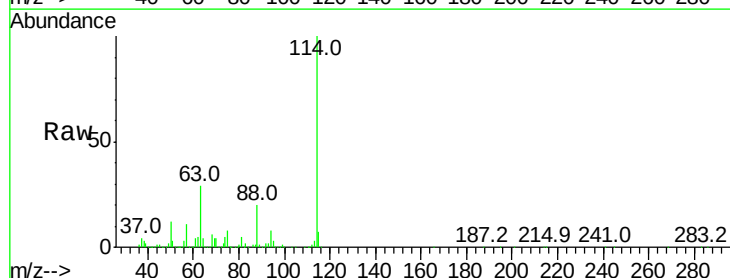
Tgt Ion: 63 Resp: 1136681

Ion Ratio Lower Upper

63 100

41 0.0 53.3 79.9#

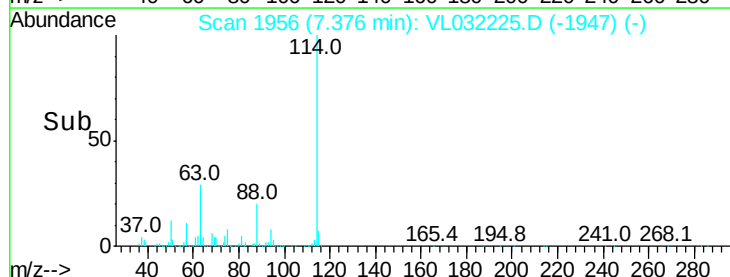
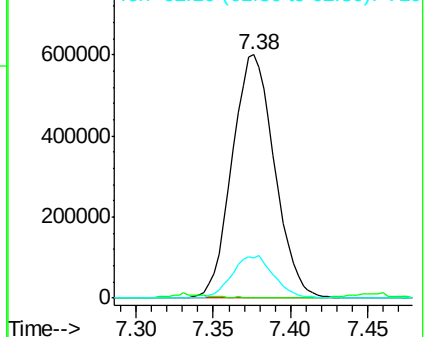
62 16.2 54.8 82.2#

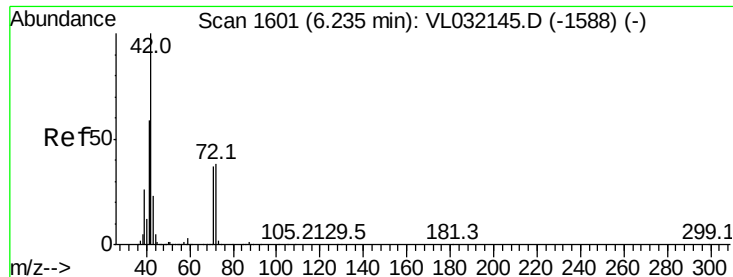


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

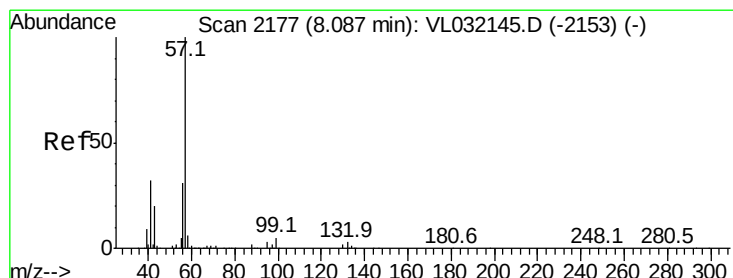
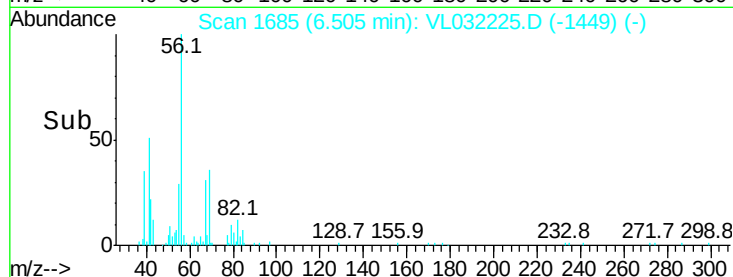
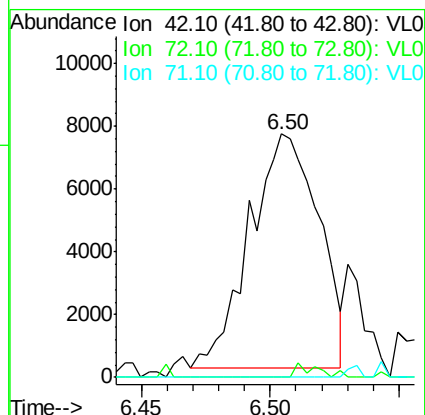
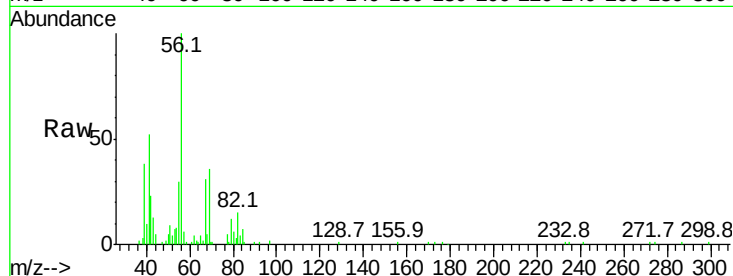




#41
Tetrahydrofuran
Concen: 0.090 ppbv
RT: 6.50 min Scan# 1685
Delta R.T. 0.26 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

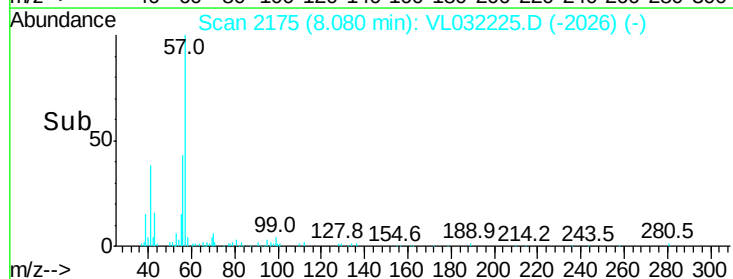
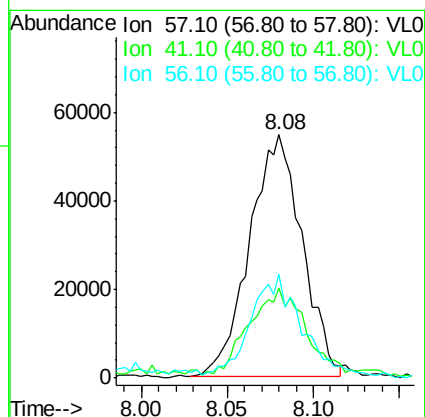
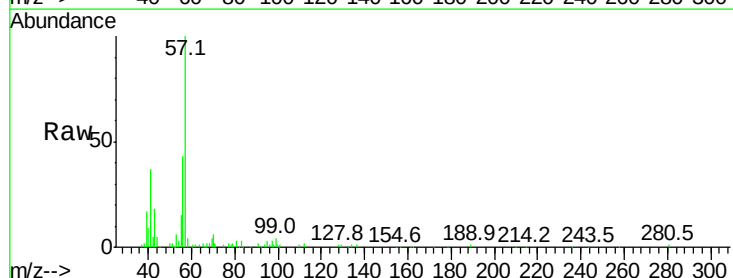
Instrument :
MSVOA_L
ClientSampled :
539BDL

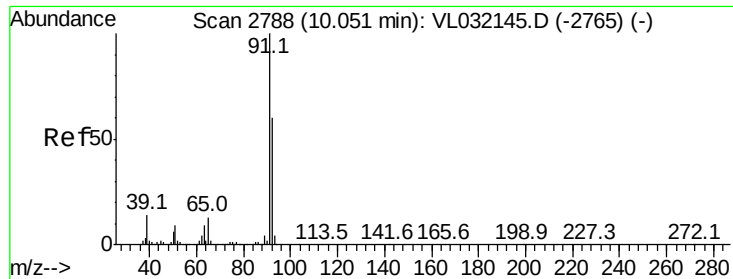
Tgt Ion	Ratio	Lower	Upper
42	100		
72	0.0	31.1	46.7#
71	0.0	29.5	44.3#



#44
2,2,4-Trimethylpentane
Concen: 0.167 ppbv
RT: 8.08 min Scan# 2175
Delta R.T. -0.02 min
Lab File: VL032225.D
Acq: 6 Jul 2018 8:55

Tgt Ion	Ratio	Lower	Upper
57	100		
41	42.0	24.3	36.5#
56	45.1	25.1	37.7#





#53

Toluene

Concen: 0.347 ppbv

RT: 10.04 min Scan# 2785

Delta R.T. -0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

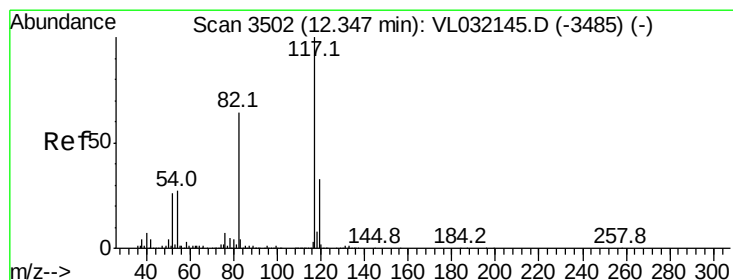
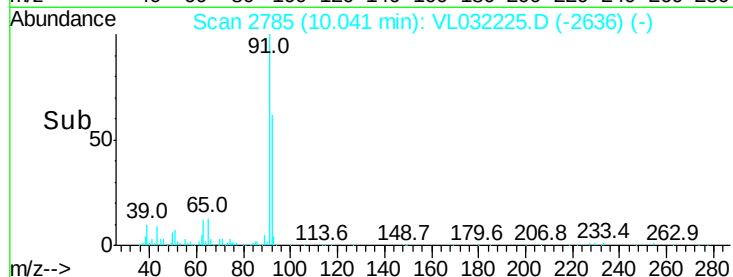
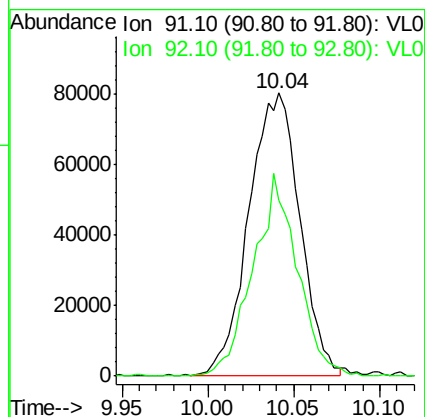
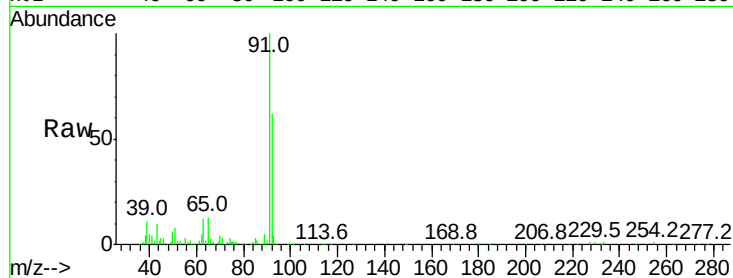
539BDL

Tgt Ion: 91 Resp: 165297

Ion Ratio Lower Upper

91 100

92 62.3 49.2 73.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.34 min Scan# 3499

Delta R.T. -0.02 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

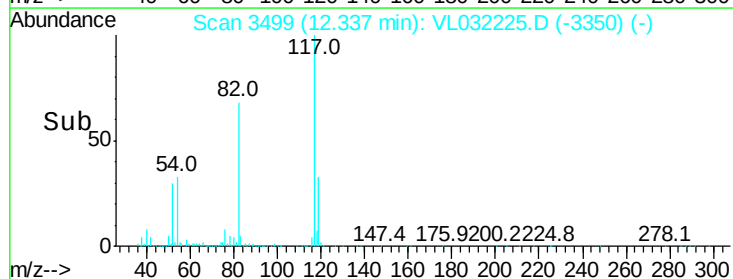
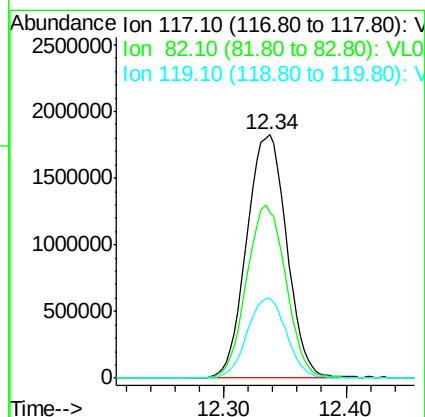
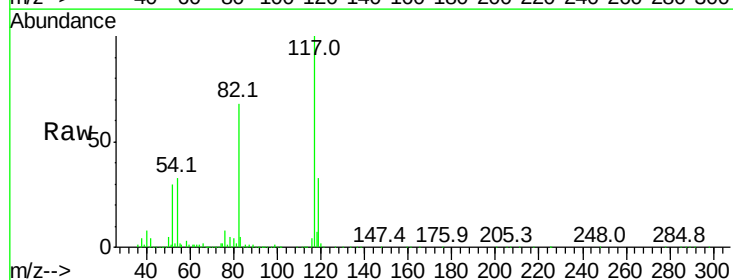
Tgt Ion: 117 Resp: 4136780

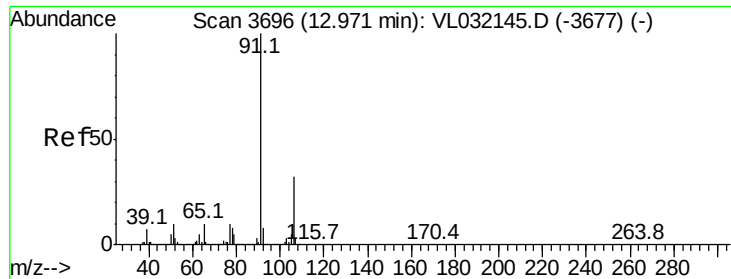
Ion Ratio Lower Upper

117 100

82 70.4 47.8 71.8

119 32.5 43.3 64.9#





#58

Ethyl Benzene

Concen: 0.044 ppbv

RT: 12.96 min Scan# 3692

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

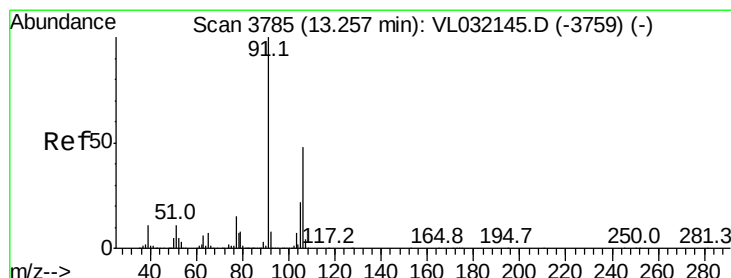
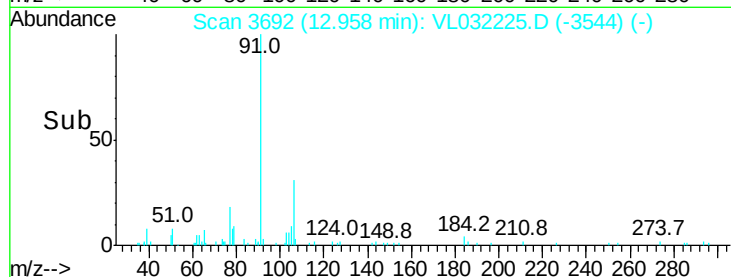
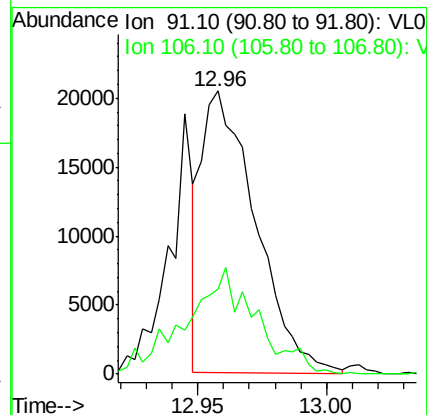
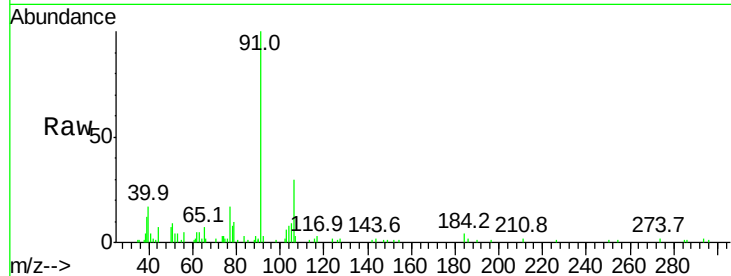
539BDL

Tgt Ion: 91 Resp: 29625

Ion Ratio Lower Upper

91 100

106 30.4 26.5 39.7



#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 13.24 min Scan# 3780

Delta R.T. -0.03 min

Lab File: VL032225.D

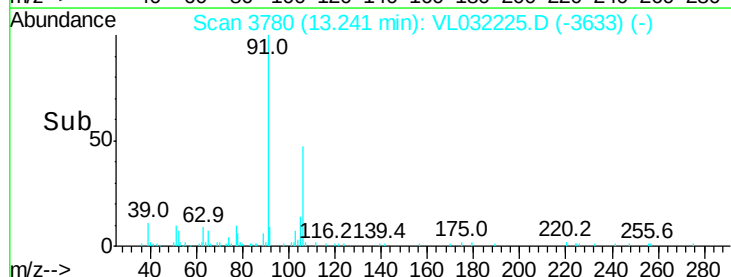
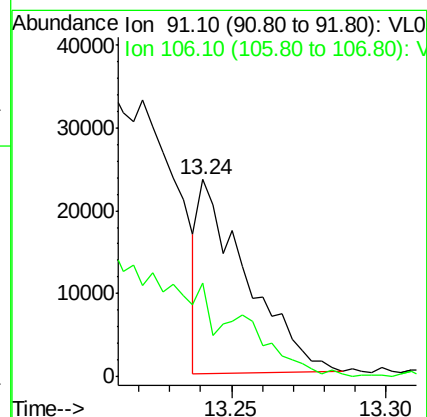
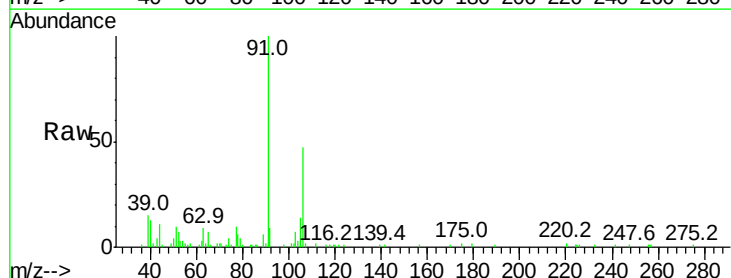
Acq: 6 Jul 2018 8:55

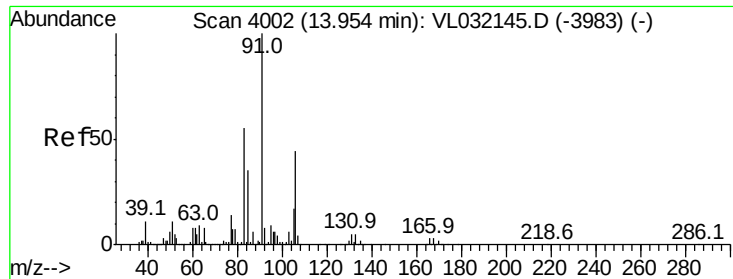
Tgt Ion: 91 Resp: 25011

Ion Ratio Lower Upper

91 100

106 0.0 38.6 58.0#





#60

o-Xylene

Concen: 0.077 ppbv

RT: 13.94 min Scan# 3997

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

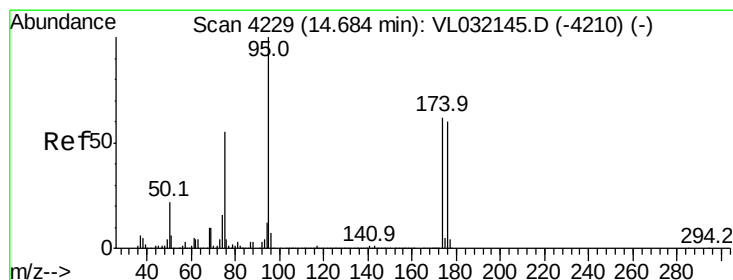
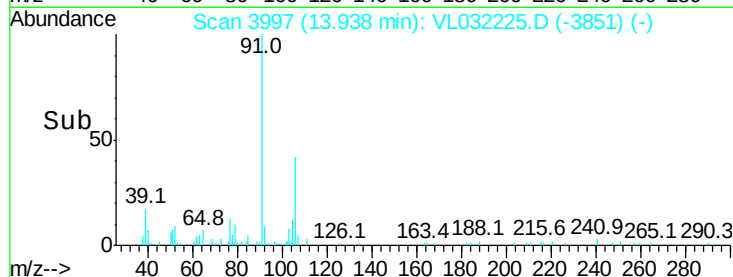
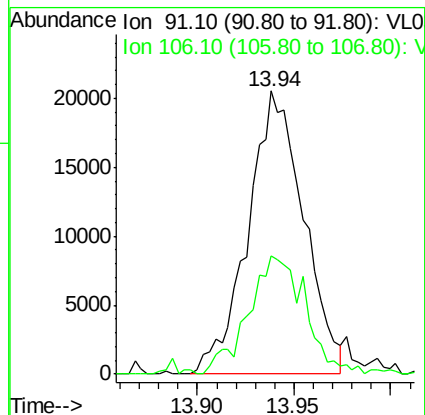
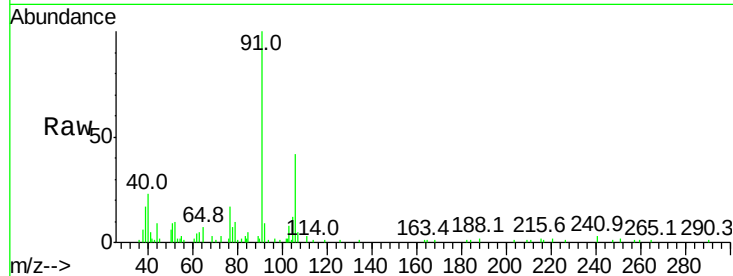
539BDL

Tgt Ion: 91 Resp: 41075

Ion Ratio Lower Upper

91 100

106 44.4 23.3 69.8



#68

1-Bromo-4-Fluorobenzene

Concen: 9.868 ppbv

RT: 14.67 min Scan# 4225

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

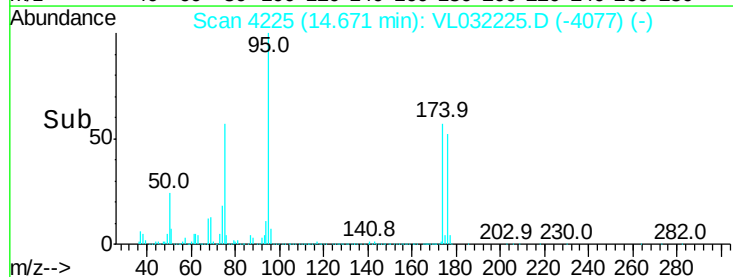
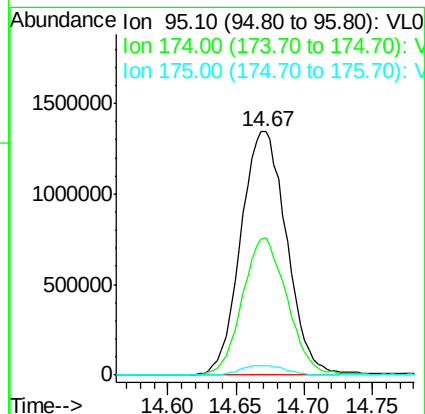
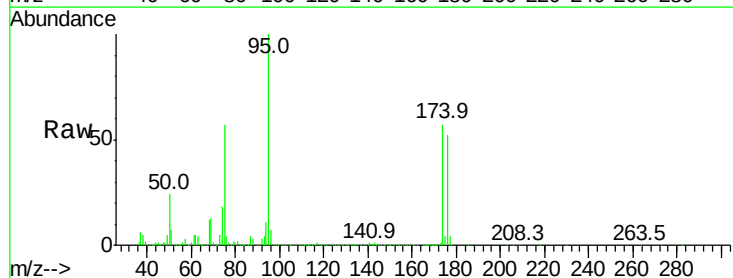
Tgt Ion: 95 Resp: 3120469

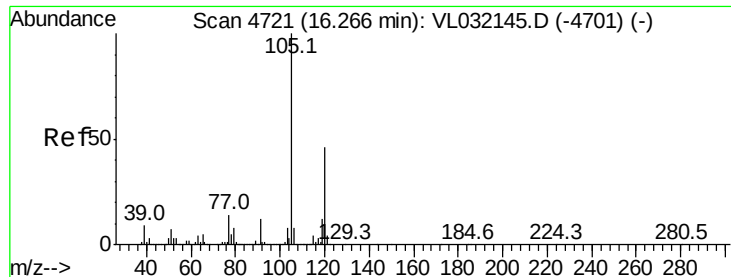
Ion Ratio Lower Upper

95 100

174 55.4 52.1 78.1

175 4.0 4.0 6.0#





#73

1,3,5-Trimethylbenzene

Concen: 0.074 ppbv

RT: 16.25 min Scan# 4717

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Instrument :

MSVOA_L

ClientSampleId :

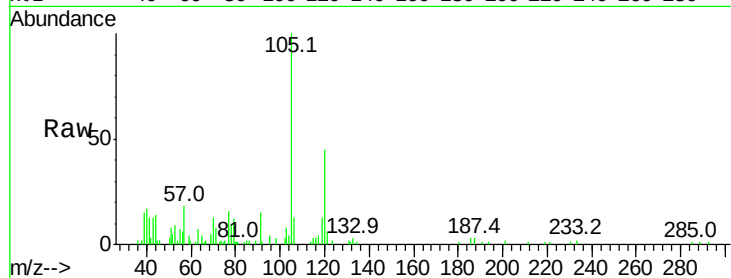
539BDL

Tgt Ion:105 Resp: 47694

Ion Ratio Lower Upper

105 100

120 45.3 38.6 57.8



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.25

25000

20000

15000

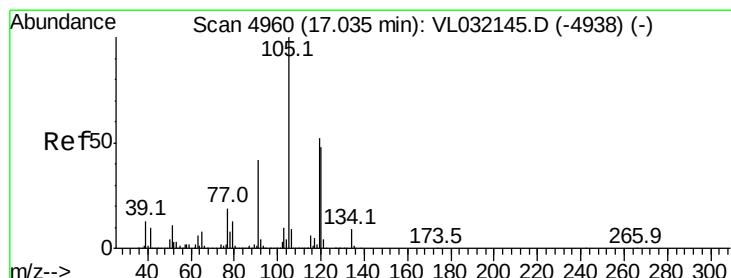
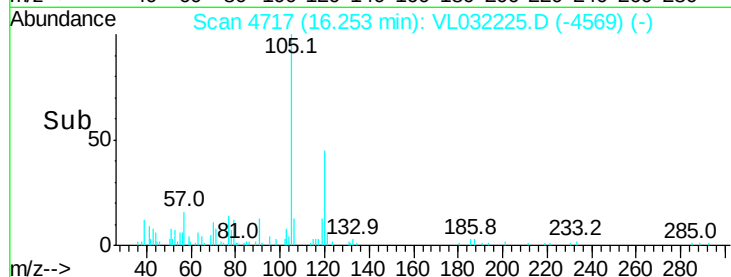
10000

5000

0

Time-->

16.20 16.25 16.30



#74

1,2,4-Trimethylbenzene

Concen: 0.169 ppbv

RT: 17.02 min Scan# 4955

Delta R.T. -0.03 min

Lab File: VL032225.D

Acq: 6 Jul 2018 8:55

Tgt Ion:105 Resp: 110431

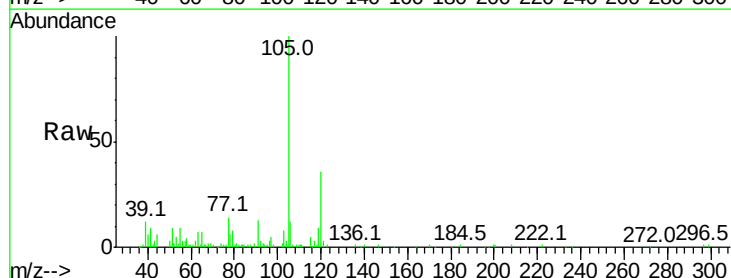
Ion Ratio Lower Upper

105 100

120 34.9 38.8 58.2#

91 12.8 33.6 50.4#

77 12.7 16.0 24.0#



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

80000

60000

40000

20000

0

Time-->

16.95 17.00 17.05

