

Data File : VL034580.D
Acq On : 4 Feb 2020 15:15
Operator : SY/AP
Sample : L1356-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-1

Quant Time: Feb 05 05:43:54 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL013020AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu Jan 30 17:16:44 2020
QLast Update : Thu Jan 30 17:16:44 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	954464	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	1932903	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	1859926	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.46 95 1634239 10.40 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 104.00%

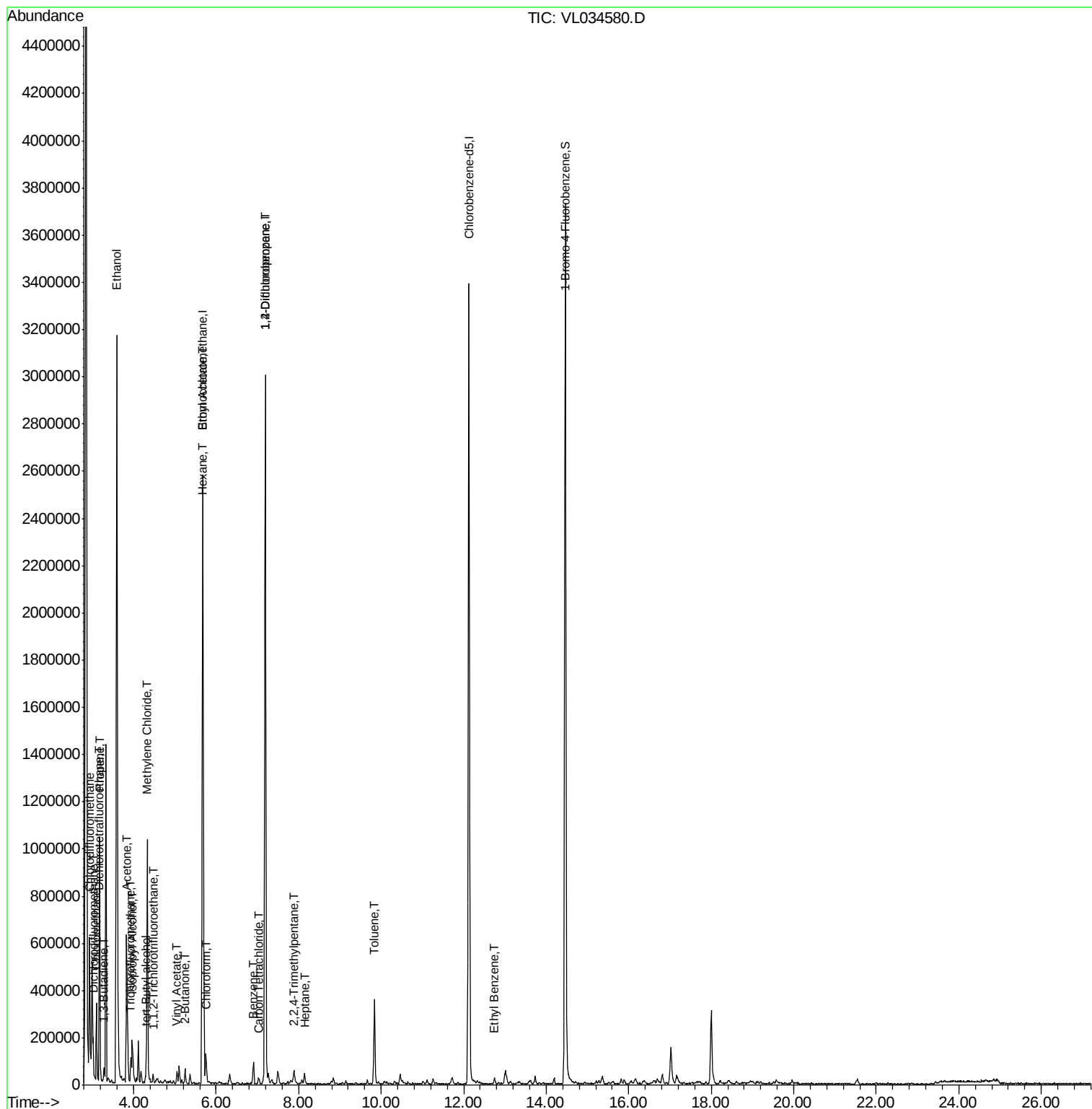
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	104139	0.495	ppbv #	82
3) Chlorodifluoromethane	2.93	51	359453	3.117	ppbv #	60
4) Chloromethane	3.11	50	20501	0.291	ppbv	94
8) Dichlorotetrafluoroethane	3.16	85	4973	0.030	ppbv	93
9) Propene	3.17	41	268556	5.981	ppbv	92
10) Heptane	8.14	43	3566	0.032	ppbv #	26
11) Trichlorofluoromethane	3.93	101	61904	0.324	ppbv #	81
12) 1,1,2-Trichlorotrifluoroet	4.47	101	7583	0.061	ppbv #	69
13) Ethanol	3.59	45	3477253	289.095	ppbv	97
15) Acetone	3.83	43	631951	4.505	ppbv	97
16) 1,3-Butadiene	3.28	39	15322	0.275	ppbv #	74
17) tert-Butyl alcohol	4.29	59	4167	0.040	ppbv #	71
19) Isopropyl Alcohol	3.96	45	83960	1.026	ppbv #	84
20) Methylene Chloride	4.33	84	324832	6.081	ppbv	97
23) Vinyl Acetate	5.06	43	10662	0.067	ppbv #	1
25) Ethyl Acetate	5.68	43	359750	1.584	ppbv #	90
26) Hexane	5.69	57	314267	3.304	ppbv #	55
29) Chloroform	5.75	83	68611	0.408	ppbv	93
34) 2-Butanone	5.25	43	32028	0.228	ppbv #	56
35) Carbon Tetrachloride	7.03	117	11130	0.060	ppbv #	67
36) Benzene	6.90	78	29607	0.172	ppbv	96
39) 1,2-Dichloropropane	7.19	63	551555	7.740	ppbv #	20
44) 2,2,4-Trimethylpentane	7.89	57	28328	0.091	ppbv #	42
53) Toluene	9.84	91	246978	1.308	ppbv	98
58) Ethyl Benzene	12.74	91	11067	0.044	ppbv	97

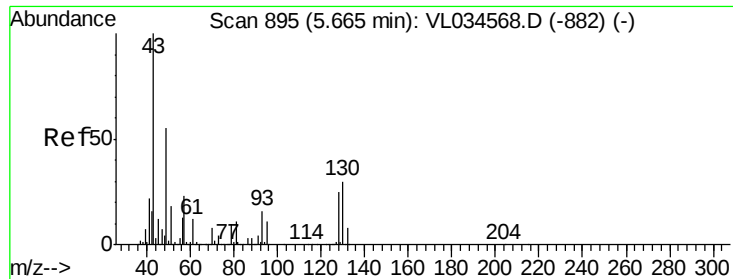
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

IA-1

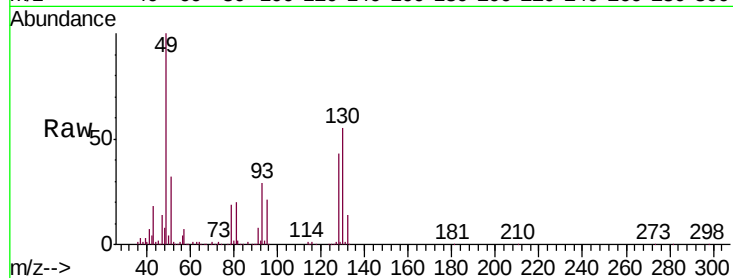
Tgt Ion: 49 Resp: 954464

Ion Ratio Lower Upper

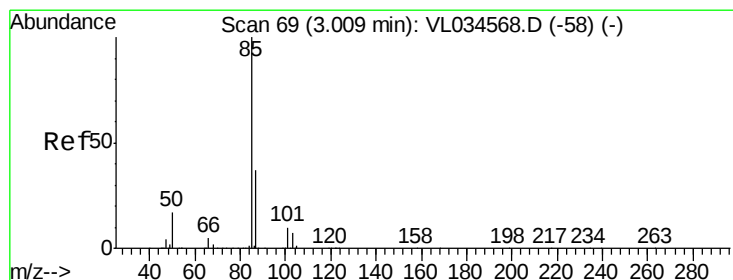
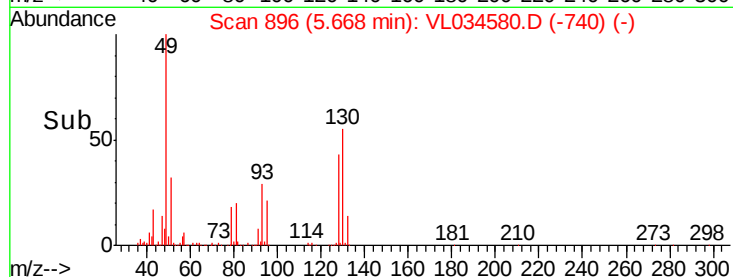
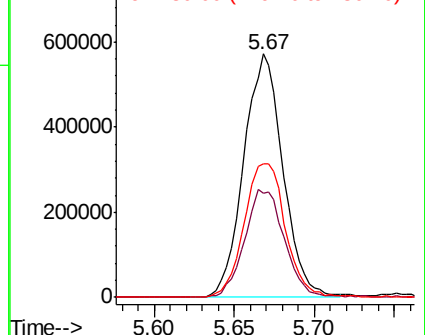
49 100

128 45.5 22.7 68.1

130 58.6 28.6 85.8



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



#2

Dichlorodifluoromethane

Concen: 0.495 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL034580.D

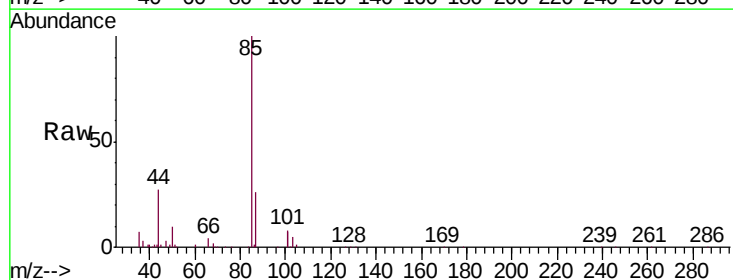
Acq: 4 Feb 2020 15:15

Tgt Ion: 85 Resp: 104139

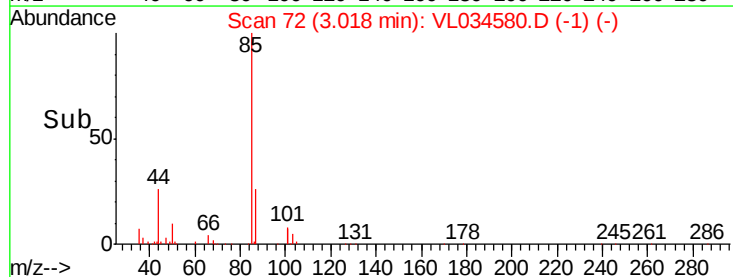
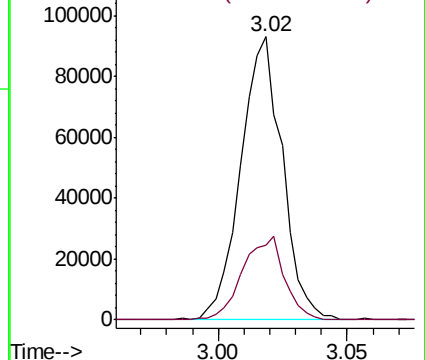
Ion Ratio Lower Upper

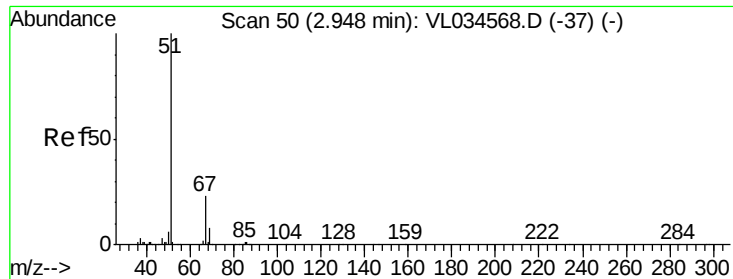
85 100

87 26.2 29.5 44.3#



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0

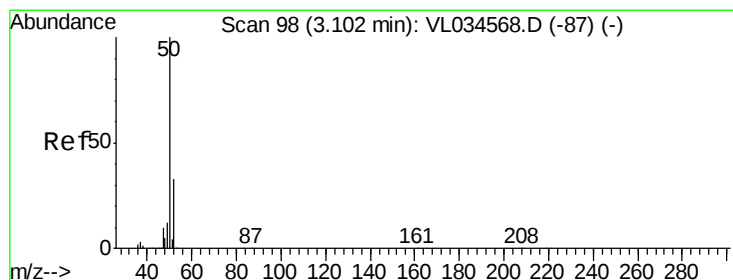
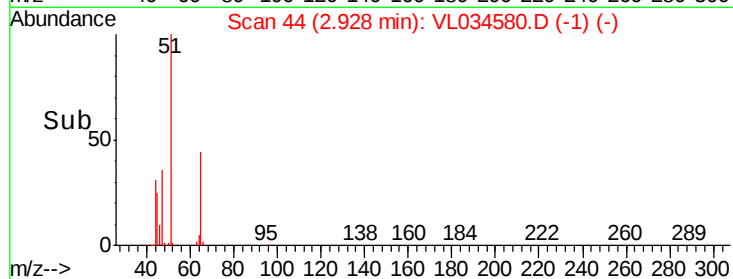
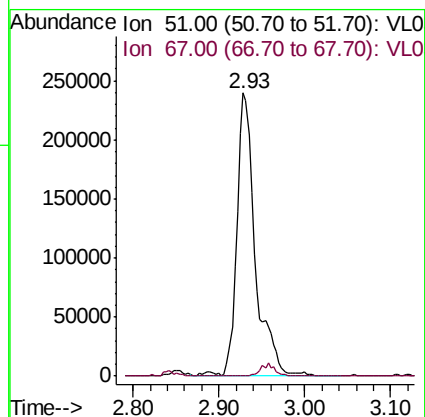
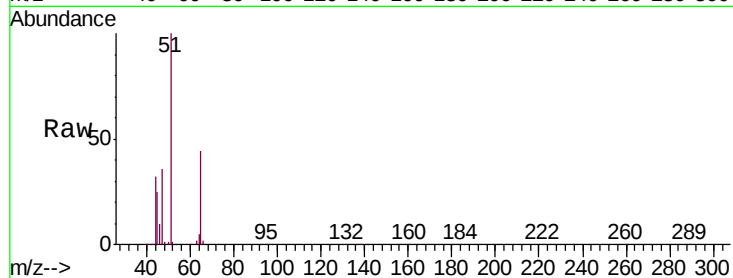




#3
Chlorodifluoromethane
Concen: 3.117 ppbv
RT: 2.93 min Scan# 44
Delta R.T. -0.02 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

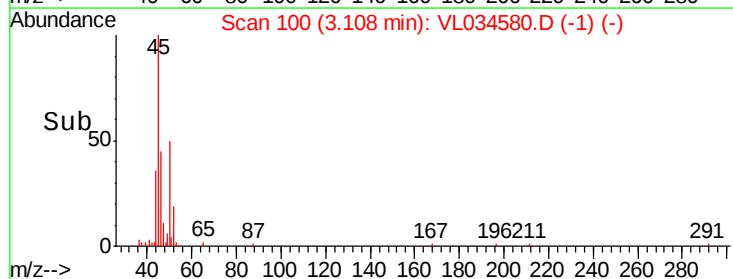
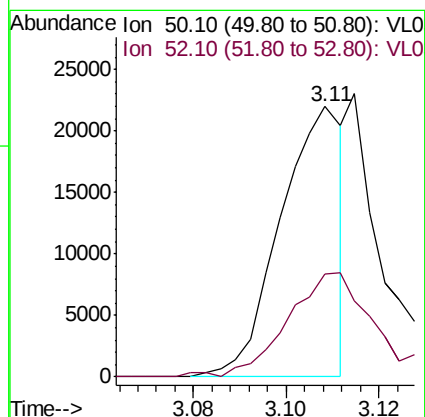
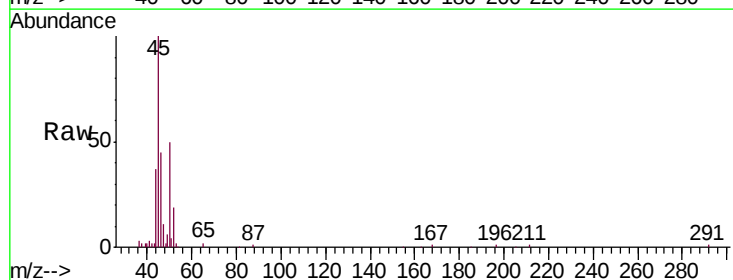
Instrument :
MSVOA_L
ClientSampleId :
IA-1

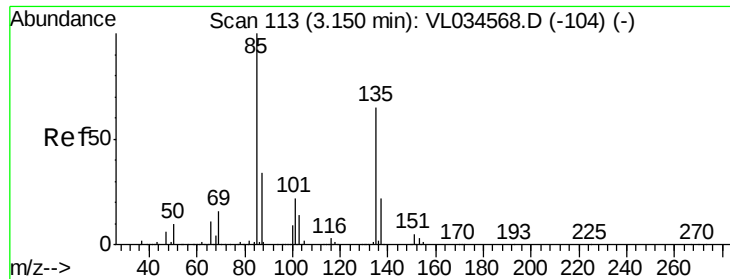
Tgt Ion: 51 Resp: 359453
Ion Ratio Lower Upper
51 100
67 3.3 17.8 26.8#



#4
Chloromethane
Concen: 0.291 ppbv
RT: 3.11 min Scan# 100
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion: 50 Resp: 20501
Ion Ratio Lower Upper
50 100
52 36.4 26.6 39.8





#8

Dichlorotetrafluoroethane

Concen: 0.030 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.01 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

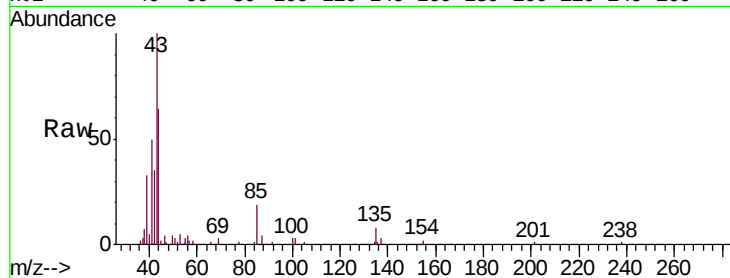
IA-1

Tgt Ion: 85 Resp: 4973

Ion Ratio Lower Upper

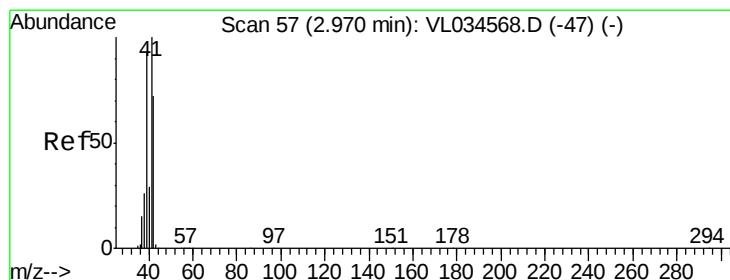
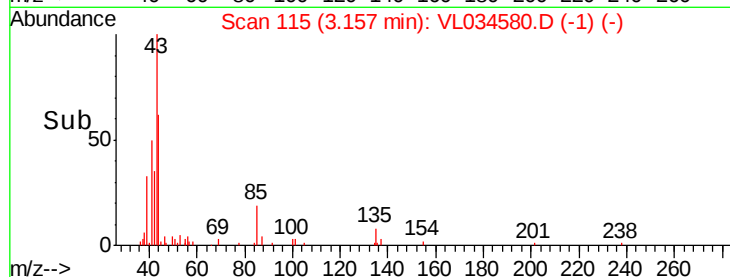
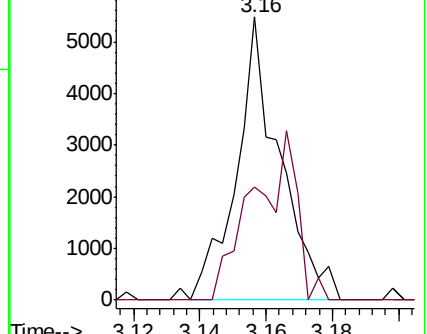
85 100

135 60.0 52.2 78.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 5.981 ppbv

RT: 3.17 min Scan# 120

Delta R.T. 0.20 min

Lab File: VL034580.D

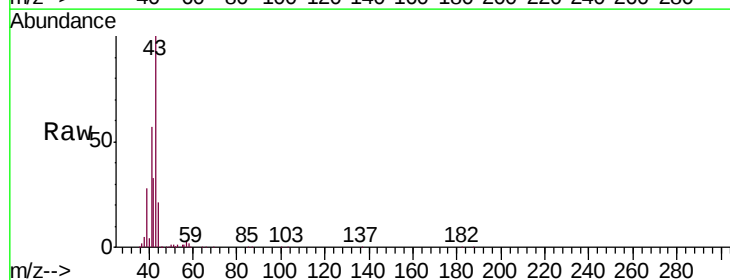
Acq: 4 Feb 2020 15:15

Tgt Ion: 41 Resp: 268556

Ion Ratio Lower Upper

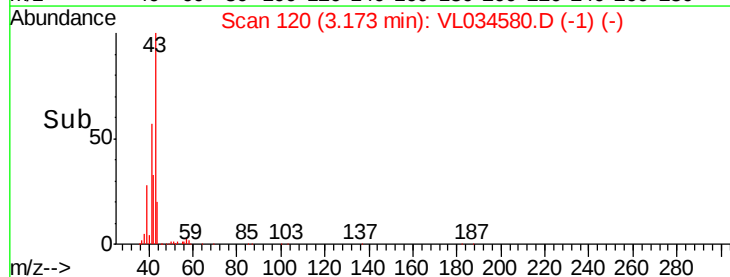
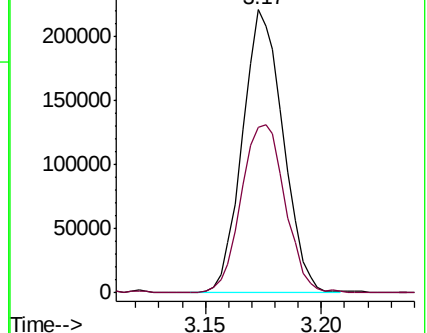
41 100

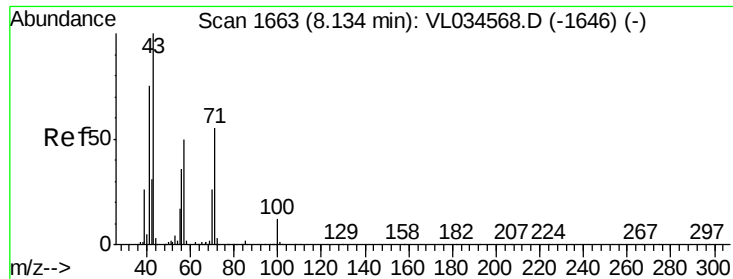
42 64.2 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

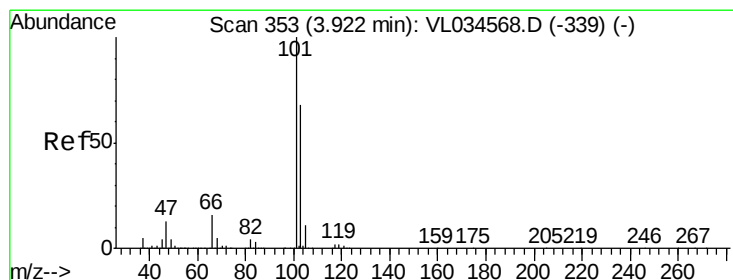
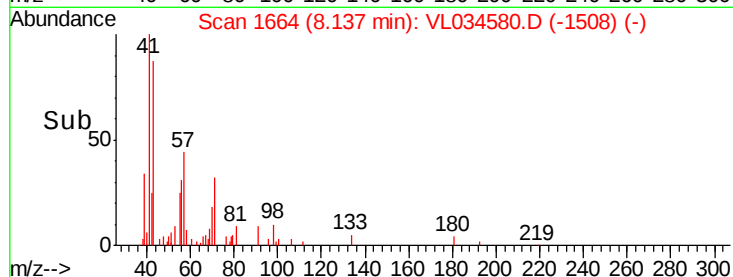
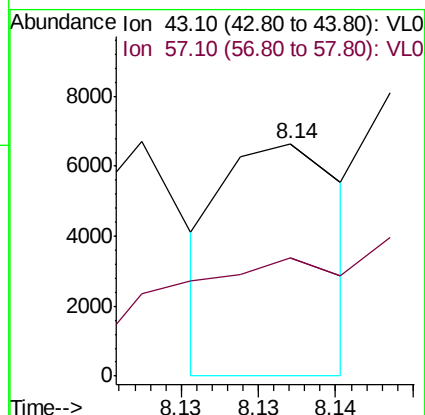
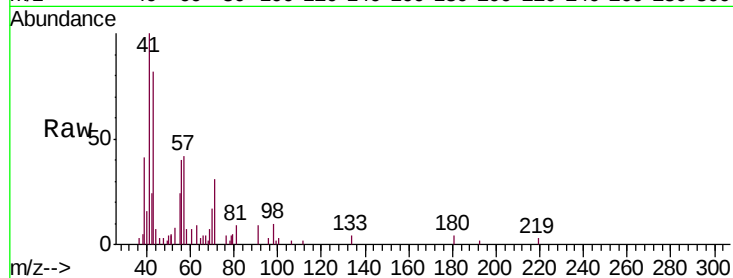




#10
 Heptane
 Concen: 0.032 ppbv
 RT: 8.14 min Scan# 1664
 Delta R.T. 0.00 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

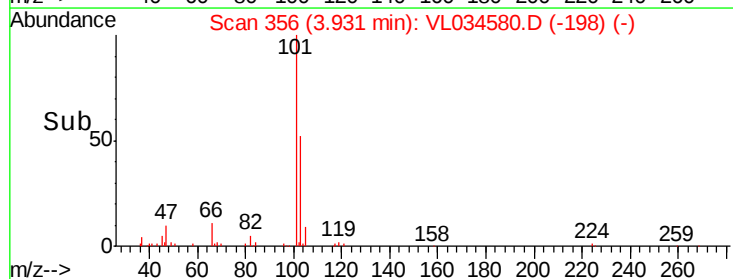
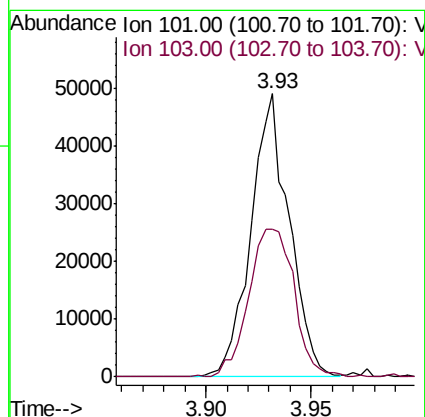
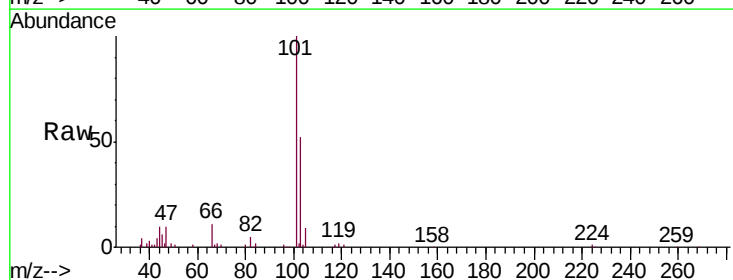
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

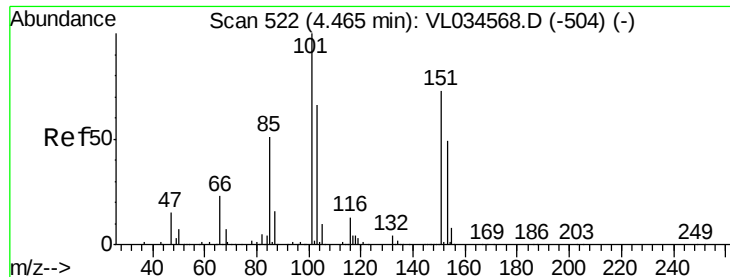
Tgt Ion: 43 Resp: 3566
 Ion Ratio Lower Upper
 43 100
 57 0.0 41.2 61.8#



#11
 Trichlorofluoromethane
 Concen: 0.324 ppbv
 RT: 3.93 min Scan# 356
 Delta R.T. 0.01 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

Tgt Ion: 101 Resp: 61904
 Ion Ratio Lower Upper
 101 100
 103 52.4 54.4 81.6#





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.061 ppbv

RT: 4.47 min Scan# 524

Delta R.T. 0.01 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

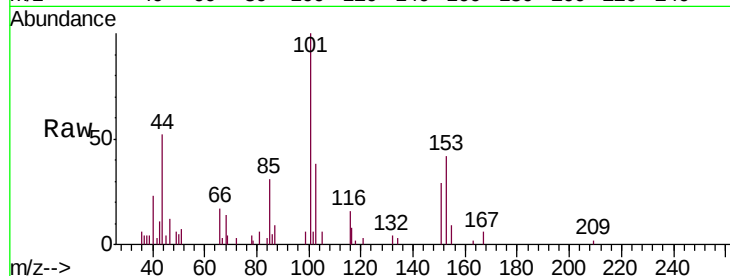
IA-1

Tgt Ion:101 Resp: 7583

Ion Ratio Lower Upper

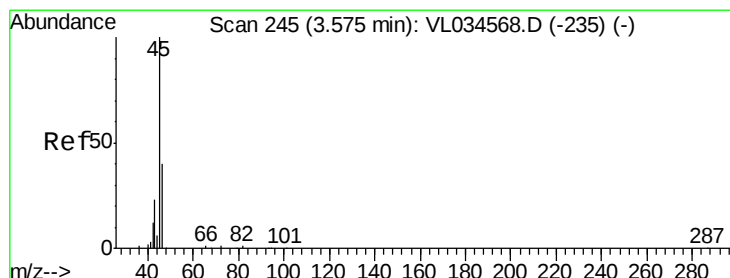
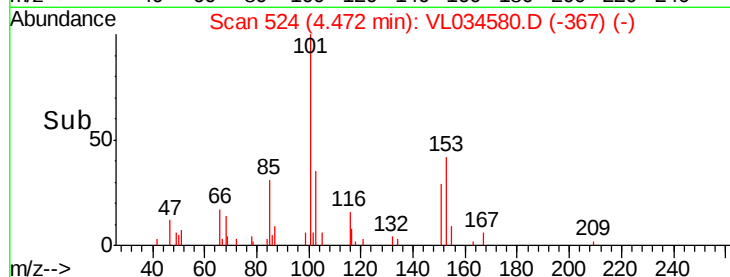
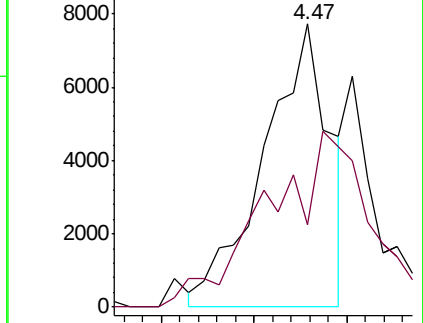
101 100

151 97.3 57.0 85.6#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 289.095 ppbv

RT: 3.59 min Scan# 250

Delta R.T. 0.02 min

Lab File: VL034580.D

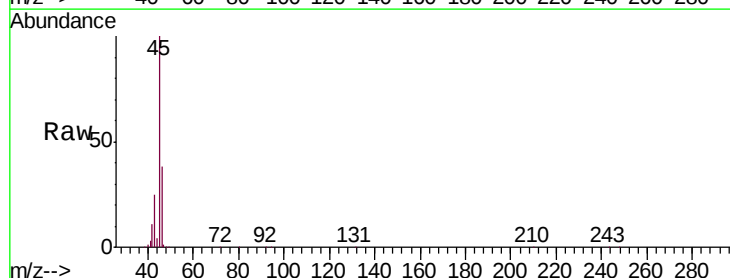
Acq: 4 Feb 2020 15:15

Tgt Ion: 45 Resp: 3477253

Ion Ratio Lower Upper

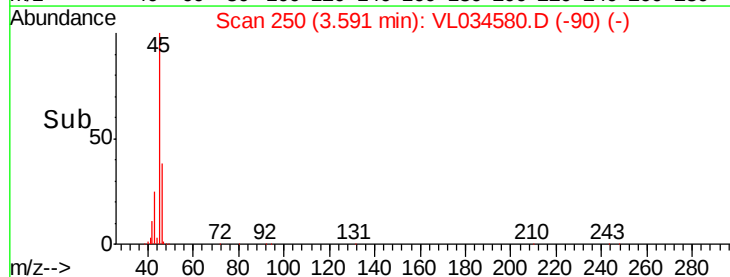
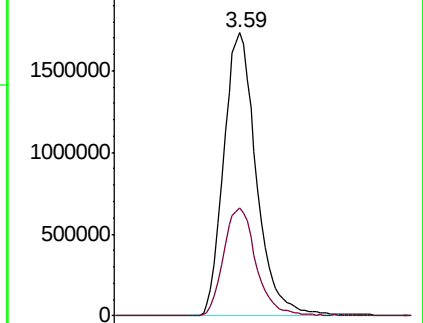
45 100

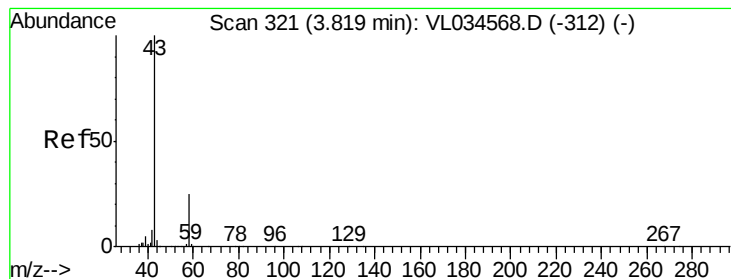
46 38.5 14.8 59.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.505 ppbv

RT: 3.83 min Scan# 324

Delta R.T. 0.01 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

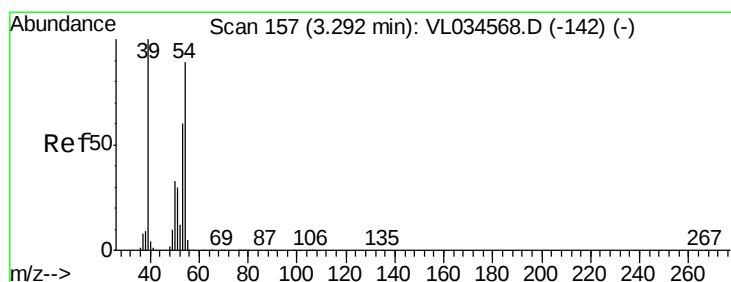
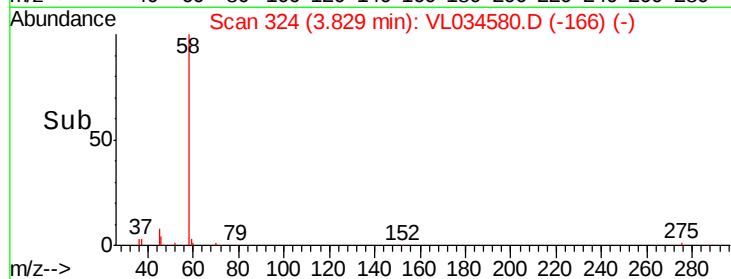
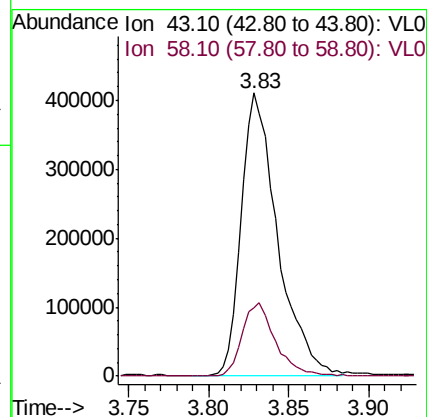
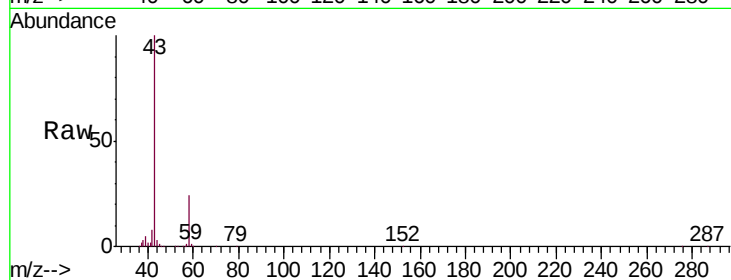
IA-1

Tgt Ion: 43 Resp: 631951

Ion Ratio Lower Upper

43 100

58 24.0 20.3 30.5



#16

1,3-Butadiene

Concen: 0.275 ppbv

RT: 3.28 min Scan# 153

Delta R.T. -0.01 min

Lab File: VL034580.D

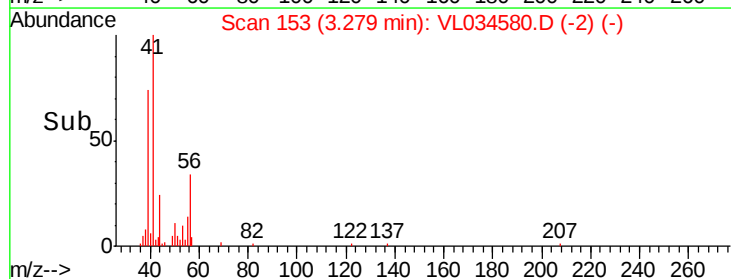
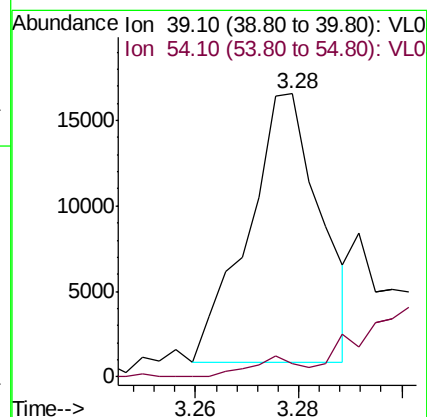
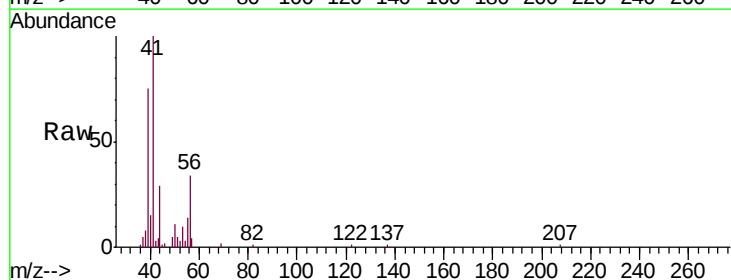
Acq: 4 Feb 2020 15:15

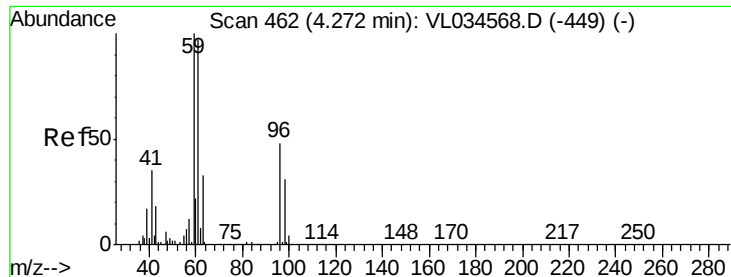
Tgt Ion: 39 Resp: 15322

Ion Ratio Lower Upper

39 100

54 59.8 66.7 100.1#

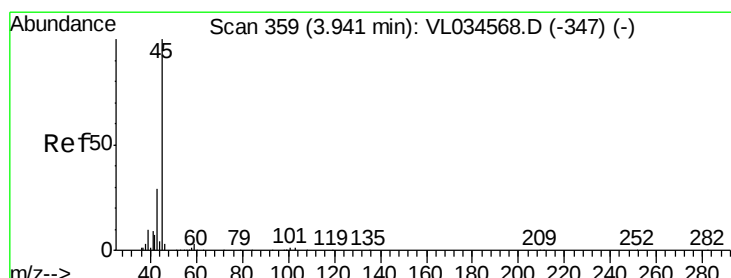
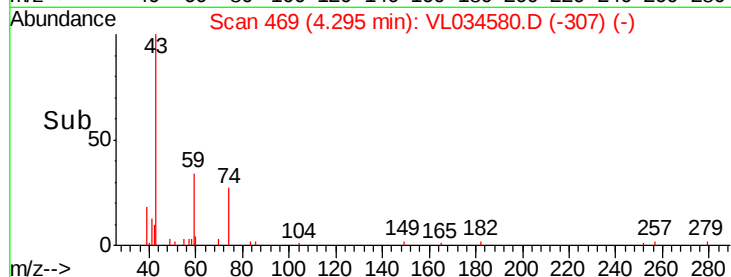
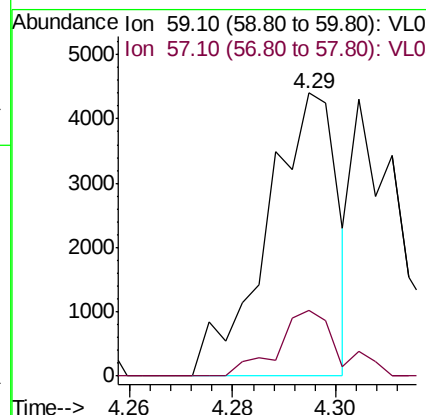
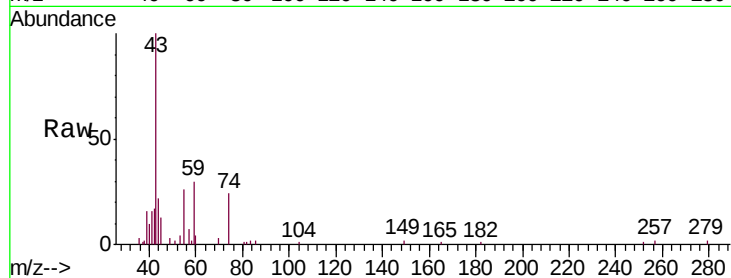




#17
 tert-Butyl alcohol
 Concen: 0.040 ppbv
 RT: 4.29 min Scan# 469
 Delta R.T. 0.02 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

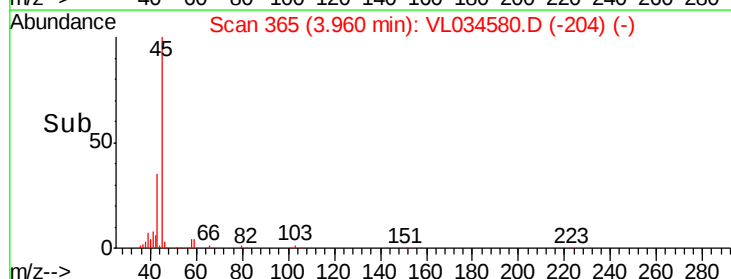
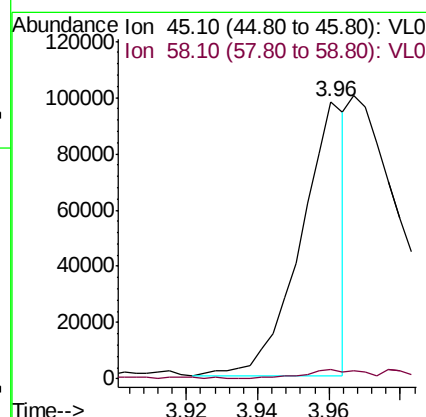
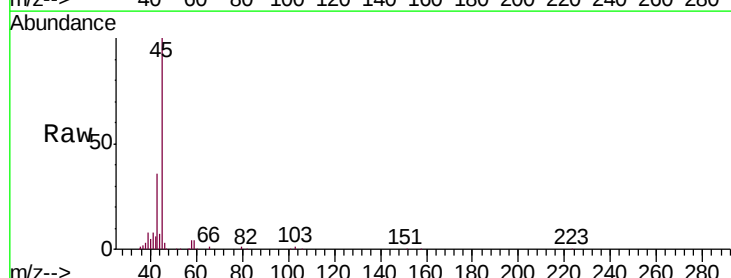
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

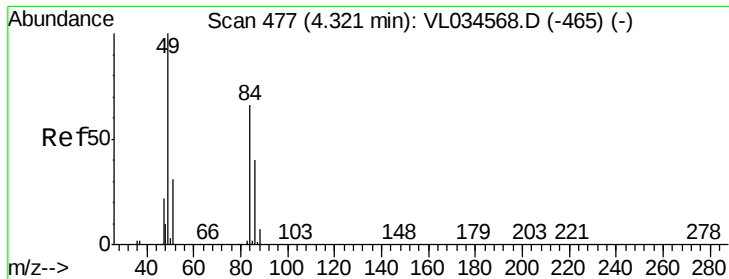
Tgt Ion: 59 Resp: 4167
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.7 13.1#



#19
 Isopropyl Alcohol
 Concen: 1.026 ppbv
 RT: 3.96 min Scan# 365
 Delta R.T. 0.02 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

Tgt Ion: 45 Resp: 83960
 Ion Ratio Lower Upper
 45 100
 58 7.6 1.7 2.5#

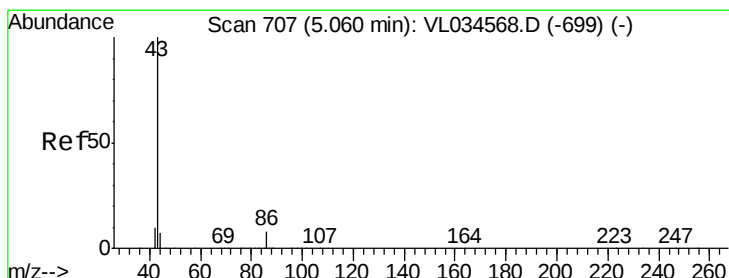
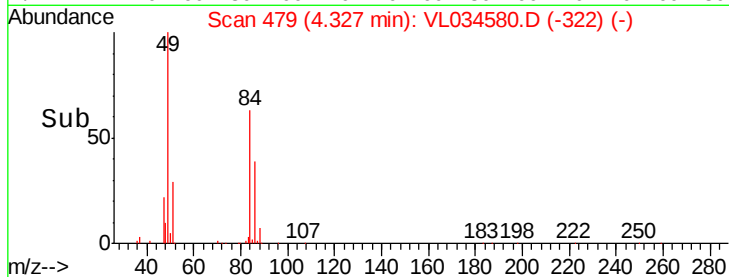
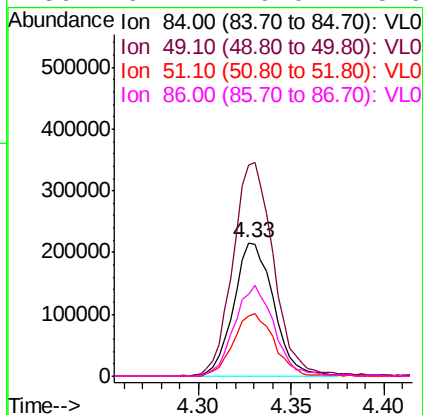
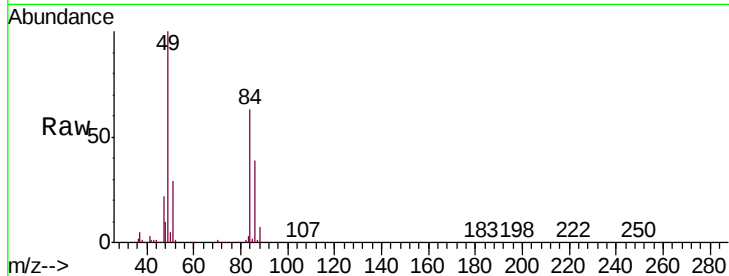




#20
Methylene Chloride
Concen: 6.081 ppbv
RT: 4.33 min Scan# 479
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

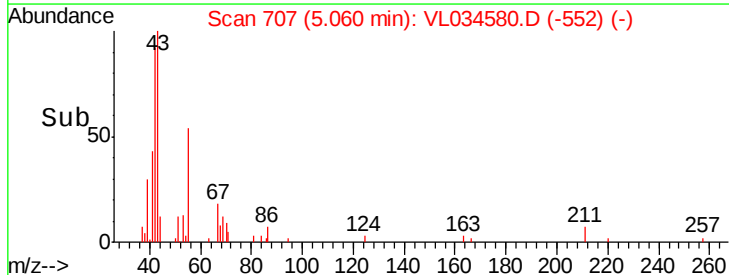
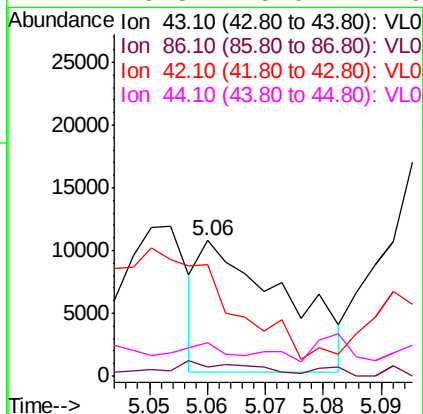
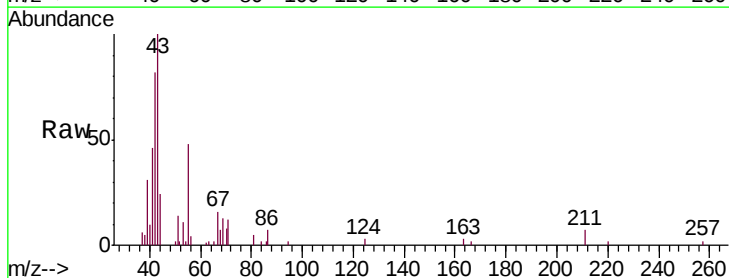
Instrument :
MSVOA_L
ClientSampleId :
IA-1

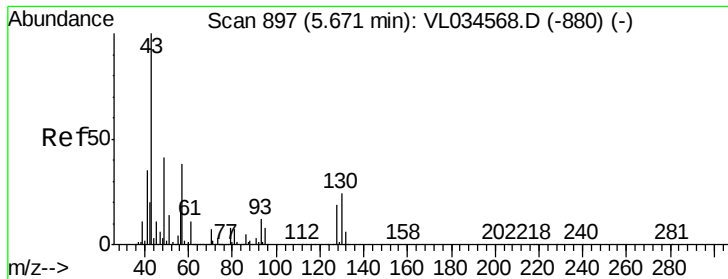
Tgt Ion:	84	Resp:	324832
Ion	Ratio	Lower	Upper
84	100		
49	158.4	122.4	183.6
51	45.1	38.6	57.8
86	61.2	49.0	73.6



#23
Vinyl Acetate
Concen: 0.067 ppbv
RT: 5.06 min Scan# 707
Delta R.T. -0.00 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion:	43	Resp:	10662
Ion	Ratio	Lower	Upper
43	100		
86	0.5	5.9	8.9#
42	106.0	8.8	13.2#
44	5.8	5.0	7.6

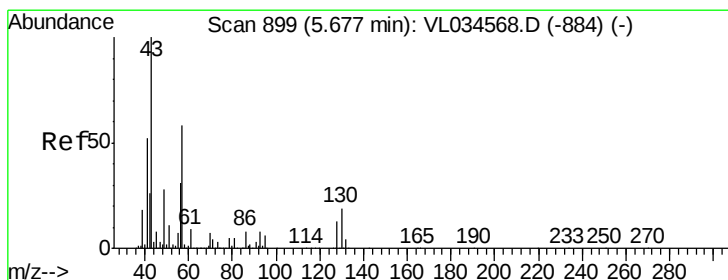
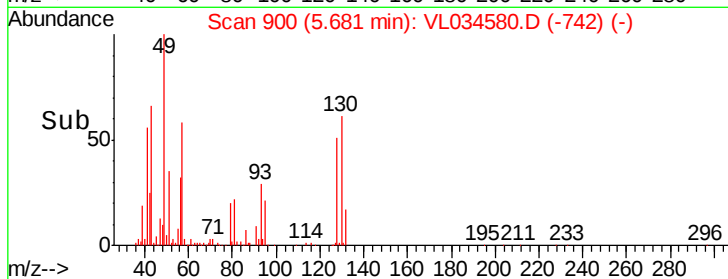
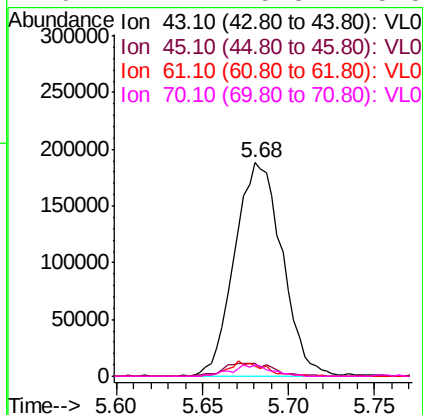
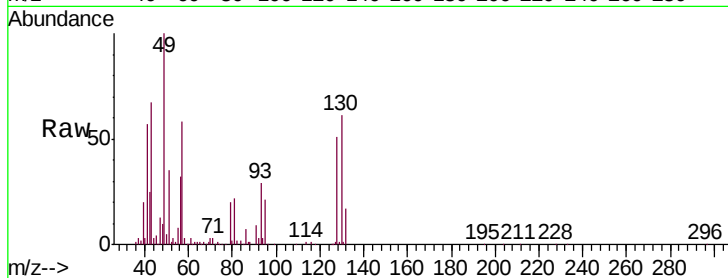




#25
Ethyl Acetate
Concen: 1.584 ppbv
RT: 5.68 min Scan# 900
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

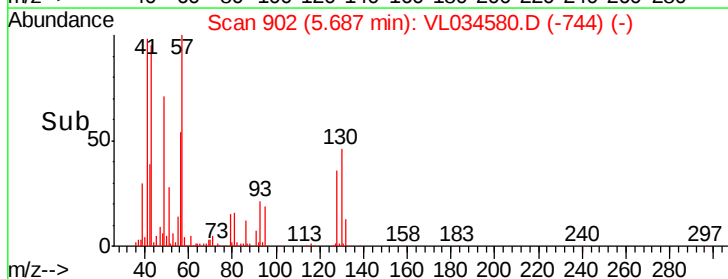
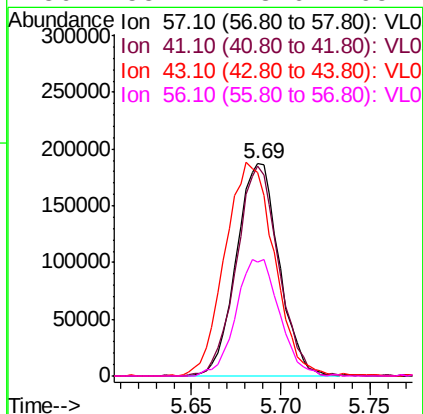
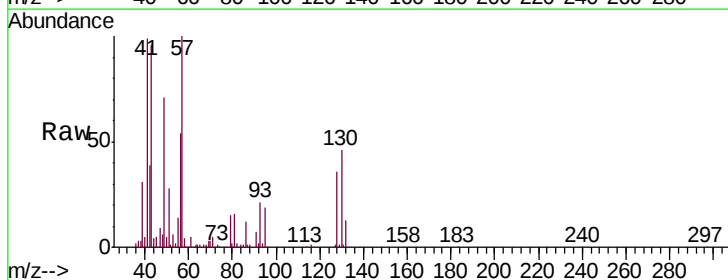
Instrument :
MSVOA_L
ClientSampled :
IA-1

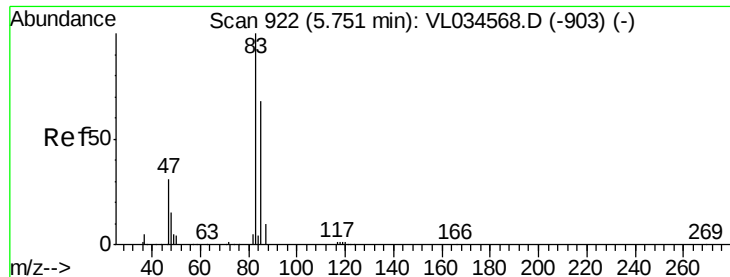
Tgt Ion:	43	Resp:	359750
Ion	Ratio	Lower	Upper
43	100		
45	6.5	8.5	12.7#
61	5.4	7.8	11.6#
70	4.4	5.8	8.8#



#26
Hexane
Concen: 3.304 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion:	57	Resp:	314267
Ion	Ratio	Lower	Upper
57	100		
41	98.1	76.2	114.2
43	116.0	189.9	284.9#
56	55.7	43.6	65.4

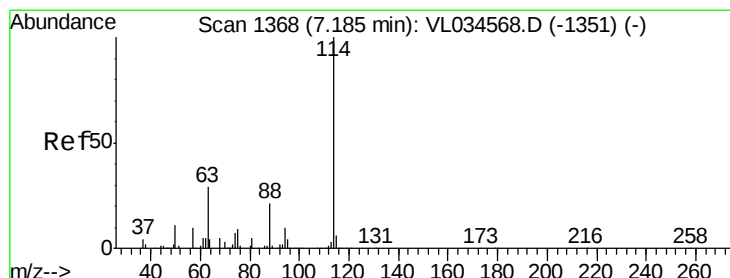
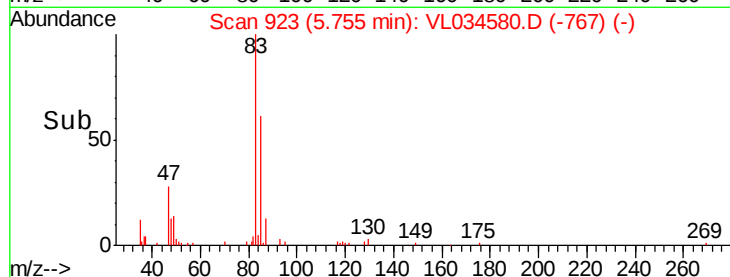
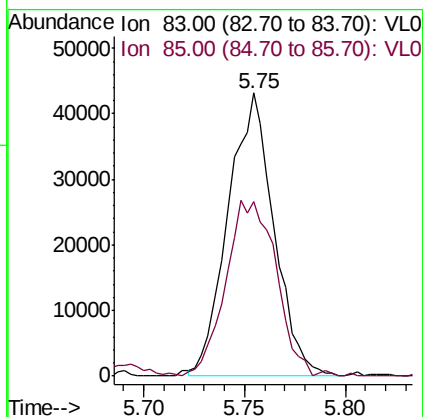
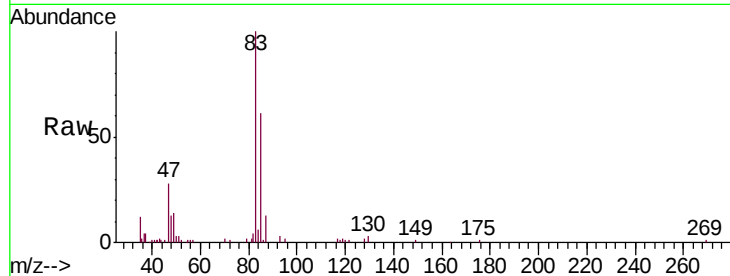




#29
Chloroform
Concen: 0.408 ppbv
RT: 5.75 min Scan# 923
Delta R.T. 0.00 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

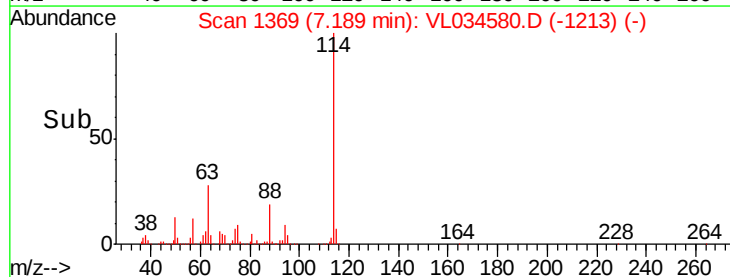
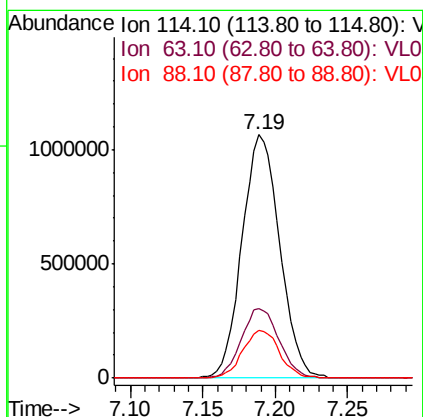
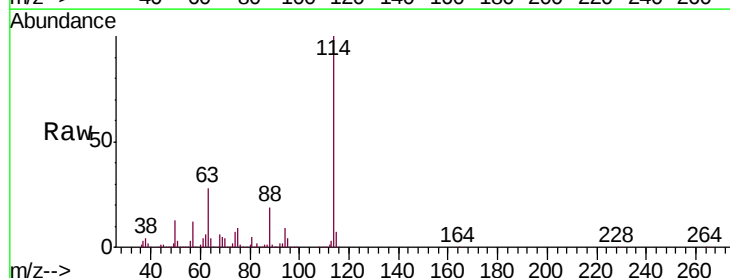
Instrument :
MSVOA_L
ClientSampleId :
IA-1

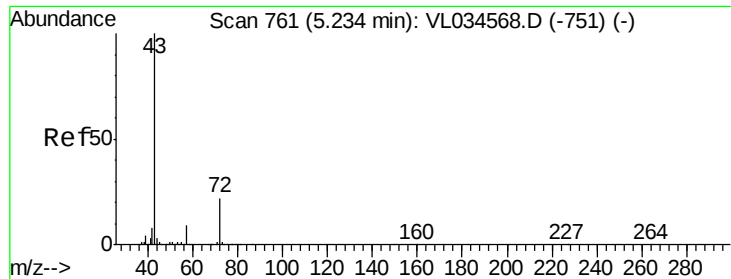
Tgt Ion: 83 Resp: 68611
Ion Ratio Lower Upper
83 100
85 61.5 54.0 81.0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. 0.00 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion: 114 Resp: 1932903
Ion Ratio Lower Upper
114 100
63 28.6 24.1 36.1
88 19.4 15.9 23.9

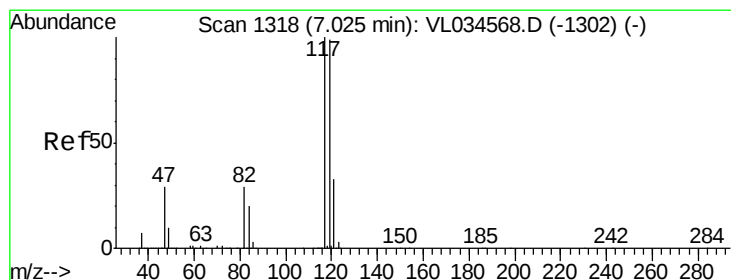
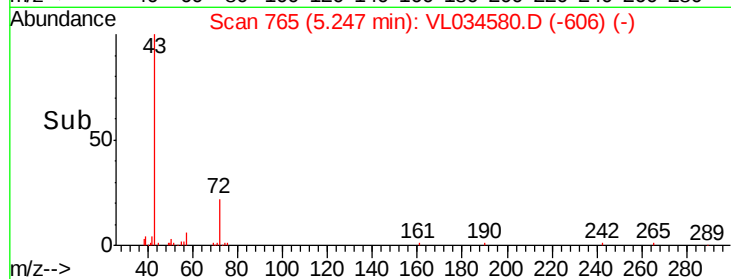
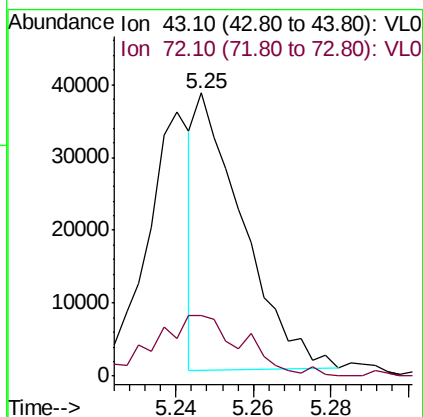
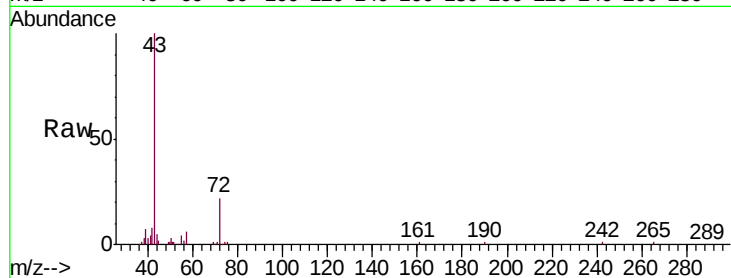




#34
2-Butanone
Concen: 0.228 ppbv
RT: 5.25 min Scan# 765
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

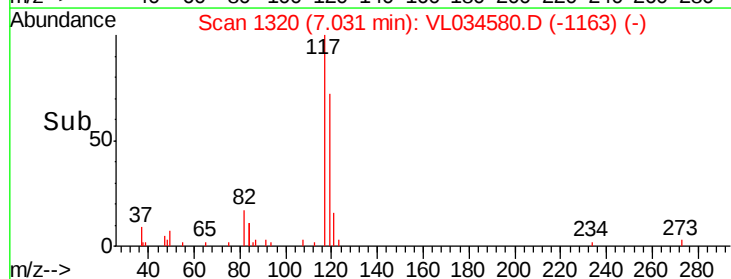
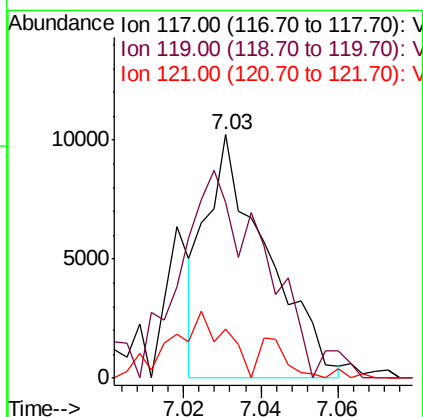
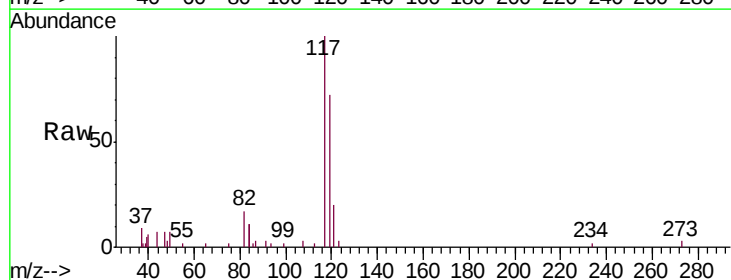
Instrument :
MSVOA_L
ClientSampleId :
IA-1

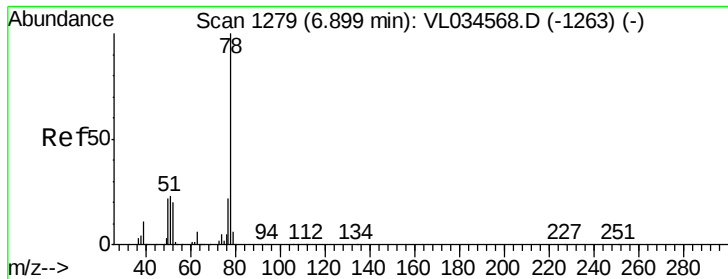
Tgt Ion: 43 Resp: 32028
Ion Ratio Lower Upper
43 100
72 42.2 17.2 25.8#



#35
Carbon Tetrachloride
Concen: 0.060 ppbv
RT: 7.03 min Scan# 1320
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion: 117 Resp: 11130
Ion Ratio Lower Upper
117 100
119 64.4 79.5 119.3#
121 17.1 26.2 39.2#





#36

Benzene

Concen: 0.172 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. -0.00 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

IA-1

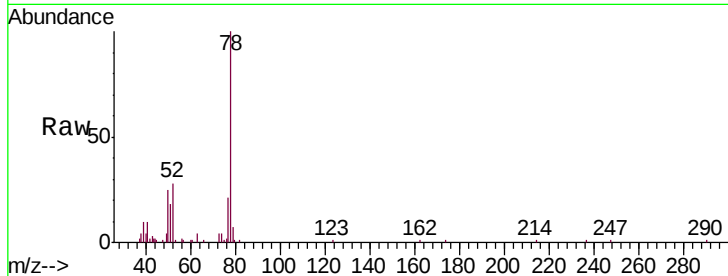
Tgt Ion: 78 Resp: 29607

Ion Ratio Lower Upper

78 100

77 21.0 17.3 25.9

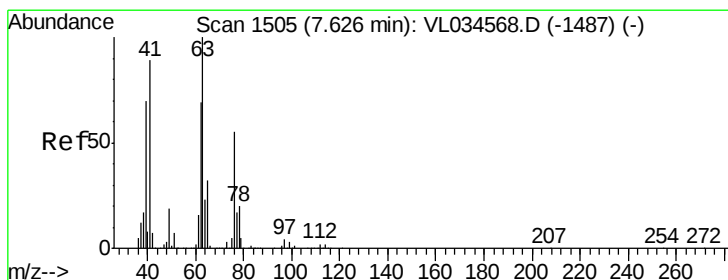
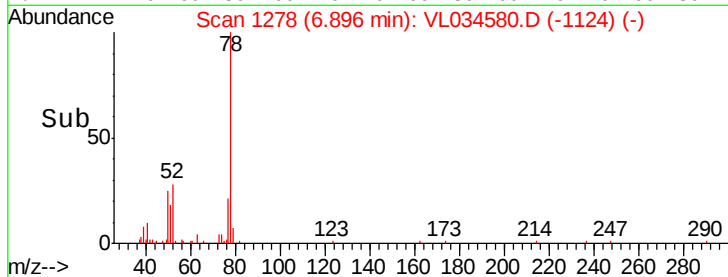
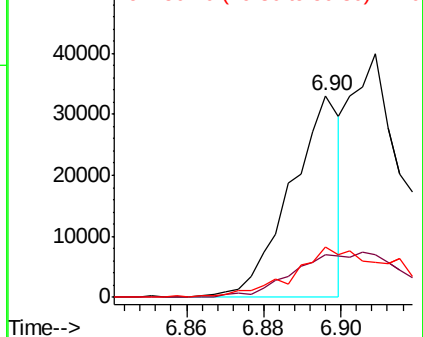
50 24.7 17.4 26.2



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



#39

1,2-Dichloropropane

Concen: 7.740 ppbv

RT: 7.19 min Scan# 1369

Delta R.T. -0.44 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

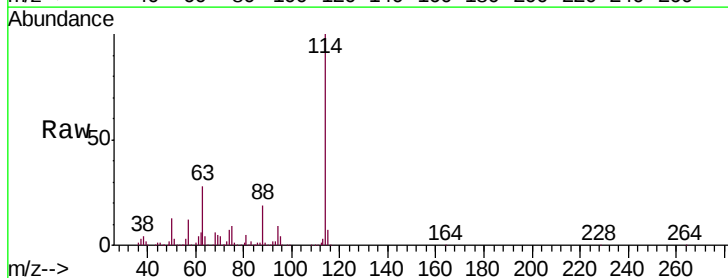
Tgt Ion: 63 Resp: 551555

Ion Ratio Lower Upper

63 100

41 0.0 71.0 106.4#

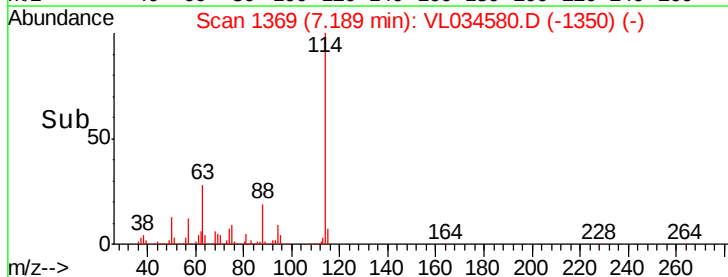
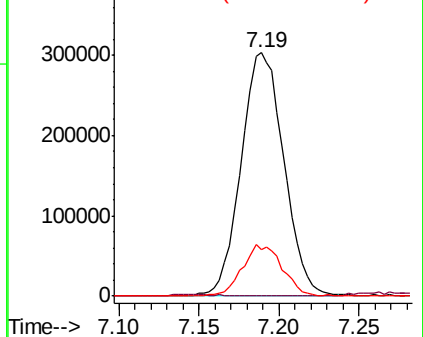
62 19.4 55.4 83.0#

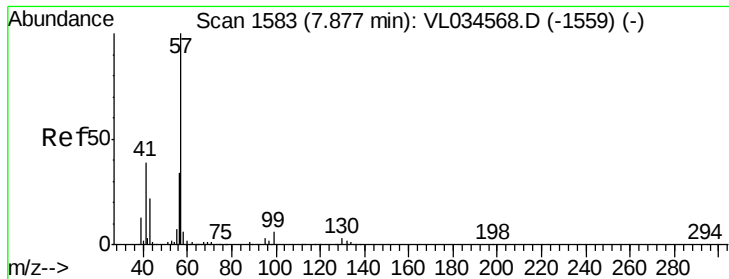


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

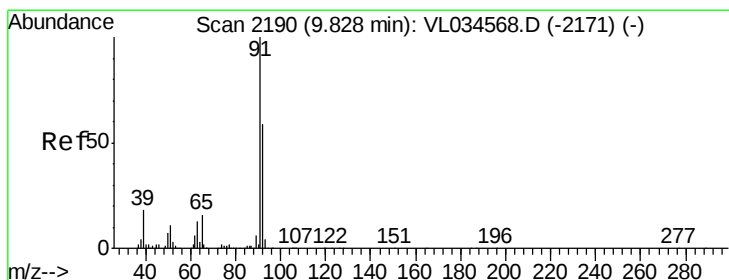
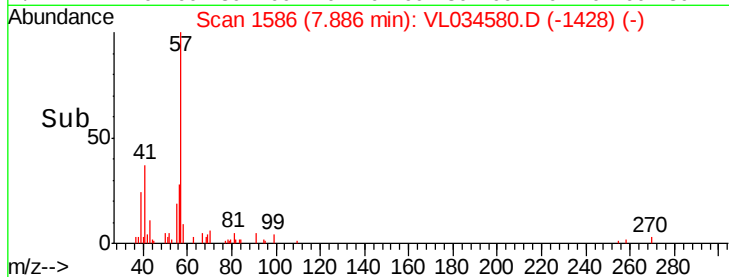
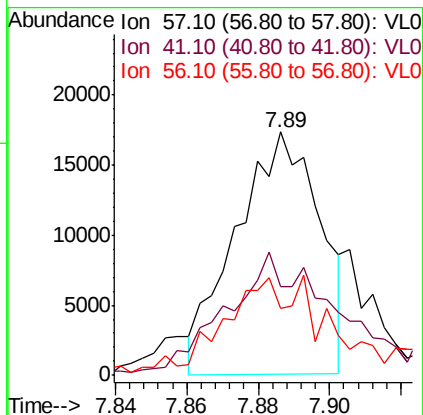
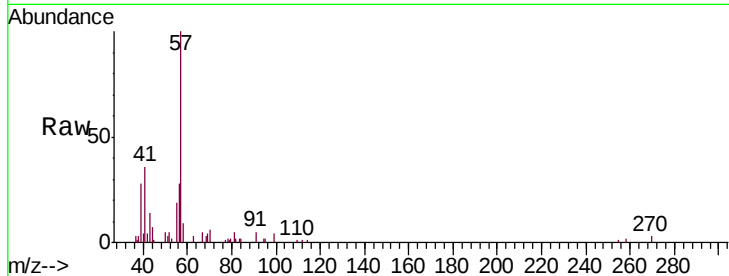




#44
 2,2,4-Trimethylpentane
 Concen: 0.091 ppbv
 RT: 7.89 min Scan# 1586
 Delta R.T. 0.01 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

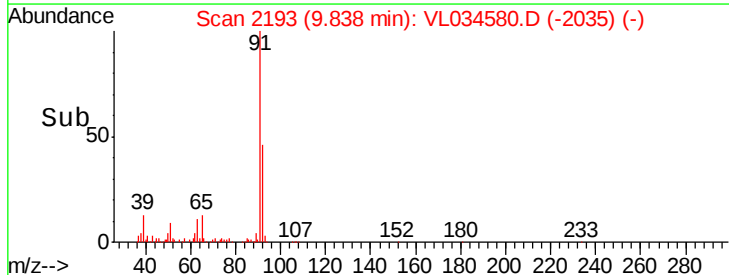
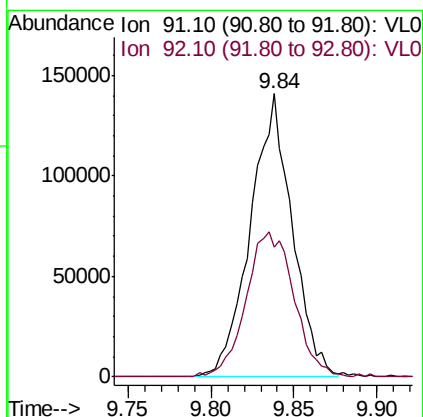
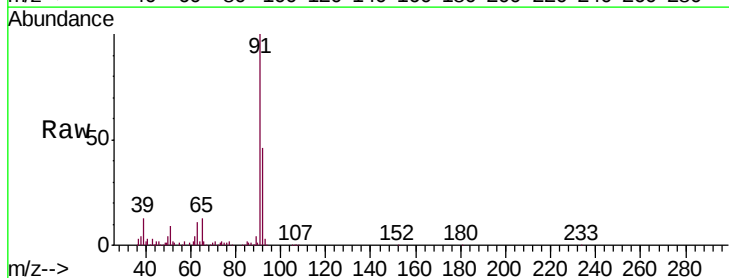
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

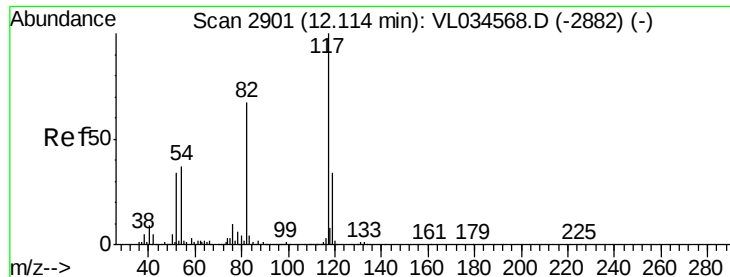
Tgt Ion: 57 Resp: 28328
 Ion Ratio Lower Upper
 57 100
 41 74.8 28.9 43.3#
 56 59.6 25.5 38.3#



#53
 Toluene
 Concen: 1.308 ppbv
 RT: 9.84 min Scan# 2193
 Delta R.T. 0.01 min
 Lab File: VL034580.D
 Acq: 4 Feb 2020 15:15

Tgt Ion: 91 Resp: 246978
 Ion Ratio Lower Upper
 91 100
 92 58.8 48.2 72.2

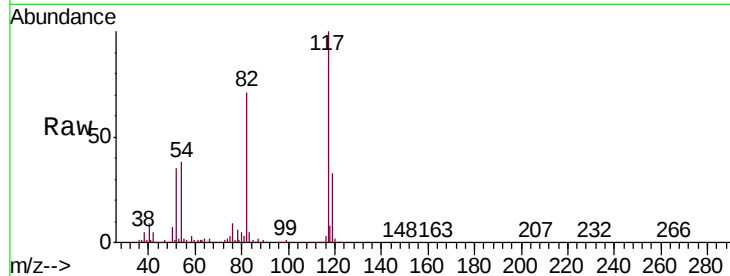




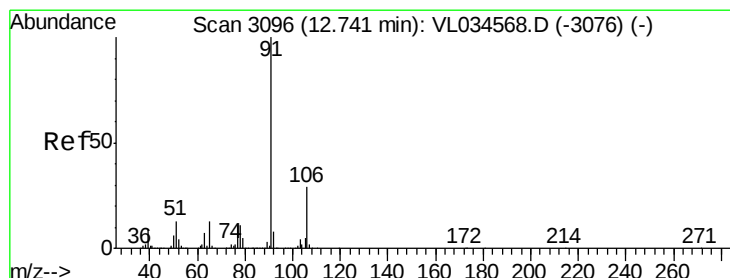
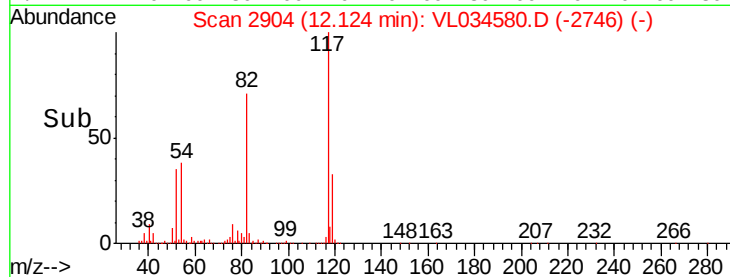
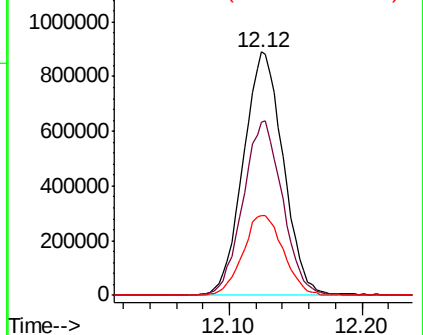
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.12 min Scan# 2904
Delta R.T. 0.01 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Instrument :
MSVOA_L
ClientSampleId :
IA-1

Tgt Ion:117 Resp: 1859926
Ion Ratio Lower Upper
117 100
82 71.2 54.2 81.4
119 33.6 26.1 39.1

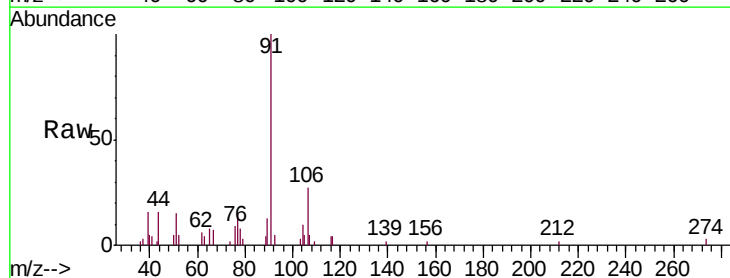


Abundance Ion 117.10 (116.80 to 117.80): V
1200000 Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

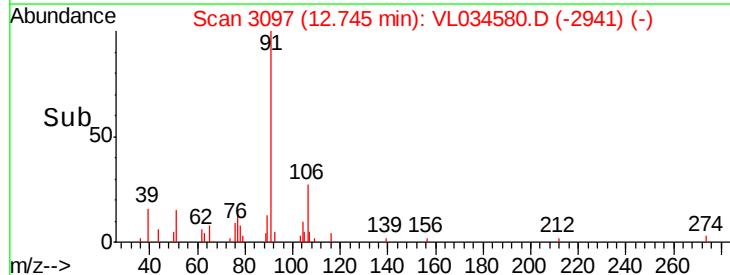
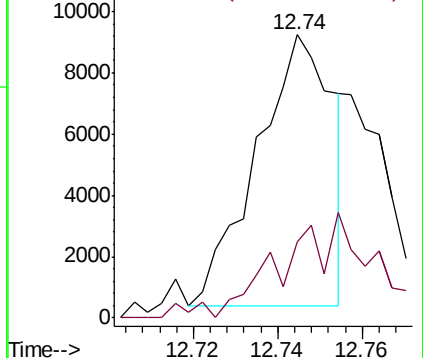


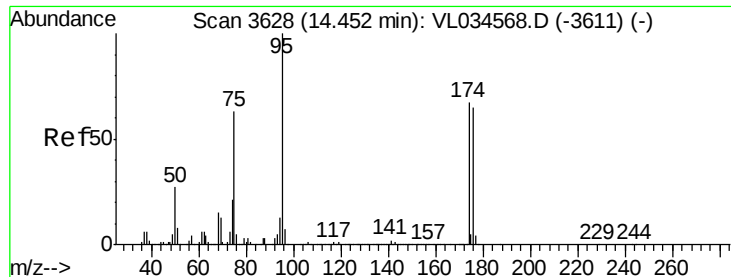
#58
Ethyl Benzene
Concen: 0.044 ppbv
RT: 12.74 min Scan# 3097
Delta R.T. 0.00 min
Lab File: VL034580.D
Acq: 4 Feb 2020 15:15

Tgt Ion: 91 Resp: 11067
Ion Ratio Lower Upper
91 100
106 30.9 23.3 34.9



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: 10.397 ppbv

RT: 14.46 min Scan# 3630

Delta R.T. 0.01 min

Lab File: VL034580.D

Acq: 4 Feb 2020 15:15

Instrument :

MSVOA_L

ClientSampleId :

IA-1

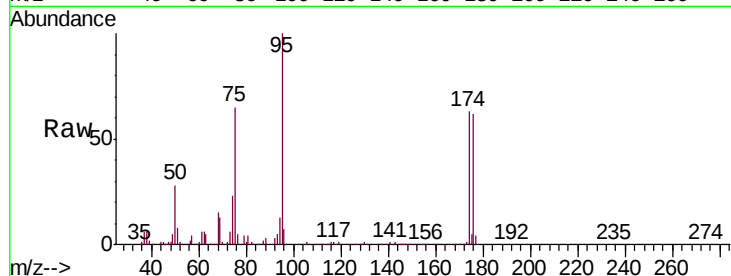
Tgt Ion: 95 Resp: 1634239

Ion Ratio Lower Upper

95 100

174 64.7 52.3 78.5

175 4.6 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

