

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL031720\
 Data File : VL034922.D
 Acq On : 17 Mar 2020 19:24
 Operator : SY/AP
 Sample : L1952-03DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2DUP

Quant Time: Mar 18 07:00:10 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030920AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
 QLast Update : Mon Mar 09 16:42:53 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	972804	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2068244	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	1999525	10.00	ppbv	0.00

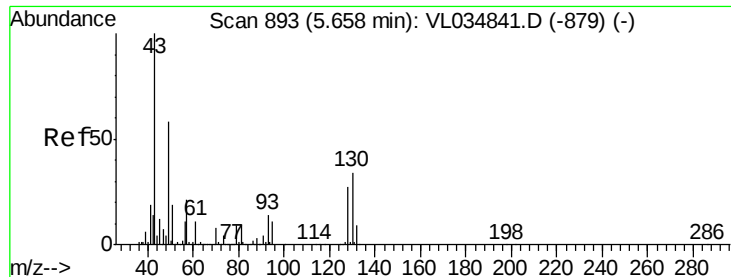
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	1729913	11.09	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.01	85	85450	0.641	ppbv	96
3) Chlorodifluoromethane	2.92	51	222578	2.048	ppbv #	68
4) Chloromethane	3.10	50	34247	0.558	ppbv	91
9) Propene	3.16	41	106536	2.053	ppbv	87
10) Heptane	8.12	43	4316	0.034	ppbv #	28
11) Trichlorofluoromethane	3.92	101	34690	0.245	ppbv #	81
13) Ethanol	3.58	45	2886674	183.006	ppbv	95
15) Acetone	3.81	43	1692109	13.420	ppbv	99
16) 1,3-Butadiene	3.27	39	5154	0.090	ppbv #	57
19) Isopropyl Alcohol	3.95	45	194109	2.438	ppbv #	1
20) Methylene Chloride	4.31	84	116618	2.925	ppbv	93
23) Vinyl Acetate	5.04	43	48646	0.261	ppbv #	69
25) Ethyl Acetate	5.67	43	212620	0.947	ppbv #	94
26) Hexane	5.67	57	196165	2.028	ppbv #	56
34) 2-Butanone	5.22	43	380151	2.766	ppbv	99
36) Benzene	6.89	78	59471	0.323	ppbv	96
37) 1,2-Dichloroethane	6.30	62	93957	0.904	ppbv	98
39) 1,2-Dichloropropane	7.17	63	557755	7.636	ppbv #	23
41) Tetrahydrofuran	6.04	42	117977	1.586	ppbv	98
44) 2,2,4-Trimethylpentane	7.87	57	20385	0.065	ppbv #	35
53) Toluene	9.82	91	376949	1.771	ppbv	99
58) Ethyl Benzene	12.98	91	24548	0.091	ppbv	99
59) m/p-Xylene	13.01	91	10757	0.047	ppbv #	30
60) o-Xylene	13.72	91	21962	0.099	ppbv	75
74) 1,2,4-Trimethylbenzene	16.80	105	11149	0.044	ppbv #	46

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSV0A_L\DATA\VL031720\
Data File : VL034922.D
Acq On    : 17 Mar 2020   19:24
Operator  : SY/AP
Sample    : L1952-03DUP
Misc      : 400ml/MSV0A_L
ALS Vial  : 1    Sample Multiplier: 1
```



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

IA-2DUP

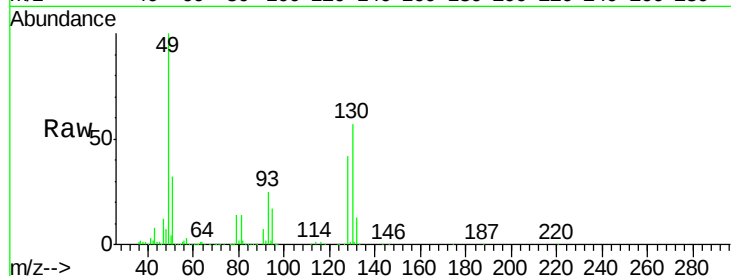
Tgt Ion: 49 Resp: 972804

Ion Ratio Lower Upper

49 100

128 44.9 23.4 70.3

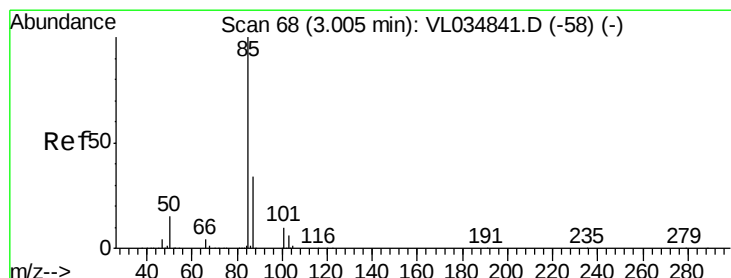
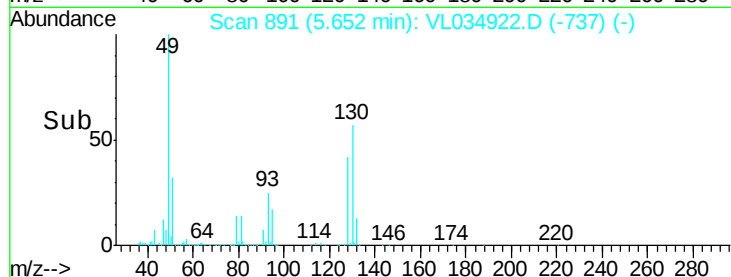
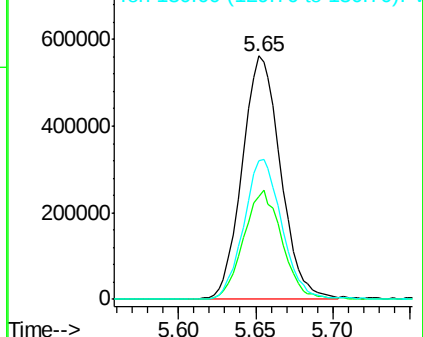
130 57.3 30.0 90.0



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: 0.641 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.00 min

Lab File: VL034922.D

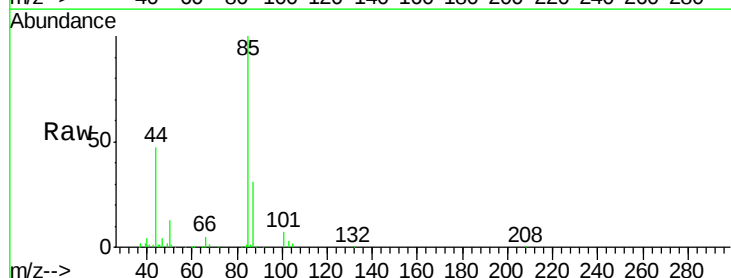
Acq: 17 Mar 2020 19:24

Tgt Ion: 85 Resp: 85450

Ion Ratio Lower Upper

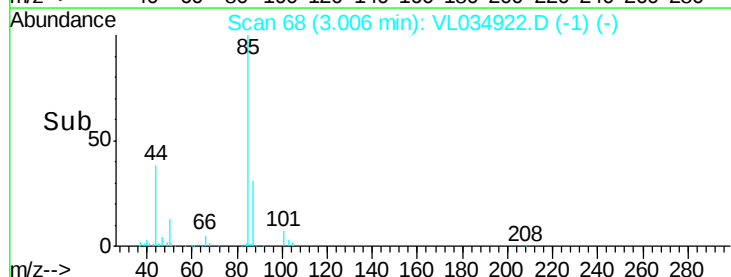
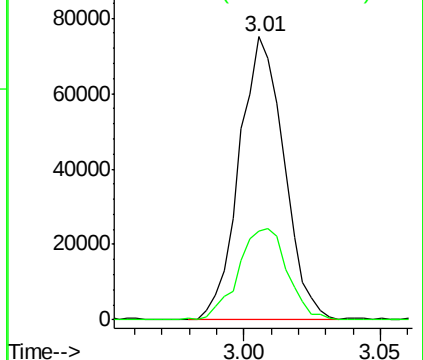
85 100

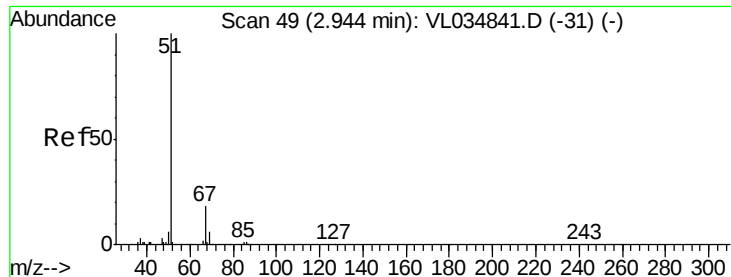
87 31.5 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.048 ppbv

RT: 2.92 min Scan# 41

Delta R.T. -0.03 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

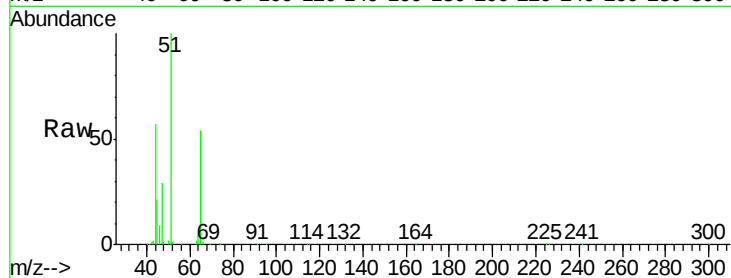
IA-2DUP

Tgt Ion: 51 Resp: 222578

Ion Ratio Lower Upper

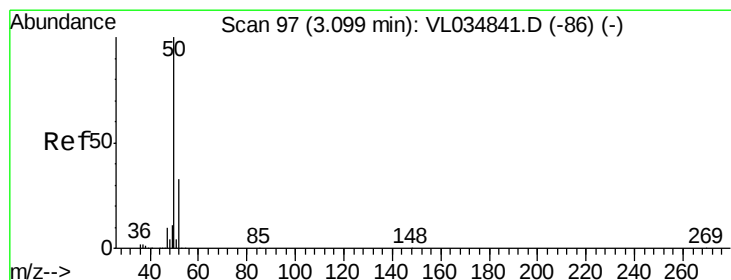
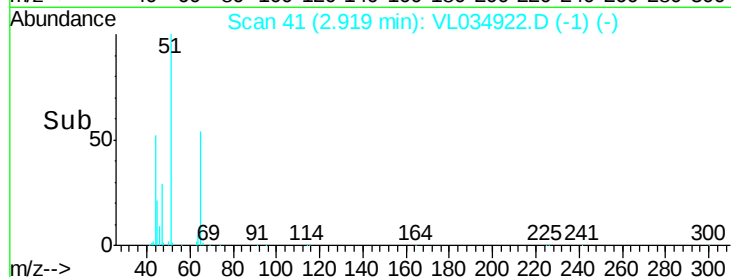
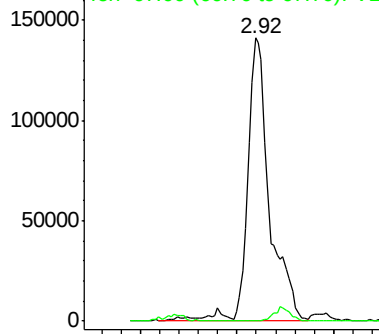
51 100

67 3.8 14.3 21.5#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.558 ppbv

RT: 3.10 min Scan# 97

Delta R.T. 0.00 min

Lab File: VL034922.D

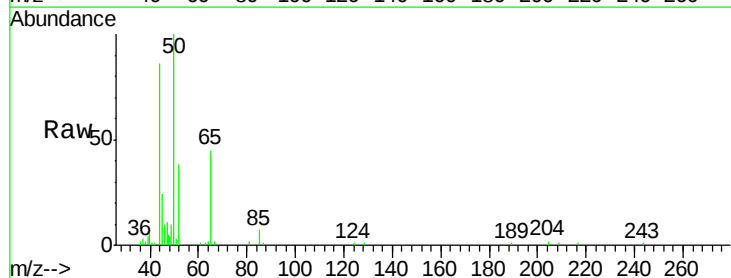
Acq: 17 Mar 2020 19:24

Tgt Ion: 50 Resp: 34247

Ion Ratio Lower Upper

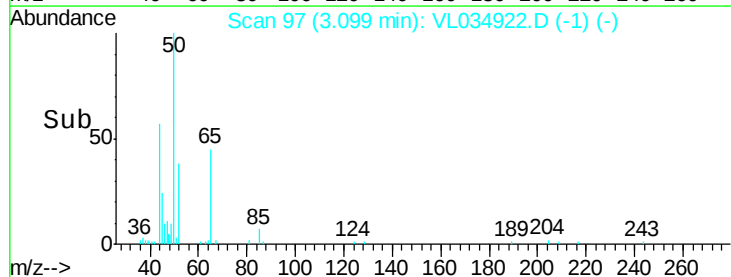
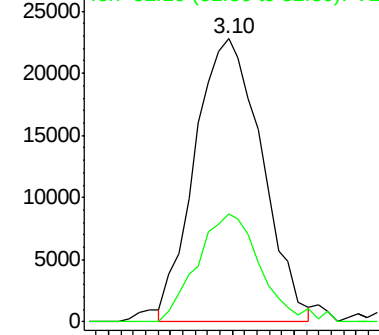
50 100

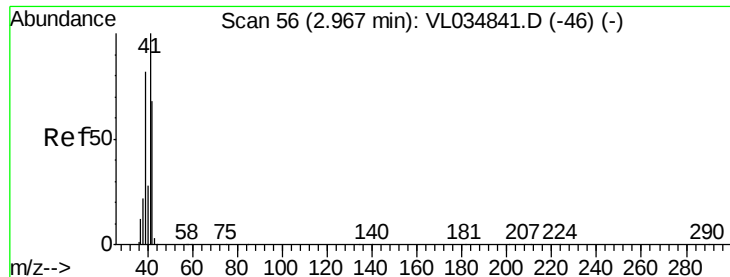
52 38.4 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.053 ppbv

RT: 3.16 min Scan# 117

Delta R.T. 0.20 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

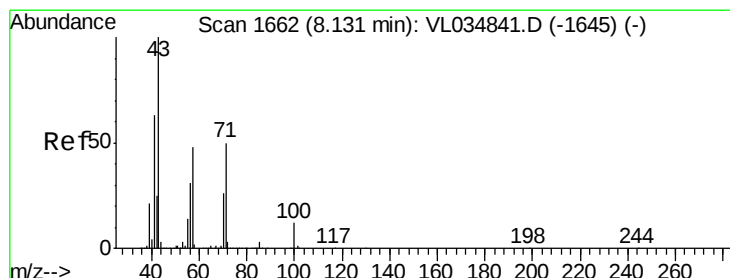
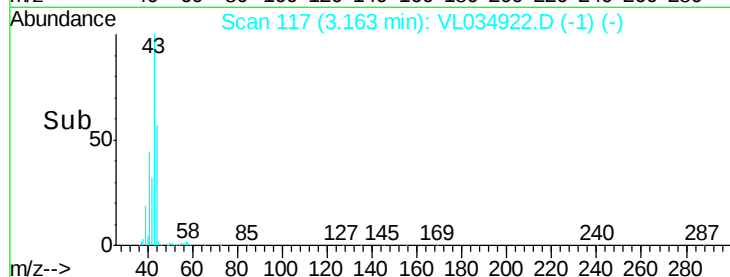
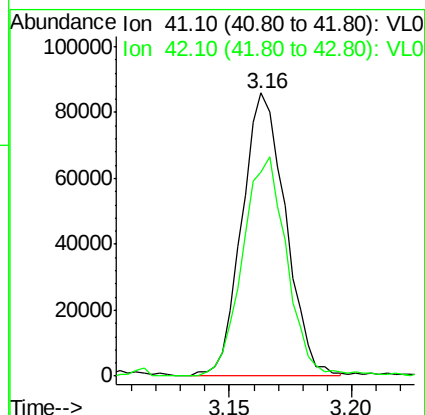
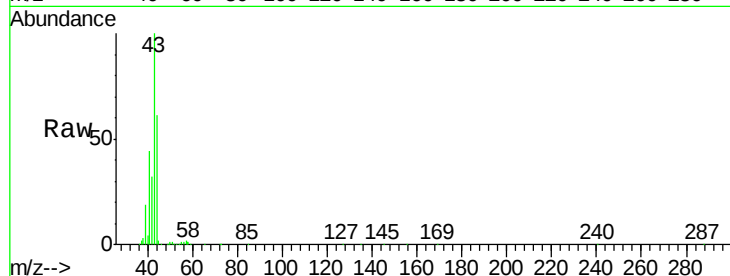
IA-2DUP

Tgt Ion: 41 Resp: 106536

Ion Ratio Lower Upper

41 100

42 79.3 55.2 82.8



#10

Heptane

Concen: 0.034 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. -0.01 min

Lab File: VL034922.D

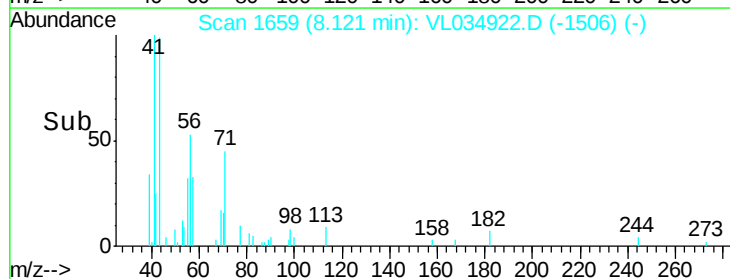
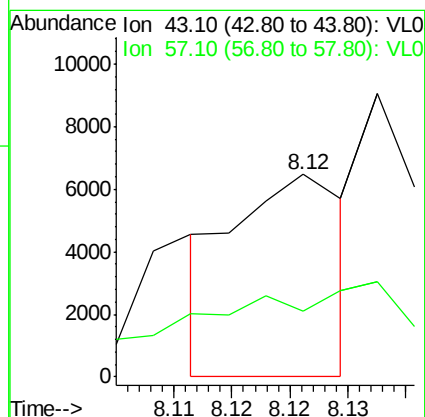
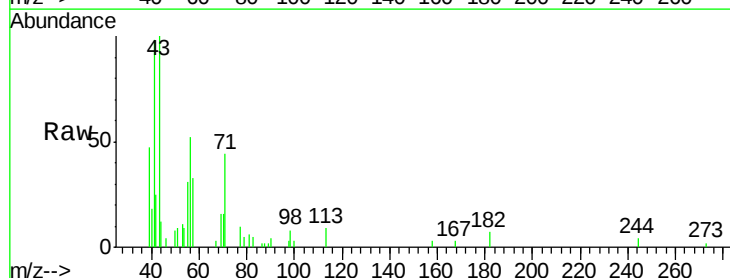
Acq: 17 Mar 2020 19:24

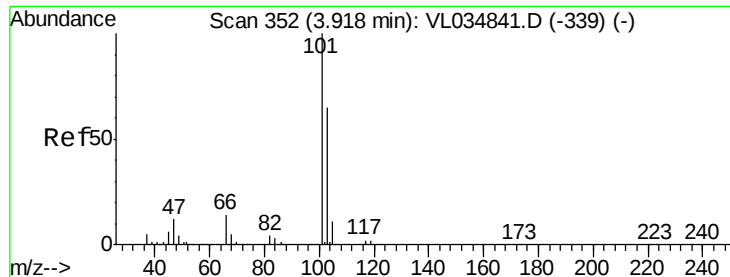
Tgt Ion: 43 Resp: 4316

Ion Ratio Lower Upper

43 100

57 0.0 39.7 59.5#

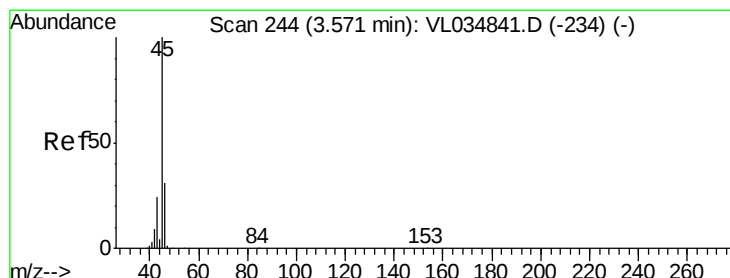
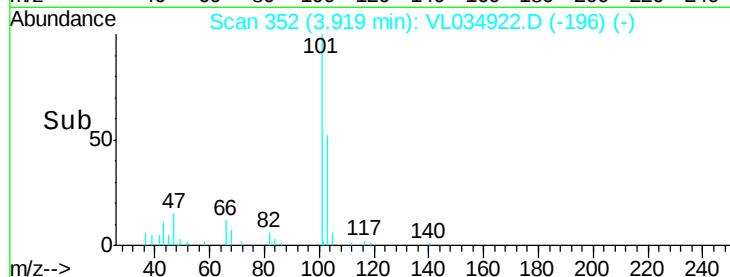
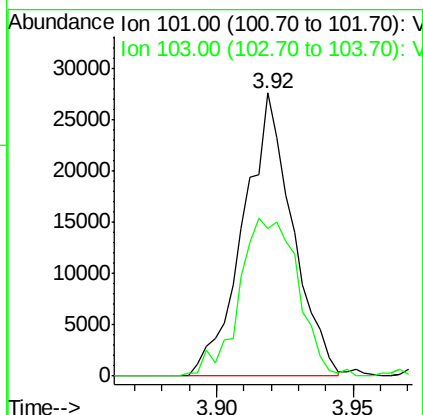
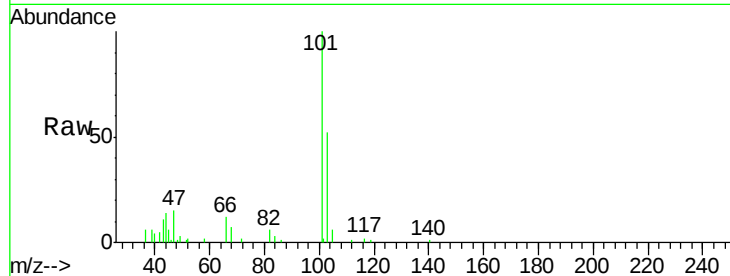




#11
 Trichlorofluoromethane
 Concen: 0.245 ppbv
 RT: 3.92 min Scan# 352
 Delta R.T. 0.00 min
 Lab File: VL034922.D
 Acq: 17 Mar 2020 19:24

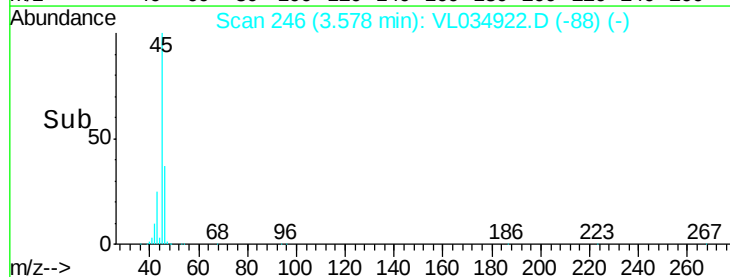
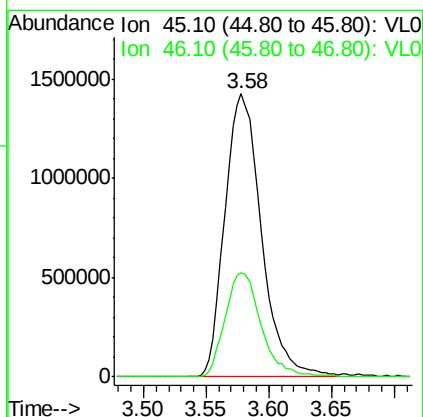
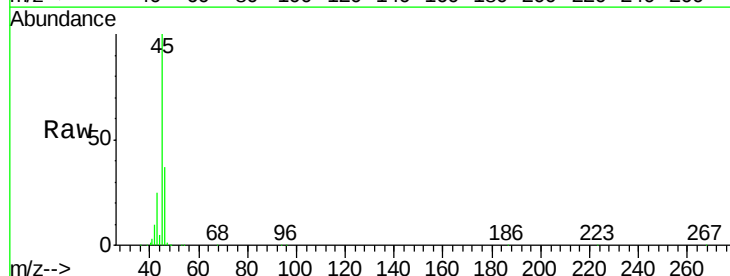
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2DUP

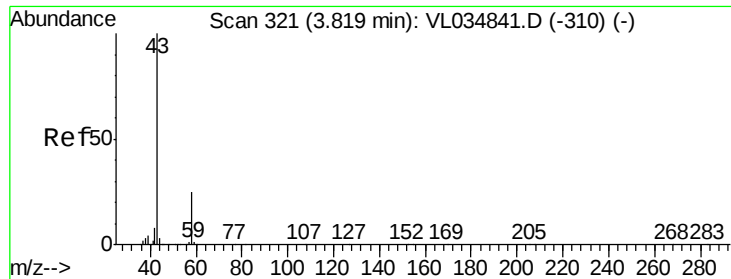
Tgt Ion: 101 Resp: 34690
 Ion Ratio Lower Upper
 101 100
 103 50.1 51.8 77.8#



#13
 Ethanol
 Concen: 183.006 ppbv
 RT: 3.58 min Scan# 246
 Delta R.T. 0.01 min
 Lab File: VL034922.D
 Acq: 17 Mar 2020 19:24

Tgt Ion: 45 Resp: 2886674
 Ion Ratio Lower Upper
 45 100
 46 36.8 16.0 64.0





#15

Acetone

Concen: 13.420 ppbv

RT: 3.81 min Scan# 319

Delta R.T. -0.01 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

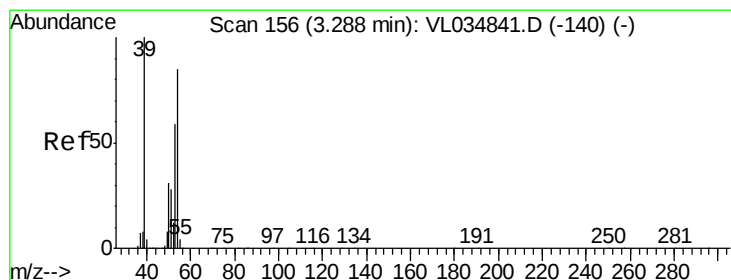
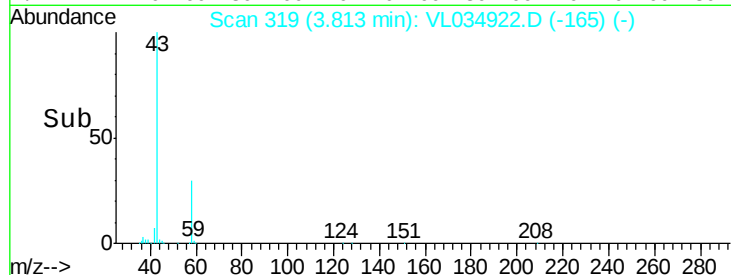
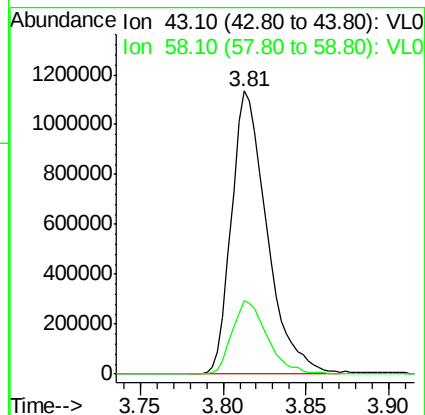
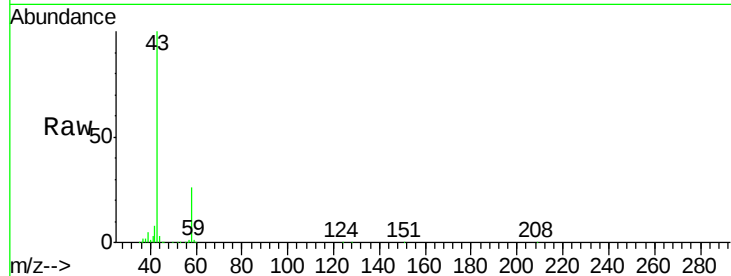
IA-2DUP

Tgt Ion: 43 Resp: 1692109

Ion Ratio Lower Upper

43 100

58 26.0 21.0 31.6



#16

1,3-Butadiene

Concen: 0.090 ppbv

RT: 3.27 min Scan# 150

Delta R.T. -0.02 min

Lab File: VL034922.D

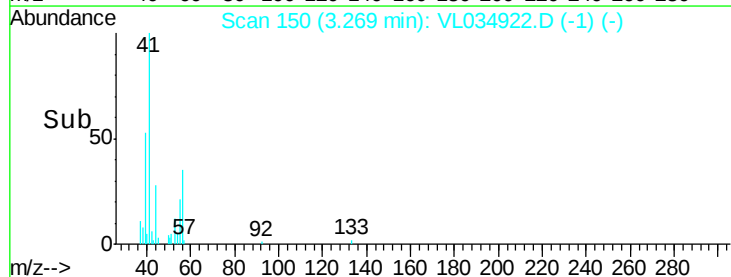
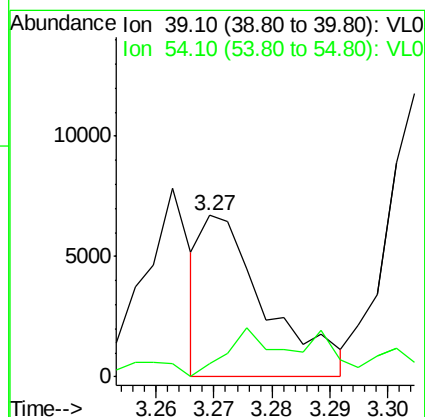
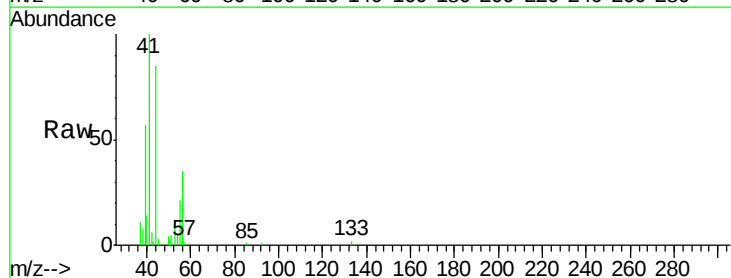
Acq: 17 Mar 2020 19:24

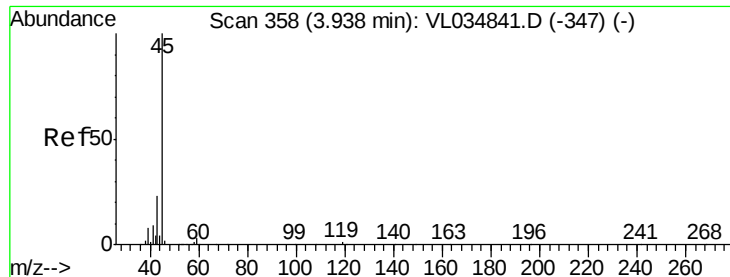
Tgt Ion: 39 Resp: 5154

Ion Ratio Lower Upper

39 100

54 43.0 65.0 97.6#





#19

Isopropyl Alcohol

Concen: 2.438 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.02 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampled :

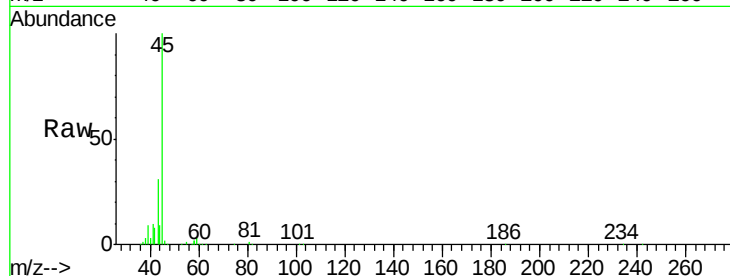
IA-2DUP

Tgt Ion: 45 Resp: 194109

Ion Ratio Lower Upper

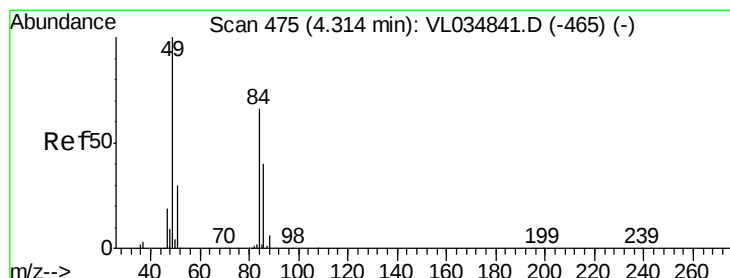
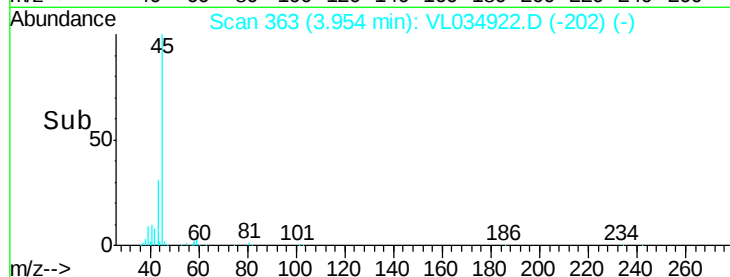
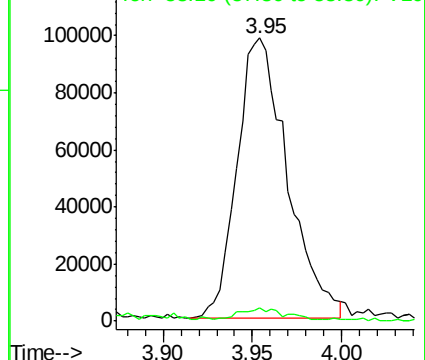
45 100

58 225.0 30.5 45.7#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 2.925 ppbv

RT: 4.31 min Scan# 475

Delta R.T. 0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Tgt Ion: 84 Resp: 116618

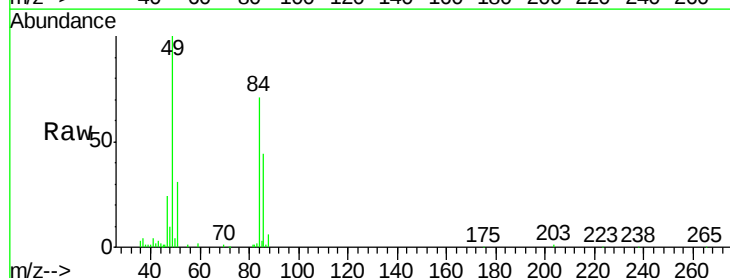
Ion Ratio Lower Upper

84 100

49 139.7 121.5 182.3

51 42.5 36.6 55.0

86 62.1 48.2 72.2

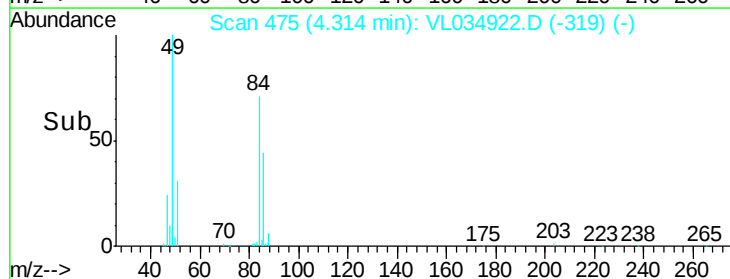
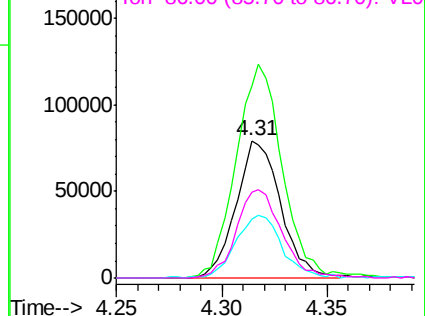


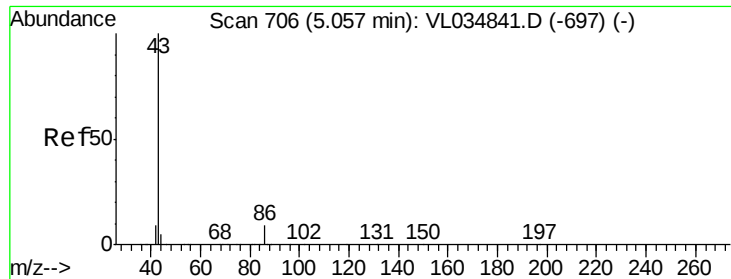
Abundance Ion 84.00 (83.70 to 84.70): VL0

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: 0.261 ppbv

RT: 5.04 min Scan# 702

Delta R.T. -0.01 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

IA-2DUP

Tgt Ion: 43 Resp: 48646

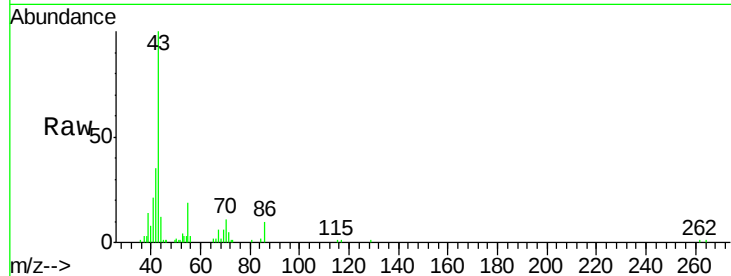
Ion Ratio Lower Upper

43 100

86 10.1 6.3 9.5#

42 33.4 7.8 11.8#

44 7.3 4.0 6.0#

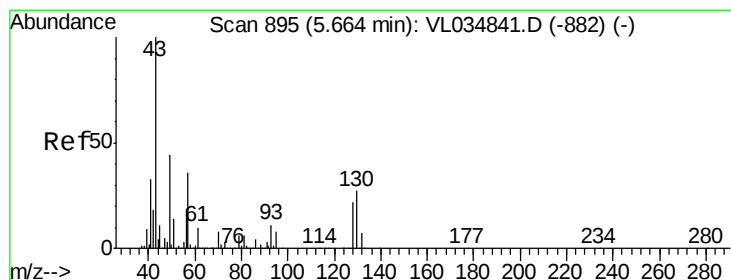
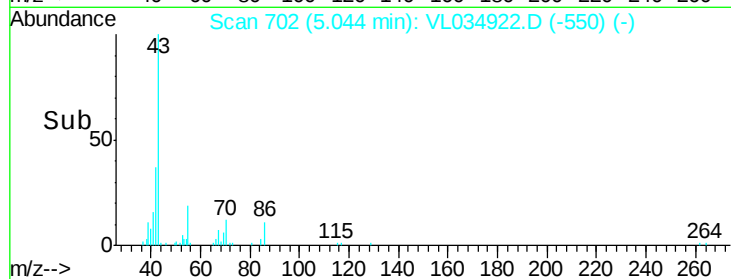
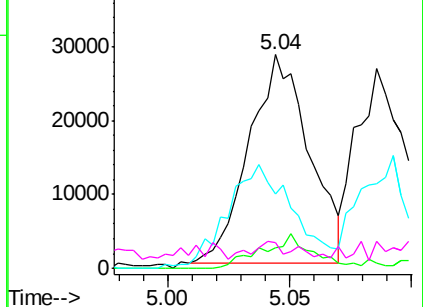


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.947 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Tgt Ion: 43 Resp: 212620

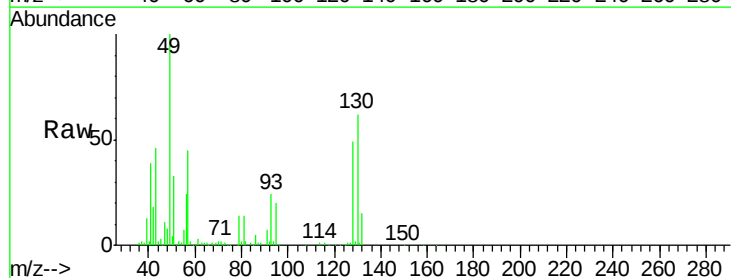
Ion Ratio Lower Upper

43 100

45 10.1 8.2 12.2

61 5.9 7.8 11.6#

70 4.9 5.8 8.8#

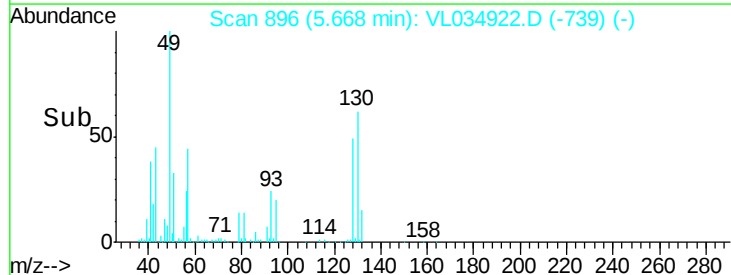
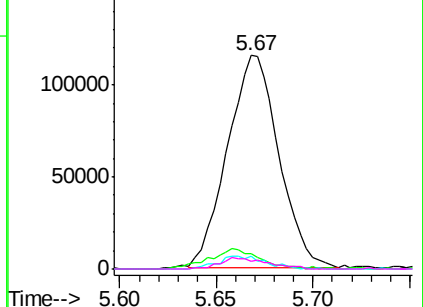


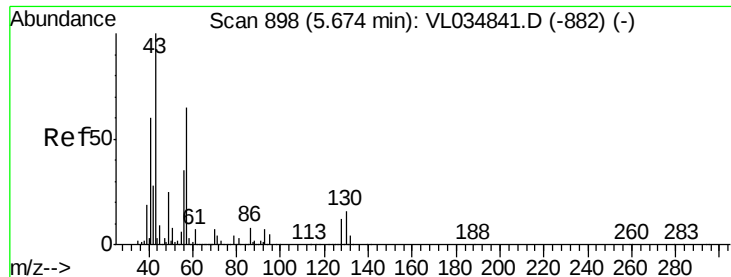
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

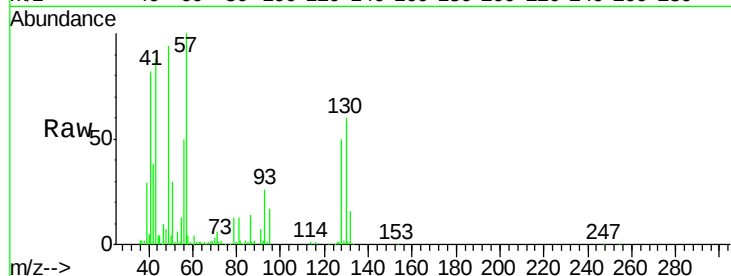




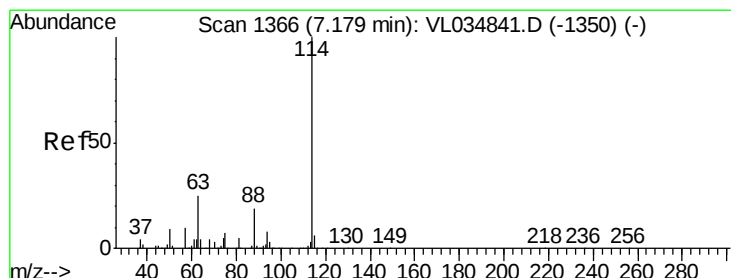
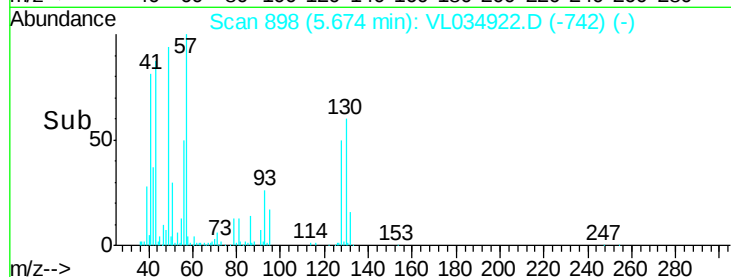
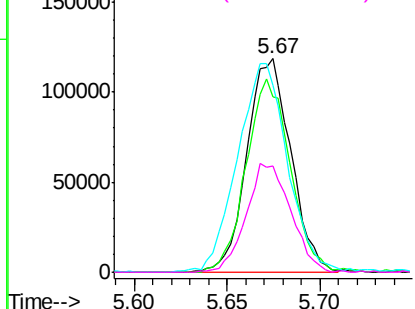
#26
Hexane
Concen: 2.028 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.00 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

Instrument :
MSVOA_L
ClientSampleId :
IA-2DUP

Tgt Ion:	57	Resp:	196165
Ion	Ratio	Lower	Upper
57	100		
41	91.7	72.6	109.0
43	113.4	183.8	275.6#
56	51.7	41.9	62.9

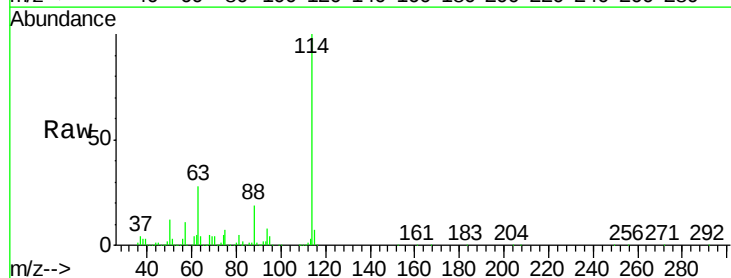


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

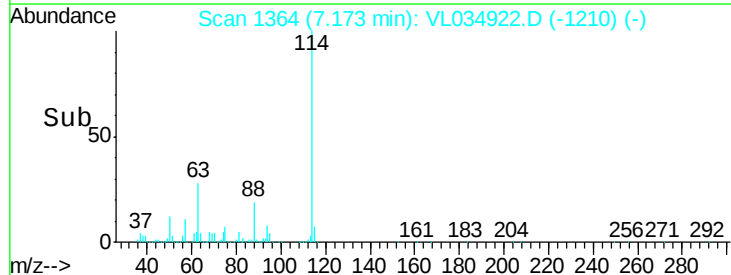
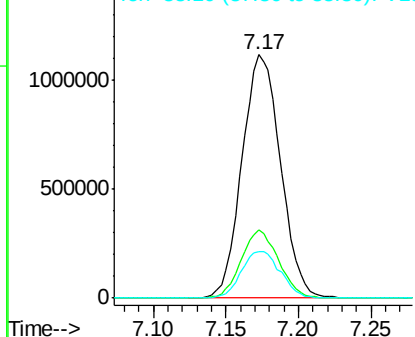


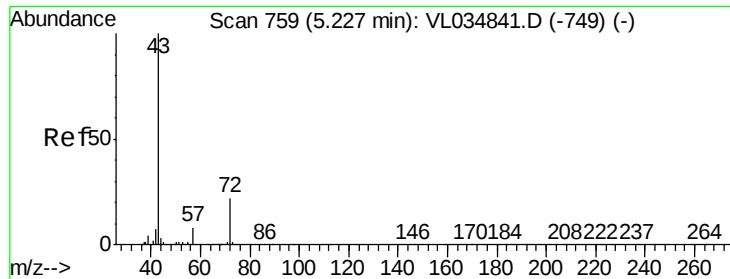
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. -0.01 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

Tgt Ion:	114	Resp:	2068244
Ion	Ratio	Lower	Upper
114	100		
63	27.2	20.6	31.0
88	19.5	15.0	22.6



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

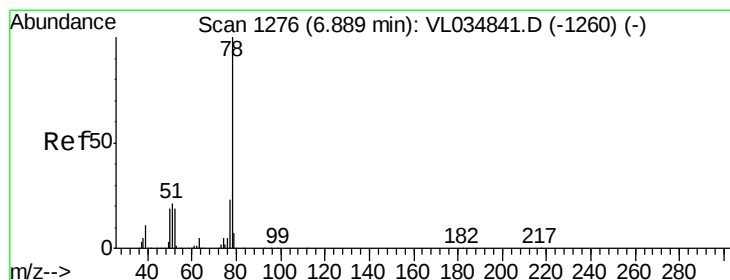
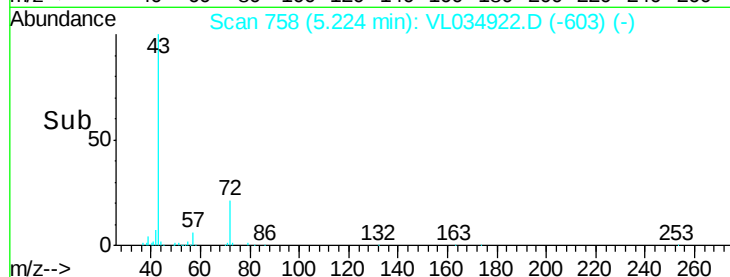
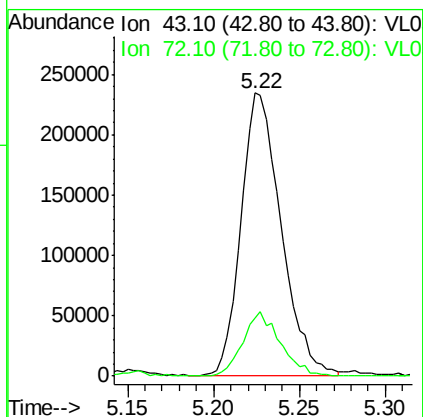
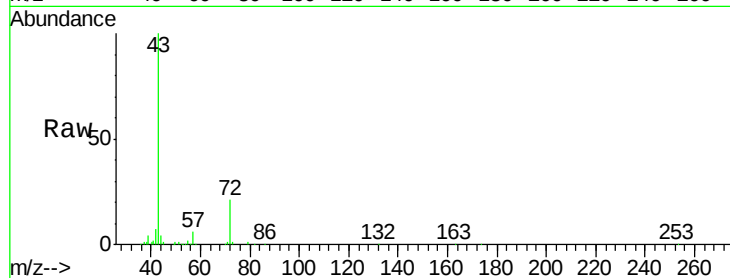




#34
2-Butanone
Concen: 2.766 ppbv
RT: 5.22 min Scan# 758
Delta R.T. -0.00 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

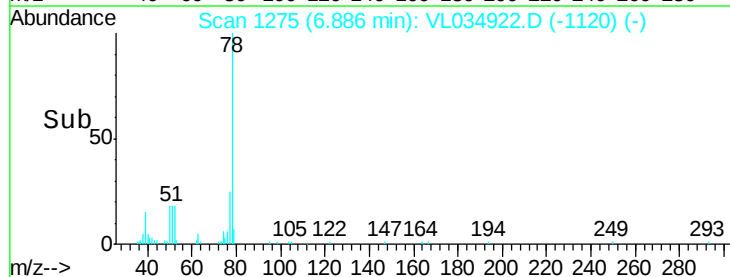
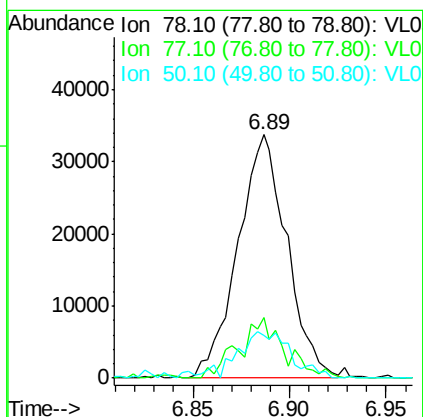
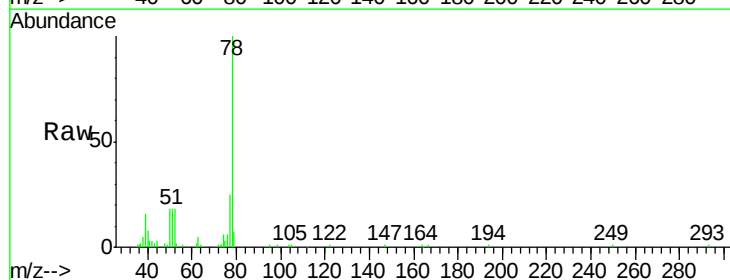
Instrument :
MSVOA_L
ClientSampleId :
IA-2DUP

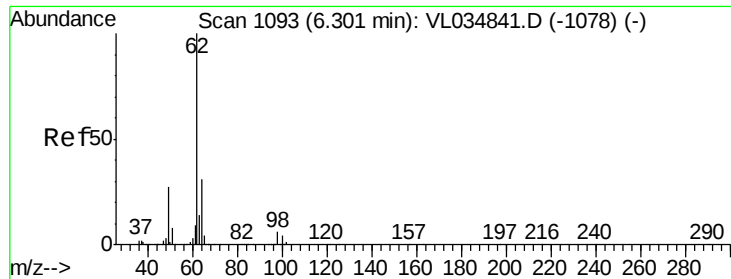
Tgt Ion: 43 Resp: 380151
Ion Ratio Lower Upper
43 100
72 21.5 17.6 26.4



#36
Benzene
Concen: 0.323 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.00 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

Tgt Ion: 78 Resp: 59471
Ion Ratio Lower Upper
78 100
77 24.9 18.2 27.2
50 17.7 15.2 22.8





#37

1,2-Dichloroethane

Concen: 0.904 ppbv

RT: 6.30 min Scan# 1092

Delta R.T. -0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

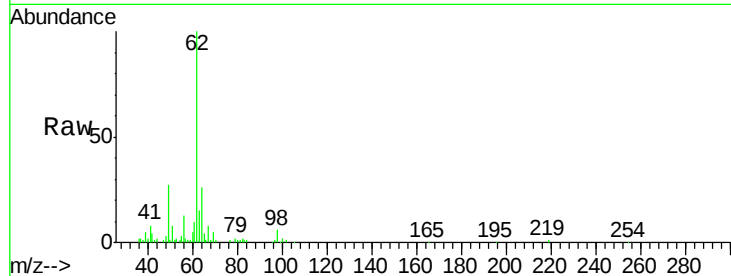
IA-2DUP

Tgt Ion: 62 Resp: 93957

Ion Ratio Lower Upper

62 100

98 7.0 5.2 7.8



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

6.30

60000

50000

40000

30000

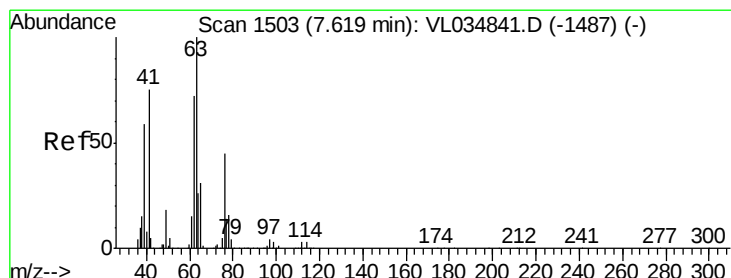
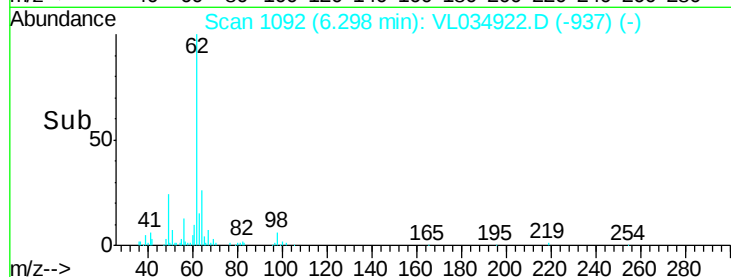
20000

10000

0

6.25 6.30 6.35

Time-->



#39

1,2-Dichloropropane

Concen: 7.636 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.45 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

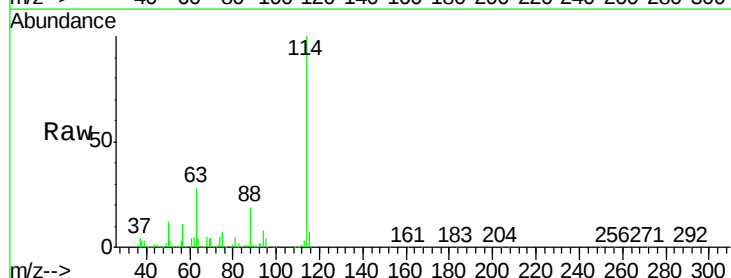
Tgt Ion: 63 Resp: 557755

Ion Ratio Lower Upper

63 100

41 0.0 59.8 89.8#

62 17.1 57.6 86.4#



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

7.17

400000

300000

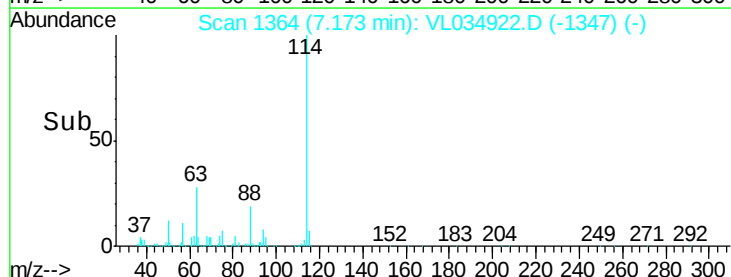
200000

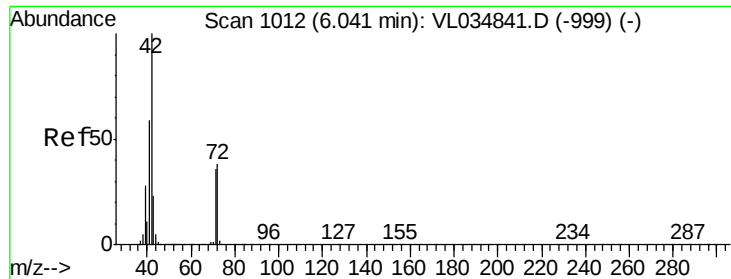
100000

0

7.10 7.15 7.20 7.25

Time-->





#41

Tetrahydrofuran

Concen: 1.586 ppbv

RT: 6.04 min Scan# 1013

Delta R.T. 0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

IA-2DUP

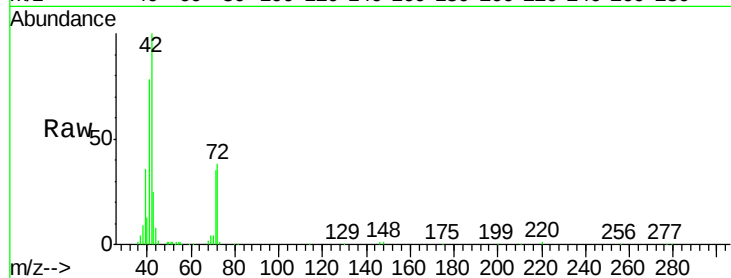
Tgt Ion: 42 Resp: 117977

Ion Ratio Lower Upper

42 100

72 37.7 30.8 46.2

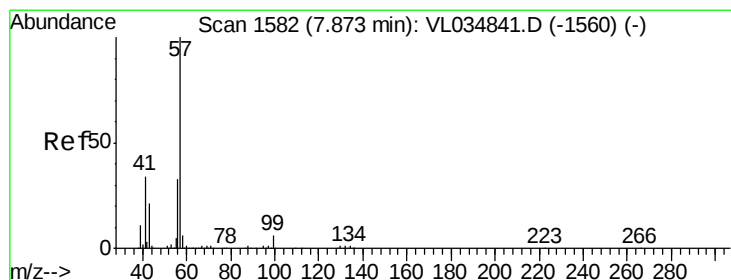
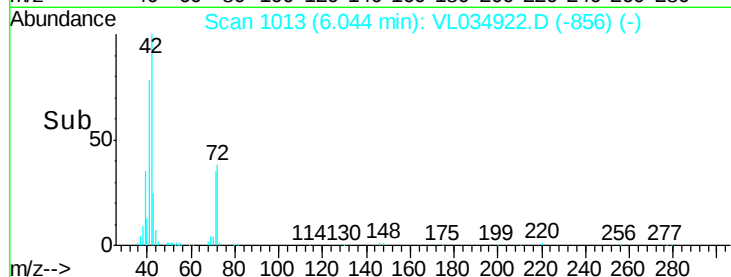
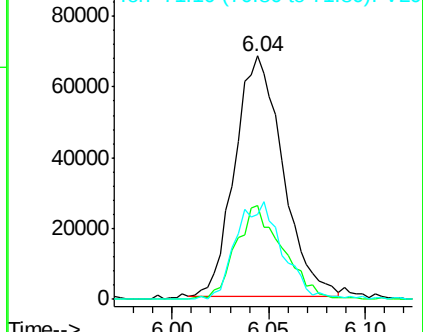
71 39.6 30.1 45.1



Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.065 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

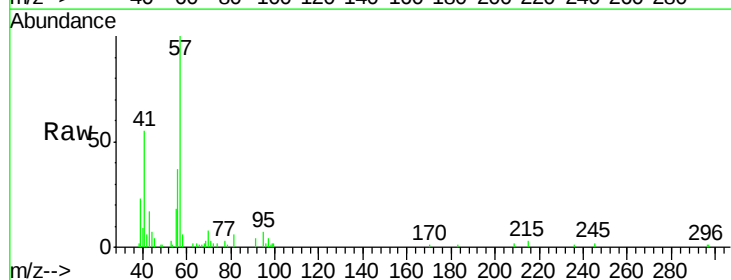
Tgt Ion: 57 Resp: 20385

Ion Ratio Lower Upper

57 100

41 74.8 26.2 39.4#

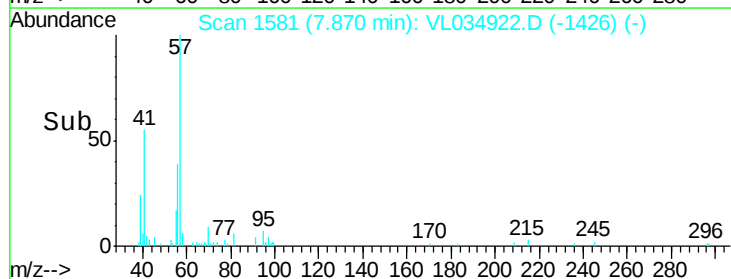
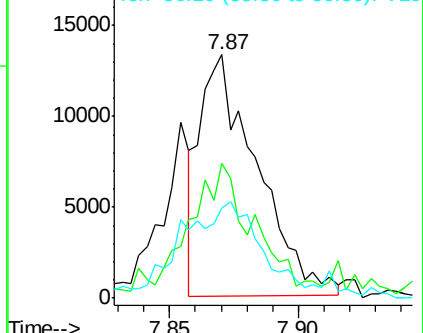
56 61.3 25.0 37.4#

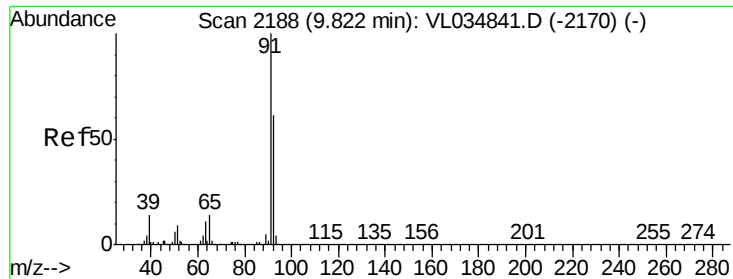


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 1.771 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. -0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

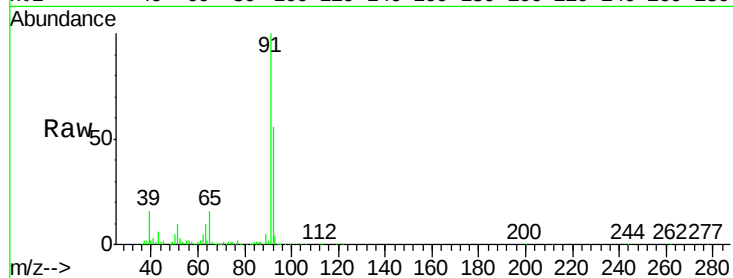
IA-2DUP

Tgt Ion: 91 Resp: 376949

Ion Ratio Lower Upper

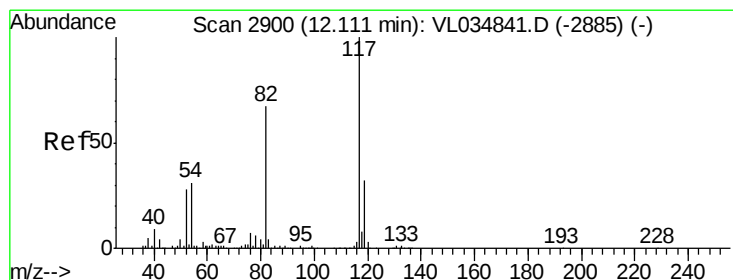
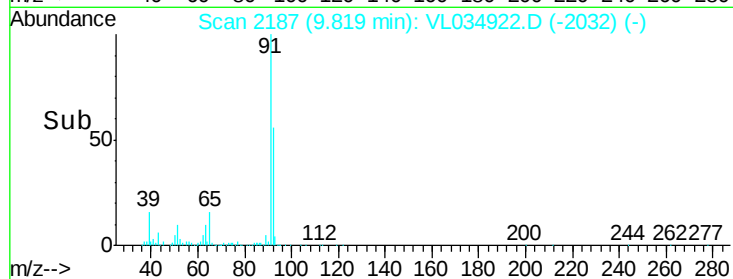
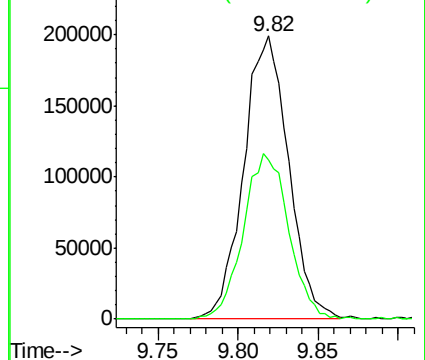
91 100

92 59.9 48.6 72.8



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: 12.11 min Scan# 2899

Delta R.T. -0.00 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

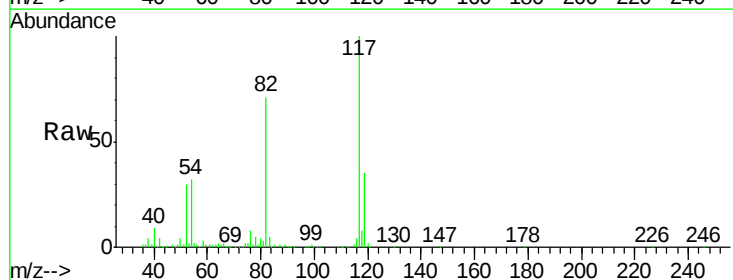
Tgt Ion: 117 Resp: 1999525

Ion Ratio Lower Upper

117 100

82 70.8 51.1 76.7

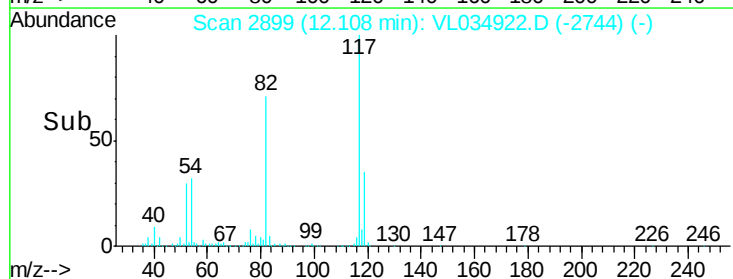
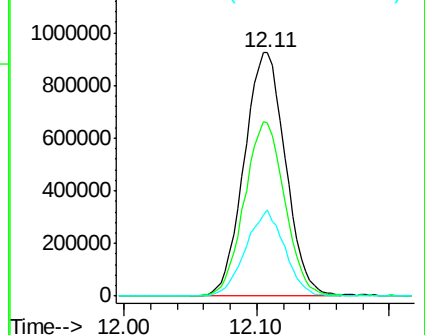
119 33.6 27.3 40.9

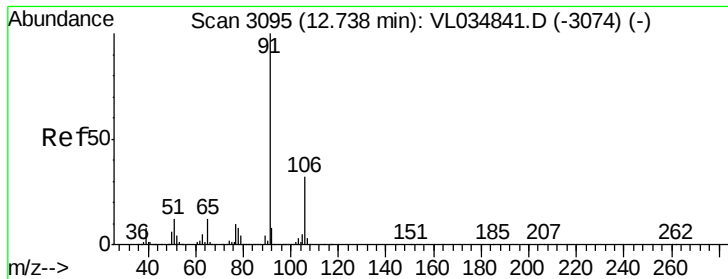


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.091 ppbv

RT: 12.98 min Scan# 3170

Delta R.T. 0.24 min

Lab File: VL034922.D

Acq: 17 Mar 2020 19:24

Instrument :

MSVOA_L

ClientSampleId :

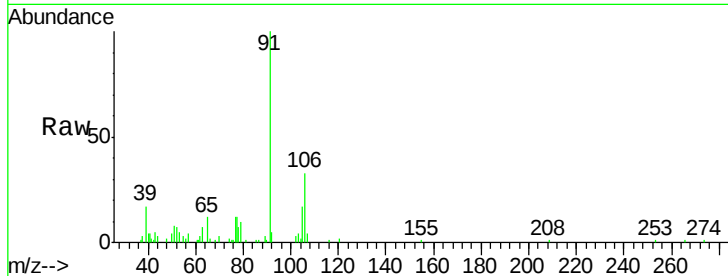
IA-2DUP

Tgt Ion: 91 Resp: 24548

Ion Ratio Lower Upper

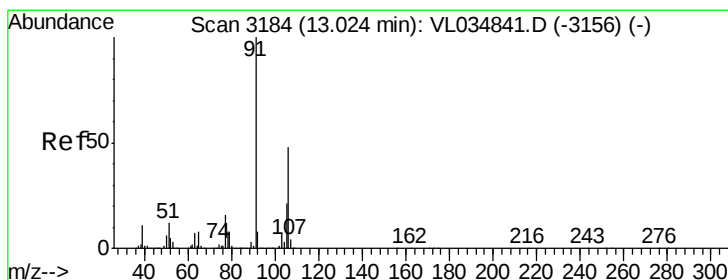
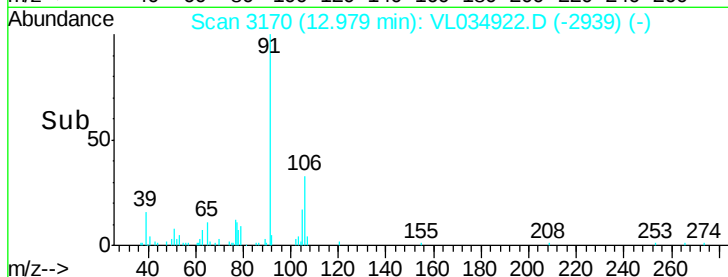
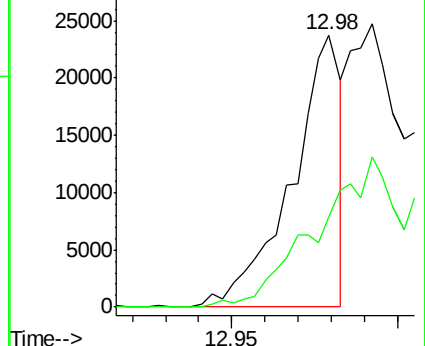
91 100

106 32.9 25.8 38.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 13.01 min Scan# 3181

Delta R.T. -0.01 min

Lab File: VL034922.D

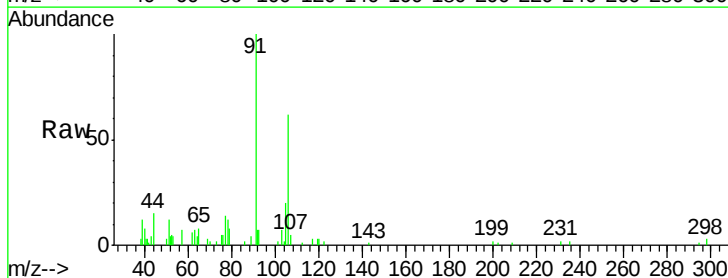
Acq: 17 Mar 2020 19:24

Tgt Ion: 91 Resp: 10757

Ion Ratio Lower Upper

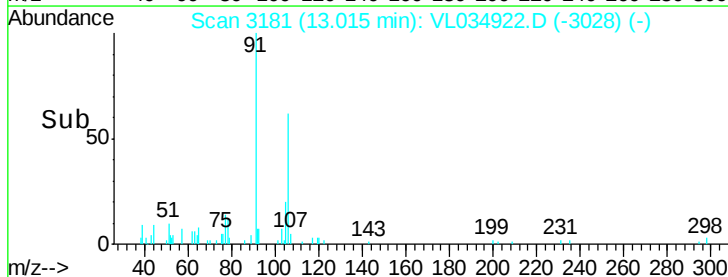
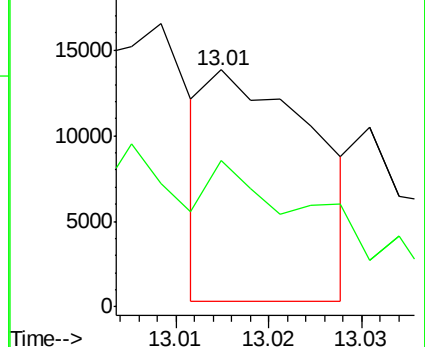
91 100

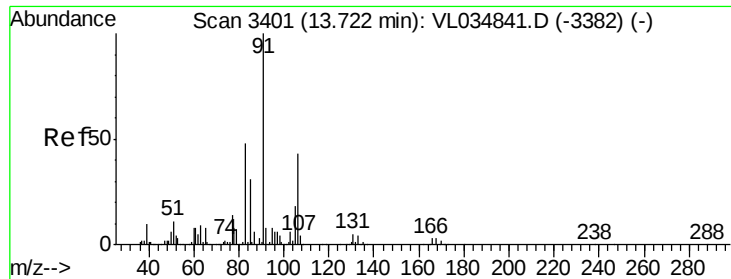
106 0.0 37.1 55.7#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

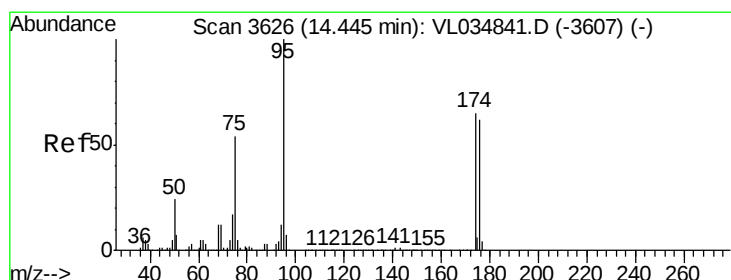
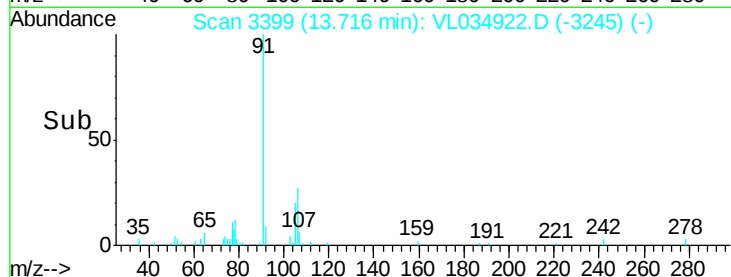
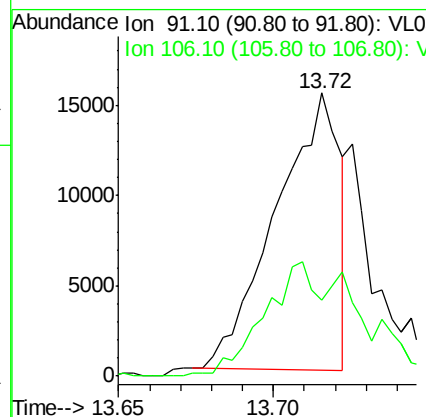
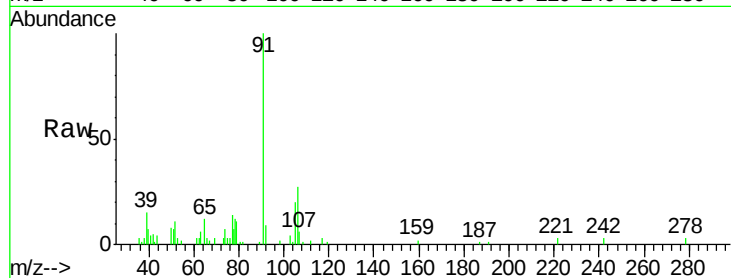




#60
o-Xylene
Concen: 0.099 ppbv
RT: 13.72 min Scan# 3399
Delta R.T. -0.01 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

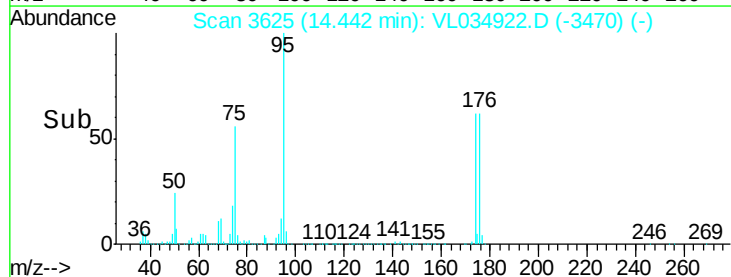
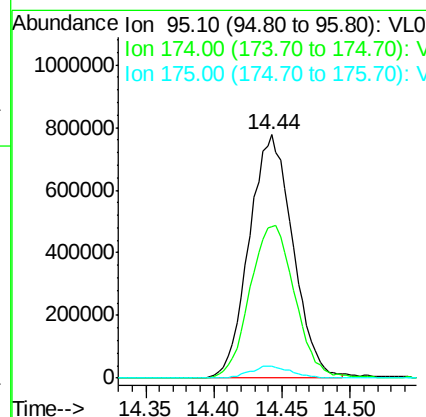
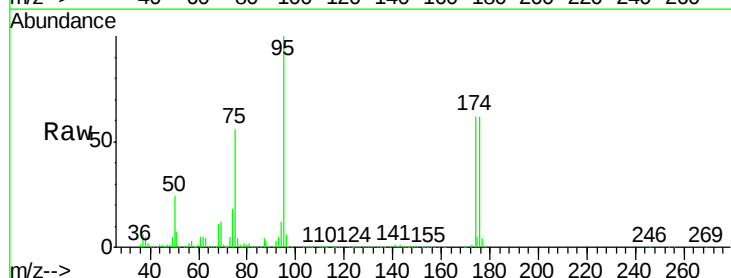
Instrument :
MSVOA_L
ClientSampleId :
IA-2DUP

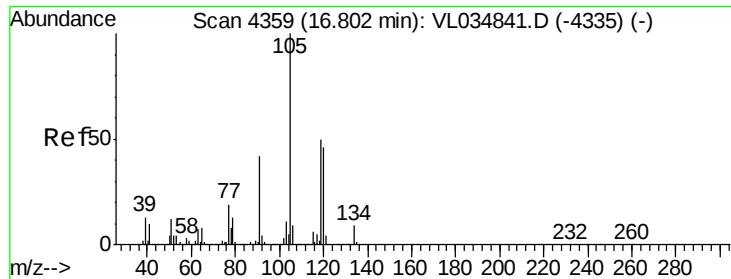
Tgt Ion: 91 Resp: 21962
Ion Ratio Lower Upper
91 100
106 61.1 22.5 67.5



#68
1-Bromo-4-Fluorobenzene
Concen: 11.094 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. -0.00 min
Lab File: VL034922.D
Acq: 17 Mar 2020 19:24

Tgt Ion: 95 Resp: 1729913
Ion Ratio Lower Upper
95 100
174 65.0 55.2 82.8
175 4.7 4.3 6.5





#74
 1,2,4-Trimethylbenzene
 Concen: 0.044 ppbv
 RT: 16.80 min Scan# 4358
 Delta R.T. -0.00 min
 Lab File: VL034922.D
 Acq: 17 Mar 2020 19:24

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2DUP

Tgt Ion:105 Resp: 11149
 Ion Ratio Lower Upper
 105 100
 120 7.8 37.0 55.4#
 91 0.0 33.8 50.6#
 77 25.6 15.4 23.0#

