

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL121719\
 Data File : VL034497.D
 Acq On : 17 Dec 2019 17:54
 Operator : SY/AP
 Sample : K6319-01DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

Quant Time: Dec 18 04:22:01 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 19 14:15:35 2019
 QLast Update : Tue Nov 19 14:15:35 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	920311	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1793208	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1799331	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1559997	10.31	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.10%

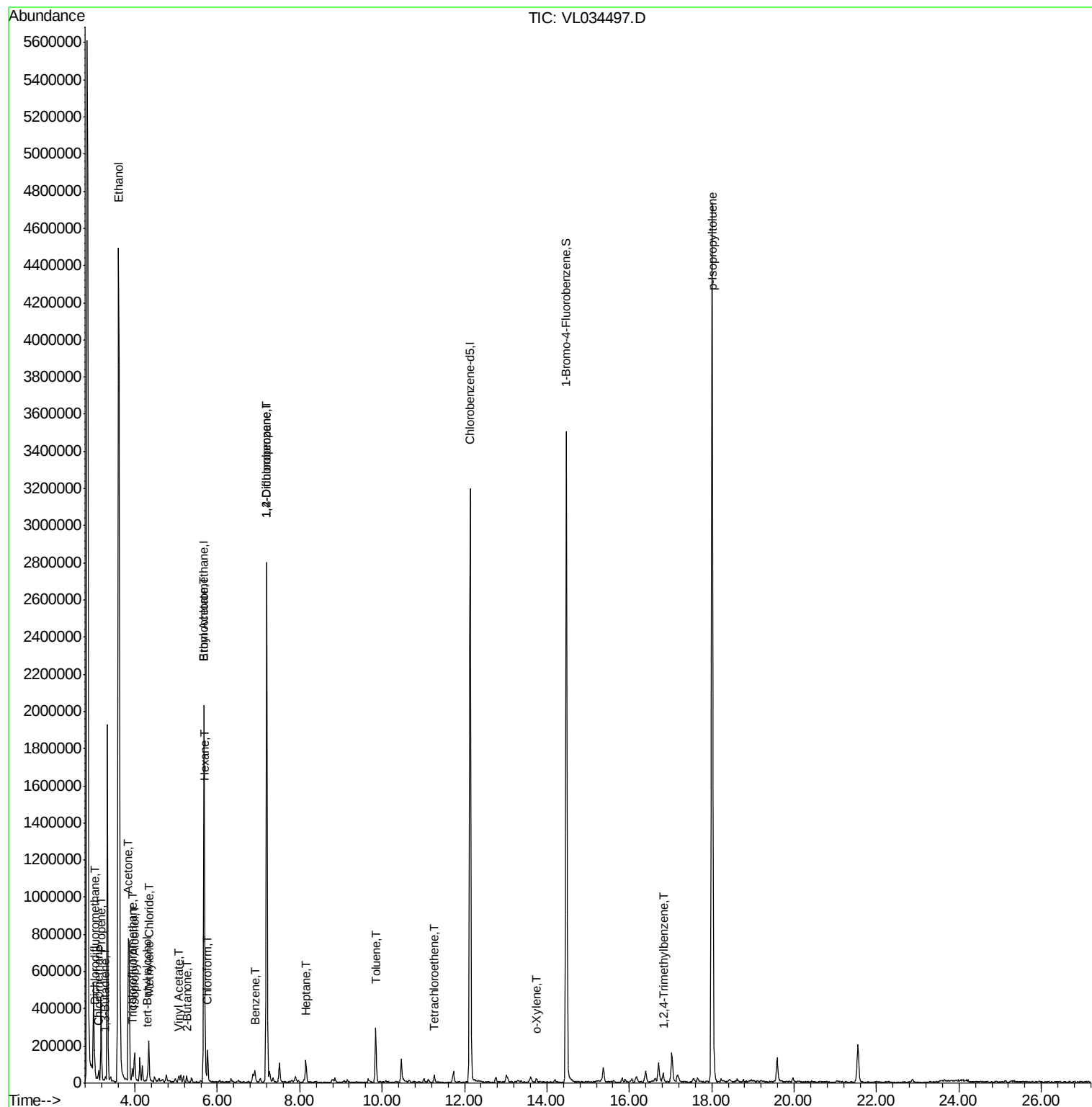
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	86752	0.521	ppbv	95
4) Chloromethane	3.11	50	29806	0.440	ppbv	97
9) Propene	3.18	41	100027	1.962	ppbv	94
10) Heptane	8.15	43	39215	0.298	ppbv	99
11) Trichlorofluoromethane	3.94	101	41424	0.250	ppbv	84
13) Ethanol	3.61	45	6384665	449.601	ppbv	91
15) Acetone	3.84	43	877847	6.661	ppbv	93
16) 1,3-Butadiene	3.28	39	6728	0.117	ppbv #	9
17) tert-Butyl alcohol	4.30	59	12325	0.111	ppbv #	71
19) Isopropyl Alcohol	3.98	45	72788	0.862	ppbv #	1
20) Methylene Chloride	4.34	84	66610	1.425	ppbv	98
23) Vinyl Acetate	5.07	43	10028	0.058	ppbv #	84
25) Ethyl Acetate	5.69	43	57650	0.245	ppbv #	96
26) Hexane	5.70	57	45627	0.452	ppbv #	60
29) Chloroform	5.76	83	109762	0.671	ppbv	100
34) 2-Butanone	5.25	43	33768	0.229	ppbv #	89
36) Benzene	6.90	78	13755	0.077	ppbv	93
39) 1,2-Dichloropropane	7.20	63	528706	7.656	ppbv #	24
52) Tetrachloroethene	11.27	164	5418	0.070	ppbv #	48
53) Toluene	9.85	91	185326	0.910	ppbv	99
60) o-Xylene	13.74	91	9858	0.041	ppbv	67
69) p-Isopropyltoluene	18.01	119	160907	0.489	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.83	105	10526	0.037	ppbv #	71

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL111919AIR.M
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QLast Update : Tue Nov 19 14:15:35 2019
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.01 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

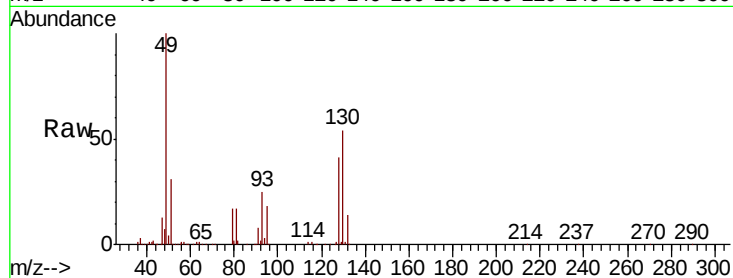
Tgt Ion: 49 Resp: 920311

Ion Ratio Lower Upper

49 100

128 42.9 21.8 65.3

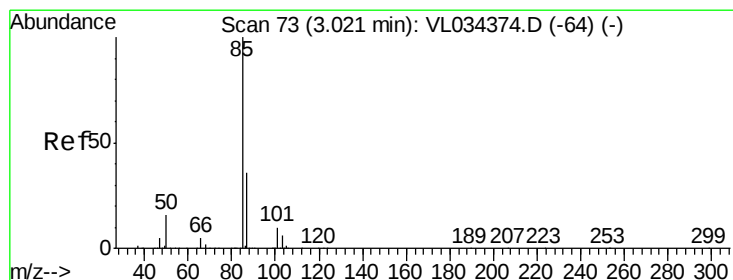
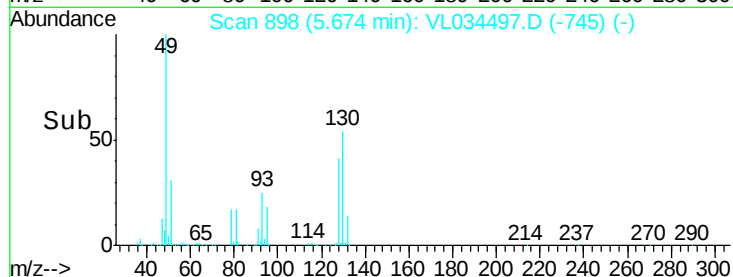
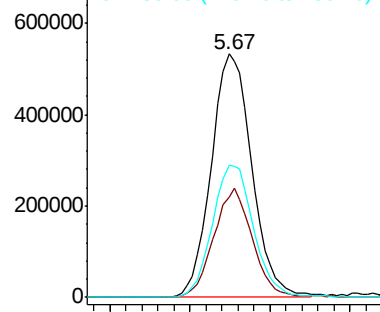
130 55.7 28.0 84.0



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: 0.521 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL034497.D

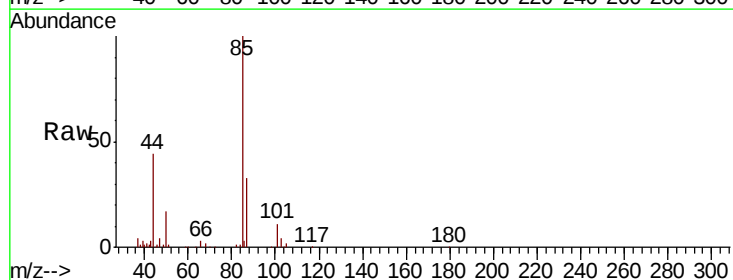
Acq: 17 Dec 2019 17:54

Tgt Ion: 85 Resp: 86752

Ion Ratio Lower Upper

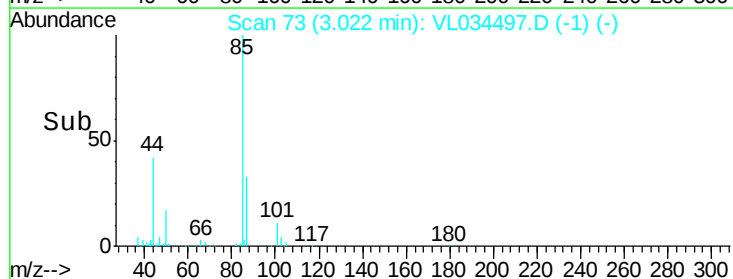
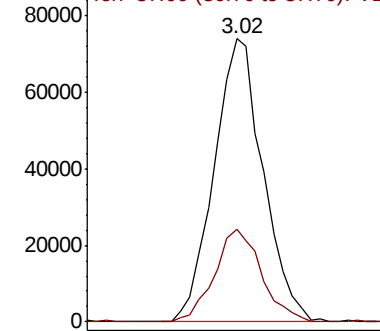
85 100

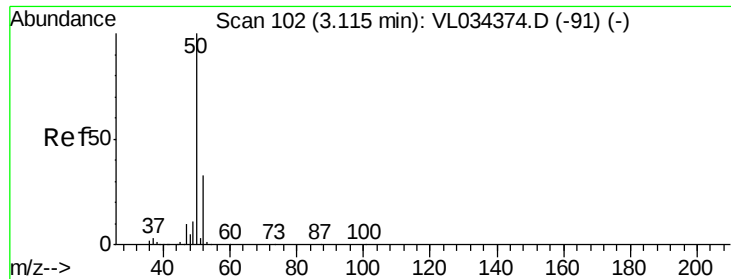
87 32.8 28.5 42.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.440 ppbv

RT: 3.11 min Scan# 102

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

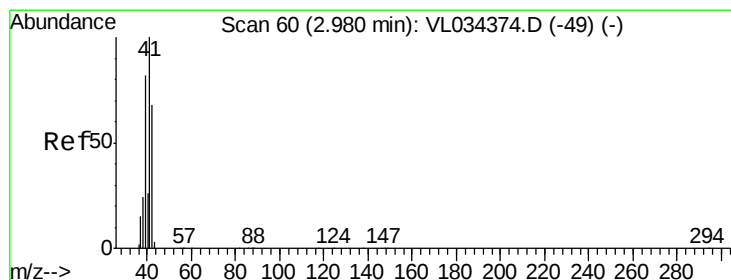
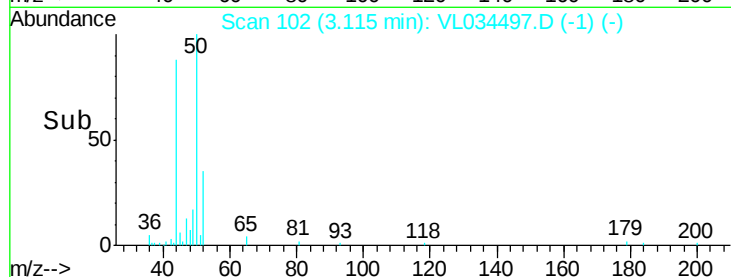
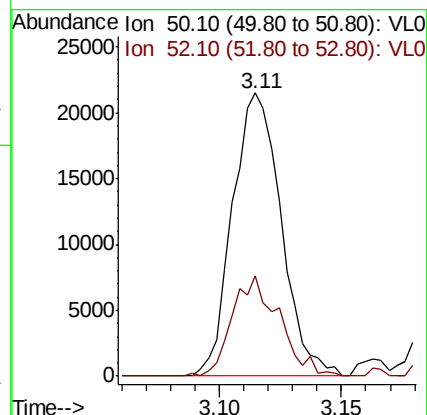
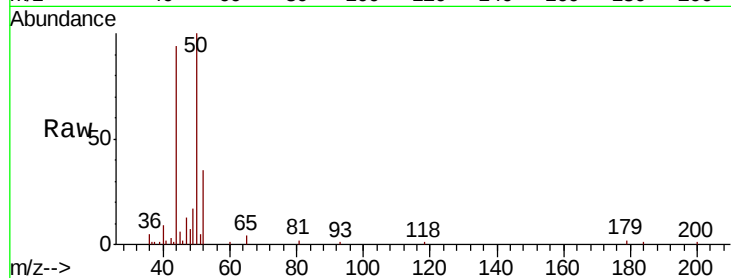
LIHA-IAHDUP

Tgt Ion: 50 Resp: 29806

Ion Ratio Lower Upper

50 100

52 35.4 26.8 40.2



#9

Propene

Concen: 1.962 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.20 min

Lab File: VL034497.D

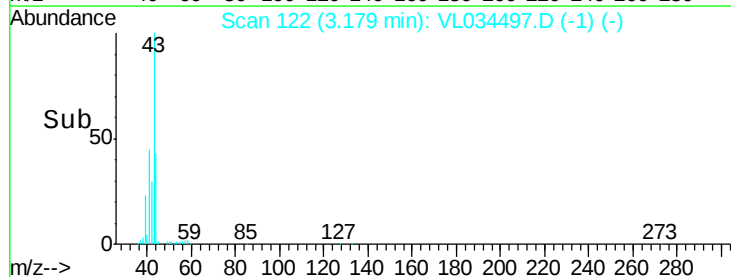
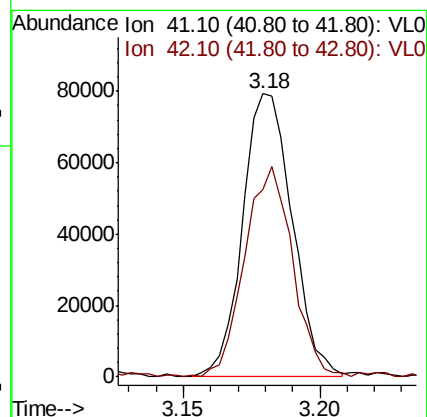
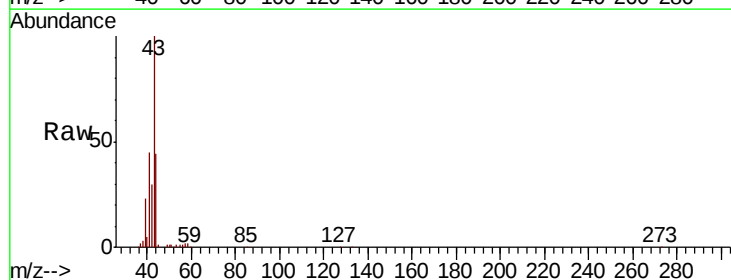
Acq: 17 Dec 2019 17:54

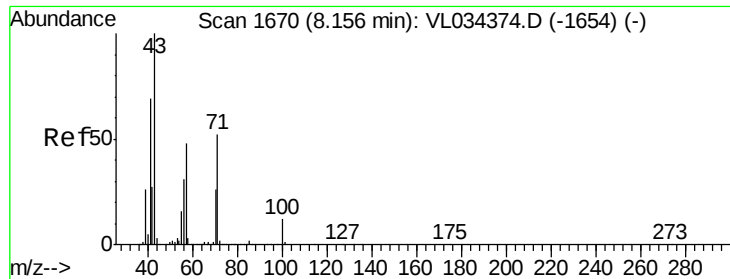
Tgt Ion: 41 Resp: 100027

Ion Ratio Lower Upper

41 100

42 72.8 54.6 82.0





#10

Heptane

Concen: 0.298 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

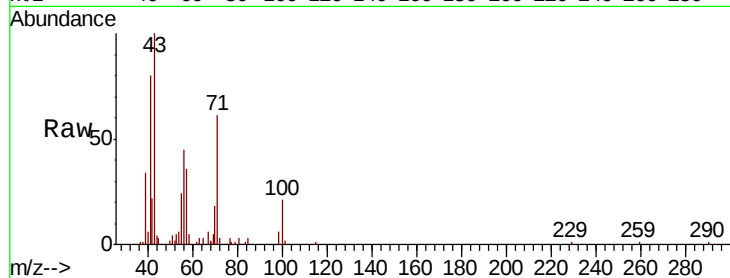
LIHA-IAHDUP

Tgt Ion: 43 Resp: 39215

Ion Ratio Lower Upper

43 100

57 49.2 40.2 60.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

25000

20000

15000

10000

5000

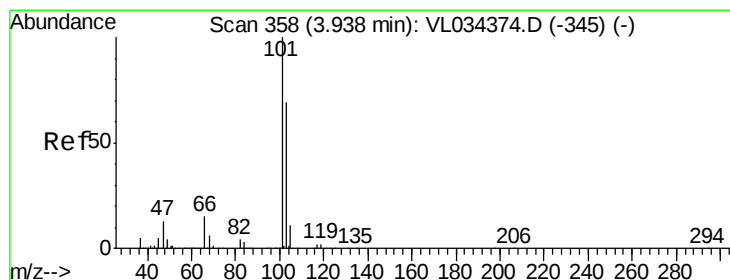
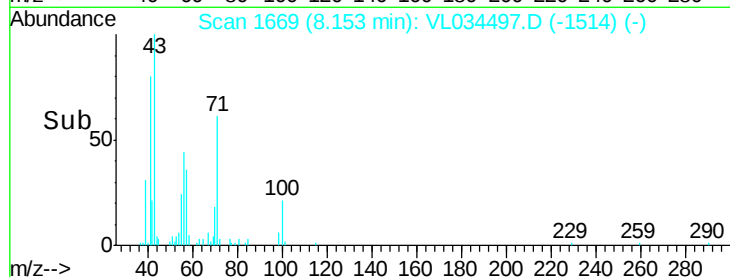
0

8.10

8.15

8.20

Time-->



#11

Trichlorofluoromethane

Concen: 0.250 ppbv

RT: 3.94 min Scan# 358

Delta R.T. 0.00 min

Lab File: VL034497.D

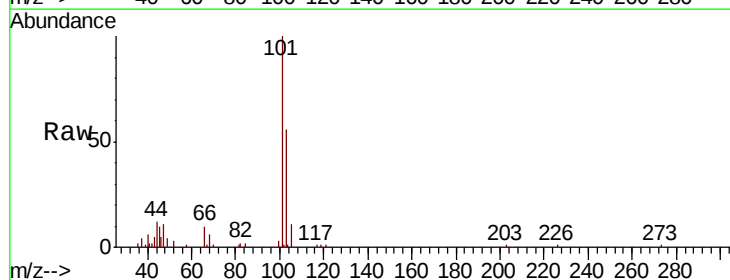
Acq: 17 Dec 2019 17:54

Tgt Ion: 101 Resp: 41424

Ion Ratio Lower Upper

101 100

103 56.5 55.4 83.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

30000

20000

10000

0

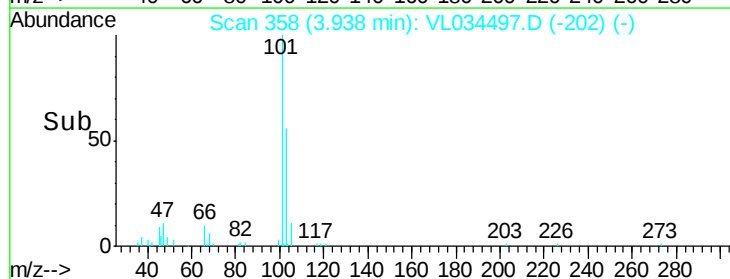
3.90

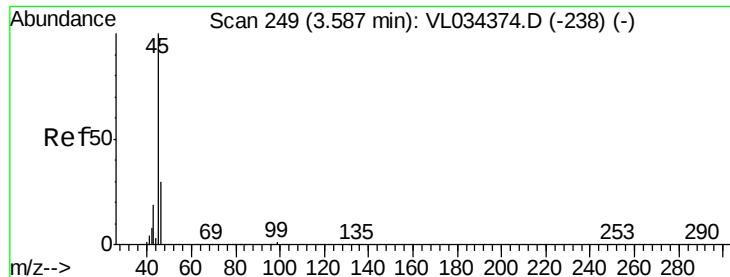
3.92

3.94

3.96

Time-->

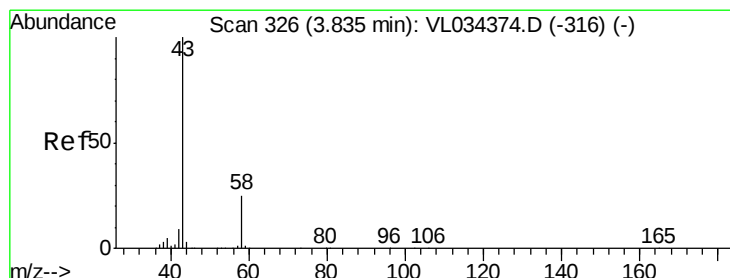
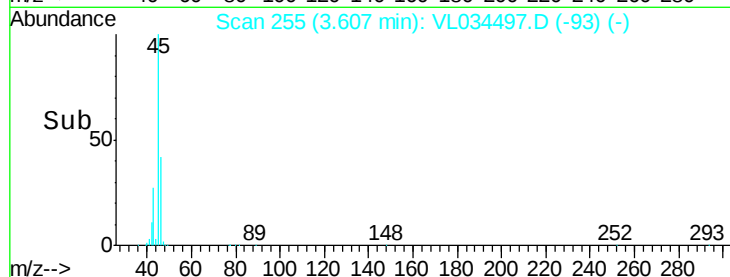
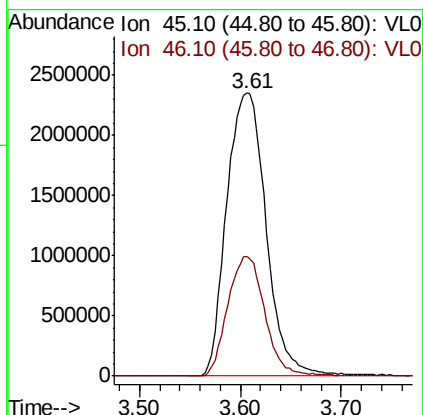
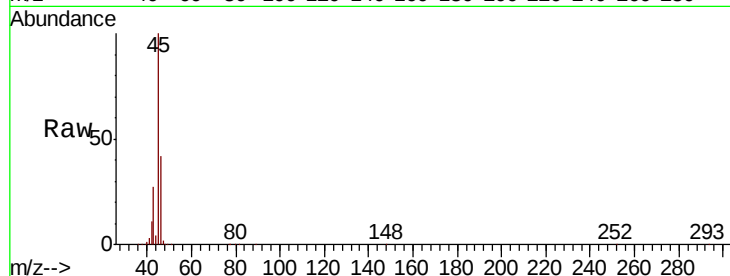




#13
Ethanol
Concen: 449.601 ppbv
RT: 3.61 min Scan# 255
Delta R.T. 0.02 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

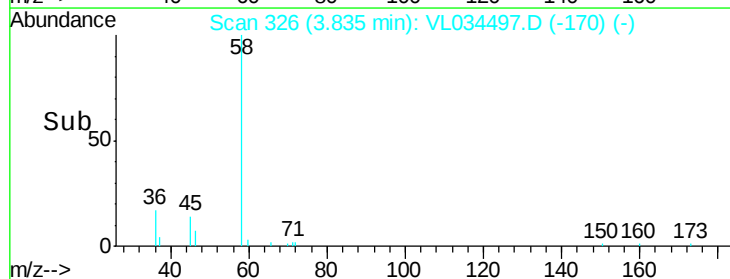
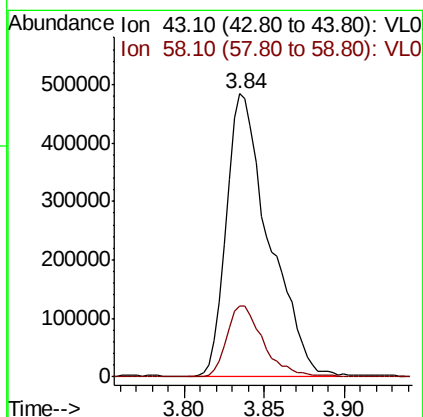
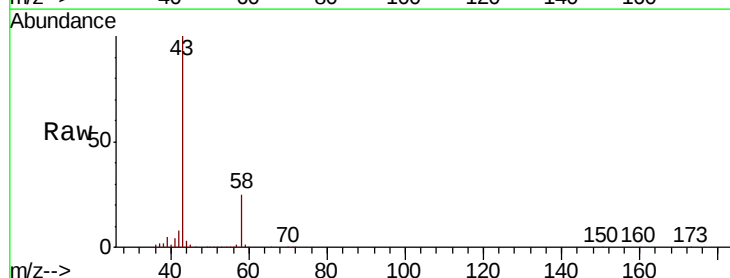
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

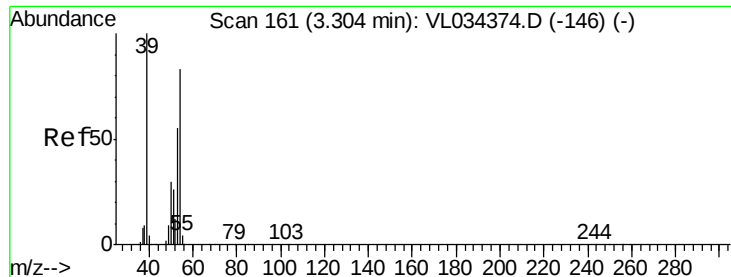
Tgt Ion: 45 Resp: 6384665
Ion Ratio Lower Upper
45 100
46 40.1 13.8 55.4



#15
Acetone
Concen: 6.661 ppbv
RT: 3.84 min Scan# 326
Delta R.T. 0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion: 43 Resp: 877847
Ion Ratio Lower Upper
43 100
58 21.8 20.2 30.4





#16

1,3-Butadiene

Concen: 0.117 ppbv

RT: 3.28 min Scan# 153

Delta R.T. -0.03 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

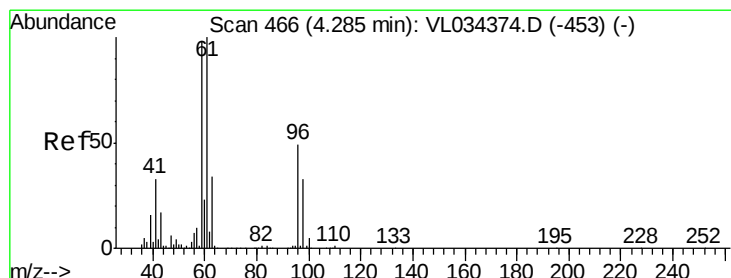
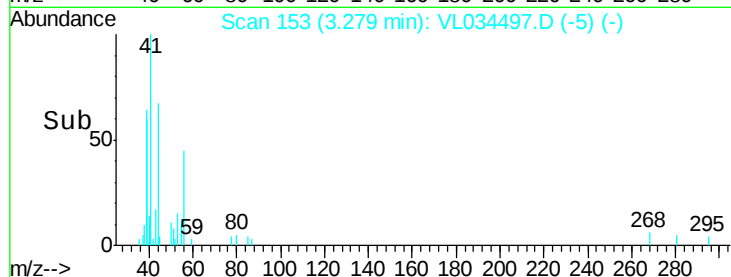
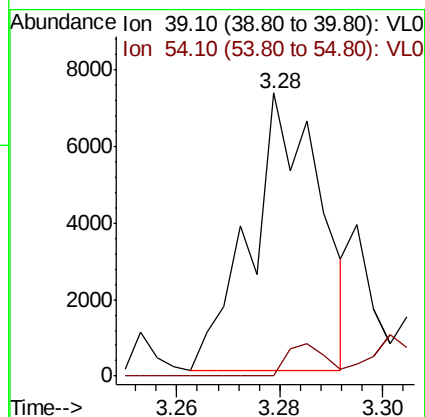
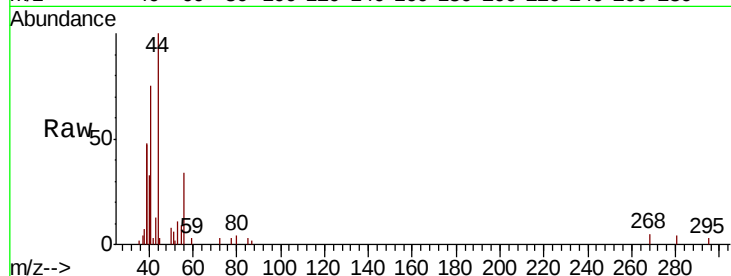
LIHA-IAHDUP

Tgt Ion: 39 Resp: 6728

Ion Ratio Lower Upper

39 100

54 0.0 64.7 97.1#



#17

tert-Butyl alcohol

Concen: 0.111 ppbv

RT: 4.30 min Scan# 472

Delta R.T. 0.02 min

Lab File: VL034497.D

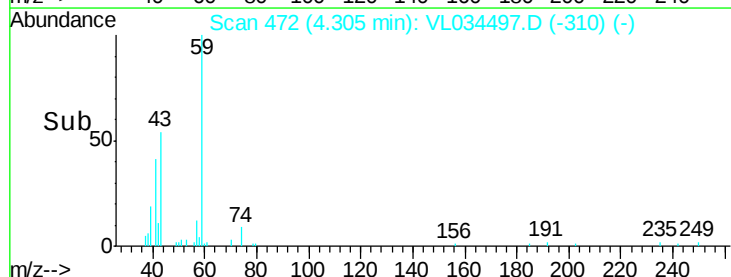
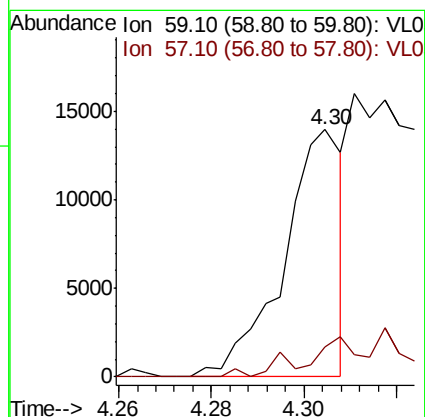
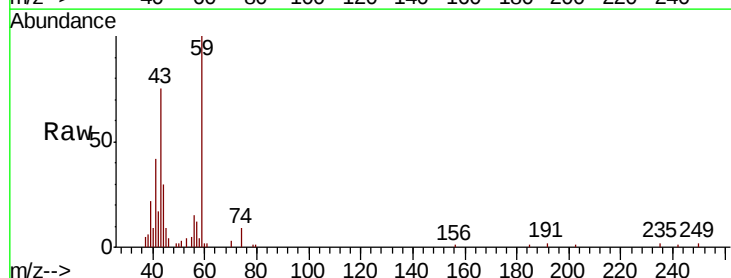
Acq: 17 Dec 2019 17:54

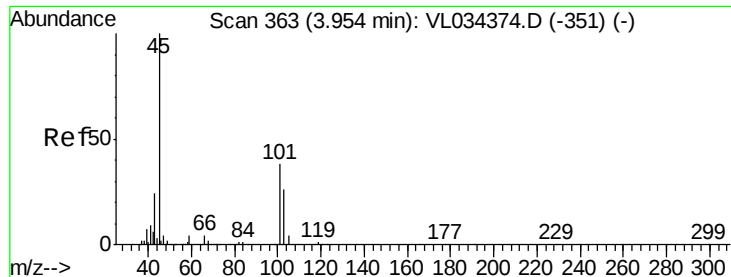
Tgt Ion: 59 Resp: 12325

Ion Ratio Lower Upper

59 100

57 0.0 8.8 13.2#





#19

Isopropyl Alcohol

Concen: 0.862 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.03 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

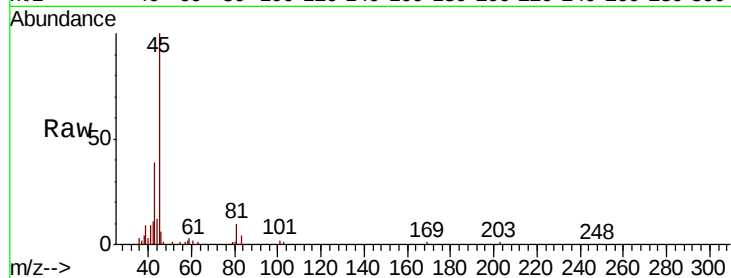
LIHA-IAHDUP

Tgt Ion: 45 Resp: 72788

Ion Ratio Lower Upper

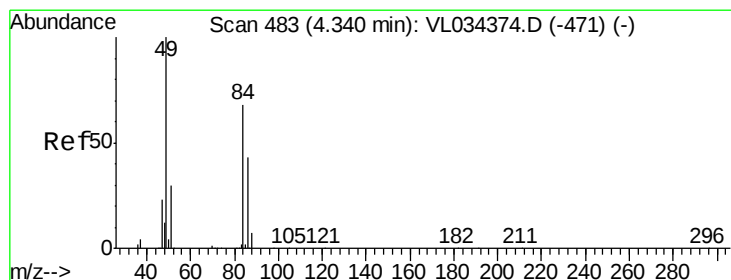
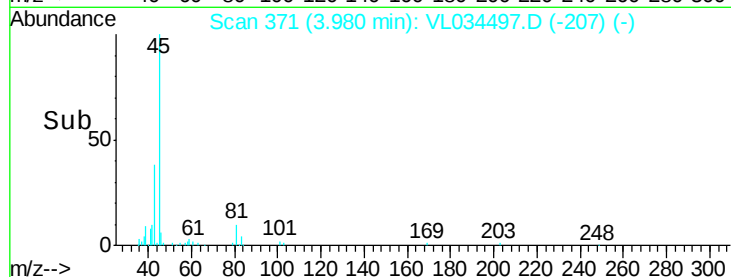
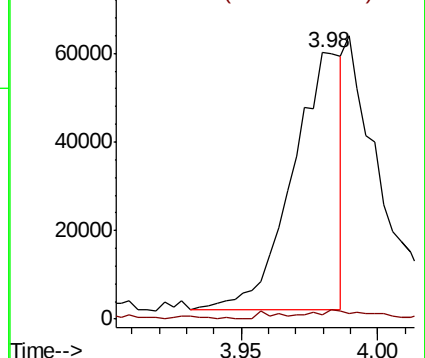
45 100

58 263.5 1.3 1.9#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.425 ppbv

RT: 4.34 min Scan# 483

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Tgt Ion: 84 Resp: 66610

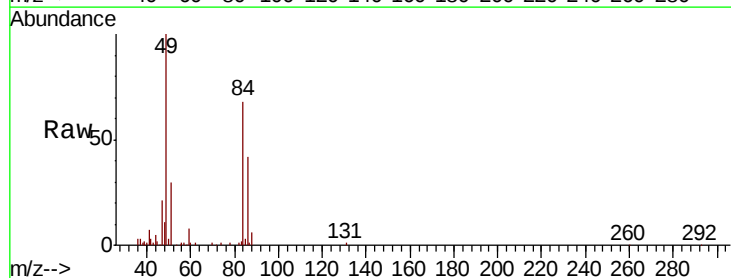
Ion Ratio Lower Upper

84 100

49 145.0 116.8 175.2

51 44.0 35.6 53.4

86 60.1 50.7 76.1

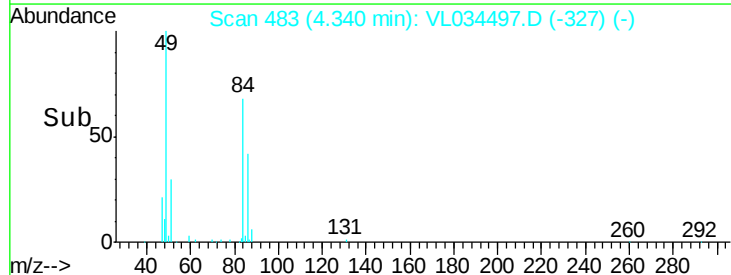
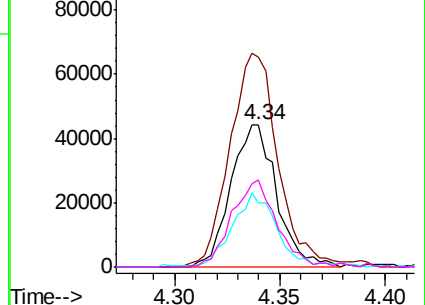


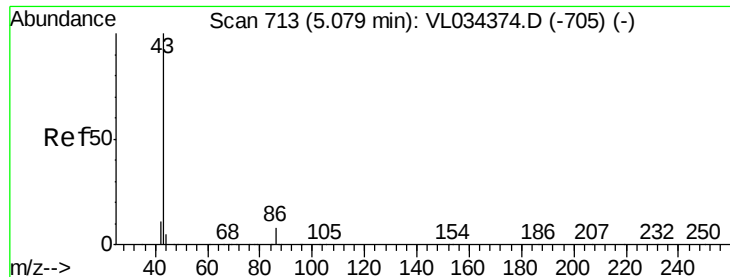
Abundance Ion 84.00 (83.70 to 84.70): VL0

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





#23

Vinyl Acetate

Concen: 0.058 ppbv

RT: 5.07 min Scan# 711

Delta R.T. -0.01 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tgt Ion: 43 Resp: 10028

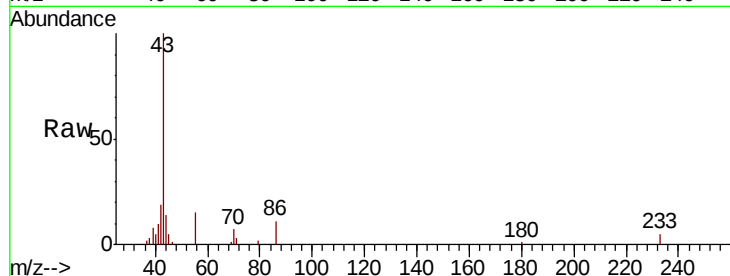
Ion Ratio Lower Upper

43 100

86 15.1 5.8 8.6#

42 17.5 8.9 13.3#

44 6.6 4.0 6.0#

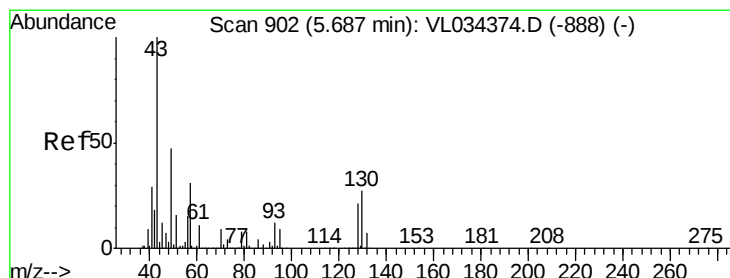
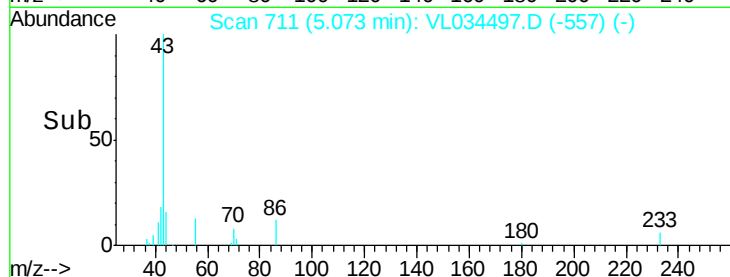
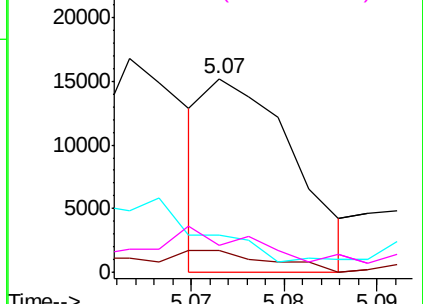


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.245 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Tgt Ion: 43 Resp: 57650

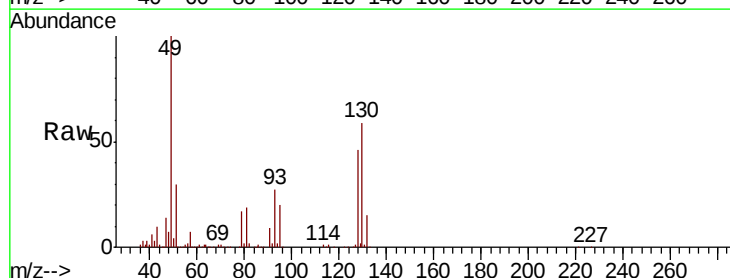
Ion Ratio Lower Upper

43 100

45 11.0 8.2 12.4

61 6.7 7.5 11.3#

70 6.6 5.7 8.5

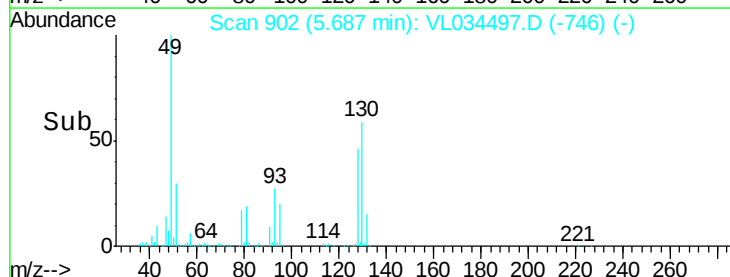
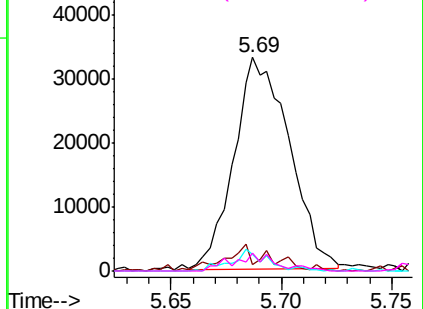


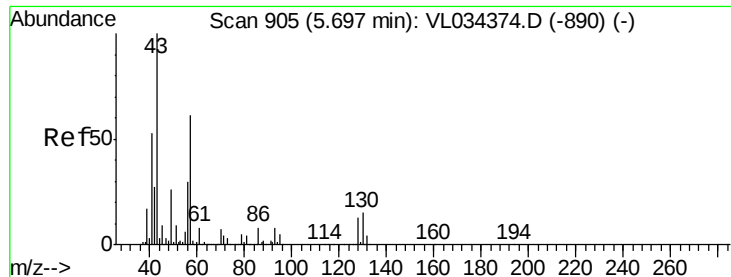
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

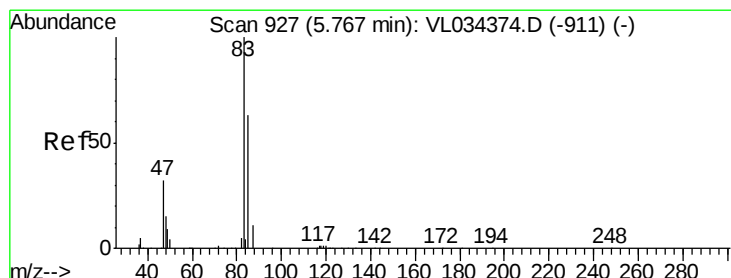
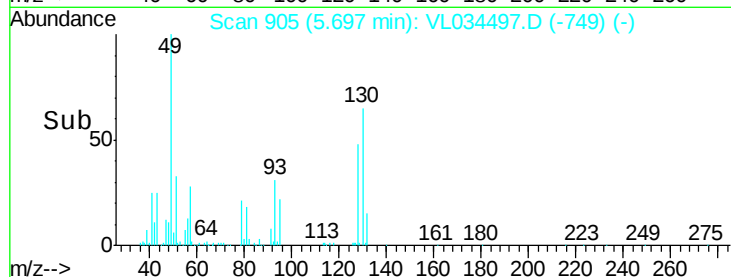
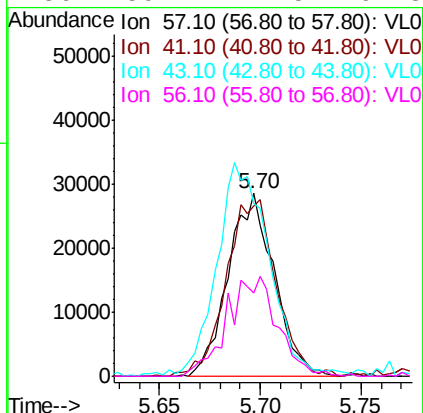
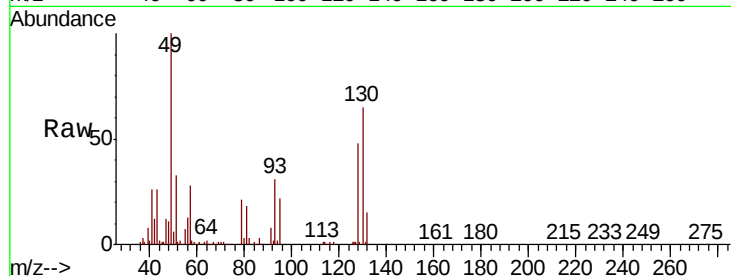




#26
Hexane
Concen: 0.452 ppbv
RT: 5.70 min Scan# 905
Delta R.T. 0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

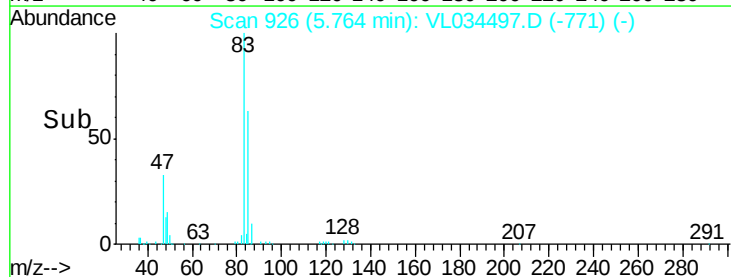
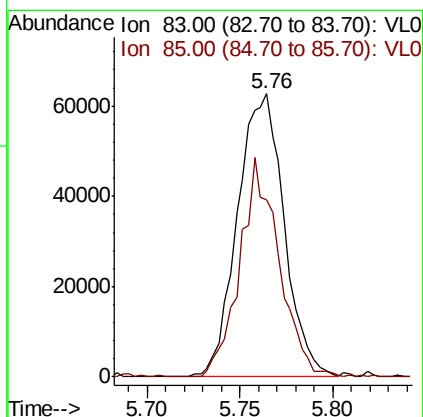
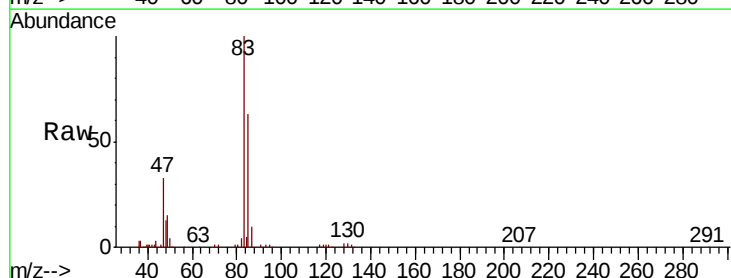
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

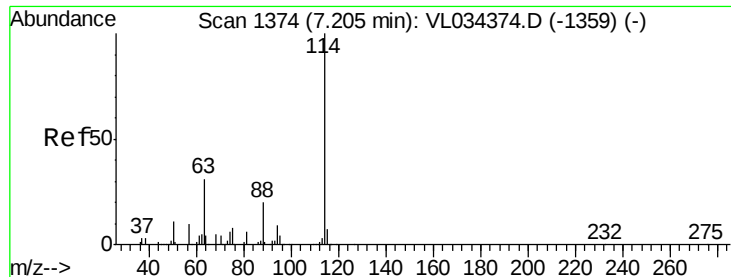
Tgt Ion: 57 Resp: 45627
Ion Ratio Lower Upper
57 100
41 104.8 75.0 112.4
43 136.1 186.6 279.8#
56 59.7 41.5 62.3



#29
Chloroform
Concen: 0.671 ppbv
RT: 5.76 min Scan# 926
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion: 83 Resp: 109762
Ion Ratio Lower Upper
83 100
85 62.7 50.4 75.6

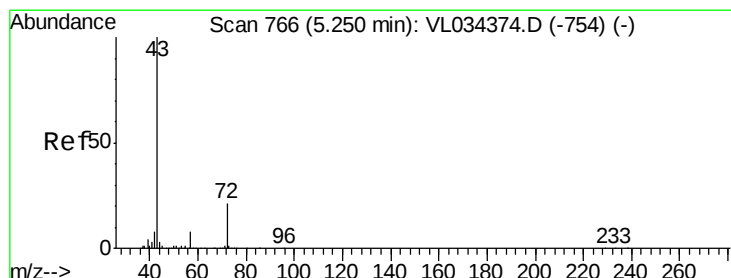
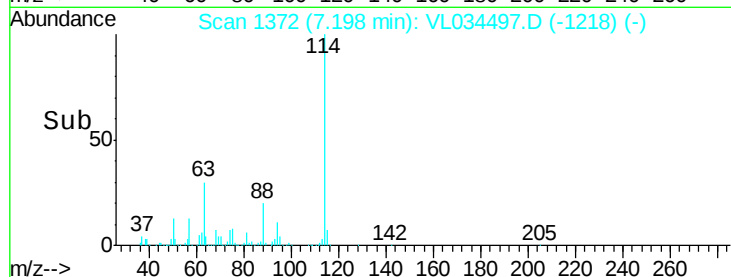
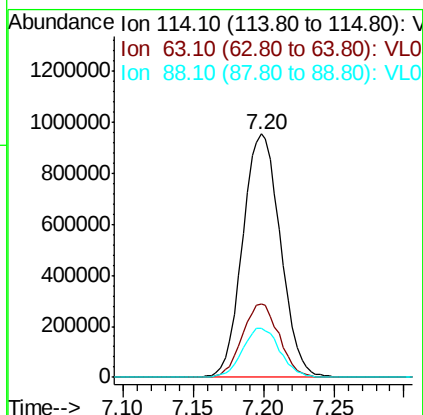
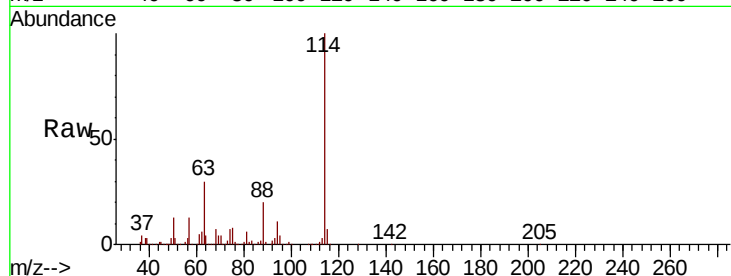




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.20 min Scan# 1372
 Delta R.T. -0.01 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

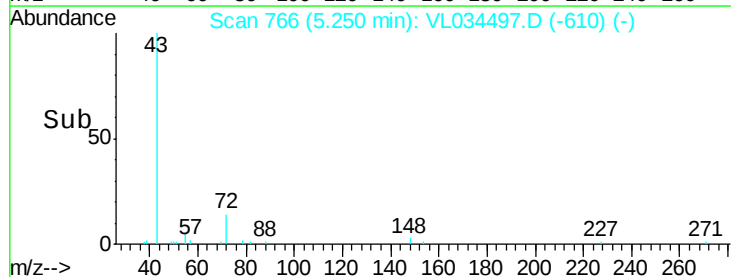
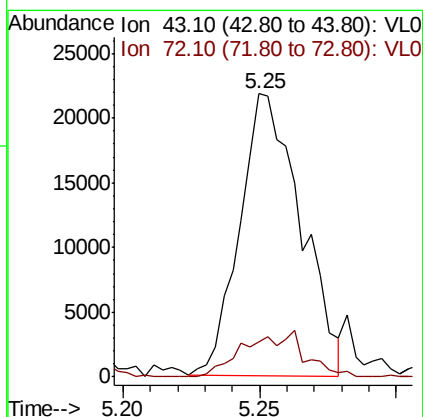
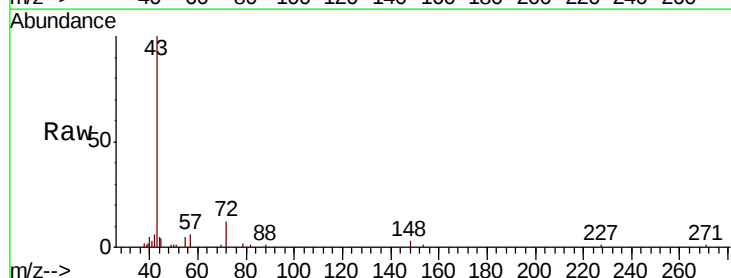
Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

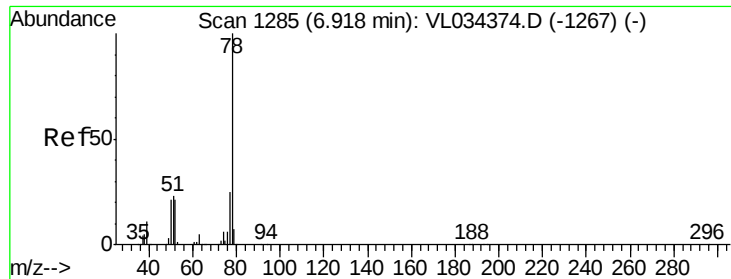
Tgt Ion:114 Resp: 1793208
 Ion Ratio Lower Upper
 114 100
 63 29.6 24.2 36.4
 88 20.0 15.9 23.9



#34
 2-Butanone
 Concen: 0.229 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. 0.00 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Tgt Ion: 43 Resp: 33768
 Ion Ratio Lower Upper
 43 100
 72 16.1 17.0 25.6#





#36

Benzene

Concen: 0.077 ppbv

RT: 6.90 min Scan# 1280

Delta R.T. -0.02 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

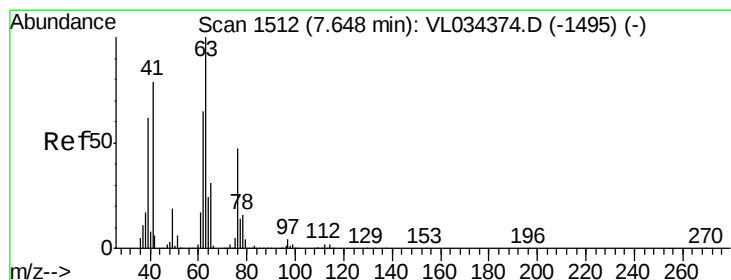
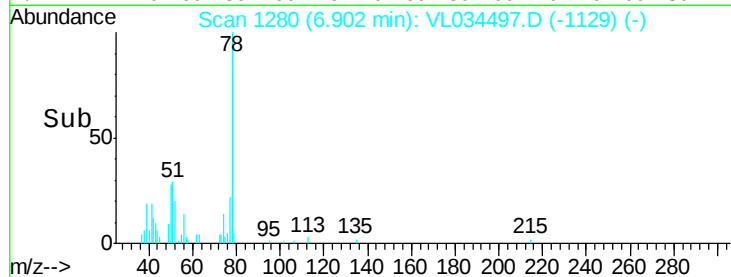
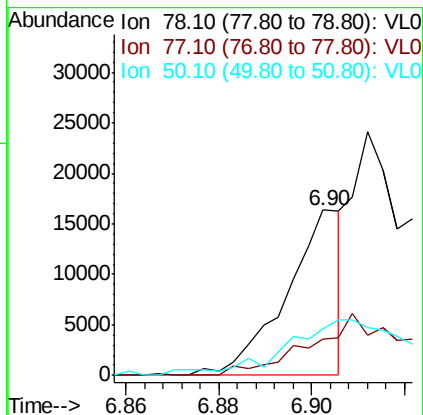
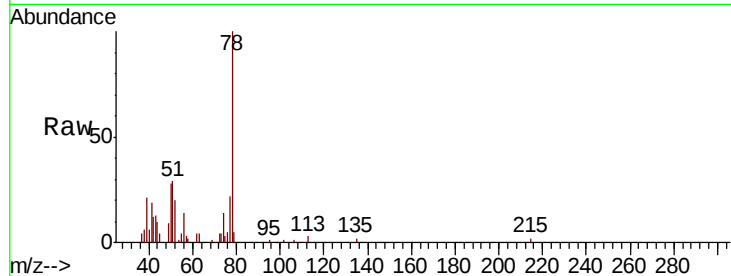
Tgt Ion: 78 Resp: 13755

Ion Ratio Lower Upper

78 100

77 22.3 20.2 30.4

50 25.1 17.1 25.7



#39

1,2-Dichloropropane

Concen: 7.656 ppbv

RT: 7.20 min Scan# 1372

Delta R.T. -0.45 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

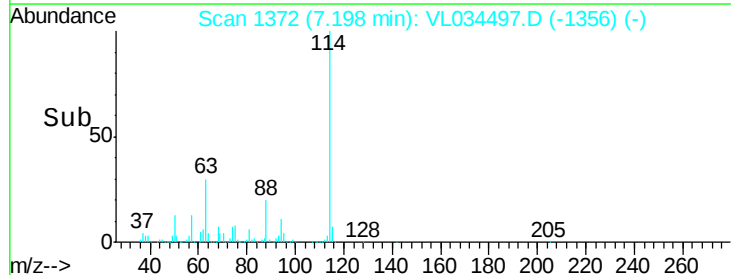
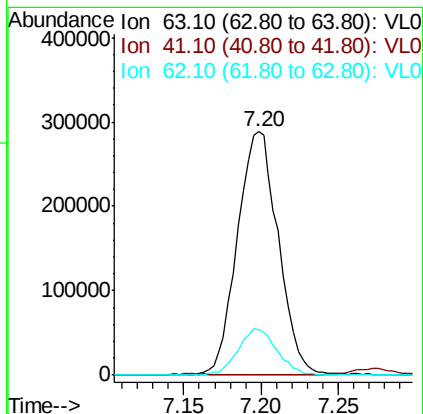
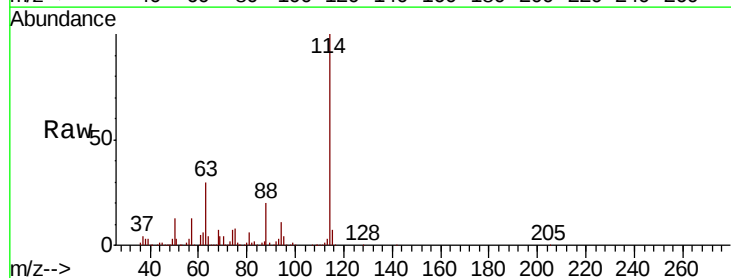
Tgt Ion: 63 Resp: 528706

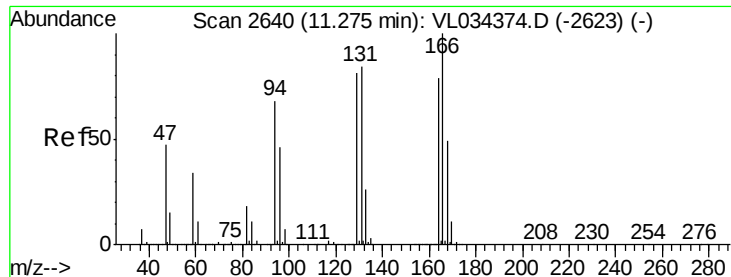
Ion Ratio Lower Upper

63 100

41 0.0 63.1 94.7#

62 18.8 52.3 78.5#

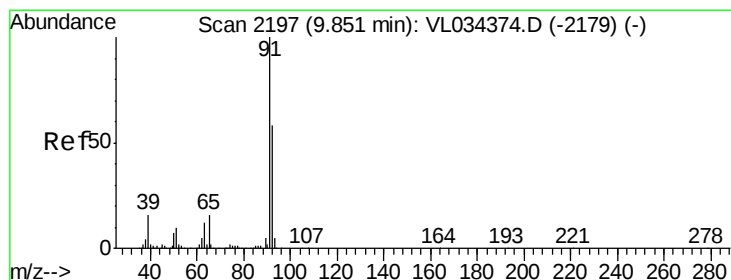
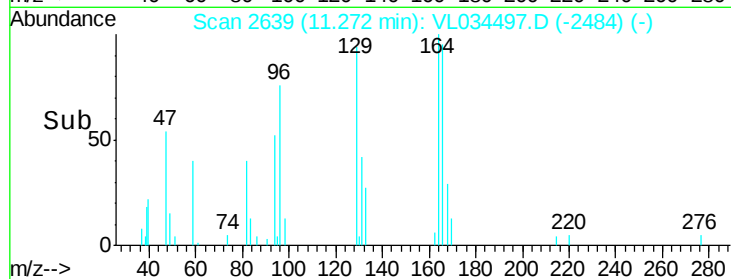
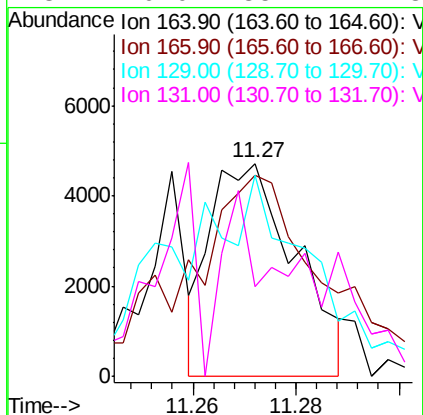
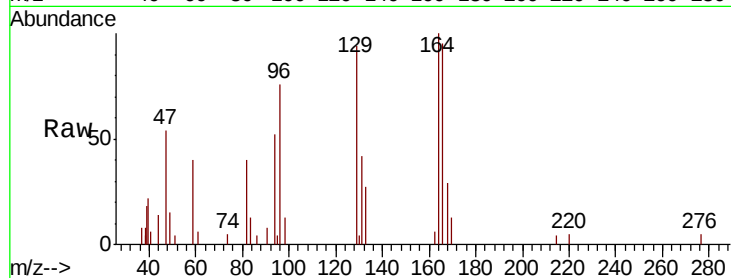




#52
Tetrachloroethene
Concen: 0.070 ppbv
RT: 11.27 min Scan# 2639
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

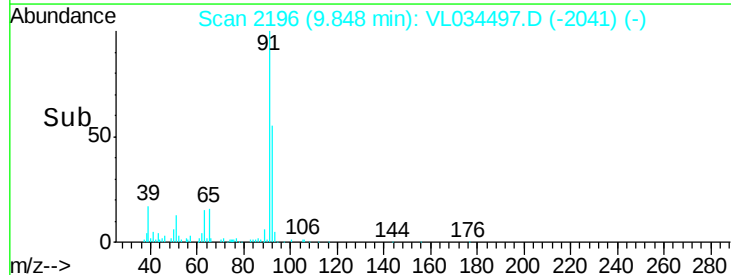
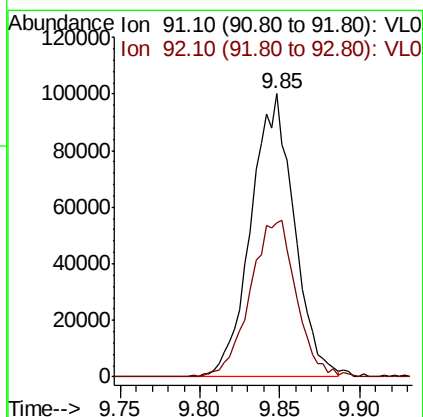
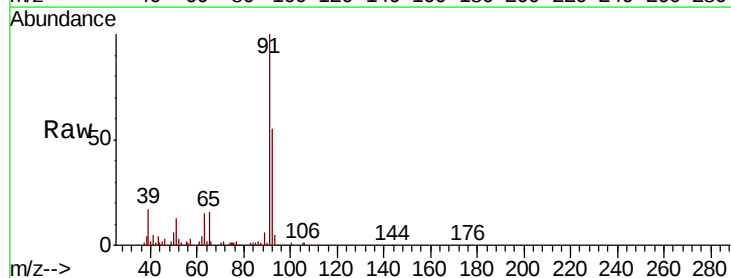
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

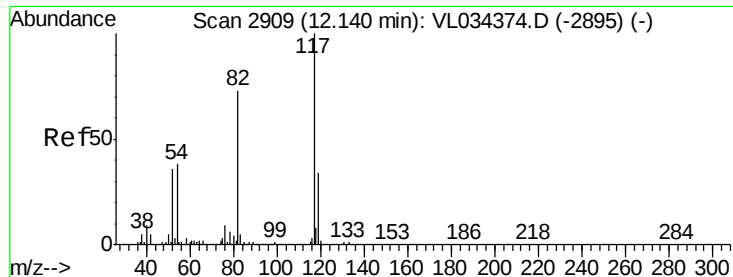
Tgt Ion:164 Resp: 5418
Ion Ratio Lower Upper
164 100
166 76.5 101.7 152.5#
129 94.0 82.6 123.8
131 0.0 85.2 127.8#



#53
Toluene
Concen: 0.910 ppbv
RT: 9.85 min Scan# 2196
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion: 91 Resp: 185326
Ion Ratio Lower Upper
91 100
92 59.0 47.9 71.9

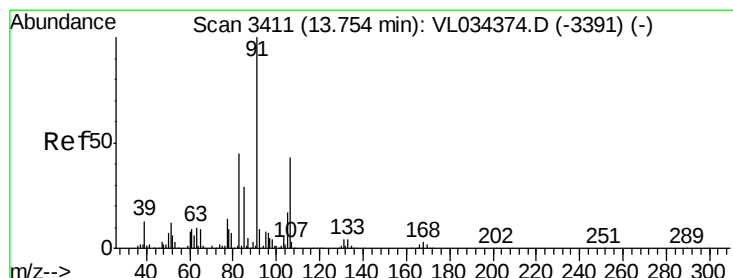
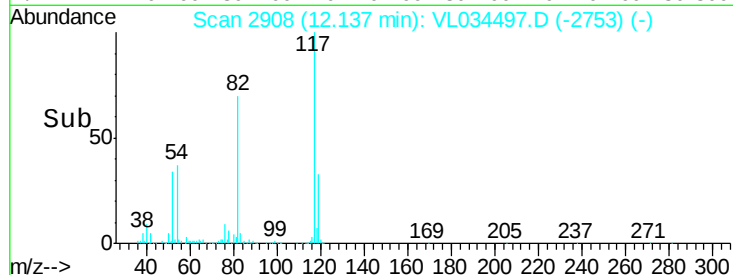
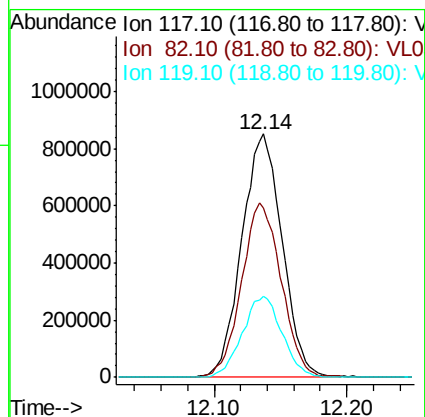
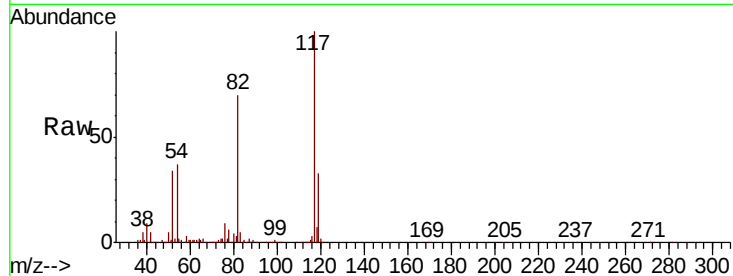




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.14 min Scan# 2908
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

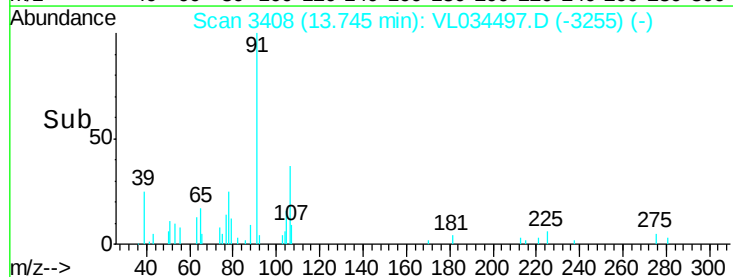
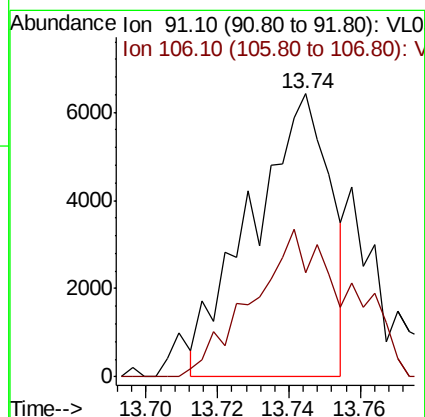
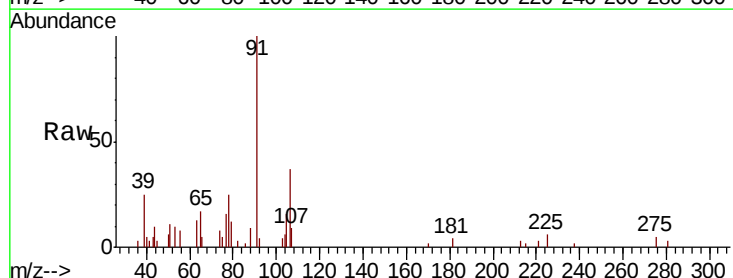
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

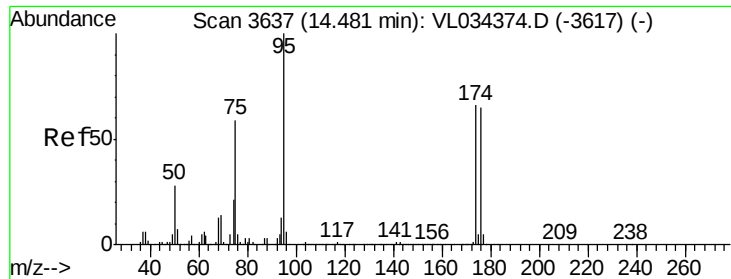
Tgt Ion:117 Resp: 1799331
Ion Ratio Lower Upper
117 100
82 71.0 57.5 86.3
119 32.9 25.4 38.2



#60
o-Xylene
Concen: 0.041 ppbv
RT: 13.74 min Scan# 3408
Delta R.T. -0.01 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion: 91 Resp: 9858
Ion Ratio Lower Upper
91 100
106 63.4 21.3 64.0

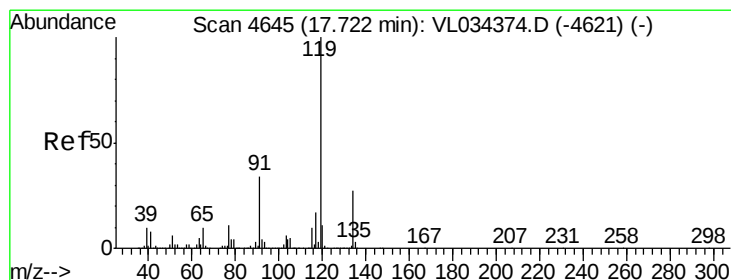
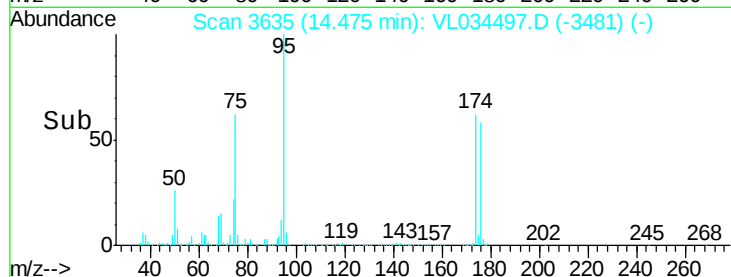
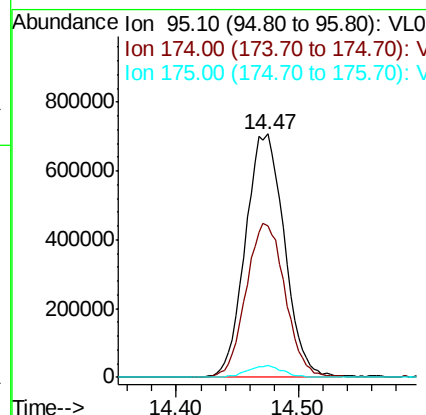
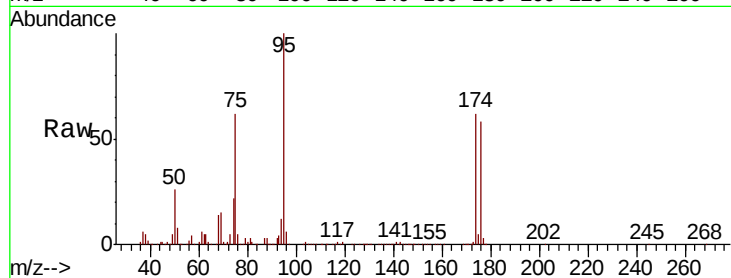




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.306 ppbv
 RT: 14.47 min Scan# 3635
 Delta R.T. -0.01 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

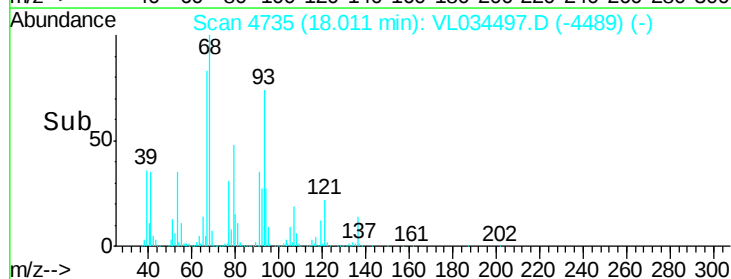
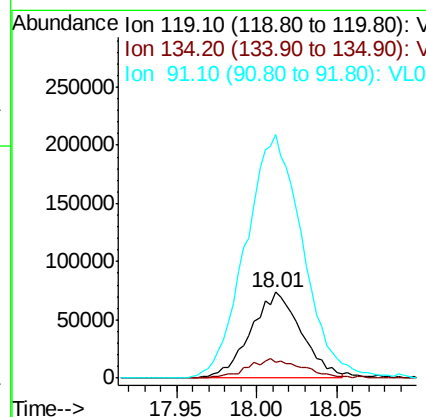
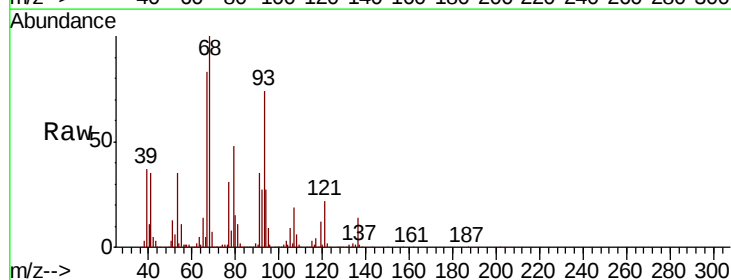
Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

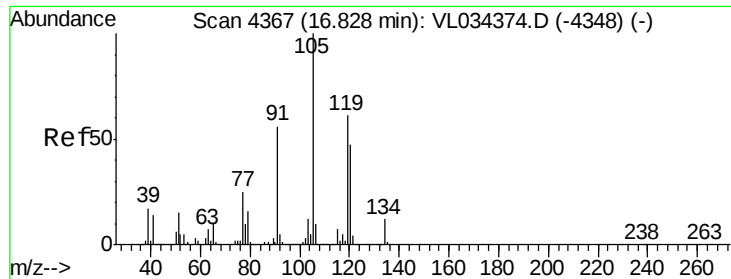
Tgt Ion: 95 Resp: 1559997
 Ion Ratio Lower Upper
 95 100
 174 63.4 52.2 78.2
 175 4.5 3.8 5.8



#69
 p-Isopropyltoluene
 Concen: 0.489 ppbv
 RT: 18.01 min Scan# 4735
 Delta R.T. 0.29 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Tgt Ion: 119 Resp: 160907
 Ion Ratio Lower Upper
 119 100
 134 24.9 20.6 31.0
 91 321.4 26.3 39.5#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.037 ppbv
 RT: 16.83 min Scan# 4367
 Delta R.T. 0.00 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

Tgt Ion:	105	Resp:	10526
Ion	Ratio	Lower	Upper
105	100		
120	43.5	37.4	56.0
91	19.9	46.3	69.5#
77	13.1	20.6	30.8#

