

Data File : VL034834.D
Acq On : 7 Mar 2020 3:33
Operator : SY/AP
Sample : L1698-08DL2 300X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SS-2-4DL2

Quant Time: Mar 07 05:43:17 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	5.65	49	892130	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.18	114	2029902	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.10	117	2013869	10.00	ppbv	-0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.45	95	1570776	9.35	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.50%

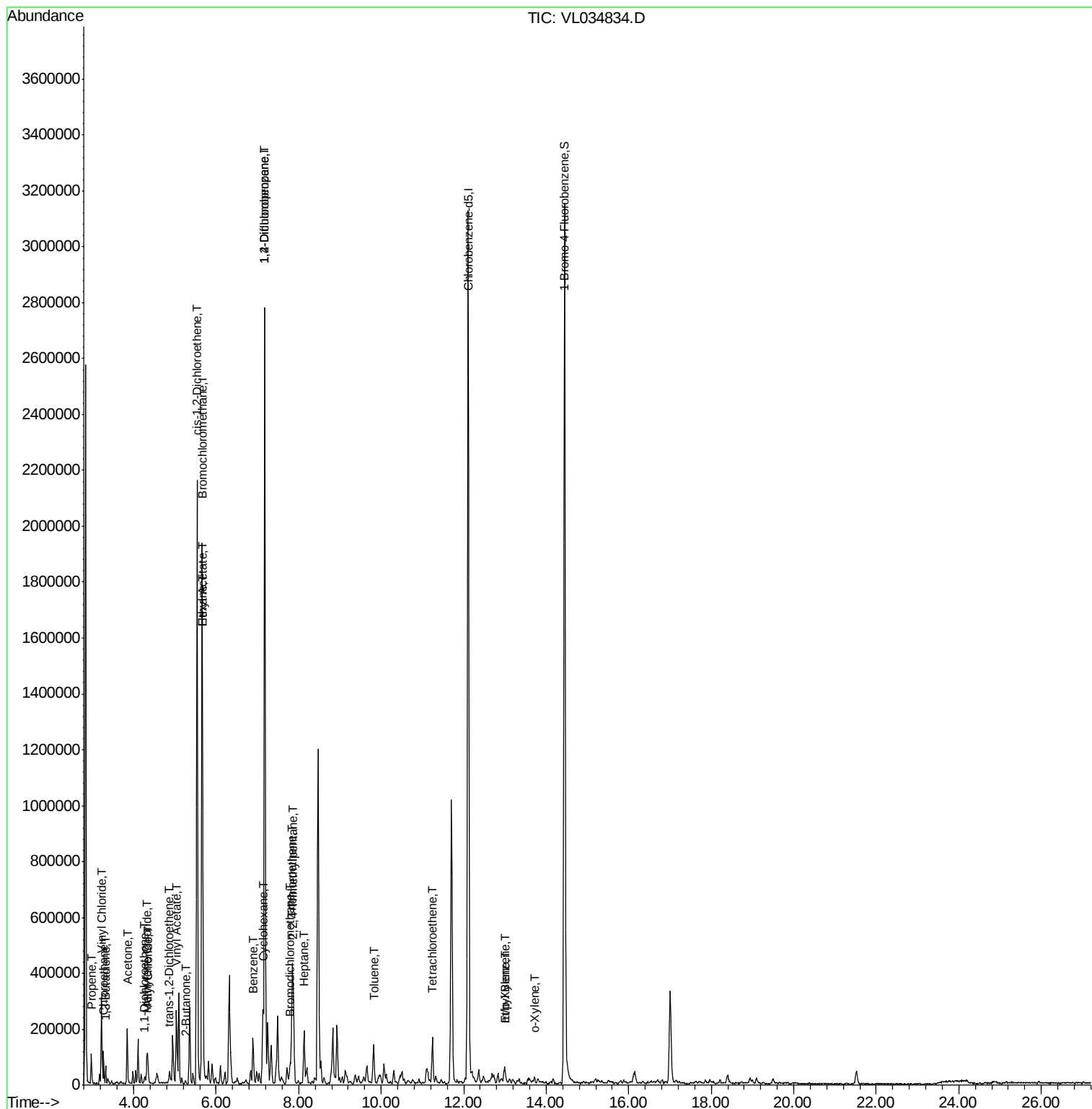
Target Compounds						Qvalue
5) Vinyl Chloride	3.22	62	249211	4.309	ppbv	96
7) Chloroethane	3.25	64	1028	0.051	ppbv #	44
9) Propene	2.97	41	43101	1.077	ppbv	92
10) Heptane	8.13	43	82886	0.815	ppbv	98
15) Acetone	3.84	43	114081	1.068	ppbv #	88
16) 1,3-Butadiene	3.32	39	7757	0.160	ppbv #	19
18) 1,1-Dichloroethene	4.27	96	1874	0.047	ppbv #	49
20) Methylene Chloride	4.32	84	25682	0.674	ppbv #	94
21) Allyl Chloride	4.35	41	15979	0.236	ppbv #	60
22) trans-1,2-Dichloroethene	4.86	96	3246	0.084	ppbv	93
23) Vinyl Acetate	5.04	43	86136	0.601	ppbv #	1
25) Ethyl Acetate	5.68	43	87026	0.471	ppbv #	78
26) Hexane	5.68	57	125699	1.559	ppbv #	40
30) Cyclohexane	7.13	84	92798	1.504	ppbv #	78
31) cis-1,2-Dichloroethene	5.54	61	1216616	14.708	ppbv	97
34) 2-Butanone	5.25	43	7194	0.054	ppbv #	87
36) Benzene	6.89	78	109957	0.634	ppbv	94
38) Trichloroethene	7.84	130	116260	1.720	ppbv	96
39) 1,2-Dichloropropane	7.18	63	517797	7.397	ppbv #	23
42) Bromodichloromethane	7.80	83	7224	0.048	ppbv #	25
44) 2,2,4-Trimethylpentane	7.87	57	223964	0.739	ppbv #	76
52) Tetrachloroethene	11.25	164	40148	0.626	ppbv #	83
53) Toluene	9.83	91	33493	0.182	ppbv #	84
58) Ethyl Benzene	13.01	91	8573	0.035	ppbv	90
59) m/p-Xylene	13.01	91	8573	0.040	ppbv #	31
60) o-Xylene	13.72	91	6796	0.031	ppbv #	36

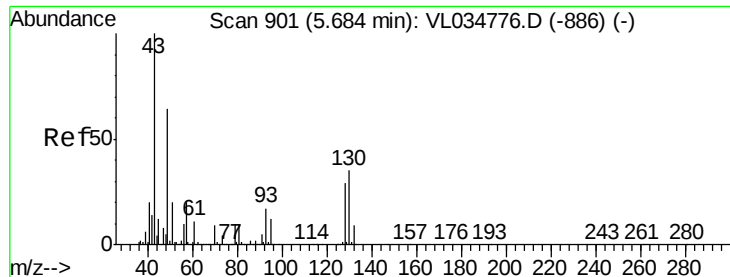
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Mar 04 06:36:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

SS-2-4DL2

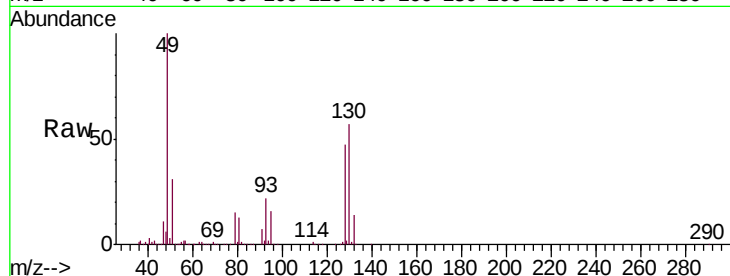
Tgt Ion: 49 Resp: 892130

Ion Ratio Lower Upper

49 100

128 48.0 21.6 64.6

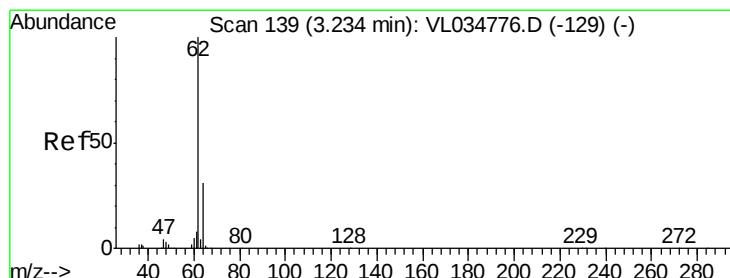
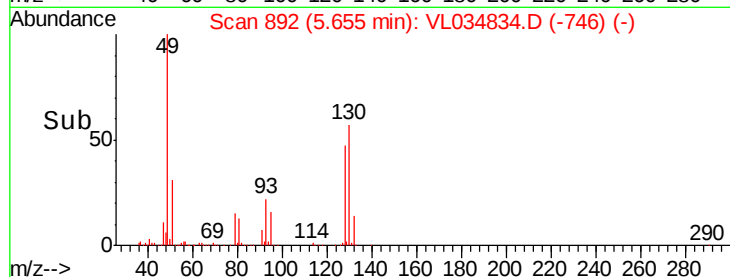
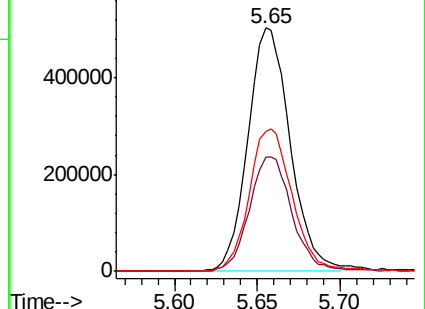
130 60.5 27.4 82.2



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#5

Vinyl Chloride

Concen: 4.309 ppbv

RT: 3.22 min Scan# 135

Delta R.T. -0.01 min

Lab File: VL034834.D

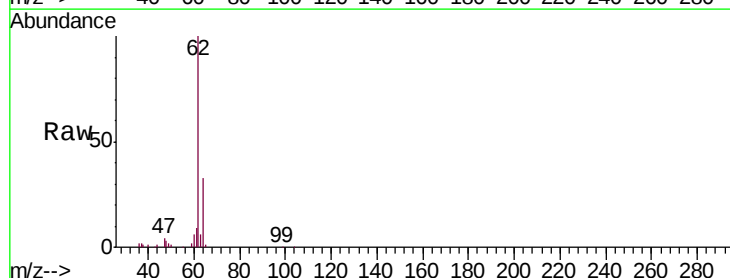
Acq: 7 Mar 2020 3:33

Tgt Ion: 62 Resp: 249211

Ion Ratio Lower Upper

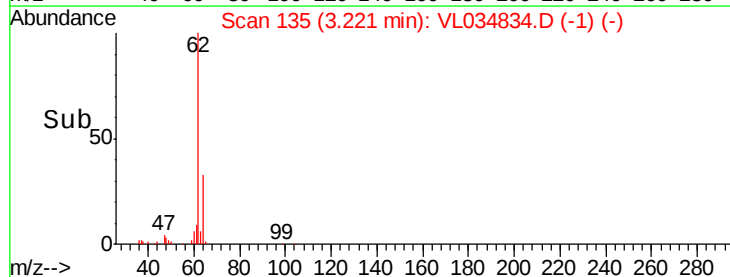
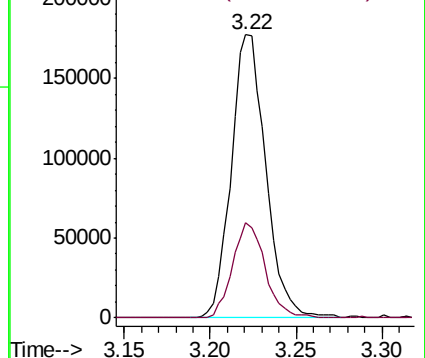
62 100

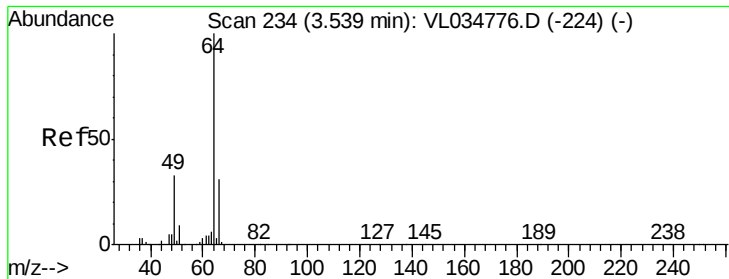
64 33.4 25.1 37.7



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





#7

Chloroethane

Concen: 0.051 ppbv

RT: 3.25 min Scan# 145

Delta R.T. -0.29 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

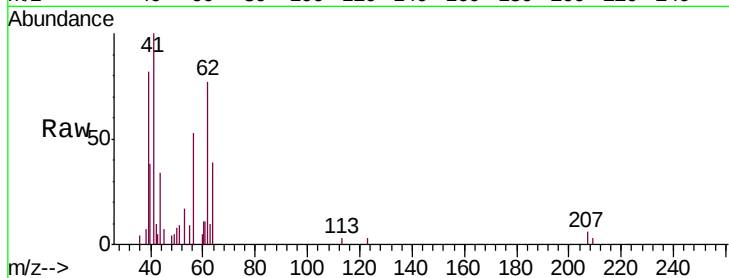
SS-2-4DL2

Tgt Ion: 64 Resp: 1028

Ion Ratio Lower Upper

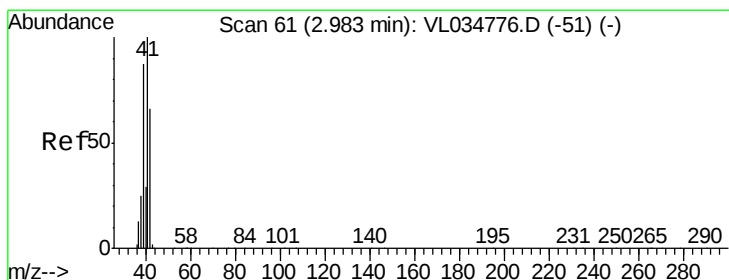
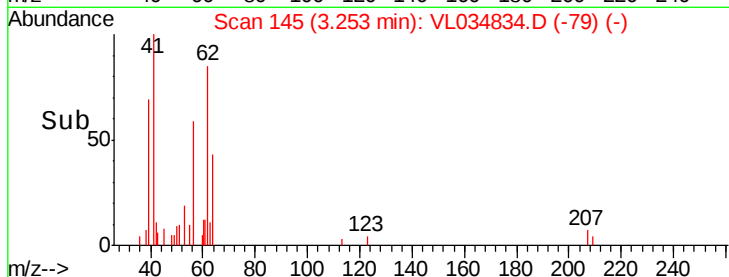
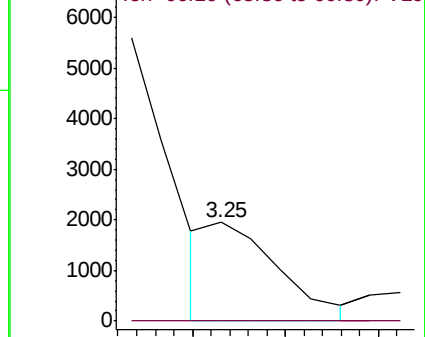
64 100

66 0.0 24.8 37.2#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 1.077 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.01 min

Lab File: VL034834.D

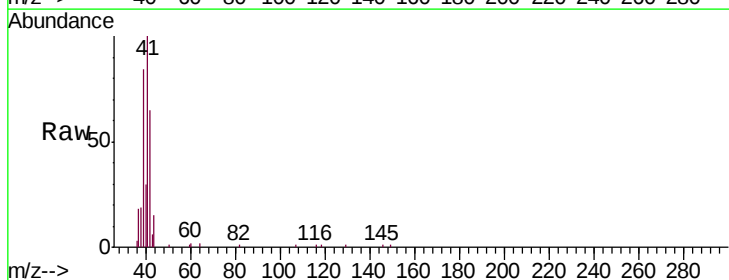
Acq: 7 Mar 2020 3:33

Tgt Ion: 41 Resp: 43101

Ion Ratio Lower Upper

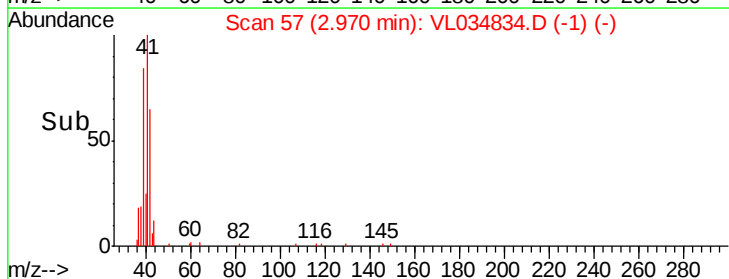
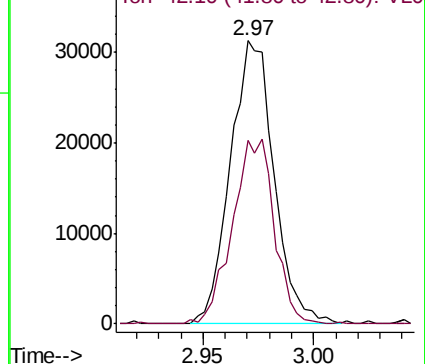
41 100

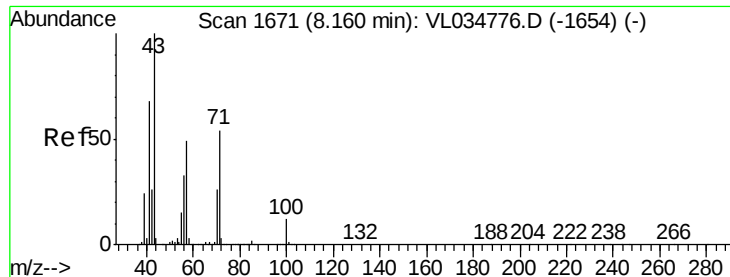
42 62.7 55.6 83.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

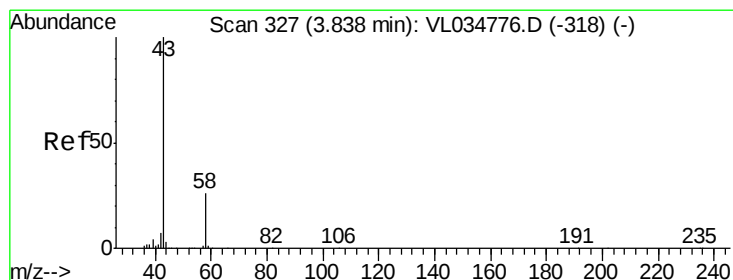
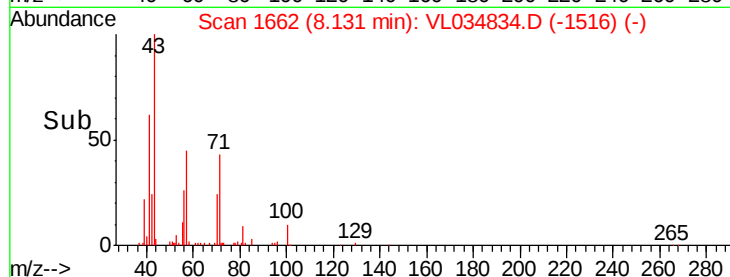
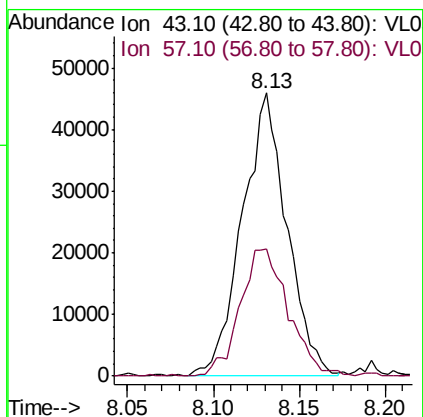
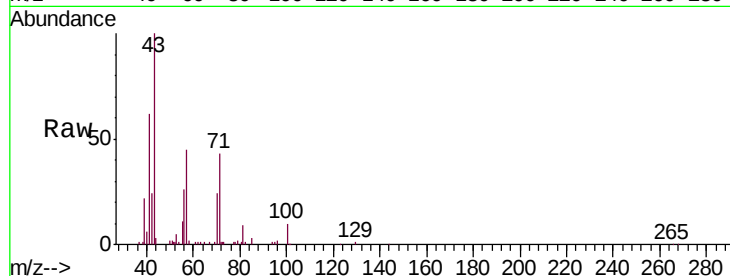




#10
Heptane
Concen: 0.815 ppbv
RT: 8.13 min Scan# 1662
Delta R.T. -0.03 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

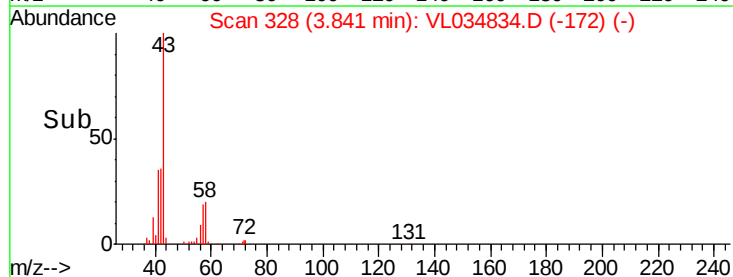
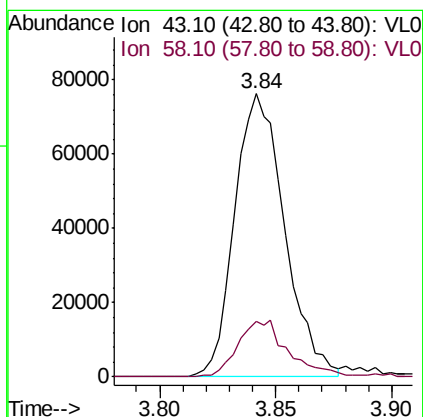
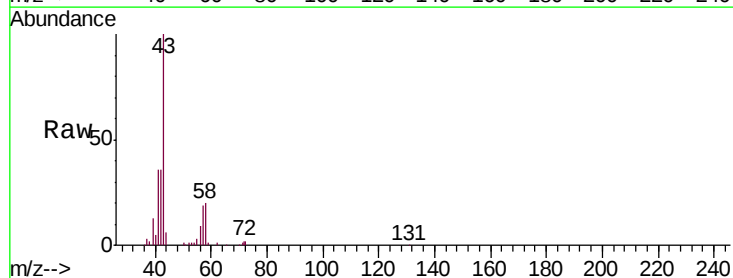
Instrument :
MSVOA_L
ClientSampleId :
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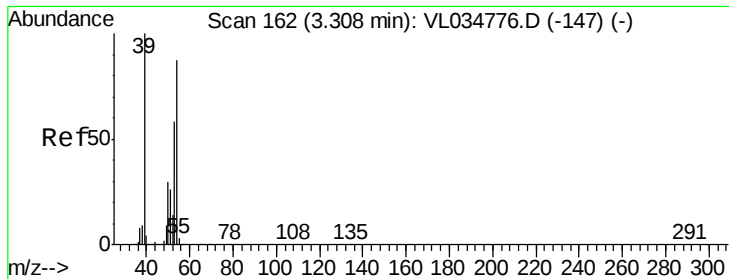
Tgt Ion: 43 Resp: 82886
Ion Ratio Lower Upper
43 100
57 49.1 40.5 60.7



#15
Acetone
Concen: 1.068 ppbv
RT: 3.84 min Scan# 328
Delta R.T. 0.00 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Tgt Ion: 43 Resp: 114081
Ion Ratio Lower Upper
43 100
58 20.2 21.0 31.6#

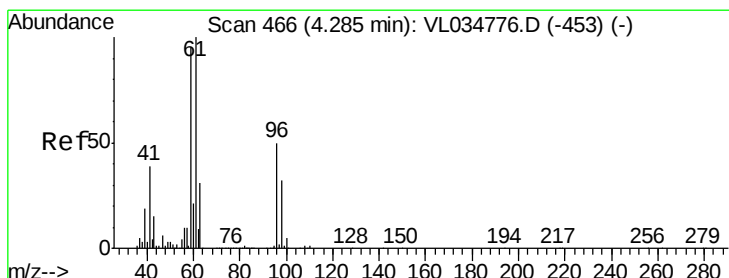
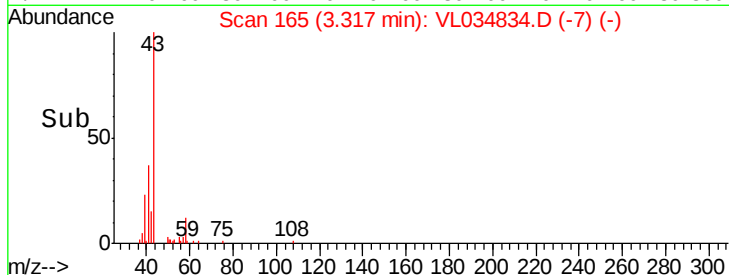
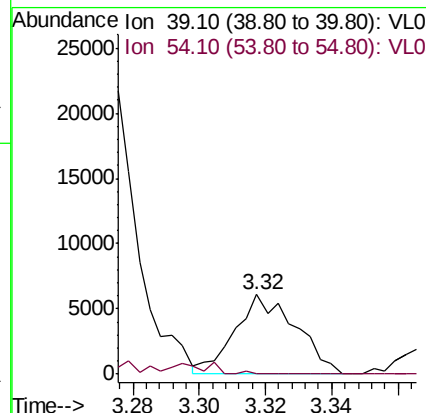
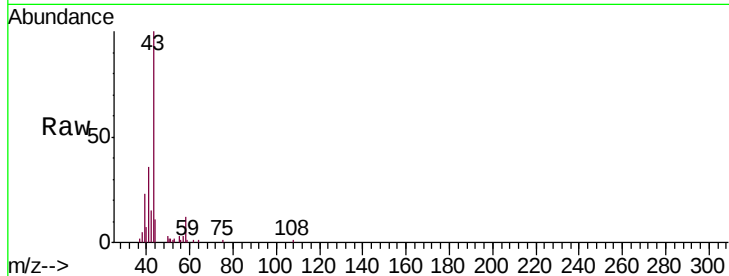




#16
 1,3-Butadiene
 Concen: 0.160 ppbv
 RT: 3.32 min Scan# 165
 Delta R.T. 0.01 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

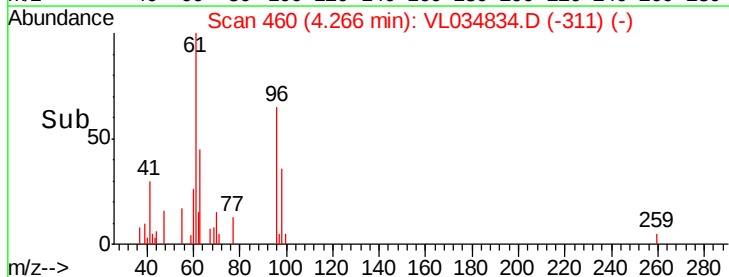
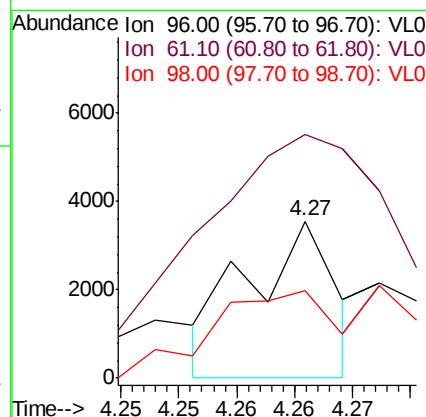
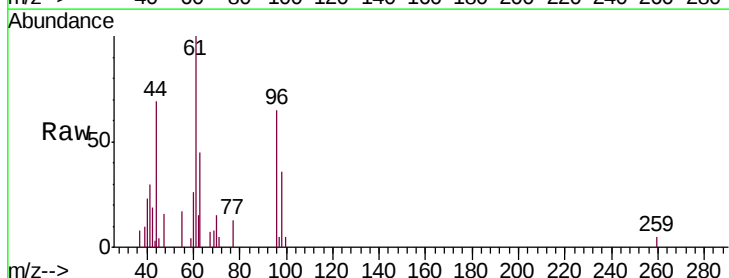
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2-4DL2

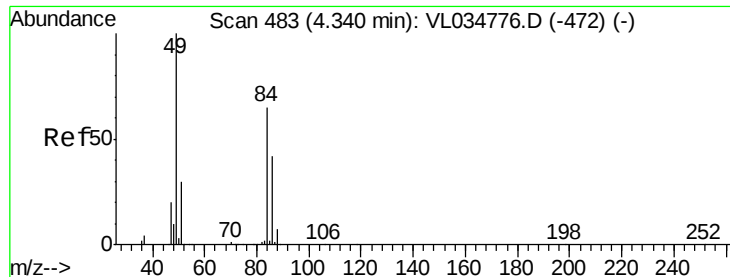
Tgt Ion: 39 Resp: 7757
 Ion Ratio Lower Upper
 39 100
 54 8.8 64.2 96.2#



#18
 1,1-Dichloroethene
 Concen: 0.047 ppbv
 RT: 4.27 min Scan# 460
 Delta R.T. -0.02 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

Tgt Ion: 96 Resp: 1874
 Ion Ratio Lower Upper
 96 100
 61 96.8 159.5 239.3#
 98 63.6 51.1 76.7

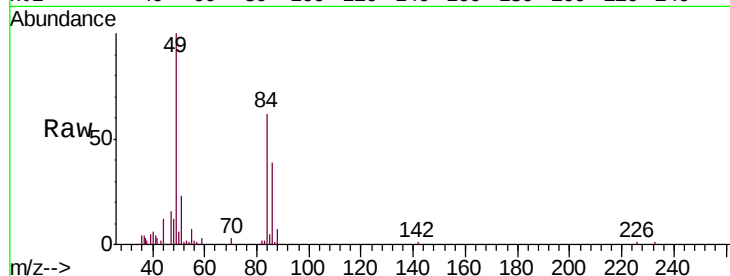




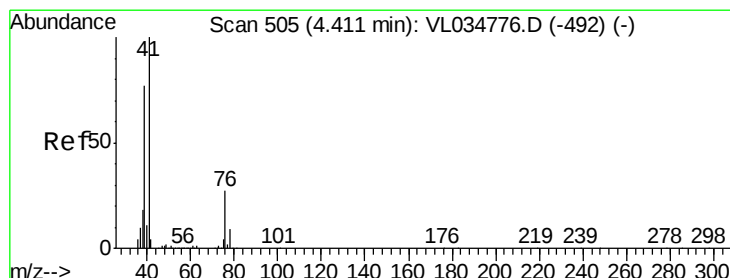
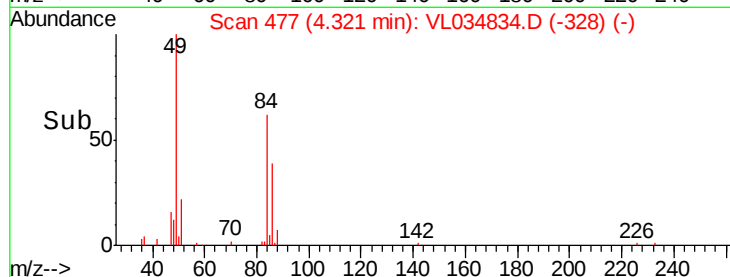
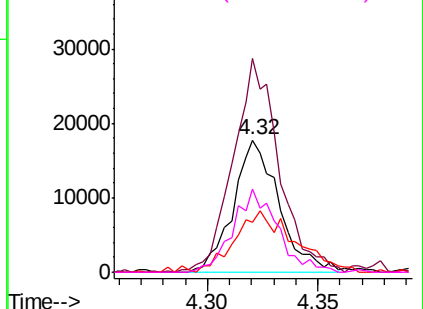
#20
Methylene Chloride
Concen: 0.674 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.02 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Instrument :
MSVOA_L
ClientSampleId :
SS-2-4DL2

Tgt Ion: 84 Resp: 25682
Ion Ratio Lower Upper
84 100
49 159.8 123.2 184.8
51 36.0 37.4 56.2#
86 63.5 51.6 77.4

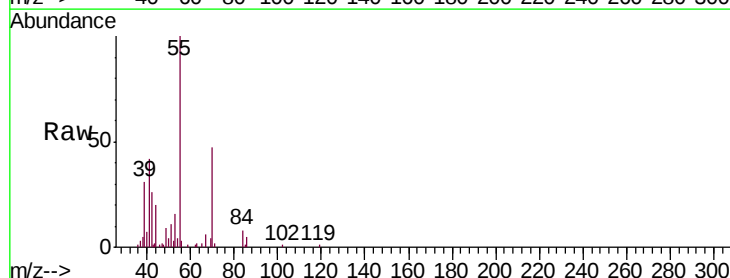


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

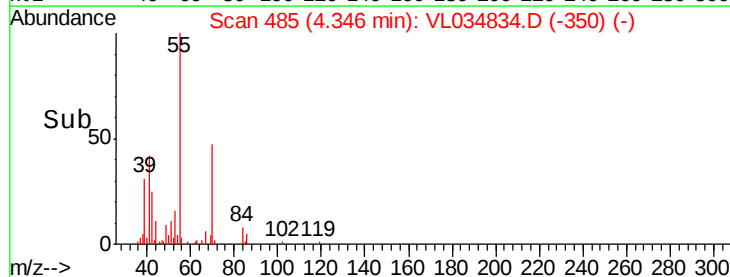
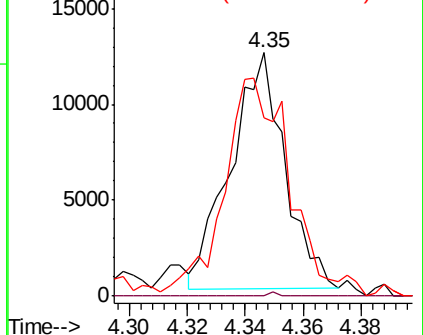


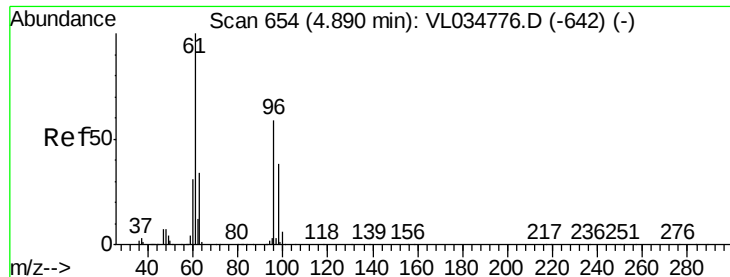
#21
Allyl Chloride
Concen: 0.236 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.06 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Tgt Ion: 41 Resp: 15979
Ion Ratio Lower Upper
41 100
76 0.0 22.5 33.7#
39 112.8 65.0 97.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#22

trans-1,2-Dichloroethene

Concen: 0.084 ppbv

RT: 4.86 min Scan# 645

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

SS-2-4DL2

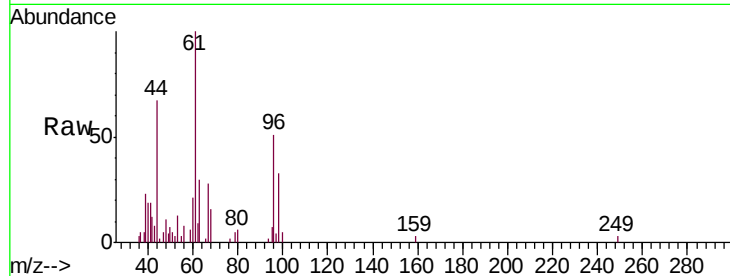
Tgt Ion: 96 Resp: 3246

Ion Ratio Lower Upper

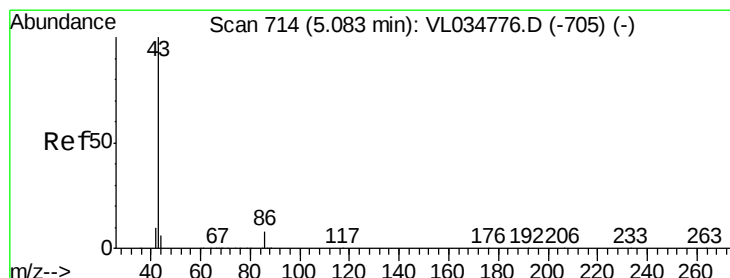
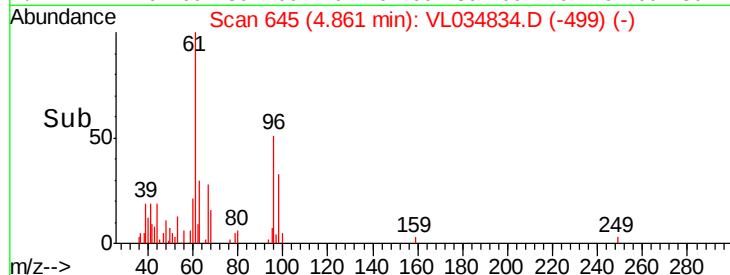
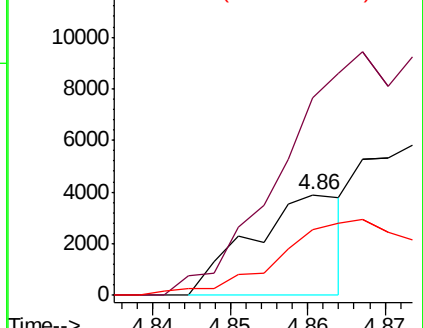
96 100

61 178.0 135.2 202.8

98 58.5 50.8 76.2



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



#23

Vinyl Acetate

Concen: 0.601 ppbv

RT: 5.04 min Scan# 702

Delta R.T. -0.04 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Tgt Ion: 43 Resp: 86136

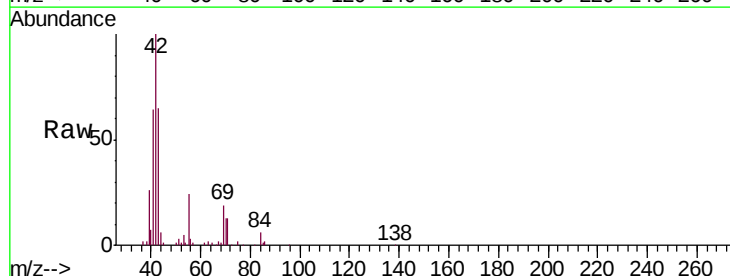
Ion Ratio Lower Upper

43 100

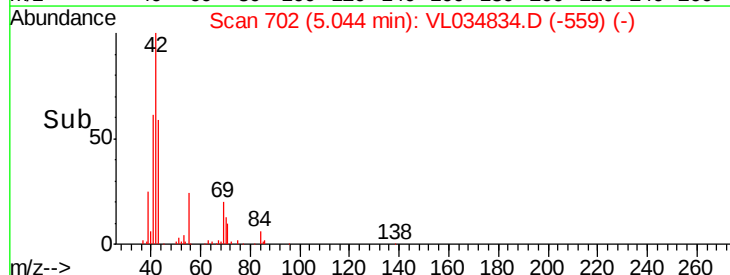
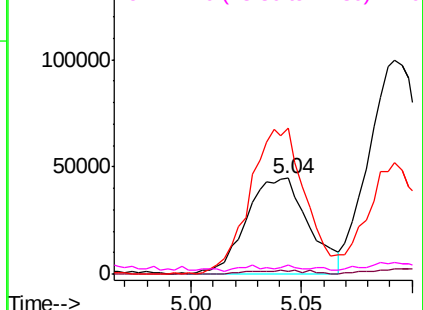
86 3.2 5.9 8.9#

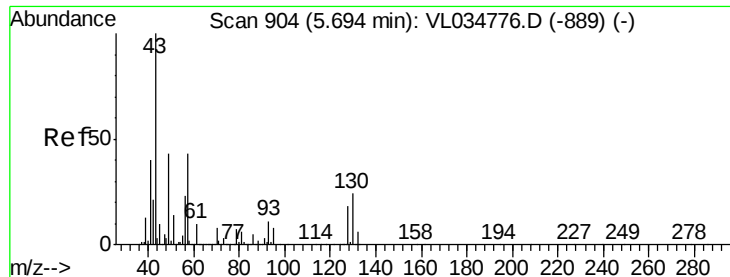
42 152.5 8.2 12.2#

44 5.5 4.5 6.7



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

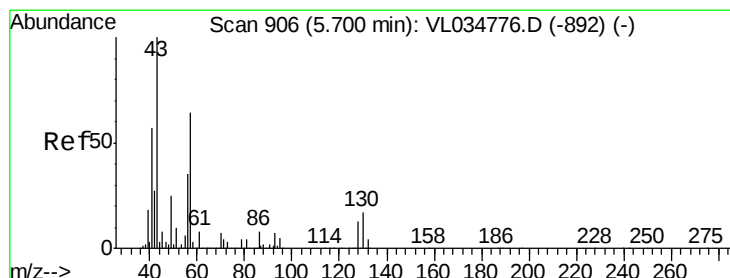
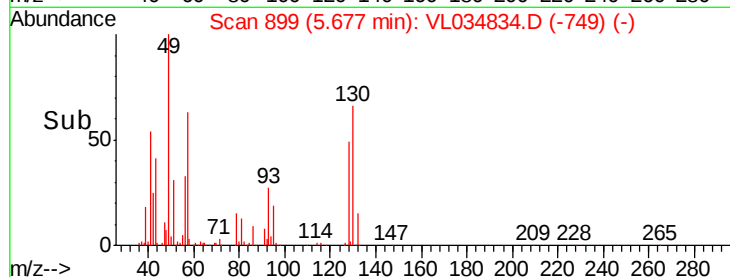
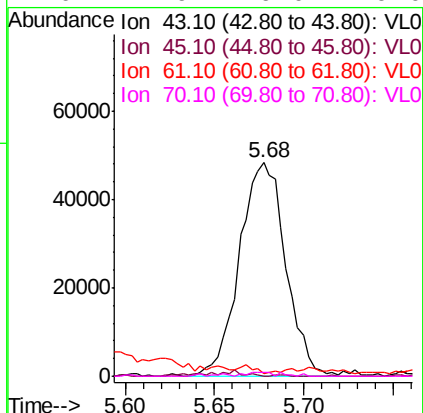
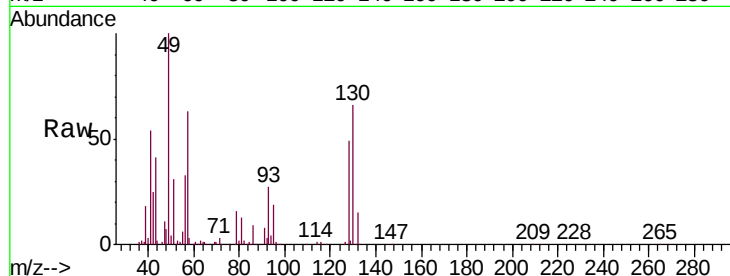




#25
Ethyl Acetate
Concen: 0.471 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.02 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

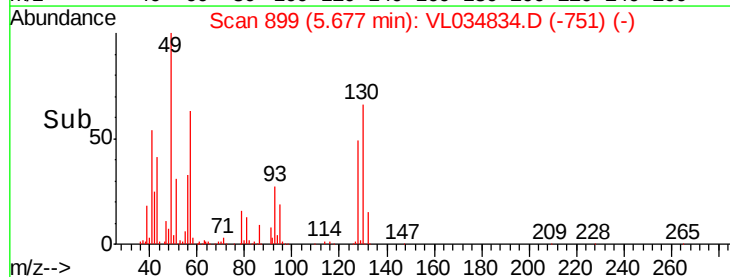
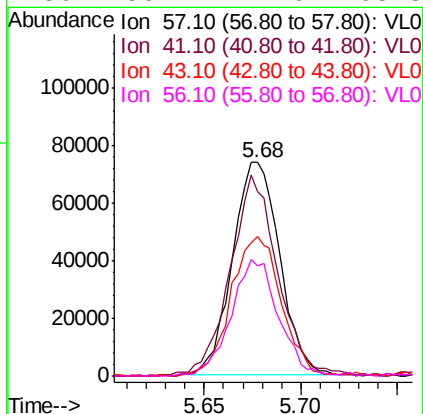
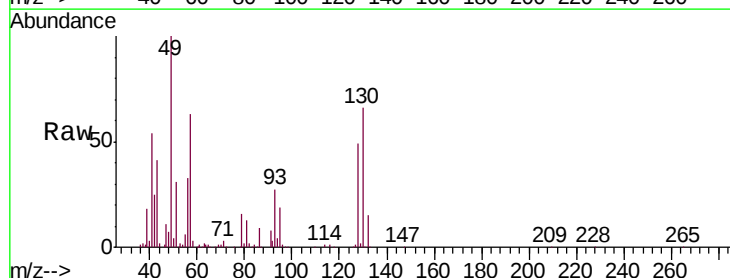
Instrument :
MSVOA_L
ClientSampleId :
SS-2-4DL2

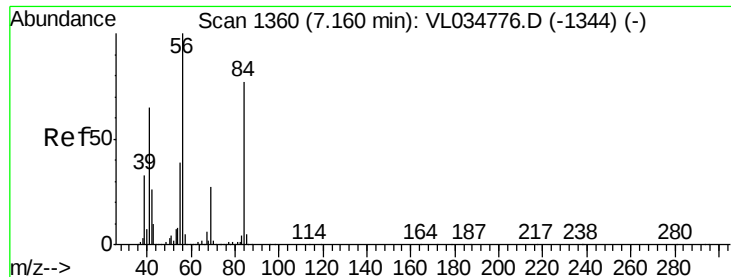
Tgt Ion:	43	Resp:	87026
Ion	Ratio	Lower	Upper
43	100		
45	1.8	8.2	12.4#
61	0.0	7.5	11.3#
70	1.9	6.0	9.0#



#26
Hexane
Concen: 1.559 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.02 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Tgt Ion:	57	Resp:	125699
Ion	Ratio	Lower	Upper
57	100		
41	95.4	72.0	108.0
43	70.1	179.1	268.7#
56	55.2	42.6	63.8

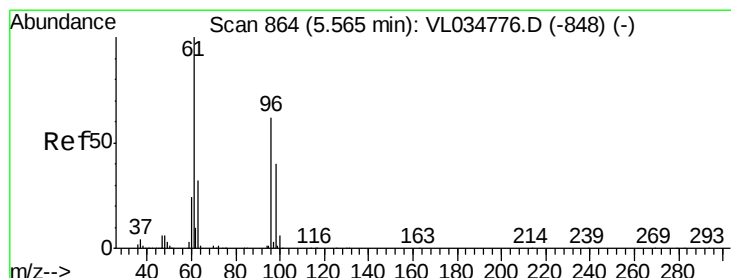
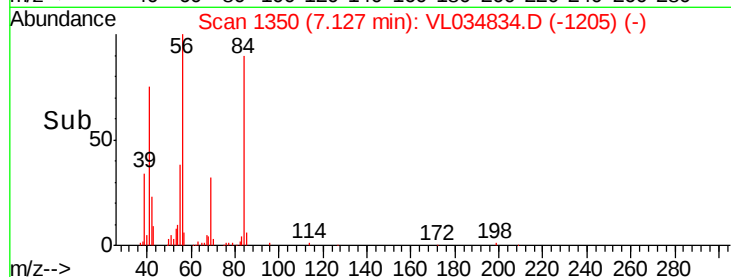
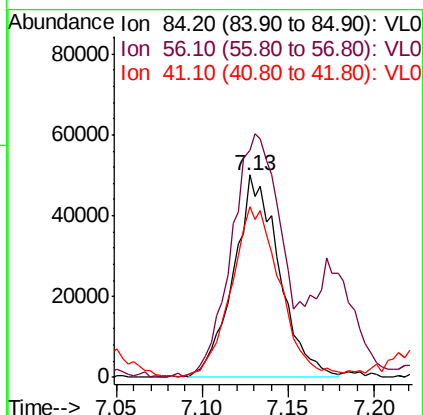
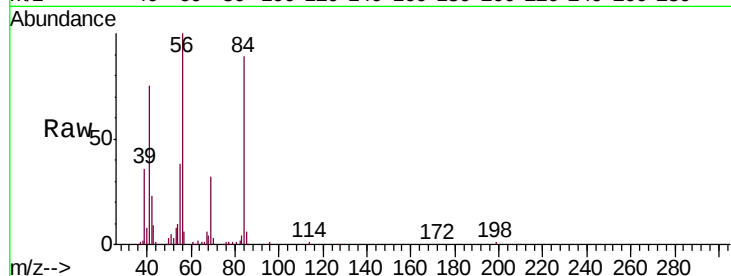




#30
Cyclohexane
Concen: 1.504 ppbv
RT: 7.13 min Scan# 1350
Delta R.T. -0.03 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

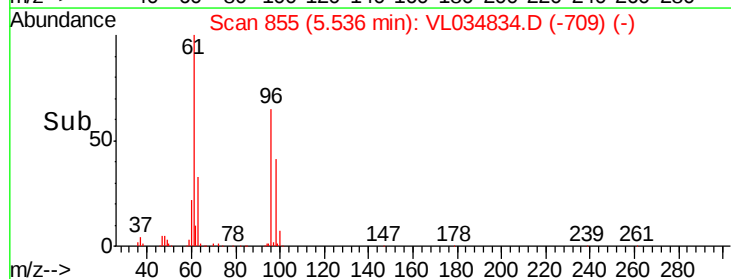
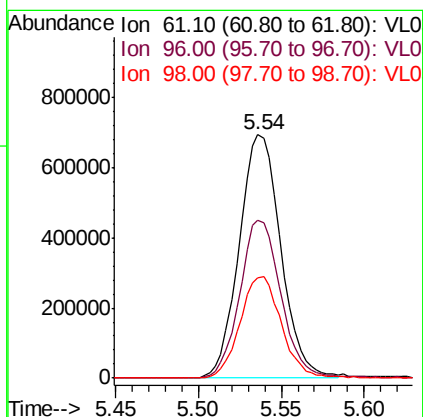
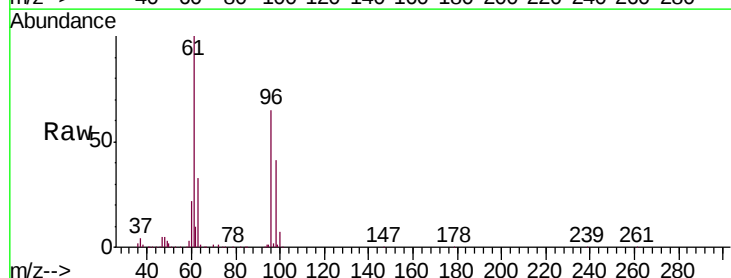
Instrument :
MSVOA_L
ClientSampleId :
SS-2-4DL2

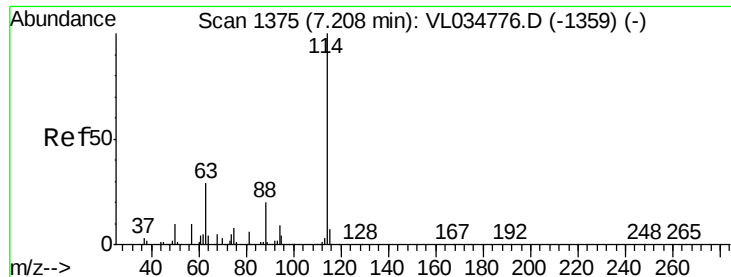
Tgt Ion: 84 Resp: 92798
Ion Ratio Lower Upper
84 100
56 184.8 113.2 169.8#
41 89.3 70.2 105.4



#31
cis-1,2-Dichloroethene
Concen: 14.708 ppbv
RT: 5.54 min Scan# 855
Delta R.T. -0.03 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Tgt Ion: 61 Resp: 1216616
Ion Ratio Lower Upper
61 100
96 64.6 49.7 74.5
98 41.2 31.9 47.9

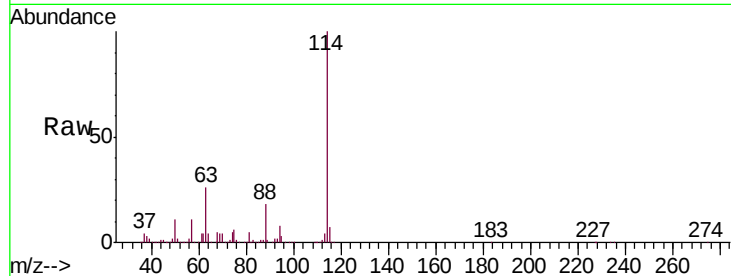




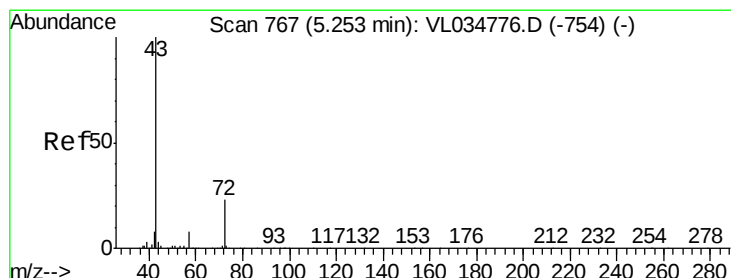
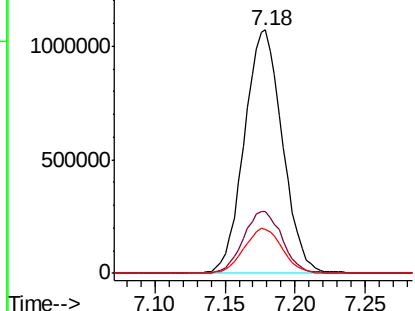
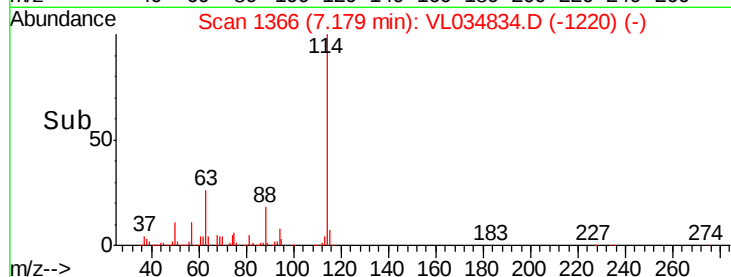
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1366
 Delta R.T. -0.03 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2-4DL2

Tgt Ion:114 Resp: 2029902
 Ion Ratio Lower Upper
 114 100
 63 25.9 23.6 35.4
 88 18.7 15.8 23.8

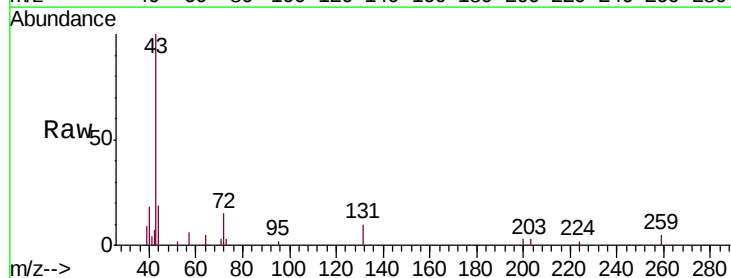


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

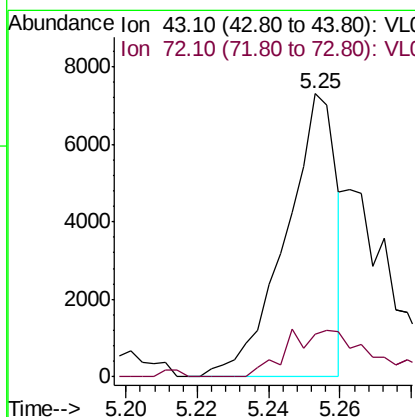
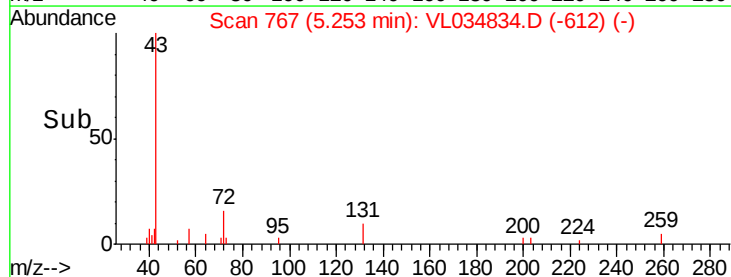


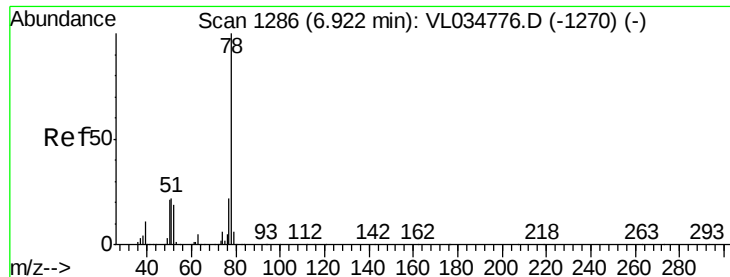
#34
 2-Butanone
 Concen: 0.054 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. -0.00 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

Tgt Ion: 43 Resp: 7194
 Ion Ratio Lower Upper
 43 100
 72 28.3 17.5 26.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.634 ppbv

RT: 6.89 min Scan# 1277

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

SS-2-4DL2

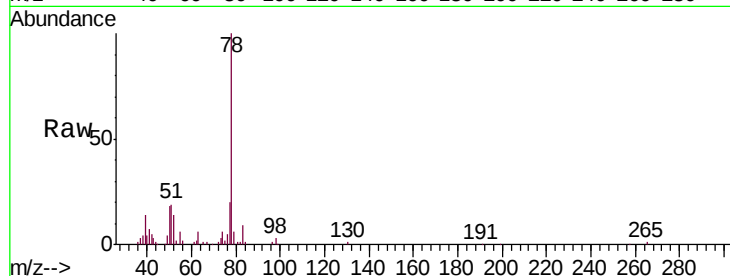
Tgt Ion: 78 Resp: 109957

Ion Ratio Lower Upper

78 100

77 20.2 18.0 27.0

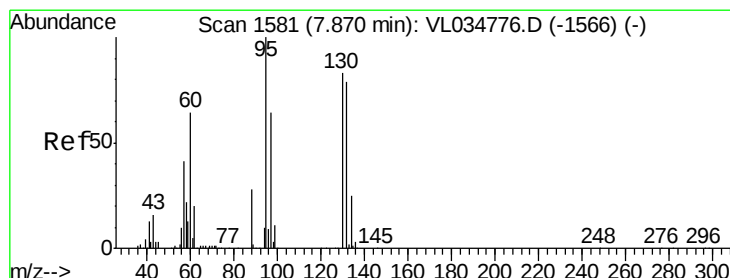
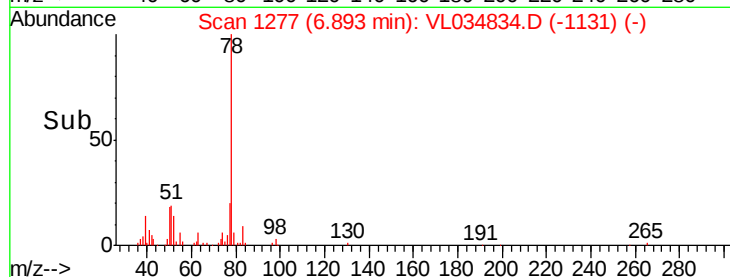
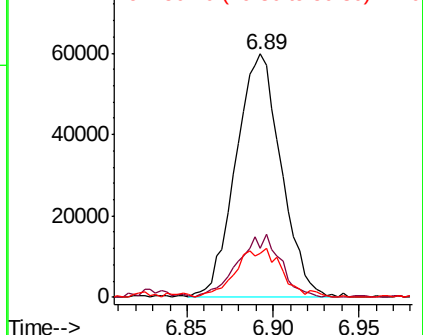
50 17.4 16.9 25.3



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: 1.720 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Tgt Ion: 130 Resp: 116260

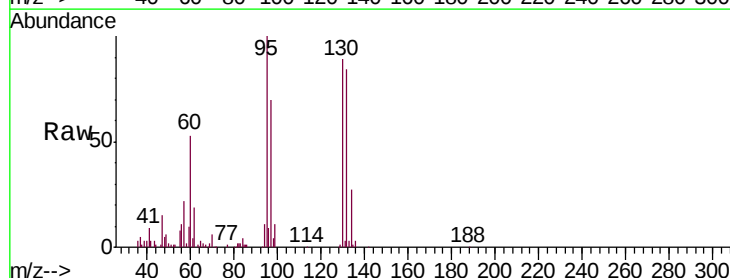
Ion Ratio Lower Upper

130 100

95 112.4 95.8 143.8

132 94.2 76.1 114.1

97 78.4 61.1 91.7

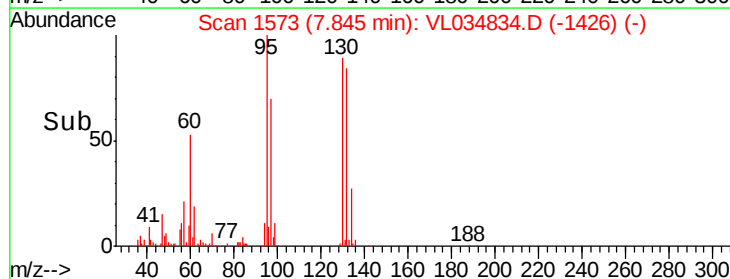
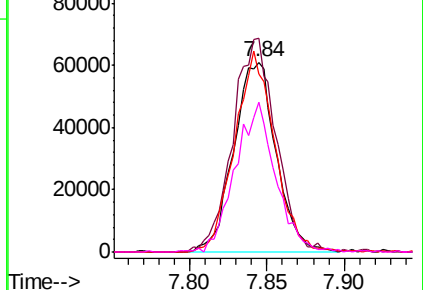


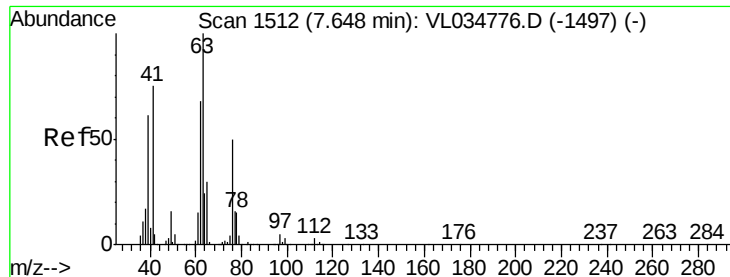
Abundance Ion 130.00 (129.70 to 130.70): V

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: 7.397 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.47 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

SS-2-4DL2

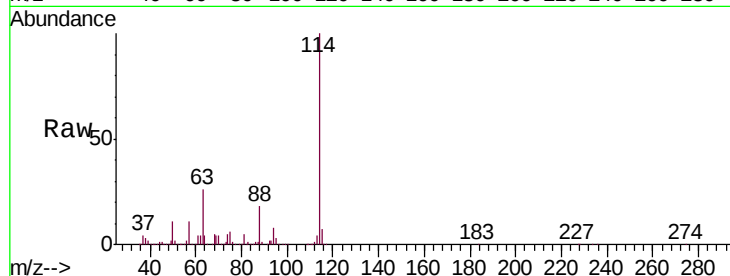
Tgt Ion: 63 Resp: 517797

Ion Ratio Lower Upper

63 100

41 0.0 60.3 90.5#

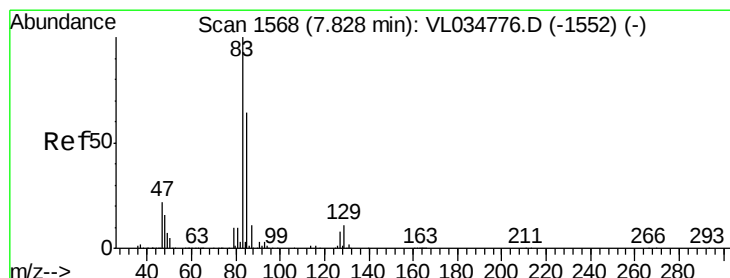
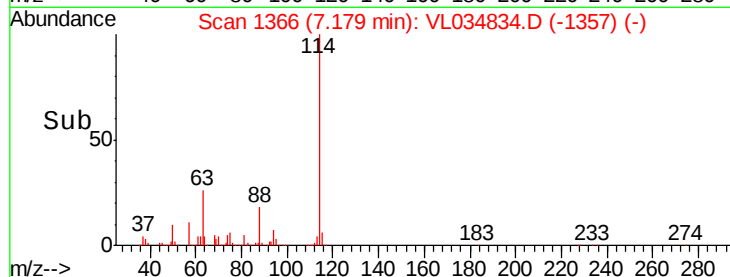
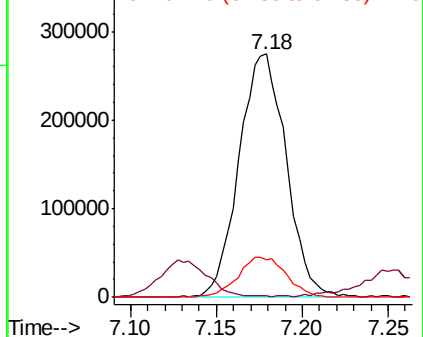
62 15.6 54.5 81.7#



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: 0.048 ppbv

RT: 7.80 min Scan# 1558

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

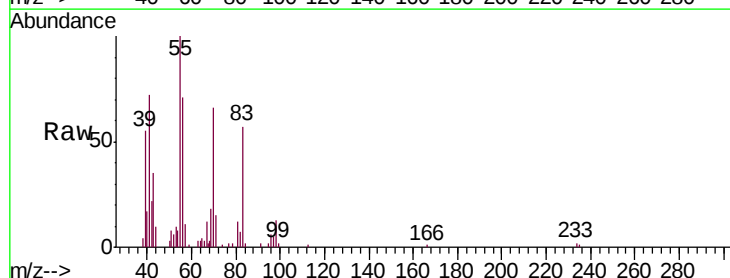
Tgt Ion: 83 Resp: 7224

Ion Ratio Lower Upper

83 100

85 0.0 50.8 76.2#

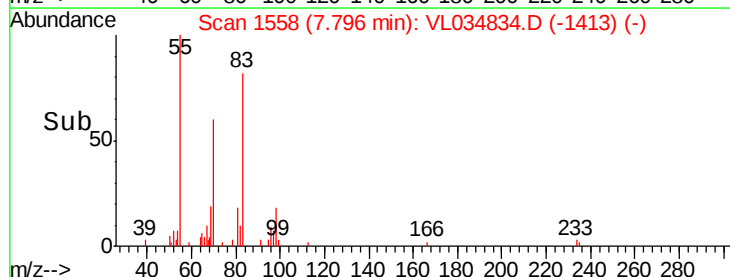
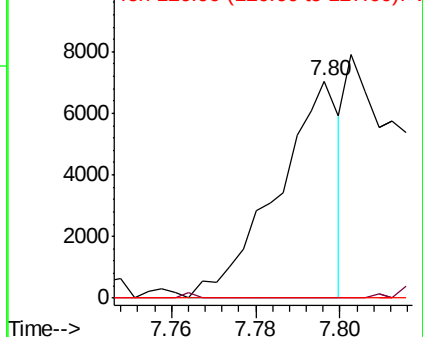
127 0.0 6.5 9.7#

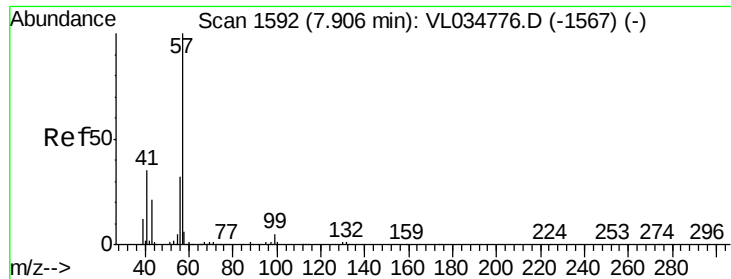


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V

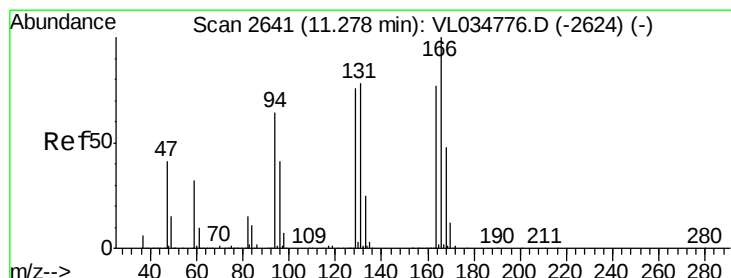
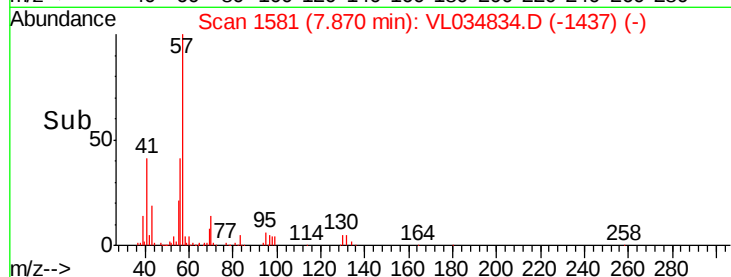
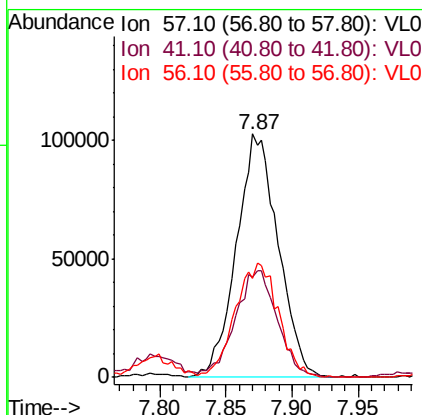
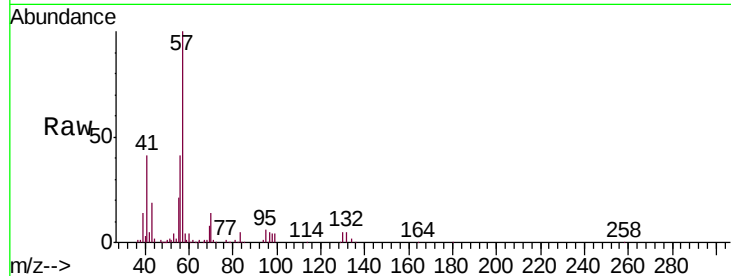




#44
 2,2,4-Trimethylpentane
 Concen: 0.739 ppbv
 RT: 7.87 min Scan# 1581
 Delta R.T. -0.04 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

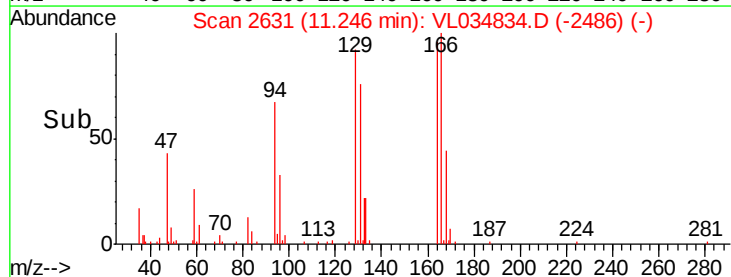
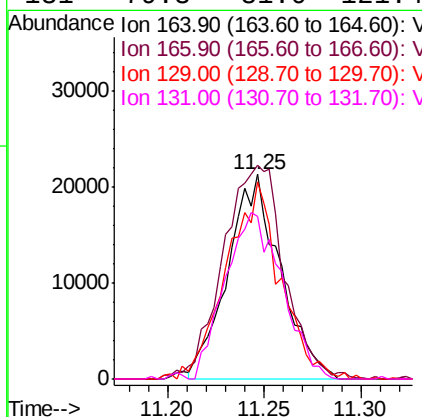
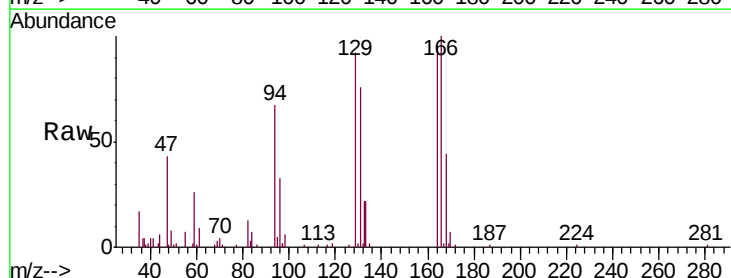
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2-4DL2

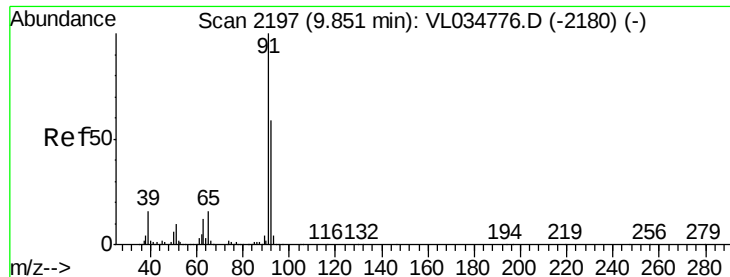
Tgt Ion: 57 Resp: 223964
 Ion Ratio Lower Upper
 57 100
 41 44.7 27.4 41.0#
 56 47.7 25.0 37.6#



#52
 Tetrachloroethene
 Concen: 0.626 ppbv
 RT: 11.25 min Scan# 2631
 Delta R.T. -0.03 min
 Lab File: VL034834.D
 Acq: 7 Mar 2020 3:33

Tgt Ion: 164 Resp: 40148
 Ion Ratio Lower Upper
 164 100
 166 101.0 103.3 154.9#
 129 94.7 79.0 118.4
 131 79.3 81.0 121.4#





#53

Toluene

Concen: 0.182 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. -0.03 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

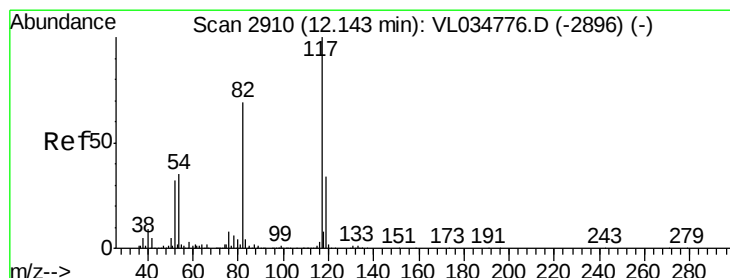
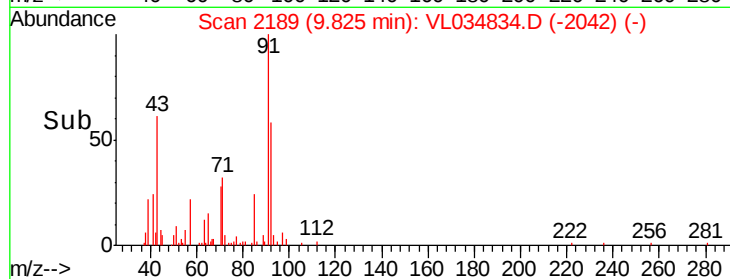
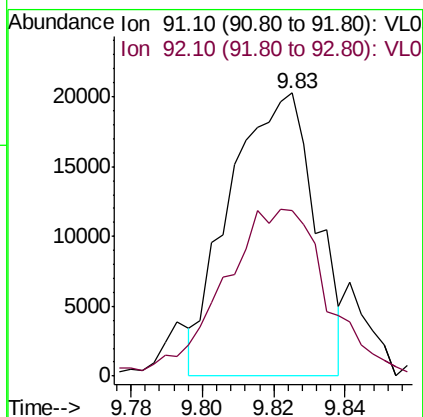
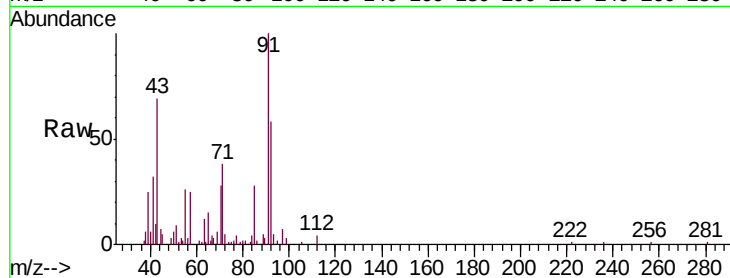
SS-2-4DL2

Tgt Ion: 91 Resp: 33493

Ion Ratio Lower Upper

91 100

92 72.3 48.2 72.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.04 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

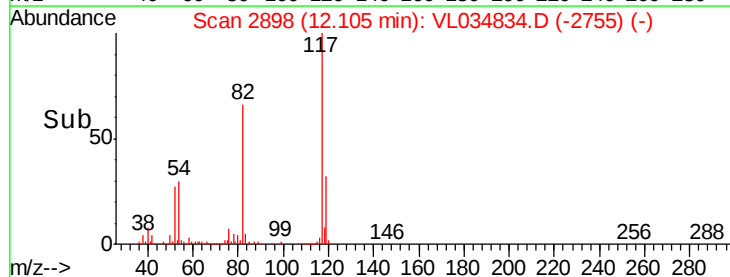
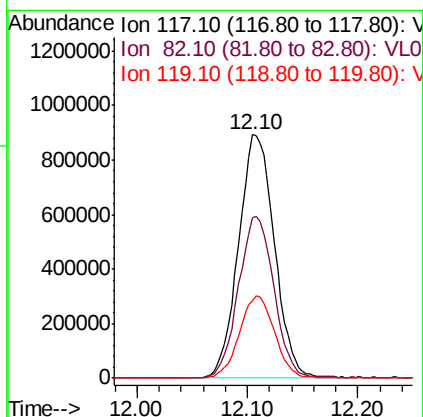
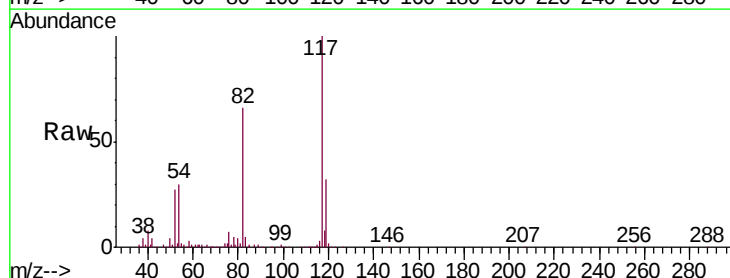
Tgt Ion: 117 Resp: 2013869

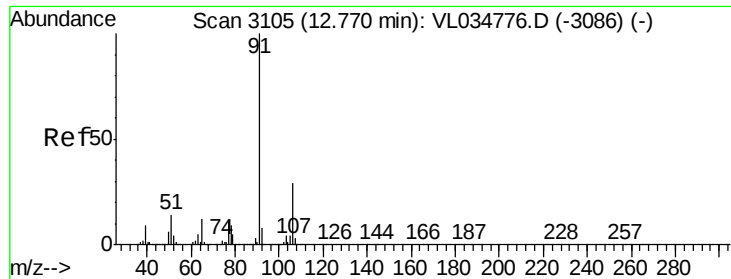
Ion Ratio Lower Upper

117 100

82 65.7 53.9 80.9

119 33.1 25.0 37.4





#58

Ethyl Benzene

Concen: 0.035 ppbv

RT: 13.01 min Scan# 3179

Delta R.T. 0.24 min

Lab File: VL034834.D

Acq: 7 Mar 2020 3:33

Instrument :

MSVOA_L

ClientSampleId :

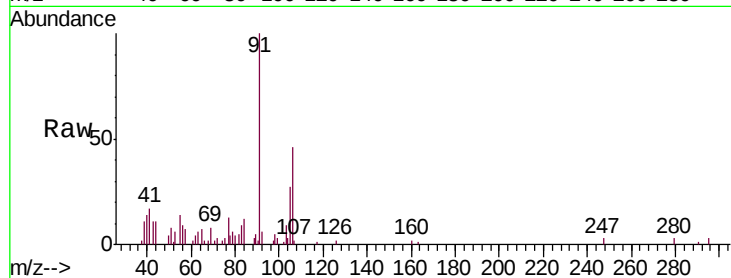
SS-2-4DL2

Tgt Ion: 91 Resp: 8573

Ion Ratio Lower Upper

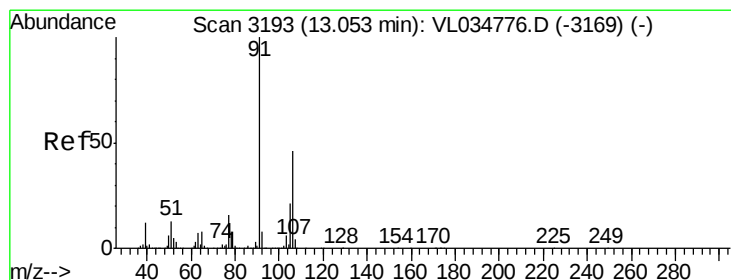
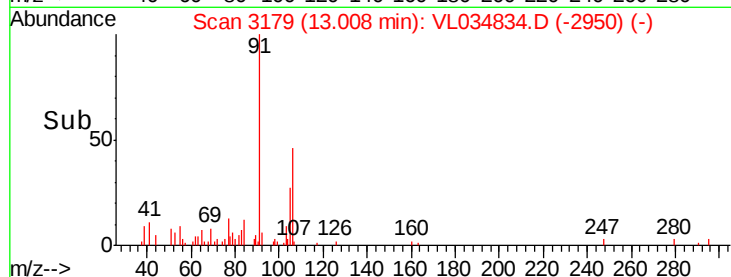
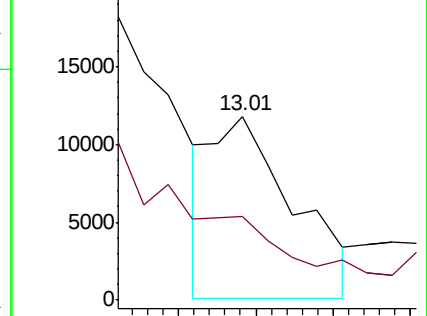
91 100

106 33.6 22.8 34.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.040 ppbv

RT: 13.01 min Scan# 3179

Delta R.T. -0.05 min

Lab File: VL034834.D

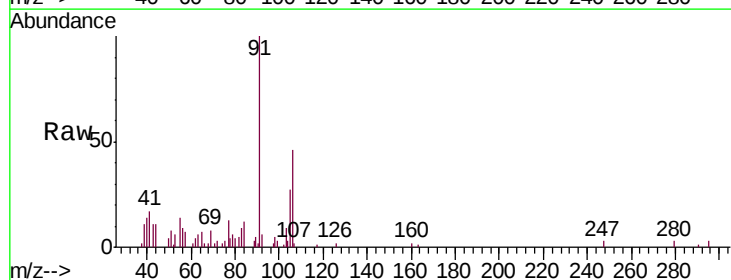
Acq: 7 Mar 2020 3:33

Tgt Ion: 91 Resp: 8573

Ion Ratio Lower Upper

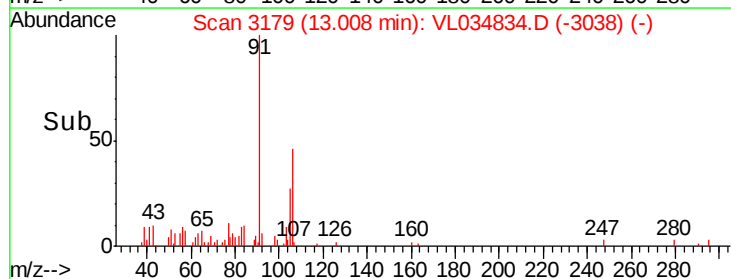
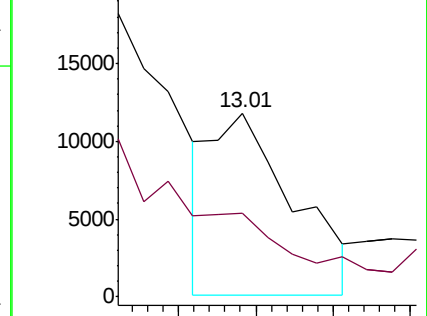
91 100

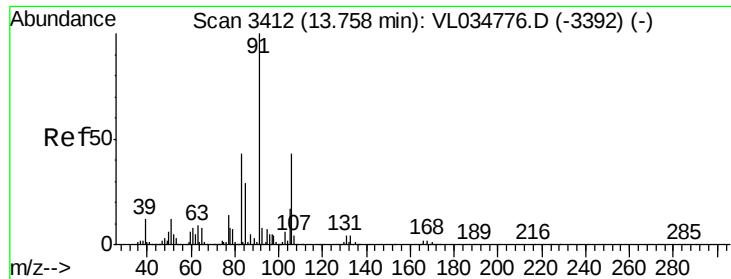
106 0.0 35.8 53.8#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

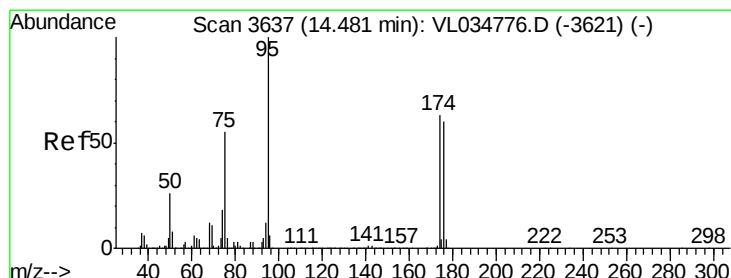
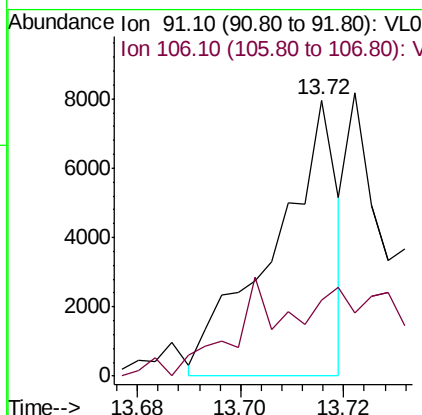
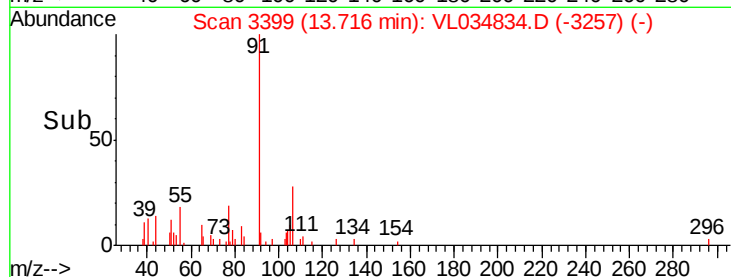
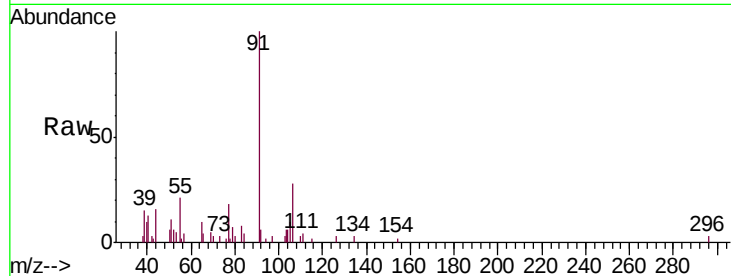




#60
o-Xylene
Concen: 0.031 ppbv
RT: 13.72 min Scan# 3399
Delta R.T. -0.04 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Instrument :
MSVOA_L
ClientSampleId :
SS-2-4DL2

Tgt Ion: 91 Resp: 6796
Ion Ratio Lower Upper
91 100
106 84.3 21.7 65.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.354 ppbv
RT: 14.45 min Scan# 3627
Delta R.T. -0.03 min
Lab File: VL034834.D
Acq: 7 Mar 2020 3:33

Tgt Ion: 95 Resp: 1570776
Ion Ratio Lower Upper
95 100
174 70.3 50.6 76.0
175 5.6 3.8 5.6

