

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032919\
 Data File : VL033505.D
 Acq On : 29 Mar 2019 16:55
 Operator : SY/AP
 Sample : K2042-18
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 01:11:09 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar 26 16:00:50 2019
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	760720	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1956921	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1889737	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1474863	9.96	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.60%

Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.08	85	27547	0.25	ppbv	99
3) Chlorodifluoromethane	2.99	51	273486	3.12	ppbv #	63
4) Chloromethane	3.17	50	28514	0.62	ppbv	90
9) Propene	3.24	41	64283	1.75	ppbv	91
10) Heptane	8.25	43	13206	0.13	ppbv	97
11) Trichlorofluoromethane	4.00	101	38050	0.28	ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.54	101	4950	0.05	ppbv #	14
13) Ethanol	3.65	45	1050130	110.34	ppbv	64
15) Acetone	3.90	43	1211788	13.25	ppbv	99
16) 1,3-Butadiene	3.34	39	10772	0.30	ppbv #	34
17) tert-Butyl alcohol	4.37	59	15425	0.92	ppbv #	81
19) Isopropyl Alcohol	4.02	45	168777	2.92	ppbv #	1
20) Methylene Chloride	4.41	84	183950	4.74	ppbv	97
21) Allyl Chloride	4.40	41	5865	0.10	ppbv #	47
23) Vinyl Acetate	5.14	43	23276	0.18	ppbv #	63
25) Ethyl Acetate	5.77	43	162799	0.96	ppbv #	82
26) Hexane	5.78	57	201288	2.67	ppbv #	43
29) Chloroform	5.84	83	7211	0.06	ppbv #	80
34) 2-Butanone	5.33	43	18649	0.16	ppbv #	69
36) Benzene	7.00	78	42999	0.26	ppbv #	92
39) 1,2-Dichloropropane	7.29	63	519513	8.08	ppbv #	23
53) Toluene	9.94	91	1052526	5.52	ppbv	99
58) Ethyl Benzene	12.87	91	12729	0.05	ppbv	90
60) o-Xylene	13.85	91	8661	0.04	ppbv #	1

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :

MSVOA_L

ClientSampled :

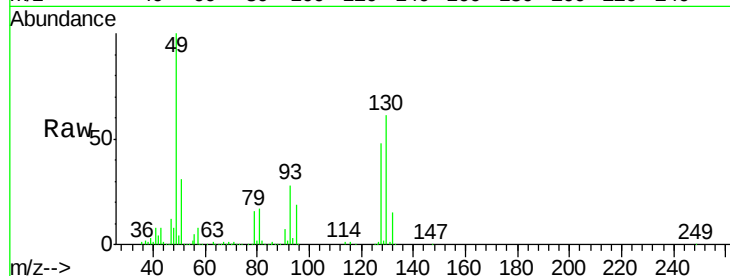
Tot Ion: 49 Resp: 760720

Ion Ratio Lower Upper

49 100

128 48.6 24.0 72.0

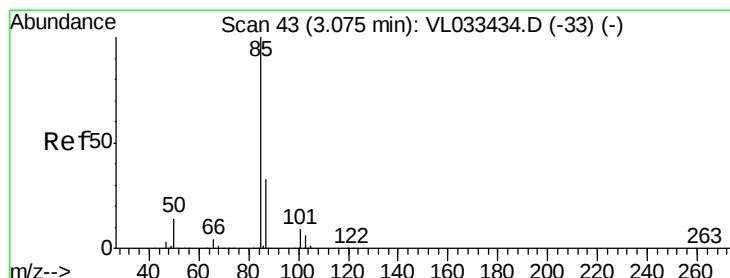
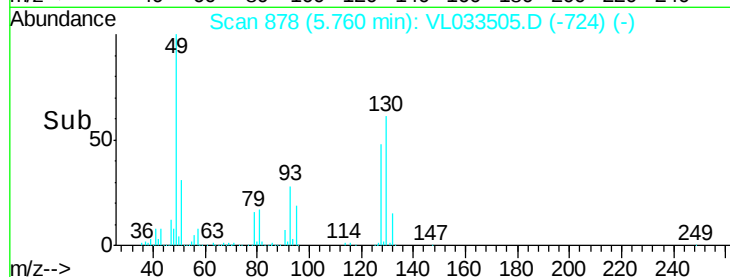
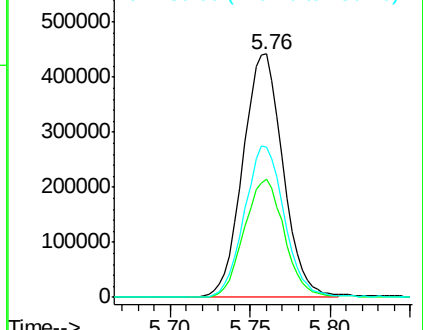
130 62.6 31.2 93.6



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: 0.25 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033505.D

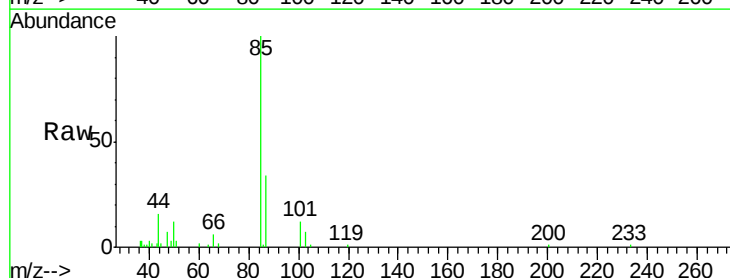
Acq: 29 Mar 2019 16:55

Tgt Ion: 85 Resp: 27547

Ion Ratio Lower Upper

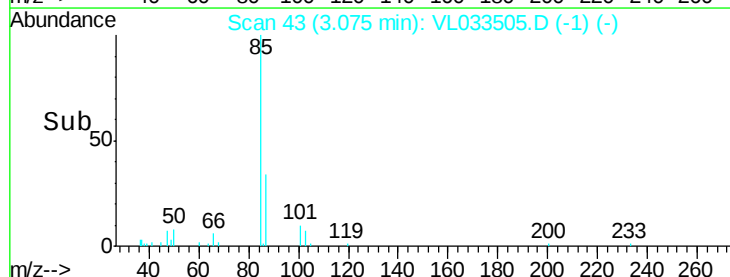
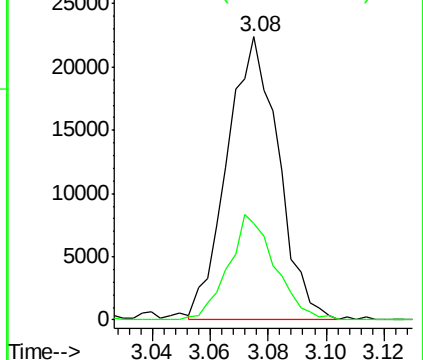
85 100

87 33.8 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

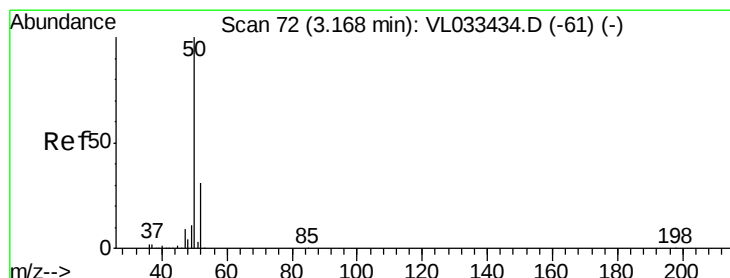
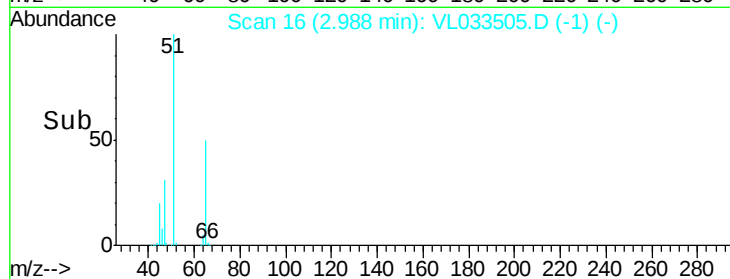
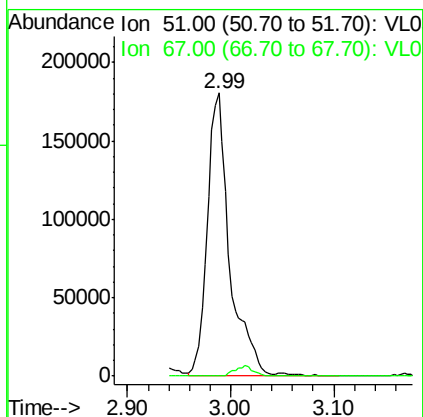
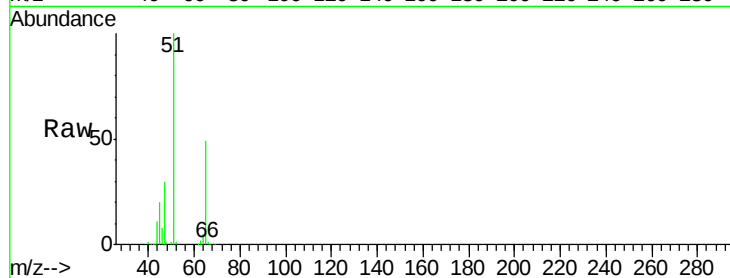




#3
 Chlorodifluoromethane
 Concen: 3.12 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.03 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

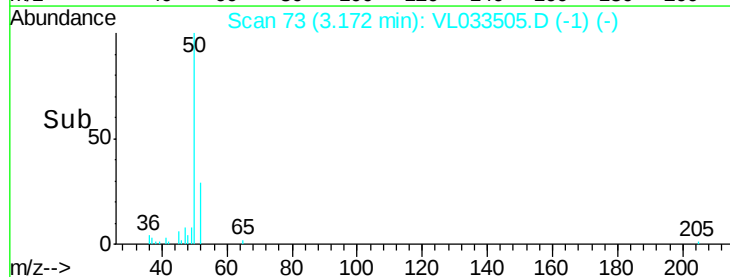
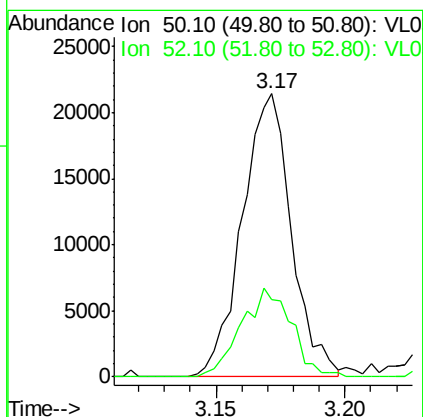
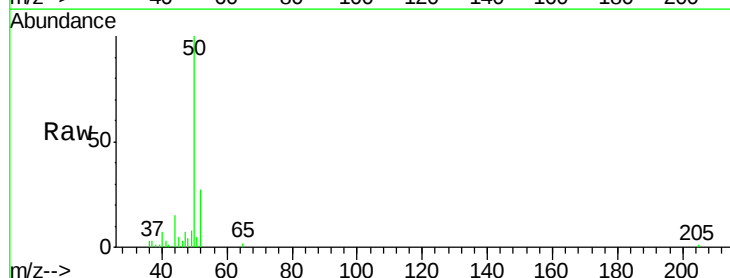
Instrument :
 MSVOA_L
 ClientSampleId :

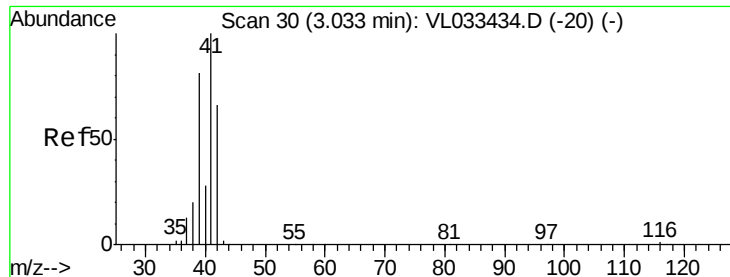
Tot Ion: 51 Resp: 273486
 Ion Ratio Lower Upper
 51 100
 67 2.9 15.7 23.5#



#4
 Chloromethane
 Concen: 0.62 ppbv
 RT: 3.17 min Scan# 73
 Delta R.T. 0.00 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

Tgt Ion: 50 Resp: 28514
 Ion Ratio Lower Upper
 50 100
 52 25.9 25.0 37.6





#9

Propene

Concen: 1.75 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.20 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :

MSVOA_L

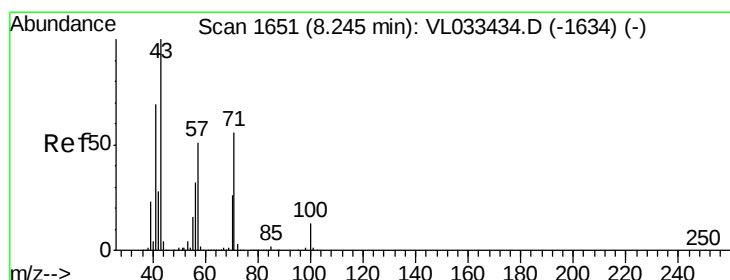
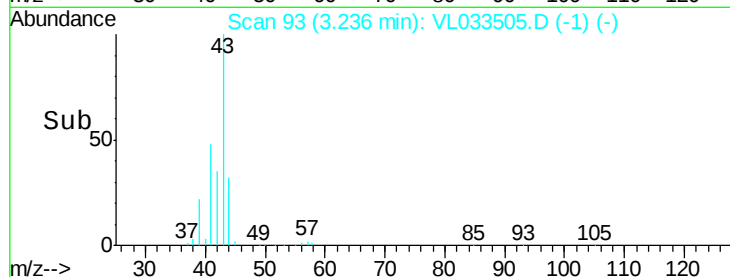
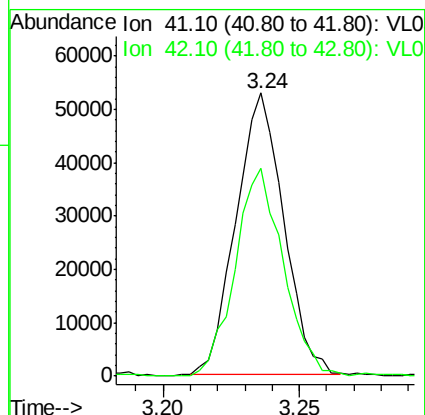
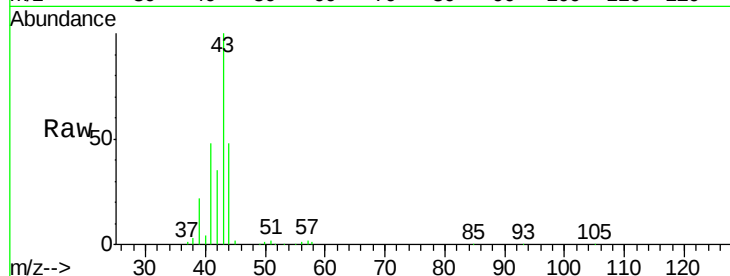
ClientSampleId :

Tot Ion: 41 Resp: 64283

Ion Ratio Lower Upper

41 100

42 74.9 53.9 80.9



#10

Heptane

Concen: 0.13 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.00 min

Lab File: VL033505.D

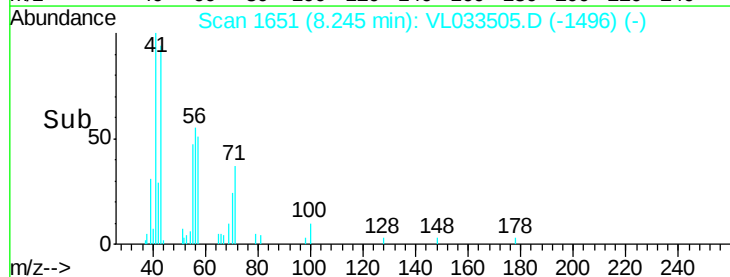
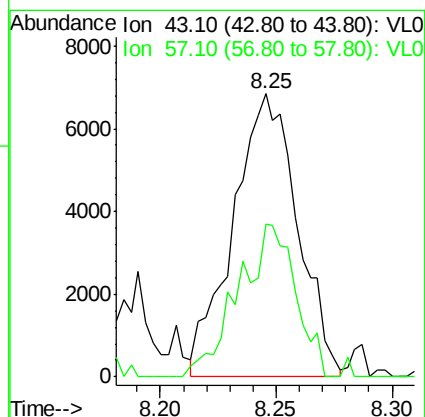
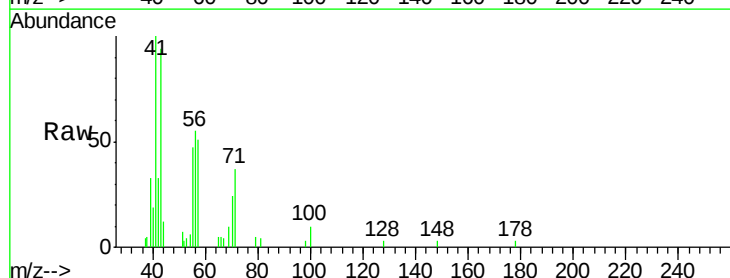
Acq: 29 Mar 2019 16:55

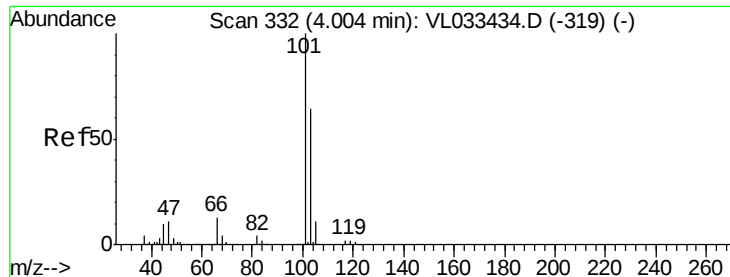
Tgt Ion: 43 Resp: 13206

Ion Ratio Lower Upper

43 100

57 48.7 40.6 60.8





#11

Trichlorofluoromethane

Concen: 0.28 ppbv

RT: 4.00 min Scan# 331

Delta R.T. -0.00 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :

MSVOA_L

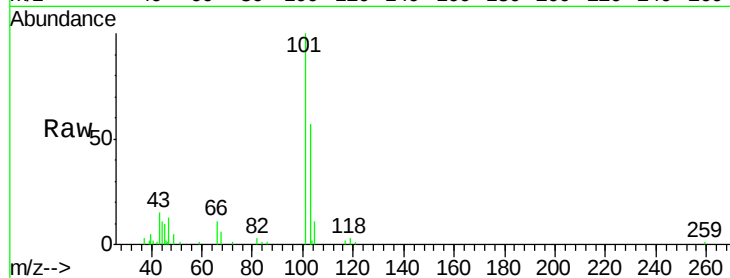
ClientSampleId :

Tot Ion:101 Resp: 38050

Ion Ratio Lower Upper

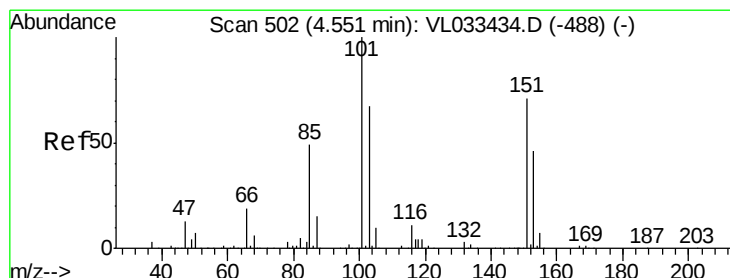
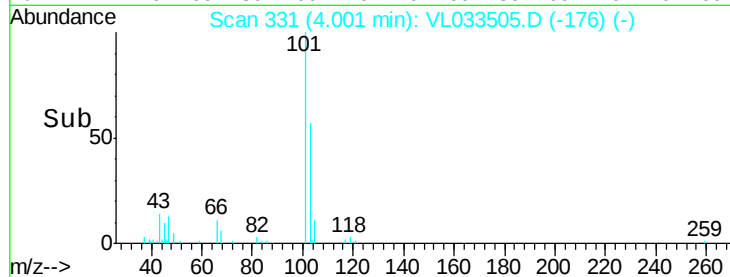
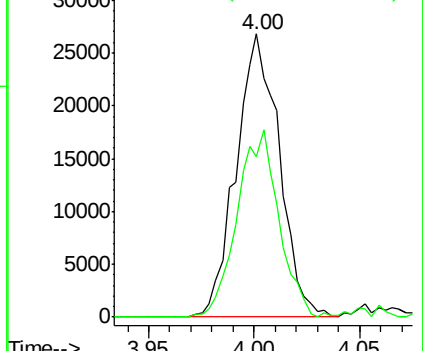
101 100

103 56.6 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.05 ppbv

RT: 4.54 min Scan# 500

Delta R.T. -0.01 min

Lab File: VL033505.D

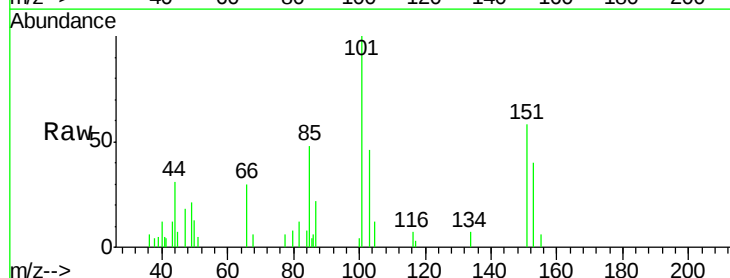
Acq: 29 Mar 2019 16:55

Tgt Ion:101 Resp: 4950

Ion Ratio Lower Upper

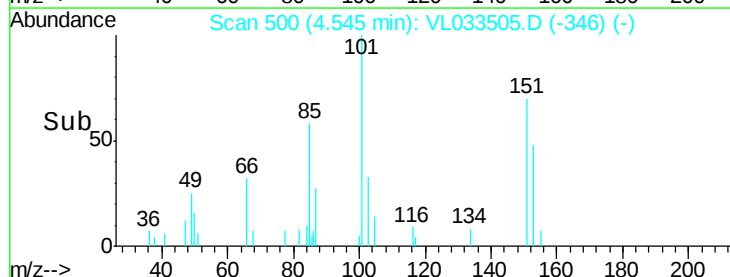
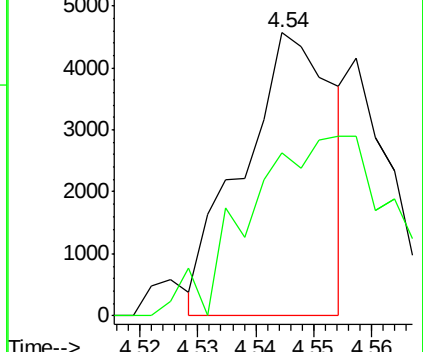
101 100

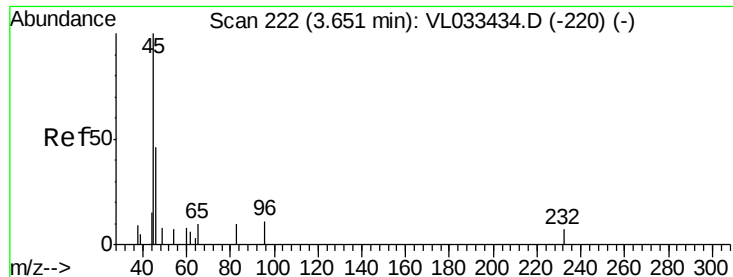
151 0.0 57.7 86.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

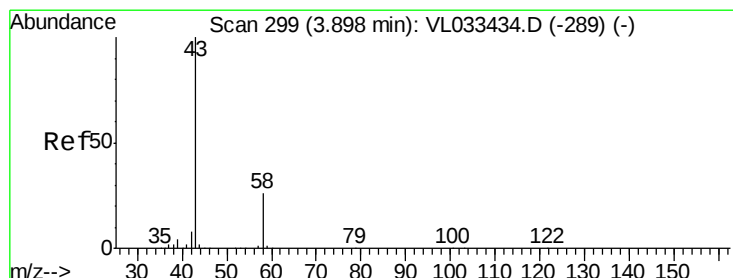
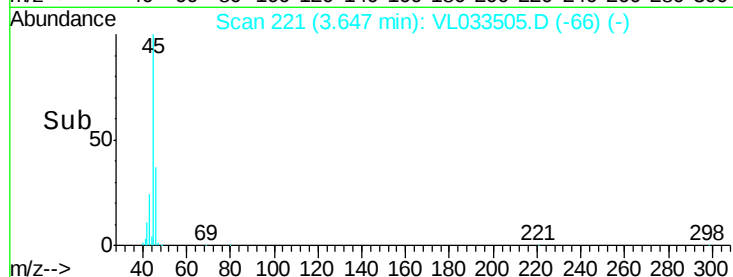
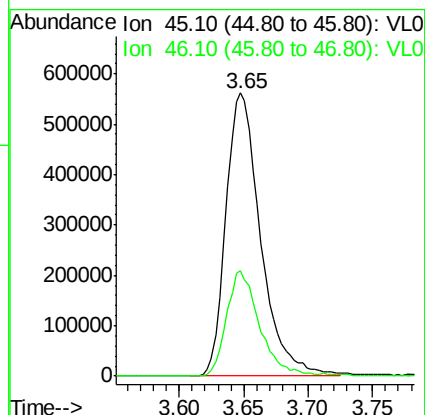
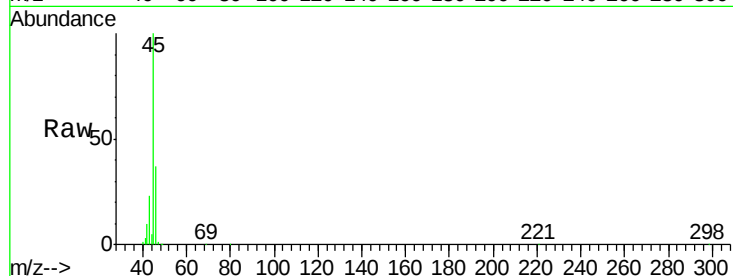




#13
Ethanol
Concen: 110.34 ppbv
RT: 3.65 min Scan# 221
Delta R.T. -0.00 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

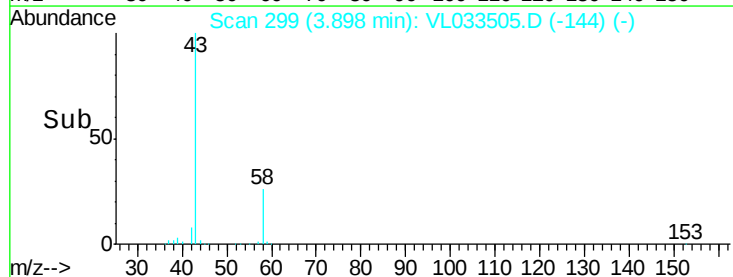
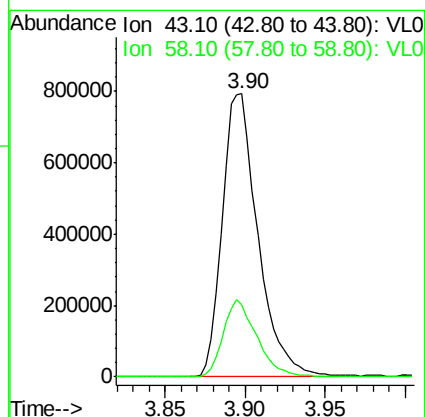
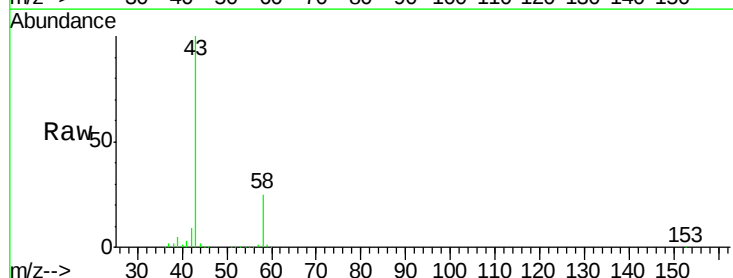
Instrument :
MSVOA_L
ClientSampleId :

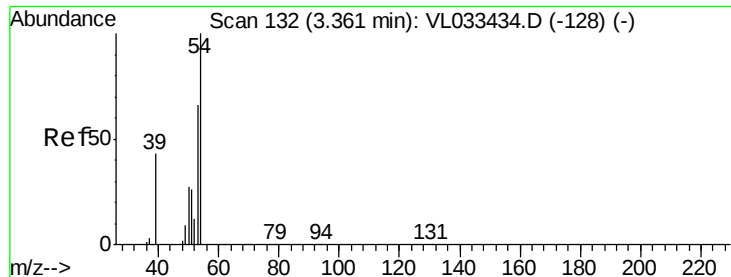
Tot Ion: 45 Resp: 1050130
Ion Ratio Lower Upper
45 100
46 35.8 25.4 101.8



#15
Acetone
Concen: 13.25 ppbv
RT: 3.90 min Scan# 299
Delta R.T. -0.00 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Tgt Ion: 43 Resp: 1211788
Ion Ratio Lower Upper
43 100
58 26.0 20.5 30.7

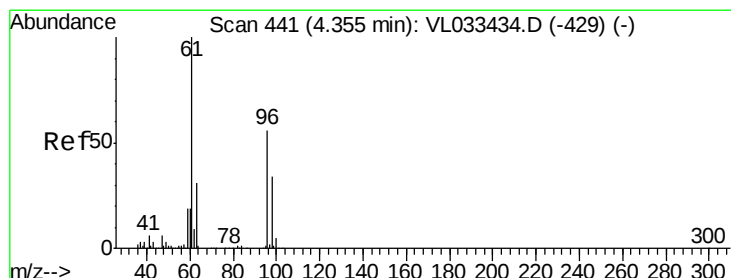
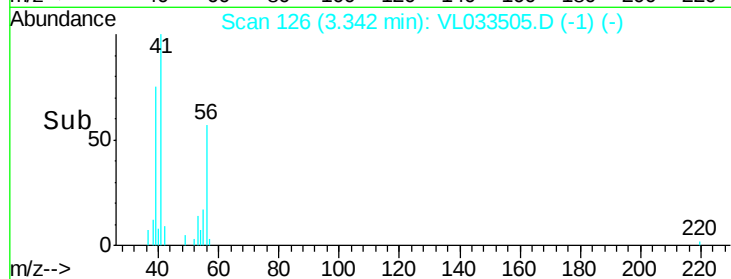
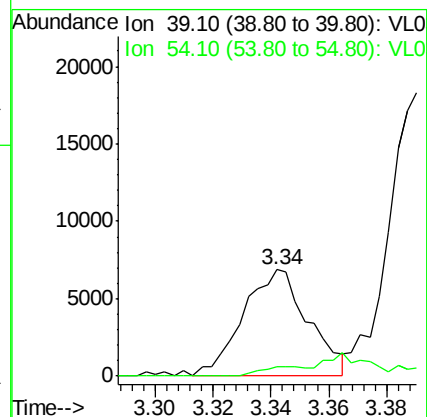
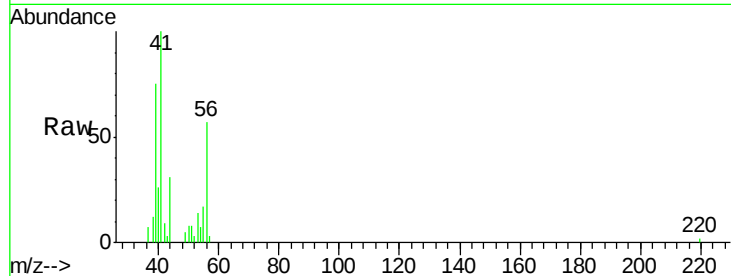




#16
 1,3-Butadiene
 Concen: 0.30 ppbv
 RT: 3.34 min Scan# 126
 Delta R.T. -0.02 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

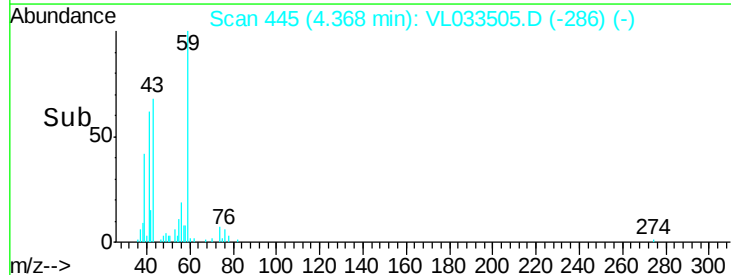
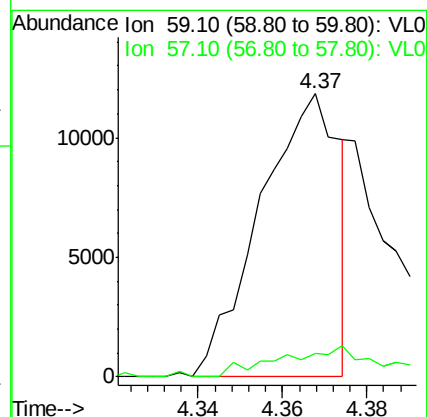
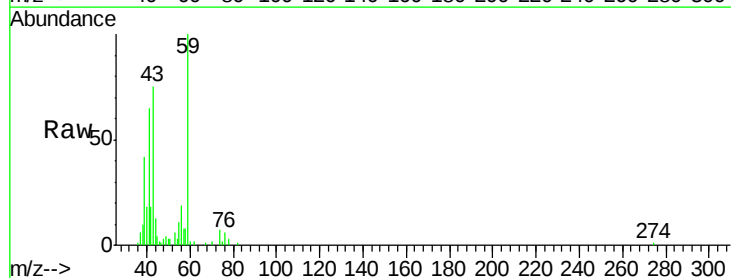
Instrument :
 MSVOA_L
 ClientSampleId :

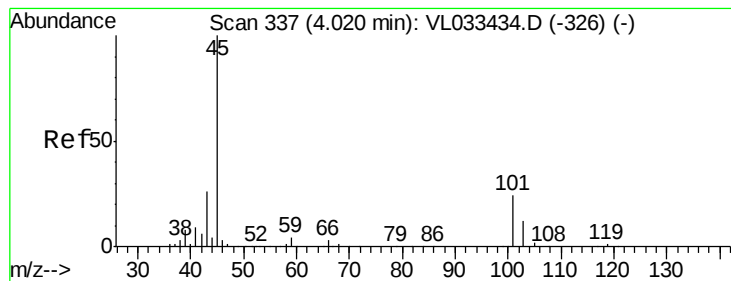
Tot Ion: 39 Resp: 10772
 Ion Ratio Lower Upper
 39 100
 54 25.9 69.4 104.2#



#17
 tert-Butyl alcohol
 Concen: 0.92 ppbv
 RT: 4.37 min Scan# 445
 Delta R.T. 0.01 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

Tgt Ion: 59 Resp: 15425
 Ion Ratio Lower Upper
 59 100
 57 16.9 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 2.92 ppbv

RT: 4.02 min Scan# 338

Delta R.T. 0.00 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :

MSVOA_L

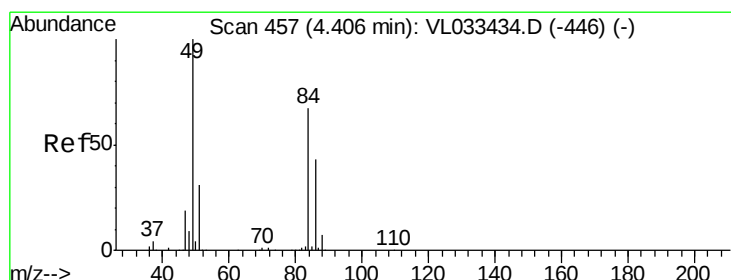
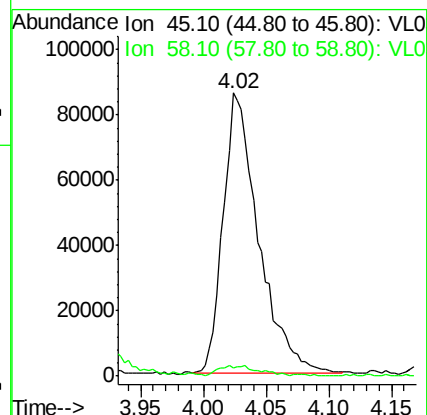
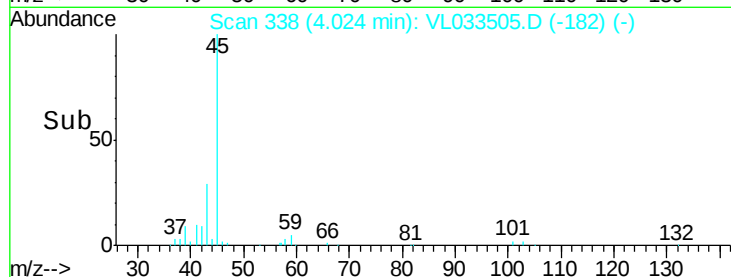
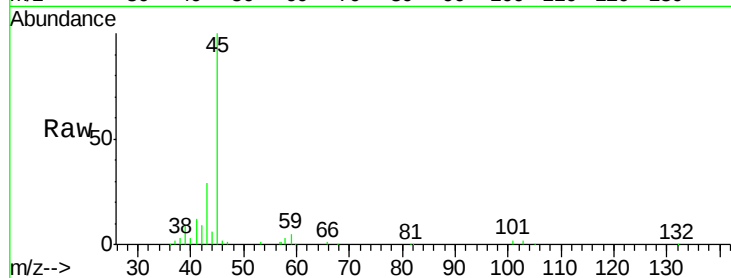
ClientSampleId :

Tot Ion: 45 Resp: 168777

Ion Ratio Lower Upper

45 100

58 186.5 1.4 2.2#



#20

Methylene Chloride

Concen: 4.74 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Tgt Ion: 84 Resp: 183950

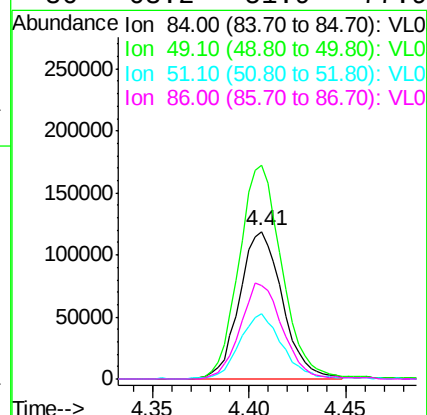
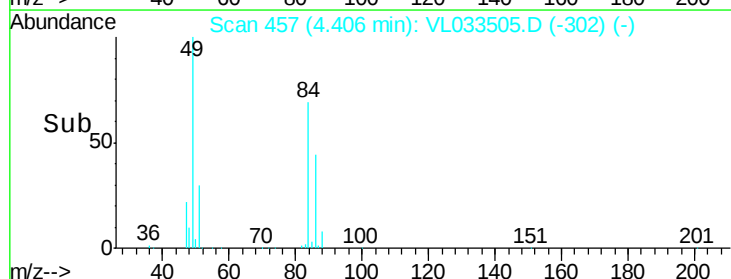
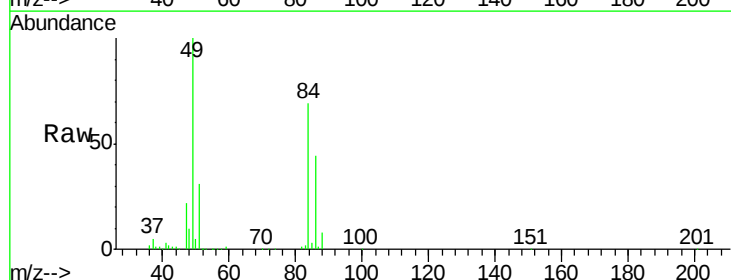
Ion Ratio Lower Upper

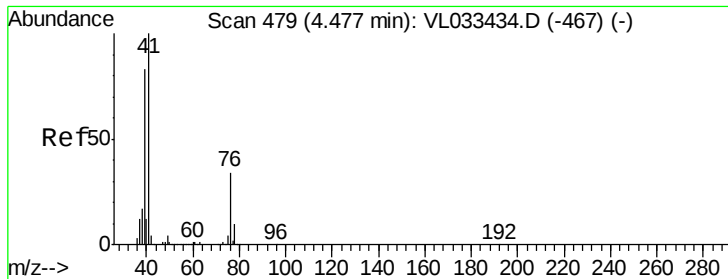
84 100

49 144.9 120.0 180.0

51 43.5 36.7 55.1

86 63.2 51.9 77.9





#21

Allvl Chloride

Concen: 0.10 ppbv

RT: 4.40 min Scan# 456

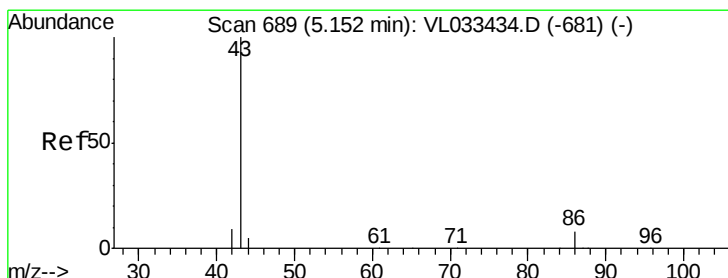
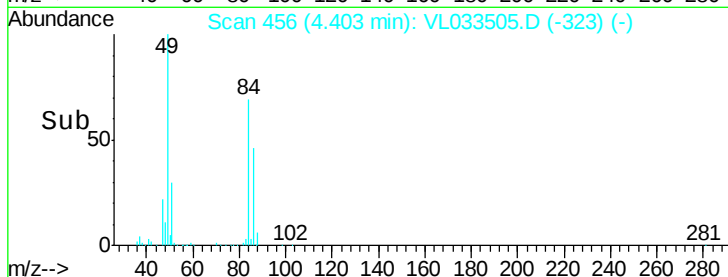
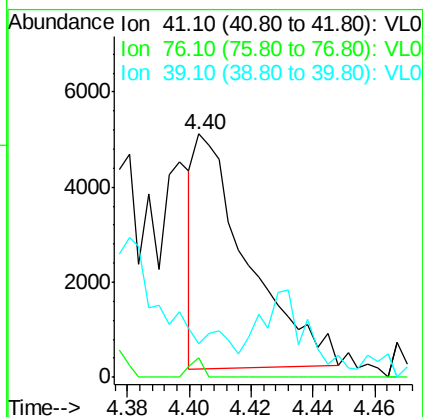
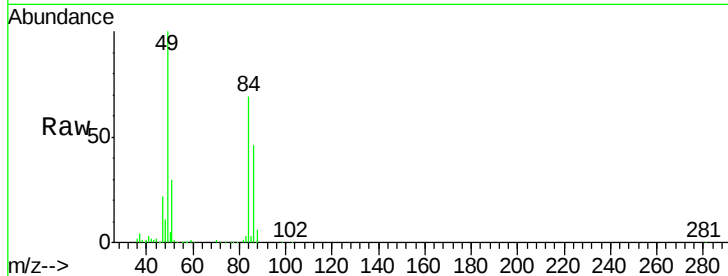
Delta R.T. -0.07 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	41	Resp:	5865
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.4	38.2#
39	35.7	65.3	97.9#



#23

Vinyl Acetate

Concen: 0.18 ppbv

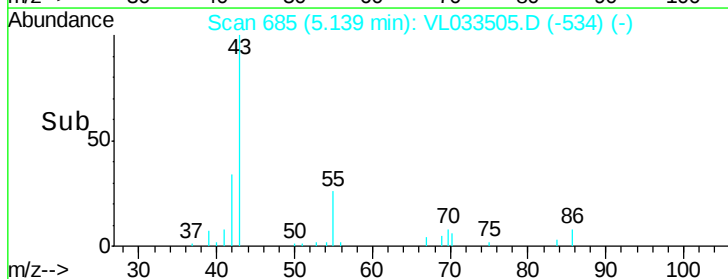
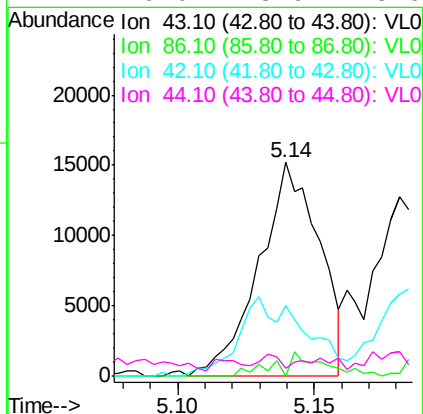
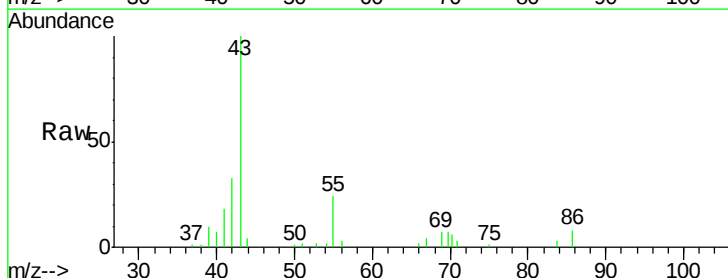
RT: 5.14 min Scan# 685

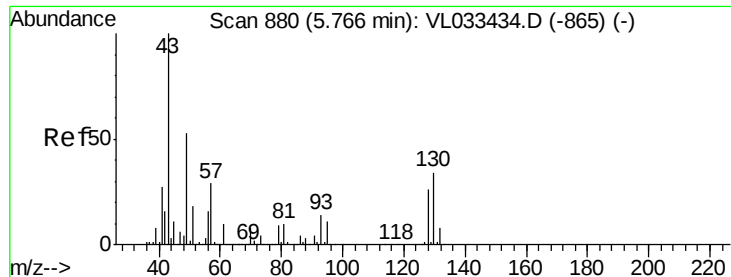
Delta R.T. -0.01 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Tgt Ion:	43	Resp:	23276
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.6	8.4#
42	32.0	8.0	12.0#
44	0.0	3.9	5.9#

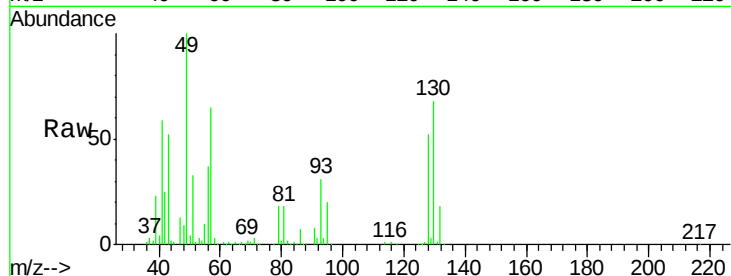




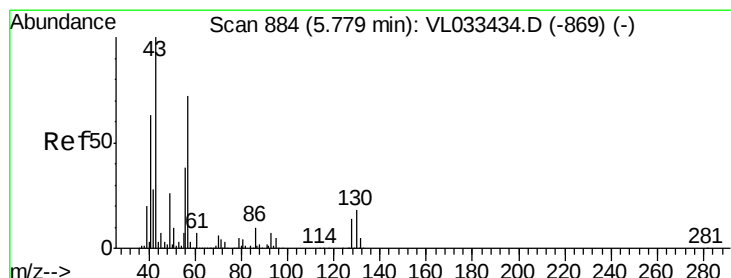
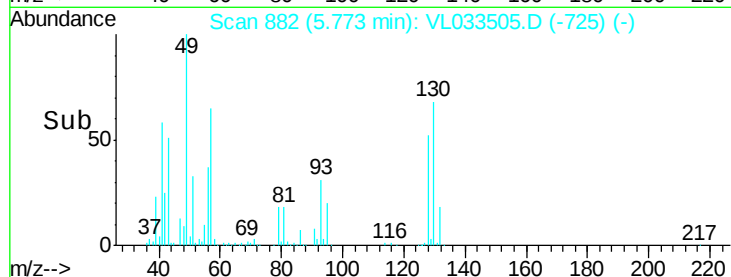
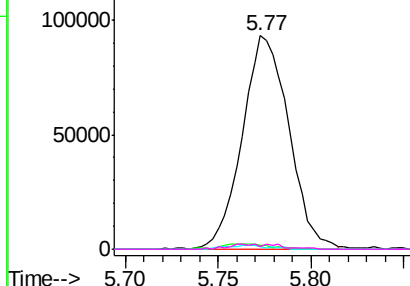
#25
Ethyl Acetate
Concen: 0.96 ppbv
RT: 5.77 min Scan# 882
Delta R.T. 0.01 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	162799
Ion	Ratio	Lower	Upper
43	100		
45	2.7	7.8	11.6#
61	1.7	7.3	10.9#
70	2.7	5.6	8.4#

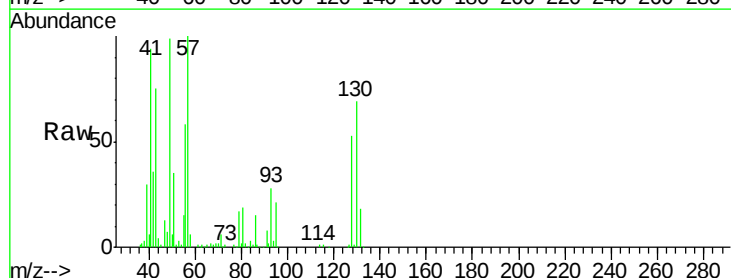


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

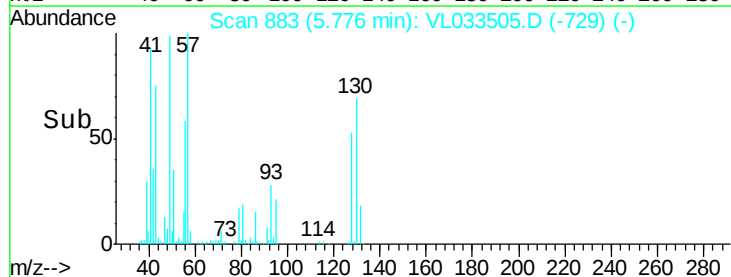
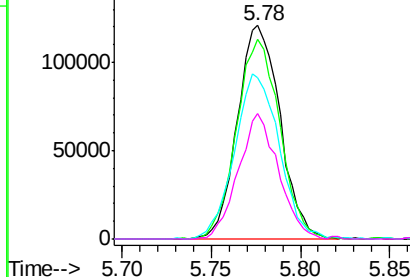


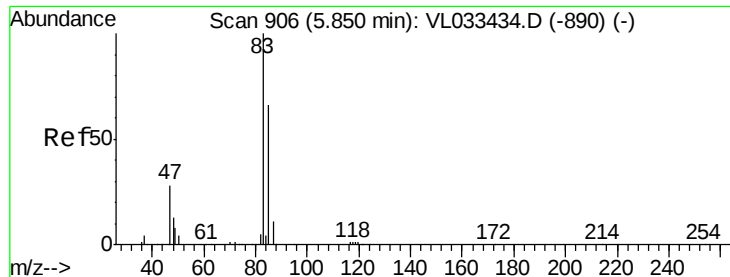
#26
Hexane
Concen: 2.67 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Tgt Ion:	57	Resp:	201288
Ion	Ratio	Lower	Upper
57	100		
41	95.3	70.7	106.1
43	81.6	182.6	274.0#
56	55.5	42.0	63.0



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

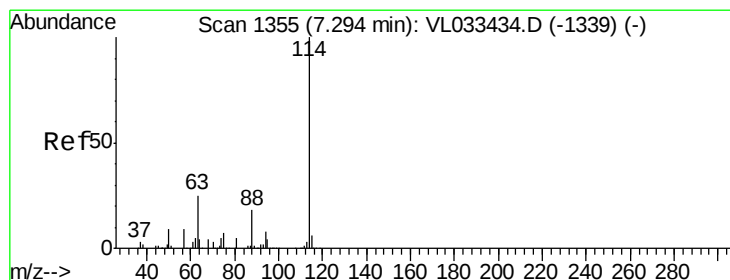
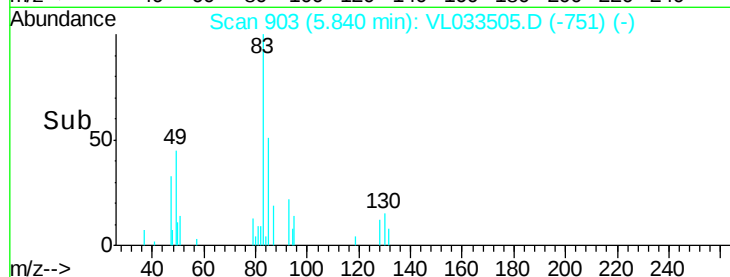
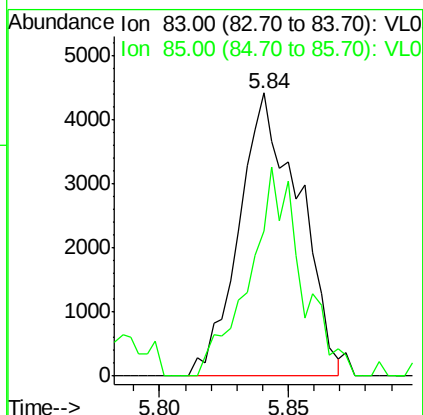
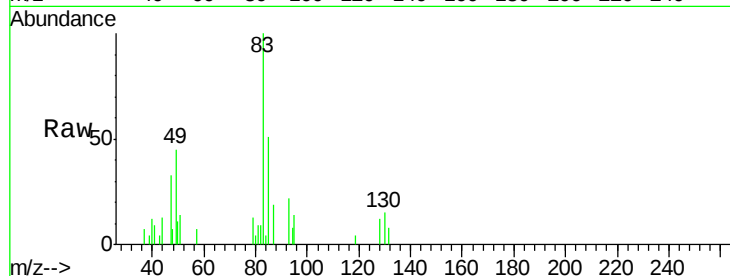




#29
Chloroform
Concen: 0.06 ppbv
RT: 5.84 min Scan# 903
Delta R.T. -0.01 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

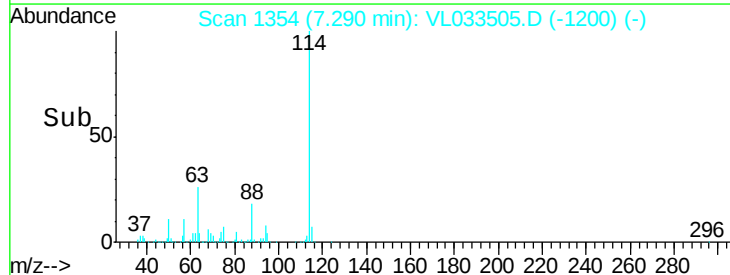
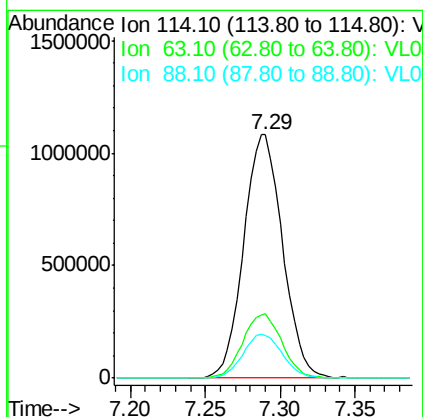
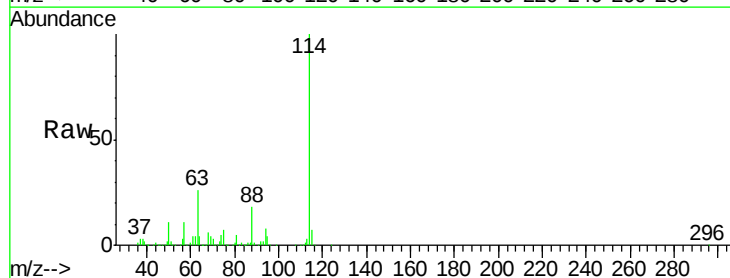
Instrument :
MSVOA_L
ClientSampleId :

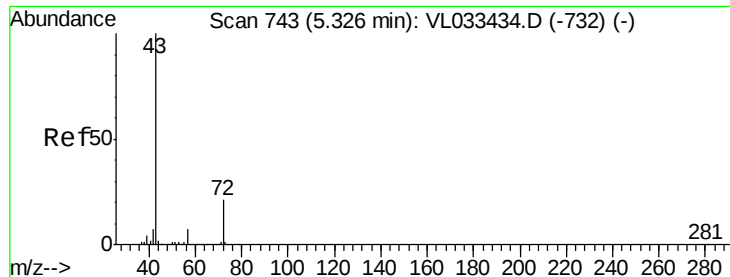
Tot Ion: 83 Resp: 7211
Ion Ratio Lower Upper
83 100
85 49.6 52.6 79.0#



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.00 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Tgt Ion: 114 Resp: 1956921
Ion Ratio Lower Upper
114 100
63 26.8 21.5 32.3
88 18.2 14.5 21.7

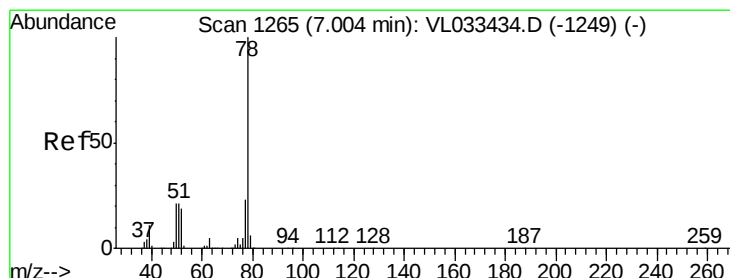
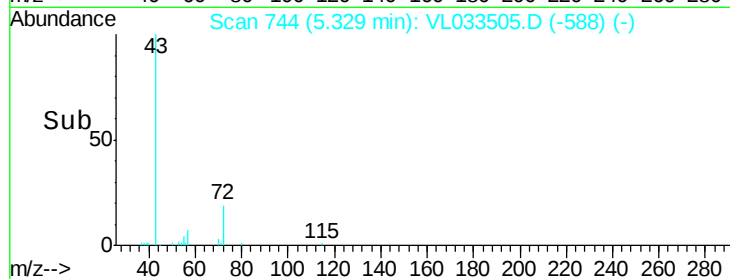
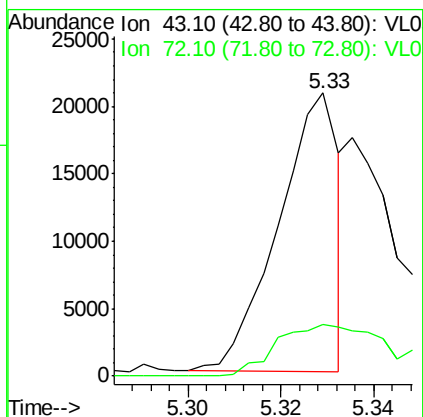
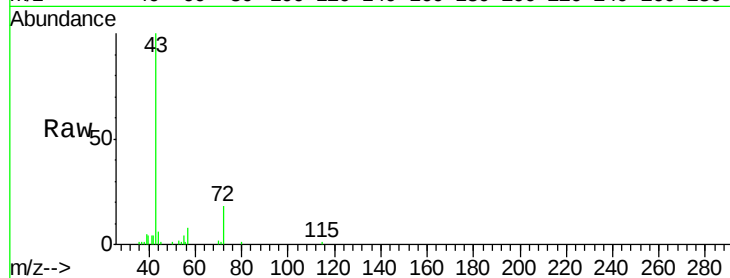




#34
2-Butanone
Concen: 0.16 ppbv
RT: 5.33 min Scan# 744
Delta R.T. 0.00 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

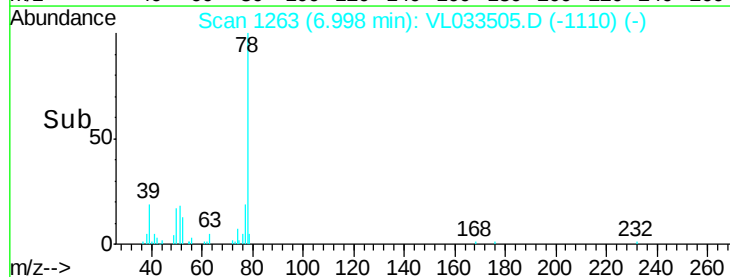
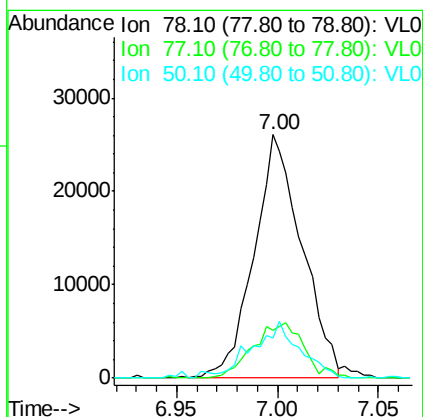
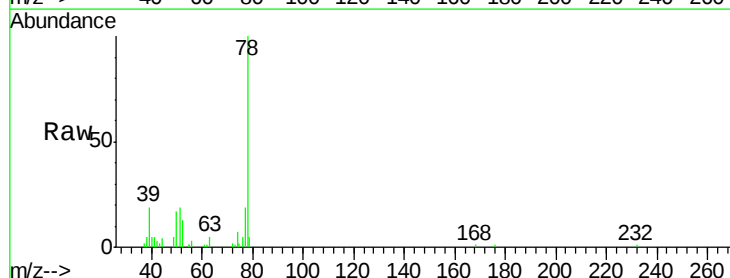
Instrument :
MSVOA_L
ClientSampleId :

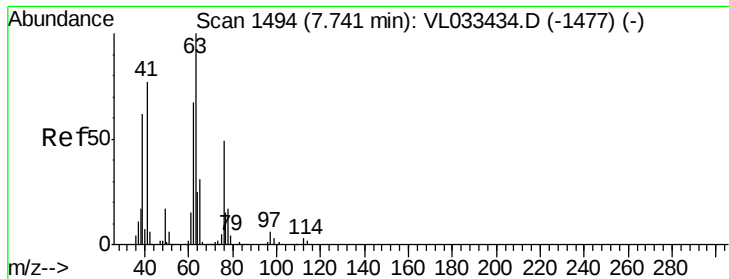
Tot Ion: 43 Resp: 18649
Ion Ratio Lower Upper
43 100
72 36.5 17.4 26.2#



#36
Benzene
Concen: 0.26 ppbv
RT: 7.00 min Scan# 1263
Delta R.T. -0.01 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Tgt Ion: 78 Resp: 42999
Ion Ratio Lower Upper
78 100
77 19.5 18.1 27.1
50 16.1 16.7 25.1#

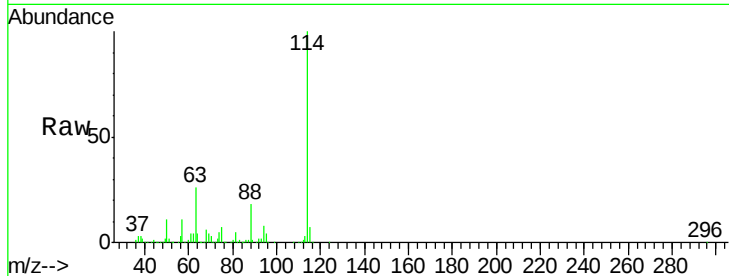




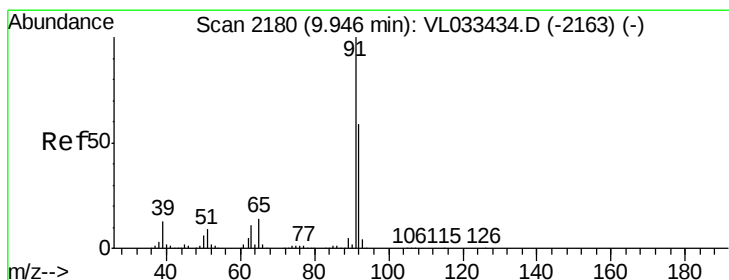
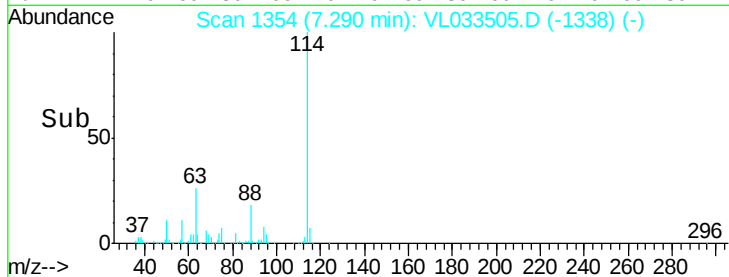
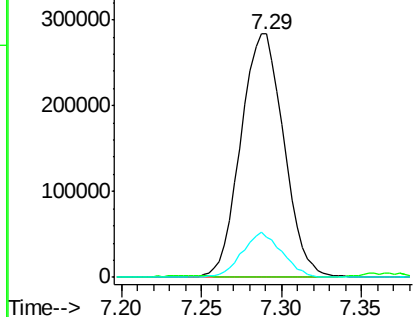
#39
 1,2-Dichloropropane
 Concen: 8.08 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.45 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 63 Resp: 519513
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 16.7 54.0 81.0#

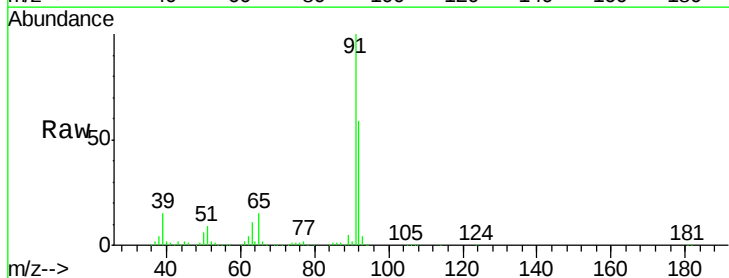


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

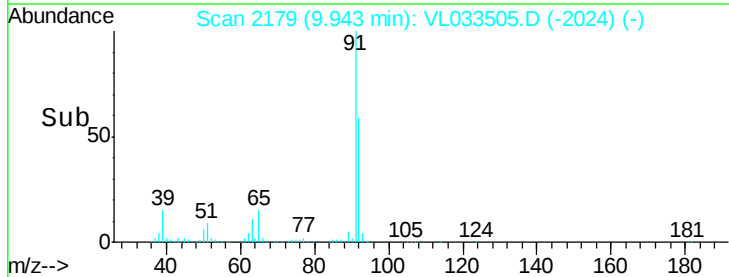
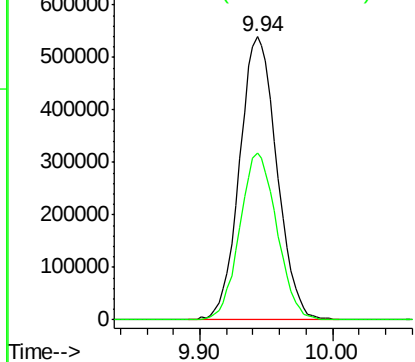


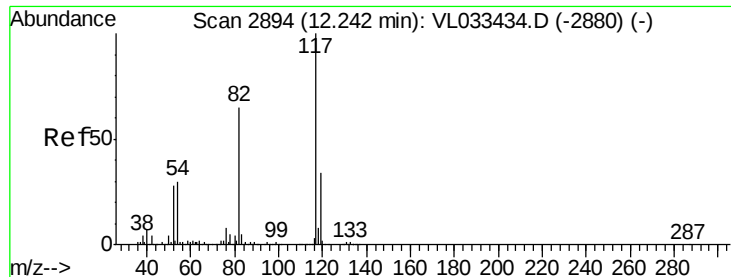
#53
 Toluene
 Concen: 5.52 ppbv
 RT: 9.94 min Scan# 2179
 Delta R.T. -0.00 min
 Lab File: VL033505.D
 Acq: 29 Mar 2019 16:55

Tgt Ion: 91 Resp: 1052526
 Ion Ratio Lower Upper
 91 100
 92 58.7 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0
 Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL033505.D

Acq: 29 Mar 2019 16:55

Instrument :

MSVOA_L

ClientSampleId :

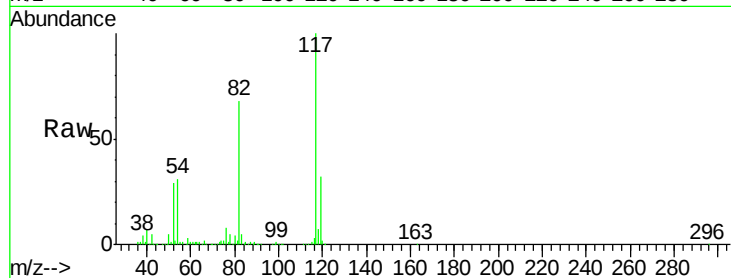
Tot Ion:117 Resp: 1889737

Ion Ratio Lower Upper

117 100

82 67.3 51.5 77.3

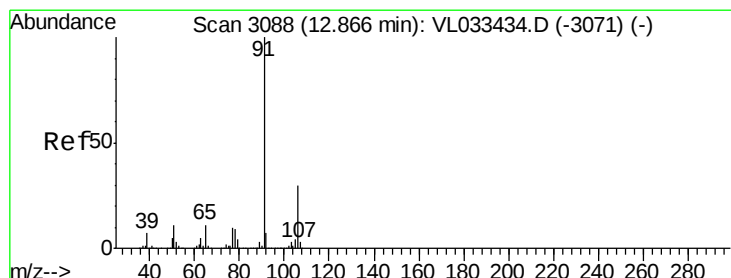
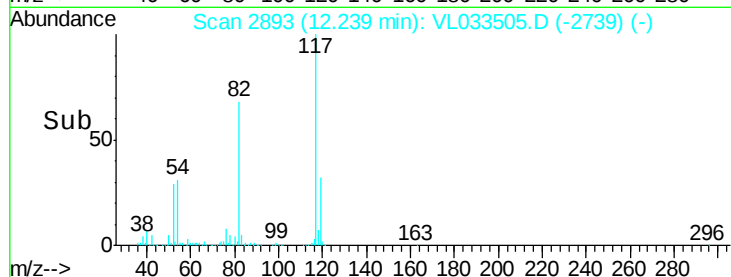
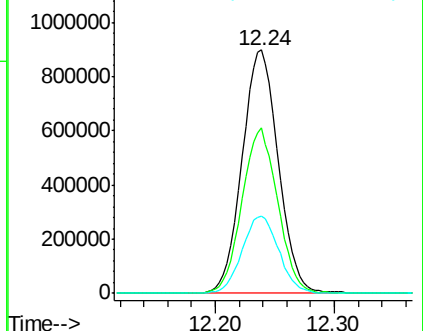
119 32.2 25.5 38.3



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.05 ppbv

RT: 12.87 min Scan# 3088

Delta R.T. -0.00 min

Lab File: VL033505.D

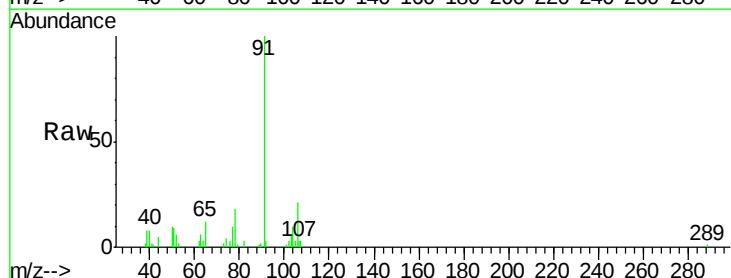
Acq: 29 Mar 2019 16:55

Tgt Ion: 91 Resp: 12729

Ion Ratio Lower Upper

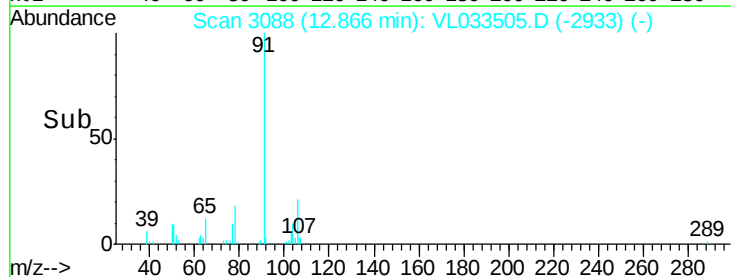
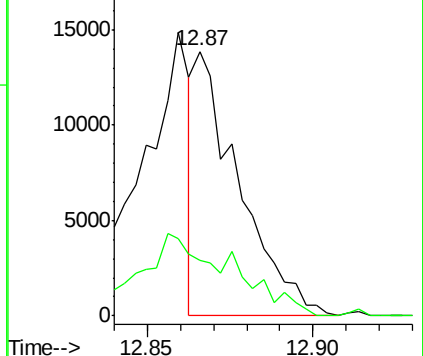
91 100

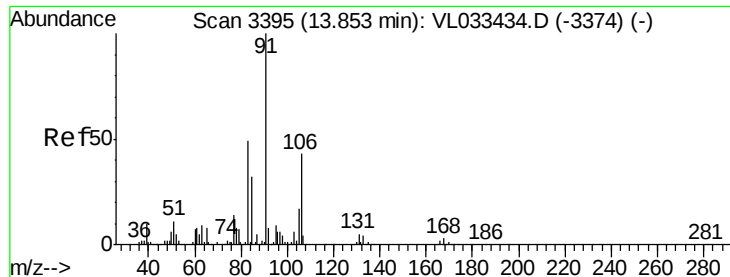
106 24.3 23.8 35.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

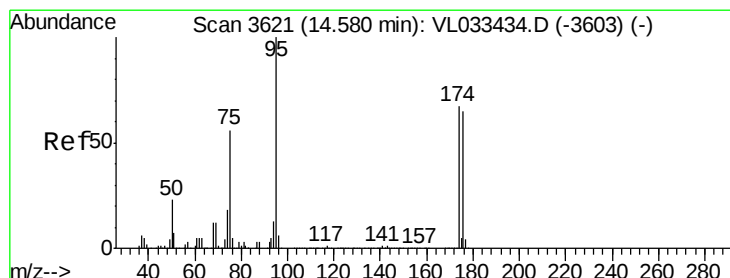
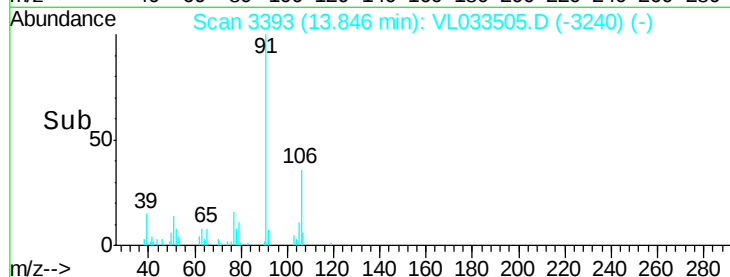
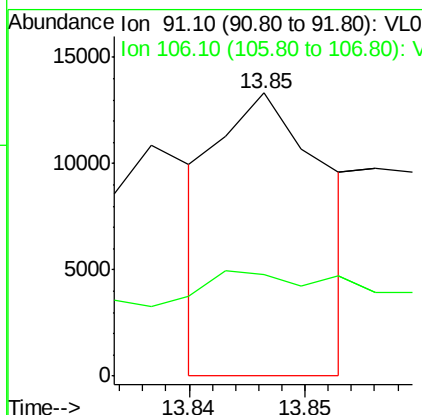
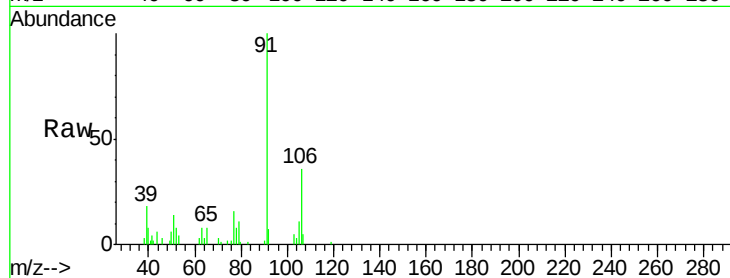




#60
o-Xylene
Concen: 0.04 ppbv
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 91 Resp: 8661
Ion Ratio Lower Upper
91 100
106 122.3 21.4 64.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.96 ppbv
RT: 14.57 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL033505.D
Acq: 29 Mar 2019 16:55

Tgt Ion: 95 Resp: 1474863
Ion Ratio Lower Upper
95 100
174 66.0 52.9 79.3
175 4.9 3.8 5.6

