

Data File : VL032885.D
Acq On : 4 Dec 2018 20:42
Operator : SY/AP
Sample : J6175-04DL 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
MMSV-04DL

Quant Time: Dec 05 05:49:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL111418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 14 07:00:23 2018
QLast Update : Wed Nov 14 07:00:23 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1577182	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	3961479	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3952239	10.00	ppbv	0.00

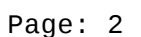
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	2834633	9.59	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.90%

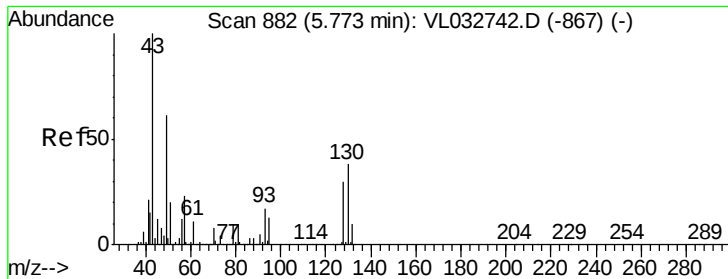
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	19424	0.086	ppbv	89
3) Chlorodifluoromethane	3.06	51	136045	1.088	ppbv #	62
4) Chloromethane	3.17	50	15331	0.221	ppbv	90
7) Chloroethane	3.60	64	27756	1.048	ppbv	95
9) Propene	3.04	41	579825	11.587	ppbv	90
10) Heptane	8.25	43	11440	0.060	ppbv #	83
11) Trichlorofluoromethane	4.01	101	19765	0.093	ppbv	93
13) Ethanol	3.66	45	66896	4.082	ppbv	98
15) Acetone	3.91	43	590361	4.099	ppbv	94
16) 1,3-Butadiene	3.35	39	323768	5.805	ppbv #	14
17) tert-Butyl alcohol	4.39	59	4549	0.101	ppbv #	73
19) Isopropyl Alcohol	4.07	45	3036	0.032	ppbv #	95
20) Methylene Chloride	4.41	84	36573	0.490	ppbv	98
23) Vinyl Acetate	5.14	43	28519	0.109	ppbv #	1
25) Ethyl Acetate	5.78	43	27767	0.083	ppbv #	90
26) Hexane	5.79	57	88827	0.594	ppbv #	30
27) Carbon Disulfide	4.62	76	213956	1.129	ppbv #	94
30) Cyclohexane	7.25	84	12655	0.097	ppbv #	1
34) 2-Butanone	5.33	43	1174465	5.716	ppbv	99
36) Benzene	7.01	78	324094	1.027	ppbv	95
39) 1,2-Dichloropropane	7.29	63	915608	7.618	ppbv #	22
41) Tetrahydrofuran	6.17	42	105407	0.894	ppbv	96
53) Toluene	9.95	91	69014	0.210	ppbv #	53
58) Ethyl Benzene	12.86	91	26816	0.056	ppbv	96
59) m/p-Xylene	13.12	91	20075	0.047	ppbv #	31

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.01 min

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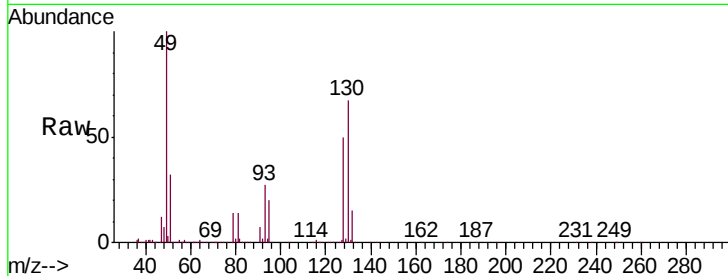
Tgt Ion: 49 Resp: 1577182

Ion Ratio Lower Upper

49 100

128 52.3 24.9 74.6

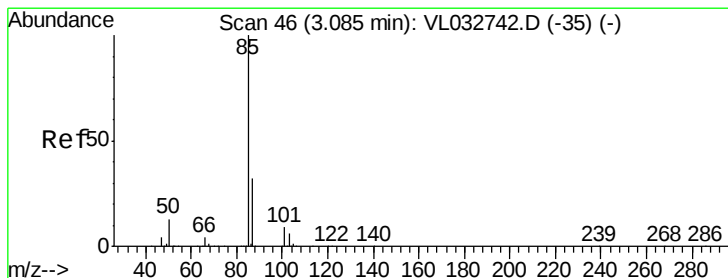
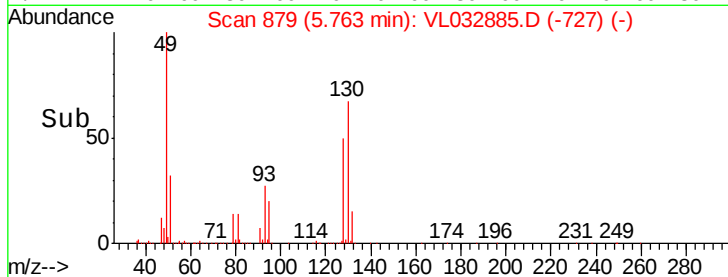
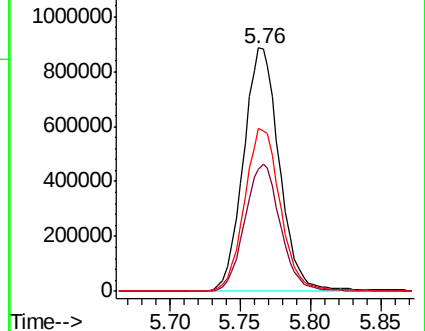
130 67.2 31.4 94.2



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: 0.086 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.01 min

Lab File: VL032885.D

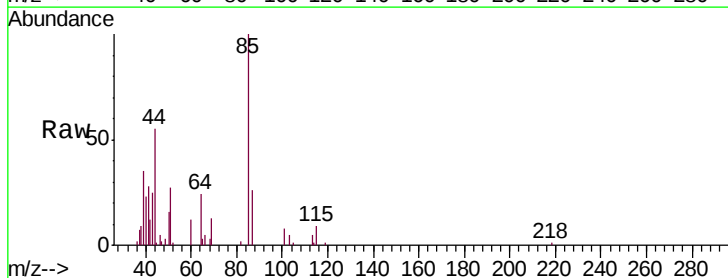
Acq: 4 Dec 2018 20:42

Tgt Ion: 85 Resp: 19424

Ion Ratio Lower Upper

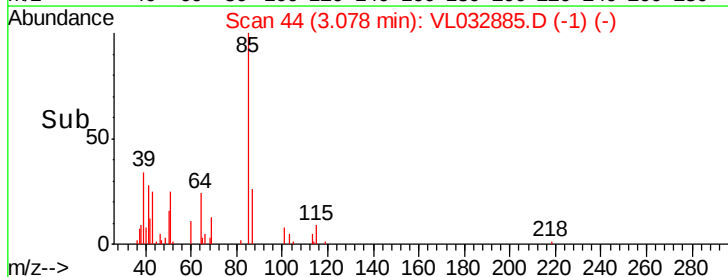
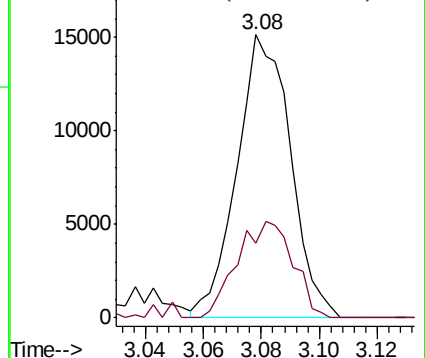
85 100

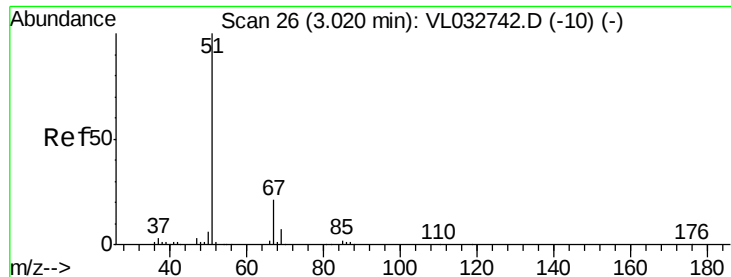
87 26.4 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.088 ppbv

RT: 3.06 min Scan# 37

Delta R.T. 0.04 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

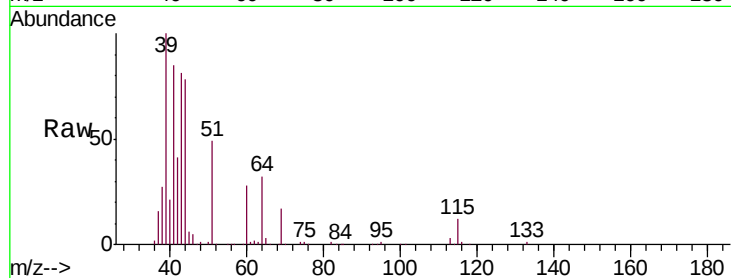
MMSV-04DL

Tgt Ion: 51 Resp: 136045

Ion Ratio Lower Upper

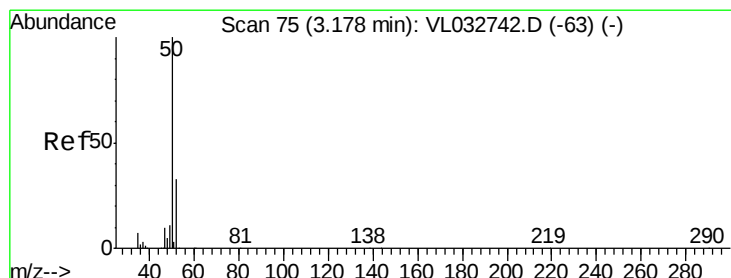
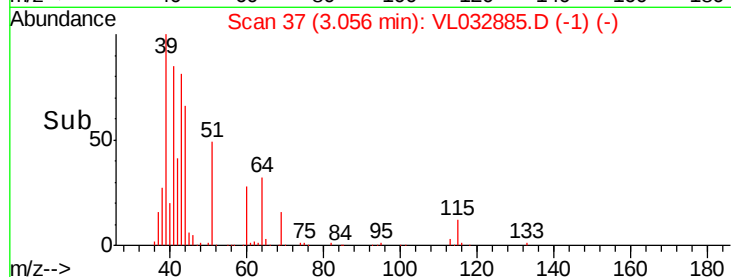
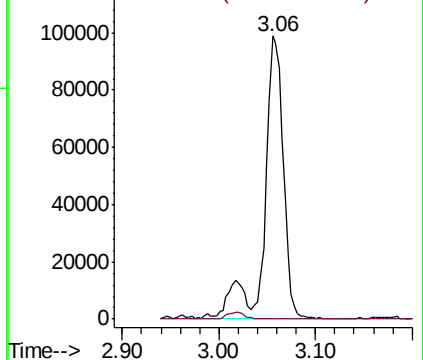
51 100

67 2.5 16.1 24.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.221 ppbv

RT: 3.17 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL032885.D

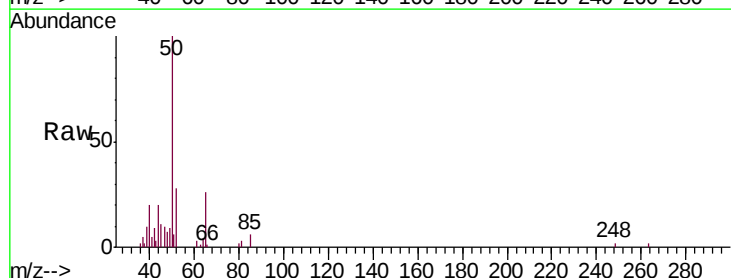
Acq: 4 Dec 2018 20:42

Tgt Ion: 50 Resp: 15331

Ion Ratio Lower Upper

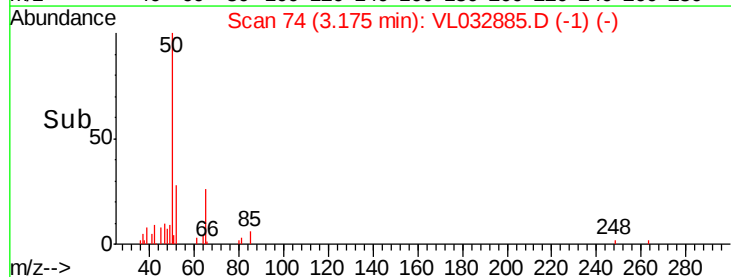
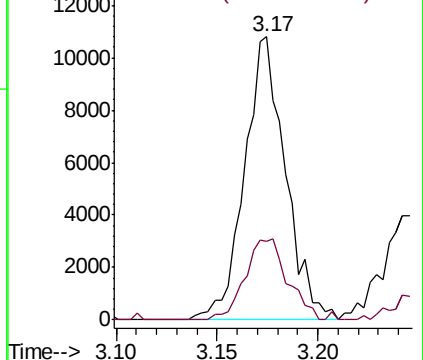
50 100

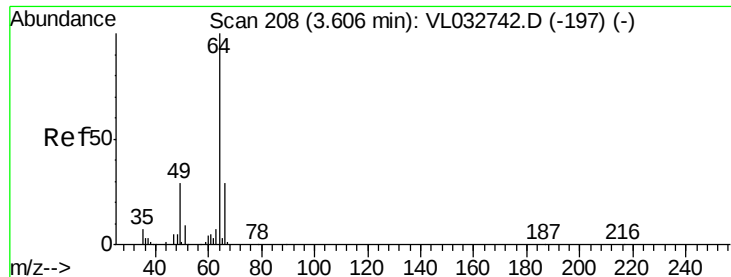
52 27.8 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#7

Chloroethane

Concen: 1.048 ppbv

RT: 3.60 min Scan# 207

Delta R.T. -0.00 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

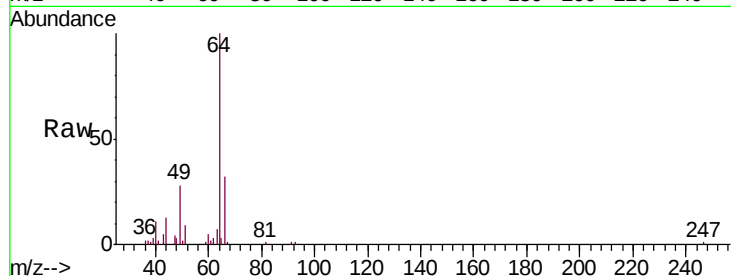
MMSV-04DL

Tgt Ion: 64 Resp: 27756

Ion Ratio Lower Upper

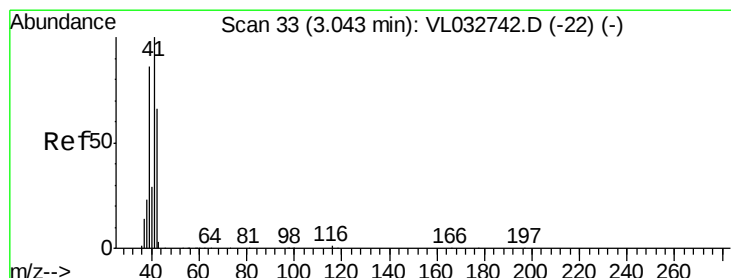
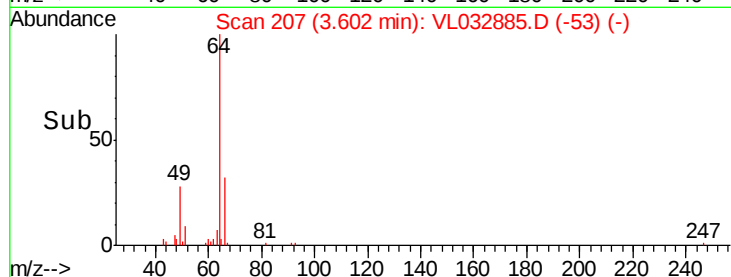
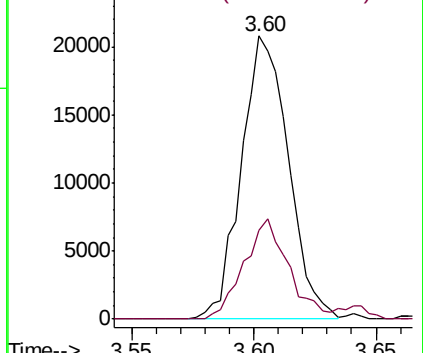
64 100

66 31.6 23.2 34.8



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 11.587 ppbv

RT: 3.04 min Scan# 33

Delta R.T. -0.00 min

Lab File: VL032885.D

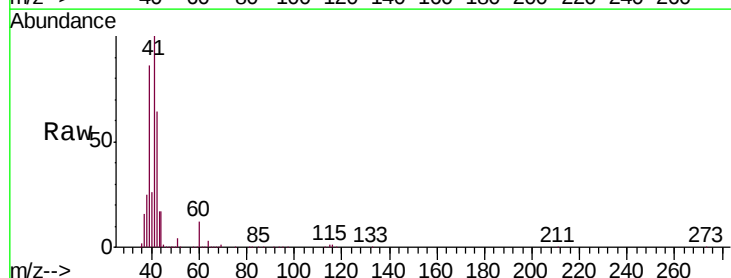
Acq: 4 Dec 2018 20:42

Tgt Ion: 41 Resp: 579825

Ion Ratio Lower Upper

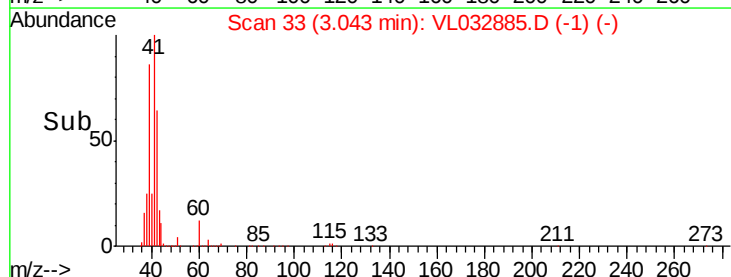
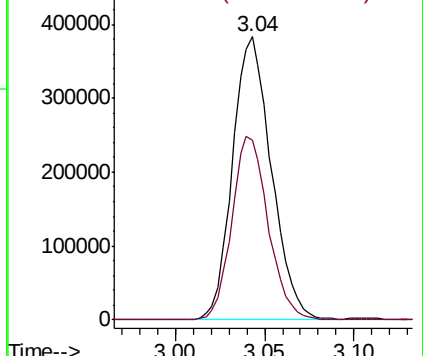
41 100

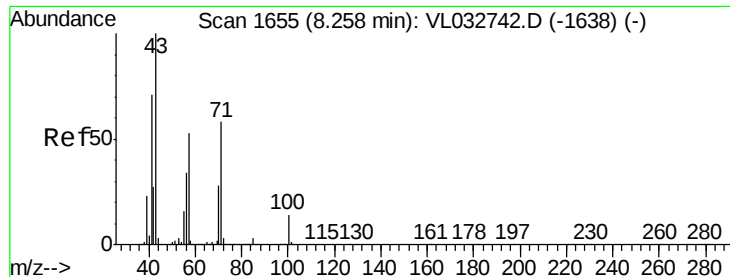
42 60.9 55.0 82.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.060 ppbv

RT: 8.25 min Scan# 1652

Delta R.T. -0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

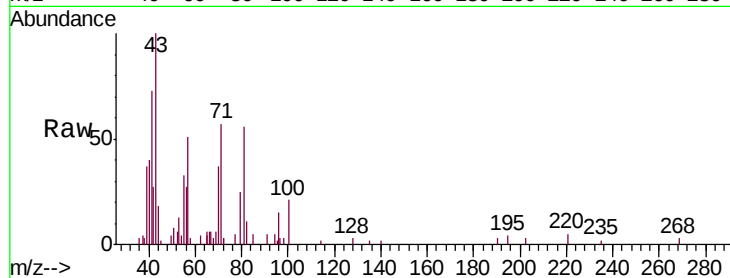
MMSV-04DL

Tgt Ion: 43 Resp: 11440

Ion Ratio Lower Upper

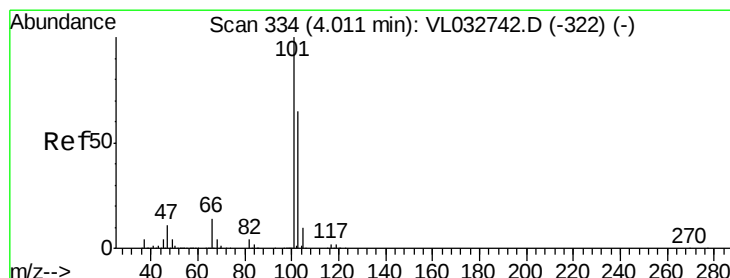
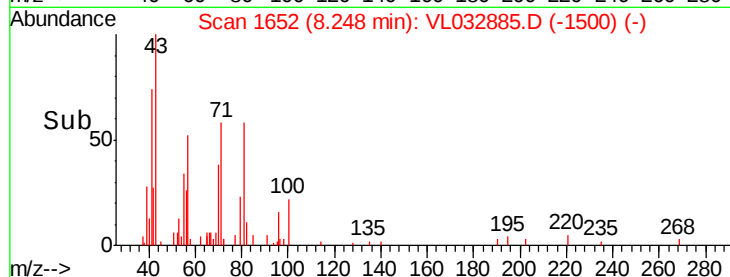
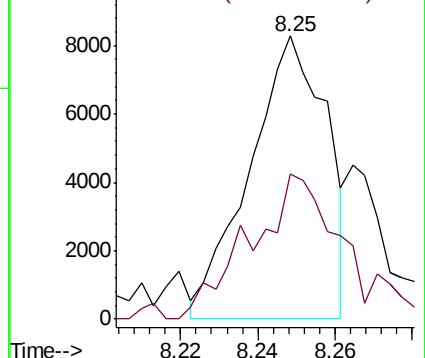
43 100

57 64.2 41.8 62.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.093 ppbv

RT: 4.01 min Scan# 333

Delta R.T. -0.00 min

Lab File: VL032885.D

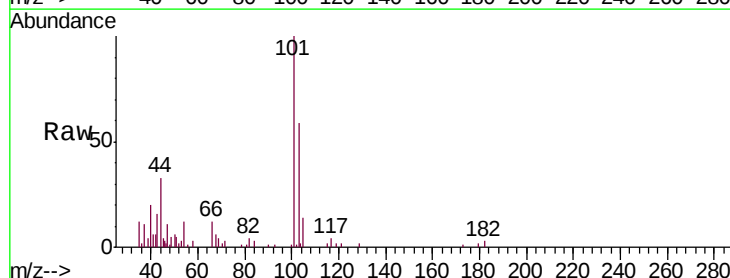
Acq: 4 Dec 2018 20:42

Tgt Ion: 101 Resp: 19765

Ion Ratio Lower Upper

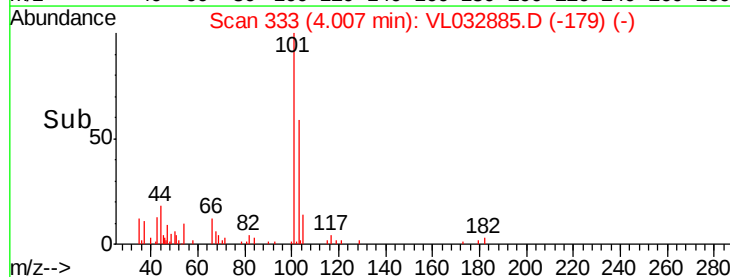
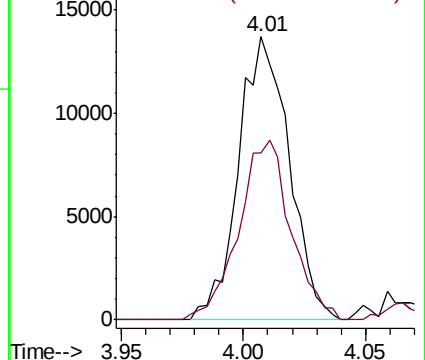
101 100

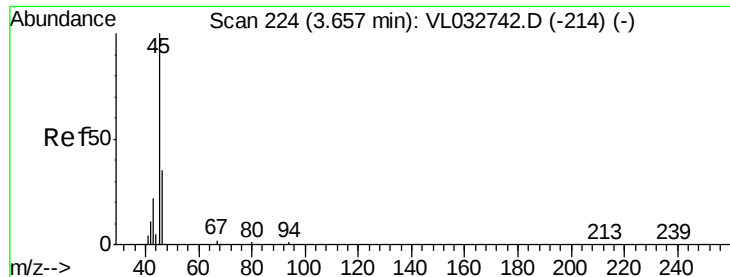
103 59.1 51.6 77.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 4.082 ppbv

RT: 3.66 min Scan# 226

Delta R.T. 0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

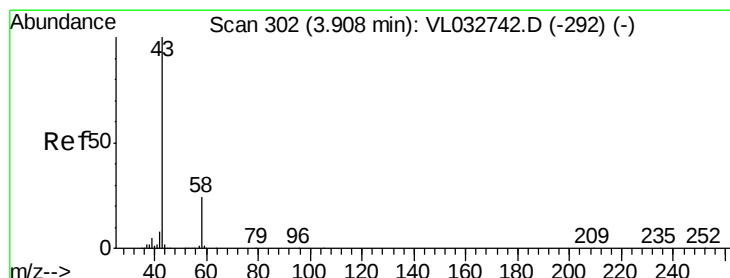
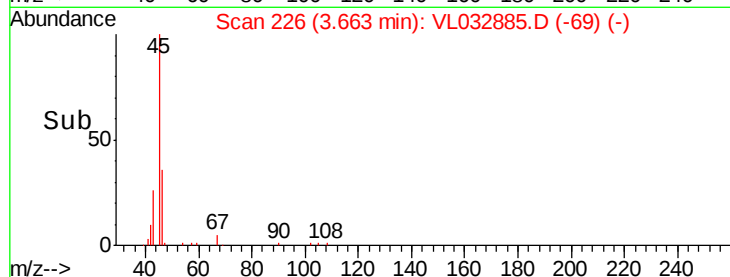
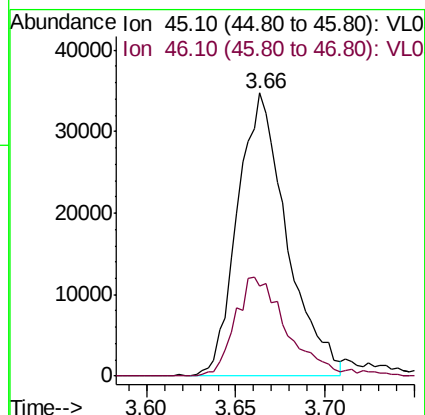
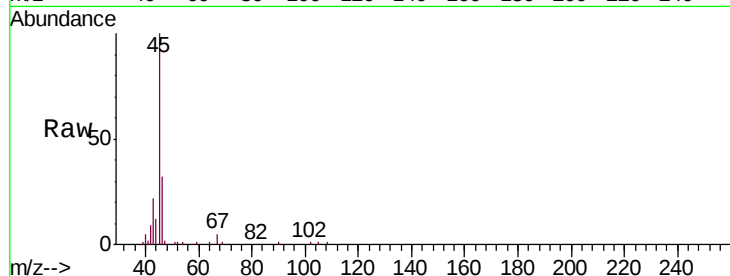
MMSV-04DL

Tgt Ion: 45 Resp: 66896

Ion Ratio Lower Upper

45 100

46 37.3 14.5 57.9



#15

Acetone

Concen: 4.099 ppbv

RT: 3.91 min Scan# 302

Delta R.T. -0.00 min

Lab File: VL032885.D

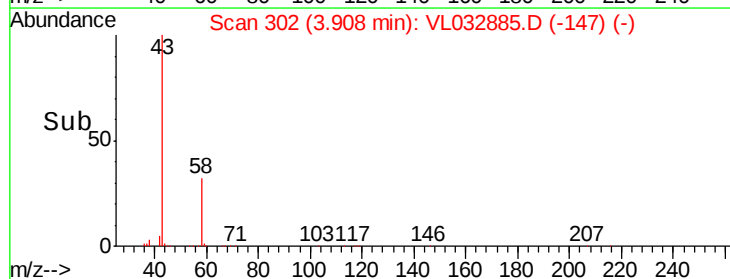
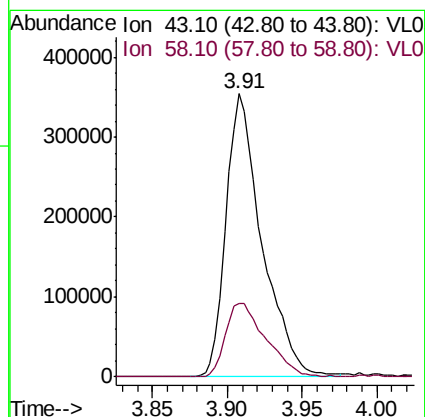
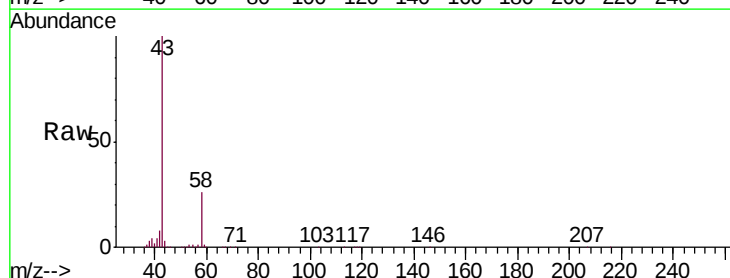
Acq: 4 Dec 2018 20:42

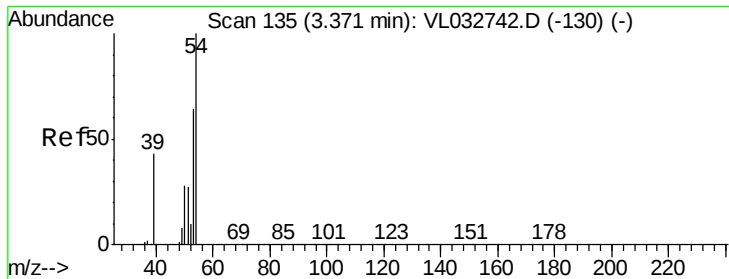
Tgt Ion: 43 Resp: 590361

Ion Ratio Lower Upper

43 100

58 29.5 21.1 31.7





#16

1,3-Butadiene

Concen: 5.805 ppbv

RT: 3.35 min Scan# 128

Delta R.T. -0.02 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

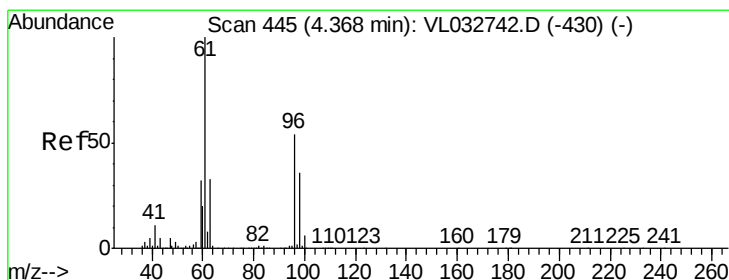
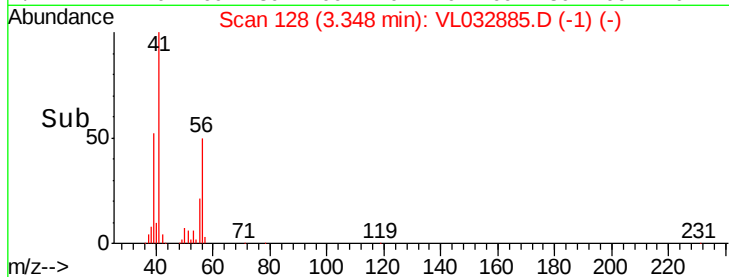
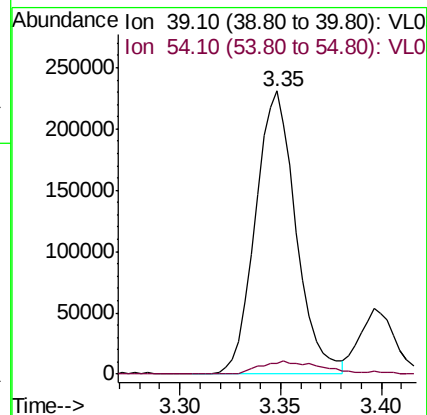
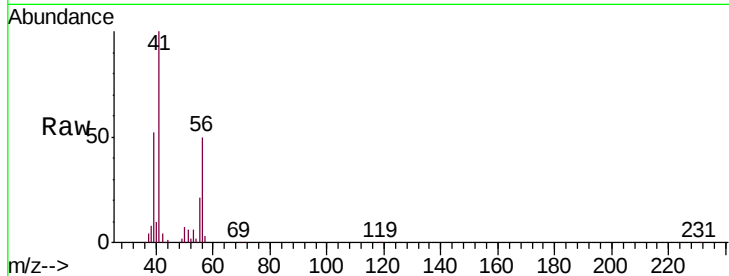
MMSV-04DL

Tgt Ion: 39 Resp: 323768

Ion Ratio Lower Upper

39 100

54 7.2 68.9 103.3#



#17

tert-Butyl alcohol

Concen: 0.101 ppbv

RT: 4.39 min Scan# 452

Delta R.T. 0.02 min

Lab File: VL032885.D

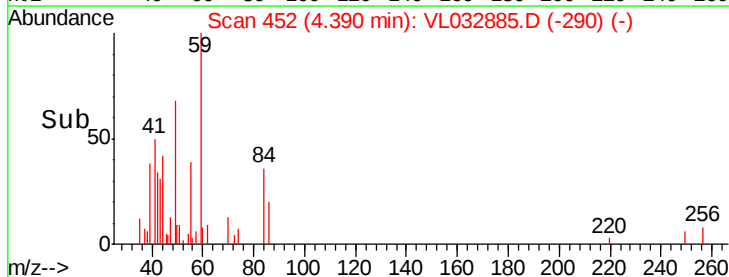
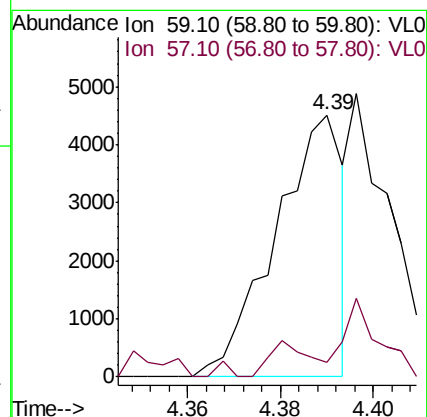
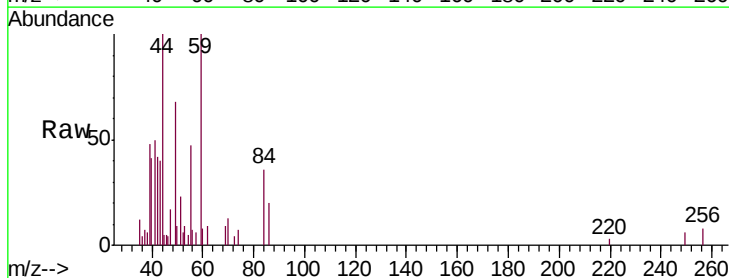
Acq: 4 Dec 2018 20:42

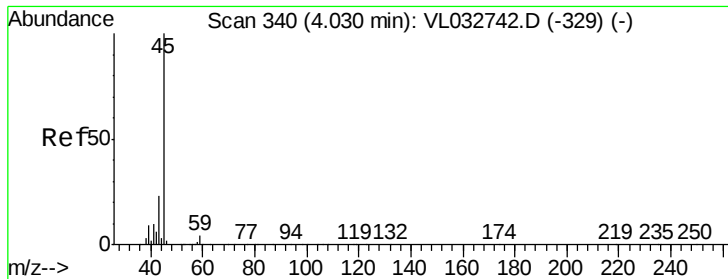
Tgt Ion: 59 Resp: 4549

Ion Ratio Lower Upper

59 100

57 0.0 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 0.032 ppbv

RT: 4.07 min Scan# 351

Delta R.T. 0.04 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

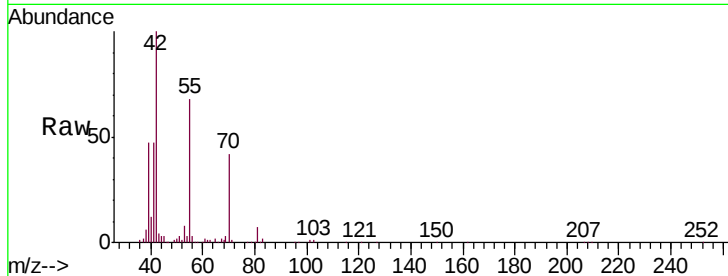
MMSV-04DL

Tgt Ion: 45 Resp: 3036

Ion Ratio Lower Upper

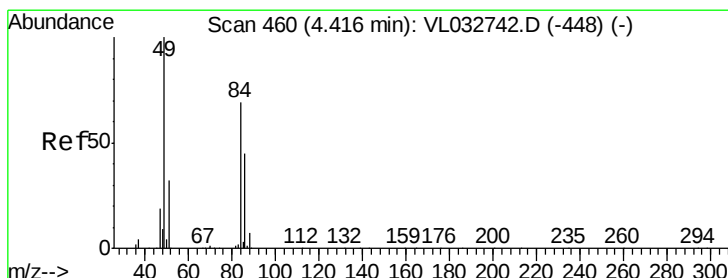
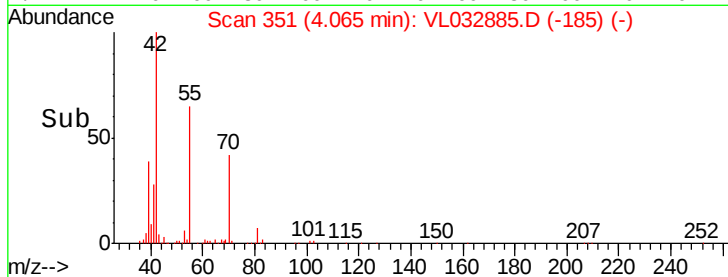
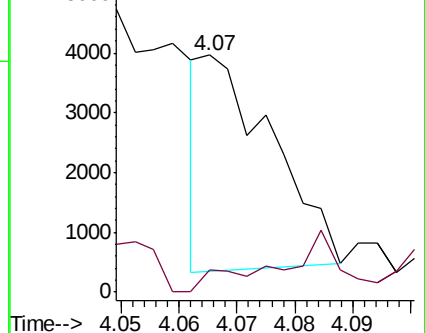
45 100

58 0.0 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.490 ppbv

RT: 4.41 min Scan# 459

Delta R.T. -0.00 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Tgt Ion: 84 Resp: 36573

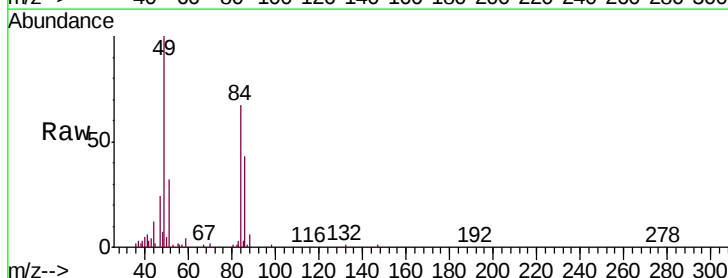
Ion Ratio Lower Upper

84 100

49 148.2 115.8 173.6

51 45.4 36.9 55.3

86 64.0 52.4 78.6

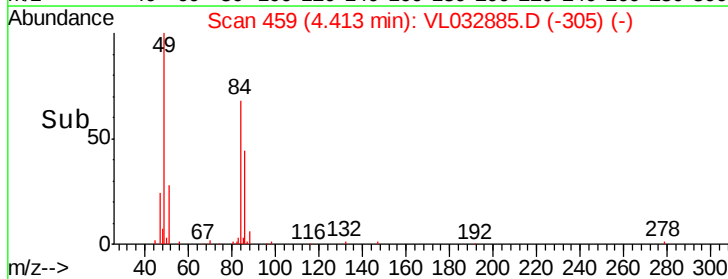
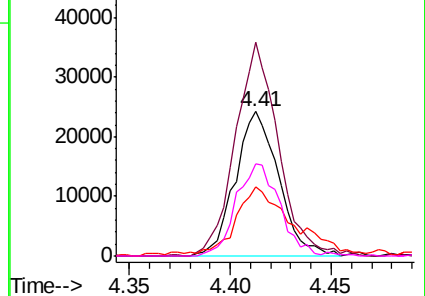


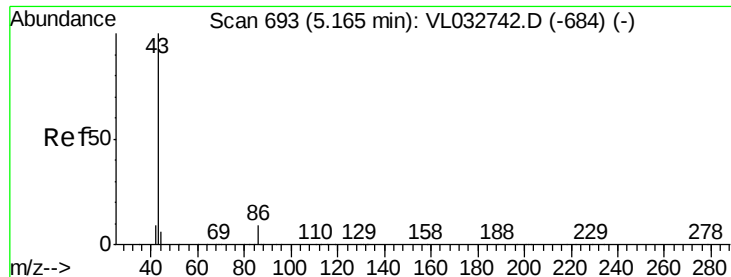
Abundance Ion 84.00 (83.70 to 84.70): VL0

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





#23

Vinyl Acetate

Concen: 0.109 ppbv

RT: 5.14 min Scan# 686

Delta R.T. -0.02 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

MMSV-04DL

Tgt Ion: 43 Resp: 28519

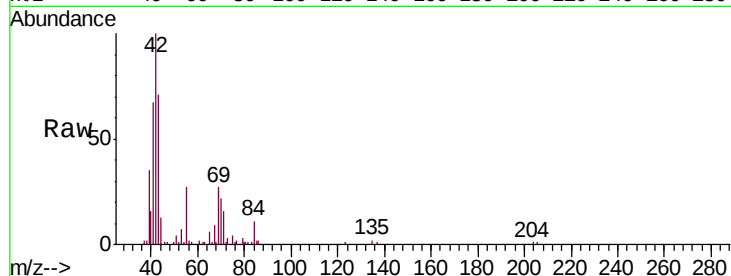
Ion Ratio Lower Upper

43 100

86 1.8 6.2 9.4#

42 135.5 7.8 11.6#

44 6.1 4.4 6.6

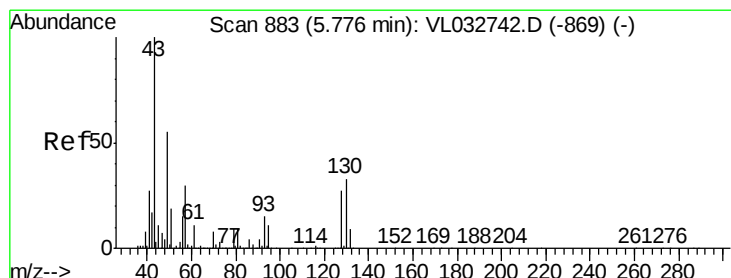
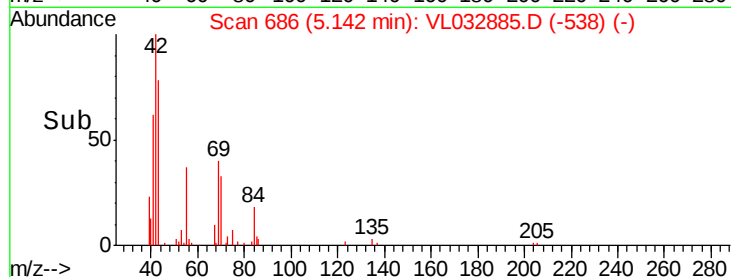
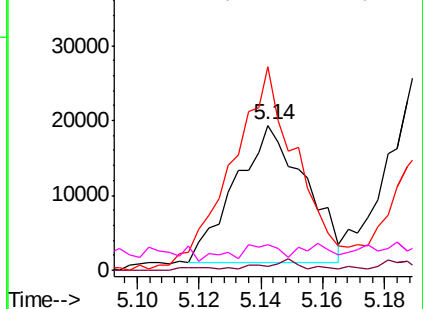


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.083 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Tgt Ion: 43 Resp: 27767

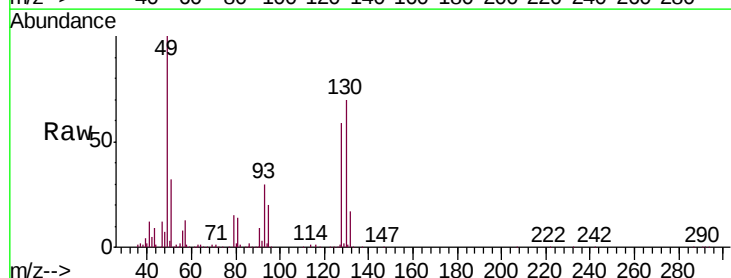
Ion Ratio Lower Upper

43 100

45 6.4 7.9 11.9#

61 3.8 7.8 11.6#

70 6.0 5.8 8.6

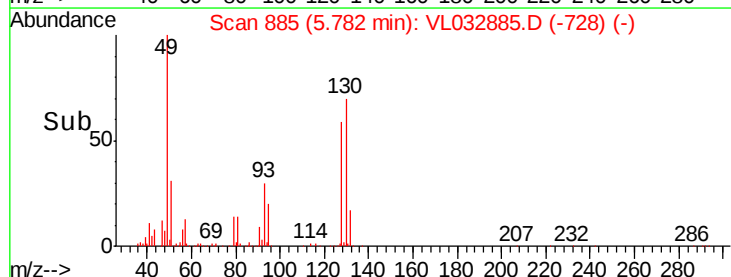
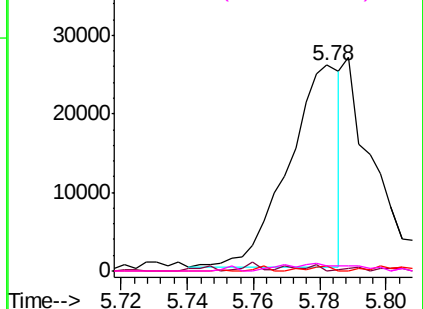


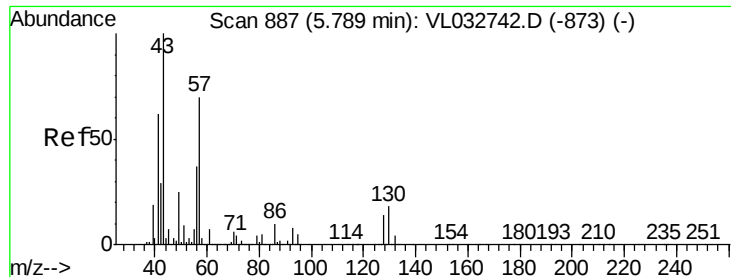
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

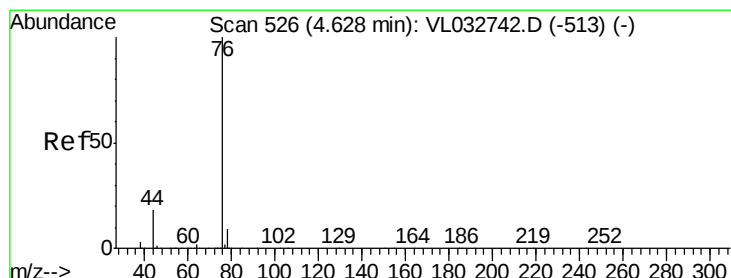
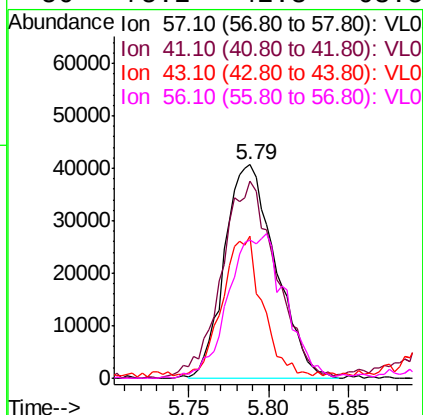
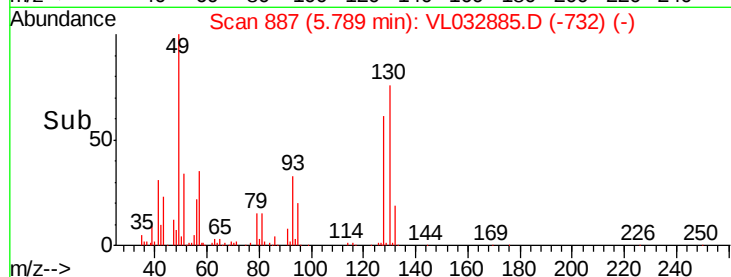
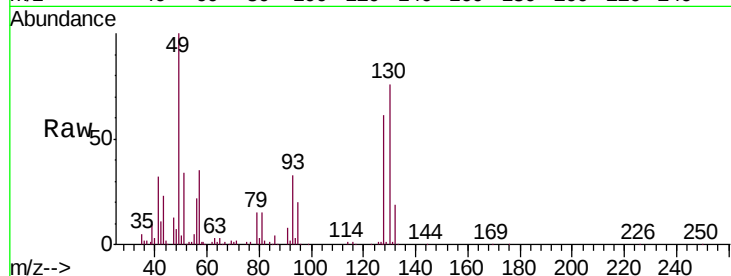




#26
Hexane
Concen: 0.594 ppbv
RT: 5.79 min Scan# 887
Delta R.T. -0.00 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

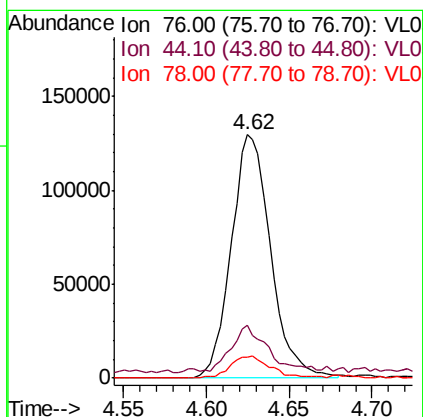
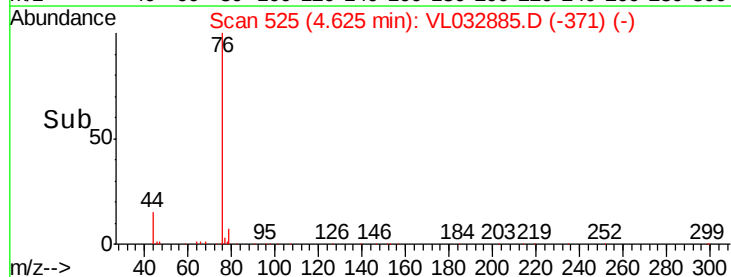
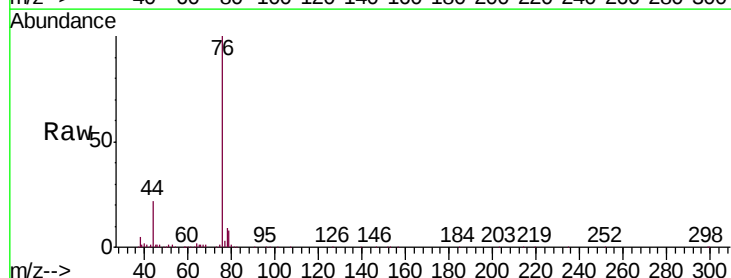
Instrument :
MSVOA_L
ClientSampleId :
MMSV-04DL

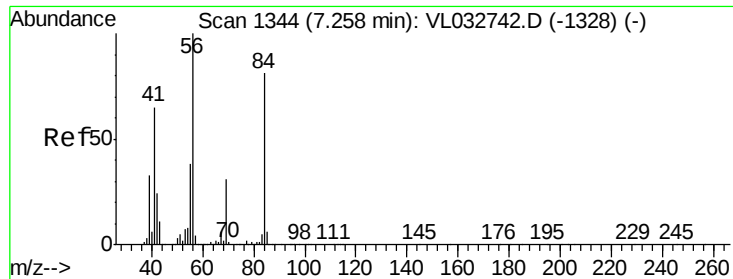
Tgt Ion: 57 Resp: 88827
Ion Ratio Lower Upper
57 100
41 98.9 70.3 105.5
43 54.5 174.0 261.0#
56 75.2 42.3 63.5#



#27
Carbon Disulfide
Concen: 1.129 ppbv
RT: 4.62 min Scan# 525
Delta R.T. -0.00 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

Tgt Ion: 76 Resp: 213956
Ion Ratio Lower Upper
76 100
44 22.1 14.4 21.6#
78 9.3 7.7 11.5

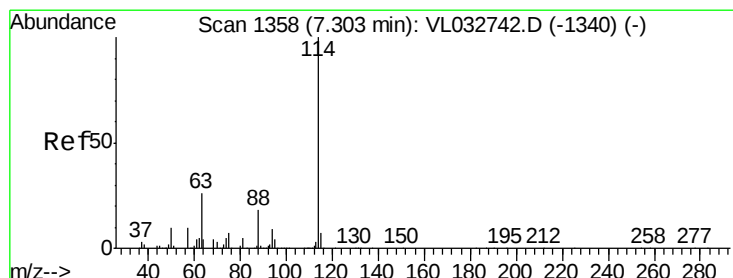
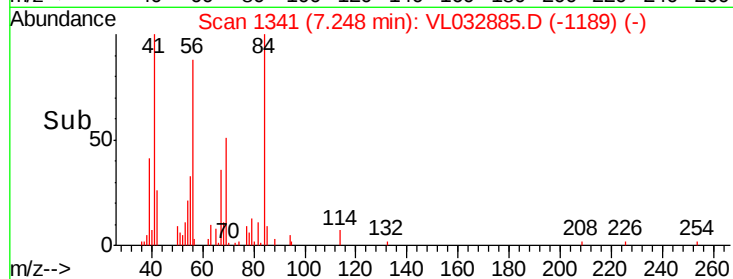
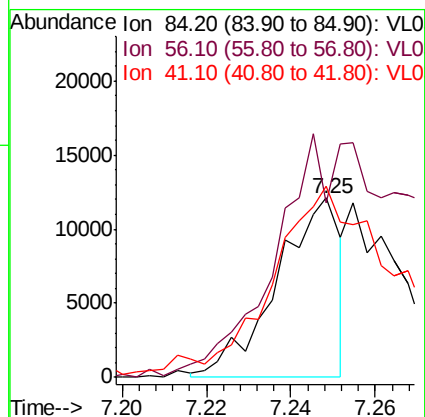
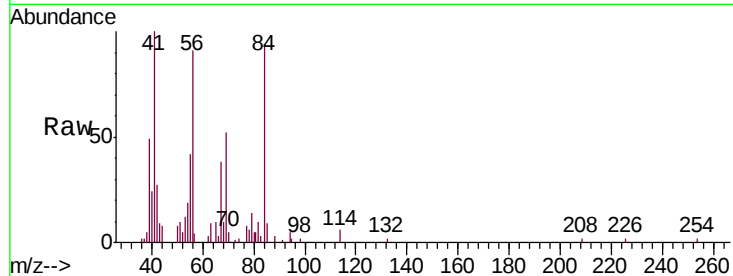




#30
Cyclohexane
Concen: 0.097 ppbv
RT: 7.25 min Scan# 1341
Delta R.T. -0.01 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

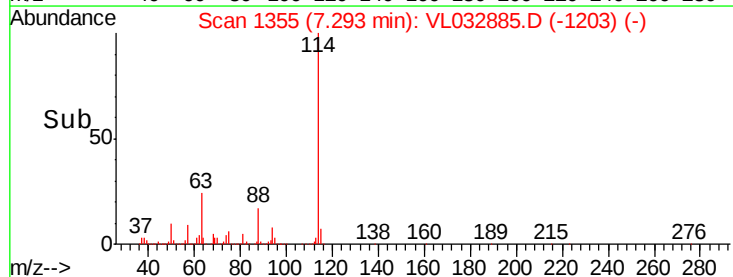
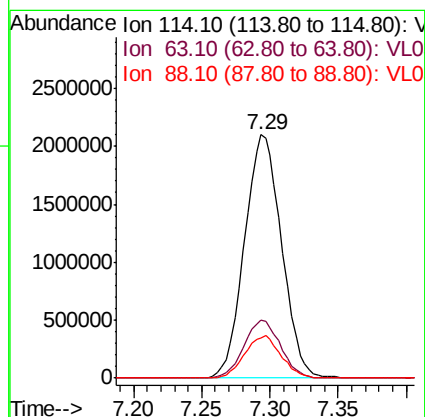
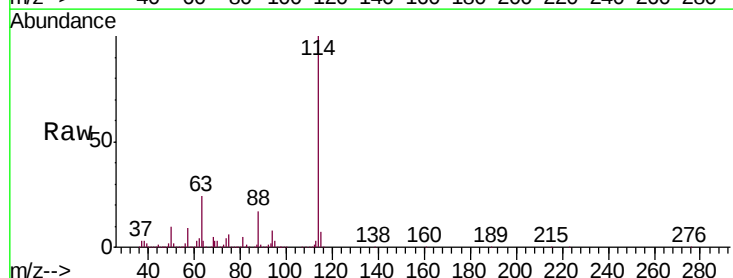
Instrument :
MSVOA_L
ClientSampleId :
MMSV-04DL

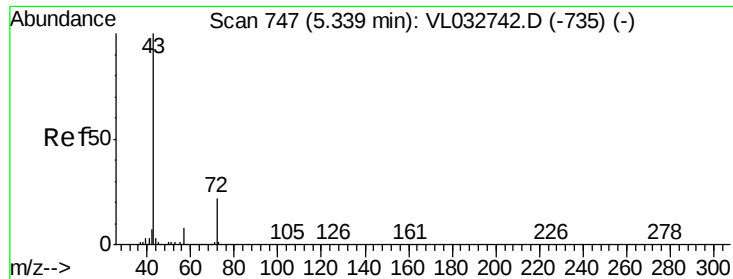
Tgt Ion: 84 Resp: 12655
Ion Ratio Lower Upper
84 100
56 0.0 105.0 157.4#
41 239.8 65.3 97.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1355
Delta R.T. -0.01 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

Tgt Ion: 114 Resp: 3961479
Ion Ratio Lower Upper
114 100
63 23.3 20.9 31.3
88 17.2 14.4 21.6

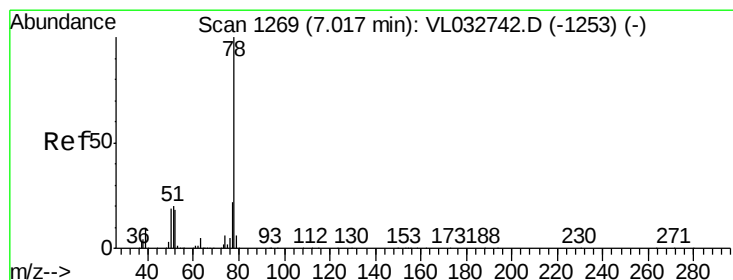
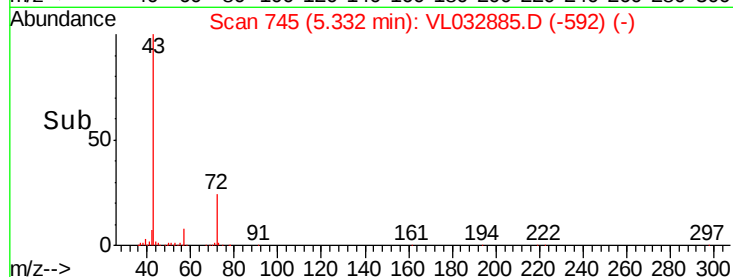
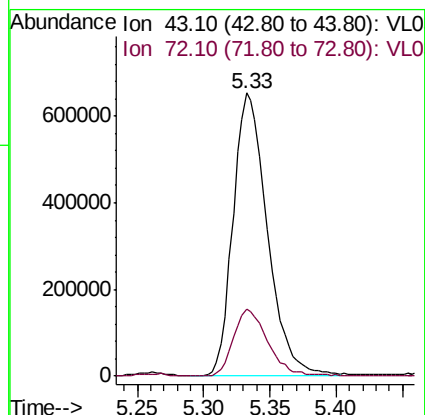
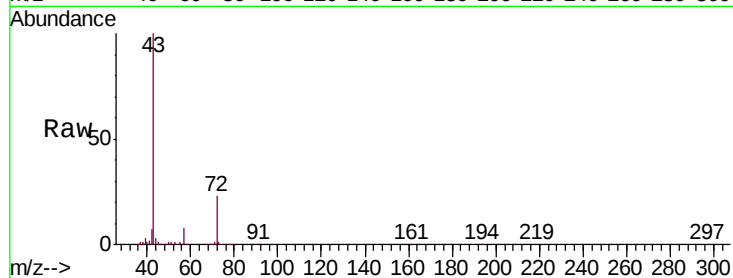




#34
2-Butanone
Concen: 5.716 ppbv
RT: 5.33 min Scan# 745
Delta R.T. -0.01 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

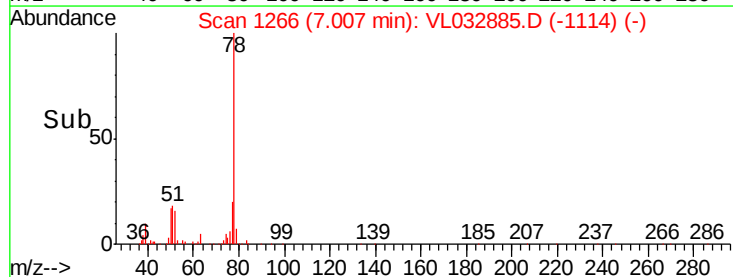
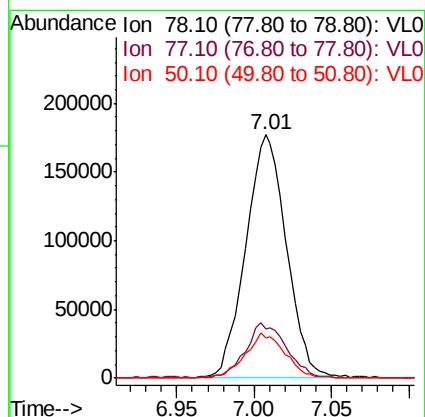
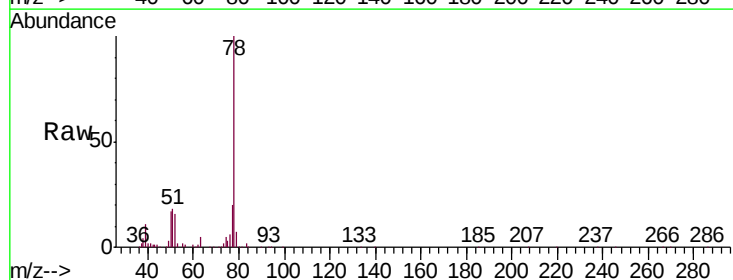
Instrument :
MSVOA_L
ClientSampleId :
MMSV-04DL

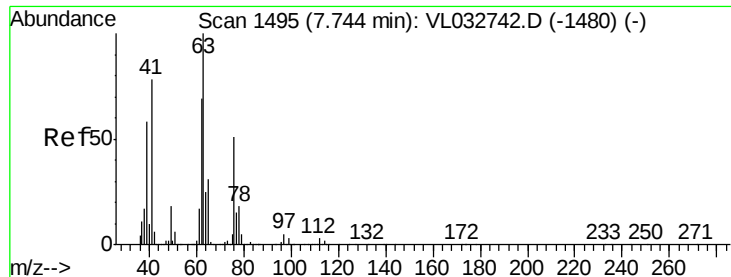
Tgt Ion: 43 Resp: 1174465
Ion Ratio Lower Upper
43 100
72 23.7 18.4 27.6



#36
Benzene
Concen: 1.027 ppbv
RT: 7.01 min Scan# 1266
Delta R.T. -0.01 min
Lab File: VL032885.D
Acq: 4 Dec 2018 20:42

Tgt Ion: 78 Resp: 324094
Ion Ratio Lower Upper
78 100
77 20.1 17.8 26.8
50 16.6 15.4 23.0





#39

1,2-Dichloropropane

Concen: 7.618 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

MMSV-04DL

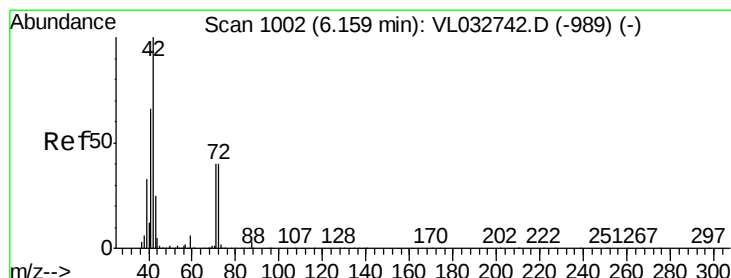
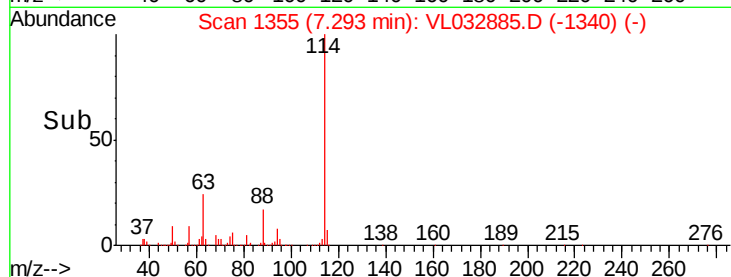
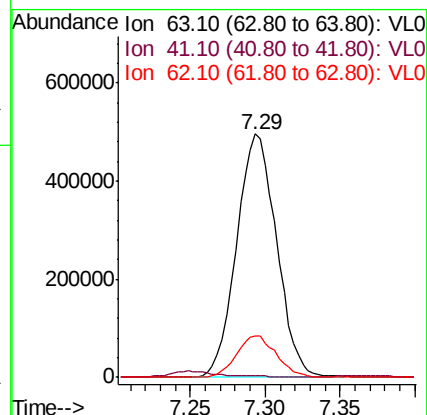
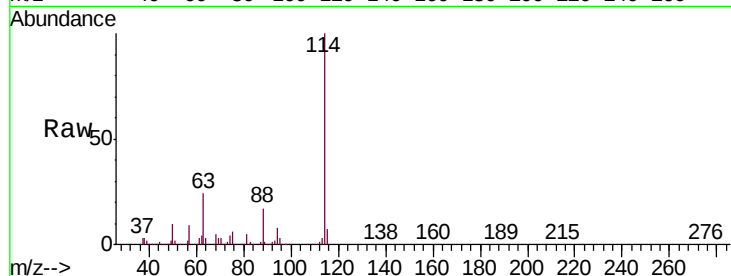
Tgt Ion: 63 Resp: 915608

Ion Ratio Lower Upper

63 100

41 0.0 62.0 93.0#

62 16.8 55.4 83.2#



#41

Tetrahydrofuran

Concen: 0.894 ppbv

RT: 6.17 min Scan# 1006

Delta R.T. 0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

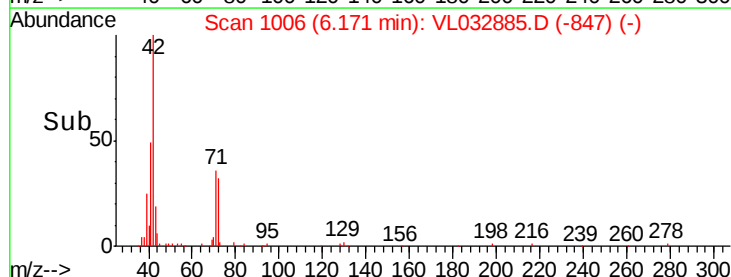
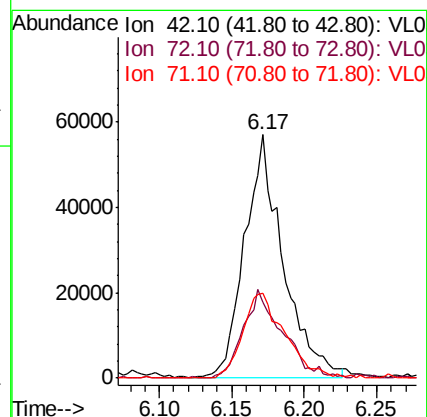
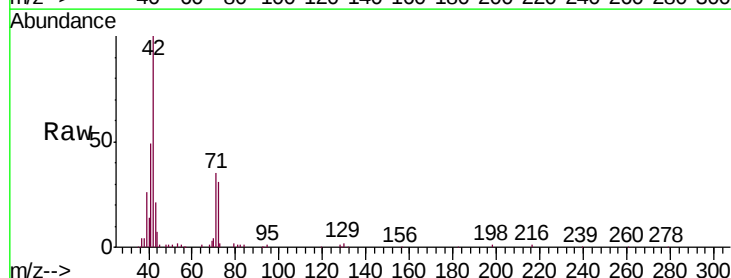
Tgt Ion: 42 Resp: 105407

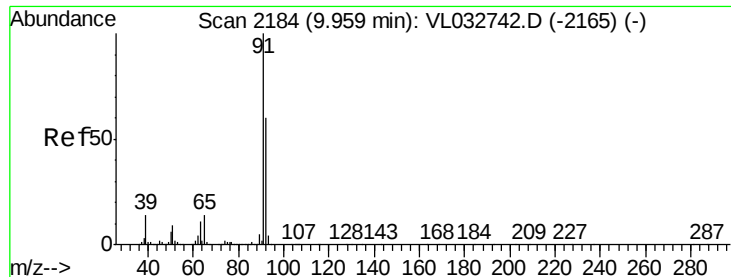
Ion Ratio Lower Upper

42 100

72 37.0 32.4 48.6

71 37.9 31.6 47.4





#53

Toluene

Concen: 0.210 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

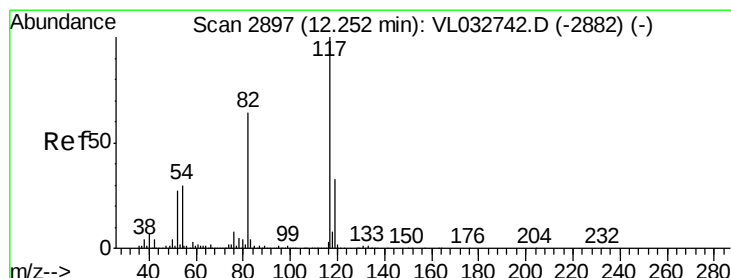
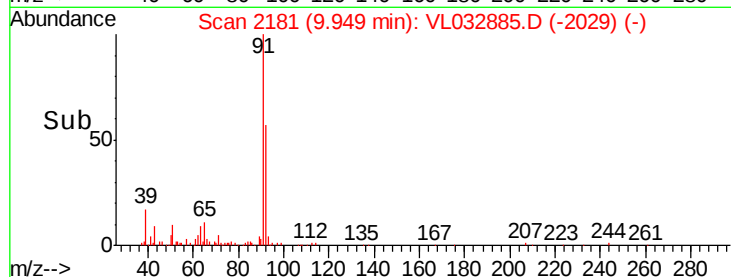
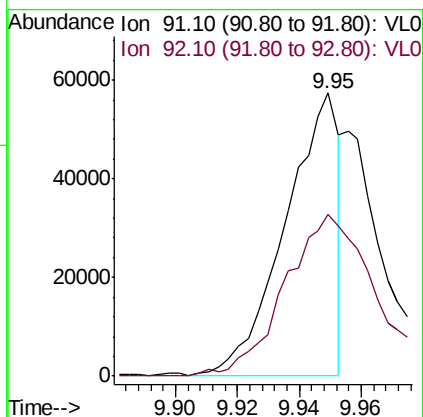
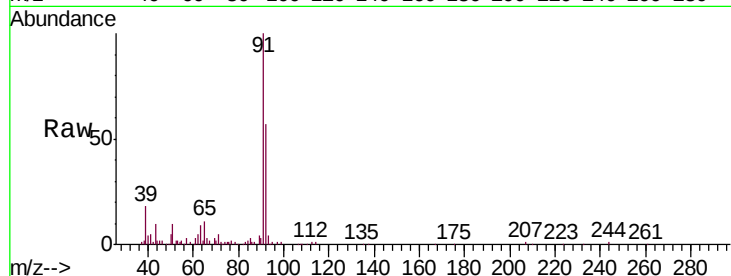
MMSV-04DL

Tgt Ion: 91 Resp: 69014

Ion Ratio Lower Upper

91 100

92 95.4 47.9 71.9#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2894

Delta R.T. -0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

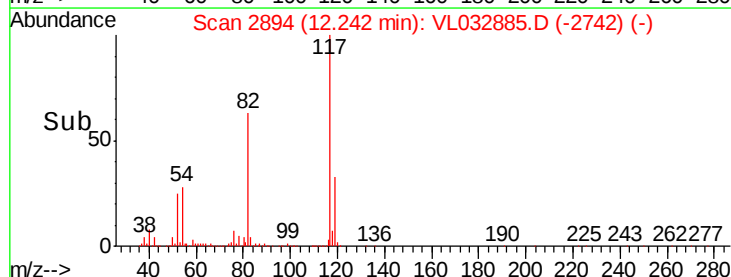
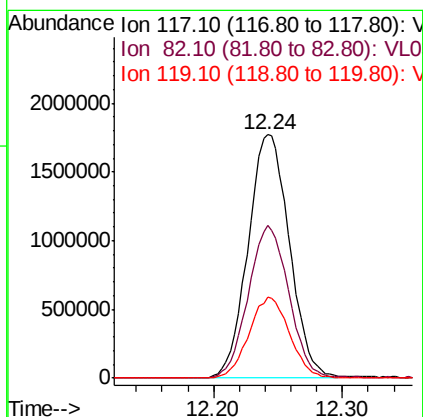
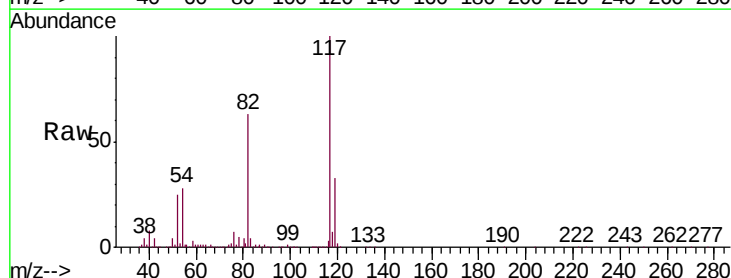
Tgt Ion: 117 Resp: 3952239

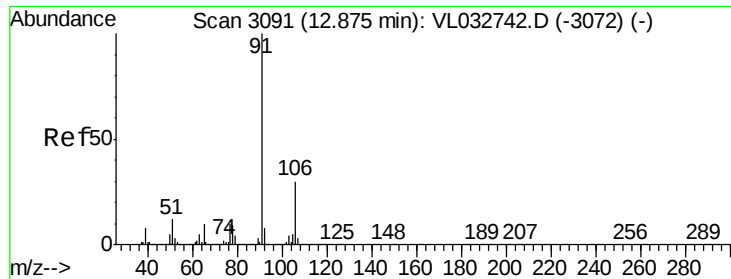
Ion Ratio Lower Upper

117 100

82 61.6 51.0 76.6

119 32.9 28.0 42.0





#58

Ethyl Benzene

Concen: 0.056 ppbv

RT: 12.86 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

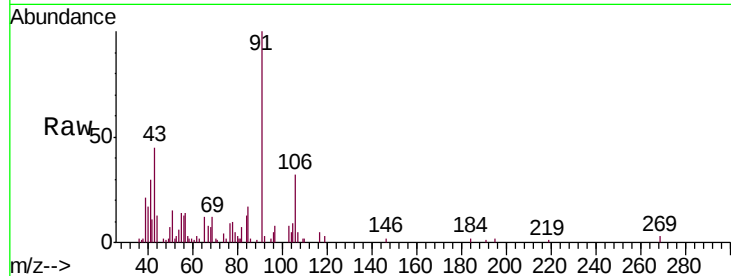
MMSV-04DL

Tgt Ion: 91 Resp: 26816

Ion Ratio Lower Upper

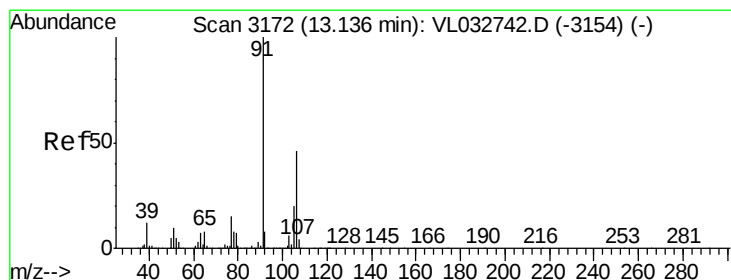
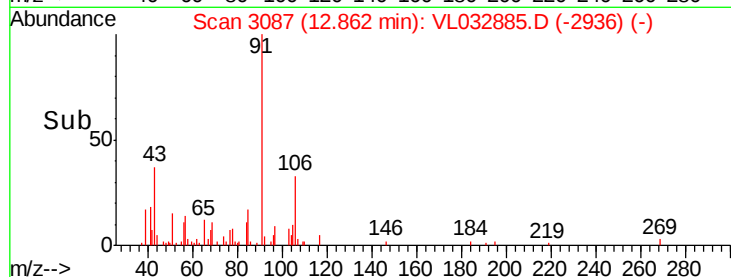
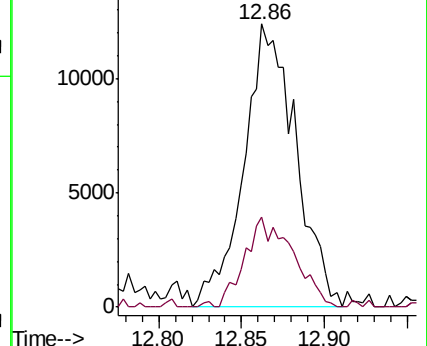
91 100

106 31.8 23.6 35.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 13.12 min Scan# 3168

Delta R.T. -0.01 min

Lab File: VL032885.D

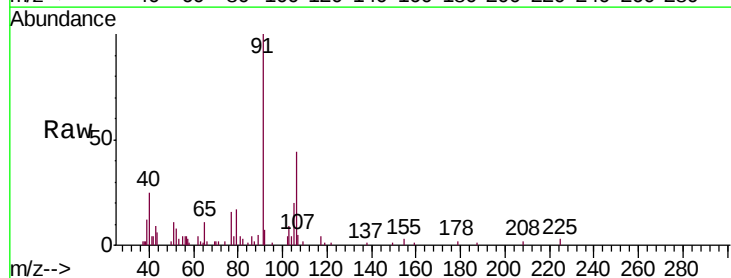
Acq: 4 Dec 2018 20:42

Tgt Ion: 91 Resp: 20075

Ion Ratio Lower Upper

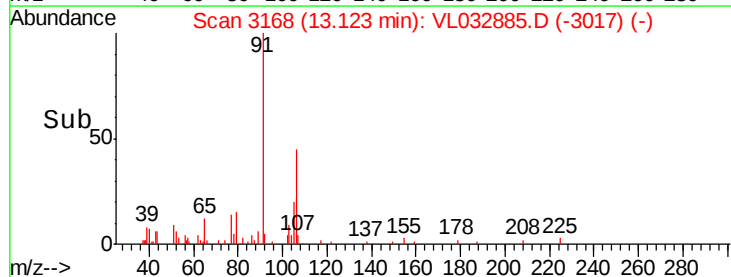
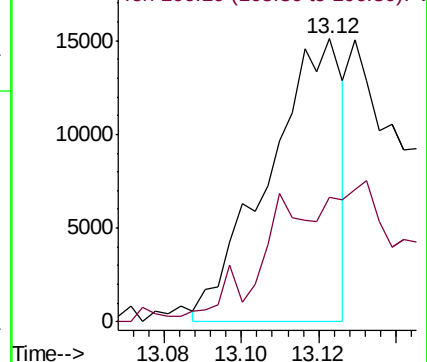
91 100

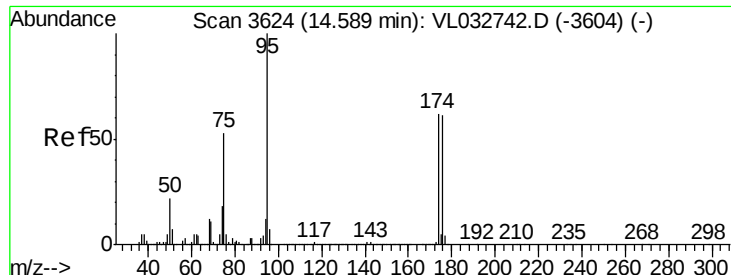
106 0.0 36.1 54.1#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.589 ppbv

RT: 14.58 min Scan# 3621

Delta R.T. -0.01 min

Lab File: VL032885.D

Acq: 4 Dec 2018 20:42

Instrument :

MSVOA_L

ClientSampleId :

MMSV-04DL

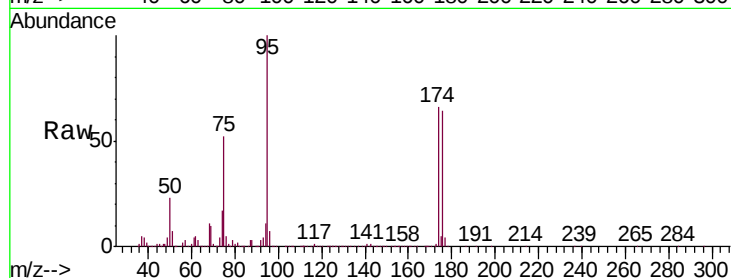
Tgt Ion: 95 Resp: 2834633

Ion Ratio Lower Upper

95 100

174 66.4 50.7 76.1

175 5.0 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

