

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL111919\
 Data File : VL034393.D
 Acq On : 20 Nov 2019 00:13
 Operator : SY/AP
 Sample : K5924-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: Nov 20 04:06:59 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov 20 03:30:54 2019
 QLast Update : Wed Nov 20 03:30:54 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	992466	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1918362	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1906181	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	1603655	10.00	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.00%

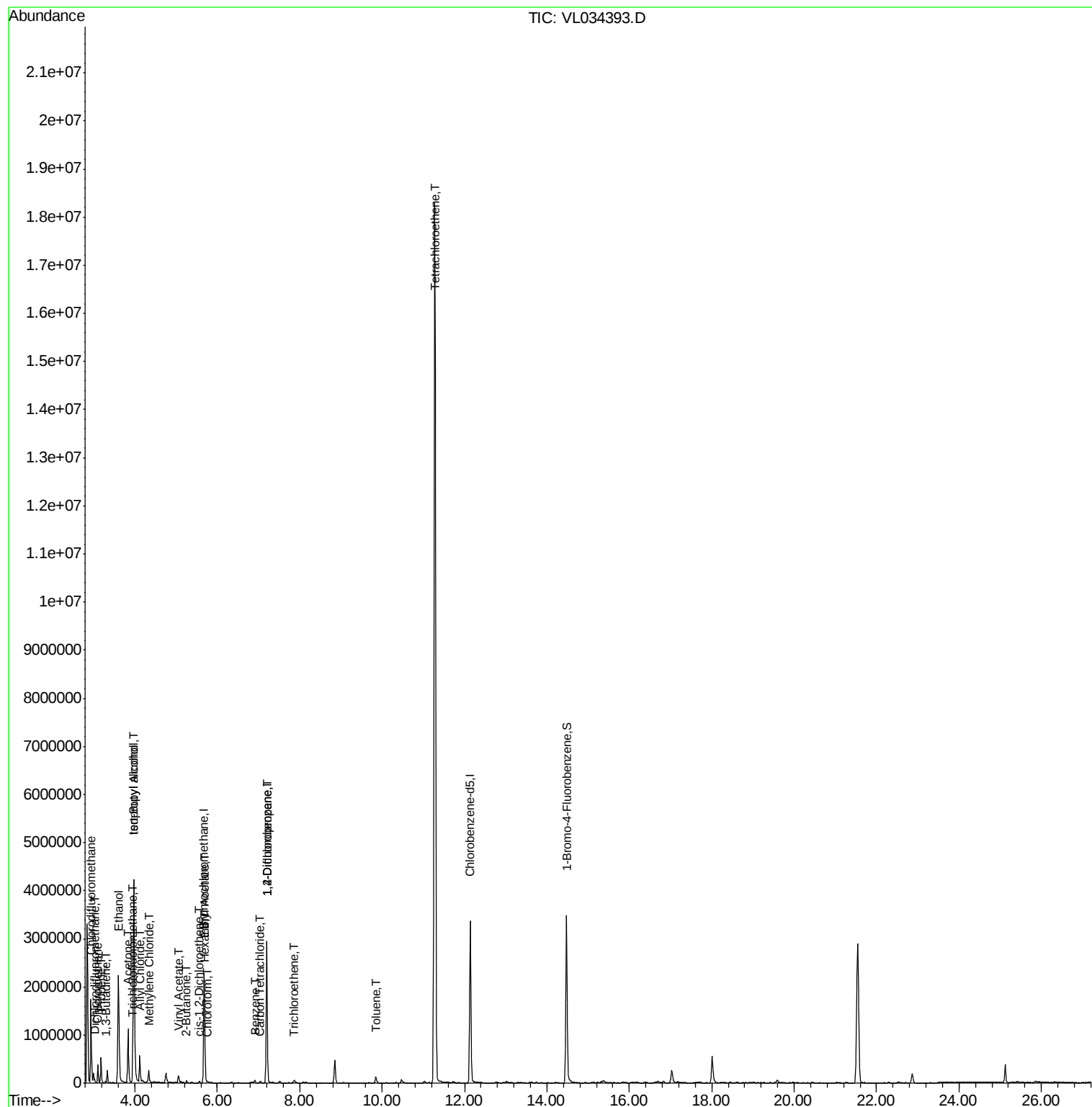
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	49070	0.273	ppbv	94
3) Chlorodifluoromethane	2.93	51	995981	8.043	ppbv #	58
4) Chloromethane	3.11	50	27035	0.370	ppbv #	85
9) Propene	3.18	41	135795	2.470	ppbv	98
11) Trichlorofluoromethane	3.93	101	33358	0.187	ppbv	92
13) Ethanol	3.60	45	2840460	176.404	ppbv	94
15) Acetone	3.83	43	1092255	7.686	ppbv	100
16) 1,3-Butadiene	3.29	39	8838	0.143	ppbv #	48
17) tert-Butyl alcohol	3.97	59	212883	1.782	ppbv	96
19) Isopropyl Alcohol	3.97	45	5330054	51.567	ppbv #	99
20) Methylene Chloride	4.34	84	74820	1.485	ppbv	96
21) Allyl Chloride	4.12	41	162696	1.910	ppbv #	47
23) Vinyl Acetate	5.07	43	17250	0.093	ppbv #	1
25) Ethyl Acetate	5.69	43	196192	0.774	ppbv #	88
26) Hexane	5.70	57	190280	1.746	ppbv #	51
29) Chloroform	5.76	83	11142	0.063	ppbv	96
31) cis-1,2-Dichloroethene	5.56	61	13545	0.120	ppbv #	71
34) 2-Butanone	5.25	43	24979	0.158	ppbv #	70
35) Carbon Tetrachloride	7.04	117	23269	0.141	ppbv #	61
36) Benzene	6.91	78	33059	0.172	ppbv #	88
38) Trichloroethene	7.87	130	3867	0.049	ppbv #	52
39) 1,2-Dichloropropane	7.20	63	583406	7.176	ppbv #	23
52) Tetrachloroethene	11.28	164	5411921	65.225	ppbv	90
53) Toluene	9.85	91	83274	0.382	ppbv	94

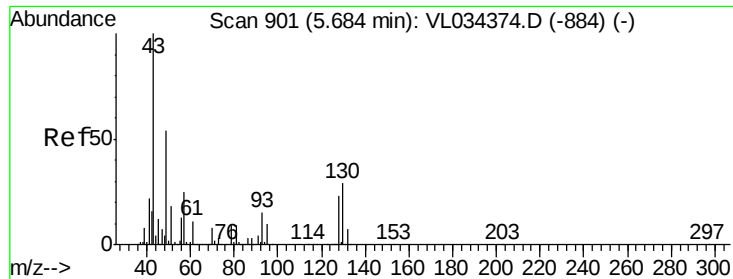
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL111919\
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Quant Time: Nov 20 04:06:59 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL111919AIR.M
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QLast Update : Wed Nov 20 03:30:54 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2

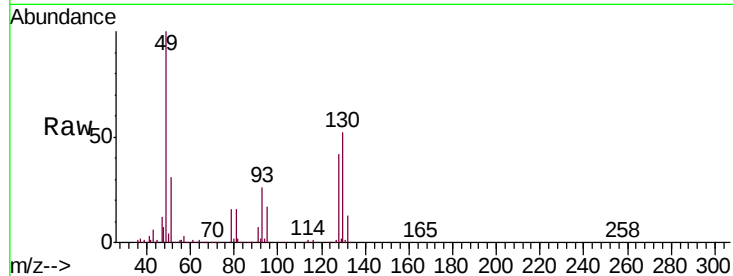
Tgt Ion: 49 Resp: 992466

Ion Ratio Lower Upper

49 100

128 42.0 21.8 65.3

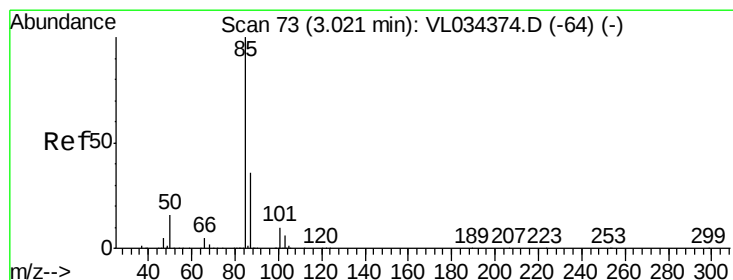
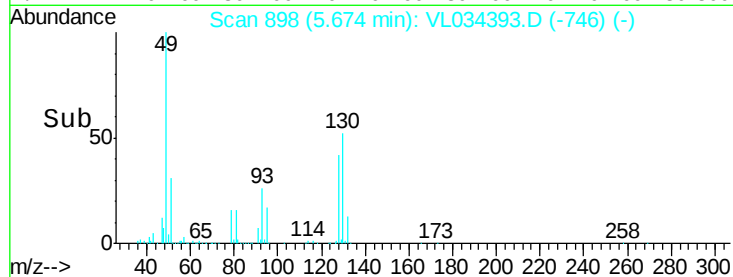
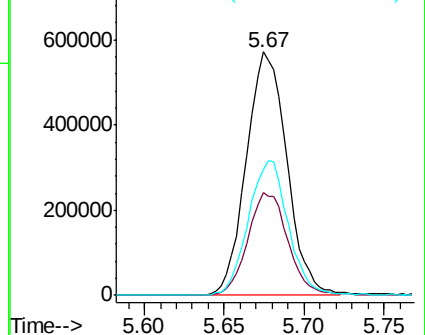
130 54.8 28.0 84.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.273 ppbv

RT: 3.02 min Scan# 73

Delta R.T. -0.00 min

Lab File: VL034393.D

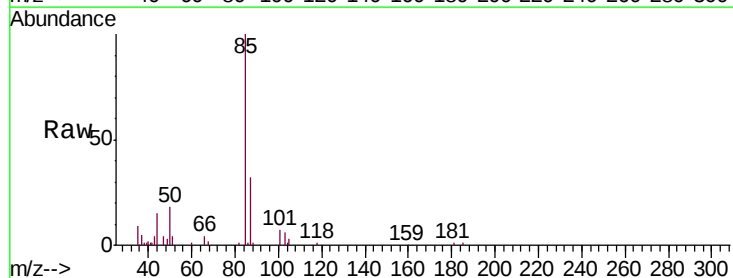
Acq: 20 Nov 2019 00:13

Tgt Ion: 85 Resp: 49070

Ion Ratio Lower Upper

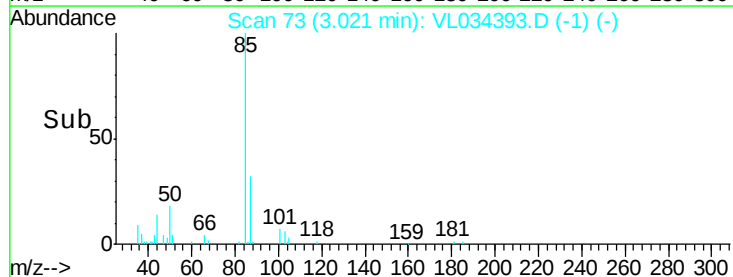
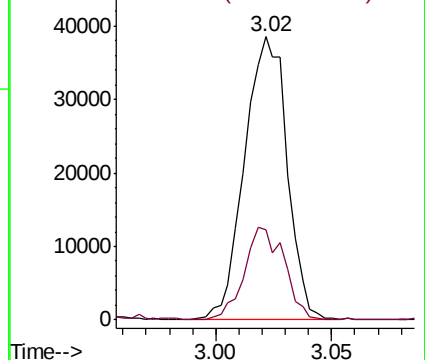
85 100

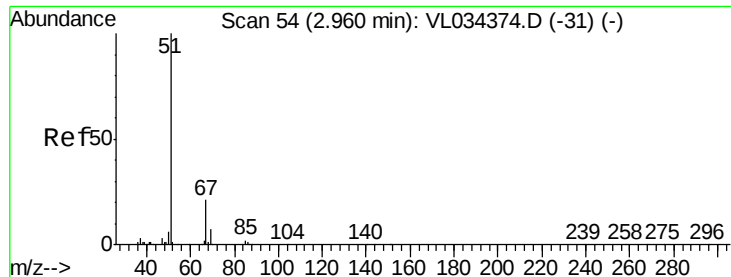
87 32.0 28.5 42.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

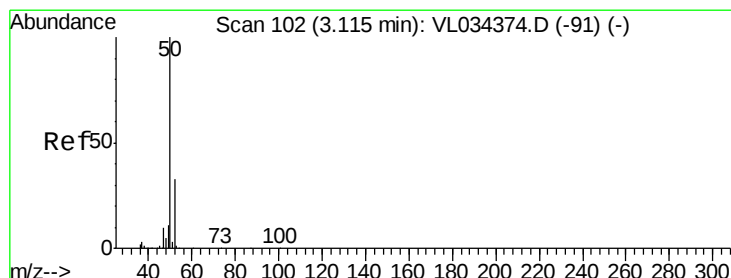
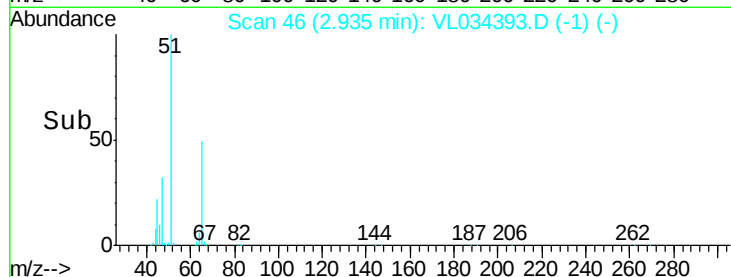
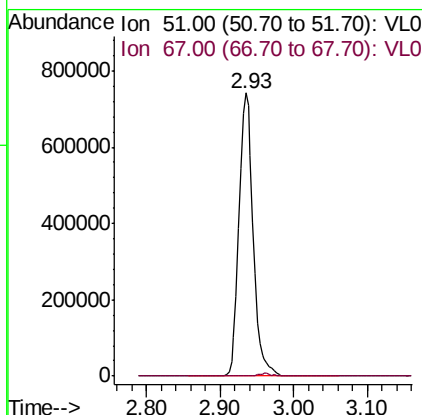
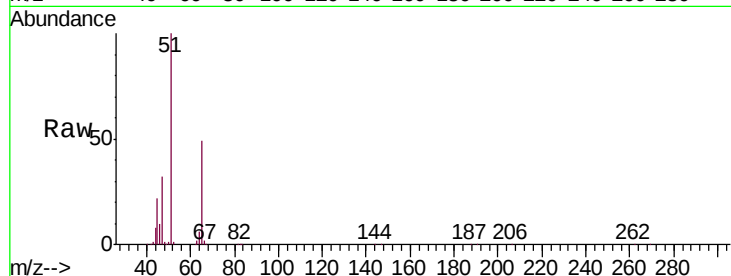




#3
 Chlorodifluoromethane
 Concen: 8.043 ppbv
 RT: 2.93 min Scan# 46
 Delta R.T. -0.03 min
 Lab File: VL034393.D
 Acq: 20 Nov 2019 00:13

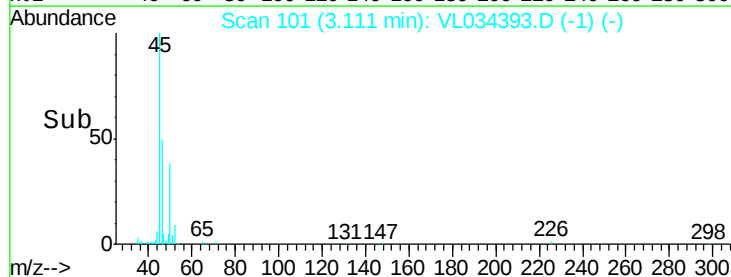
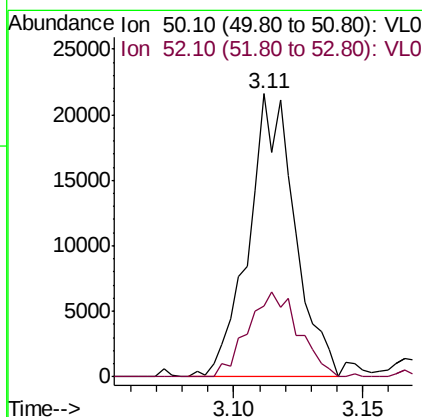
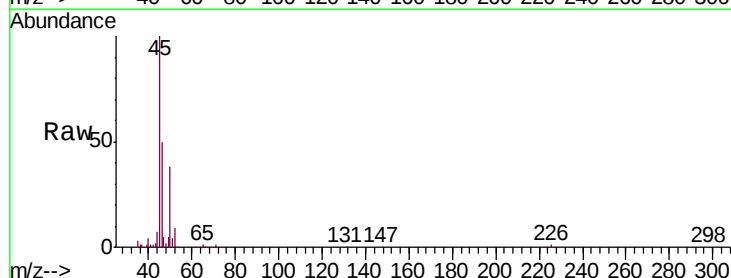
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

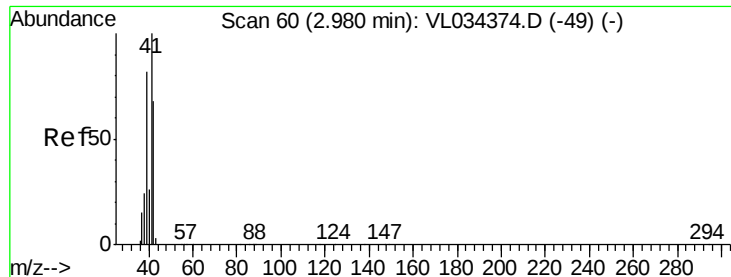
Tgt Ion: 51 Resp: 995981
 Ion Ratio Lower Upper
 51 100
 67 0.9 16.2 24.2#



#4
 Chloromethane
 Concen: 0.370 ppbv
 RT: 3.11 min Scan# 101
 Delta R.T. -0.00 min
 Lab File: VL034393.D
 Acq: 20 Nov 2019 00:13

Tgt Ion: 50 Resp: 27035
 Ion Ratio Lower Upper
 50 100
 52 25.0 26.8 40.2#





#9

Propene

Concen: 2.470 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.20 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

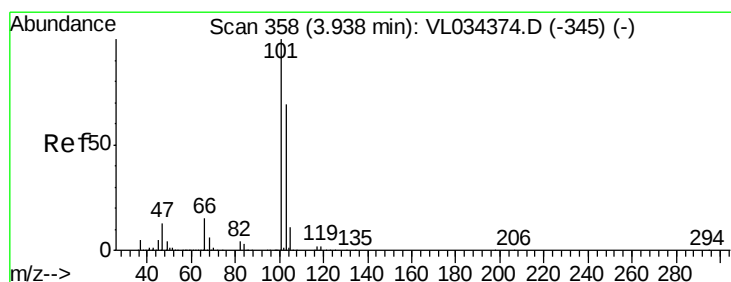
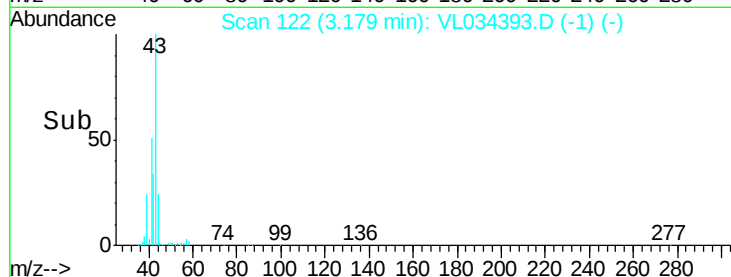
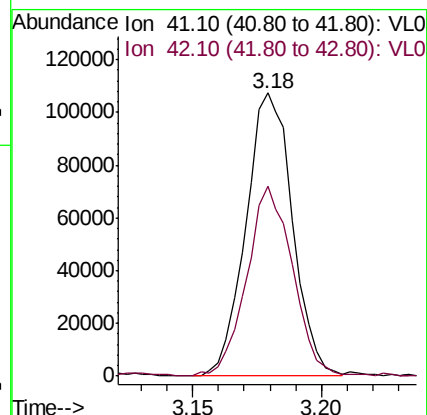
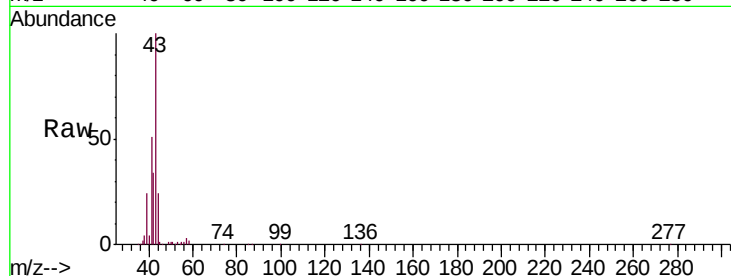
IA2

Tgt Ion: 41 Resp: 135795

Ion Ratio Lower Upper

41 100

42 66.3 54.6 82.0



#11

Trichlorofluoromethane

Concen: 0.187 ppbv

RT: 3.93 min Scan# 357

Delta R.T. -0.00 min

Lab File: VL034393.D

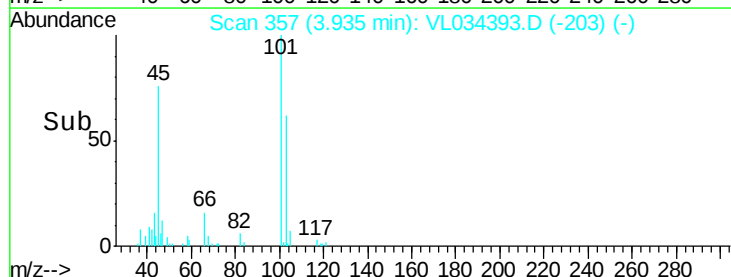
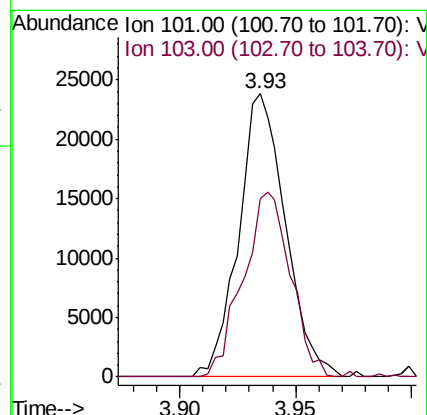
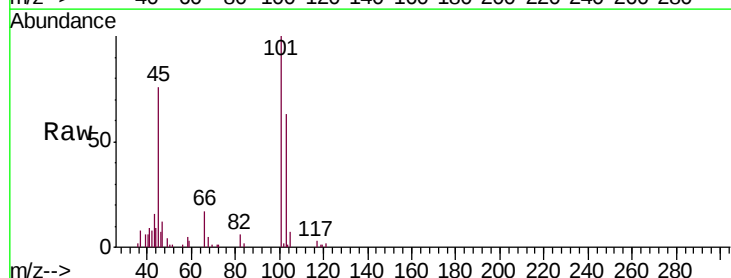
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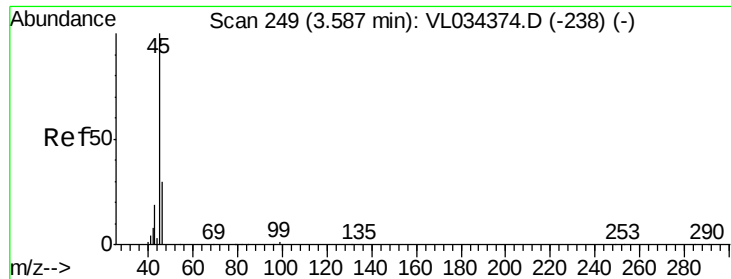
Tgt Ion: 101 Resp: 33358

Ion Ratio Lower Upper

101 100

103 62.8 55.4 83.0





#13

Ethanol

Concen: 176.404 ppbv

RT: 3.60 min Scan# 252

Delta R.T. 0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

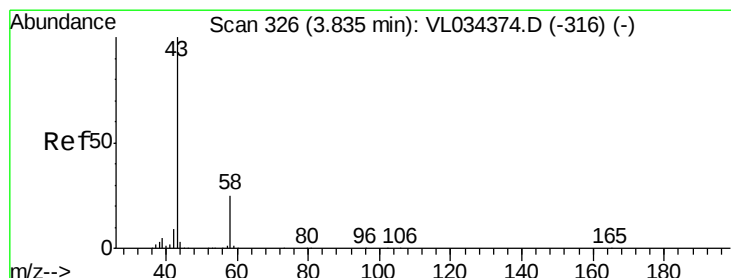
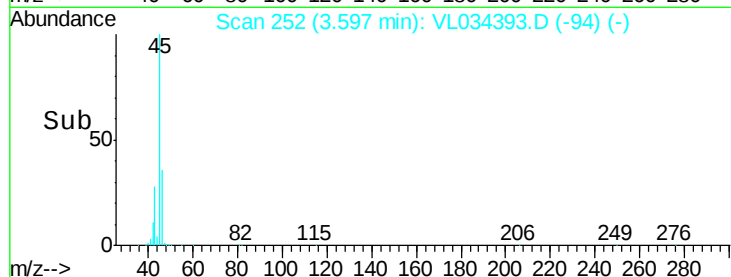
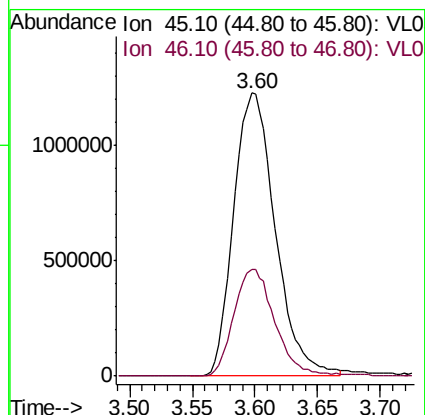
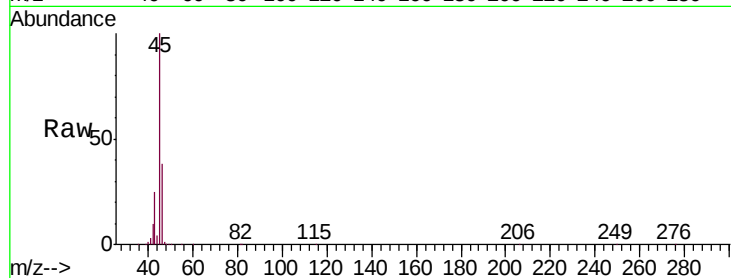
IA2

Tgt Ion: 45 Resp: 2840460

Ion Ratio Lower Upper

45 100

46 37.8 13.8 55.4



#15

Acetone

Concen: 7.686 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.00 min

Lab File: VL034393.D

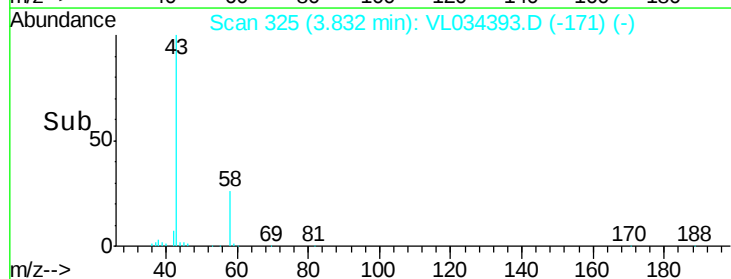
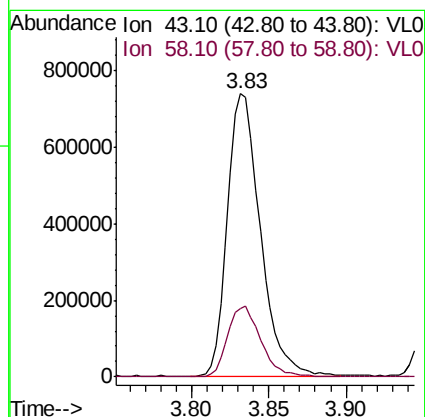
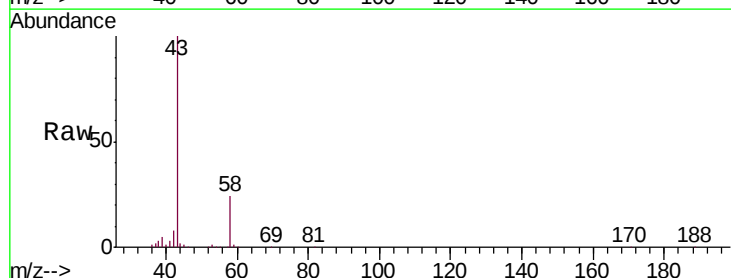
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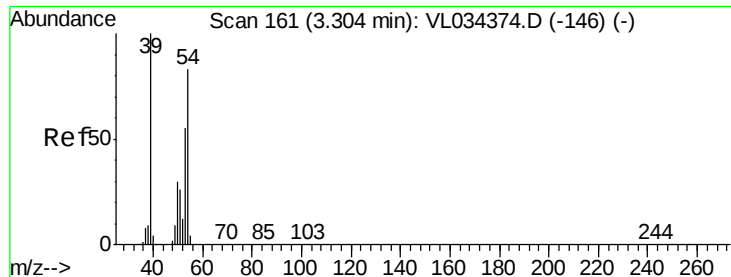
Tgt Ion: 43 Resp: 1092255

Ion Ratio Lower Upper

43 100

58 25.2 20.2 30.4

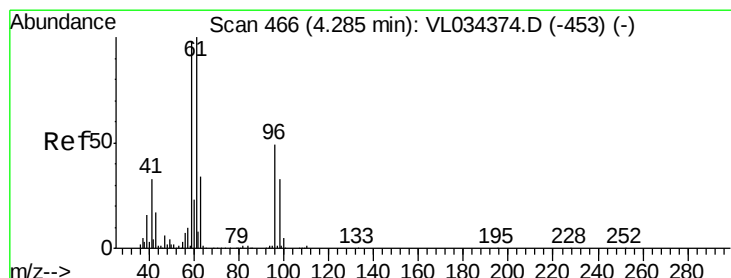
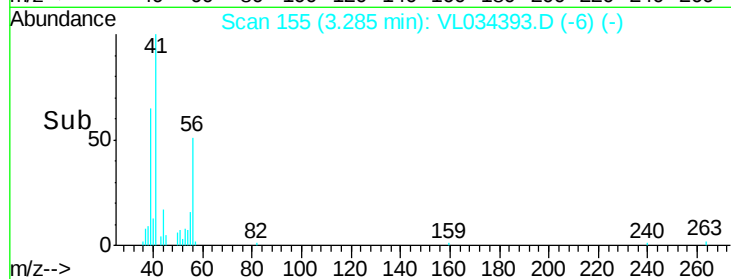
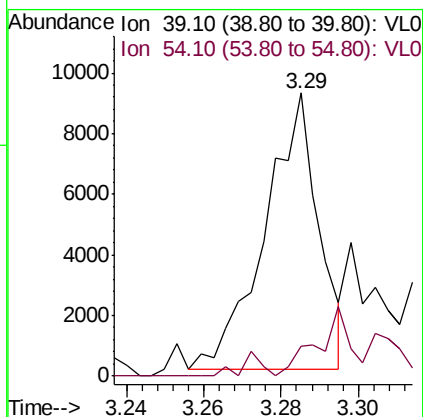
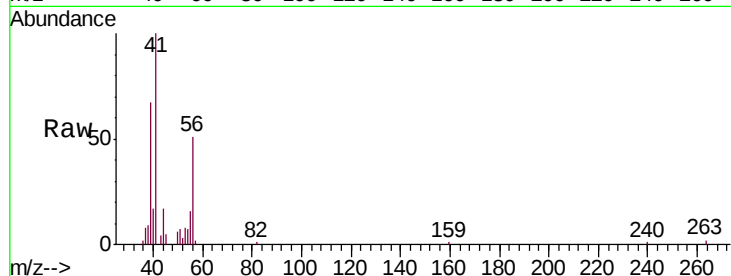




#16
1,3-Butadiene
Concen: 0.143 ppbv
RT: 3.29 min Scan# 155
Delta R.T. -0.02 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

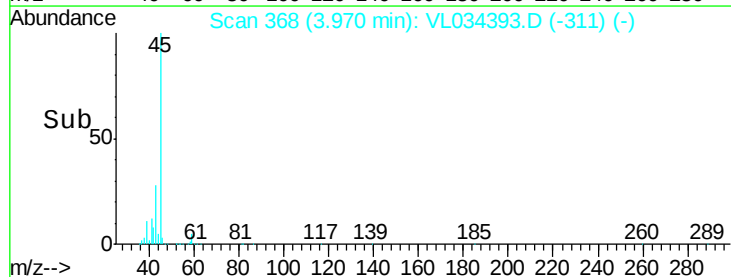
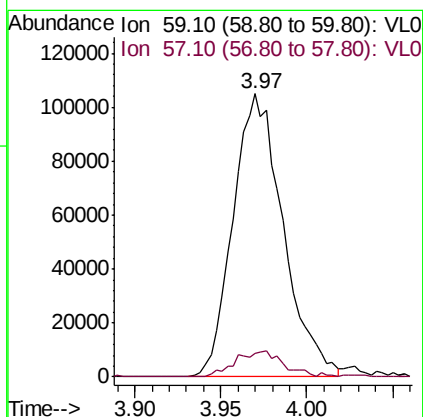
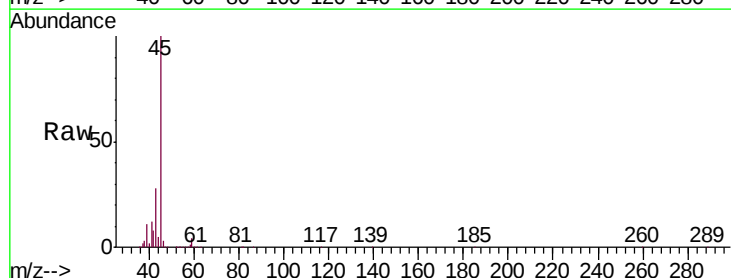
Instrument :
MSVOA_L
ClientSampleId :
IA2

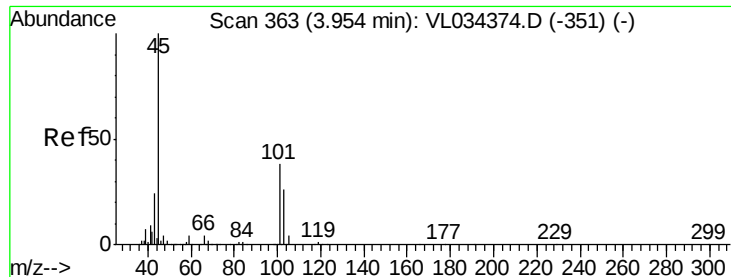
Tgt Ion: 39 Resp: 8838
Ion Ratio Lower Upper
39 100
54 35.1 64.7 97.1#



#17
tert-Butyl alcohol
Concen: 1.782 ppbv
RT: 3.97 min Scan# 368
Delta R.T. -0.32 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Tgt Ion: 59 Resp: 212883
Ion Ratio Lower Upper
59 100
57 9.3 8.8 13.2

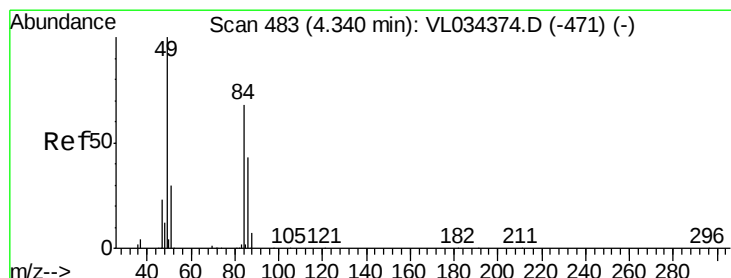
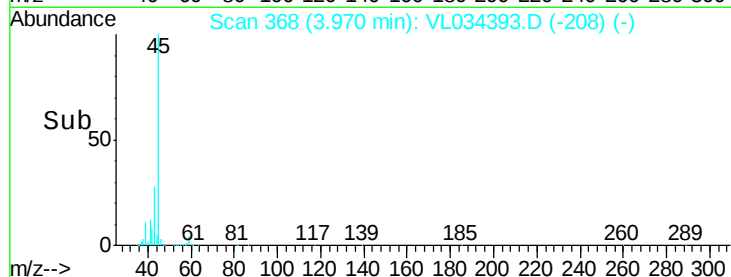
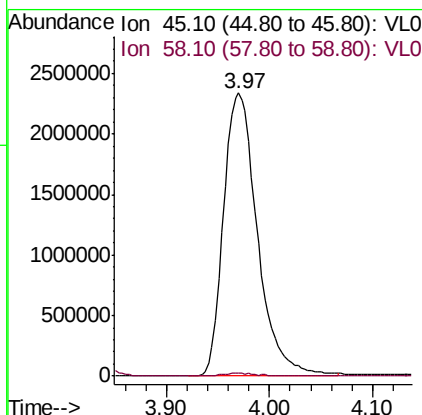
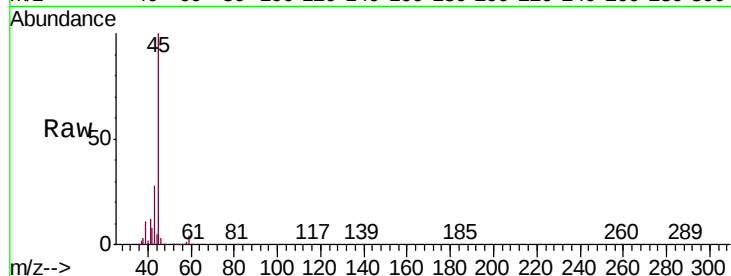




#19
Isopropyl Alcohol
Concen: 51.567 ppbv
RT: 3.97 min Scan# 368
Delta R.T. 0.02 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

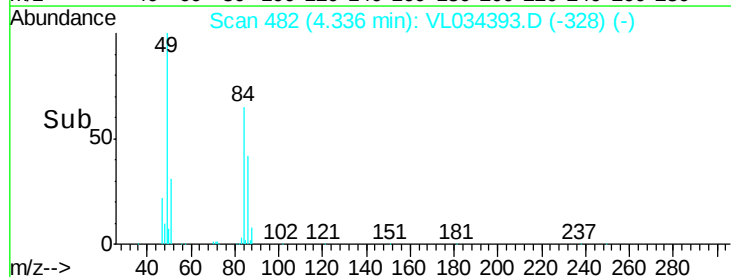
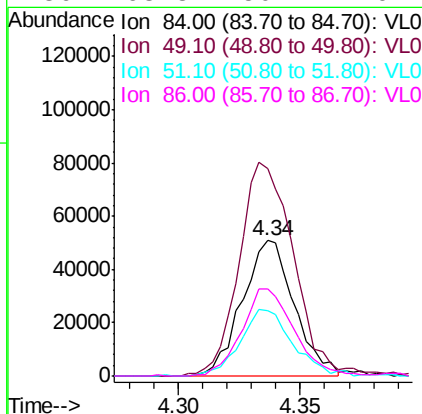
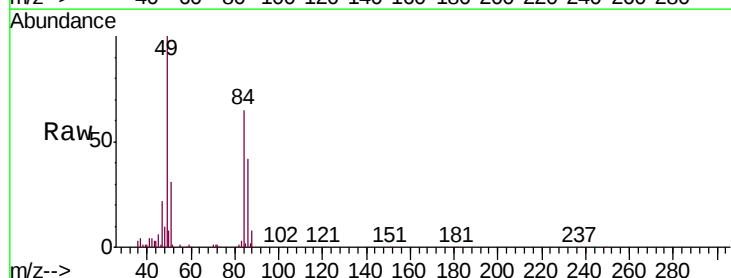
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MSVOA_L
ClientSampleId :
IA2

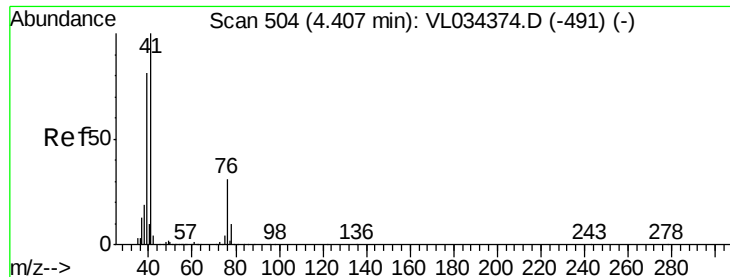
Tgt Ion: 45 Resp: 5330054
Ion Ratio Lower Upper
45 100
58 1.1 1.3 1.9#



#20
Methylene Chloride
Concen: 1.485 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.00 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Tgt Ion: 84 Resp: 74820
Ion Ratio Lower Upper
84 100
49 151.9 116.8 175.2
51 49.0 35.6 53.4
86 63.8 50.7 76.1





#21

Allyl Chloride

Concen: 1.910 ppbv

RT: 4.12 min Scan# 414

Delta R.T. -0.29 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampled :

IA2

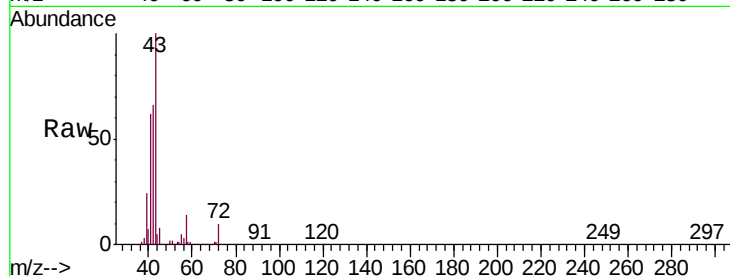
Tgt Ion: 41 Resp: 162696

Ion Ratio Lower Upper

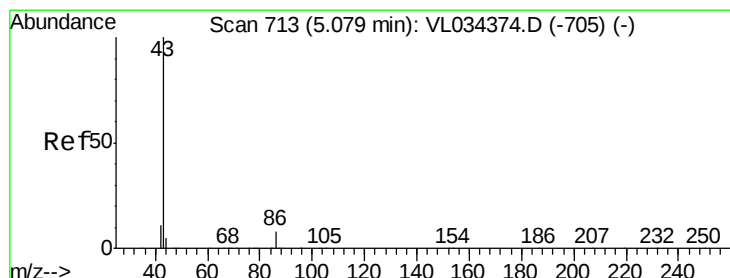
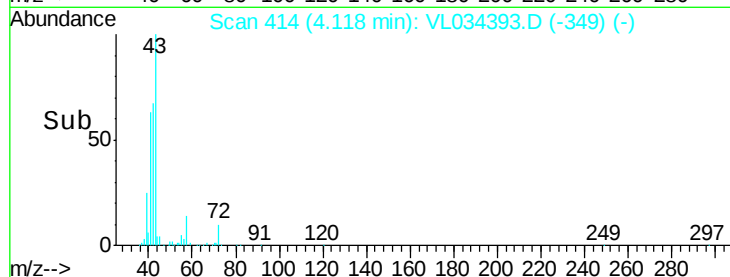
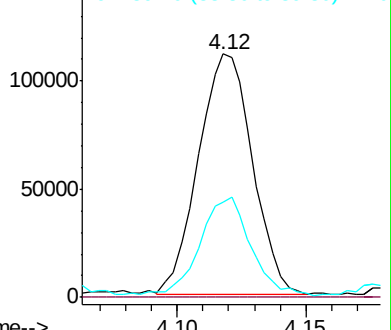
41 100

76 0.1 24.2 36.2#

39 36.9 66.9 100.3#



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



#23

Vinyl Acetate

Concen: 0.093 ppbv

RT: 5.07 min Scan# 709

Delta R.T. -0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Tgt Ion: 43 Resp: 17250

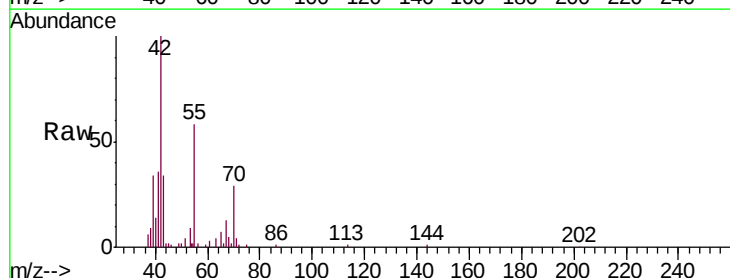
Ion Ratio Lower Upper

43 100

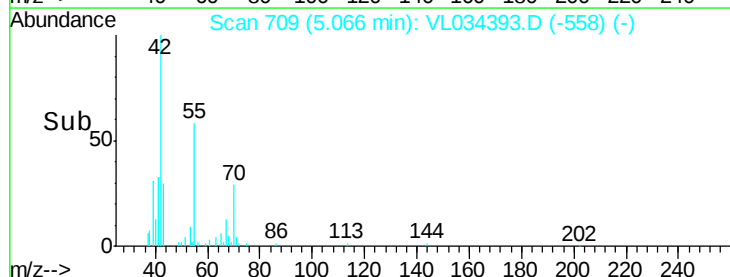
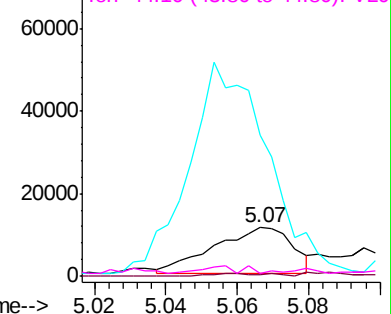
86 3.9 5.8 8.6#

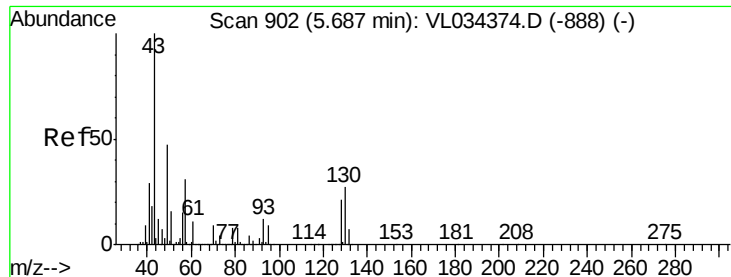
42 229.7 8.9 13.3#

44 0.0 4.0 6.0#



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

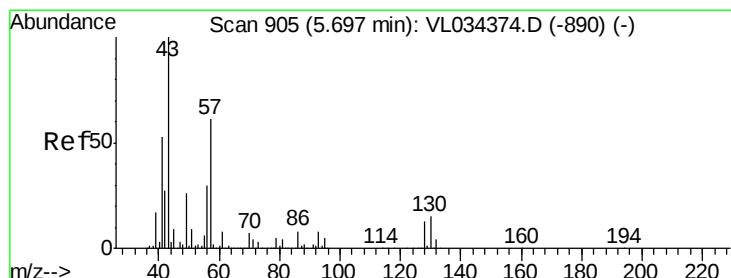
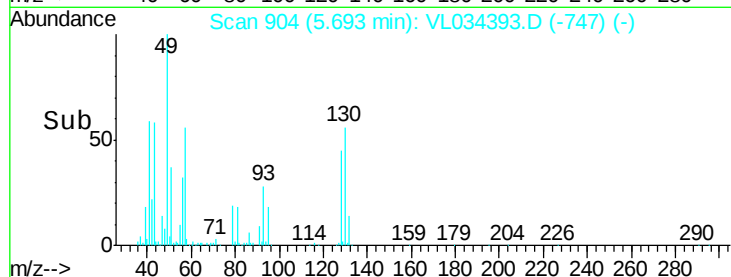
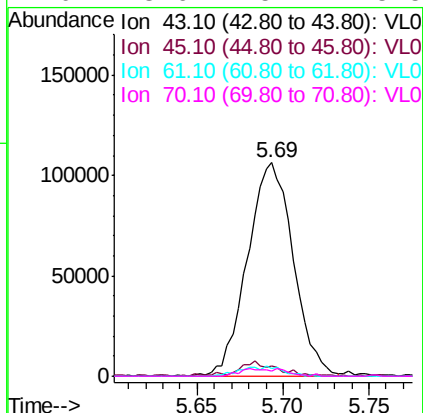
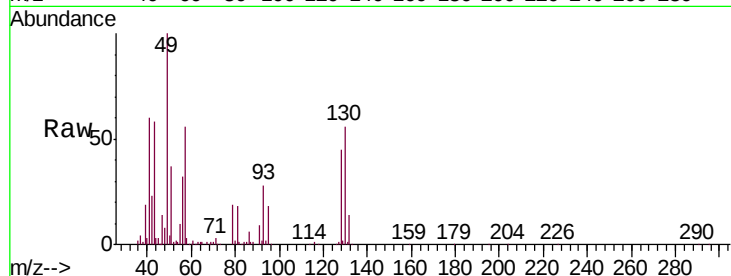




#25
Ethyl Acetate
Concen: 0.774 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.01 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

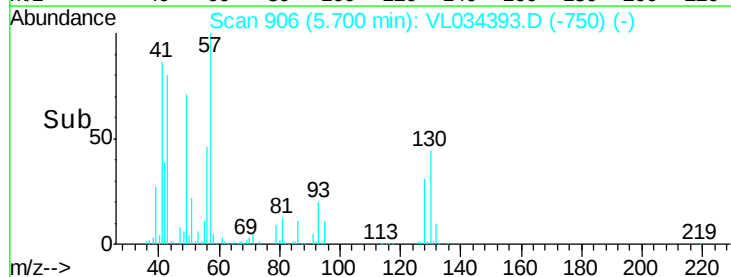
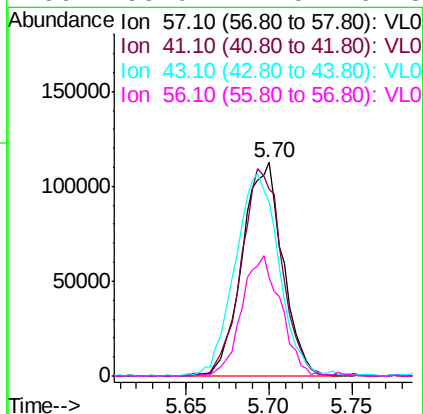
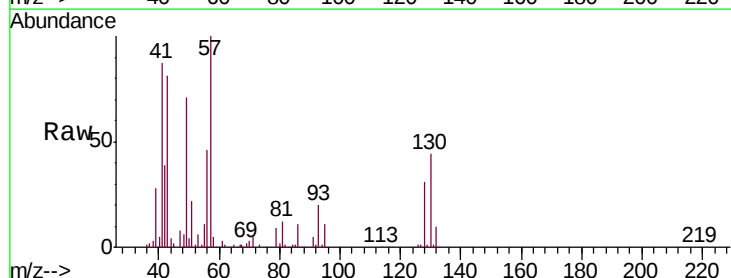
Instrument :
MSVOA_L
ClientSampleId :
IA2

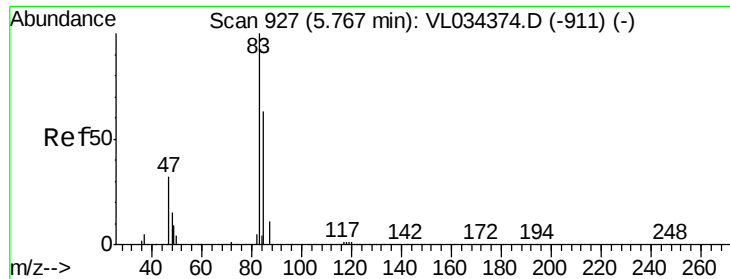
Tgt Ion:	43	Resp:	196192
Ion	Ratio	Lower	Upper
43	100		
45	6.4	8.2	12.4#
61	4.3	7.5	11.3#
70	3.6	5.7	8.5#



#26
Hexane
Concen: 1.746 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.00 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Tgt Ion:	57	Resp:	190280
Ion	Ratio	Lower	Upper
57	100		
41	98.5	75.0	112.4
43	104.3	186.6	279.8#
56	55.0	41.5	62.3





#29

Chloroform

Concen: 0.063 ppbv

RT: 5.76 min Scan# 924

Delta R.T. -0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

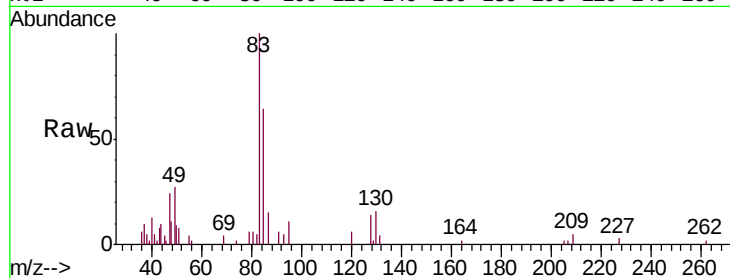
IA2

Tgt Ion: 83 Resp: 11142

Ion Ratio Lower Upper

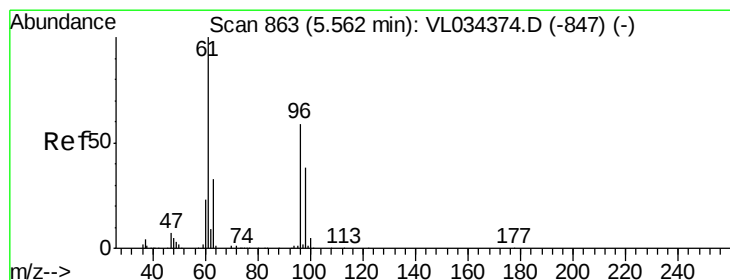
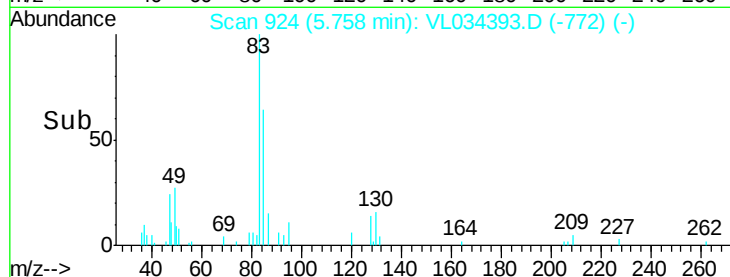
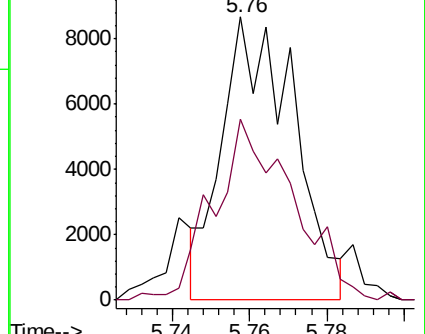
83 100

85 66.4 50.4 75.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#31

cis-1,2-Dichloroethene

Concen: 0.120 ppbv

RT: 5.56 min Scan# 861

Delta R.T. -0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

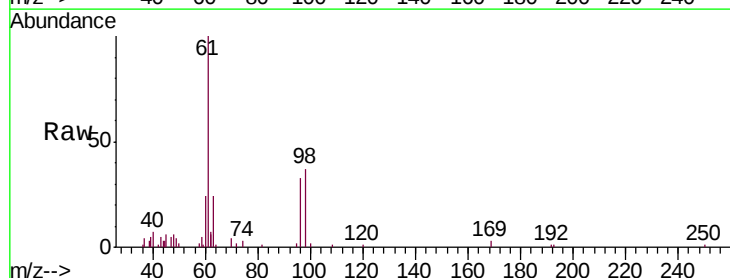
Tgt Ion: 61 Resp: 13545

Ion Ratio Lower Upper

61 100

96 26.8 47.4 71.2#

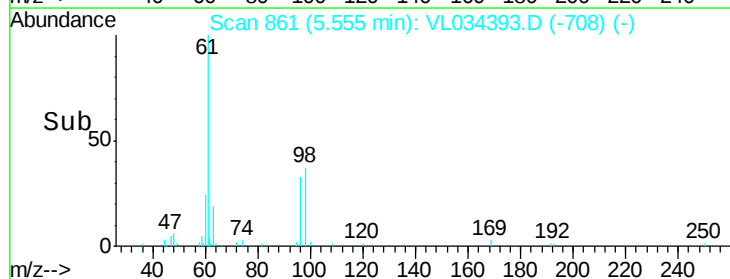
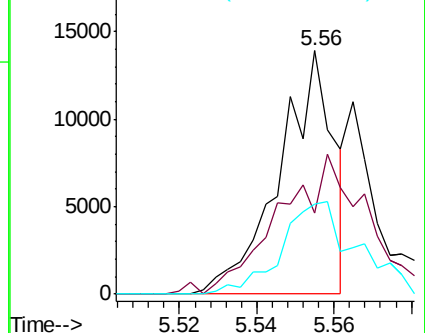
98 34.7 30.6 45.8

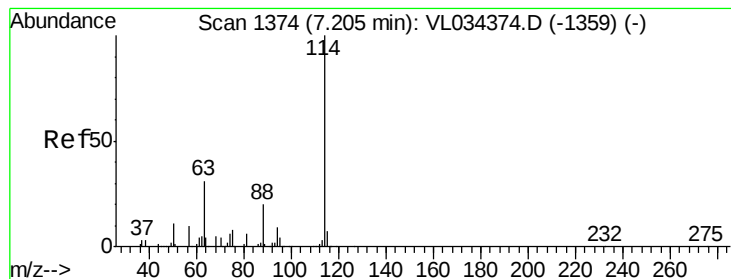


Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.20 min Scan# 1373

Delta R.T. -0.00 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2

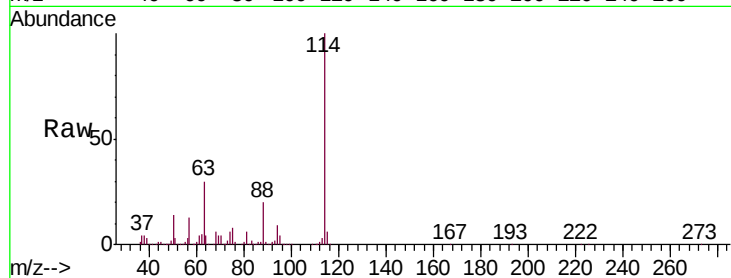
Tgt Ion:114 Resp: 1918362

Ion Ratio Lower Upper

114 100

63 30.6 24.2 36.4

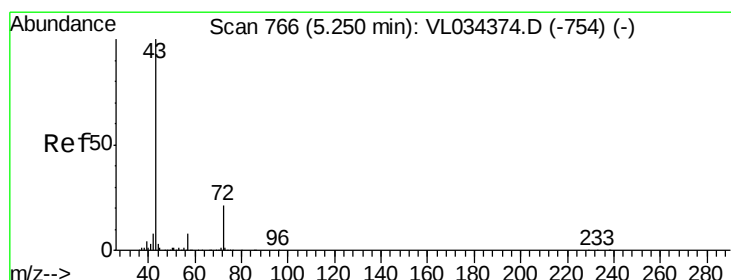
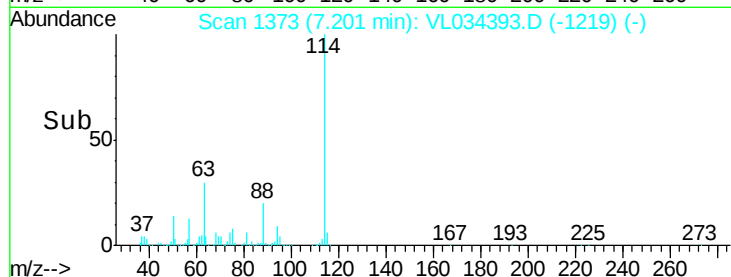
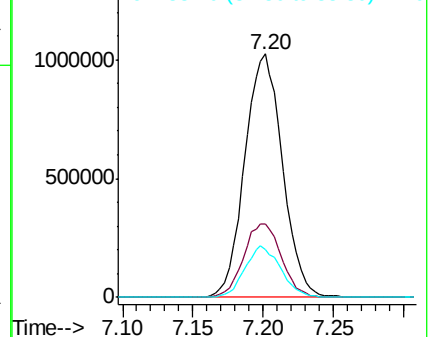
88 20.1 15.9 23.9



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



#34

2-Butanone

Concen: 0.158 ppbv

RT: 5.25 min Scan# 766

Delta R.T. -0.00 min

Lab File: VL034393.D

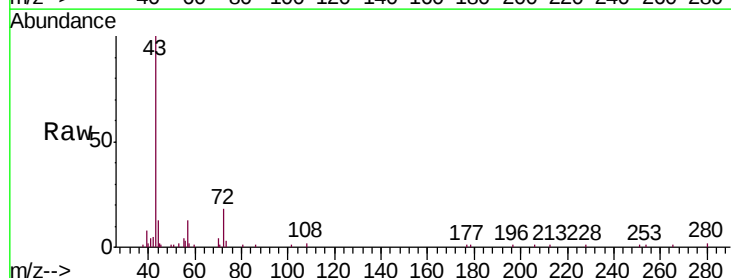
Acq: 20 Nov 2019 00:13

Tgt Ion: 43 Resp: 24979

Ion Ratio Lower Upper

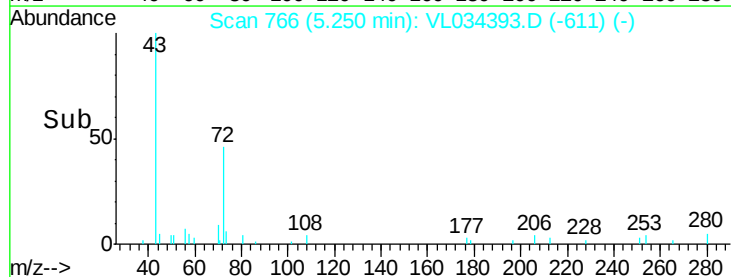
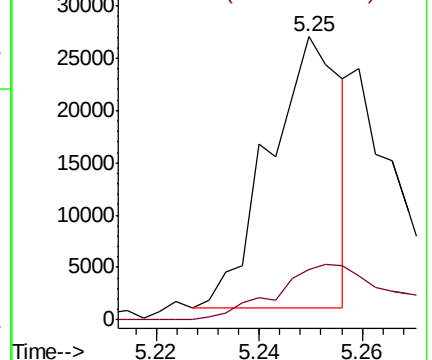
43 100

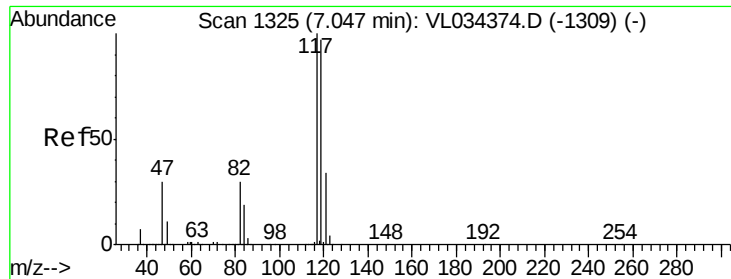
72 35.2 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

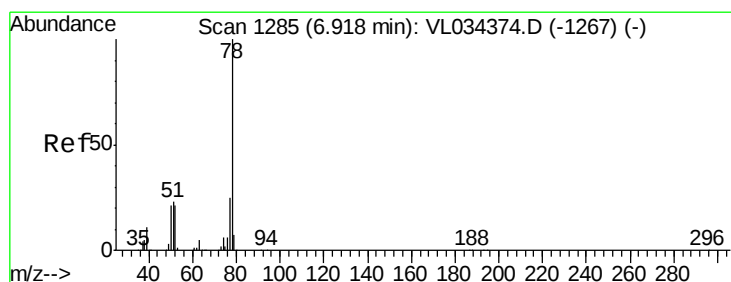
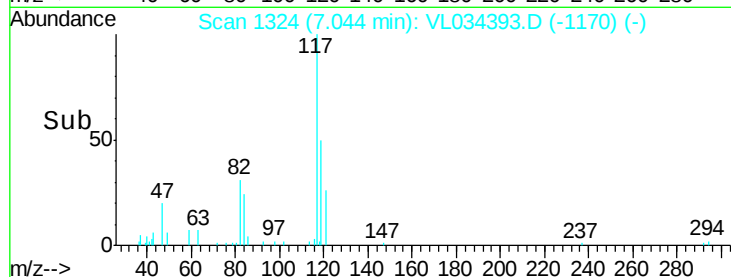
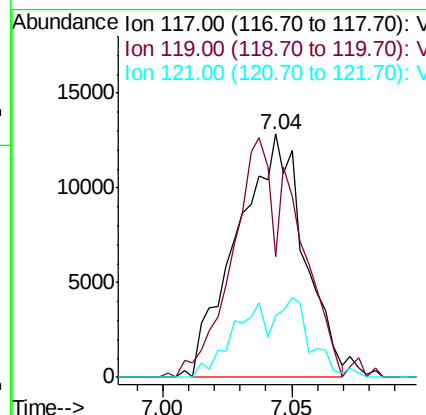
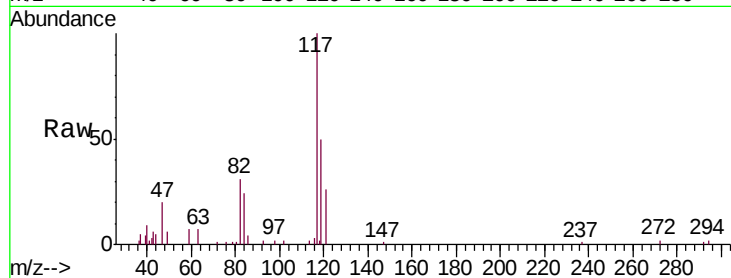




#35
Carbon Tetrachloride
Concen: 0.141 ppbv
RT: 7.04 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

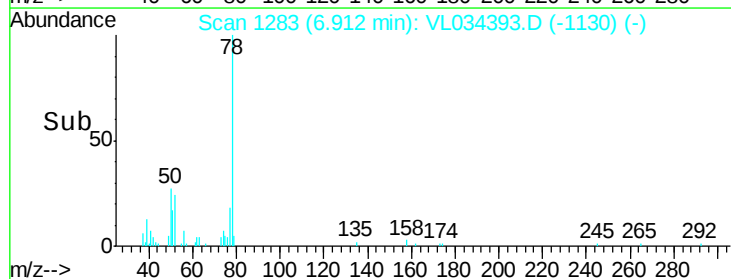
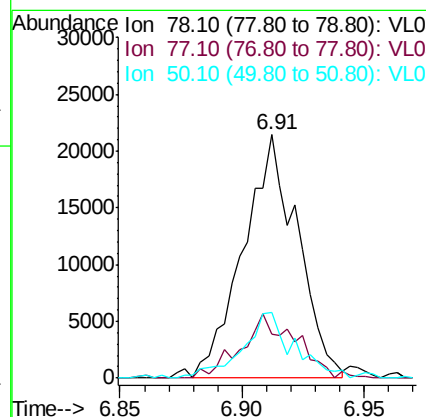
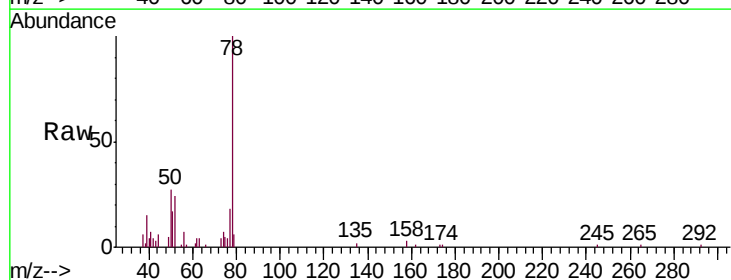
Instrument :
MSVOA_L
ClientSampleId :
IA2

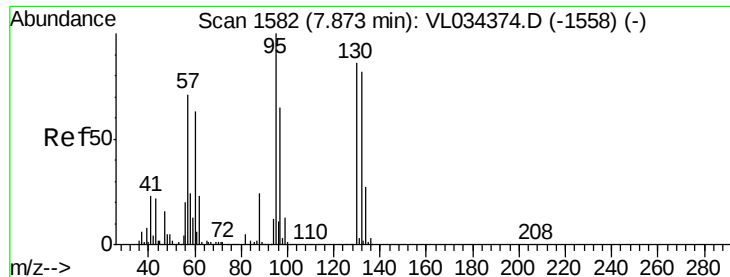
Tgt Ion: 117 Resp: 23269
Ion Ratio Lower Upper
117 100
119 49.8 77.3 115.9#
121 25.5 27.4 41.2#



#36
Benzene
Concen: 0.172 ppbv
RT: 6.91 min Scan# 1283
Delta R.T. -0.01 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Tgt Ion: 78 Resp: 33059
Ion Ratio Lower Upper
78 100
77 18.1 20.2 30.4#
50 25.4 17.1 25.7





#38

Trichloroethene

Concen: 0.049 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.00 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion: 130 Resp: 3867

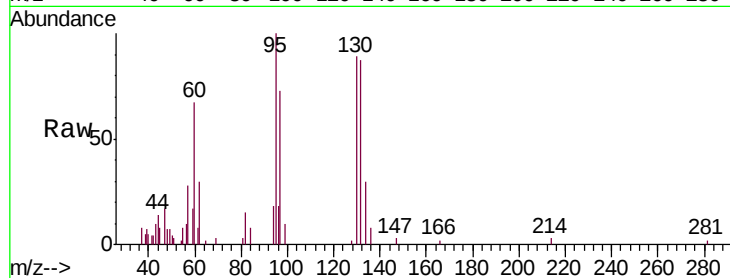
Ion Ratio Lower Upper

130 100

95 42.1 93.4 140.0#

132 55.3 76.4 114.6#

97 54.2 61.1 91.7#

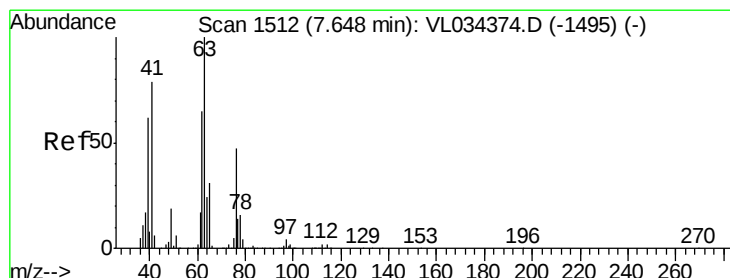
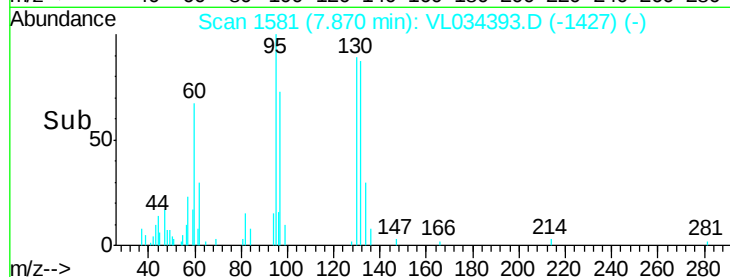
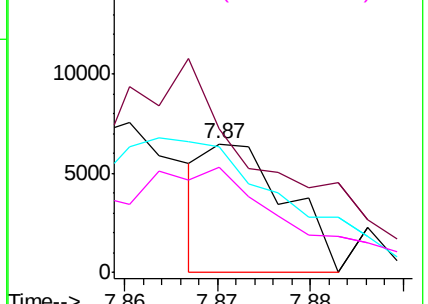


Abundance Ion 130.00 (129.70 to 130.70): V

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: 7.176 ppbv

RT: 7.20 min Scan# 1373

Delta R.T. -0.45 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

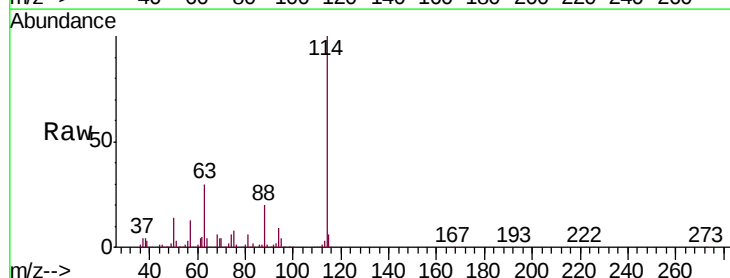
Tgt Ion: 63 Resp: 583406

Ion Ratio Lower Upper

63 100

41 0.0 63.1 94.7#

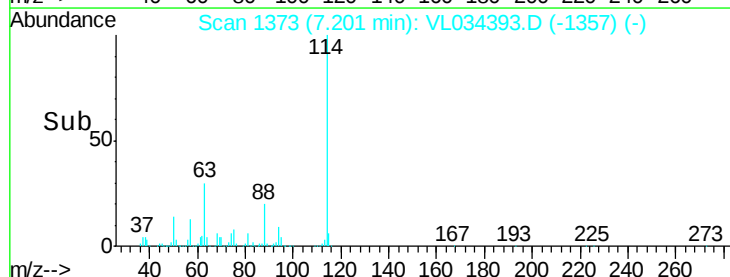
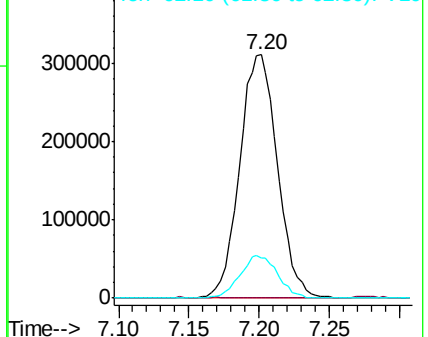
62 16.6 52.3 78.5#

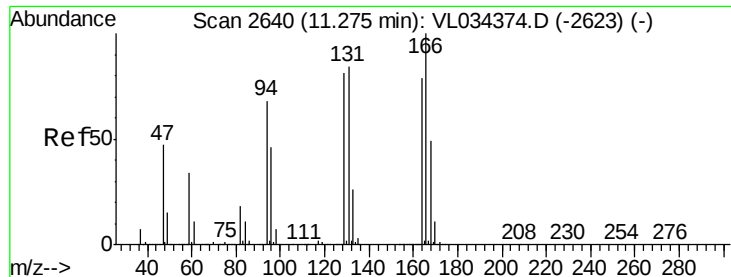


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#52

Tetrachloroethene

Concen: 65.225 ppbv

RT: 11.28 min Scan# 2642

Delta R.T. 0.01 min

Lab File: VL034393.D

Acq: 20 Nov 2019 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion:164 Resp: 5411921

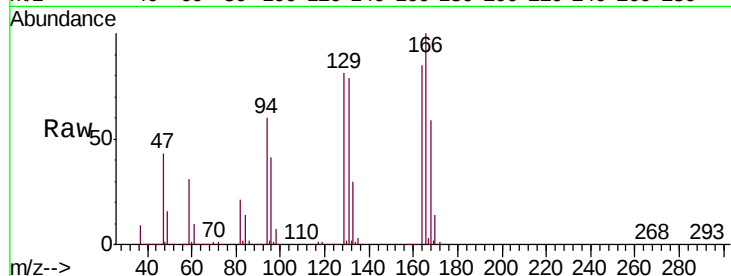
Ion Ratio Lower Upper

164 100

166 117.4 101.7 152.5

129 95.5 82.6 123.8

131 92.5 85.2 127.8

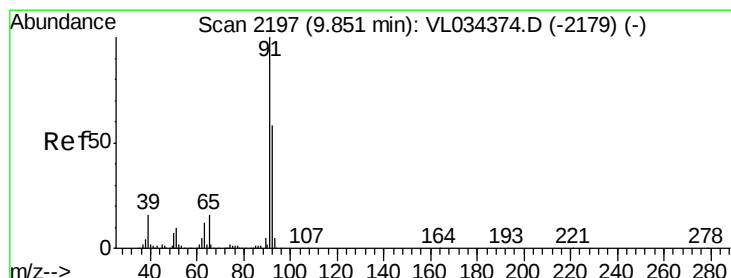
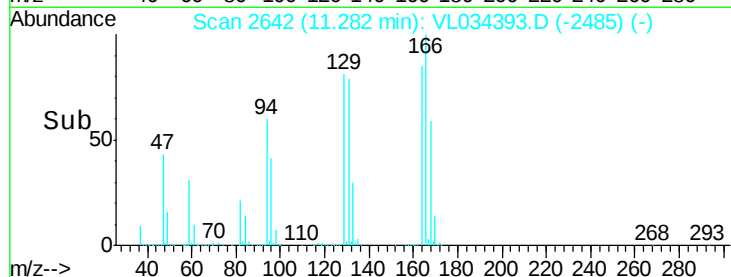
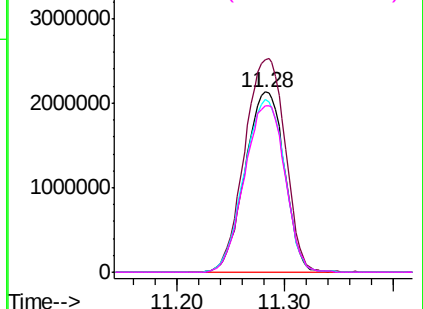


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.382 ppbv

RT: 9.85 min Scan# 2196

Delta R.T. -0.00 min

Lab File: VL034393.D

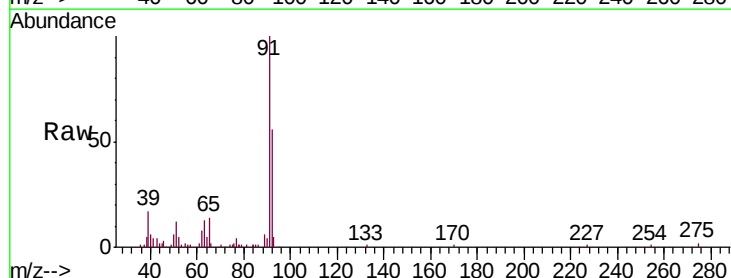
Acq: 20 Nov 2019 00:13

Tgt Ion: 91 Resp: 83274

Ion Ratio Lower Upper

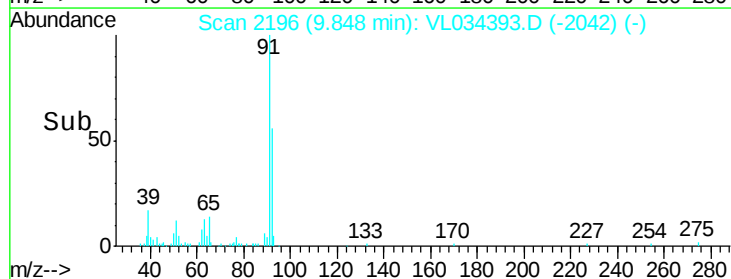
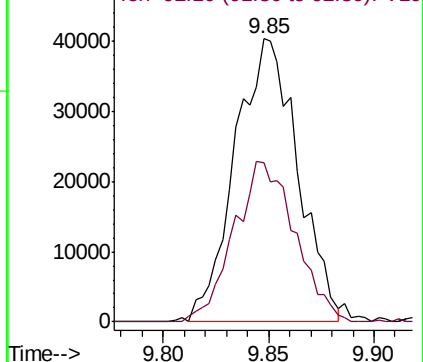
91 100

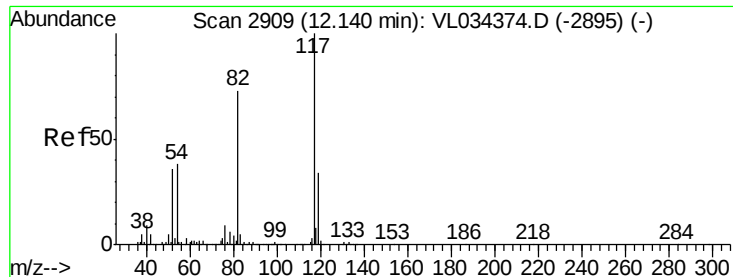
92 55.2 47.9 71.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

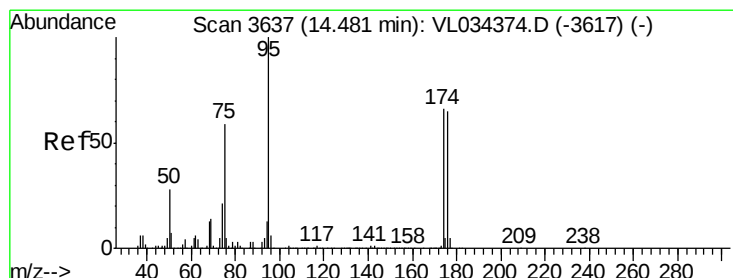
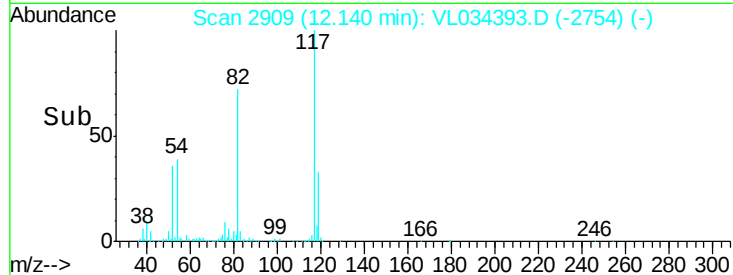
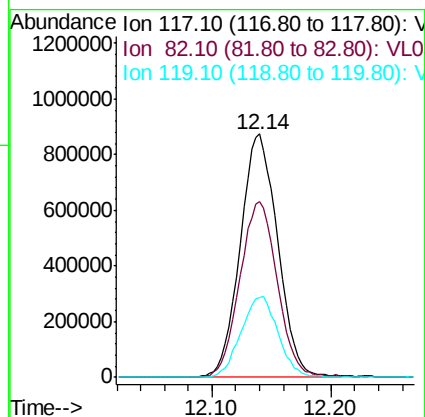
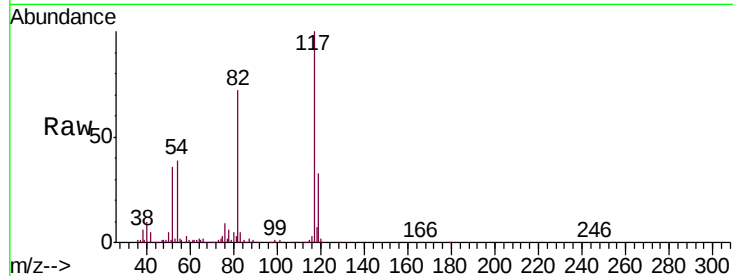




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.14 min Scan# 2909
Delta R.T. -0.00 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Instrument :
MSVOA_L
ClientSampled :
IA2

Tgt Ion: 117 Resp: 1906181
Ion Ratio Lower Upper
117 100
82 72.9 57.5 86.3
119 33.1 25.4 38.2



#68
1-Bromo-4-Fluorobenzene
Concen: 10.000 ppbv
RT: 14.48 min Scan# 3636
Delta R.T. -0.00 min
Lab File: VL034393.D
Acq: 20 Nov 2019 00:13

Tgt Ion: 95 Resp: 1603655
Ion Ratio Lower Upper
95 100
174 67.2 52.2 78.2
175 4.8 3.8 5.8

