

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL121719\
 Data File : VL034499.D
 Acq On : 17 Dec 2019 19:14
 Operator : SY/AP
 Sample : K6319-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAH-DUP

Quant Time: Dec 18 04:22:31 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	919368	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.19	114	1839550	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1816770	10.00	ppbv	0.00

System Monitoring Compounds

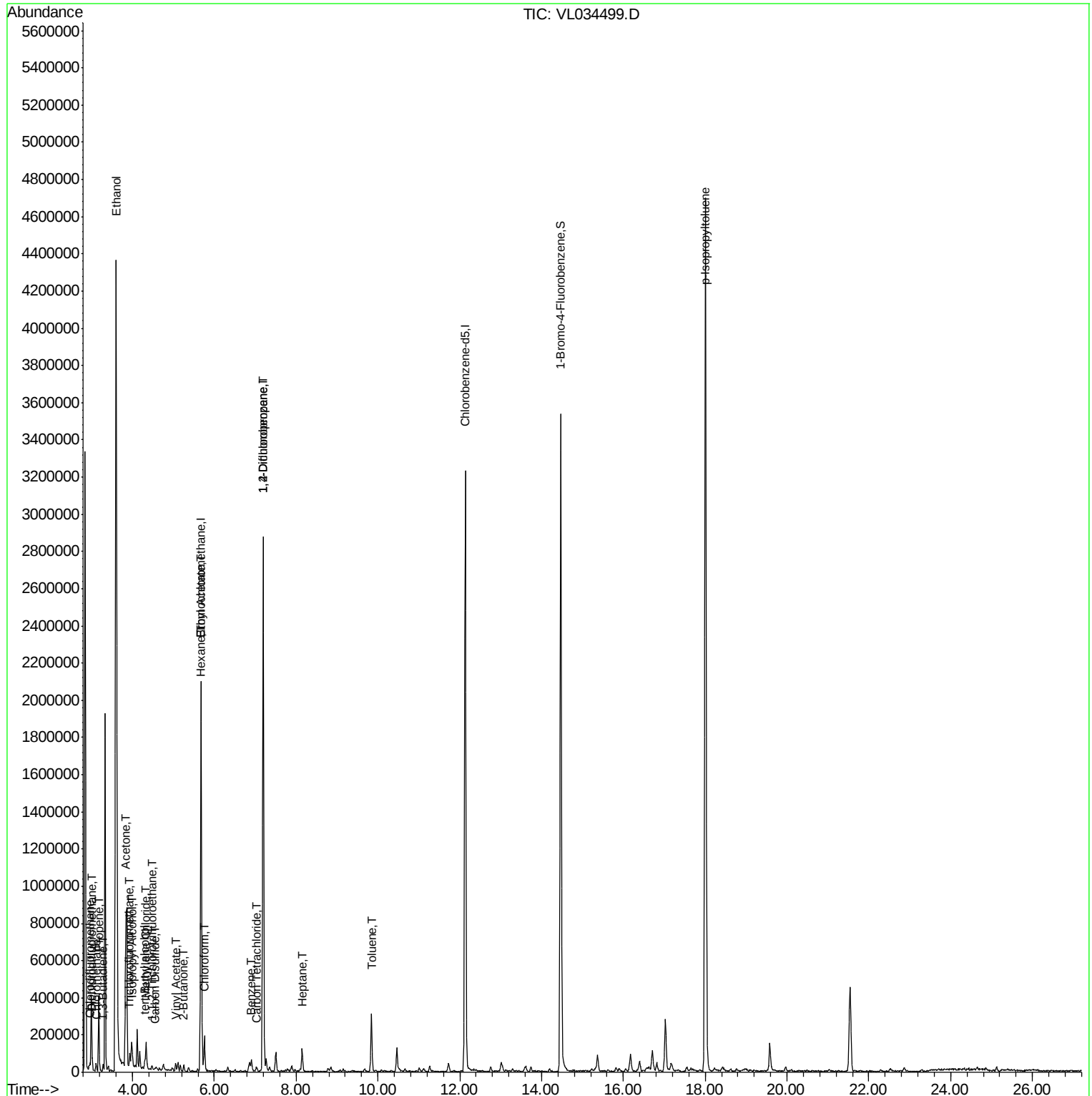
68) 1-Bromo-4-Fluorobenzene	14.47	95	1566765	10.25	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	36264	0.218	ppbv	95
3) Chlorodifluoromethane	2.96	51	49295	0.430	ppbv #	89
4) Chloromethane	3.11	50	28692	0.424	ppbv	99
9) Propene	3.18	41	87179	1.712	ppbv	91
10) Heptane	8.13	43	10912	0.083	ppbv #	27
11) Trichlorofluoromethane	3.93	101	36254	0.219	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4498	0.041	ppbv #	33
13) Ethanol	3.60	45	6006830	423.428	ppbv	91
15) Acetone	3.83	43	934496	7.098	ppbv	92
16) 1,3-Butadiene	3.28	39	2832	0.049	ppbv #	9
17) tert-Butyl alcohol	4.30	59	16017	0.145	ppbv #	71
19) Isopropyl Alcohol	3.97	45	127907	1.516	ppbv #	1
20) Methylene Chloride	4.33	84	41242	0.883	ppbv #	87
23) Vinyl Acetate	5.06	43	28050	0.163	ppbv #	74
25) Ethyl Acetate	5.68	43	37084	0.158	ppbv #	82
26) Hexane	5.69	57	33754	0.334	ppbv #	75
27) Carbon Disulfide	4.54	76	7256	0.066	ppbv #	54
29) Chloroform	5.75	83	108216	0.662	ppbv	97
34) 2-Butanone	5.25	43	34236	0.226	ppbv	99
35) Carbon Tetrachloride	7.04	117	6398	0.040	ppbv	98
36) Benzene	6.91	78	16736	0.091	ppbv #	93
39) 1,2-Dichloropropane	7.19	63	541419	7.642	ppbv #	23
53) Toluene	9.84	91	207613	0.994	ppbv	98
69) p-Isopropyltoluene	18.01	119	170726	0.514	ppbv #	1

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSV0A_L\DATA\VL121719\
Data File : VL034499.D
Acq On    : 17 Dec 2019   19:14
Operator  : SY/AP
Sample    : K6319-02
Misc      : 400ml/MSV0A_L
ALS Vial  : 1    Sample Multiplier: 1
```

Quant Time: Dec 18 04:22:31 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL111919AIR.M
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LTue Nov 19 14:15:35 2019
QLast Update : Tue Nov 19 14:15:35 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAH-DUP

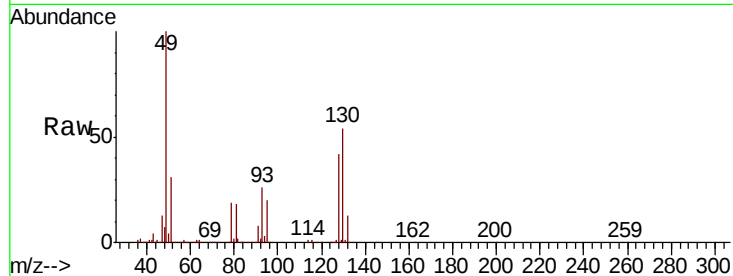
Tgt Ion: 49 Resp: 919368

Ion Ratio Lower Upper

49 100

128 44.8 21.8 65.3

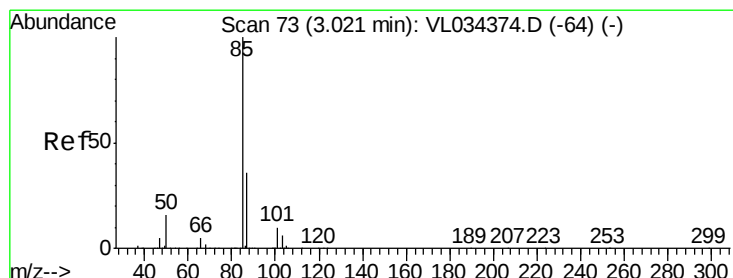
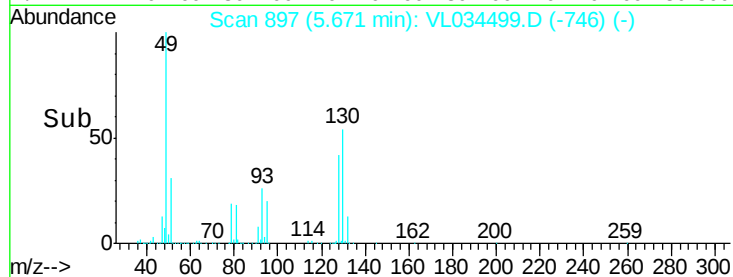
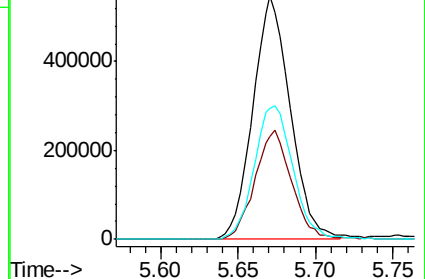
130 57.5 28.0 84.0



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: 0.218 ppbv

RT: 3.02 min Scan# 72

Delta R.T. -0.00 min

Lab File: VL034499.D

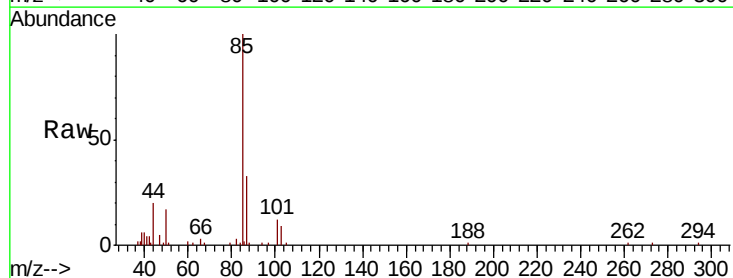
Acq: 17 Dec 2019 19:14

Tgt Ion: 85 Resp: 36264

Ion Ratio Lower Upper

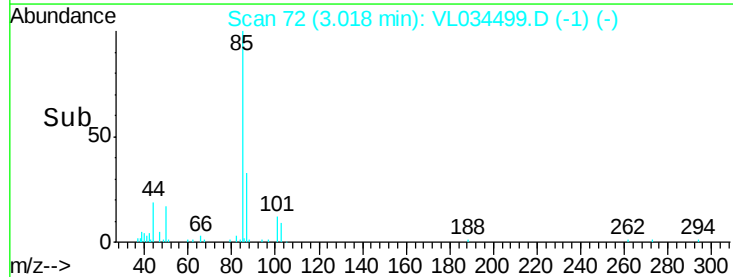
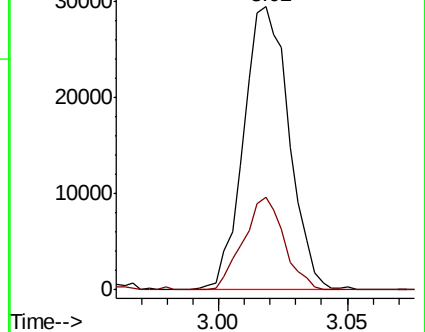
85 100

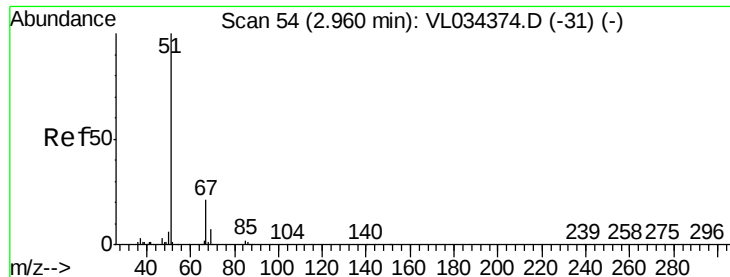
87 32.9 28.5 42.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

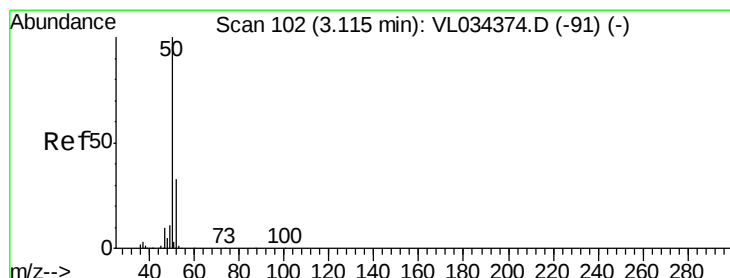
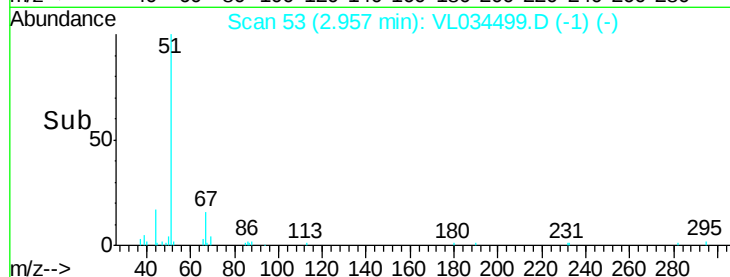
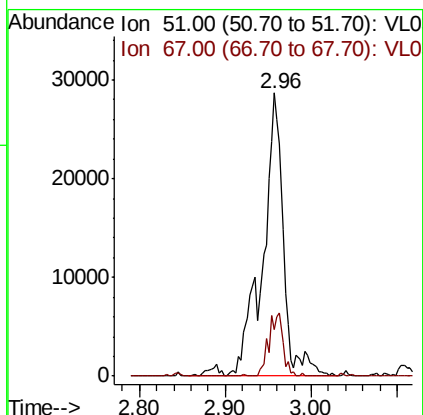
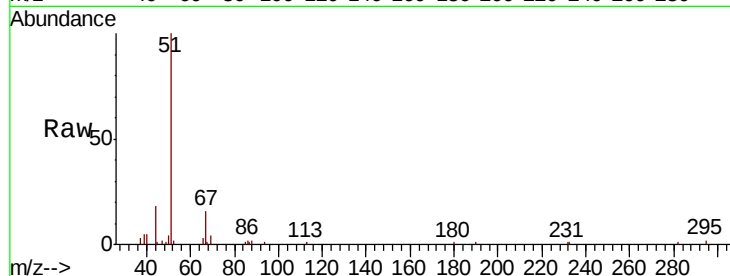




#3
Chlorodifluoromethane
Concen: 0.430 ppbv
RT: 2.96 min Scan# 53
Delta R.T. -0.00 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

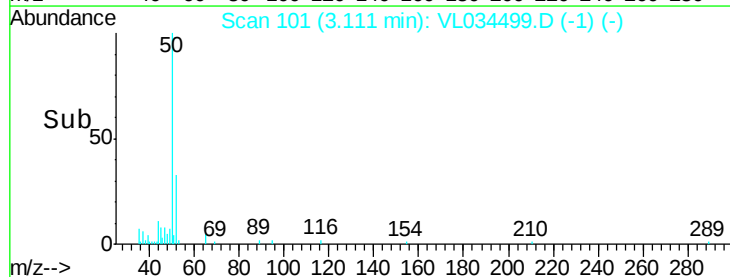
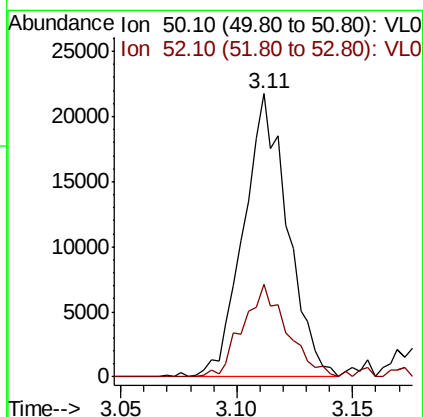
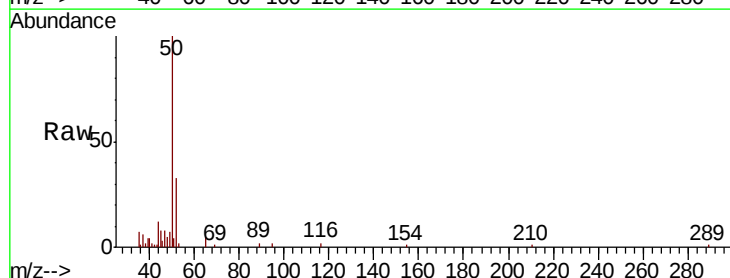
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAH-DUP

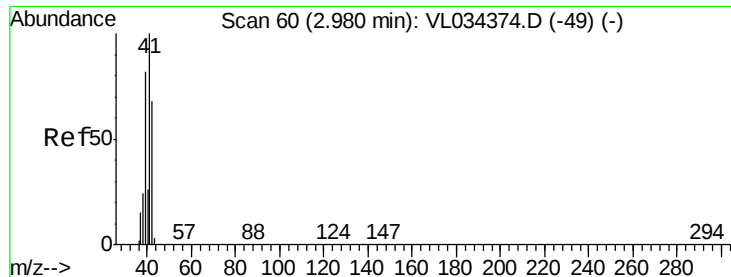
Tgt Ion: 51 Resp: 49295
Ion Ratio Lower Upper
51 100
67 15.0 16.2 24.2#



#4
Chloromethane
Concen: 0.424 ppbv
RT: 3.11 min Scan# 101
Delta R.T. -0.00 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

Tgt Ion: 50 Resp: 28692
Ion Ratio Lower Upper
50 100
52 32.7 26.8 40.2





#9

Propene

Concen: 1.712 ppbv

RT: 3.18 min Scan# 121

Delta R.T. 0.20 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

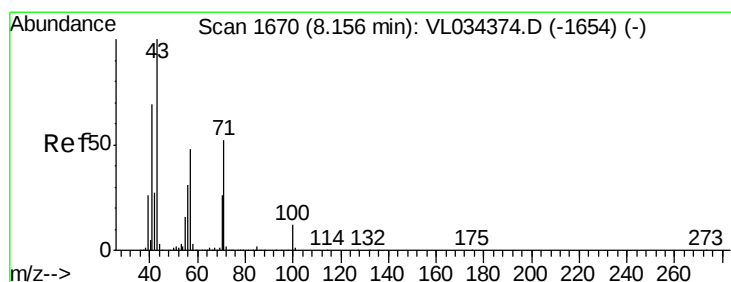
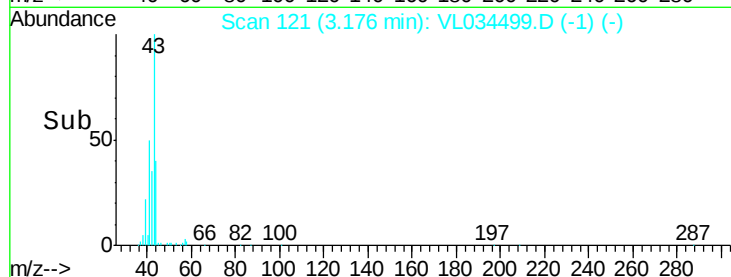
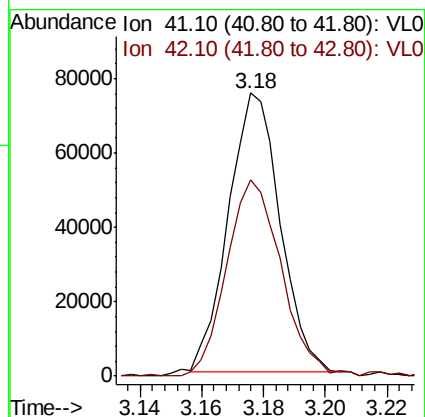
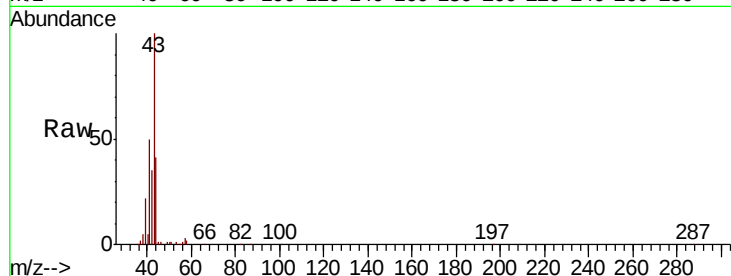
LIHA-IAH-DUP

Tgt Ion: 41 Resp: 87179

Ion Ratio Lower Upper

41 100

42 75.4 54.6 82.0



#10

Heptane

Concen: 0.083 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.02 min

Lab File: VL034499.D

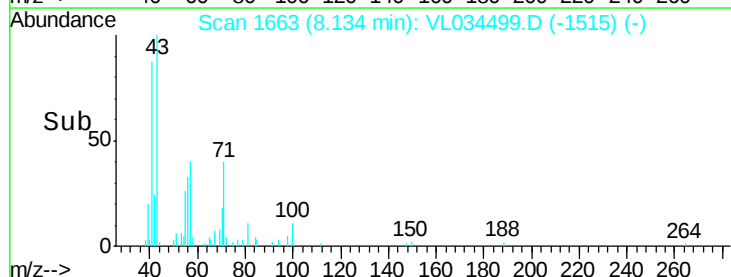
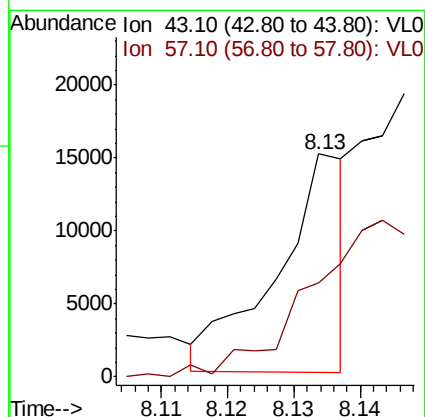
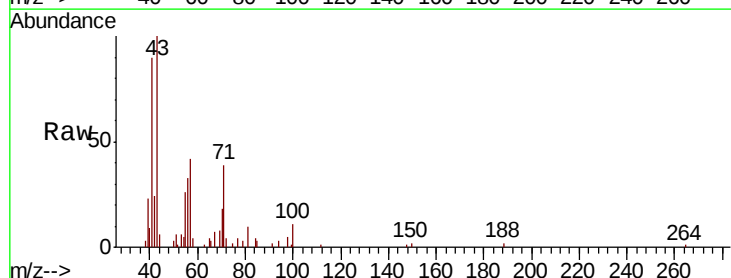
Acq: 17 Dec 2019 19:14

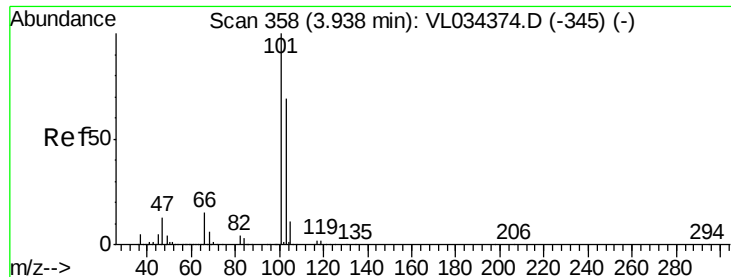
Tgt Ion: 43 Resp: 10912

Ion Ratio Lower Upper

43 100

57 0.0 40.2 60.2#





#11

Trichlorofluoromethane

Concen: 0.219 ppbv

RT: 3.93 min Scan# 356

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

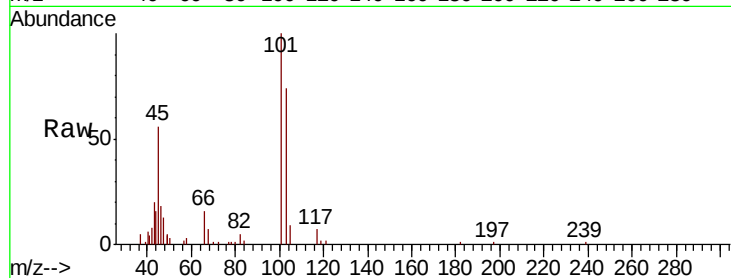
LIHA-IAH-DUP

Tgt Ion:101 Resp: 36254

Ion Ratio Lower Upper

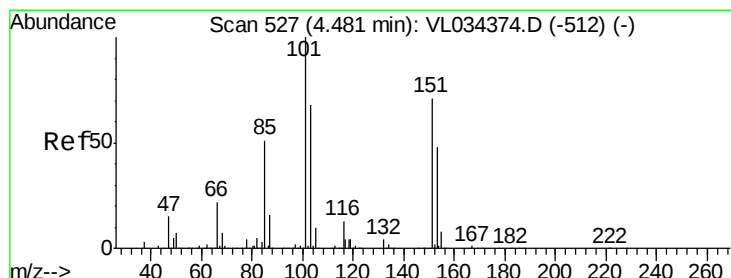
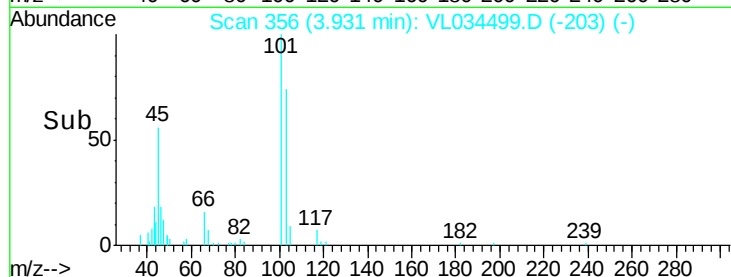
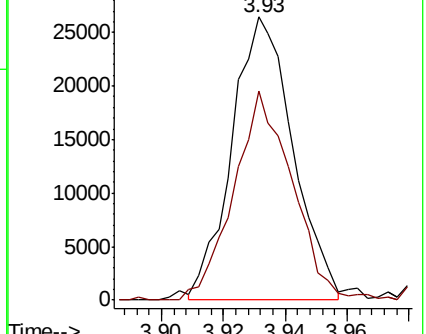
101 100

103 72.7 55.4 83.0



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: 0.041 ppbv

RT: 4.47 min Scan# 524

Delta R.T. -0.01 min

Lab File: VL034499.D

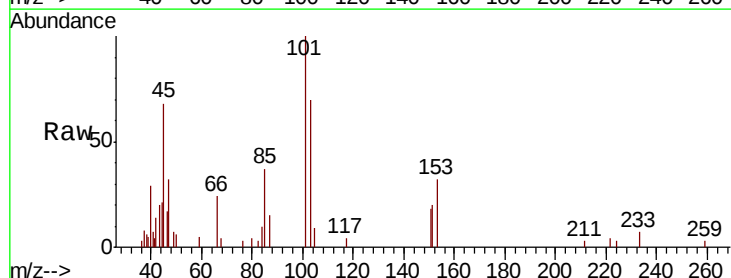
Acq: 17 Dec 2019 19:14

Tgt Ion:101 Resp: 4498

Ion Ratio Lower Upper

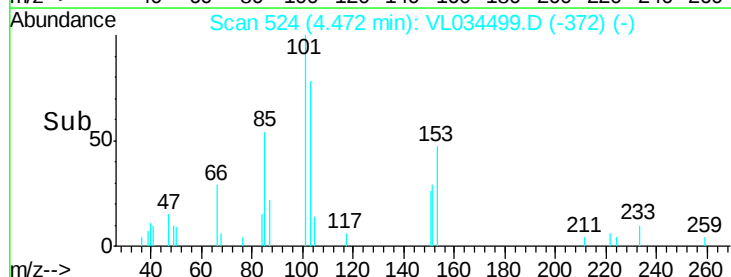
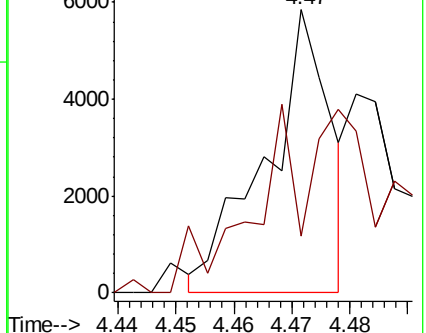
101 100

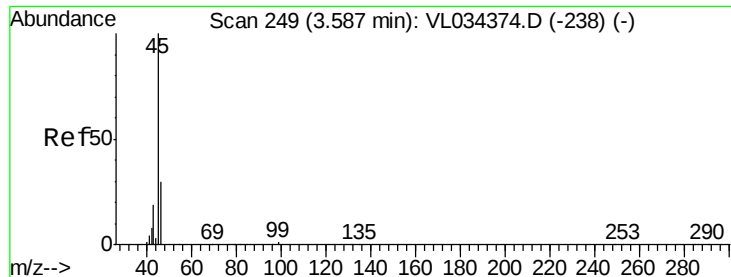
151 127.4 57.4 86.2#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

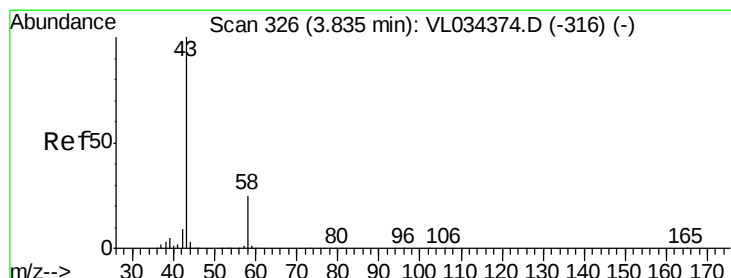
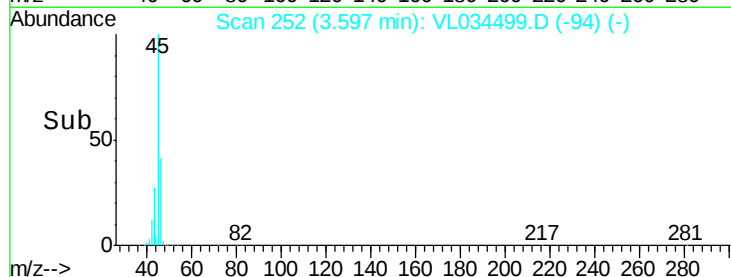
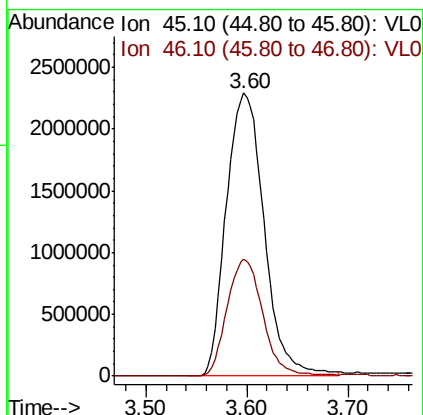
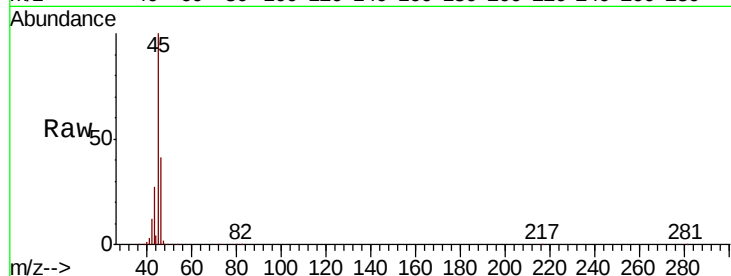




#13
Ethanol
Concen: 423.428 ppbv
RT: 3.60 min Scan# 252
Delta R.T. 0.01 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

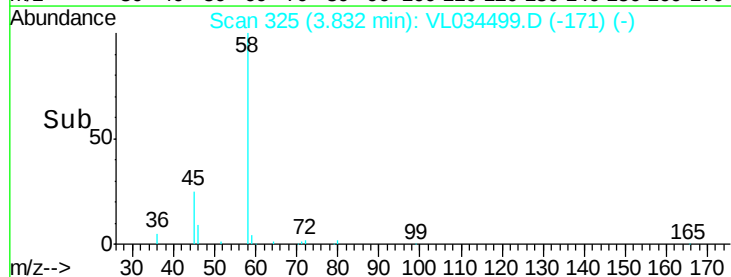
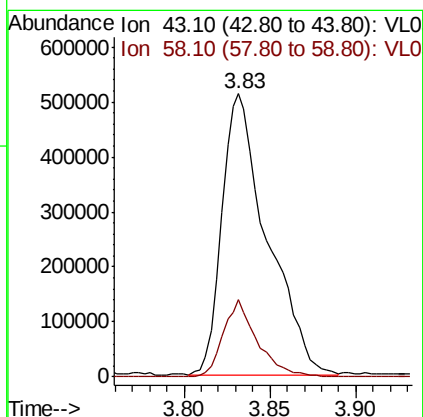
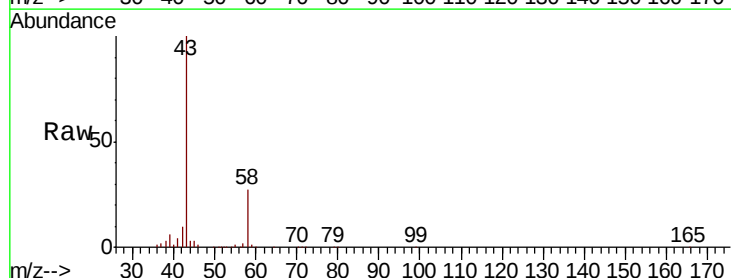
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAH-DUP

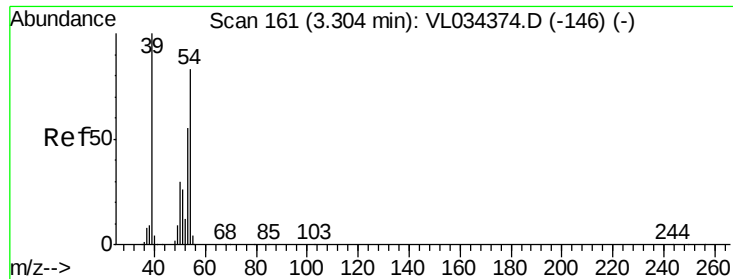
Tgt Ion: 45 Resp: 6006830
Ion Ratio Lower Upper
45 100
46 39.6 13.8 55.4



#15
Acetone
Concen: 7.098 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.00 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

Tgt Ion: 43 Resp: 934496
Ion Ratio Lower Upper
43 100
58 21.0 20.2 30.4

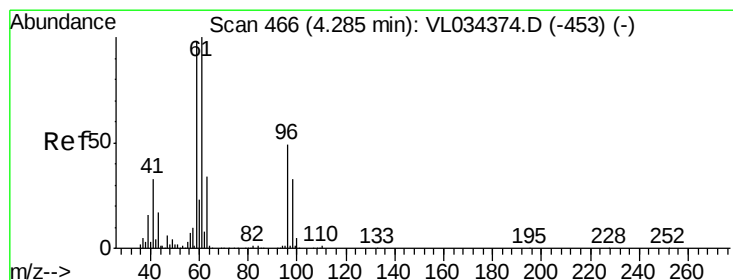
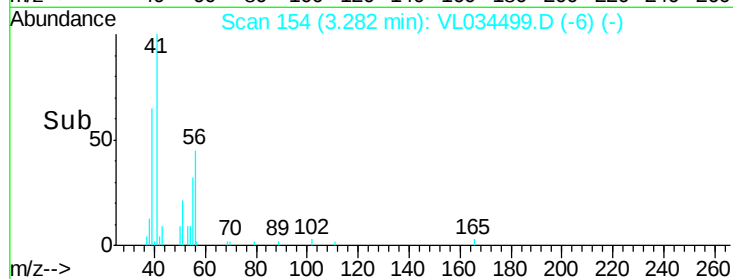
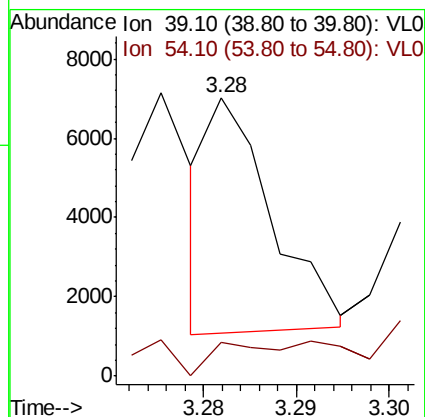
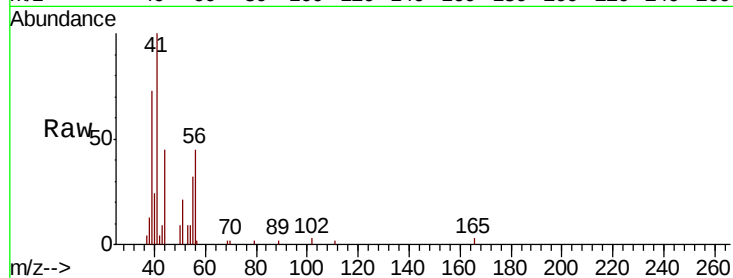




#16
1,3-Butadiene
Concen: 0.049 ppbv
RT: 3.28 min Scan# 154
Delta R.T. -0.02 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

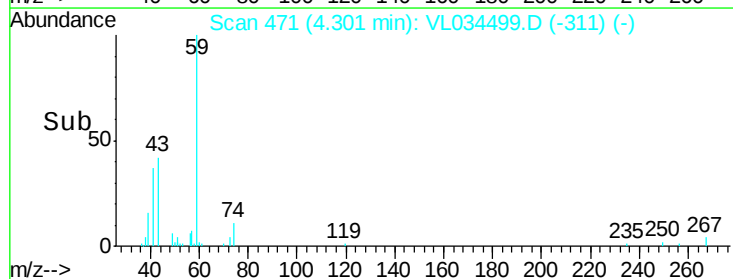
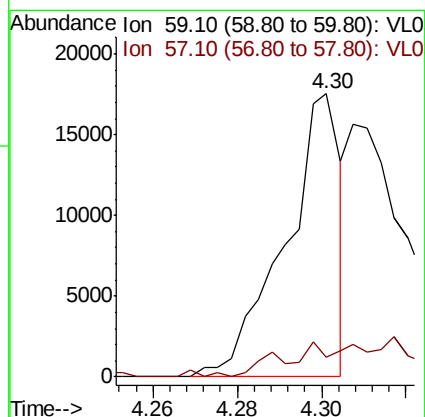
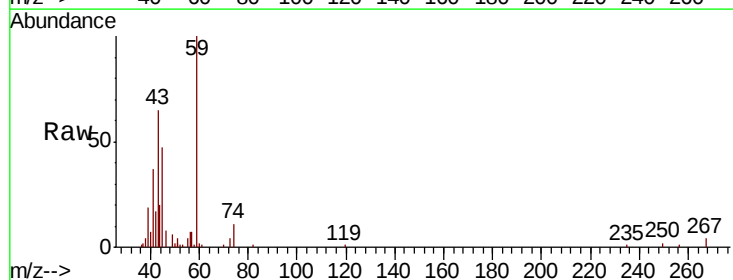
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAH-DUP

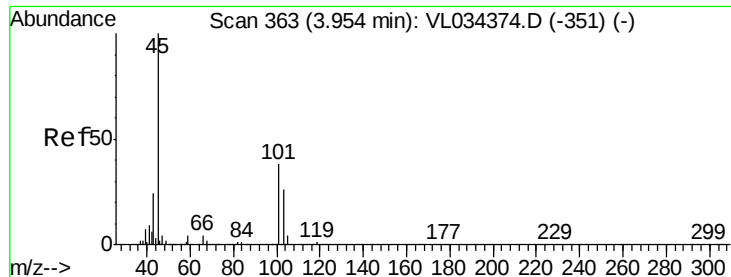
Tgt Ion: 39 Resp: 2832
Ion Ratio Lower Upper
39 100
54 0.0 64.7 97.1#



#17
tert-Butyl alcohol
Concen: 0.145 ppbv
RT: 4.30 min Scan# 471
Delta R.T. 0.02 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

Tgt Ion: 59 Resp: 16017
Ion Ratio Lower Upper
59 100
57 0.0 8.8 13.2#





#19

Isopropyl Alcohol

Concen: 1.516 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.02 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

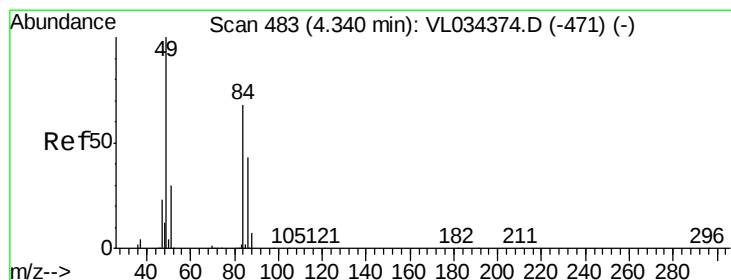
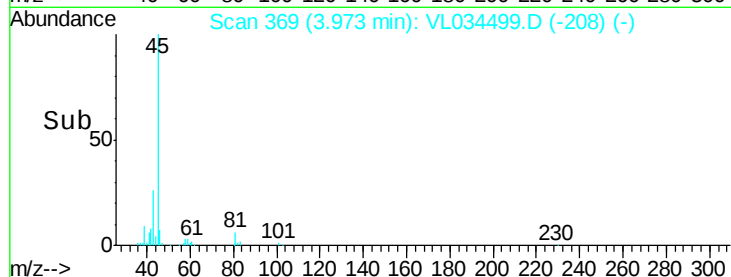
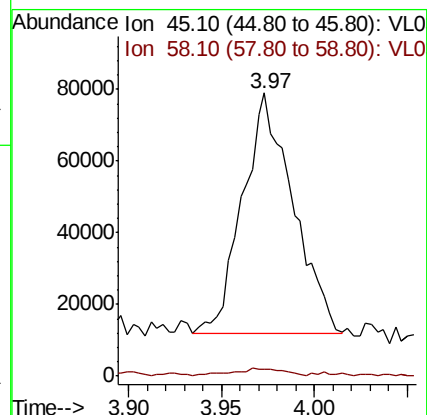
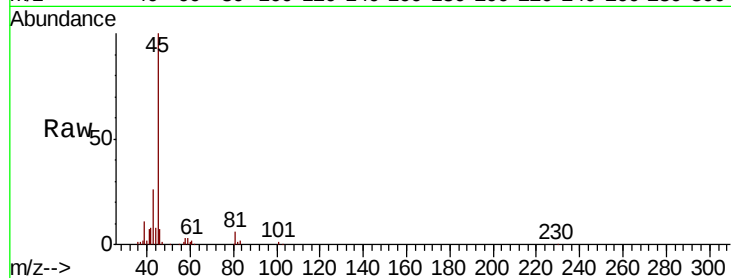
LIHA-IAH-DUP

Tgt Ion: 45 Resp: 127907

Ion Ratio Lower Upper

45 100

58 154.0 1.3 1.9#



#20

Methylene Chloride

Concen: 0.883 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Tgt Ion: 84 Resp: 41242

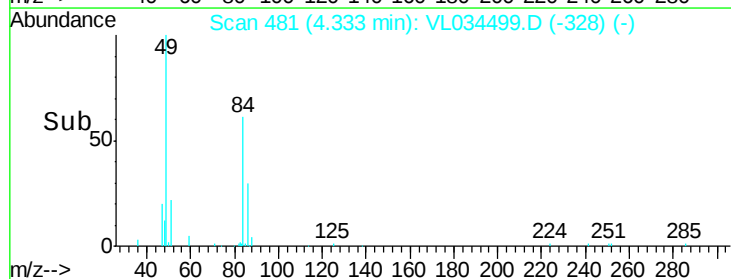
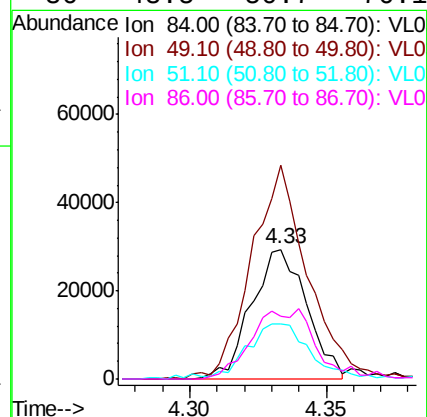
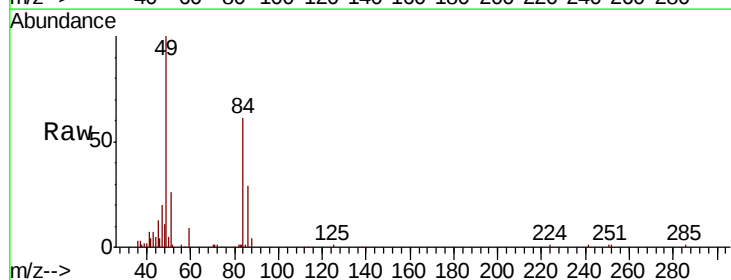
Ion Ratio Lower Upper

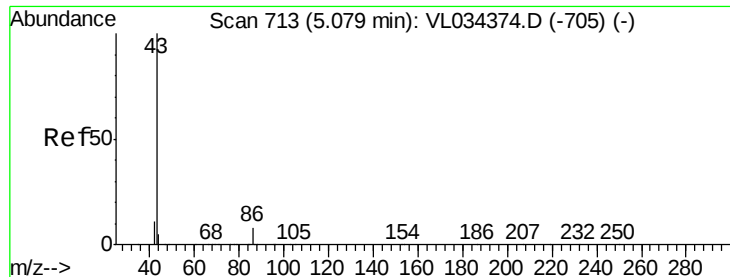
84 100

49 161.5 116.8 175.2

51 40.2 35.6 53.4

86 48.5 50.7 76.1#





#23

Vinyl Acetate

Concen: 0.163 ppbv

RT: 5.06 min Scan# 707

Delta R.T. -0.02 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAH-DUP

Tgt Ion: 43 Resp: 28050

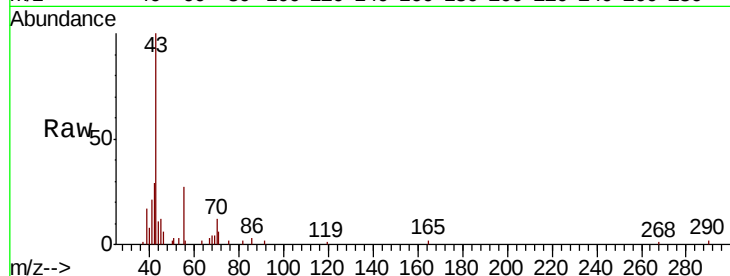
Ion Ratio Lower Upper

43 100

86 3.0 5.8 8.6#

42 28.2 8.9 13.3#

44 6.5 4.0 6.0#

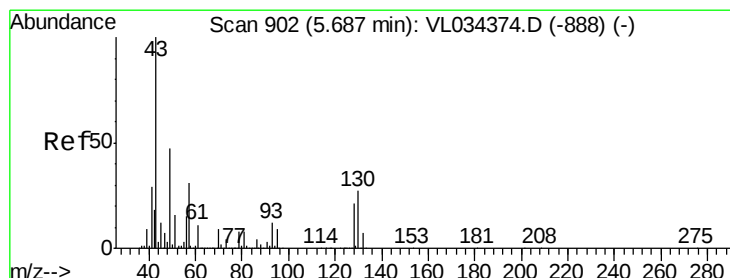
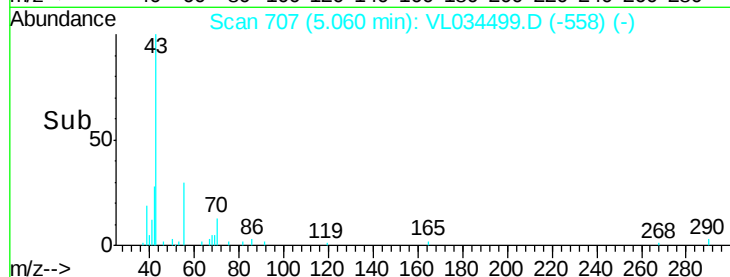
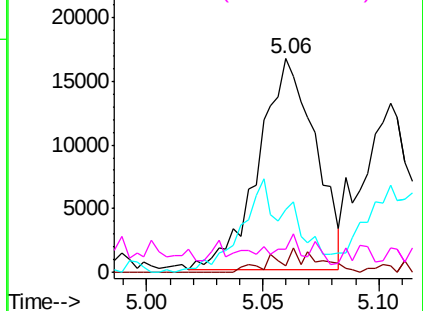


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.158 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Tgt Ion: 43 Resp: 37084

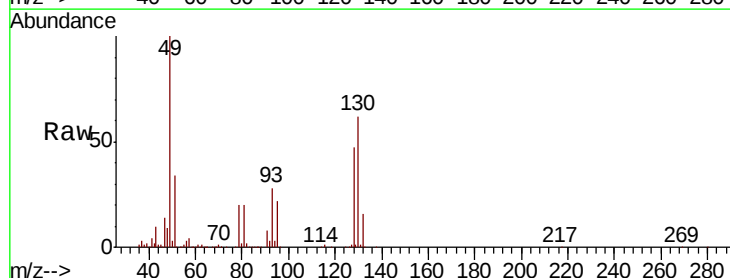
Ion Ratio Lower Upper

43 100

45 18.8 8.2 12.4#

61 14.8 7.5 11.3#

70 12.3 5.7 8.5#

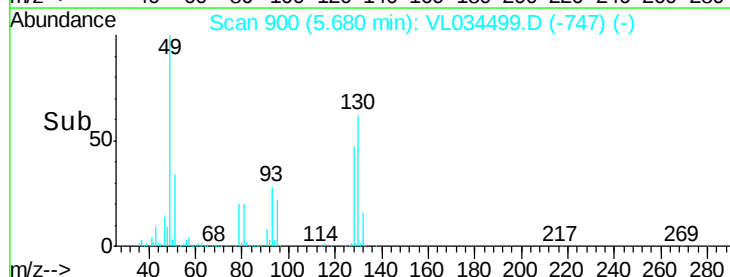
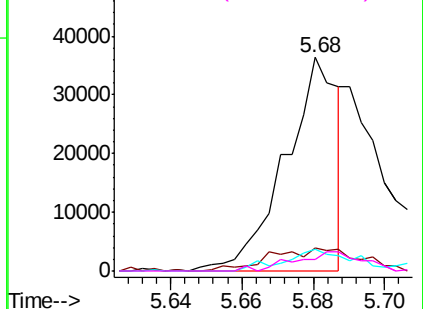


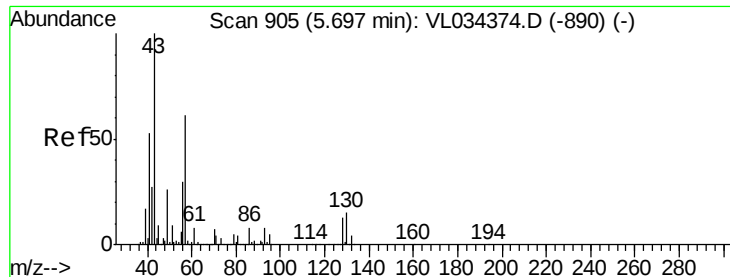
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.334 ppbv

RT: 5.69 min Scan# 902

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAH-DUP

Tgt Ion: 57 Resp: 33754

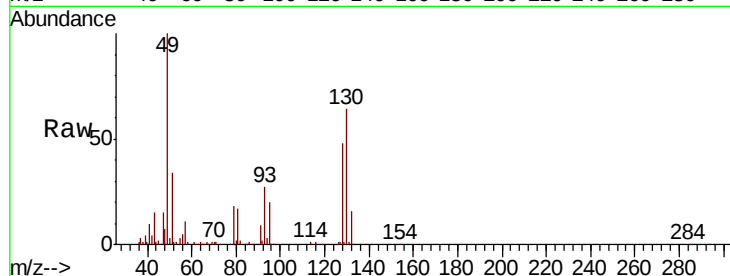
Ion Ratio Lower Upper

57 100

41 117.0 75.0 112.4#

43 189.1 186.6 279.8

56 63.7 41.5 62.3#

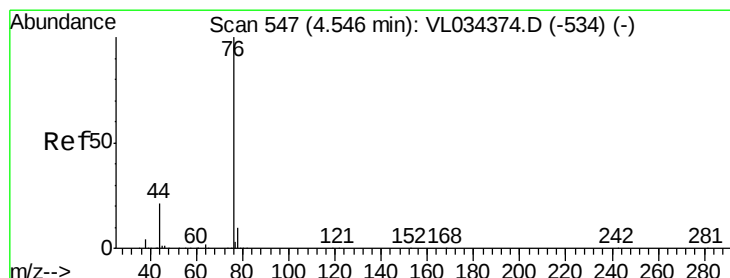
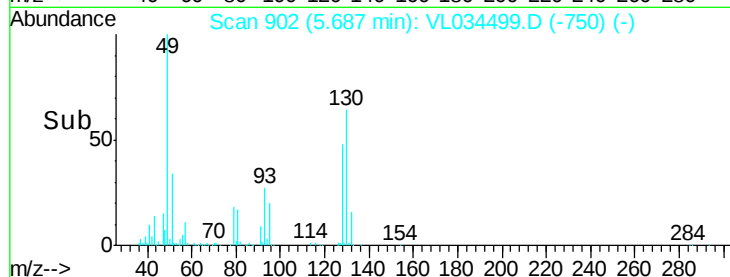
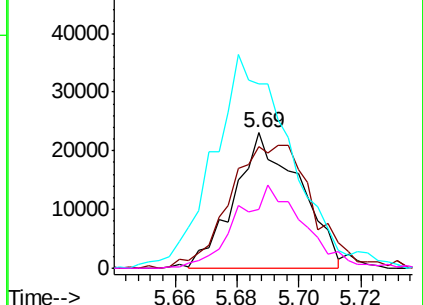


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#27

Carbon Disulfide

Concen: 0.066 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.00 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

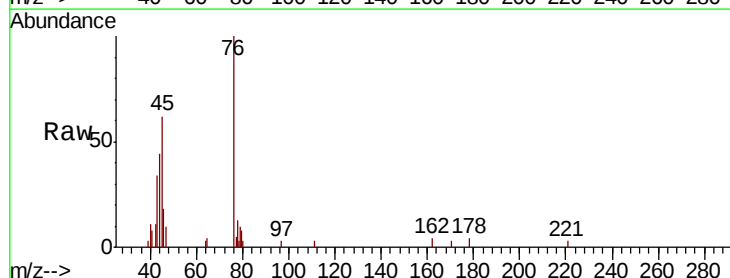
Tgt Ion: 76 Resp: 7256

Ion Ratio Lower Upper

76 100

44 46.8 17.0 25.4#

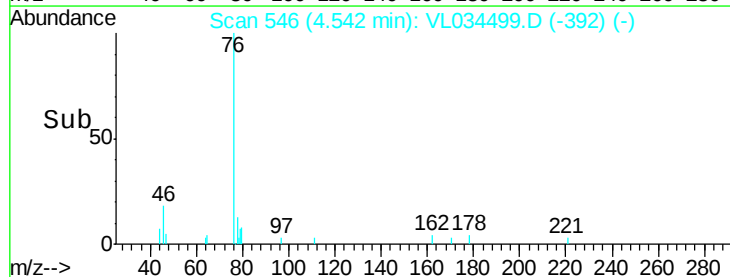
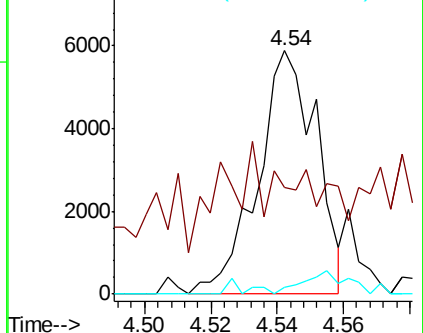
78 0.0 7.6 11.4#

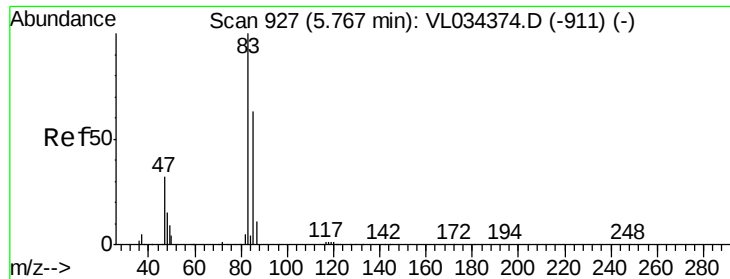


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.662 ppbv

RT: 5.75 min Scan# 923

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

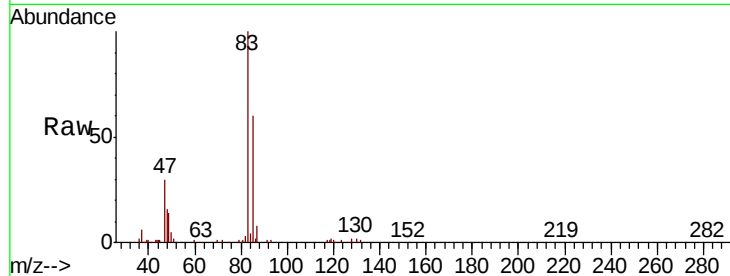
LIHA-IAH-DUP

Tgt Ion: 83 Resp: 108216

Ion Ratio Lower Upper

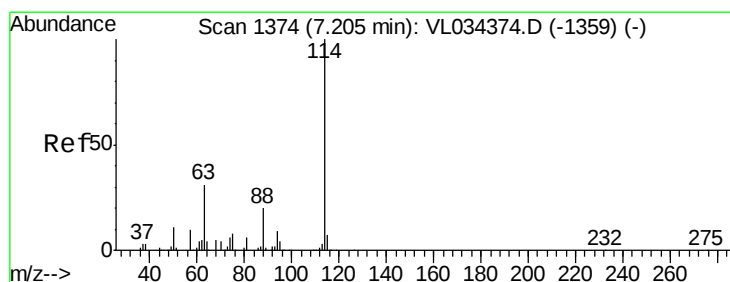
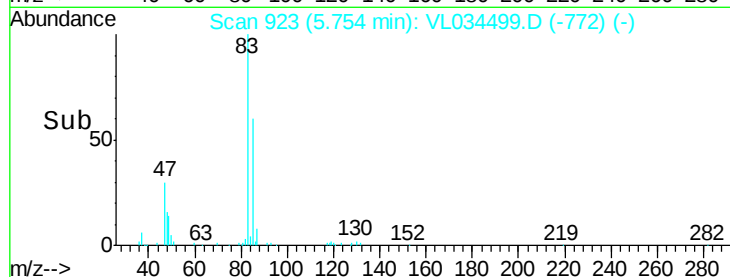
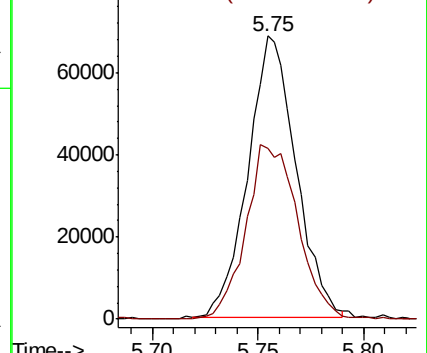
83 100

85 60.6 50.4 75.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1371

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

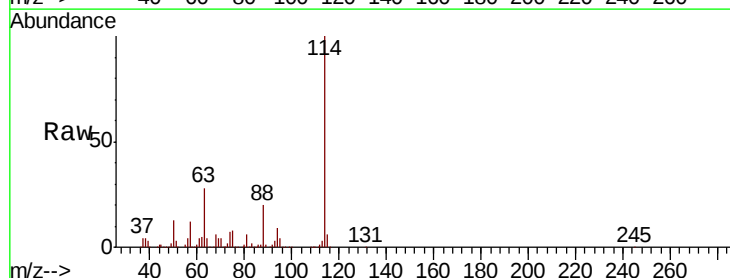
Tgt Ion: 114 Resp: 1839550

Ion Ratio Lower Upper

114 100

63 29.7 24.2 36.4

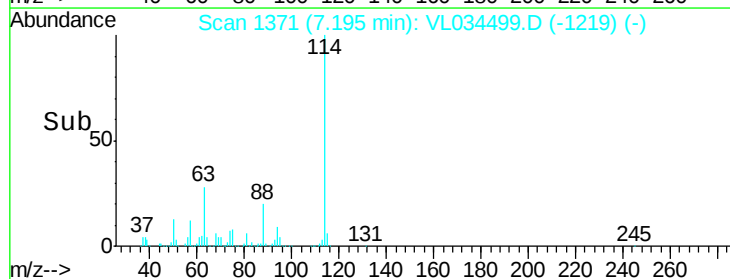
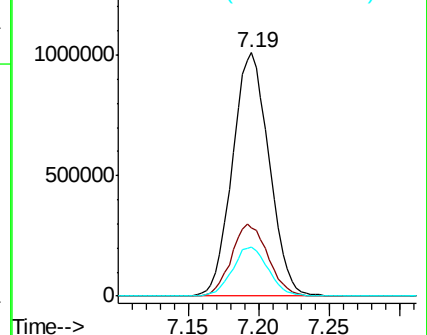
88 19.7 15.9 23.9

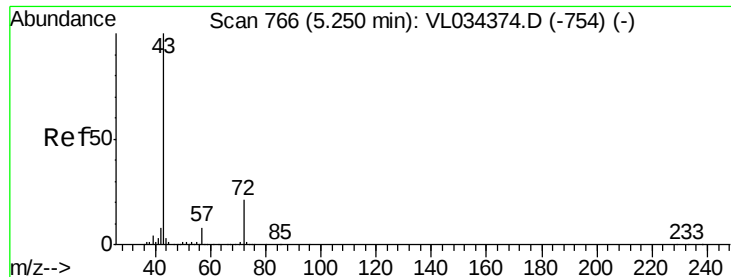


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

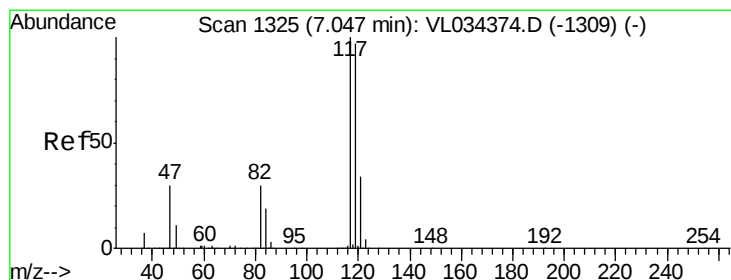
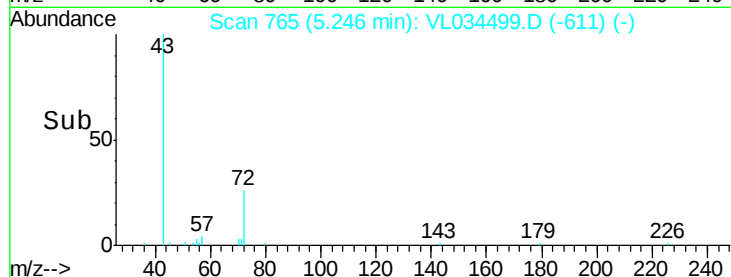
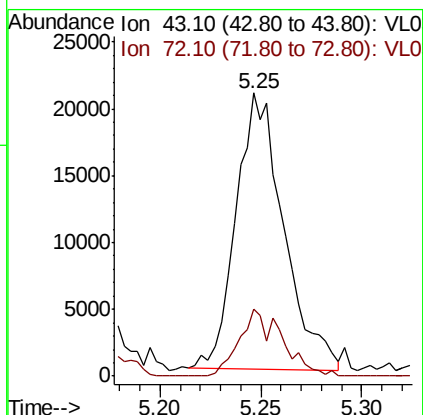
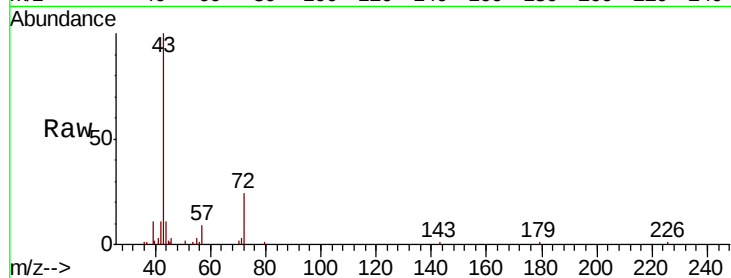




#34
2-Butanone
Concen: 0.226 ppbv
RT: 5.25 min Scan# 765
Delta R.T. -0.00 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

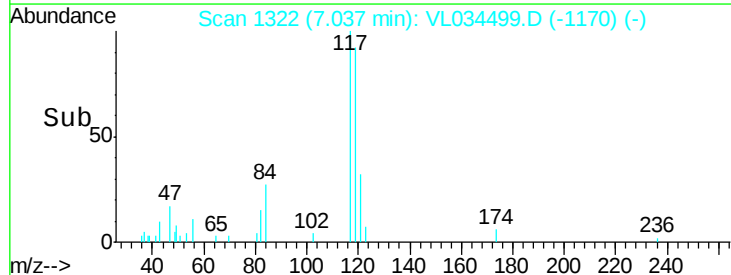
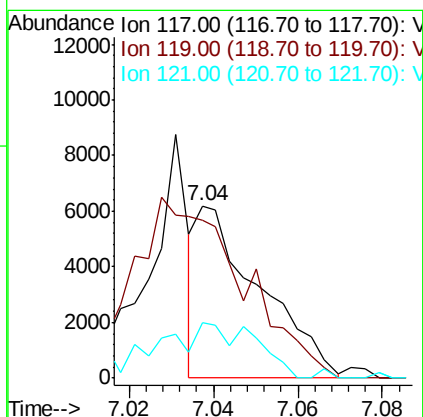
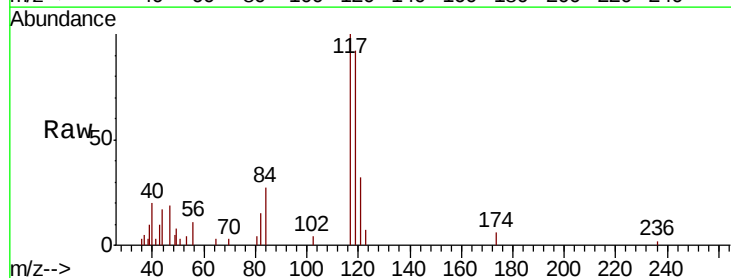
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAH-DUP

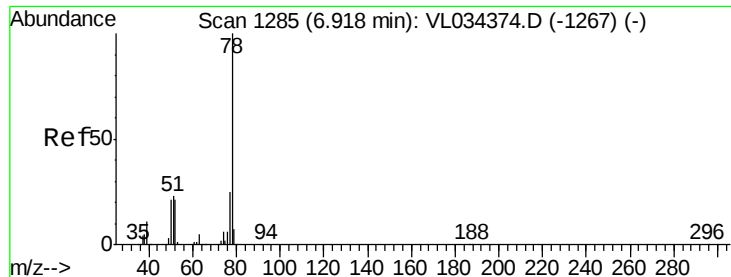
Tgt Ion: 43 Resp: 34236
Ion Ratio Lower Upper
43 100
72 21.9 17.0 25.6



#35
Carbon Tetrachloride
Concen: 0.040 ppbv
RT: 7.04 min Scan# 1322
Delta R.T. -0.01 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

Tgt Ion: 117 Resp: 6398
Ion Ratio Lower Upper
117 100
119 94.2 77.3 115.9
121 33.1 27.4 41.2

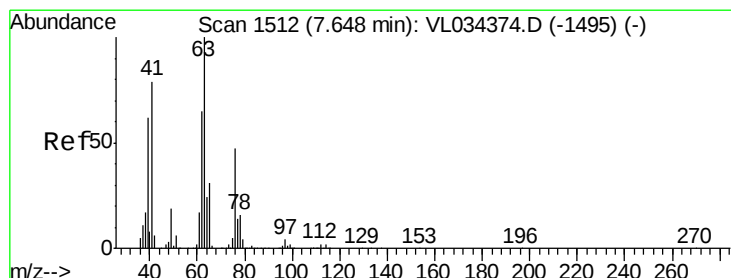
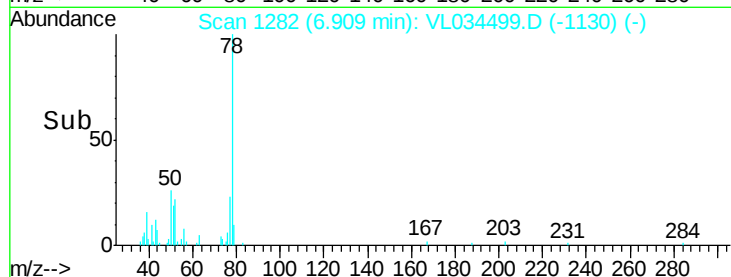
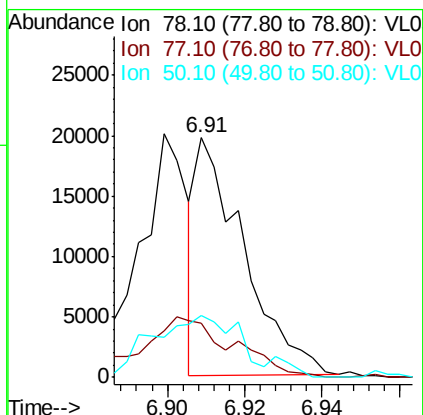
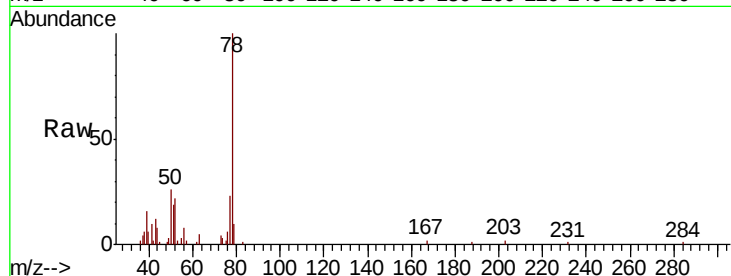




#36
Benzene
Concen: 0.091 ppbv
RT: 6.91 min Scan# 1282
Delta R.T. -0.01 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

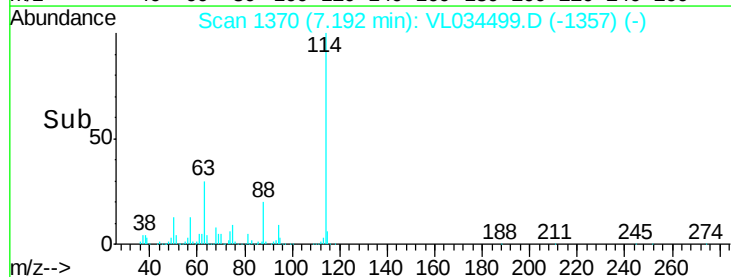
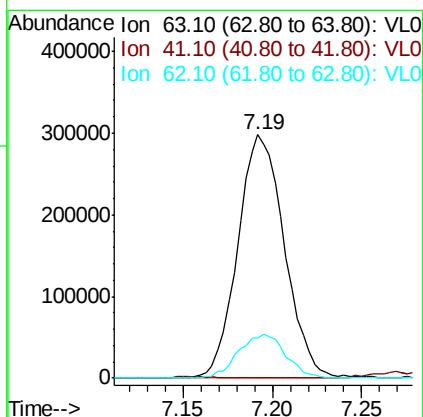
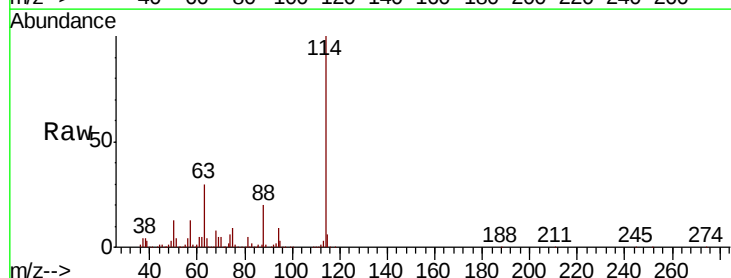
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAH-DUP

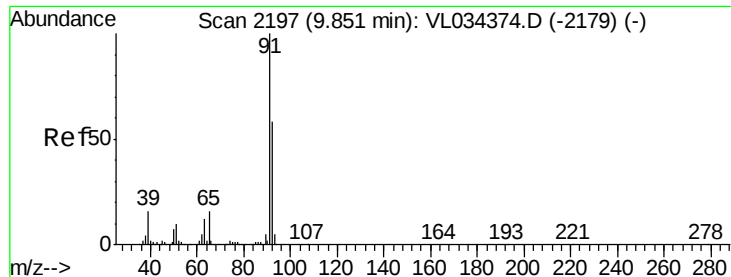
Tgt Ion: 78 Resp: 16736
Ion Ratio Lower Upper
78 100
77 23.0 20.2 30.4
50 26.3 17.1 25.7#



#39
1,2-Dichloropropane
Concen: 7.642 ppbv
RT: 7.19 min Scan# 1370
Delta R.T. -0.46 min
Lab File: VL034499.D
Acq: 17 Dec 2019 19:14

Tgt Ion: 63 Resp: 541419
Ion Ratio Lower Upper
63 100
41 0.0 63.1 94.7#
62 16.4 52.3 78.5#





#53

Toluene

Concen: 0.994 ppbv

RT: 9.84 min Scan# 2194

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

Instrument :

MSVOA_L

ClientSampleId :

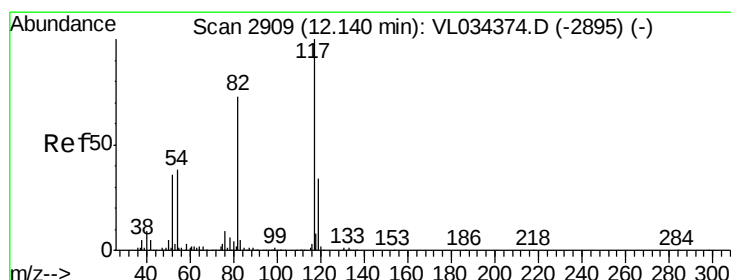
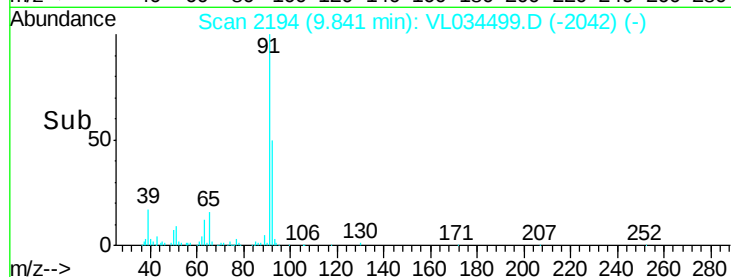
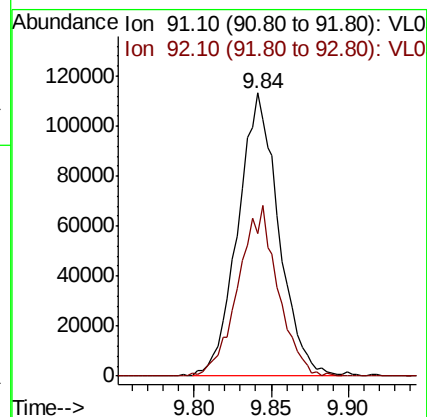
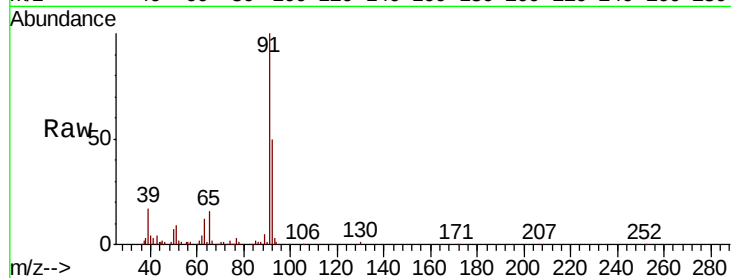
LIHA-IAH-DUP

Tgt Ion: 91 Resp: 207613

Ion Ratio Lower Upper

91 100

92 58.5 47.9 71.9



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.13 min Scan# 2907

Delta R.T. -0.01 min

Lab File: VL034499.D

Acq: 17 Dec 2019 19:14

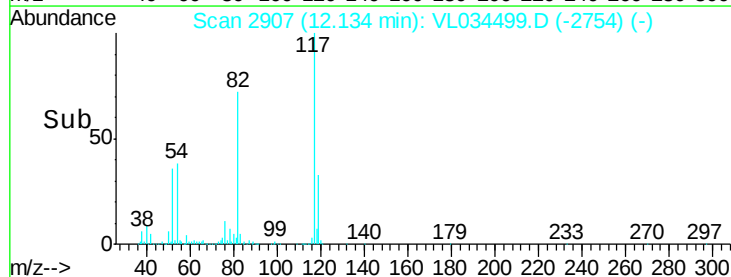
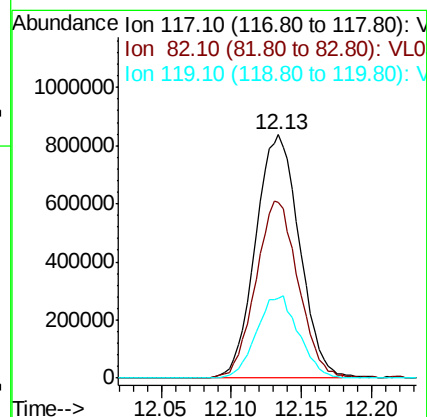
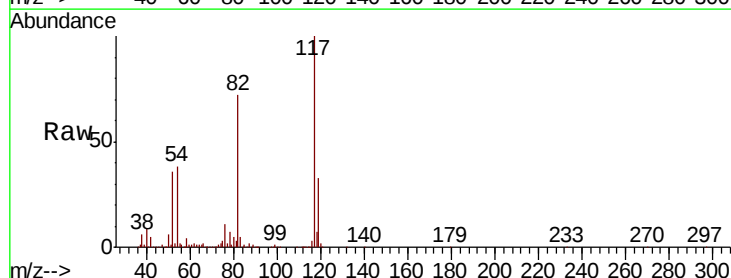
Tgt Ion: 117 Resp: 1816770

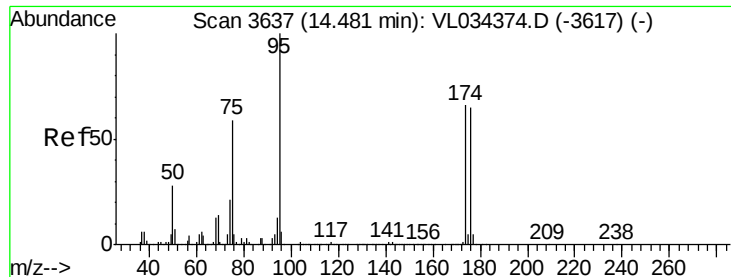
Ion Ratio Lower Upper

117 100

82 71.3 57.5 86.3

119 32.7 25.4 38.2

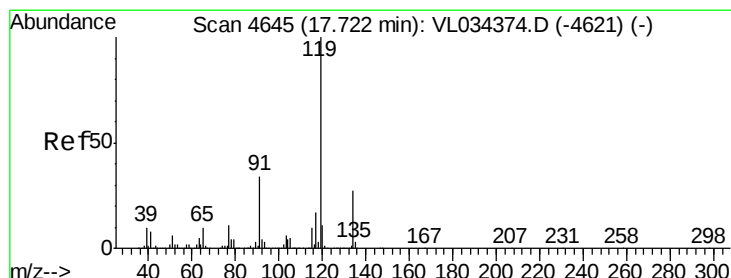
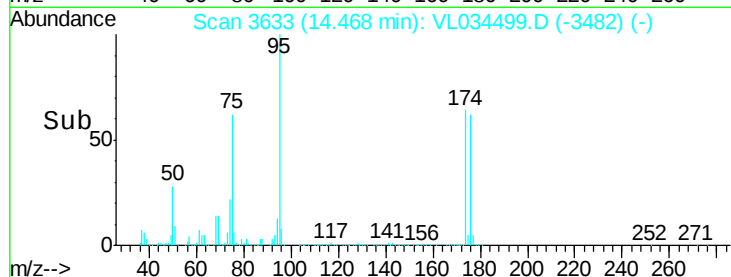
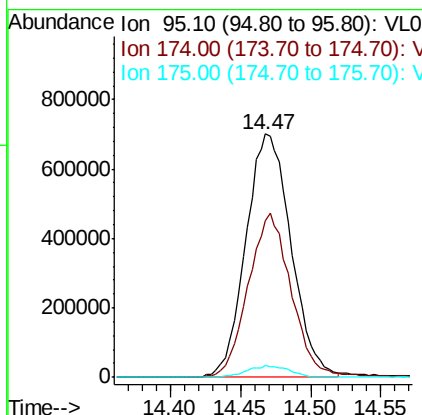
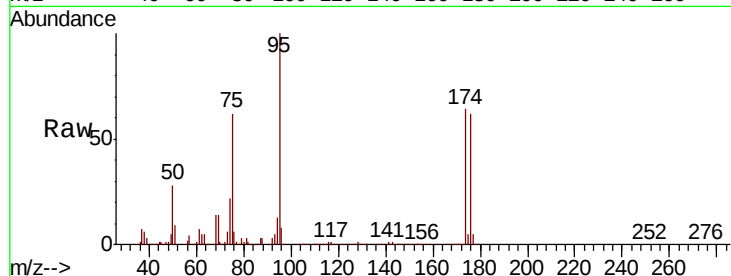




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.251 ppbv
 RT: 14.47 min Scan# 3633
 Delta R.T. -0.01 min
 Lab File: VL034499.D
 Acq: 17 Dec 2019 19:14

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAH-DUP

Tgt Ion: 95 Resp: 1566765
 Ion Ratio Lower Upper
 95 100
 174 65.1 52.2 78.2
 175 4.7 3.8 5.8



#69
 p-Isopropyltoluene
 Concen: 0.514 ppbv
 RT: 18.01 min Scan# 4735
 Delta R.T. 0.29 min
 Lab File: VL034499.D
 Acq: 17 Dec 2019 19:14

Tgt Ion: 119 Resp: 170726
 Ion Ratio Lower Upper
 119 100
 134 27.7 20.6 31.0
 91 311.8 26.3 39.5#

