

Data File : VL034833.D
Acq On : 7 Mar 2020 2:55
Operator : SY/AP
Sample : L1698-07DL2 600X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SS-1-4DL2

Quant Time: Mar 07 05:42:56 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030420AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Mar 04 06:36:39 2020
QLast Update : Wed Mar 04 06:36:39 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	905138	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.18	114	2044610	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.11	117	2023213	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.45	95	1600205	9.49	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.90%

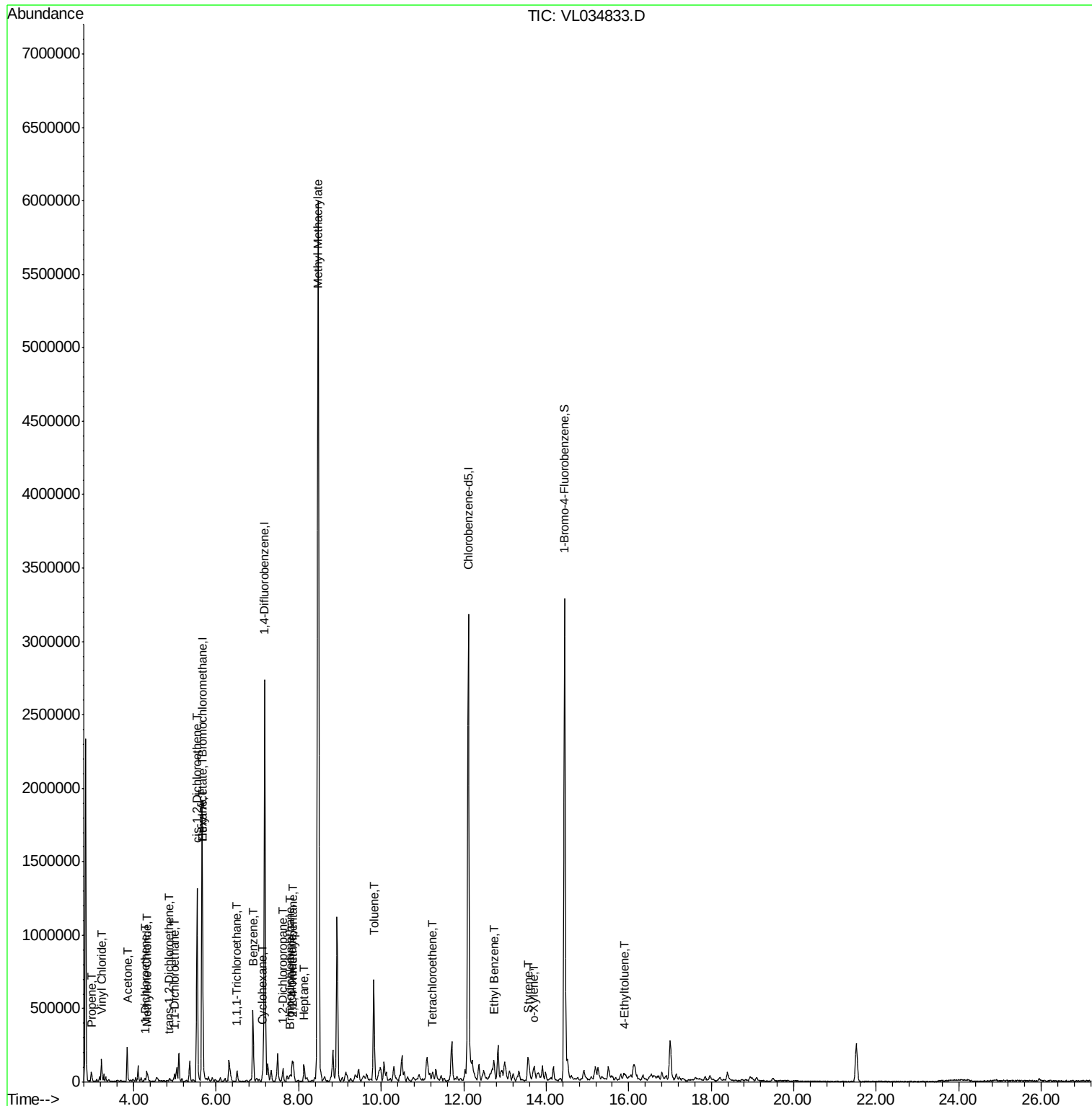
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Vinyl Chloride	3.22	62	126238	2.151	ppbv	94
9) Propene	2.97	41	23872	0.588	ppbv	94
10) Heptane	8.13	43	44293	0.429	ppbv #	27
15) Acetone	3.84	43	131350	1.212	ppbv	91
18) 1,1-Dichloroethene	4.27	96	1517	0.038	ppbv	87
20) Methylene Chloride	4.32	84	12532	0.324	ppbv	84
22) trans-1,2-Dichloroethene	4.87	96	2403	0.061	ppbv #	36
24) 1,1-Dichloroethane	5.00	63	37755	0.335	ppbv #	95
25) Ethyl Acetate	5.68	43	40097	0.214	ppbv #	75
26) Hexane	5.68	57	57407	0.702	ppbv #	41
30) Cyclohexane	7.12	84	8865	0.142	ppbv #	1
31) cis-1,2-Dichloroethene	5.54	61	753032	8.973	ppbv	98
32) 1,1,1-Trichloroethane	6.50	97	23397	0.172	ppbv #	34
36) Benzene	6.89	78	376199	2.153	ppbv	98
38) Trichloroethene	7.84	130	36304	0.533	ppbv	91
39) 1,2-Dichloropropane	7.62	63	29201	0.414	ppbv	90
42) Bromodichloromethane	7.80	83	4821	0.032	ppbv #	31
43) Methyl Methacrylate	8.47	69	381887	5.158	ppbv #	1
44) 2,2,4-Trimethylpentane	7.88	57	59153	0.194	ppbv #	41
52) Tetrachloroethene	11.25	164	6723	0.104	ppbv	89
53) Toluene	9.82	91	509545	2.756	ppbv	99
58) Ethyl Benzene	12.73	91	71440	0.287	ppbv	99
60) o-Xylene	13.72	91	26869	0.123	ppbv #	32
61) Styrene	13.55	104	27110	0.200	ppbv #	59
72) 4-Ethyltoluene	15.87	105	7467	0.031	ppbv #	68

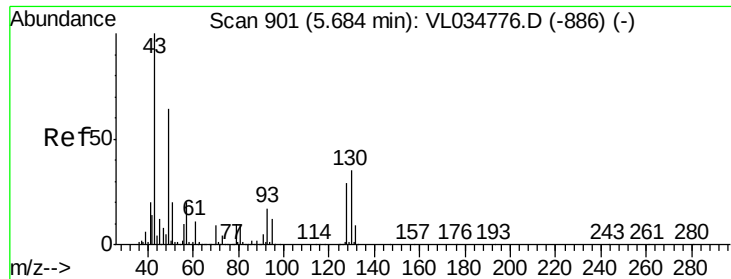
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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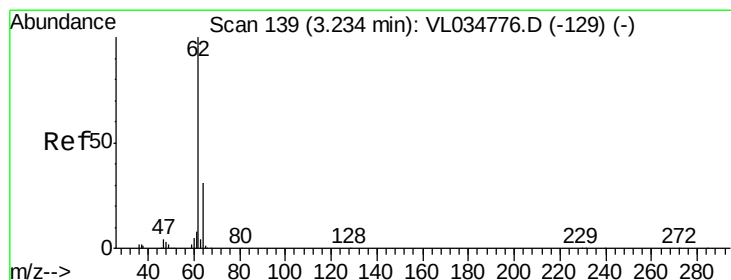
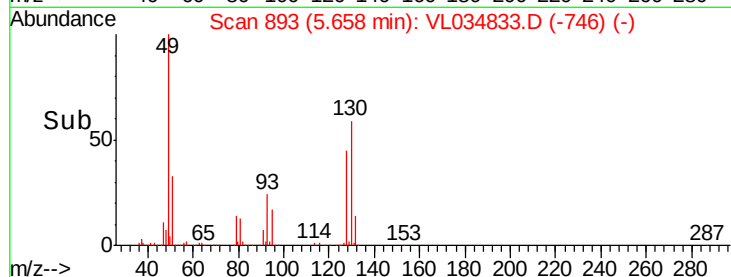
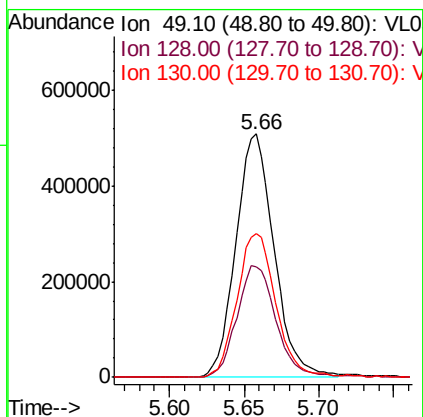
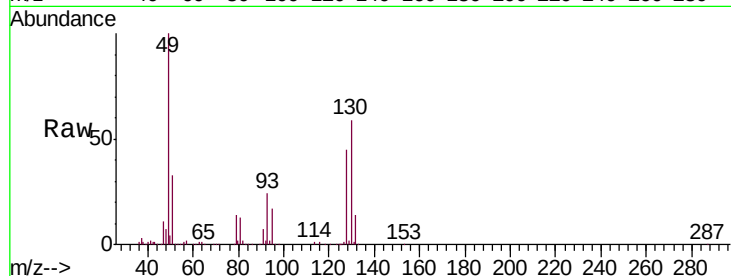




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66 min Scan# 893
 Delta R.T. -0.03 min
 Lab File: VL034833.D
 Acq: 7 Mar 2020 2:55

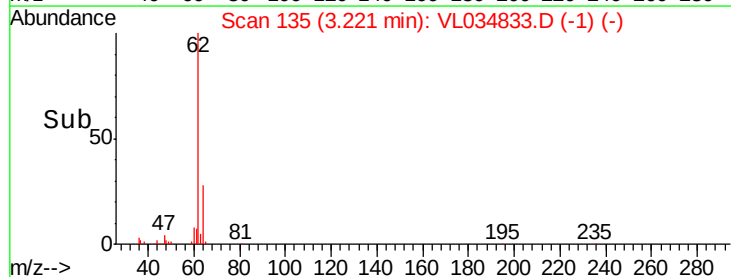
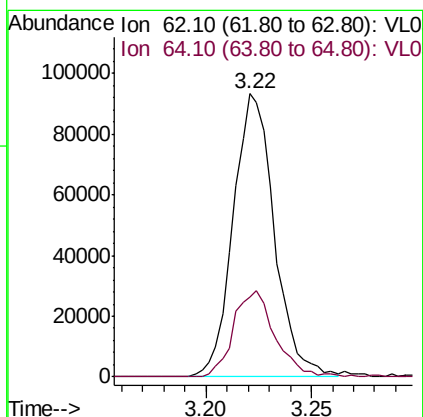
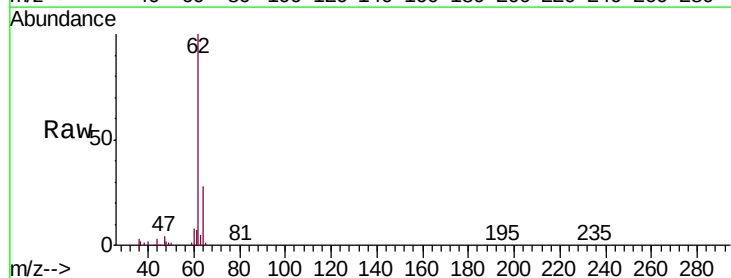
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1-4DL2

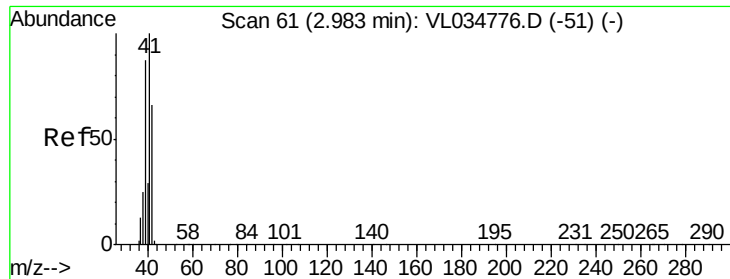
Tgt Ion: 49 Resp: 905138
 Ion Ratio Lower Upper
 49 100
 128 47.6 21.6 64.6
 130 60.6 27.4 82.2



#5
 Vinyl Chloride
 Concen: 2.151 ppbv
 RT: 3.22 min Scan# 135
 Delta R.T. -0.01 min
 Lab File: VL034833.D
 Acq: 7 Mar 2020 2:55

Tgt Ion: 62 Resp: 126238
 Ion Ratio Lower Upper
 62 100
 64 28.3 25.1 37.7





#9

Propene

Concen: 0.588 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.01 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

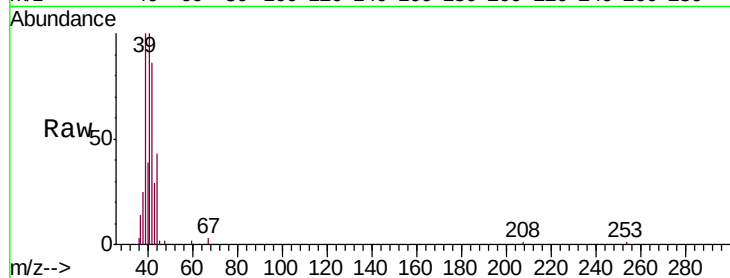
SS-1-4DL2

Tgt Ion: 41 Resp: 23872

Ion Ratio Lower Upper

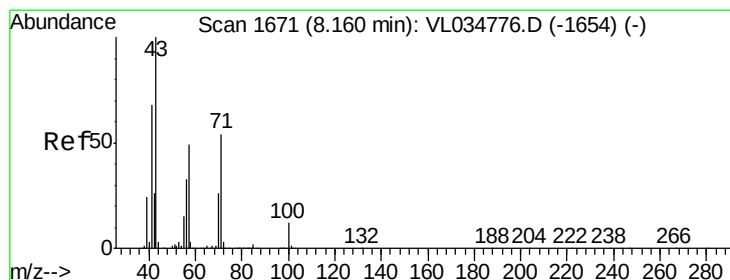
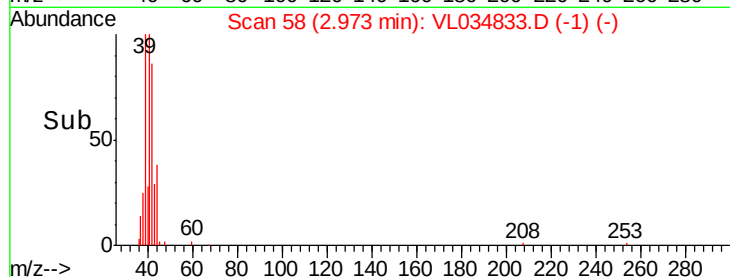
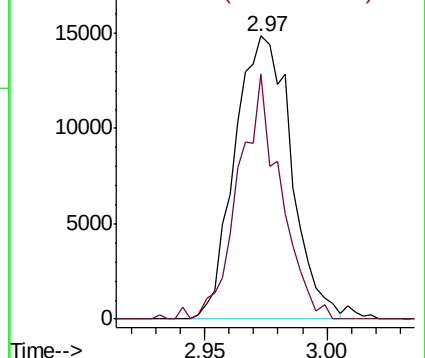
41 100

42 64.7 55.6 83.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.429 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. -0.03 min

Lab File: VL034833.D

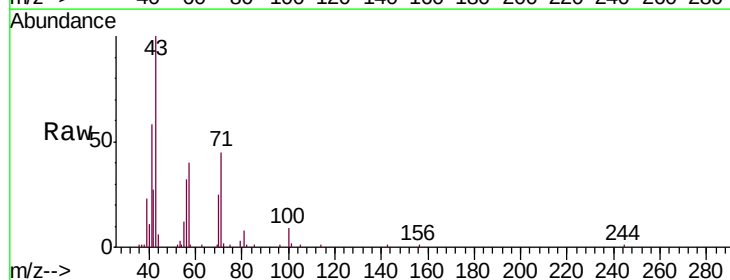
Acq: 7 Mar 2020 2:55

Tgt Ion: 43 Resp: 44293

Ion Ratio Lower Upper

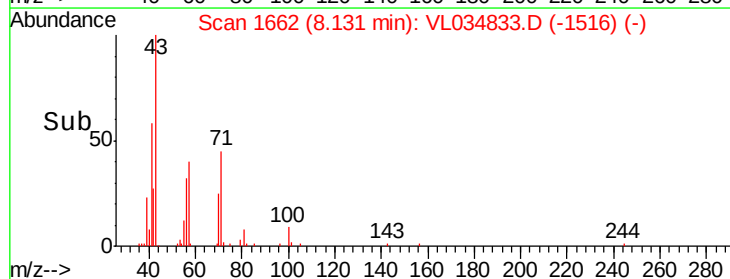
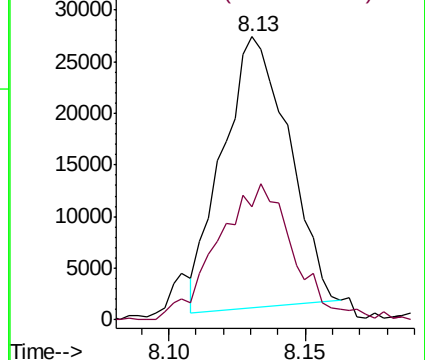
43 100

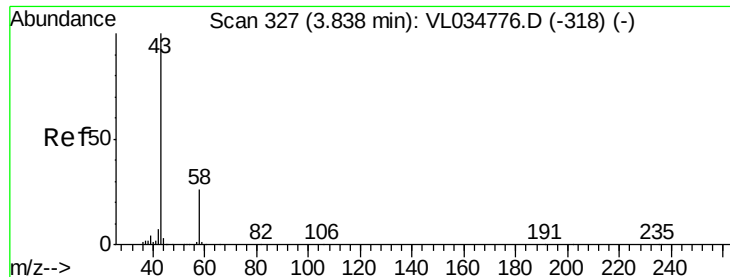
57 0.0 40.5 60.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#15

Acetone

Concen: 1.212 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

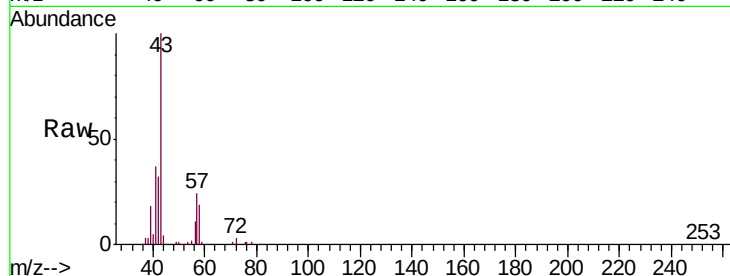
SS-1-4DL2

Tgt Ion: 43 Resp: 131350

Ion Ratio Lower Upper

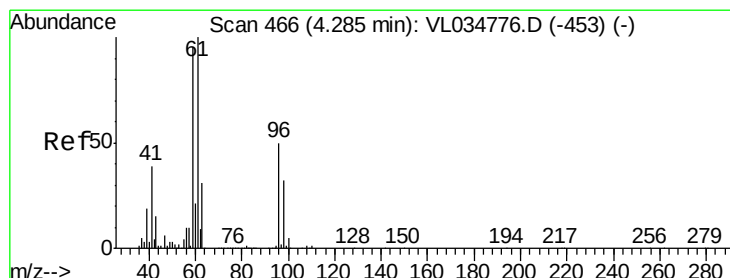
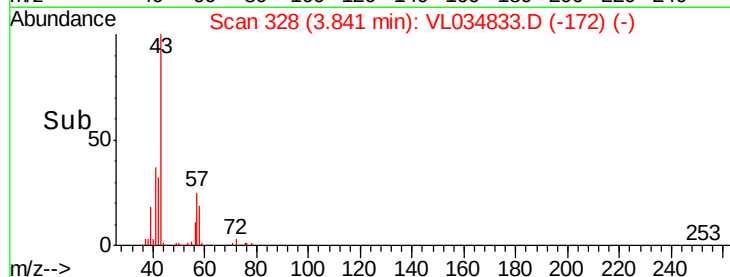
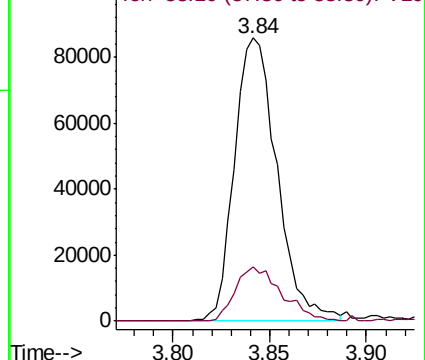
43 100

58 21.8 21.0 31.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#18

1,1-Dichloroethene

Concen: 0.038 ppbv

RT: 4.27 min Scan# 460

Delta R.T. -0.02 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

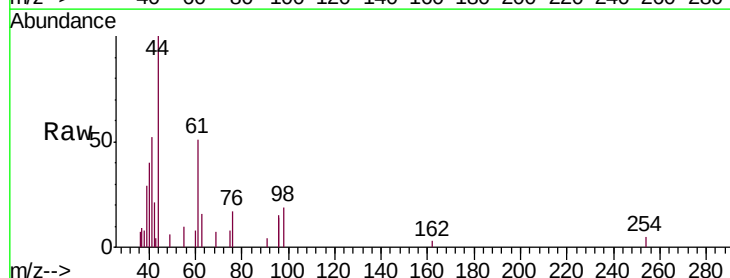
Tgt Ion: 96 Resp: 1517

Ion Ratio Lower Upper

96 100

61 173.5 159.5 239.3

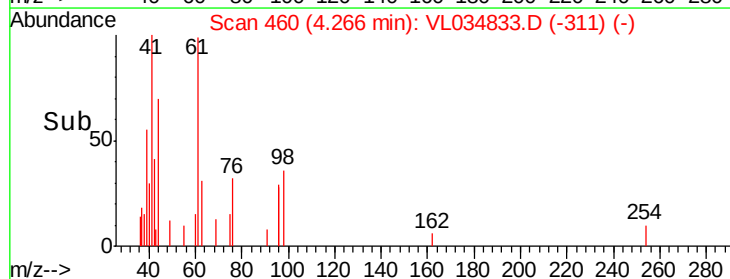
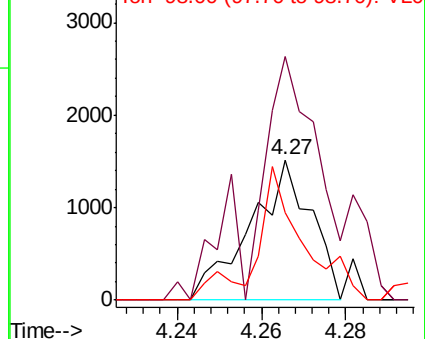
98 62.8 51.1 76.7

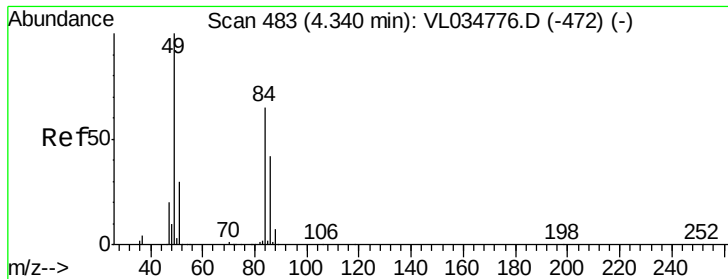


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

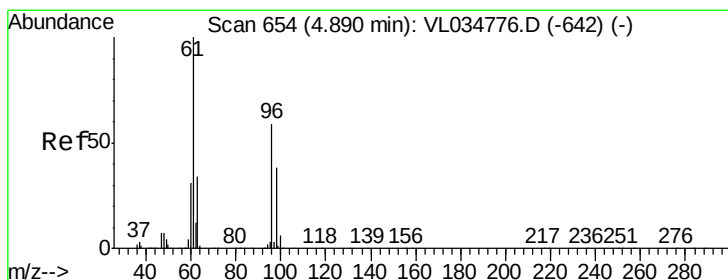
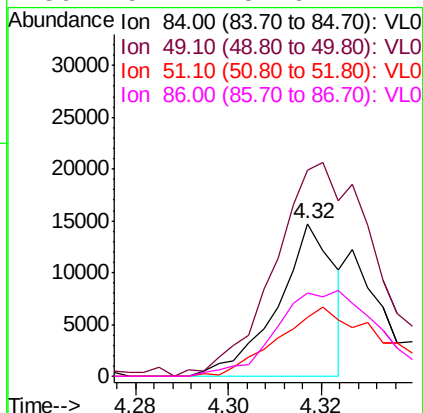
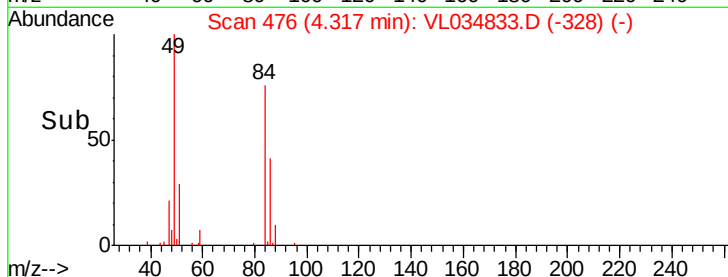
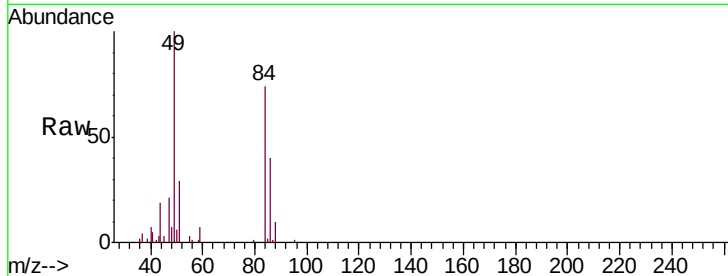




#20
Methylene Chloride
Concen: 0.324 ppbv
RT: 4.32 min Scan# 476
Delta R.T. -0.02 min
Lab File: VL034833.D
Acq: 7 Mar 2020 2:55

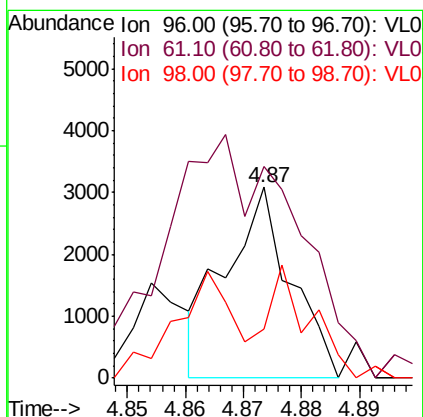
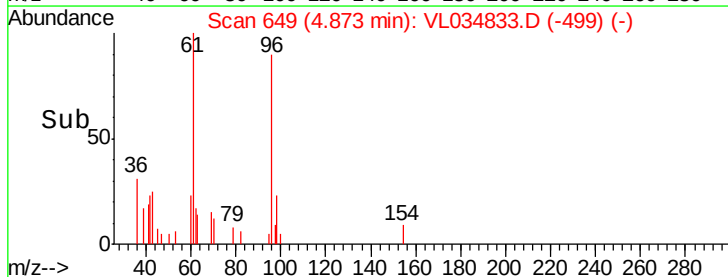
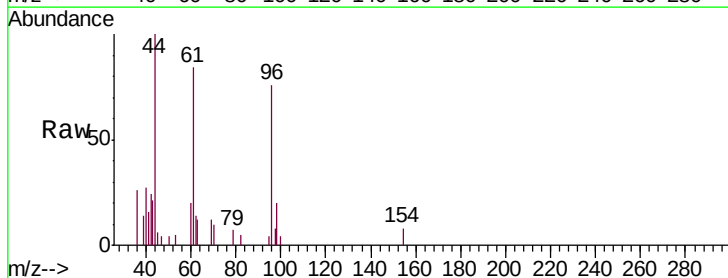
Instrument :
MSVOA_L
ClientSampleId :
SS-1-4DL2

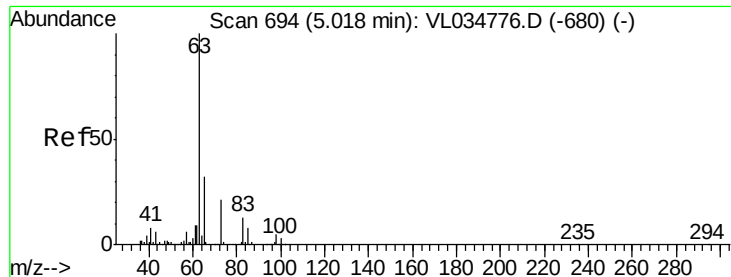
Tgt Ion:	84	Resp:	12532
Ion	Ratio	Lower	Upper
84	100		
49	131.2	123.2	184.8
51	38.7	37.4	56.2
86	54.2	51.6	77.4



#22
trans-1,2-Dichloroethene
Concen: 0.061 ppbv
RT: 4.87 min Scan# 649
Delta R.T. -0.02 min
Lab File: VL034833.D
Acq: 7 Mar 2020 2:55

Tgt Ion:	96	Resp:	2403
Ion	Ratio	Lower	Upper
96	100		
61	82.2	135.2	202.8#
98	13.9	50.8	76.2#





#24

1,1-Dichloroethane

Concen: 0.335 ppbv

RT: 5.00 min Scan# 687

Delta R.T. -0.02 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

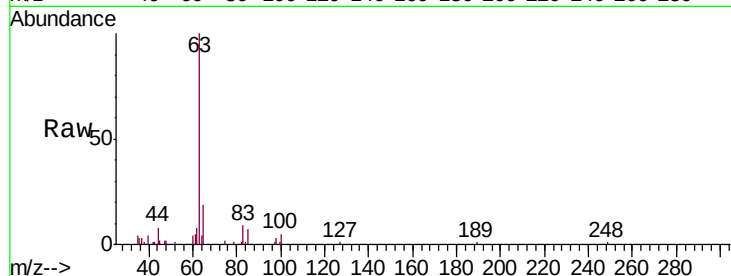
Tgt Ion: 63 Resp: 37755

Ion Ratio Lower Upper

63 100

98 3.2 2.3 6.8

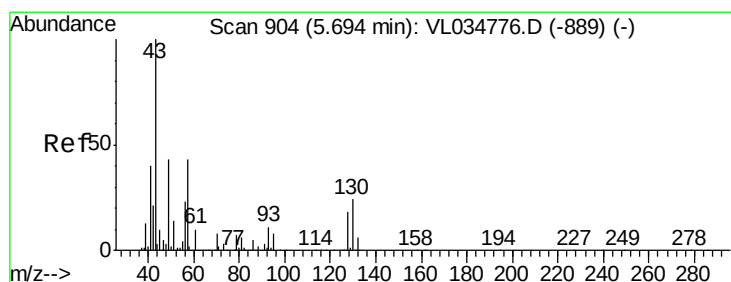
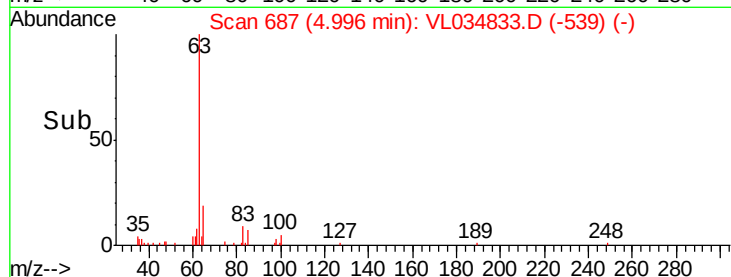
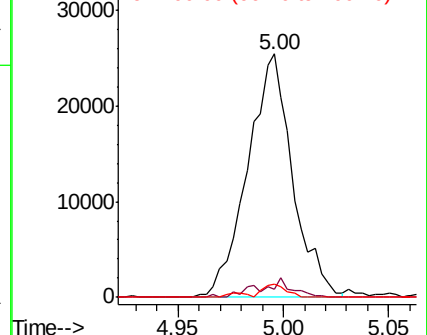
100 5.3 1.5 4.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 0.214 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.02 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Tgt Ion: 43 Resp: 40097

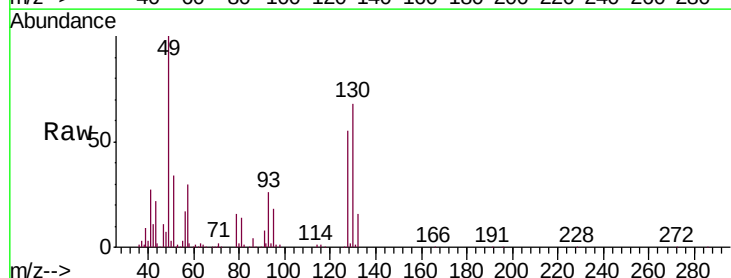
Ion Ratio Lower Upper

43 100

45 0.0 8.2 12.4#

61 0.0 7.5 11.3#

70 1.0 6.0 9.0#

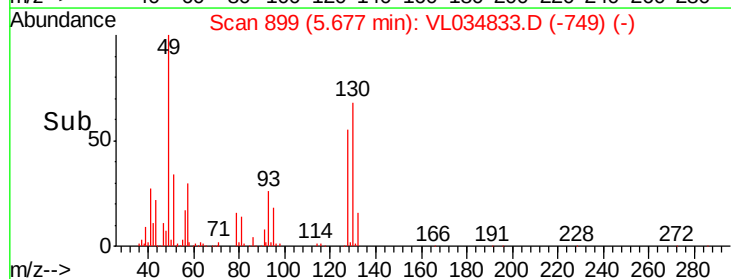
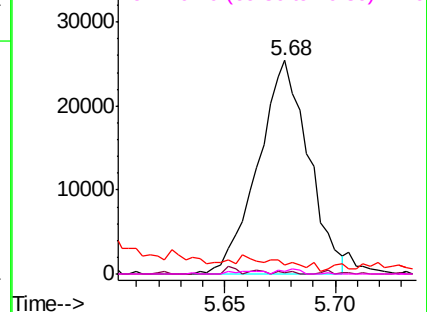


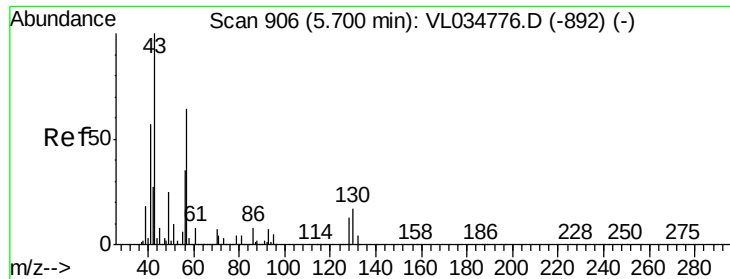
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.702 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.02 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

Tgt Ion: 57 Resp: 57407

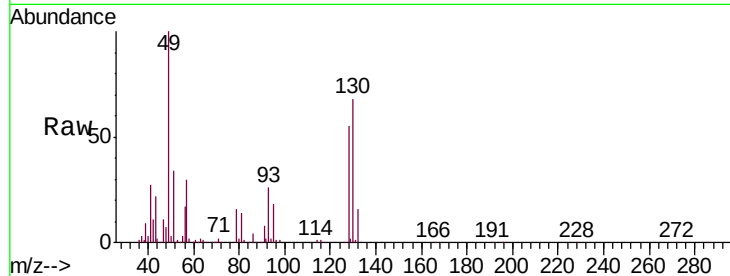
Ion Ratio Lower Upper

57 100

41 94.7 72.0 108.0

43 72.0 179.1 268.7#

56 56.7 42.6 63.8

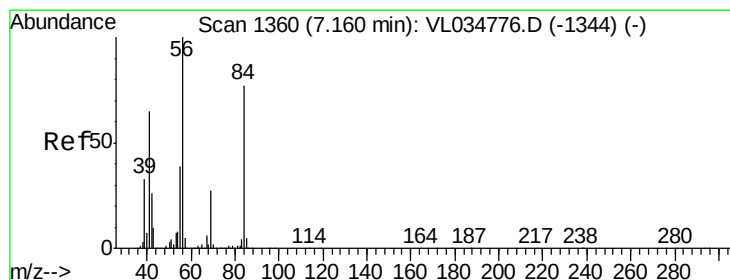
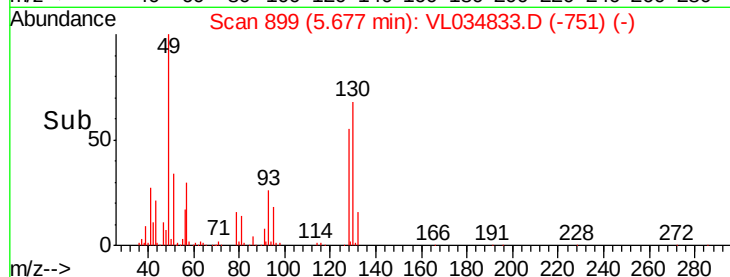
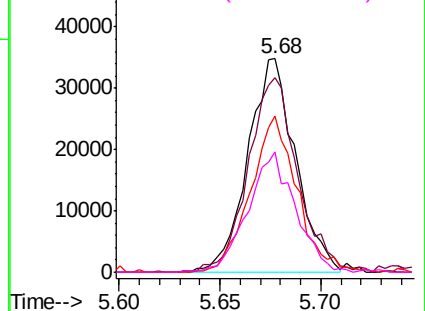


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#30

Cyclohexane

Concen: 0.142 ppbv

RT: 7.12 min Scan# 1348

Delta R.T. -0.04 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

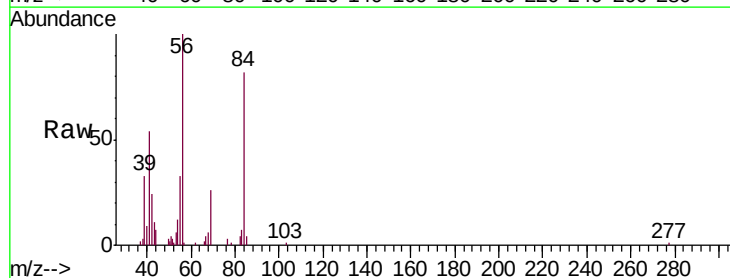
Tgt Ion: 84 Resp: 8865

Ion Ratio Lower Upper

84 100

56 0.0 113.2 169.8#

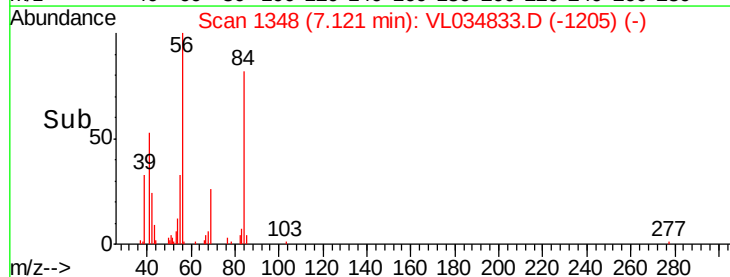
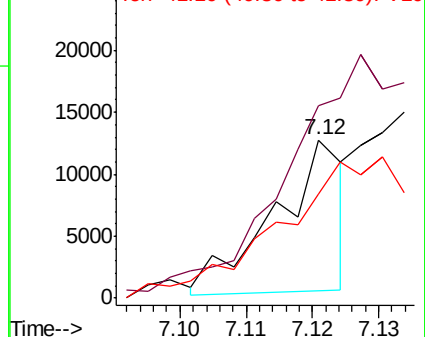
41 0.0 70.2 105.4#

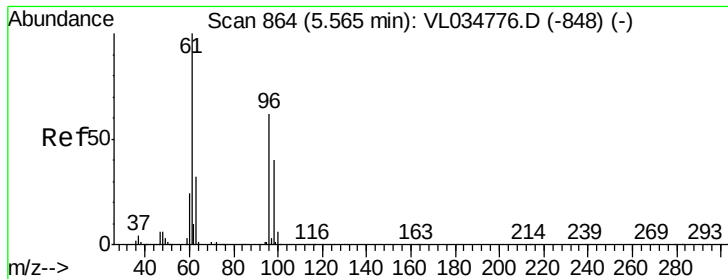


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 8.973 ppbv

RT: 5.54 min Scan# 856

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

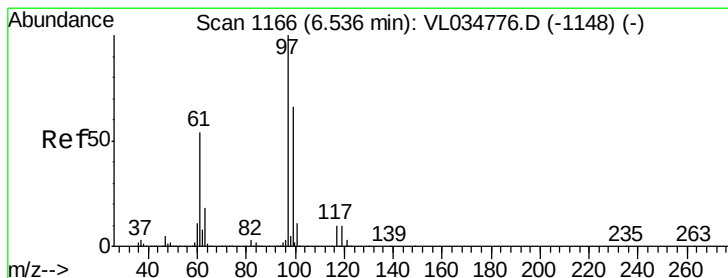
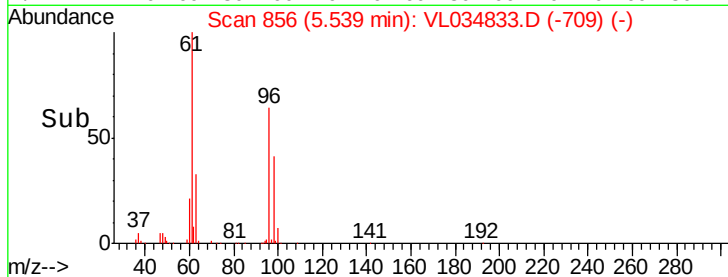
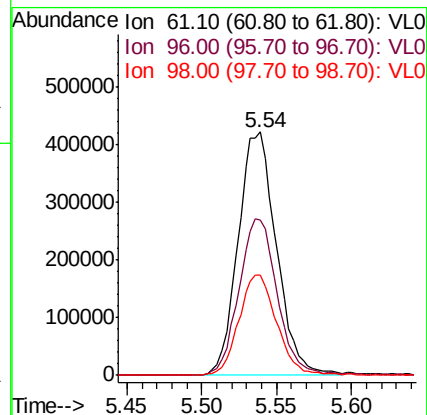
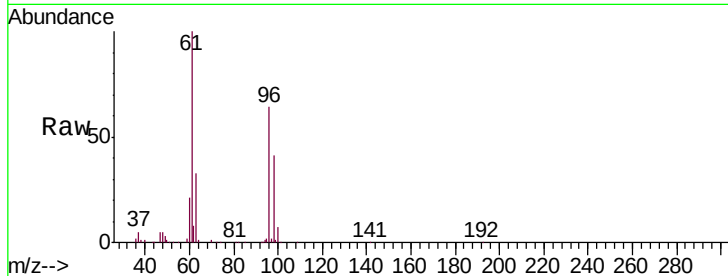
MSVOA_L

ClientSampleId :

SS-1-4DL2

Tgt Ion: 61 Resp: 753032

Ion	Ratio	Lower	Upper
61	100		
96	63.7	49.7	74.5
98	41.2	31.9	47.9



#32

1,1,1-Trichloroethane

Concen: 0.172 ppbv

RT: 6.50 min Scan# 1156

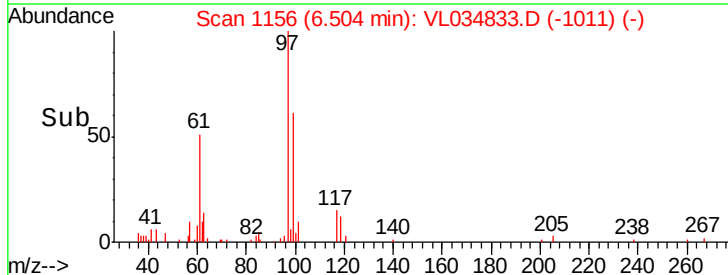
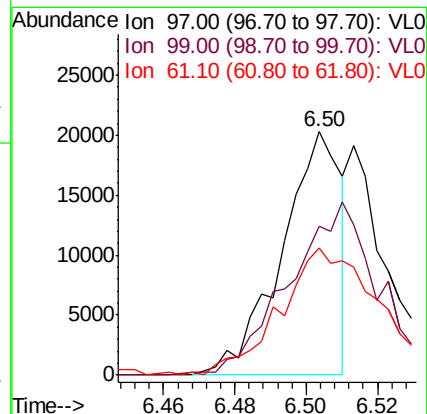
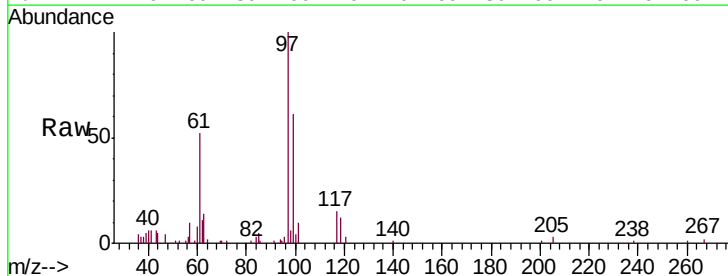
Delta R.T. -0.03 min

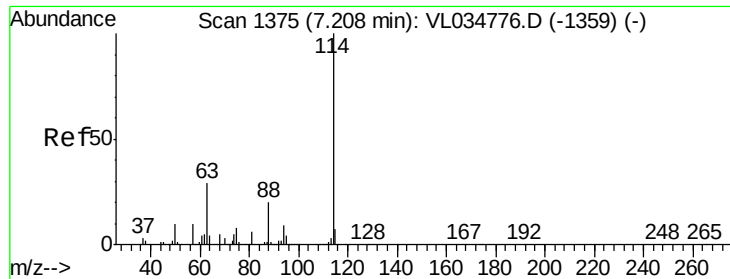
Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Tgt Ion: 97 Resp: 23397

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.7	77.5#
61	87.4	43.4	65.0#

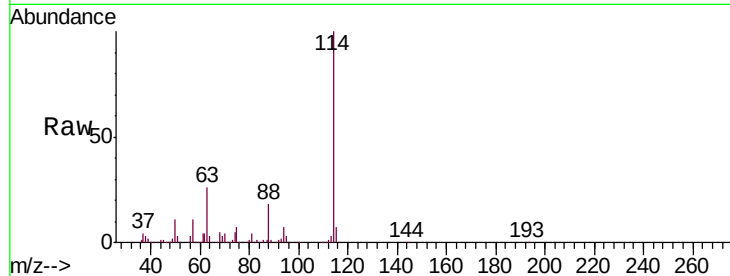




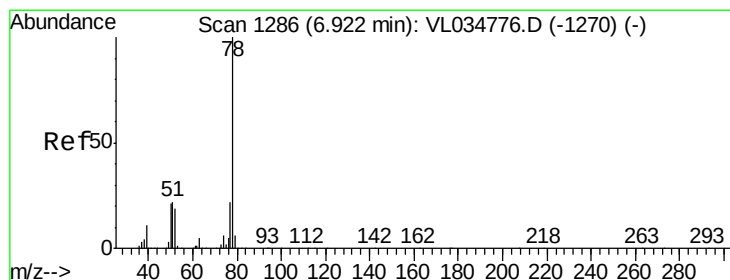
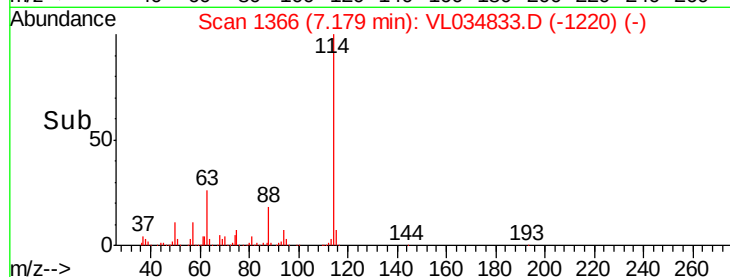
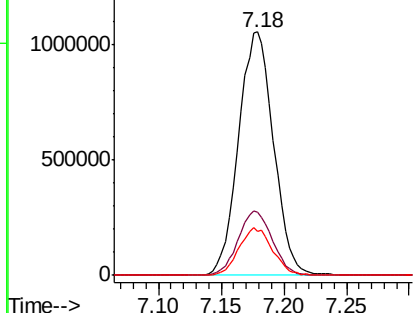
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1366
 Delta R.T. -0.03 min
 Lab File: VL034833.D
 Acq: 7 Mar 2020 2:55

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1-4DL2

Tgt Ion: 114 Resp: 2044610
 Ion Ratio Lower Upper
 114 100
 63 25.8 23.6 35.4
 88 18.8 15.8 23.8

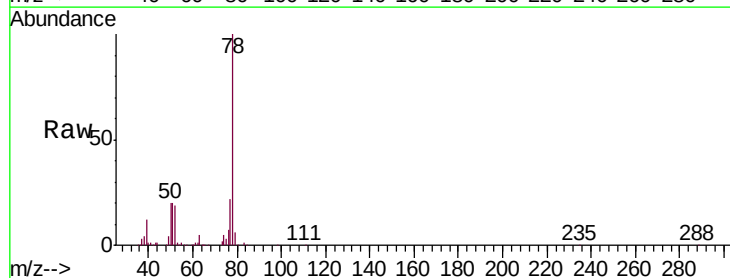


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

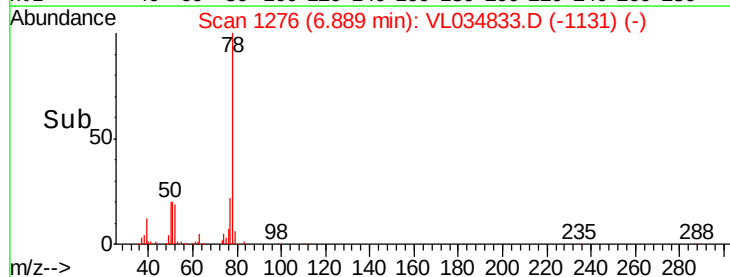
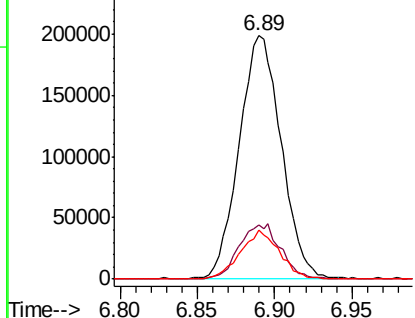


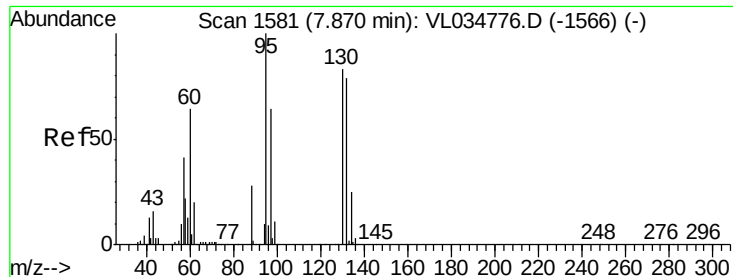
#36
 Benzene
 Concen: 2.153 ppbv
 RT: 6.89 min Scan# 1276
 Delta R.T. -0.03 min
 Lab File: VL034833.D
 Acq: 7 Mar 2020 2:55

Tgt Ion: 78 Resp: 376199
 Ion Ratio Lower Upper
 78 100
 77 22.0 18.0 27.0
 50 20.1 16.9 25.3



Abundance Ion 78.10 (77.80 to 78.80): VL0
 Ion 77.10 (76.80 to 77.80): VL0
 Ion 50.10 (49.80 to 50.80): VL0





#38

Trichloroethene

Concen: 0.533 ppbv

RT: 7.84 min Scan# 1572

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

Tgt Ion:130 Resp: 36304

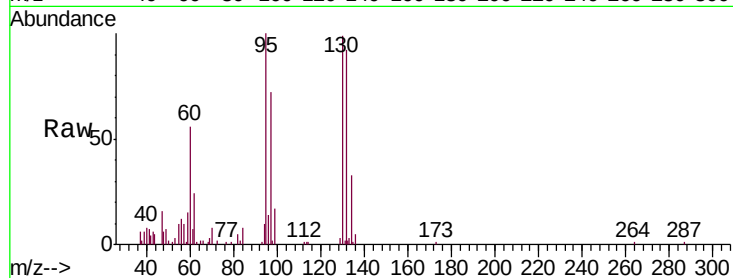
Ion Ratio Lower Upper

130 100

95 99.8 95.8 143.8

132 95.7 76.1 114.1

97 72.9 61.1 91.7

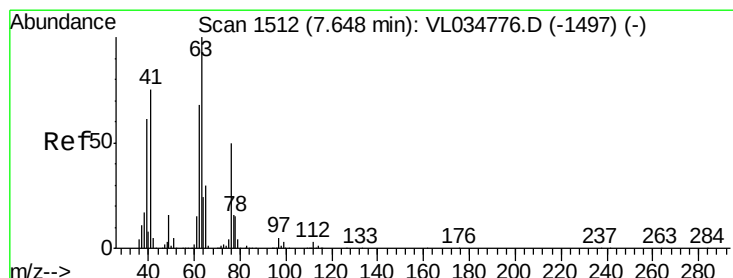
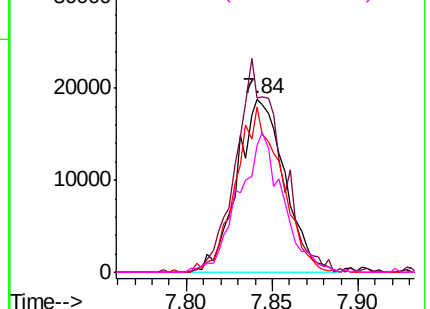
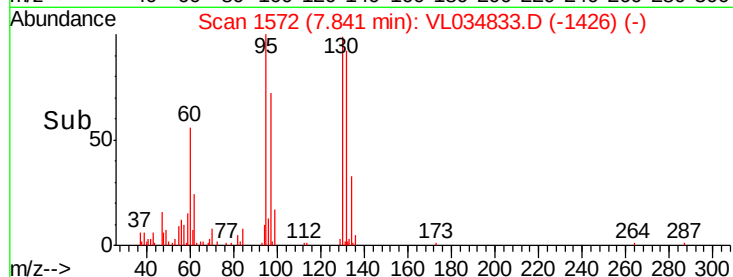


Abundance Ion 130.00 (129.70 to 130.70): V

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: 0.414 ppbv

RT: 7.62 min Scan# 1502

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

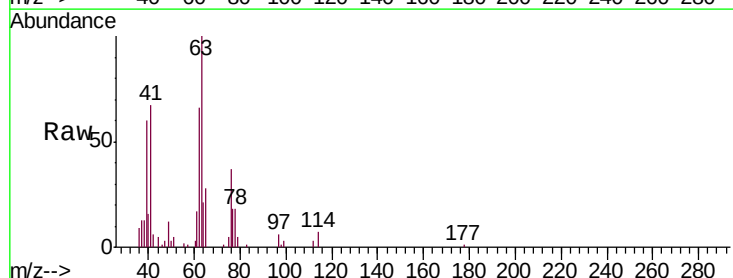
Tgt Ion: 63 Resp: 29201

Ion Ratio Lower Upper

63 100

41 64.0 60.3 90.5

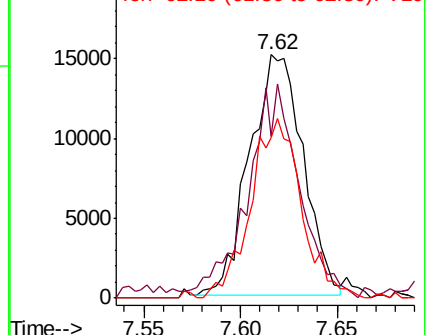
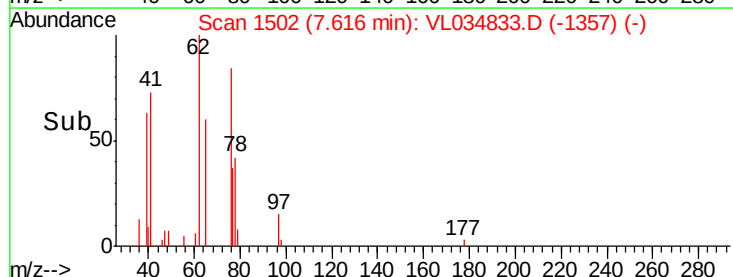
62 63.2 54.5 81.7

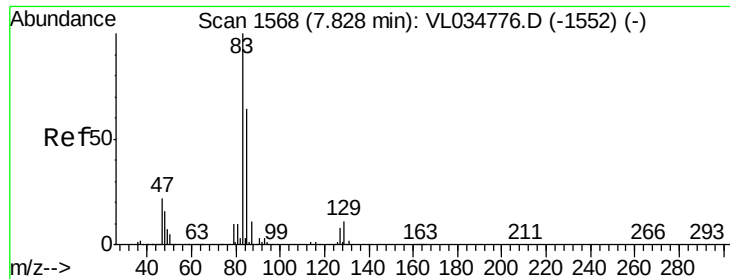


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#42

Bromodichloromethane

Concen: 0.032 ppbv

RT: 7.80 min Scan# 1560

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

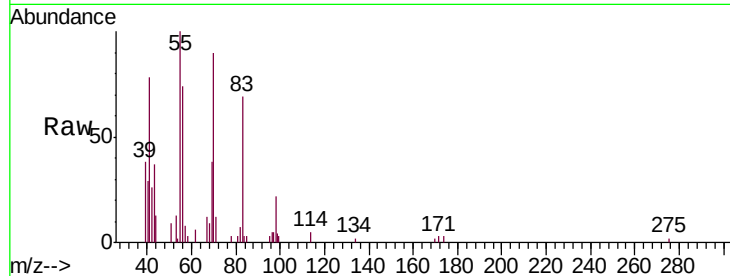
Tgt Ion: 83 Resp: 4821

Ion Ratio Lower Upper

83 100

85 4.8 50.8 76.2#

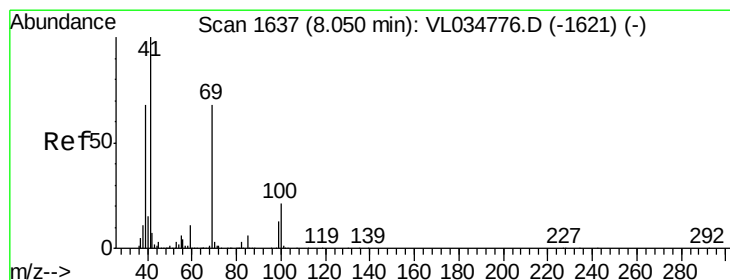
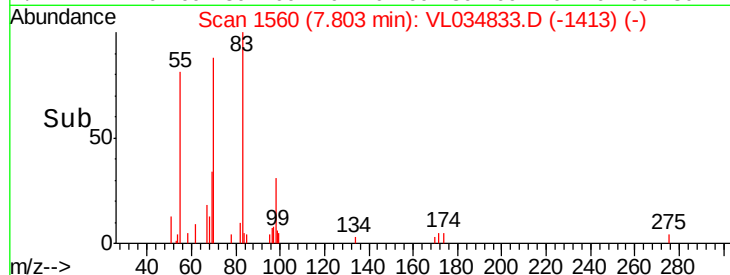
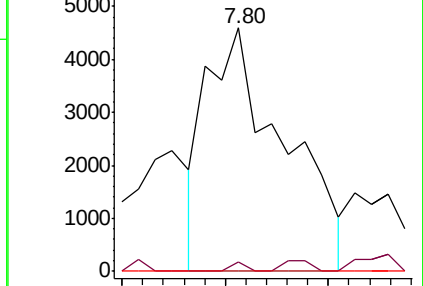
127 0.0 6.5 9.7#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): VL0



#43

Methyl Methacrylate

Concen: 5.158 ppbv

RT: 8.47 min Scan# 1769

Delta R.T. 0.42 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

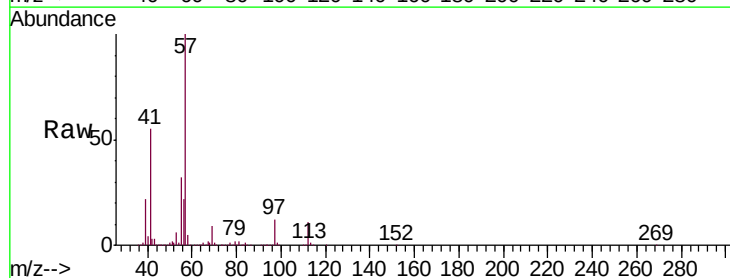
Tgt Ion: 69 Resp: 381887

Ion Ratio Lower Upper

69 100

41 0.0 121.6 182.4#

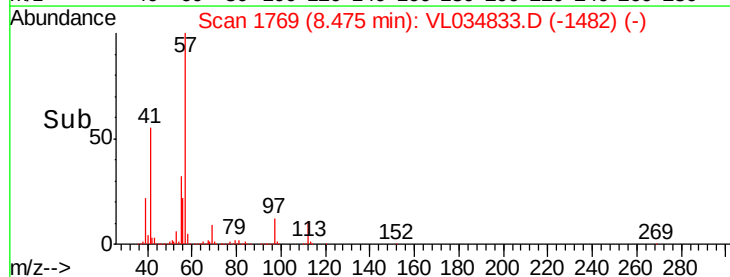
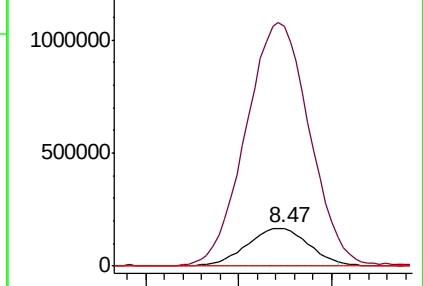
100 0.0 23.8 35.8#

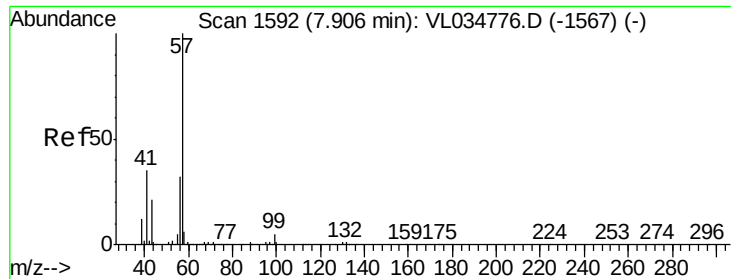


Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.194 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

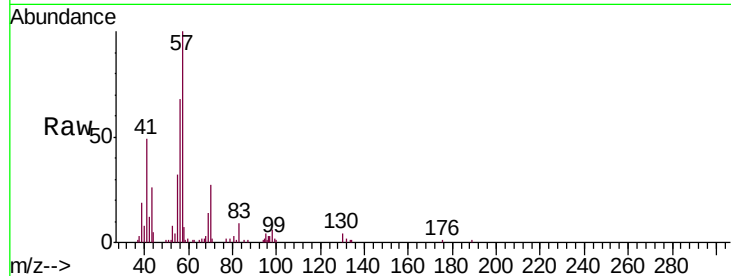
Tgt Ion: 57 Resp: 59153

Ion Ratio Lower Upper

57 100

41 62.5 27.4 41.0#

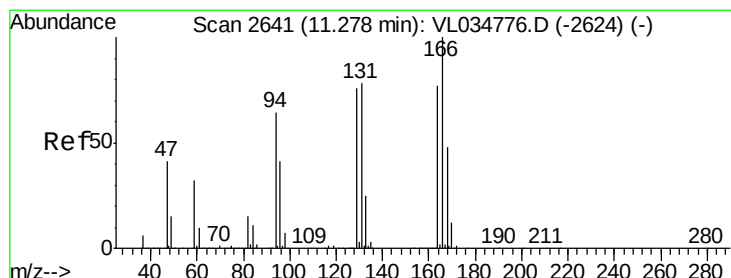
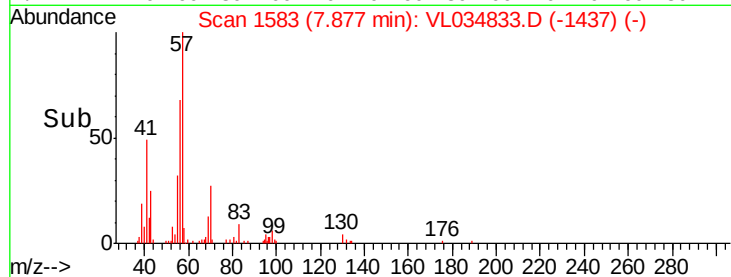
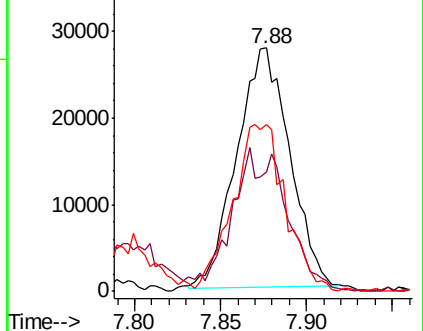
56 69.3 25.0 37.6#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.104 ppbv

RT: 11.25 min Scan# 2631

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Tgt Ion: 164 Resp: 6723

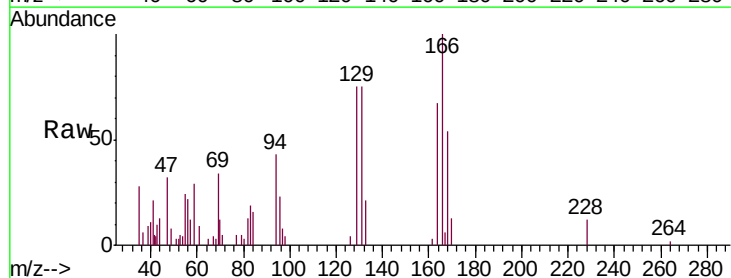
Ion Ratio Lower Upper

164 100

166 146.8 103.3 154.9

129 113.3 79.0 118.4

131 102.2 81.0 121.4

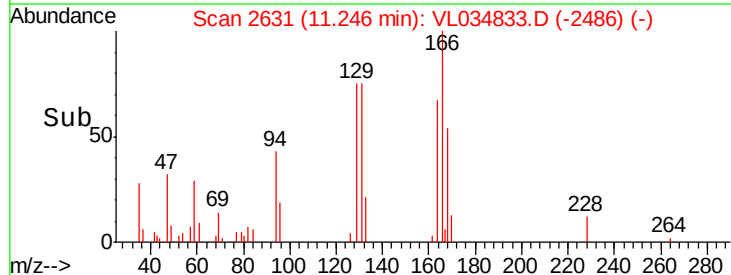
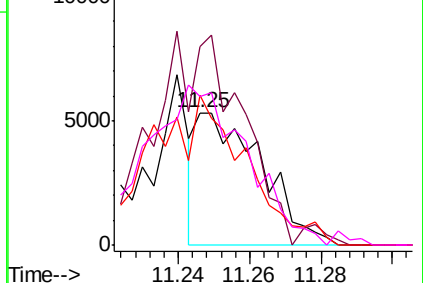


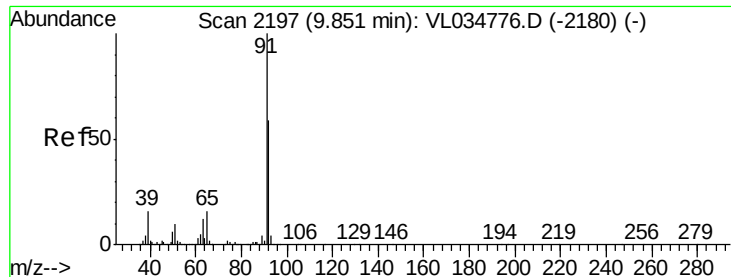
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 2.756 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

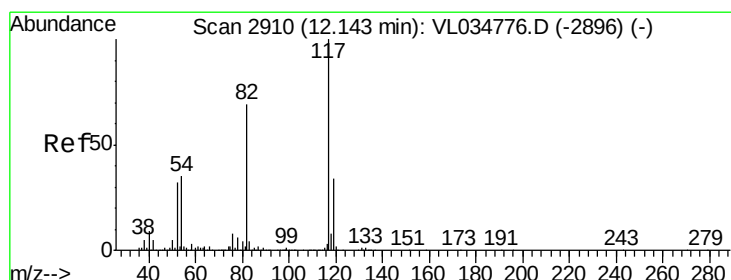
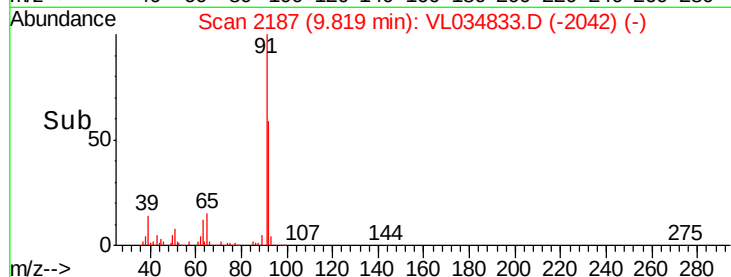
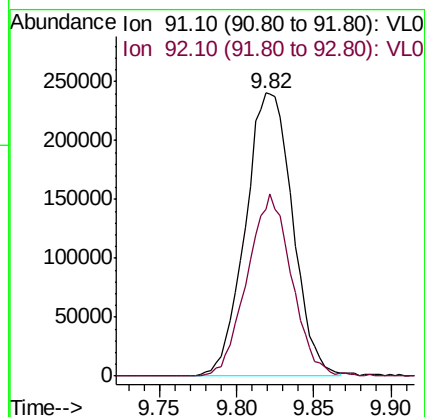
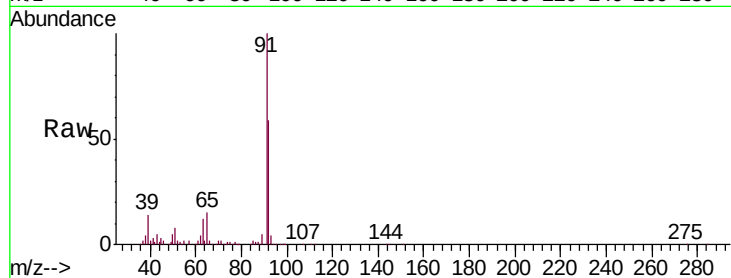
SS-1-4DL2

Tgt Ion: 91 Resp: 509545

Ion Ratio Lower Upper

91 100

92 60.7 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2900

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

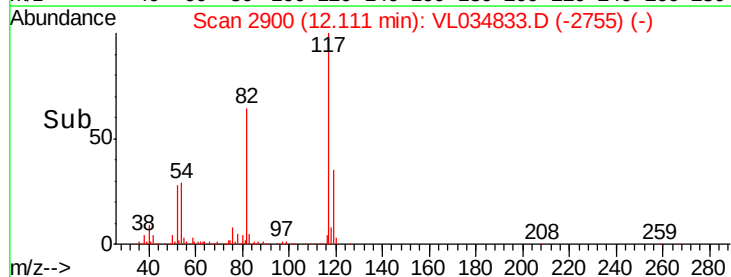
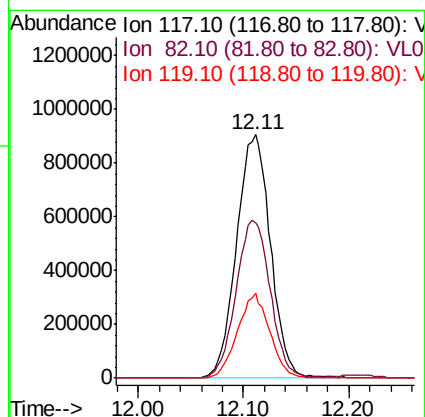
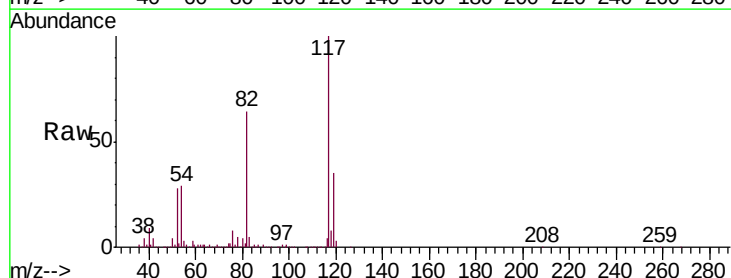
Tgt Ion: 117 Resp: 2023213

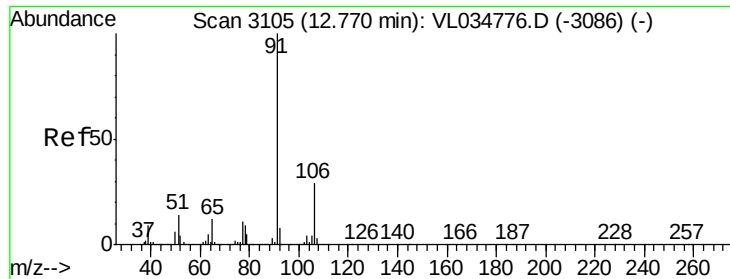
Ion Ratio Lower Upper

117 100

82 65.5 53.9 80.9

119 33.1 25.0 37.4





#58

Ethyl Benzene

Concen: 0.287 ppbv

RT: 12.73 min Scan# 3094

Delta R.T. -0.04 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

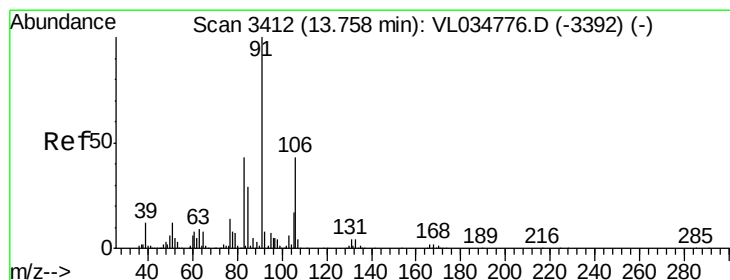
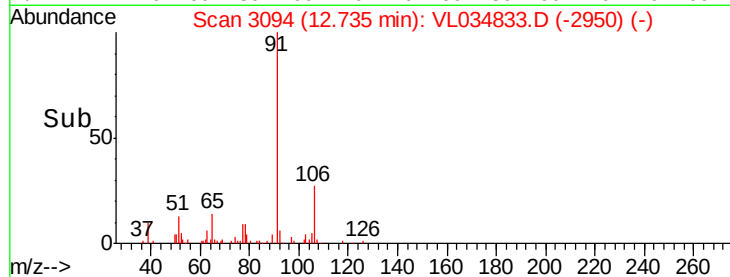
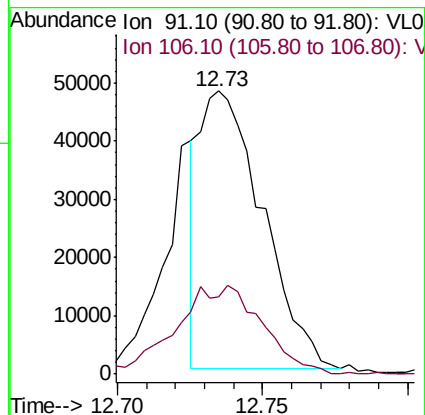
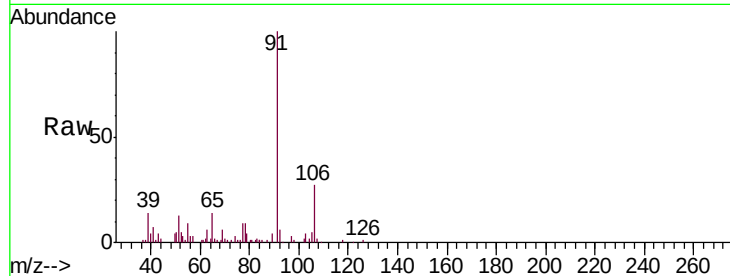
SS-1-4DL2

Tgt Ion: 91 Resp: 71440

Ion Ratio Lower Upper

91 100

106 27.8 22.8 34.2



#60

o-Xylene

Concen: 0.123 ppbv

RT: 13.72 min Scan# 3400

Delta R.T. -0.04 min

Lab File: VL034833.D

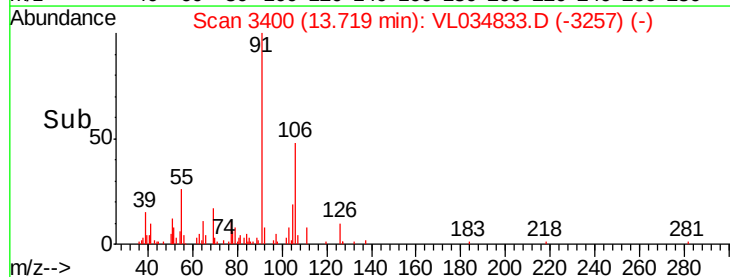
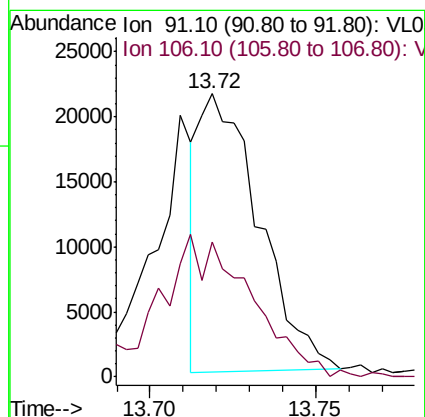
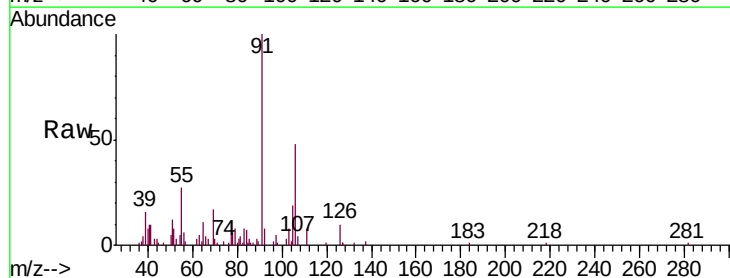
Acq: 7 Mar 2020 2:55

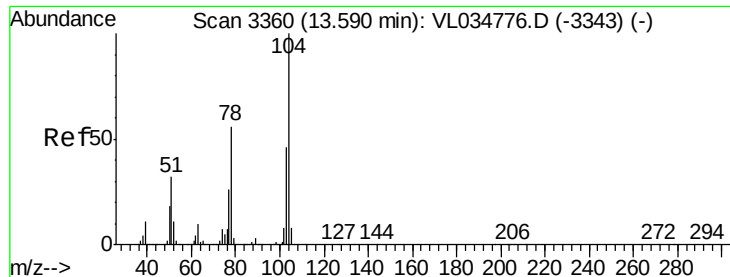
Tgt Ion: 91 Resp: 26869

Ion Ratio Lower Upper

91 100

106 0.0 21.7 65.1#





#61

Styrene

Concen: 0.200 ppbv

RT: 13.55 min Scan# 3349

Delta R.T. -0.04 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

Instrument :

MSVOA_L

ClientSampleId :

SS-1-4DL2

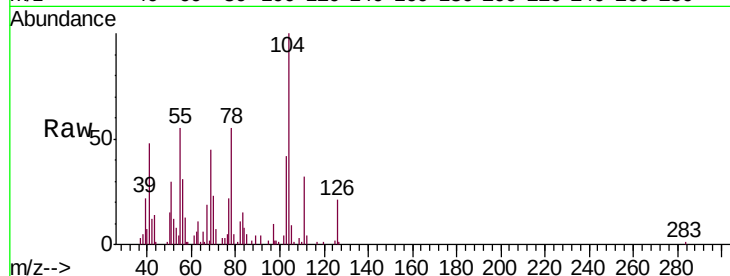
Tgt Ion: 104 Resp: 27110

Ion Ratio Lower Upper

104 100

78 86.5 44.7 67.1#

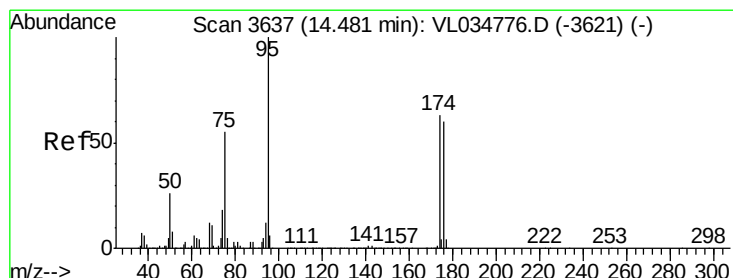
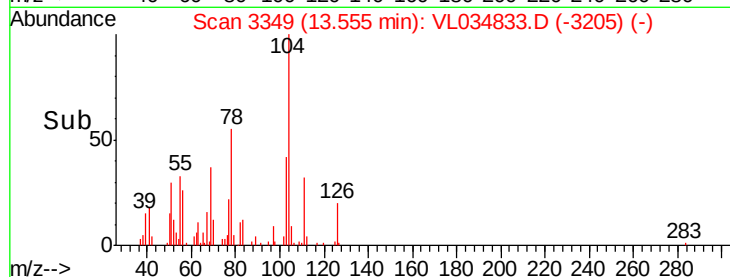
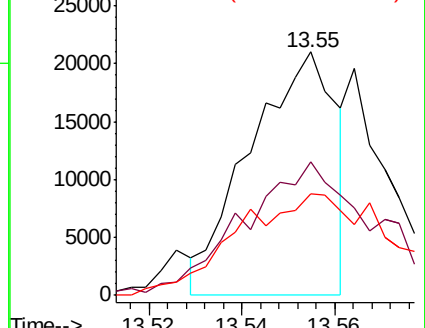
103 73.9 38.2 57.2#



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



#68

1-Bromo-4-Fluorobenzene

Concen: 9.485 ppbv

RT: 14.45 min Scan# 3627

Delta R.T. -0.03 min

Lab File: VL034833.D

Acq: 7 Mar 2020 2:55

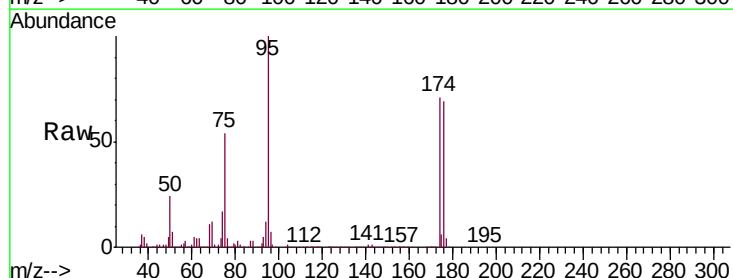
Tgt Ion: 95 Resp: 1600205

Ion Ratio Lower Upper

95 100

174 69.9 50.6 76.0

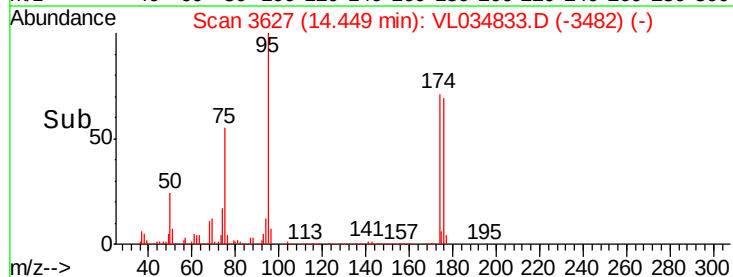
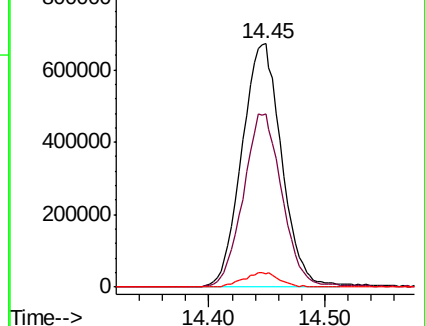
175 5.4 3.8 5.6

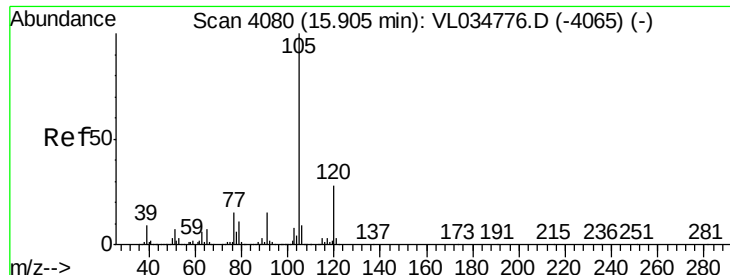


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

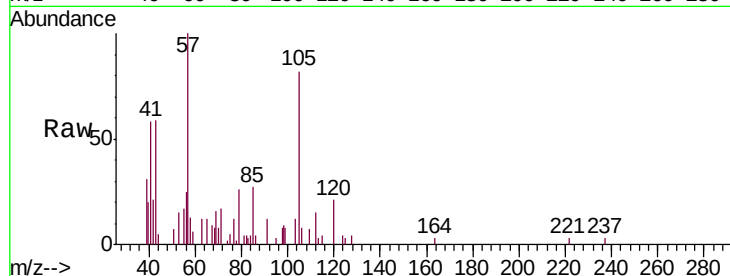




#72
 4-Ethyltoluene
 Concen: 0.031 ppbv
 RT: 15.87 min Scan# 4070
 Delta R.T. -0.03 min
 Lab File: VL034833.D
 Acq: 7 Mar 2020 2:55

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1-4DL2

Tgt Ion:	105	Resp:	7467
Ion	Ratio	Lower	Upper
105	100		
120	50.4	23.0	34.6#
91	0.0	11.1	16.7#
77	20.9	12.2	18.4#



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

