

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL120219\
 Data File : VL034442.D
 Acq On : 3 Dec 2019 1:17
 Operator : SY/AP
 Sample : K6097-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1A

Quant Time: Dec 03 02:53:50 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	5.68	49	745448	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.21	114	1490625	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.15	117	1423244	10.00	ppbv	0.00

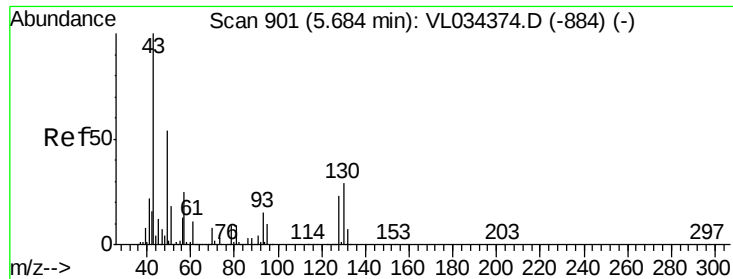
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	1258196	10.51	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	39561	0.293	ppbv	90
3) Chlorodifluoromethane	2.96	51	52787	0.568	ppbv #	80
4) Chloromethane	3.12	50	25034	0.456	ppbv	98
9) Propene	3.19	41	51771	1.254	ppbv	88
10) Heptane	8.15	43	7206	0.068	ppbv #	1
11) Trichlorofluoromethane	3.94	101	35814	0.267	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.49	101	6170	0.069	ppbv	86
13) Ethanol	3.59	45	748335	65.058	ppbv	96
15) Acetone	3.84	43	694379	6.505	ppbv	97
16) 1,3-Butadiene	3.32	39	1852	0.040	ppbv #	1
19) Isopropyl Alcohol	3.97	45	288357	4.214	ppbv #	97
20) Methylene Chloride	4.34	84	189146	4.997	ppbv	99
23) Vinyl Acetate	5.07	43	9568	0.069	ppbv #	1
25) Ethyl Acetate	5.70	43	113606	0.596	ppbv #	86
26) Hexane	5.70	57	211733	2.587	ppbv #	45
34) 2-Butanone	5.26	43	15148	0.123	ppbv #	63
36) Benzene	6.92	78	52229	0.351	ppbv	96
38) Trichloroethene	7.88	130	136343	2.230	ppbv	95
39) 1,2-Dichloropropane	7.21	63	446813	7.783	ppbv #	24
44) 2,2,4-Trimethylpentane	7.91	57	20000	0.073	ppbv #	17
53) Toluene	9.86	91	408124	2.411	ppbv	99
58) Ethyl Benzene	12.78	91	19920	0.090	ppbv	90
59) m/p-Xylene	13.06	91	35134	0.184	ppbv #	33
60) o-Xylene	13.76	91	16893	0.089	ppbv #	1
73) 1,3,5-Trimethylbenzene	16.07	105	11521	0.054	ppbv #	30
74) 1,2,4-Trimethylbenzene	16.83	105	83480	0.368	ppbv #	65
76) 1,4-Dichlorobenzene	17.22	146	5055	0.040	ppbv #	1

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL120219\  
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Acq On    : 3 Dec 2019 1:17  
Operator  : SY/AP  
Sample    : K6097-02  
Misc      : 400ml/MSVOA_L  
ALS Vial  : 1 Sample Multiplier: 1
```



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

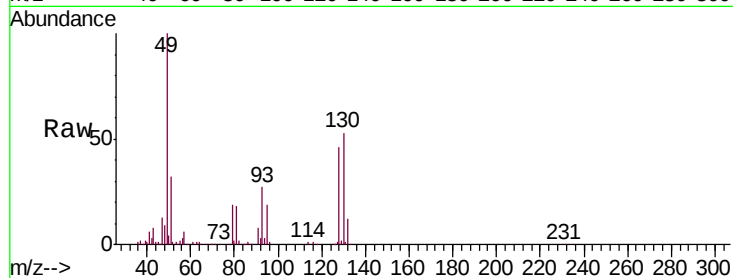
Tgt Ion: 49 Resp: 745448

Ion Ratio Lower Upper

49 100

128 43.6 21.8 65.3

130 55.0 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

5.68

400000

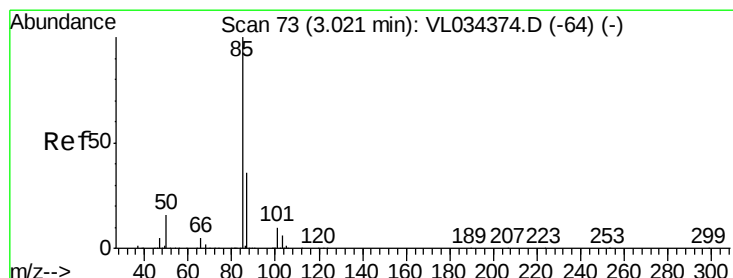
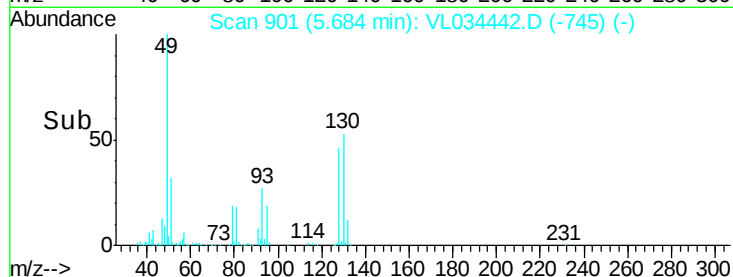
300000

200000

100000

0

Time--> 5.60 5.65 5.70 5.75



#2

Dichlorodifluoromethane

Concen: 0.293 ppbv

RT: 3.03 min Scan# 75

Delta R.T. 0.01 min

Lab File: VL034442.D

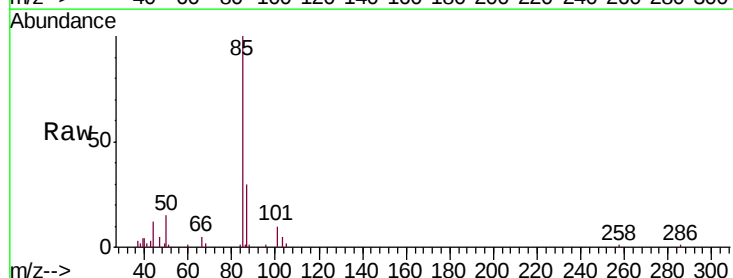
Acq: 3 Dec 2019 1:17

Tgt Ion: 85 Resp: 39561

Ion Ratio Lower Upper

85 100

87 29.9 28.5 42.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.03

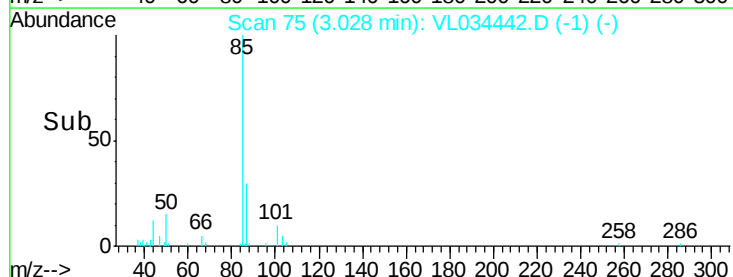
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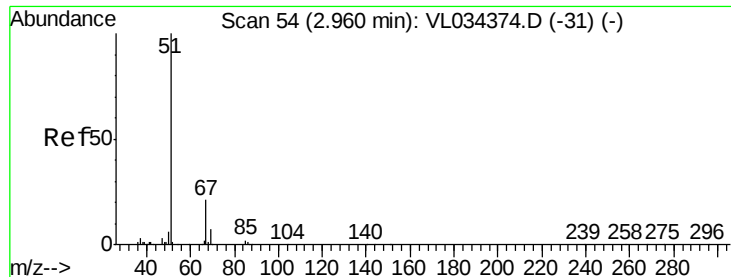
20000

10000

0

Time--> 3.00 3.02 3.04 3.06

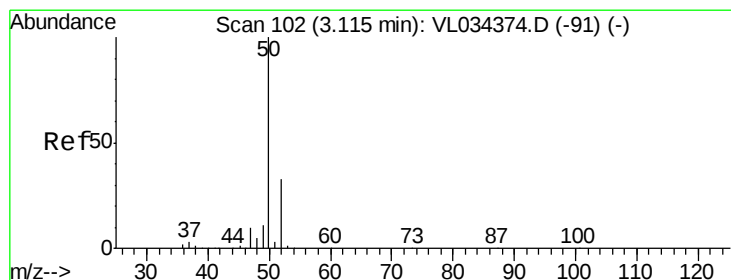
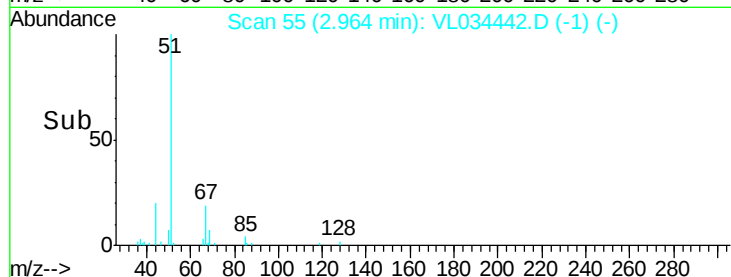
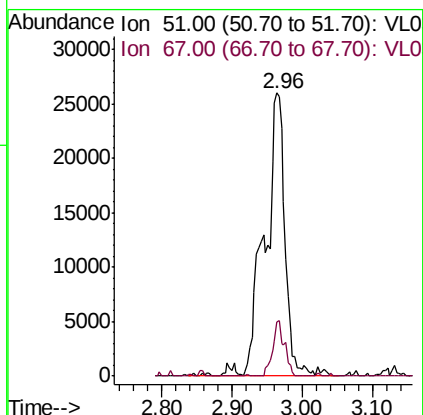
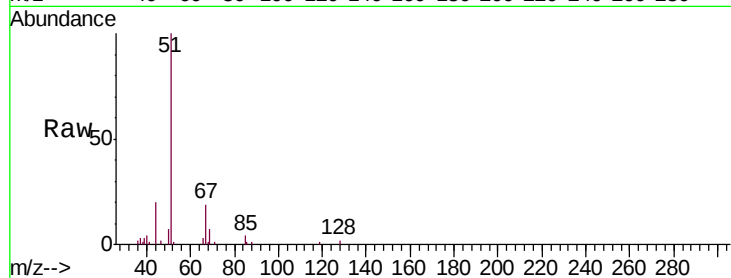




#3
Chlorodifluoromethane
Concen: 0.568 ppbv
RT: 2.96 min Scan# 55
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

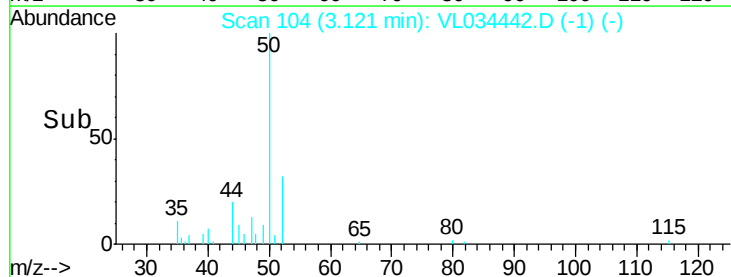
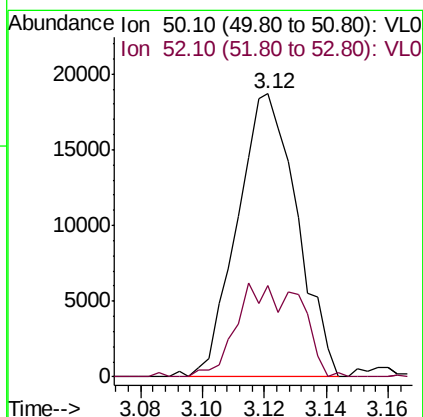
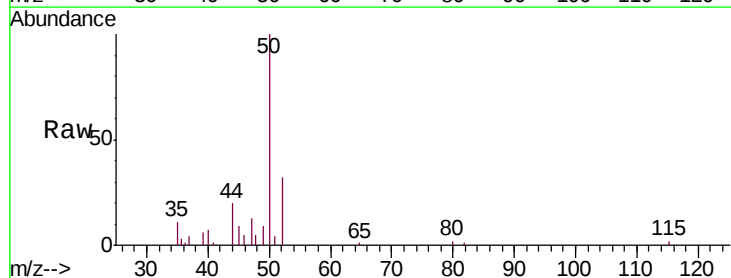
Instrument :
MSVOA_L
ClientSampleId :
IA-1A

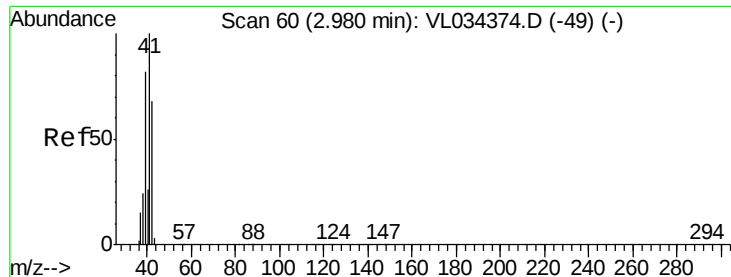
Tgt Ion: 51 Resp: 52787
Ion Ratio Lower Upper
51 100
67 11.1 16.2 24.2#



#4
Chloromethane
Concen: 0.456 ppbv
RT: 3.12 min Scan# 104
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion: 50 Resp: 25034
Ion Ratio Lower Upper
50 100
52 32.5 26.8 40.2





#9

Propene

Concen: 1.254 ppbv

RT: 3.19 min Scan# 125

Delta R.T. 0.21 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

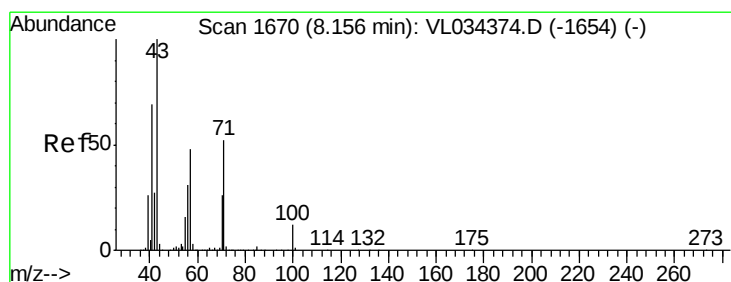
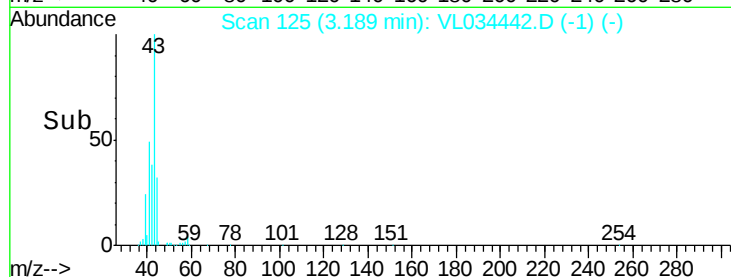
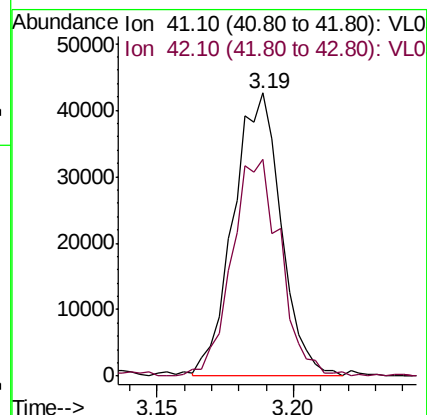
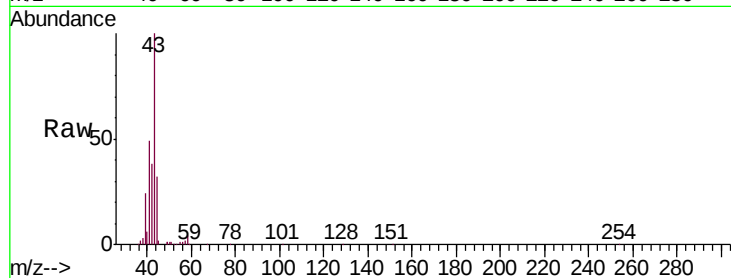
IA-1A

Tgt Ion: 41 Resp: 51771

Ion Ratio Lower Upper

41 100

42 78.2 54.6 82.0



#10

Heptane

Concen: 0.068 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VL034442.D

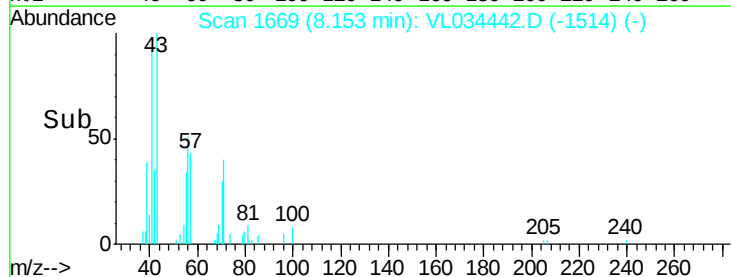
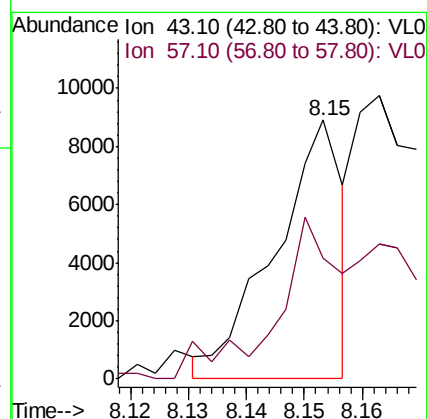
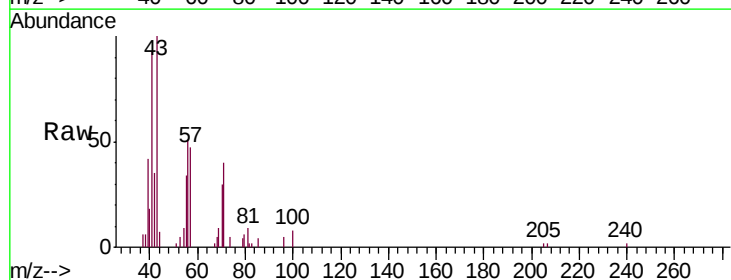
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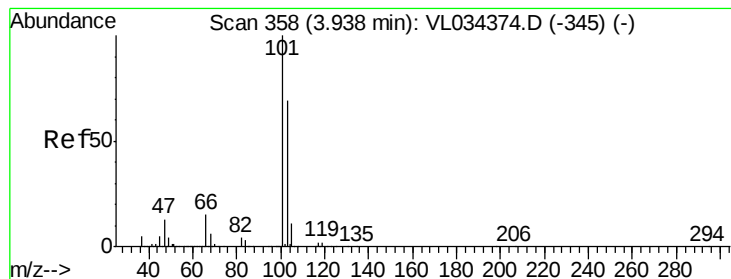
Tgt Ion: 43 Resp: 7206

Ion Ratio Lower Upper

43 100

57 137.9 40.2 60.2#





#11

Trichlorofluoromethane

Concen: 0.267 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

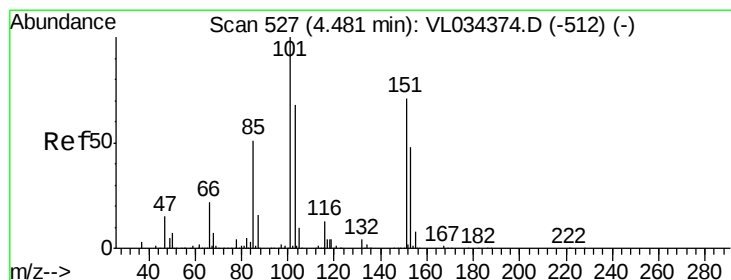
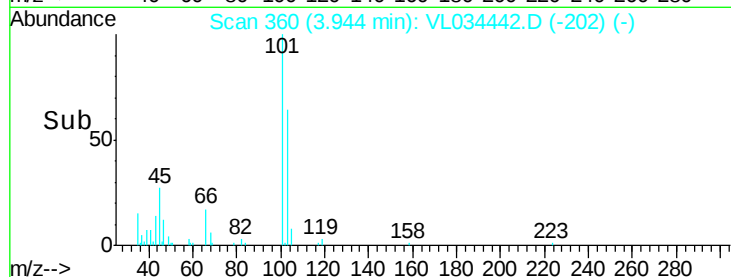
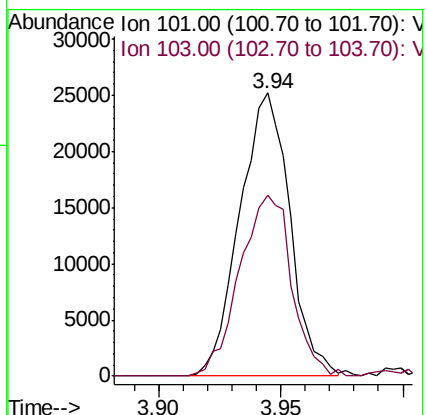
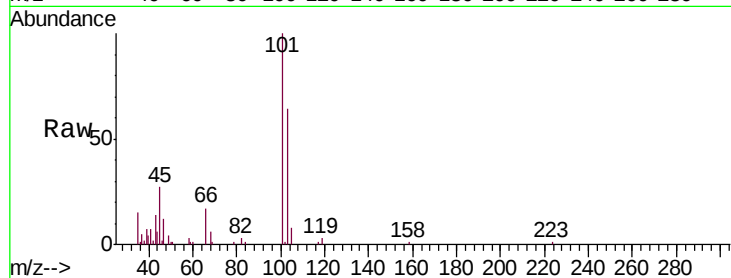
IA-1A

Tgt Ion:101 Resp: 35814

Ion Ratio Lower Upper

101 100

103 64.1 55.4 83.0



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.069 ppbv

RT: 4.49 min Scan# 529

Delta R.T. 0.01 min

Lab File: VL034442.D

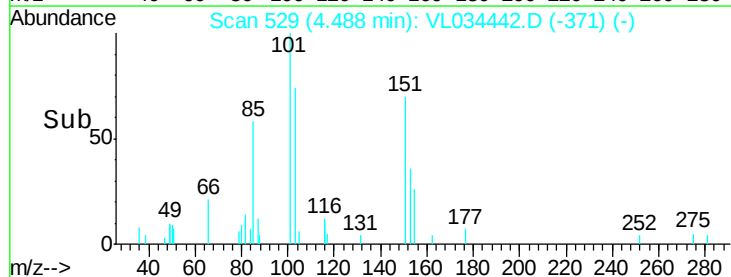
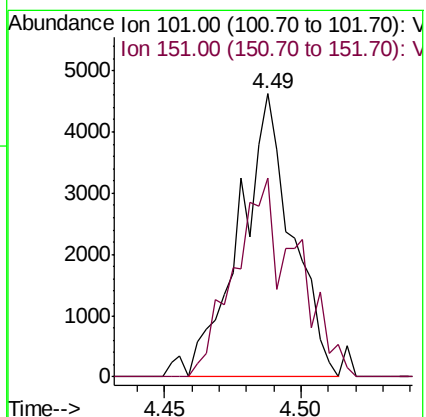
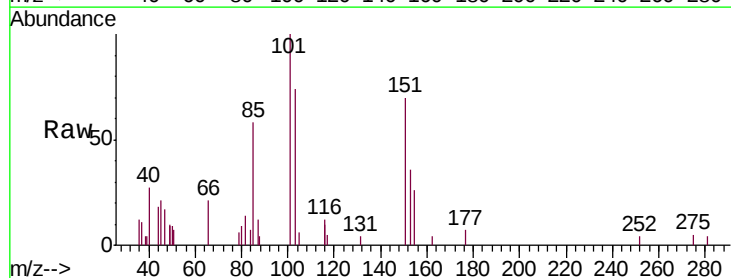
Acq: 3 Dec 2019 1:17

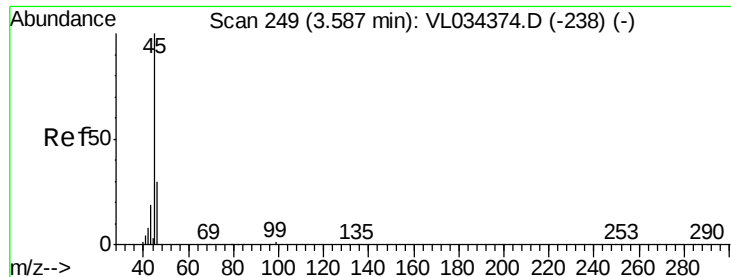
Tgt Ion:101 Resp: 6170

Ion Ratio Lower Upper

101 100

151 83.2 57.4 86.2





#13

Ethanol

Concen: 65.058 ppbv

RT: 3.59 min Scan# 250

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

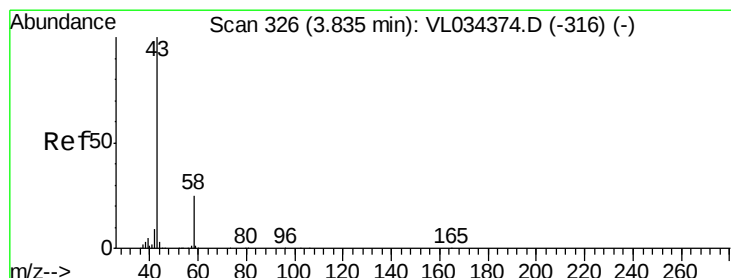
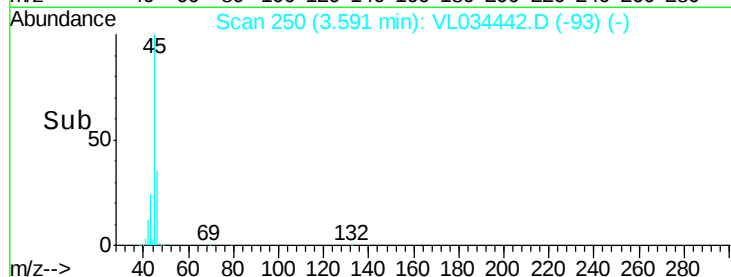
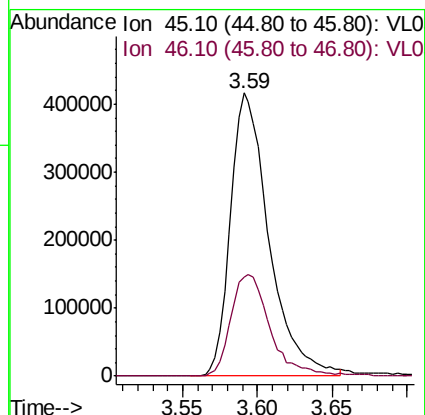
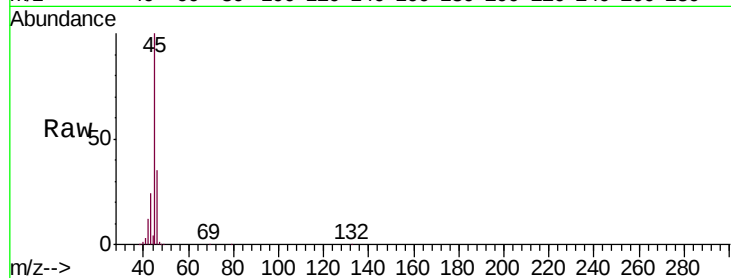
IA-1A

Tgt Ion: 45 Resp: 748335

Ion Ratio Lower Upper

45 100

46 36.9 13.8 55.4



#15

Acetone

Concen: 6.505 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.01 min

Lab File: VL034442.D

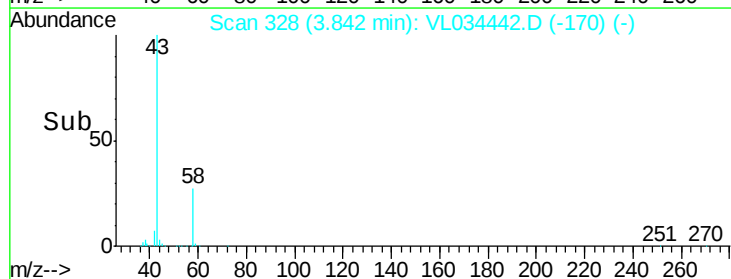
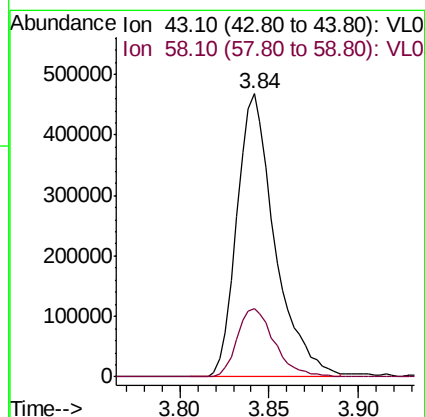
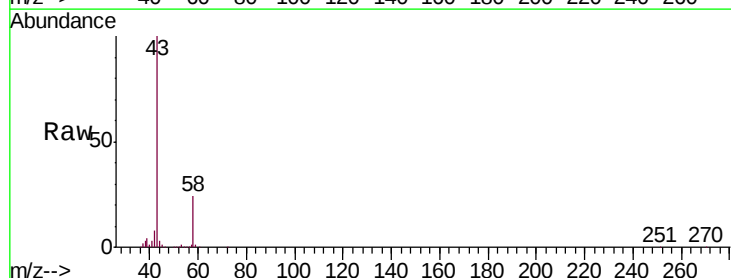
Acq: 3 Dec 2019 1:17

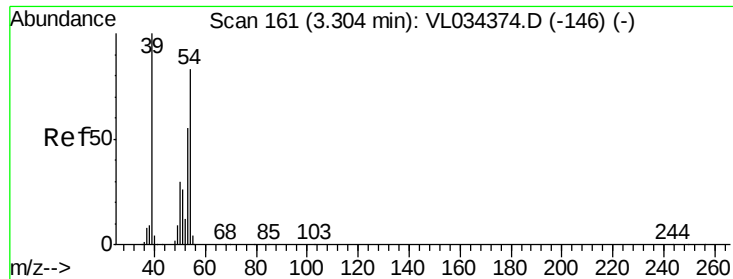
Tgt Ion: 43 Resp: 694379

Ion Ratio Lower Upper

43 100

58 24.0 20.2 30.4

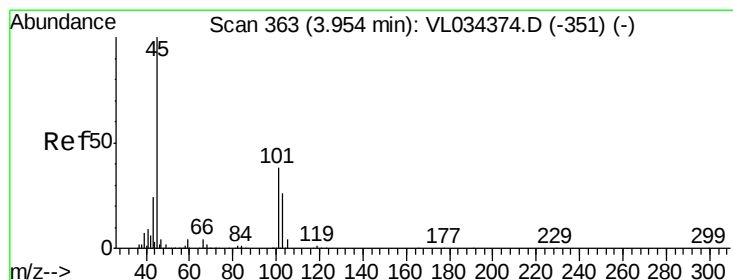
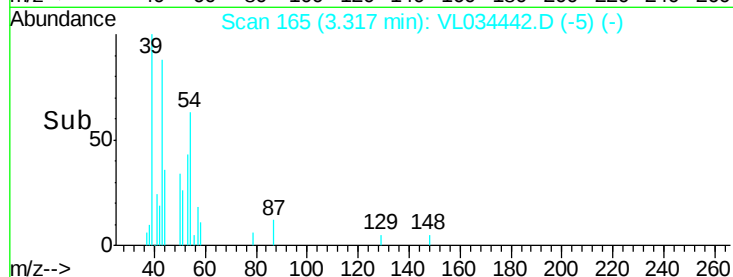
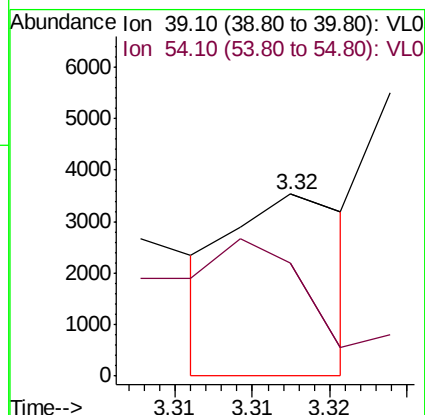
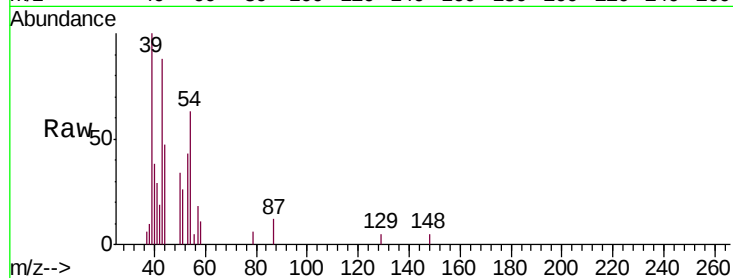




#16
1,3-Butadiene
Concen: 0.040 ppbv
RT: 3.32 min Scan# 165
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

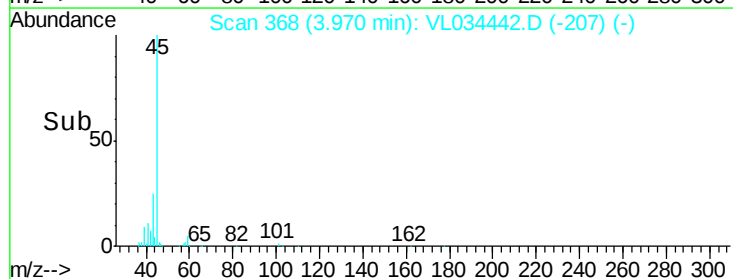
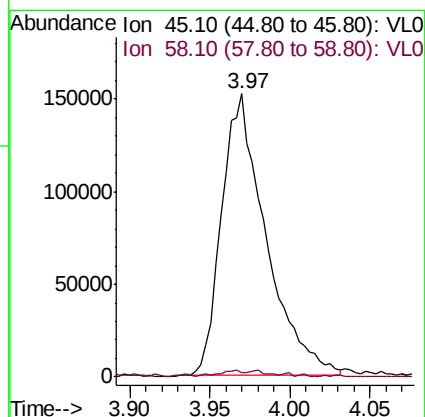
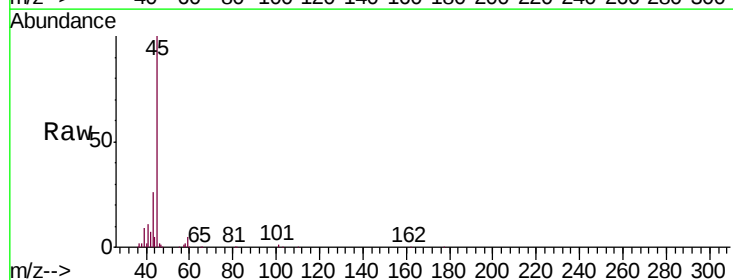
Instrument :
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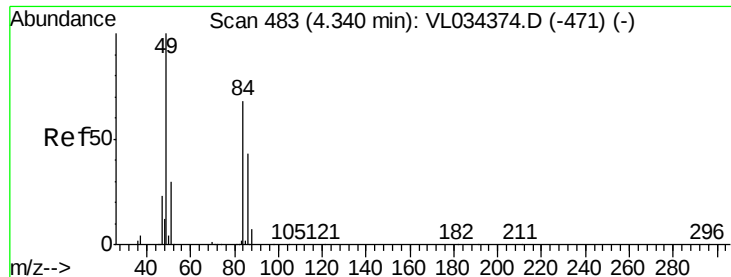
Tgt Ion: 39 Resp: 1852
Ion Ratio Lower Upper
39 100
54 214.7 64.7 97.1#



#19
Isopropyl Alcohol
Concen: 4.214 ppbv
RT: 3.97 min Scan# 368
Delta R.T. 0.02 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion: 45 Resp: 288357
Ion Ratio Lower Upper
45 100
58 2.8 1.3 1.9#

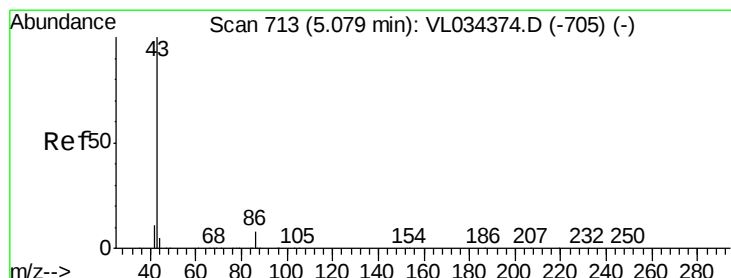
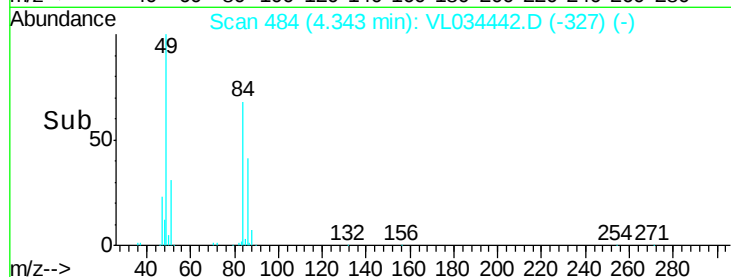
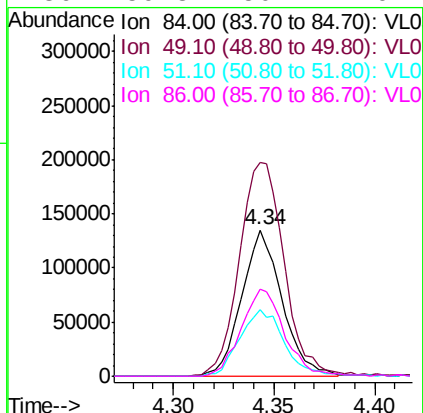
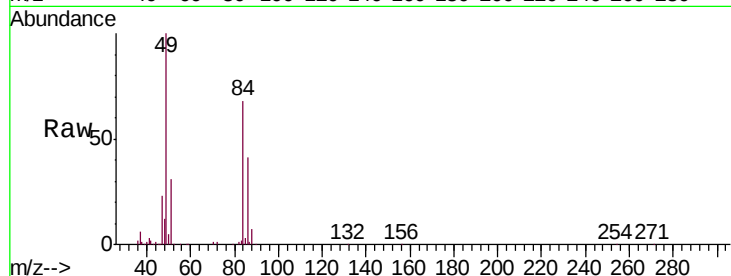




#20
Methylene Chloride
Concen: 4.997 ppbv
RT: 4.34 min Scan# 484
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

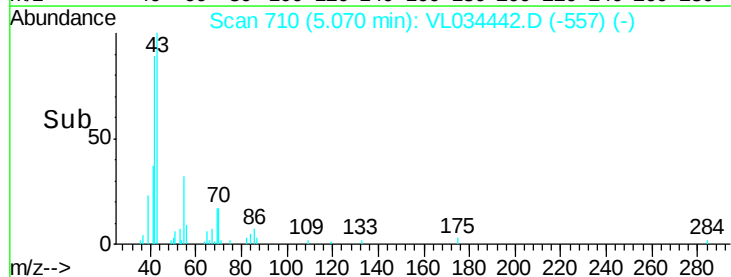
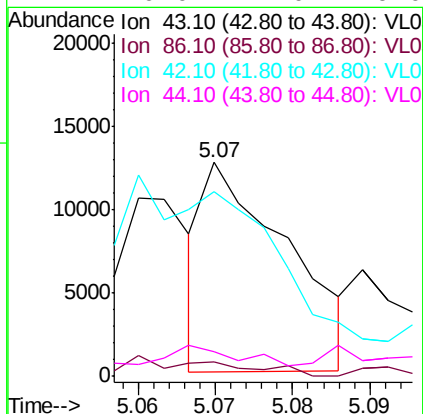
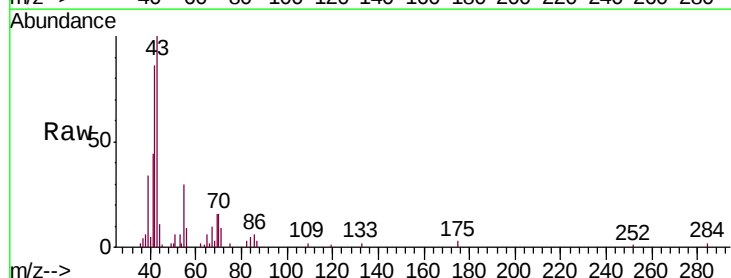
Instrument :
MSVOA_L
ClientSampleId :
IA-1A

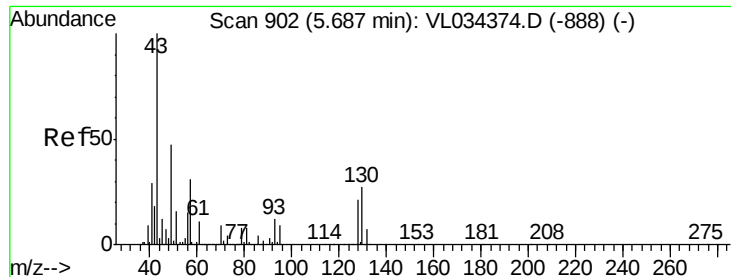
Tgt Ion:	84	Resp:	189146
Ion	Ratio	Lower	Upper
84	100		
49	145.9	116.8	175.2
51	45.3	35.6	53.4
86	59.8	50.7	76.1



#23
Vinyl Acetate
Concen: 0.069 ppbv
RT: 5.07 min Scan# 710
Delta R.T. -0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion:	43	Resp:	9568
Ion	Ratio	Lower	Upper
43	100		
86	14.5	5.8	8.6#
42	97.7	8.9	13.3#
44	0.0	4.0	6.0#





#25

Ethyl Acetate

Concen: 0.596 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

Tgt Ion: 43 Resp: 113606

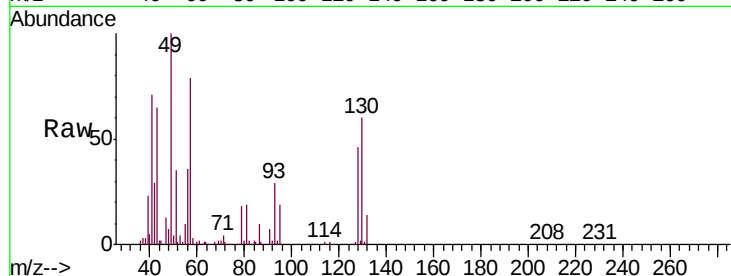
Ion Ratio Lower Upper

43 100

45 6.1 8.2 12.4#

61 5.5 7.5 11.3#

70 0.0 5.7 8.5#

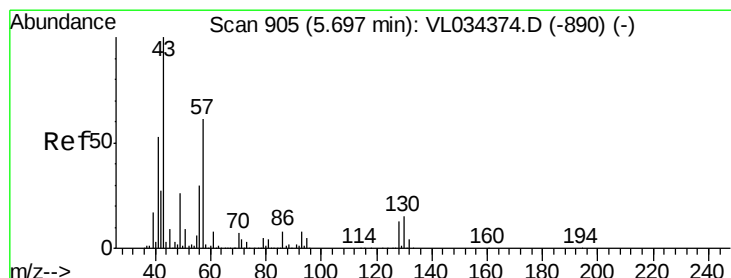
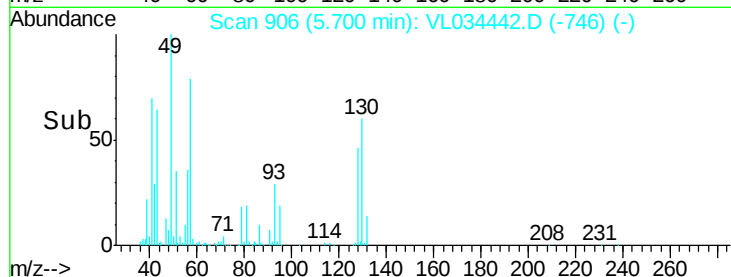
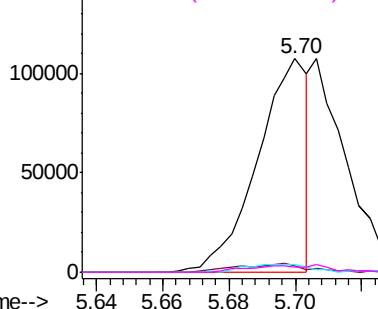


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 2.587 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Tgt Ion: 57 Resp: 211733

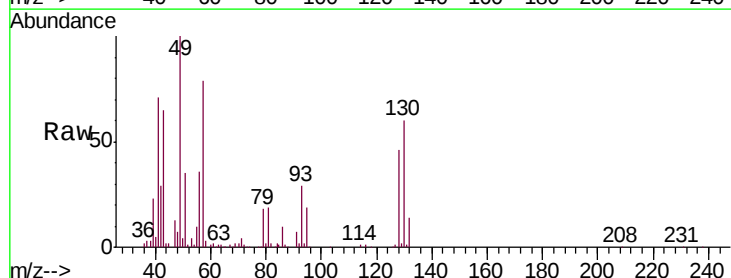
Ion Ratio Lower Upper

57 100

41 101.3 75.0 112.4

43 92.2 186.6 279.8#

56 55.2 41.5 62.3

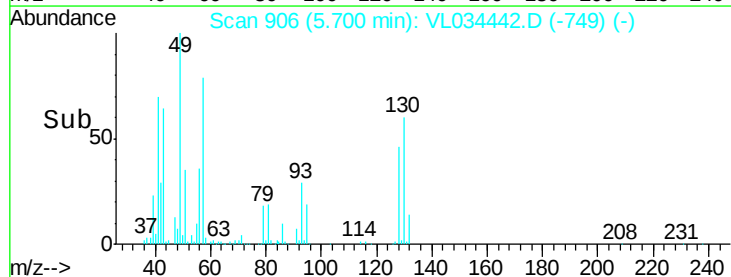
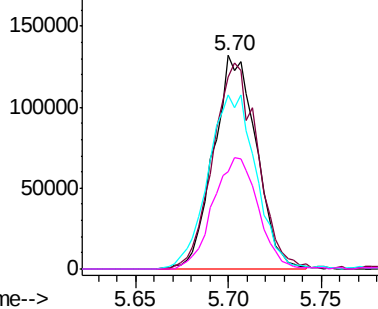


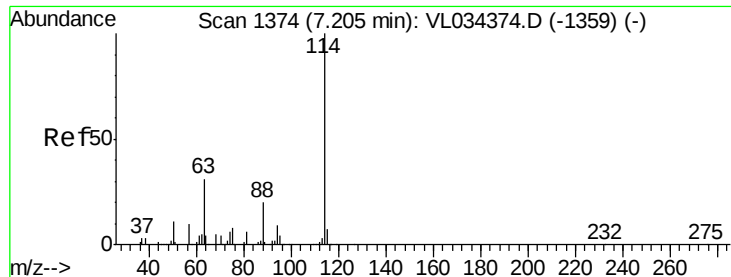
Abundance Ion 57.10 (56.80 to 57.80): VL0

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

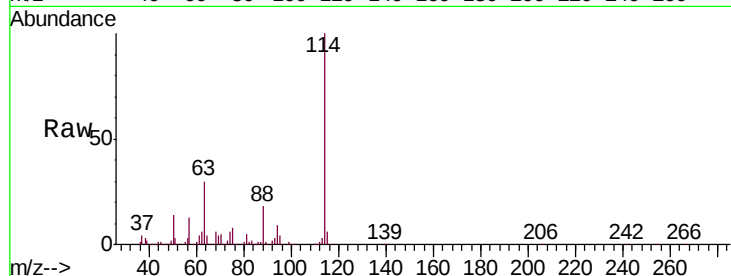




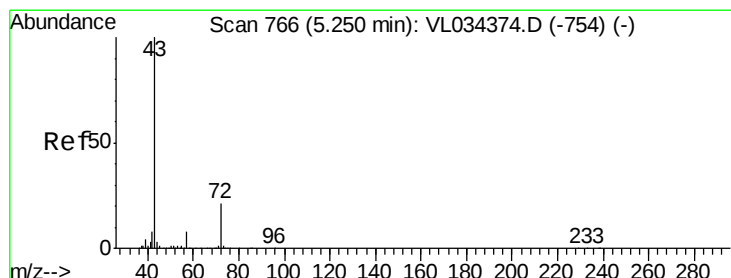
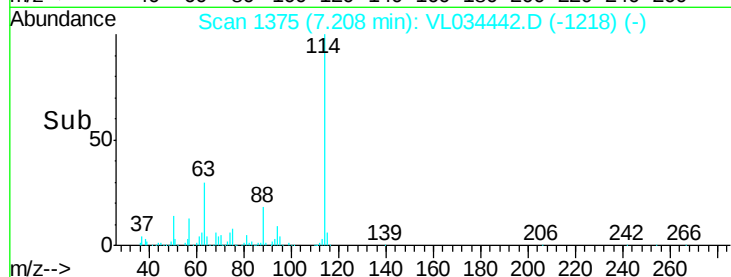
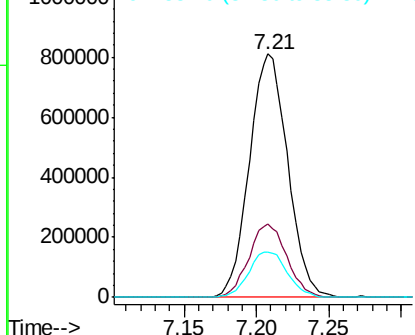
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.21 min Scan# 1375
 Delta R.T. 0.00 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1A

Tgt Ion:114 Resp: 1490625
 Ion Ratio Lower Upper
 114 100
 63 30.2 24.2 36.4
 88 19.0 15.9 23.9

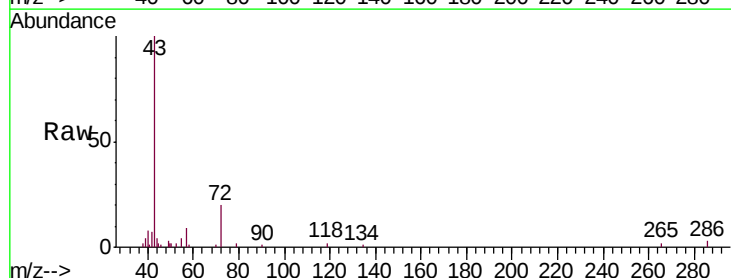


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

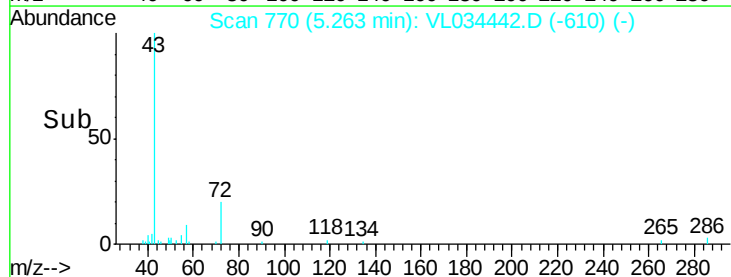
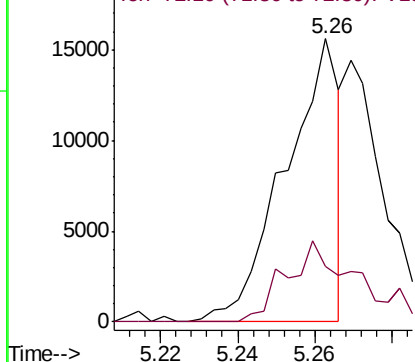


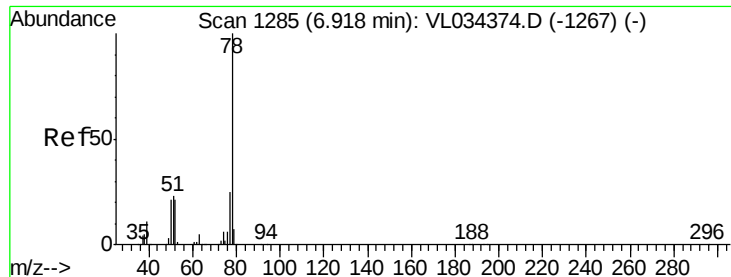
#34
 2-Butanone
 Concen: 0.123 ppbv
 RT: 5.26 min Scan# 770
 Delta R.T. 0.01 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Tgt Ion: 43 Resp: 15148
 Ion Ratio Lower Upper
 43 100
 72 38.7 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.351 ppbv

RT: 6.92 min Scan# 1286

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

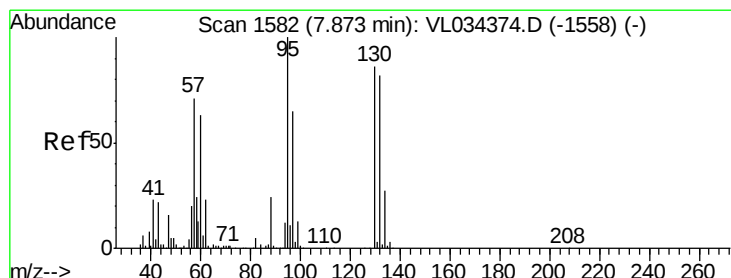
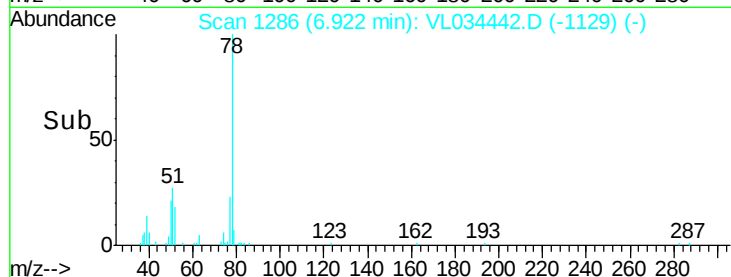
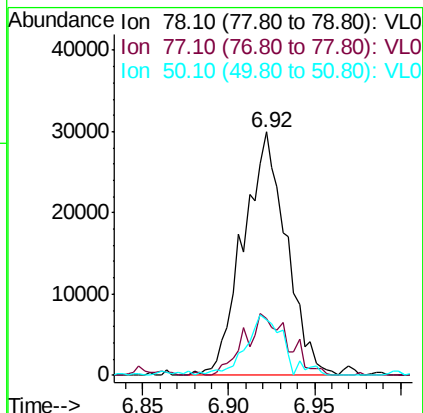
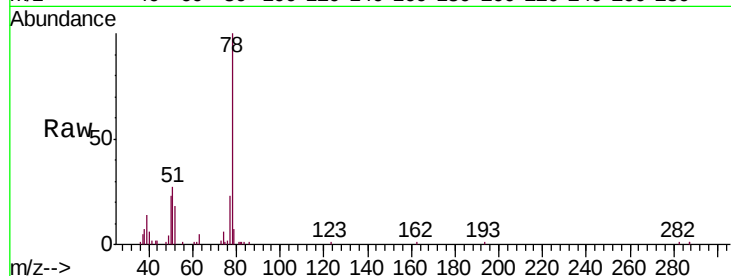
Tgt Ion: 78 Resp: 52229

Ion Ratio Lower Upper

78 100

77 23.1 20.2 30.4

50 22.8 17.1 25.7



#38

Trichloroethene

Concen: 2.230 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Tgt Ion: 130 Resp: 136343

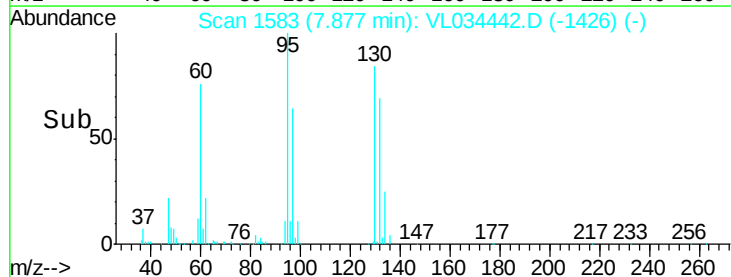
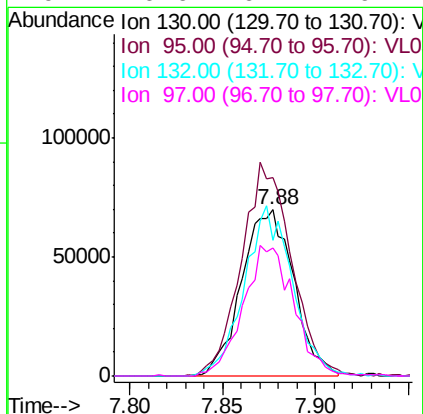
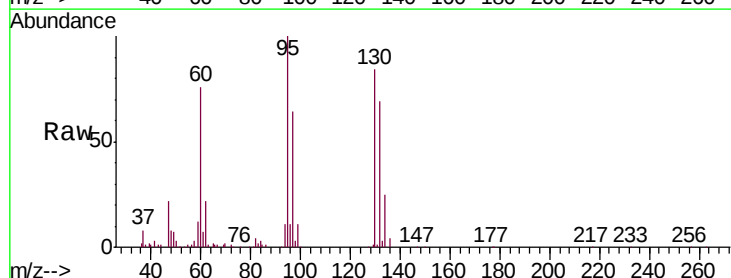
Ion Ratio Lower Upper

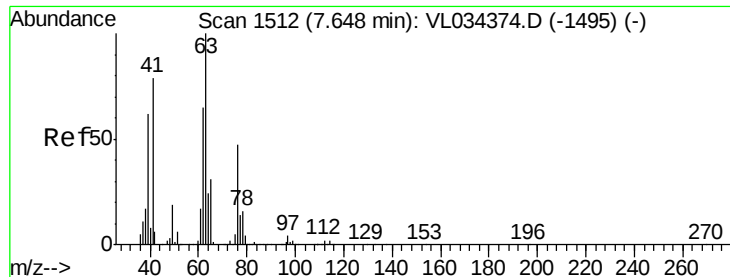
130 100

95 118.5 93.4 140.0

132 82.0 76.4 114.6

97 76.6 61.1 91.7





#39

1,2-Dichloropropane

Concen: 7.783 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. -0.44 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

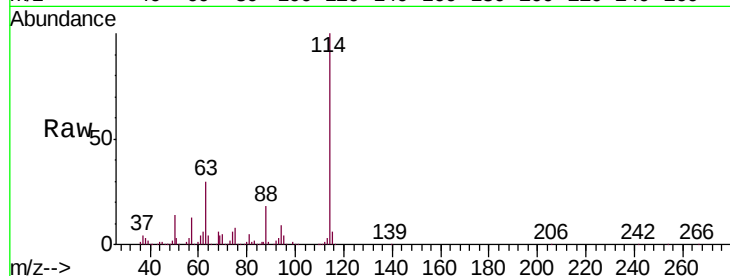
Tgt Ion: 63 Resp: 446813

Ion Ratio Lower Upper

63 100

41 0.0 63.1 94.7#

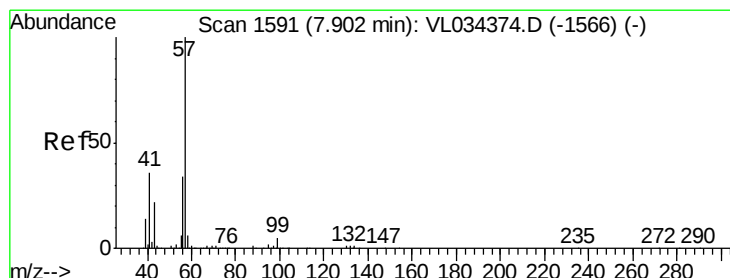
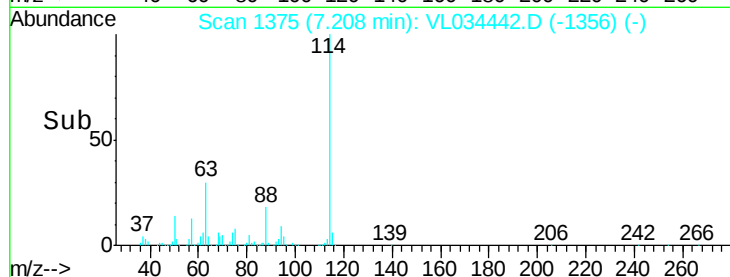
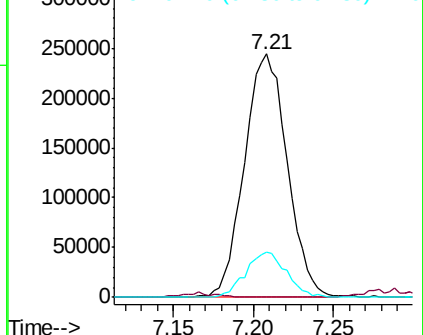
62 18.5 52.3 78.5#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.073 ppbv

RT: 7.91 min Scan# 1593

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

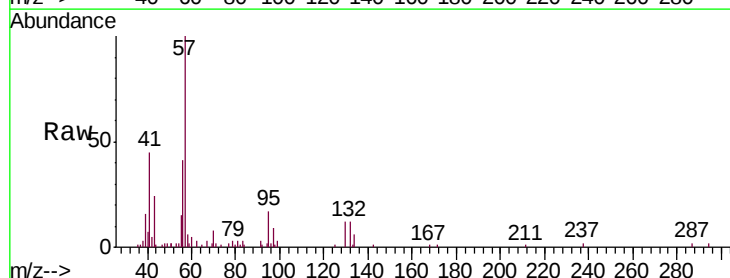
Tgt Ion: 57 Resp: 20000

Ion Ratio Lower Upper

57 100

41 97.7 28.6 42.8#

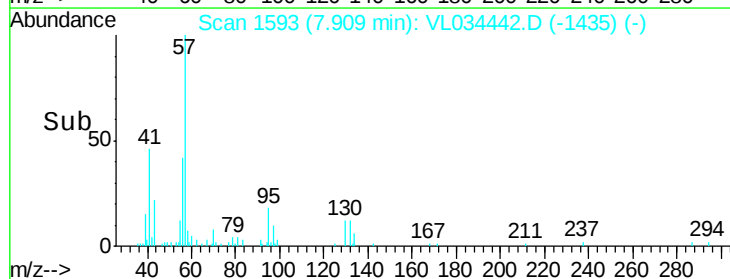
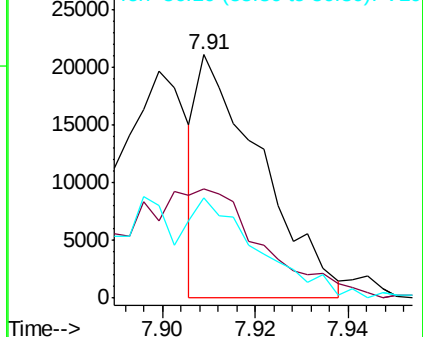
56 0.0 25.3 37.9#

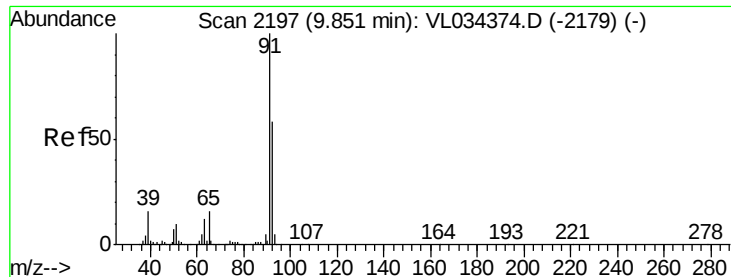


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 2.411 ppbv

RT: 9.86 min Scan# 2199

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

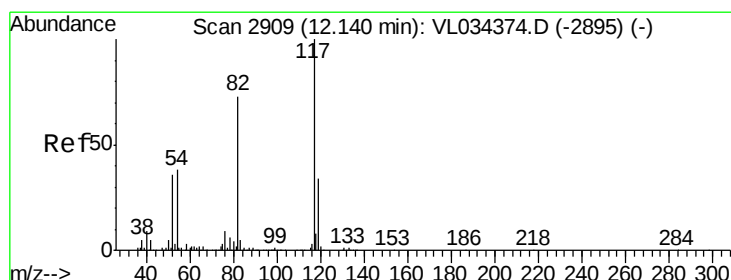
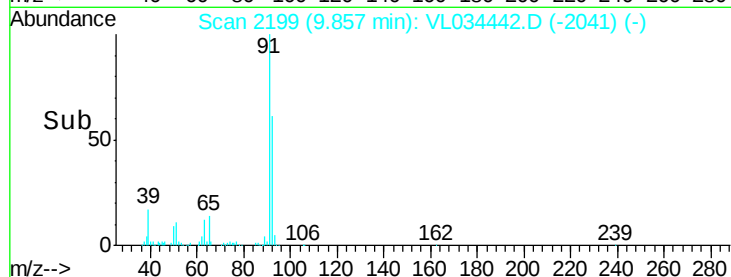
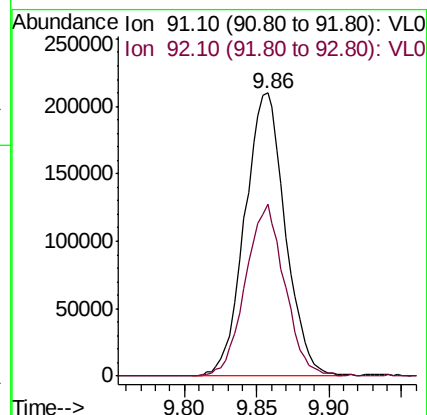
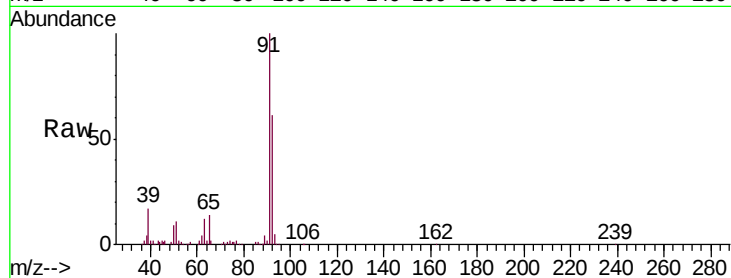
IA-1A

Tgt Ion: 91 Resp: 408124

Ion Ratio Lower Upper

91 100

92 58.8 47.9 71.9



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2911

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

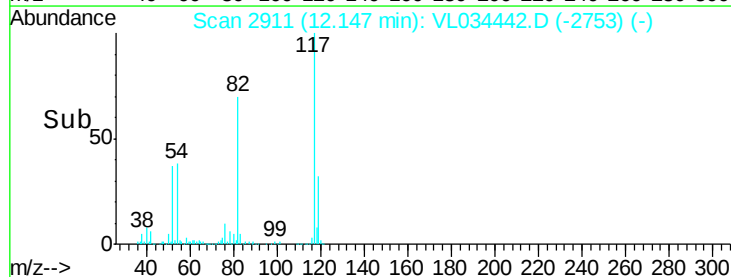
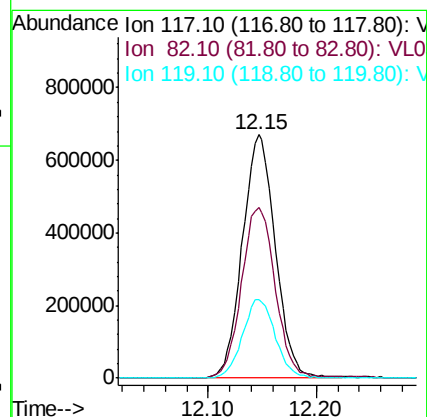
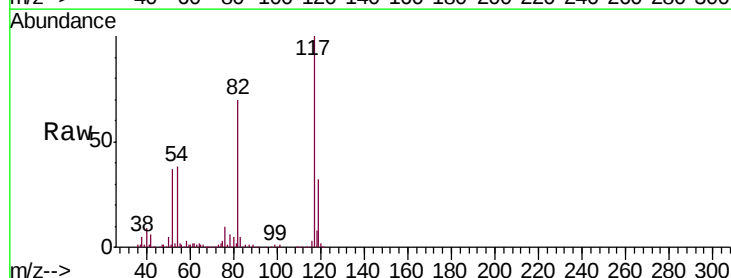
Tgt Ion: 117 Resp: 1423244

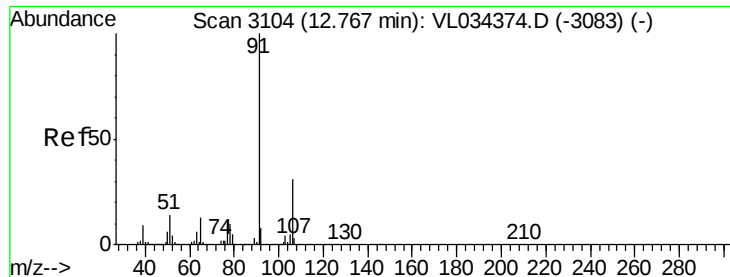
Ion Ratio Lower Upper

117 100

82 72.1 57.5 86.3

119 32.4 25.4 38.2





#58

Ethyl Benzene

Concen: 0.090 ppbv

RT: 12.78 min Scan# 3107

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

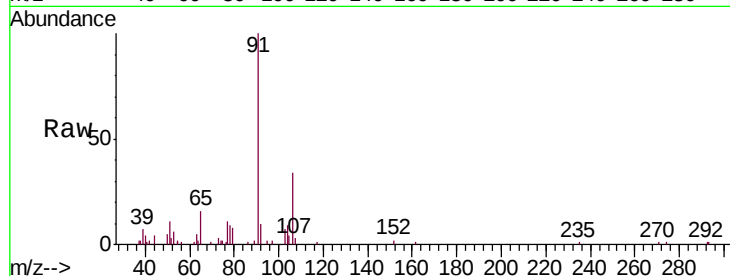
IA-1A

Tgt Ion: 91 Resp: 19920

Ion Ratio Lower Upper

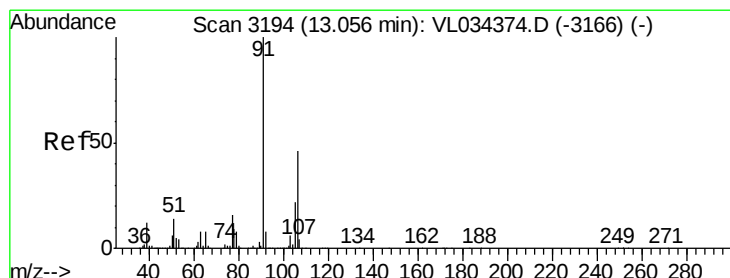
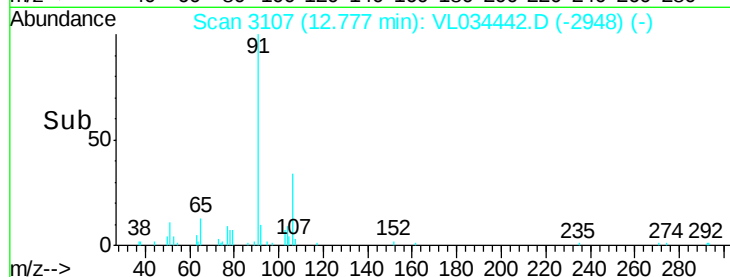
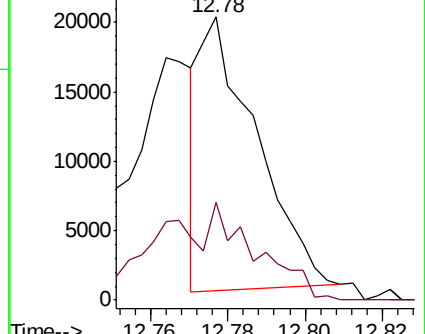
91 100

106 36.5 24.8 37.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.184 ppbv

RT: 13.06 min Scan# 3195

Delta R.T. 0.00 min

Lab File: VL034442.D

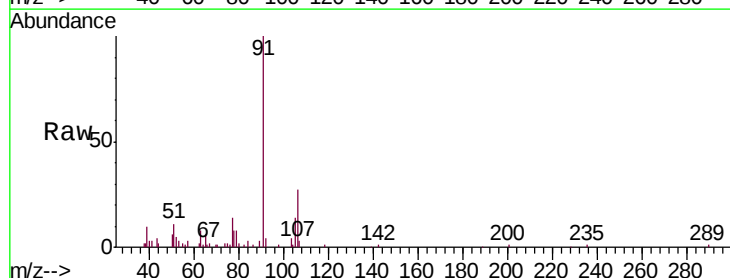
Acq: 3 Dec 2019 1:17

Tgt Ion: 91 Resp: 35134

Ion Ratio Lower Upper

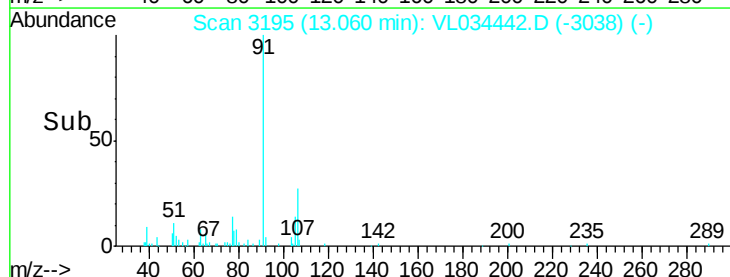
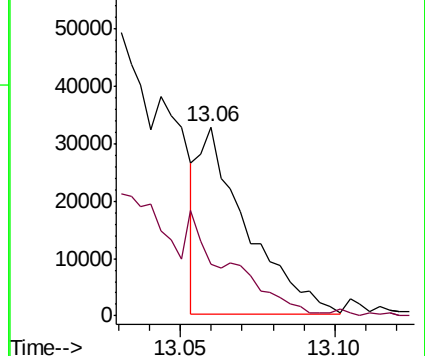
91 100

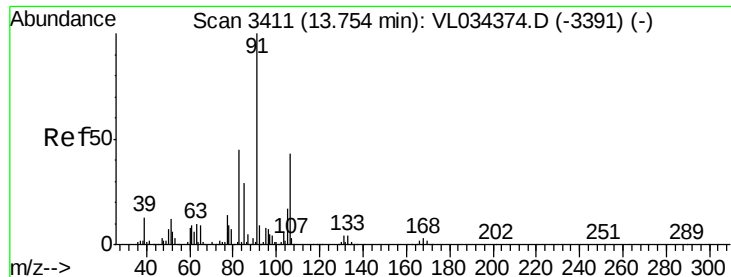
106 0.0 34.6 51.8#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

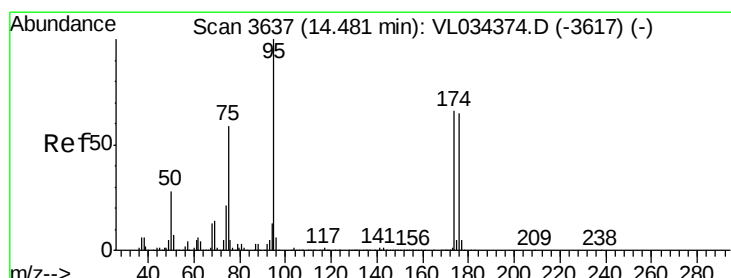
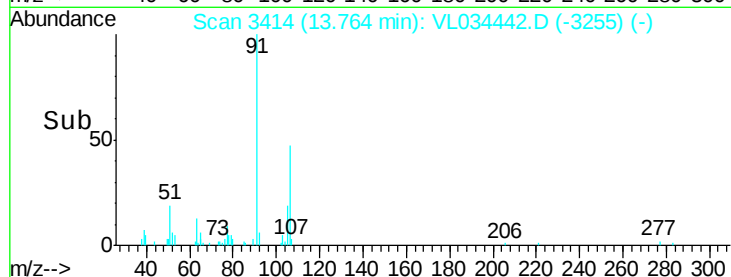
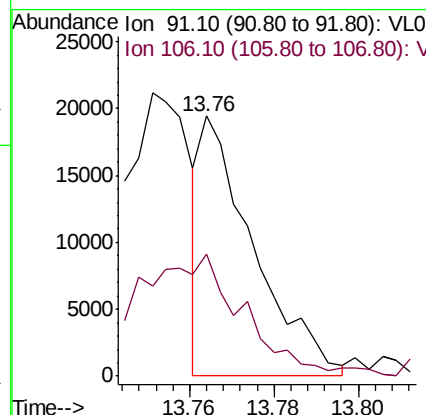
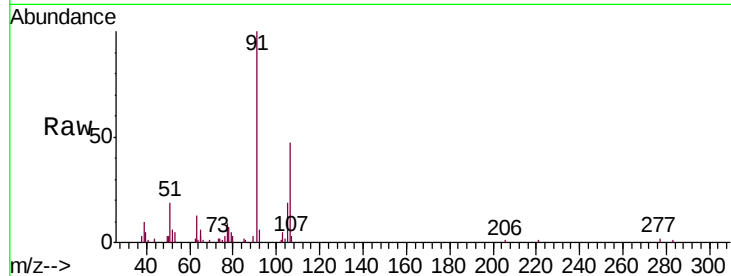




#60
o-Xylene
Concen: 0.089 ppbv
RT: 13.76 min Scan# 3414
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

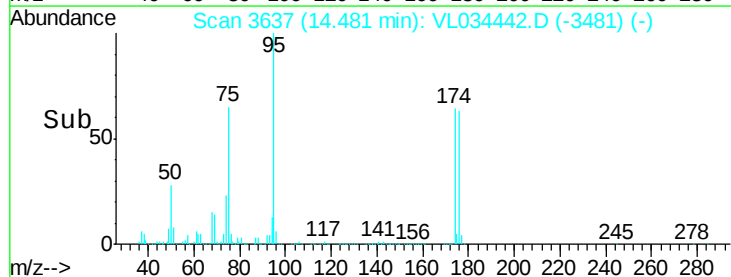
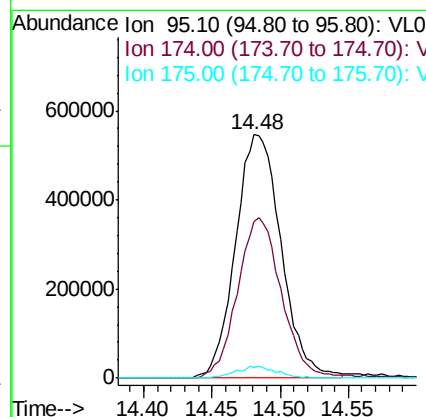
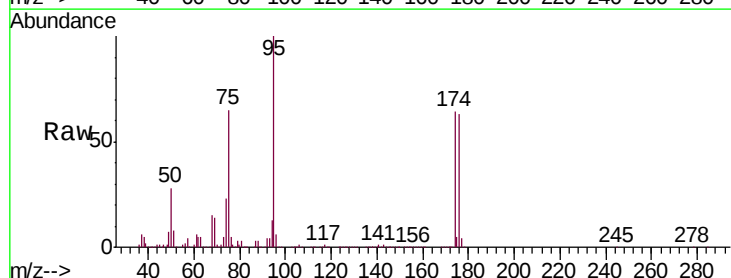
Instrument :
MSVOA_L
ClientSampleId :
IA-1A

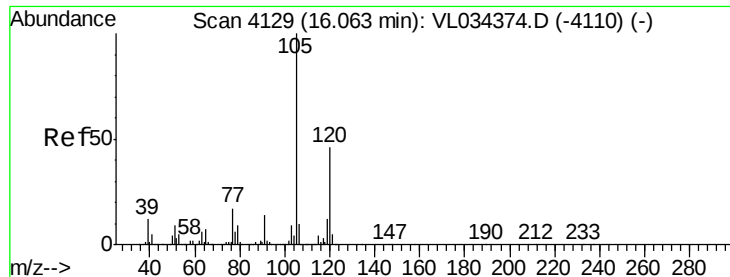
Tgt Ion: 91 Resp: 16893
Ion Ratio Lower Upper
91 100
106 108.5 21.3 64.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.508 ppbv
RT: 14.48 min Scan# 3637
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion: 95 Resp: 1258196
Ion Ratio Lower Upper
95 100
174 65.0 52.2 78.2
175 4.5 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 0.054 ppbv

RT: 16.07 min Scan# 4131

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampled :

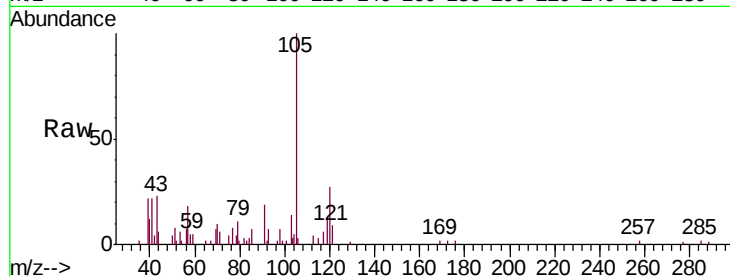
IA-1A

Tgt Ion:105 Resp: 11521

Ion Ratio Lower Upper

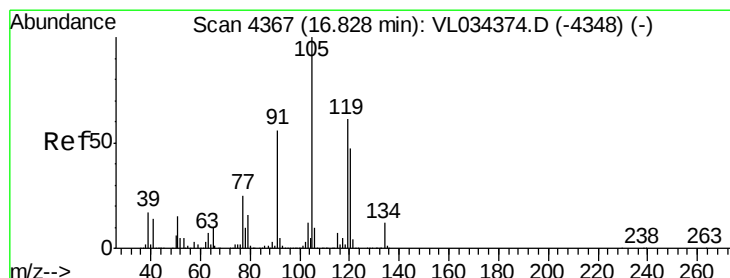
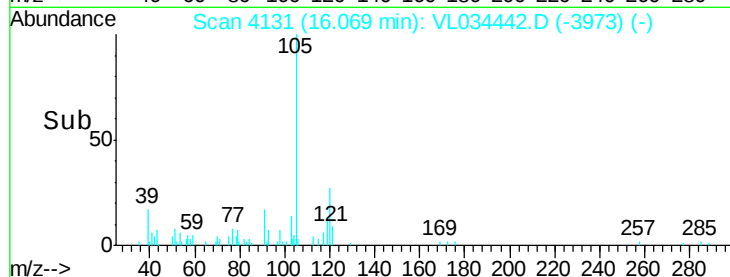
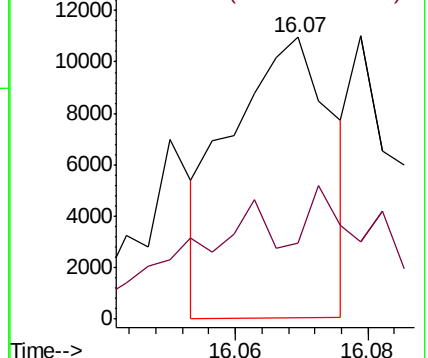
105 100

120 0.0 37.1 55.7#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.368 ppbv

RT: 16.83 min Scan# 4369

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Tgt Ion:105 Resp: 83480

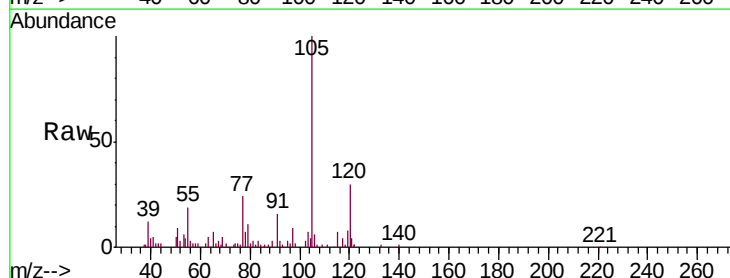
Ion Ratio Lower Upper

105 100

120 30.2 37.4 56.0#

91 15.4 46.3 69.5#

77 23.9 20.6 30.8

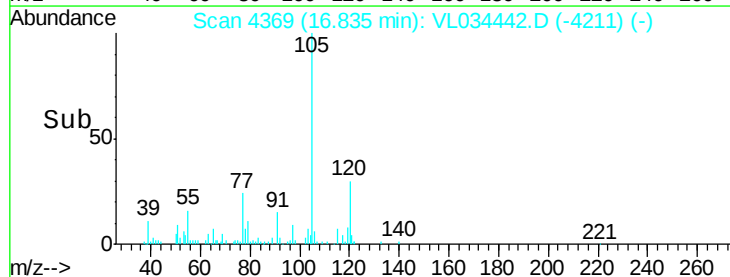
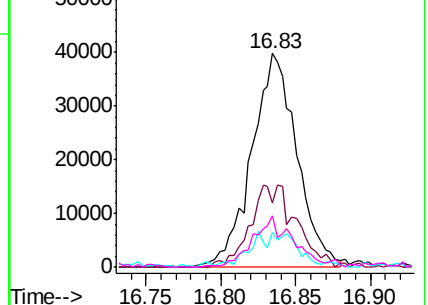


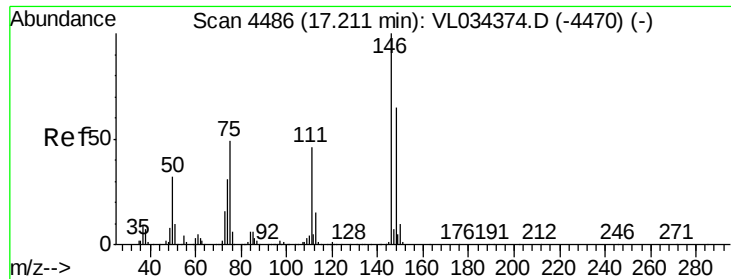
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#76

1,4-Dichlorobenzene

Concen: 0.040 ppbv

RT: 17.22 min Scan# 4489

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

Tgt Ion:146 Resp: 5055

Ion Ratio Lower Upper

146 100

111 153.9 24.1 72.3#

148 136.9 32.9 98.6#

