

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL120718\
 Data File : VL032939.D
 Acq On : 7 Dec 2018 17:53
 Operator : SY/AP
 Sample : J6262-05
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Manual Integrations
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 12/11/2018 10:09:06 AM

Quant Time: Dec 10 20:10:42 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 0
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

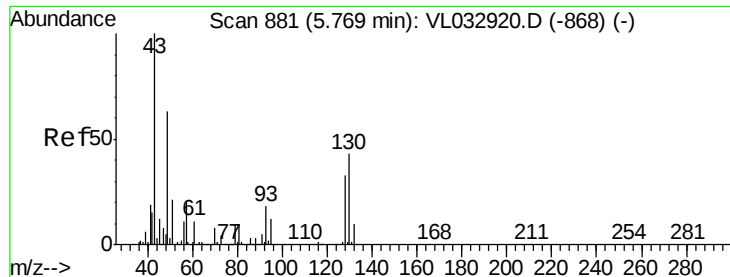
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1254182	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3277555	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3122344	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	2555541	11.08	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	34340	0.205	ppbv	96
3) Chlorodifluoromethane	3.02	51	475320	5.004	ppbv	96
4) Chloromethane	3.18	50	36881m	0.667	ppbv	
9) Propene	3.04	41	171794m	4.574	ppbv	
10) Heptane	8.25	43	40145m	0.285	ppbv	
11) Trichlorofluoromethane	4.01	101	46485	0.295	ppbv	96
13) Ethanol	3.66	45	3996899	309.083	ppbv	96
15) Acetone	3.90	43	2059810m	19.134	ppbv	
19) Isopropyl Alcohol	4.04	45	4062129	60.087	ppbv #	98
20) Methylene Chloride	4.41	84	90752m	1.725	ppbv	
25) Ethyl Acetate	5.77	43	1519618	5.976	ppbv #	94
26) Hexane	5.78	57	294438	2.508	ppbv #	1
29) Chloroform	5.85	83	85870	0.410	ppbv	88
34) 2-Butanone	5.33	43	133450	0.935	ppbv	99
35) Carbon Tetrachloride	7.14	117	19713	0.077	ppbv	88
36) Benzene	7.01	78	522061	2.166	ppbv	96
38) Trichloroethene	7.96	130	29035	0.289	ppbv #	81
44) 2,2,4-Trimethylpentane	7.99	57	134137	0.328	ppbv #	83
52) Tetrachloroethene	11.37	164	119803m	1.366	ppbv	
53) Toluene	9.95	91	927711	3.629	ppbv	100
58) Ethyl Benzene	12.87	91	60975	0.183	ppbv	92
59) m/p-Xylene	13.13	91	194651m	0.645	ppbv	
60) o-Xylene	13.86	91	65545	0.215	ppbv	100
61) Styrene	13.69	104	32320m	0.159	ppbv	
69) p-Isopropyltoluene	17.82	119	88860	0.189	ppbv #	91
72) 4-Ethyltoluene	16.00	105	34911m	0.103	ppbv	
73) 1,3,5-Trimethylbenzene	16.16	105	35610	0.107	ppbv	89
74) 1,2,4-Trimethylbenzene	16.93	105	120601	0.321	ppbv #	74
76) 1,4-Dichlorobenzene	17.31	146	54249m	0.263	ppbv	
79) Naphthalene	22.42	128	61051m	0.252	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.01 min

Lab File: VL032939.D

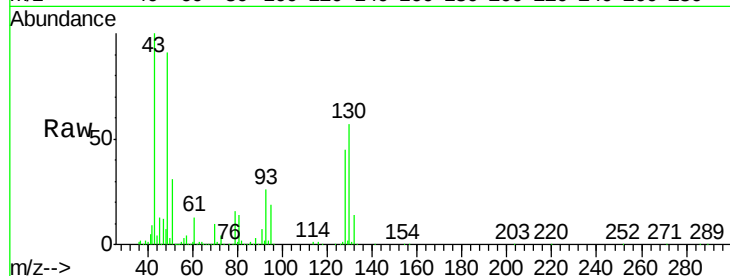
Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

ClientSampled :

IA3



Tgt Ion: 49 Resp: 1254182

Ion Ratio Lower Upper

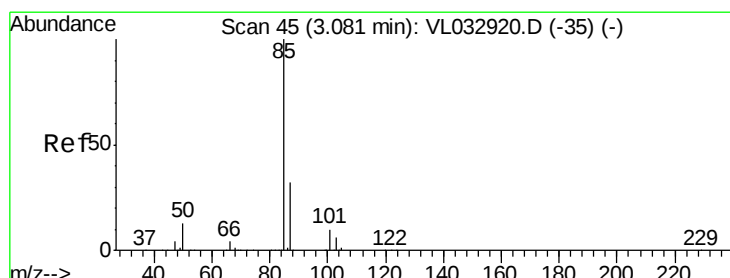
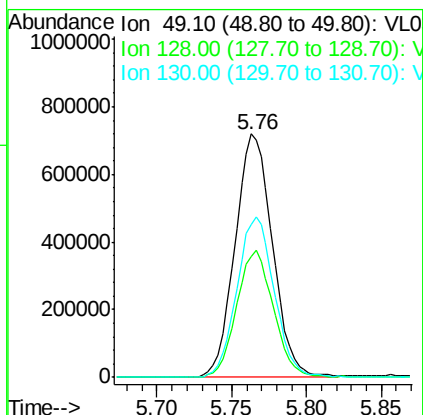
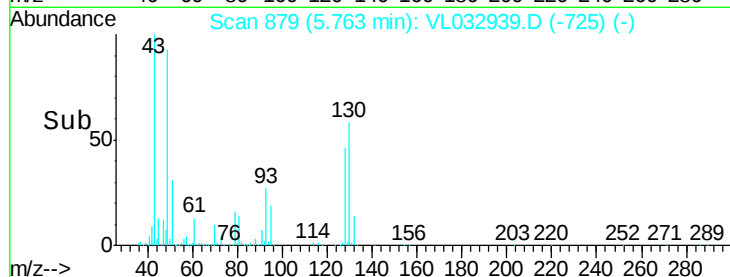
49 100

128 51.8 26.3 78.8

130 66.2 33.9 101.7

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#2

Dichlorodifluoromethane

Concen: 0.205 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL032939.D

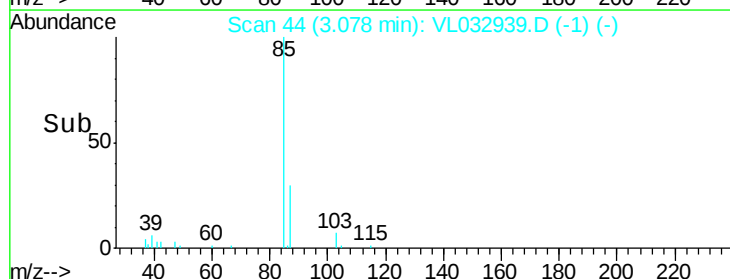
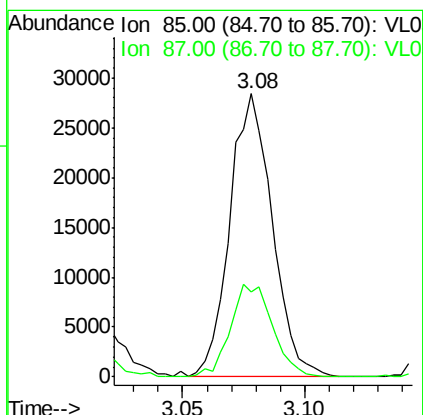
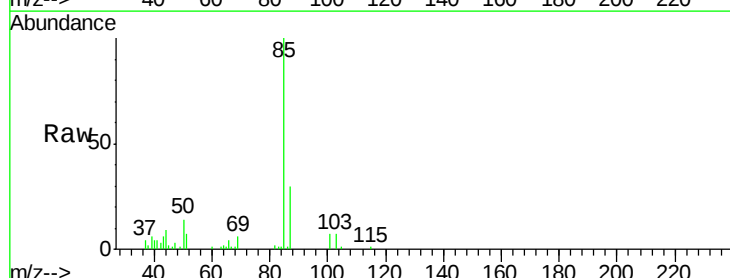
Acq: 7 Dec 2018 17:53

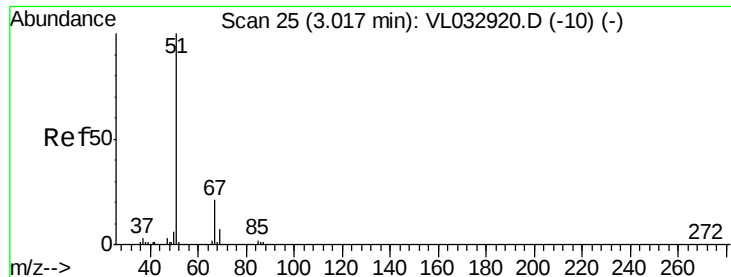
Tgt Ion: 85 Resp: 34340

Ion Ratio Lower Upper

85 100

87 30.1 25.7 38.5





#3

Chlorodifluoromethane

Concen: 5.004 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion: 51 Resp: 475320

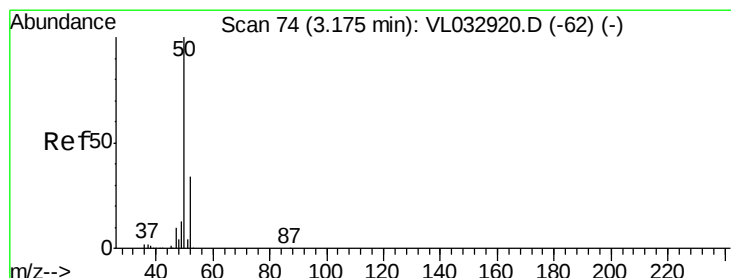
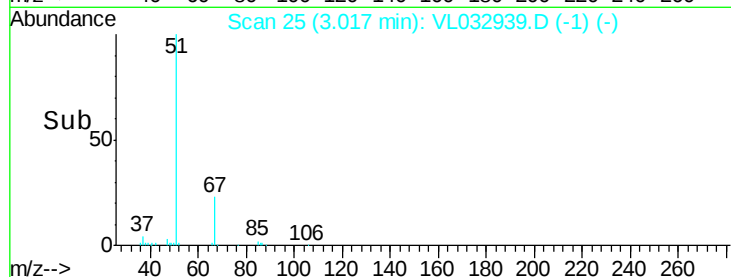
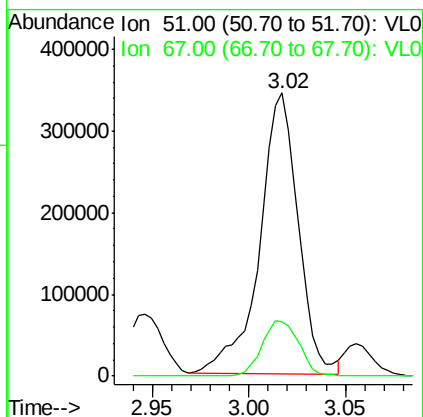
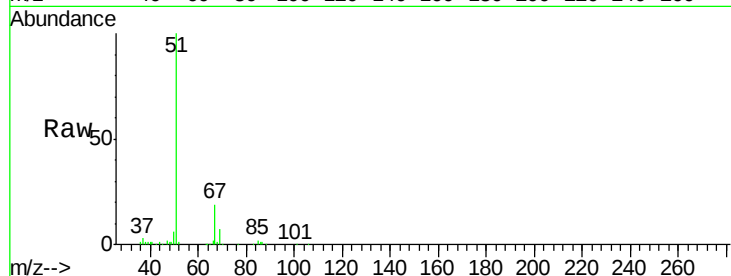
Ion Ratio Lower Upper

51 100

67 18.9 16.8 25.2

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#4

Chloromethane

Concen: 0.667 ppbv m

RT: 3.18 min Scan# 75

Delta R.T. 0.00 min

Lab File: VL032939.D

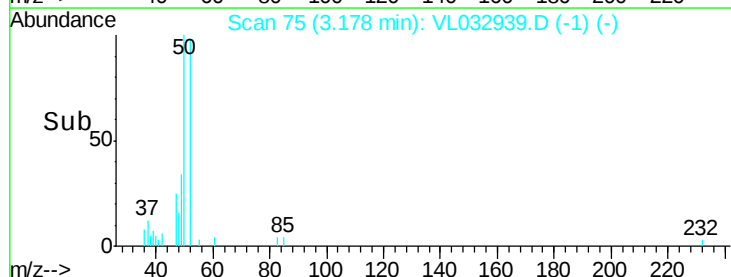
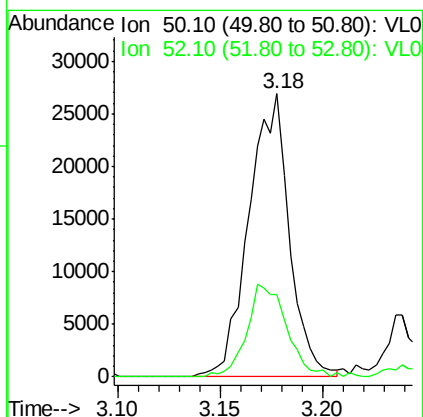
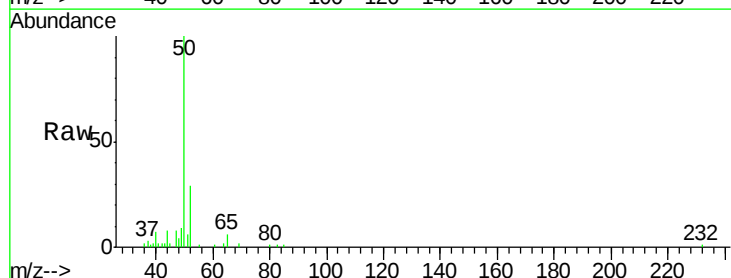
Acq: 7 Dec 2018 17:53

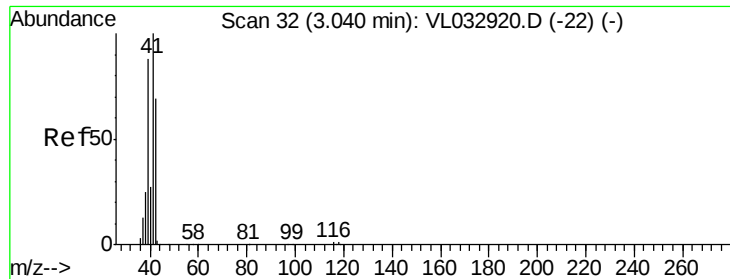
Tgt Ion: 50 Resp: 36881

Ion Ratio Lower Upper

50 100

52 29.1 27.3 40.9





#9

Propene

Concen: 4.574 ppbv m

RT: 3.04 min Scan# 32

Delta R.T. 0.00 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

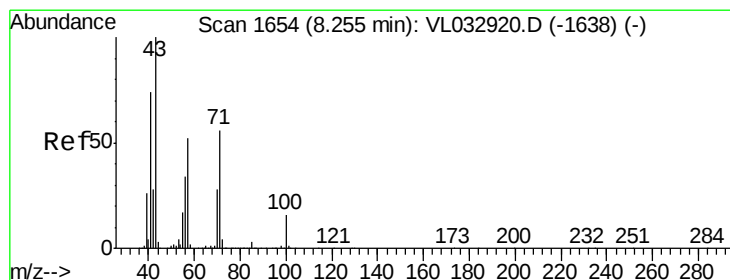
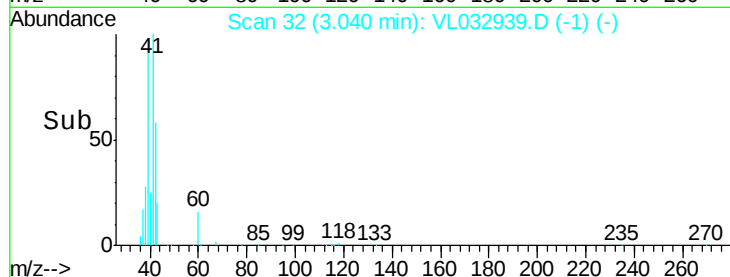
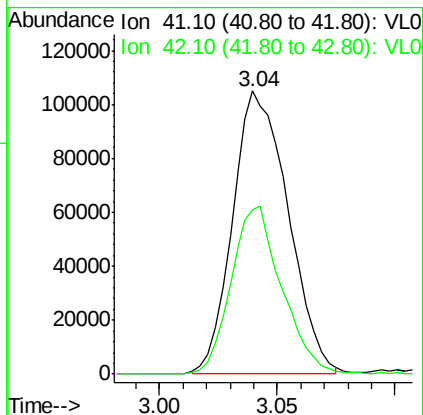
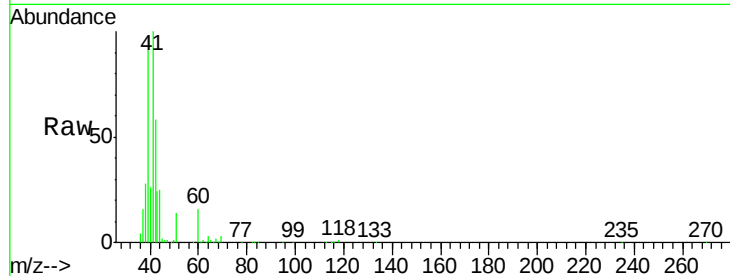
ClientSampleId :

IA3

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Tgt Ion: 41 Resp: 171794
Ion Ratio Lower Upper
41 100
42 110.5 56.2 84.2#



#10

Heptane

Concen: 0.285 ppbv m

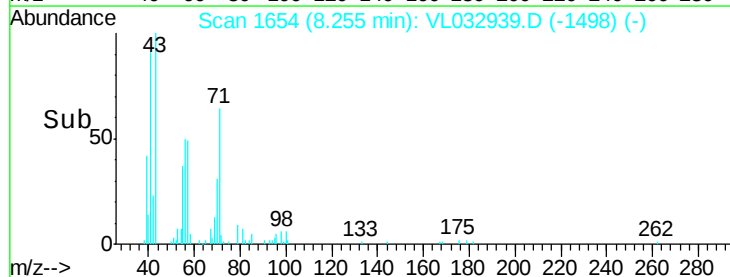
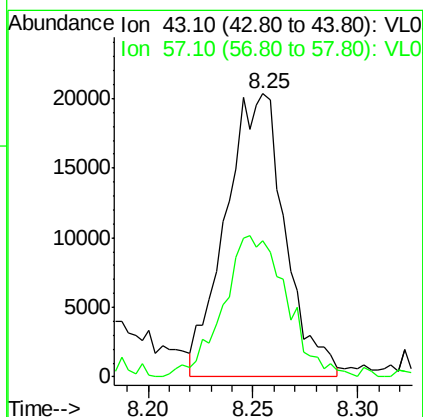
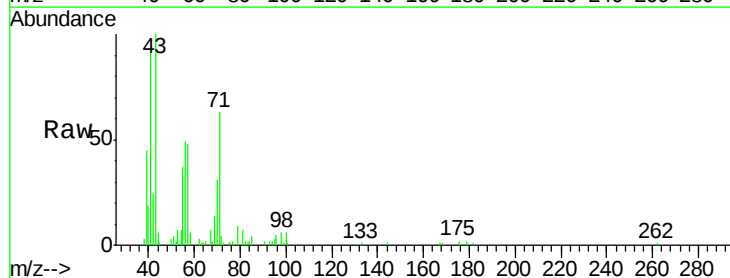
RT: 8.25 min Scan# 1654

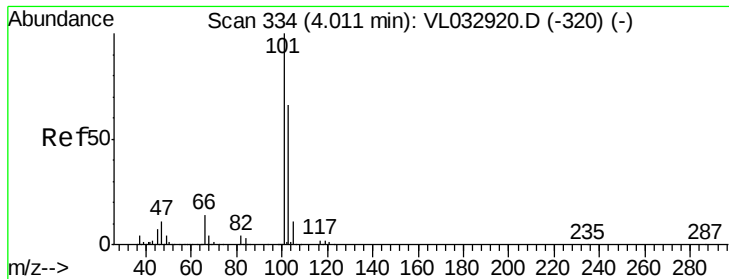
Delta R.T. 0.00 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Tgt Ion: 43 Resp: 40145
Ion Ratio Lower Upper
43 100
57 55.6 41.8 62.6





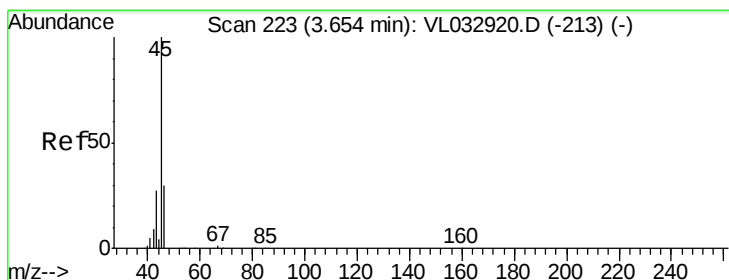
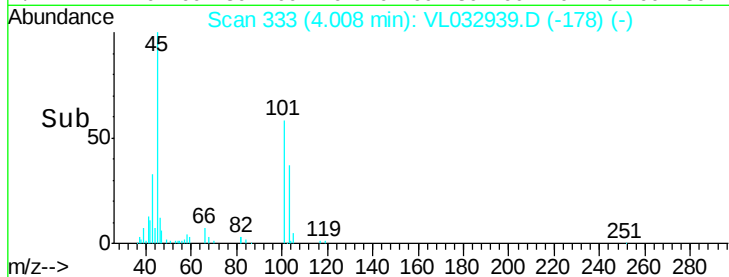
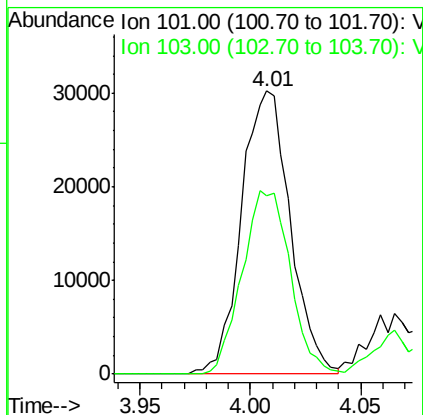
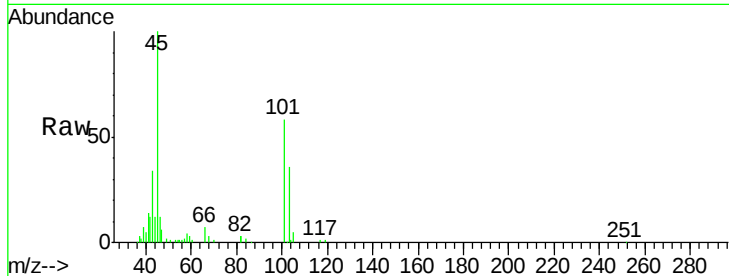
#11
Trichlorofluoromethane
Concen: 0.295 ppbv
RT: 4.01 min Scan# 333
Delta R.T. -0.00 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion: 101 Resp: 46485
Ion Ratio Lower Upper
101 100
103 62.9 52.7 79.1

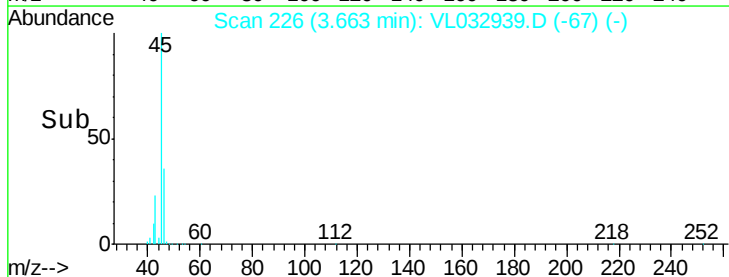
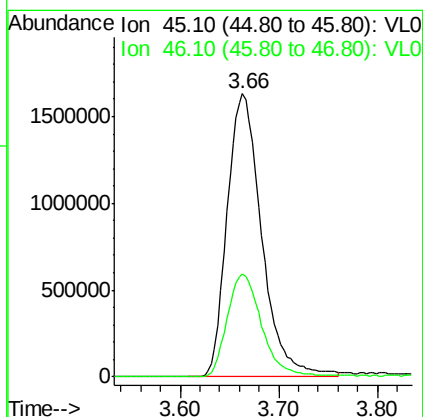
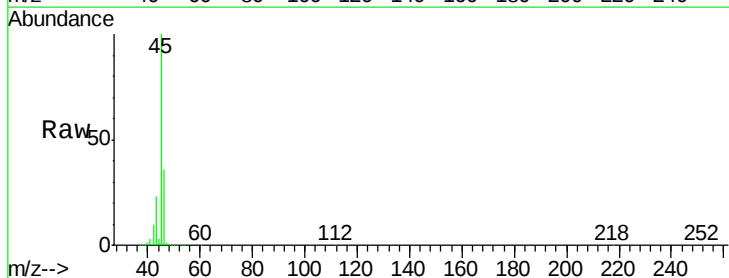
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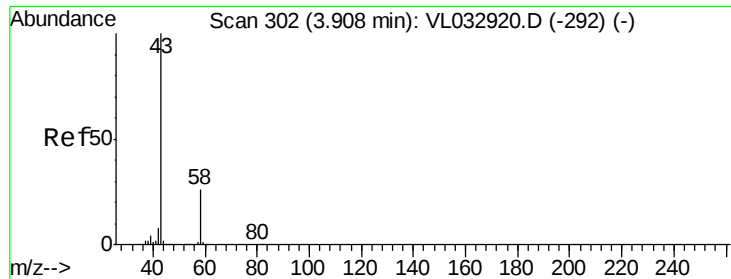
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#13
Ethanol
Concen: 309.083 ppbv
RT: 3.66 min Scan# 226
Delta R.T. 0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion: 45 Resp: 3996899
Ion Ratio Lower Upper
45 100
46 37.2 13.8 55.4





#15

Acetone

Concen: 19.134 ppbv m

RT: 3.90 min Scan# 300

Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tgt Ion: 43 Resp: 2059810

Ion Ratio Lower Upper

43 100

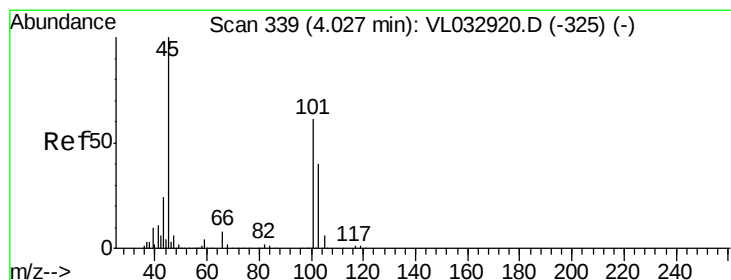
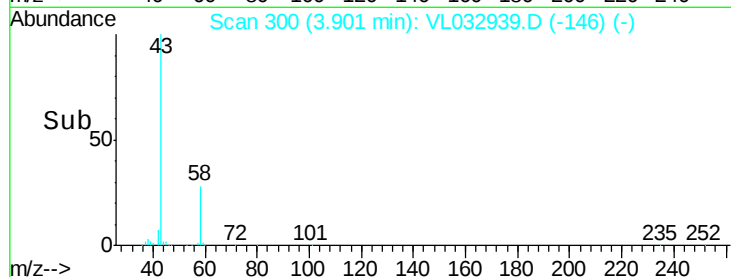
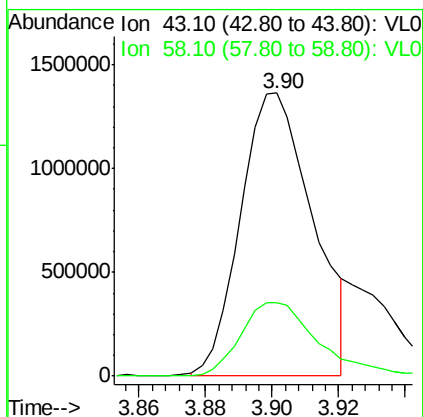
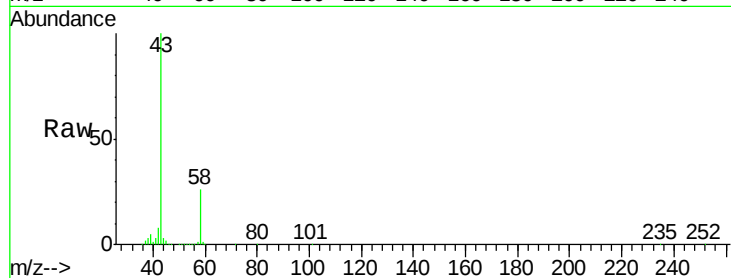
58 28.2 20.6 30.8

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#19

Isopropyl Alcohol

Concen: 60.087 ppbv

RT: 4.04 min Scan# 344

Delta R.T. 0.02 min

Lab File: VL032939.D

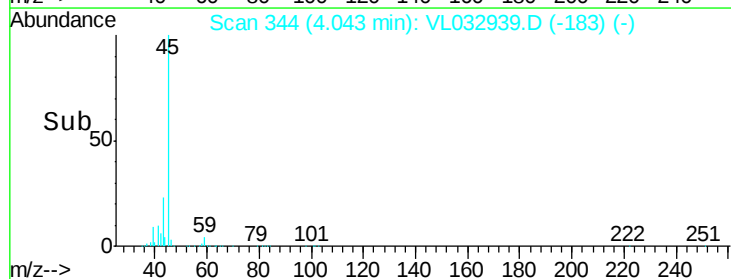
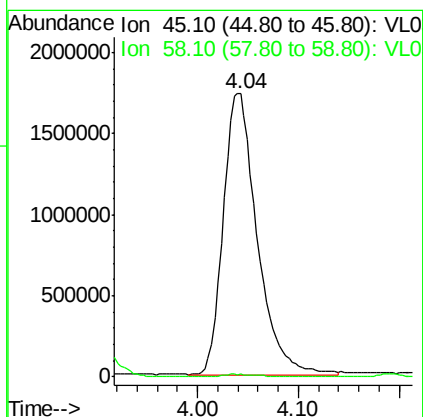
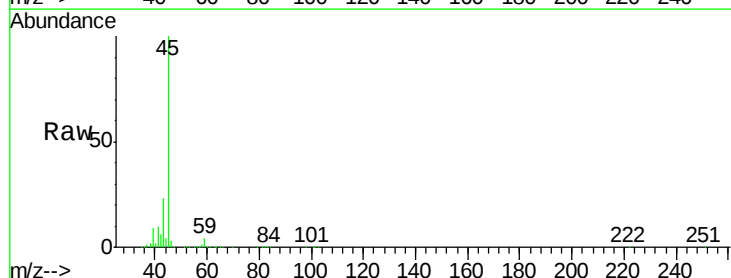
Acq: 7 Dec 2018 17:53

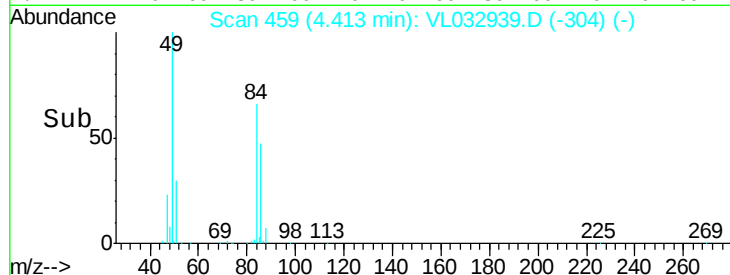
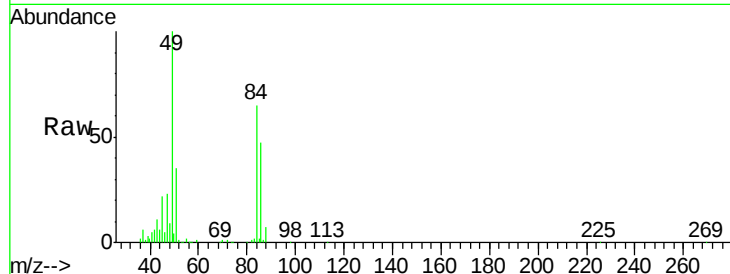
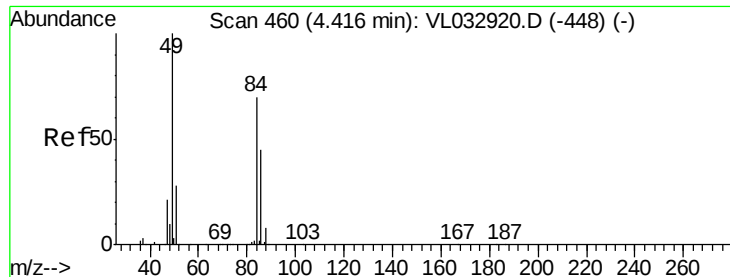
Tgt Ion: 45 Resp: 4062129

Ion Ratio Lower Upper

45 100

58 1.2 1.4 2.2#





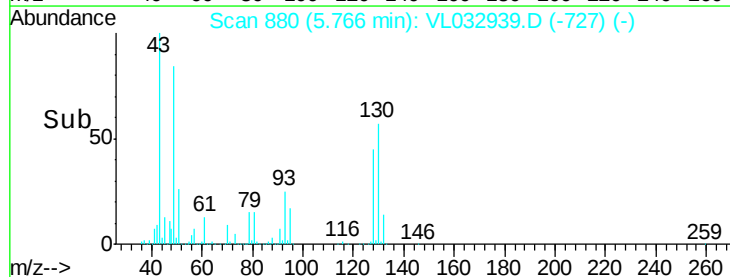
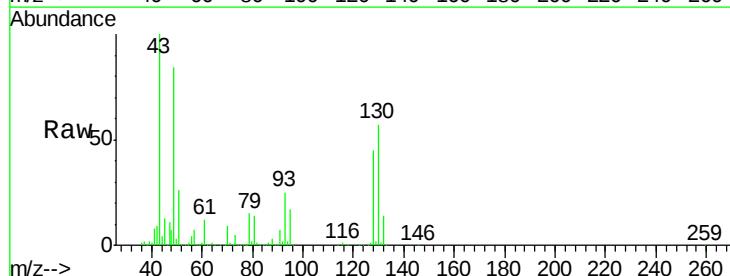
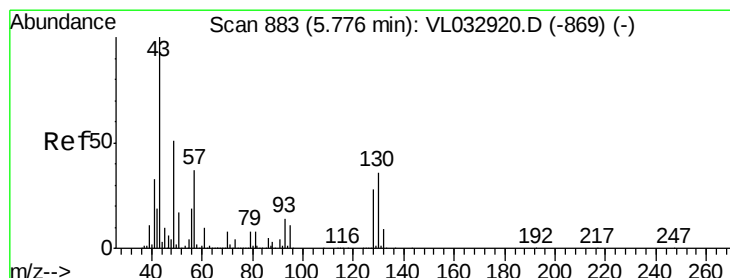
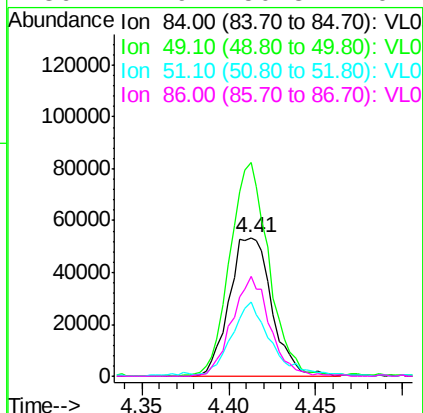
#20
Methylene Chloride
Concen: 1.725 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
84	100		
49	154.1	113.8	170.8
51	53.3	31.8	47.8#
86	71.9	50.8	76.2

Instrument :
MSVOA_L
ClientSampled :
IA3

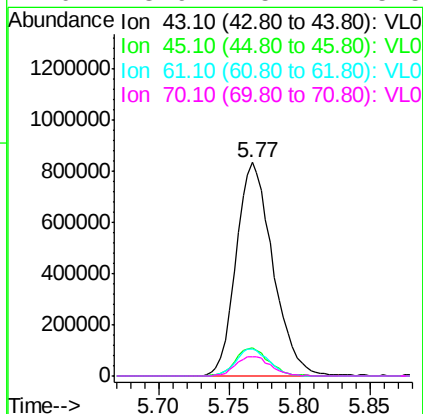
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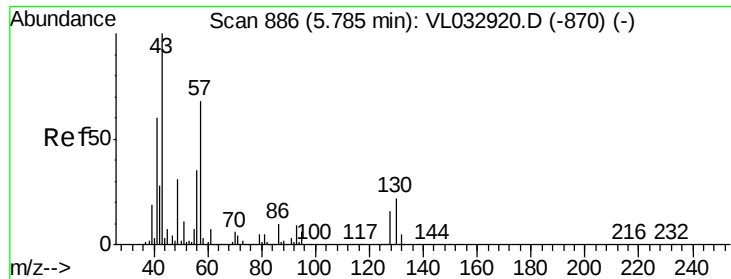
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#25
Ethyl Acetate
Concen: 5.976 ppbv
RT: 5.77 min Scan# 880
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
43	100		
45	12.1	7.8	11.6#
61	11.7	7.4	11.2#
70	8.9	5.7	8.5#





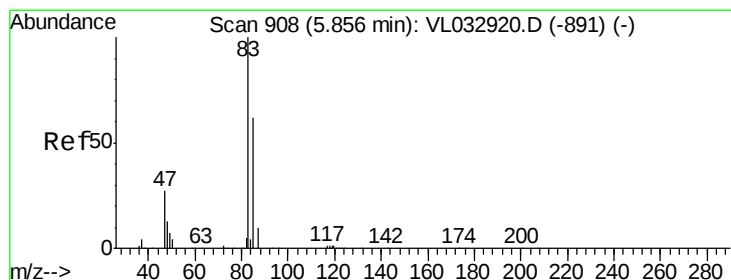
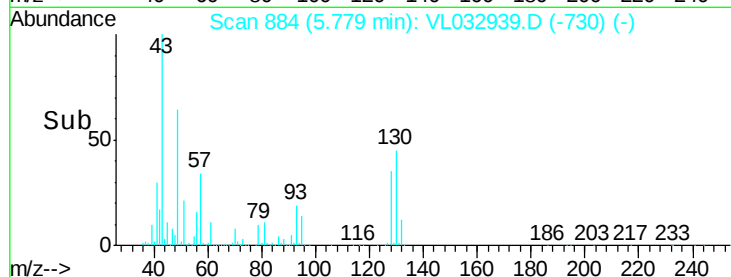
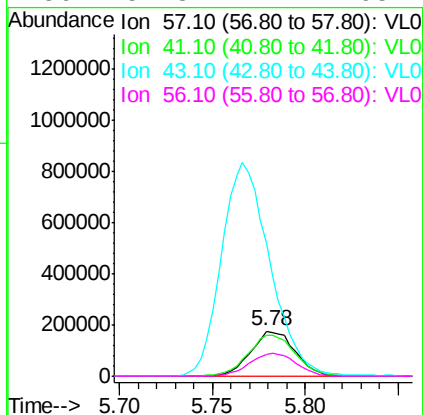
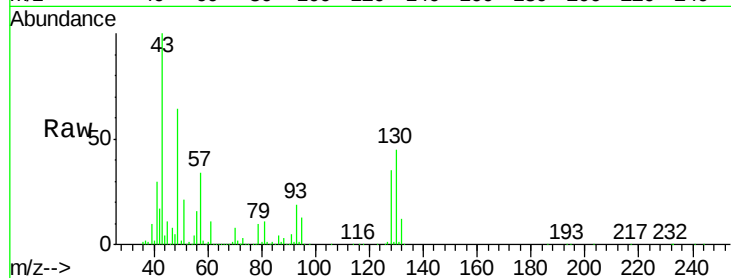
#26
Hexane
Concen: 2.508 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion: 57 Resp: 294438
Ion Ratio Lower Upper
57 100
41 97.8 72.2 108.2
43 517.3 171.9 257.9#
56 54.3 42.2 63.2

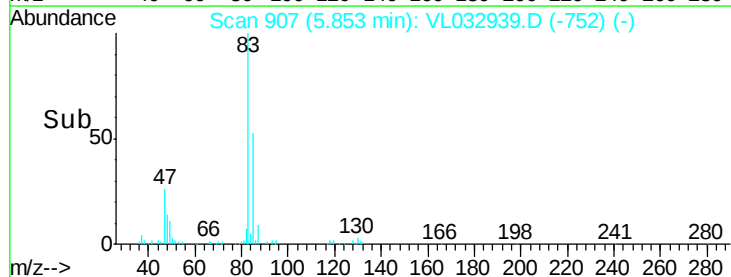
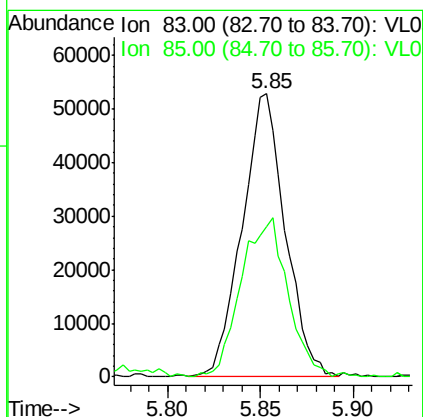
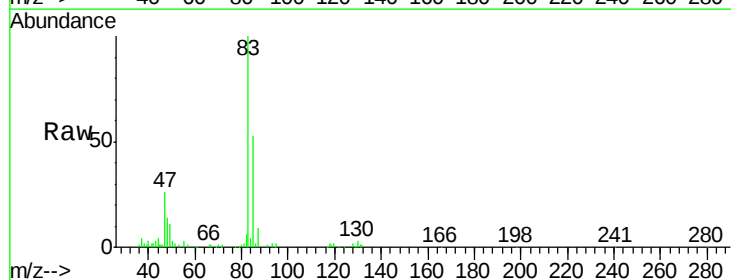
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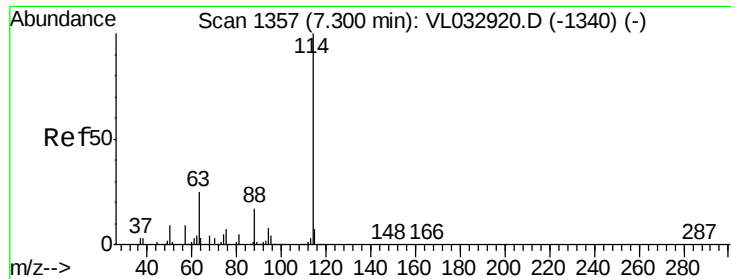
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#29
Chloroform
Concen: 0.410 ppbv
RT: 5.85 min Scan# 907
Delta R.T. -0.00 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion: 83 Resp: 85870
Ion Ratio Lower Upper
83 100
85 52.9 49.8 74.8





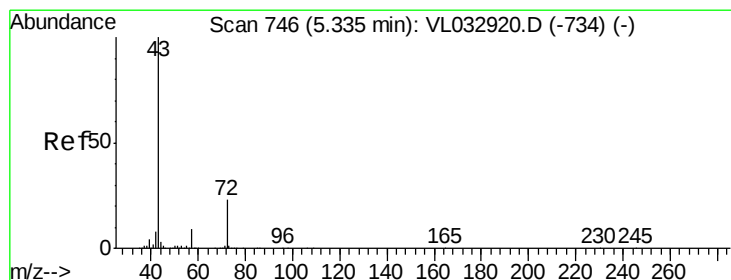
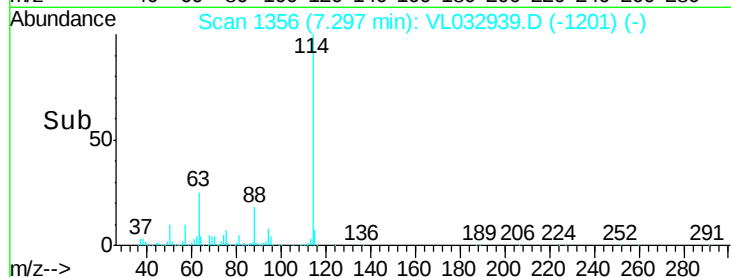
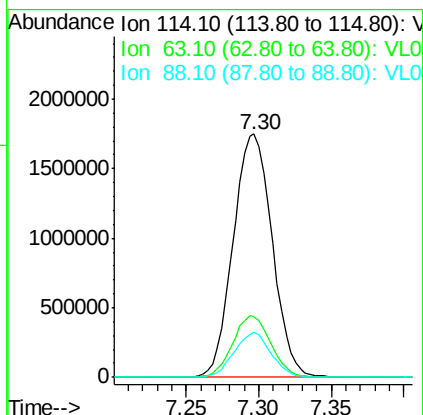
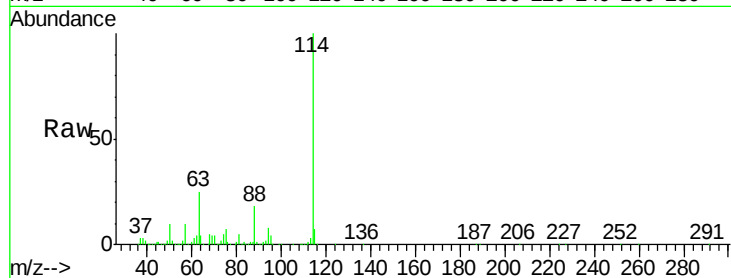
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.00 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Tgt Ion: 114 Resp: 3277555
 Ion Ratio Lower Upper
 114 100
 63 24.8 20.1 30.1
 88 17.6 14.2 21.4

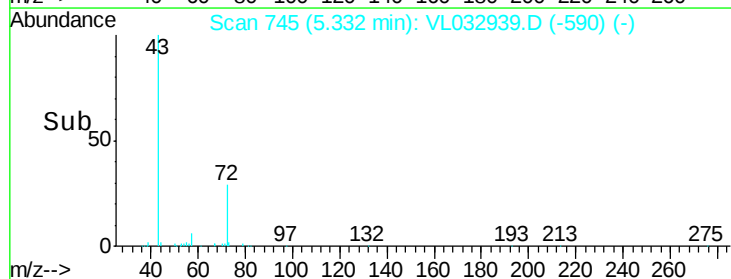
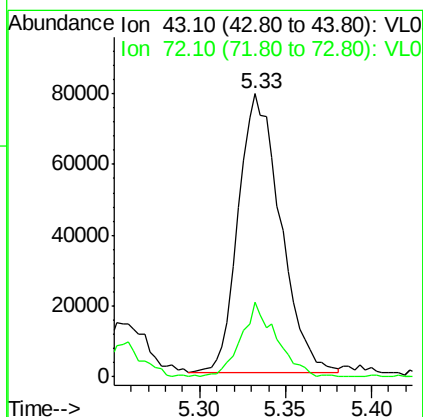
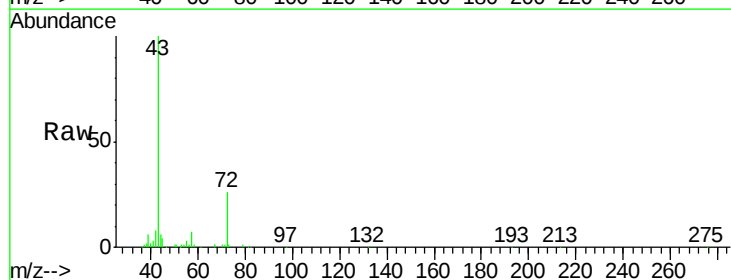
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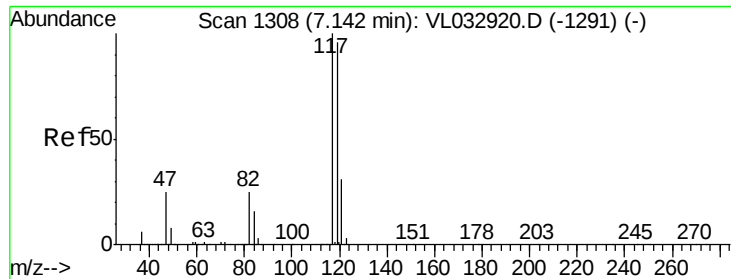
MMDadoda
 12/11/2018 10:09:06 AM



#34
 2-Butanone
 Concen: 0.935 ppbv
 RT: 5.33 min Scan# 745
 Delta R.T. -0.00 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Tgt Ion: 43 Resp: 133450
 Ion Ratio Lower Upper
 43 100
 72 22.8 18.8 28.2





#35

Carbon Tetrachloride

Concen: 0.077 ppbv

RT: 7.14 min Scan# 1306

Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

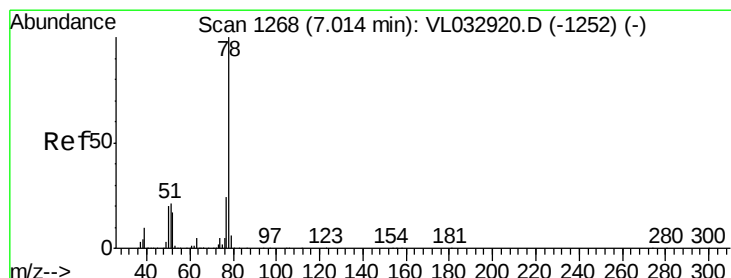
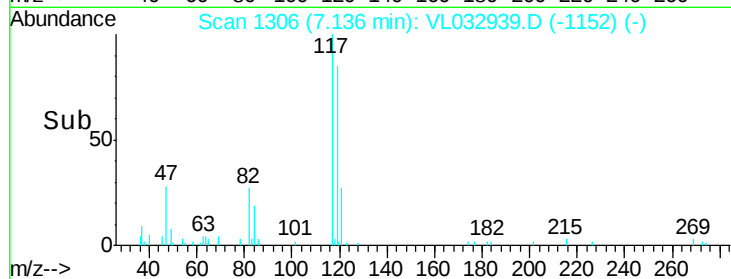
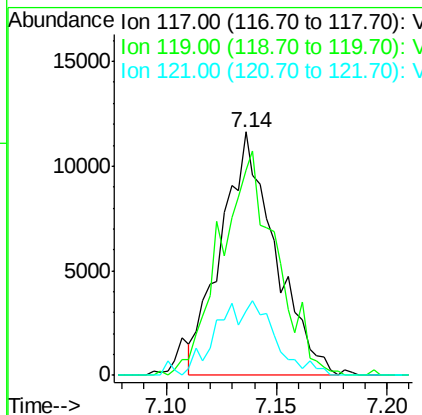
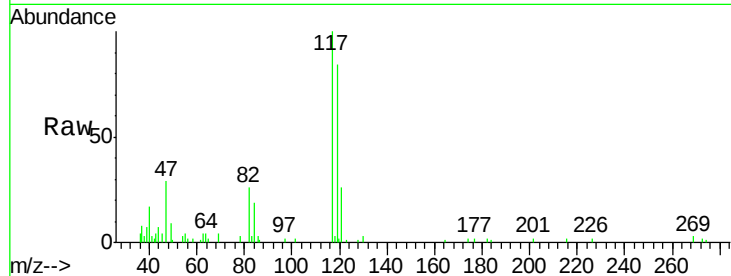
ClientSampleId :

IA3

Tgt Ion:	117	Resp:	19713
Ion	Ratio	Lower	Upper
117	100		
119	82.3	76.5	114.7
121	26.4	24.5	36.7

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#36

Benzene

Concen: 2.166 ppbv

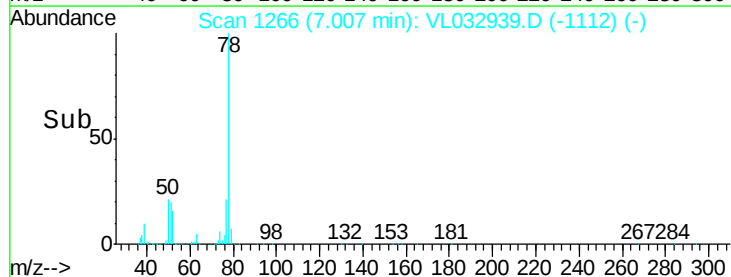
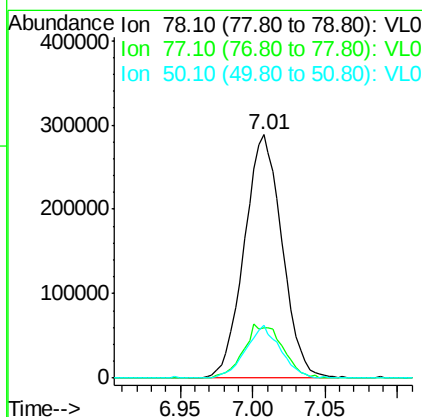
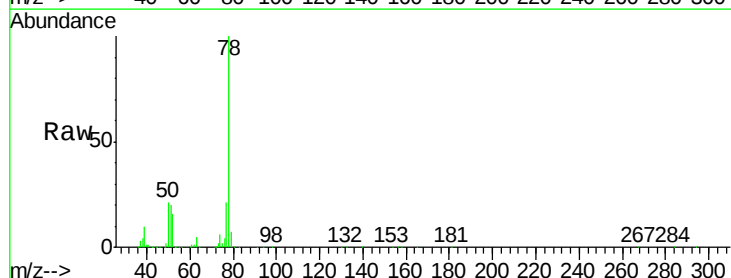
RT: 7.01 min Scan# 1266

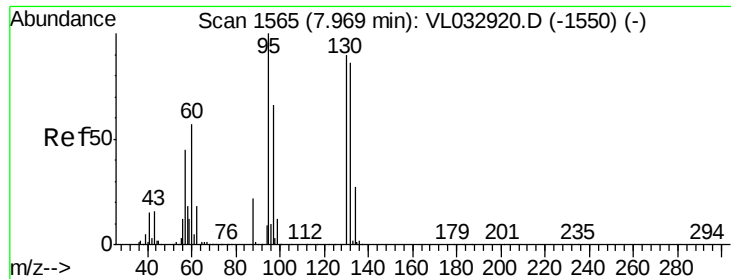
Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Tgt Ion:	78	Resp:	522061
Ion	Ratio	Lower	Upper
78	100		
77	20.8	18.9	28.3
50	21.3	16.1	24.1





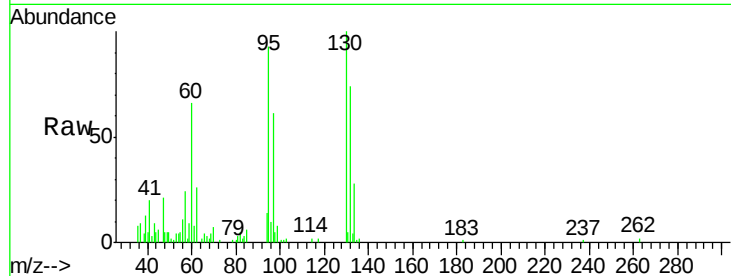
#38
 Trichloroethene
 Concen: 0.289 ppbv
 RT: 7.96 min Scan# 1562
 Delta R.T. -0.01 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Instrument :
 MSVOA_L
 ClientSampled :
 IA3

Tgt Ion	Ratio	Lower	Upper
130	100		
95	87.5	88.6	132.8#
132	78.8	76.1	114.1
97	58.2	58.0	87.0

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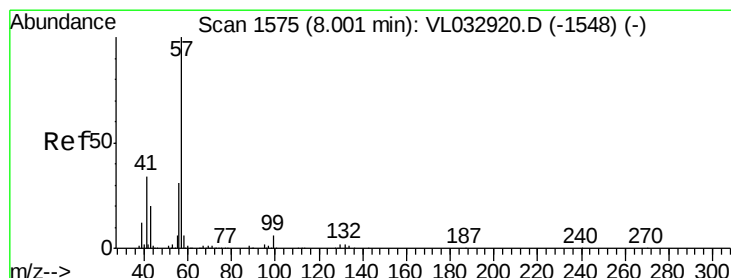
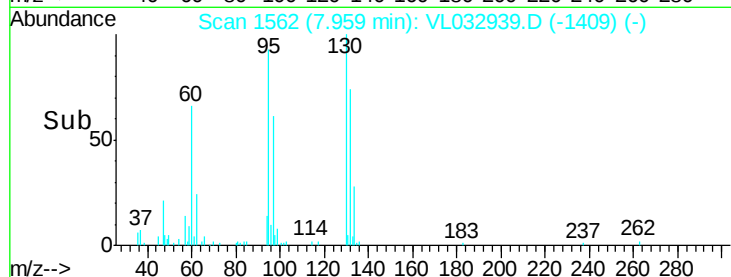
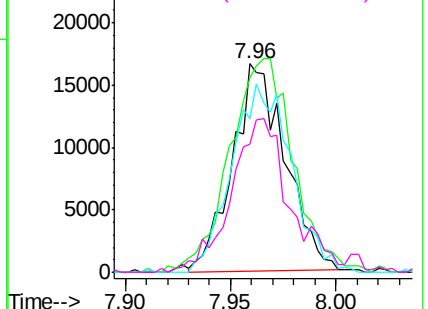
Abundance

Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

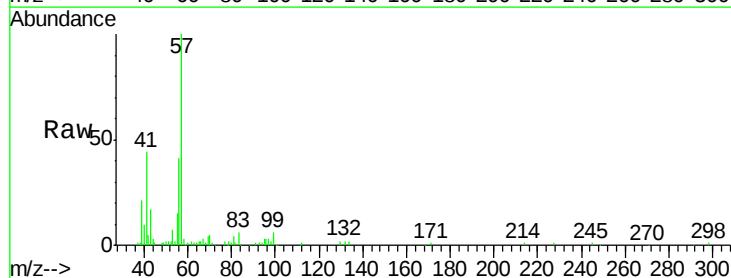
Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#44
 2,2,4-Trimethylpentane
 Concen: 0.328 ppbv
 RT: 7.99 min Scan# 1573
 Delta R.T. -0.01 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
57	100		
41	44.2	27.0	40.4#
56	39.3	24.6	37.0#

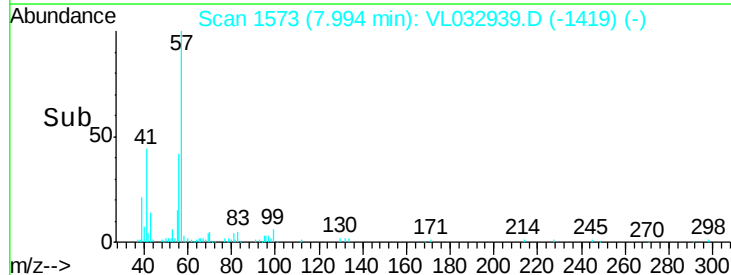
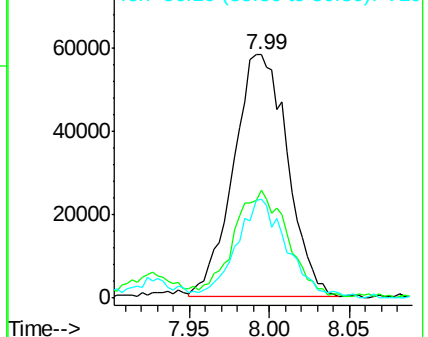


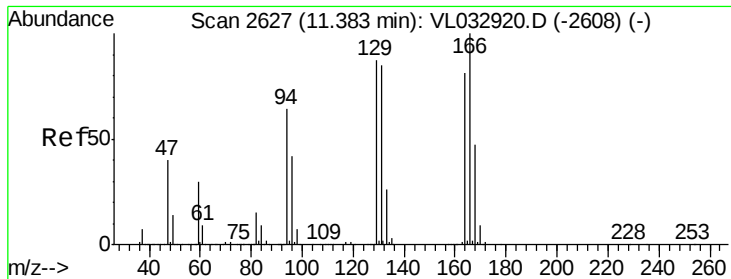
Abundance

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





#52

Tetrachloroethene

Concen: 1.366 ppbv m

RT: 11.37 min Scan# 2624

Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

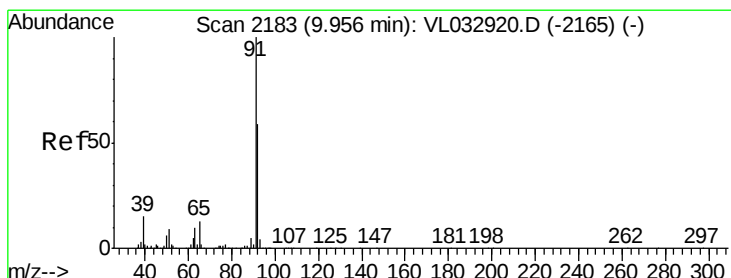
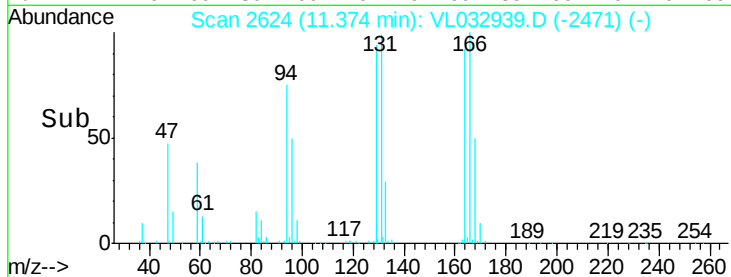
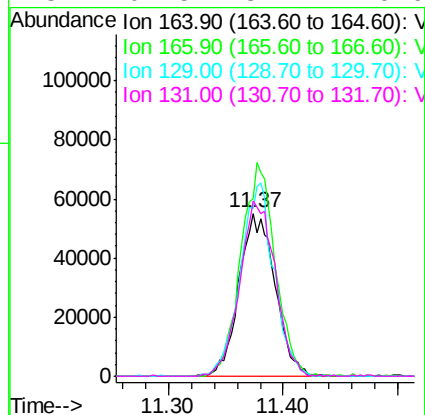
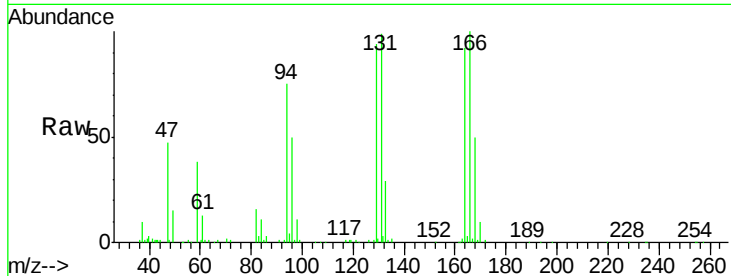
ClientSampleId :

IA3

Tgt Ion:	164	Resp:	119803
Ion Ratio	Lower	Upper	
164	100		
166	108.9	98.8	148.2
129	102.7	85.5	128.3
131	107.5	84.4	126.6

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#53

Toluene

Concen: 3.629 ppbv

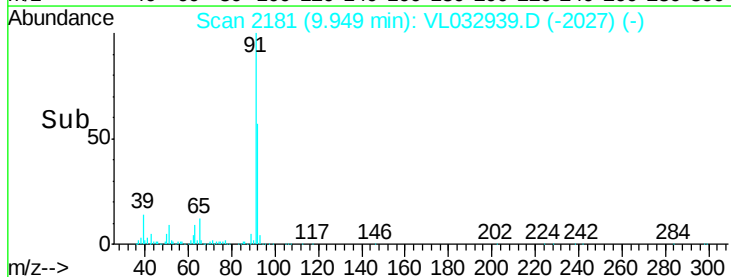
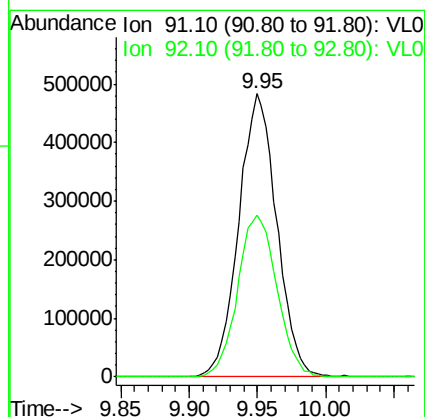
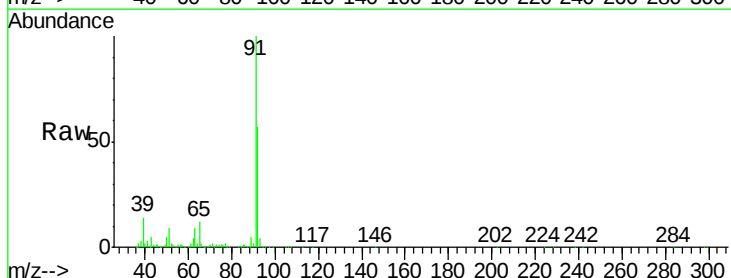
RT: 9.95 min Scan# 2181

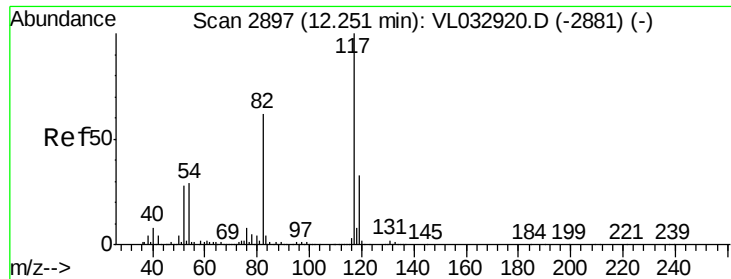
Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Tgt Ion:	91	Resp:	927711
Ion Ratio	Lower	Upper	
91	100		
92	59.5	47.4	71.0





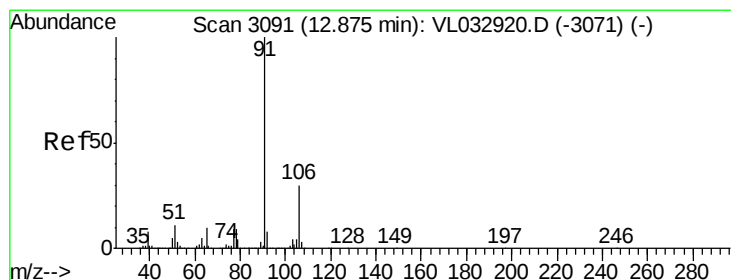
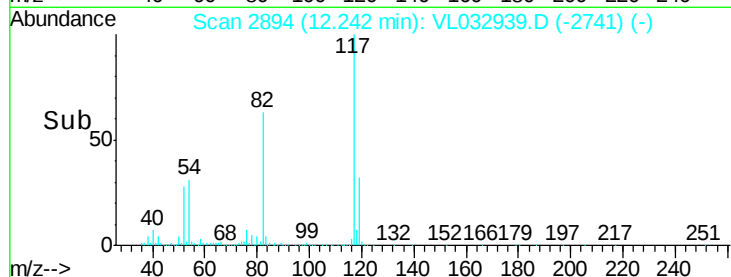
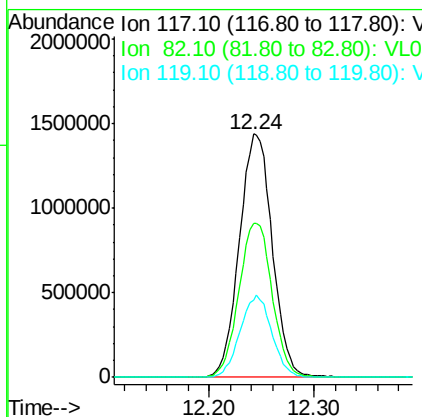
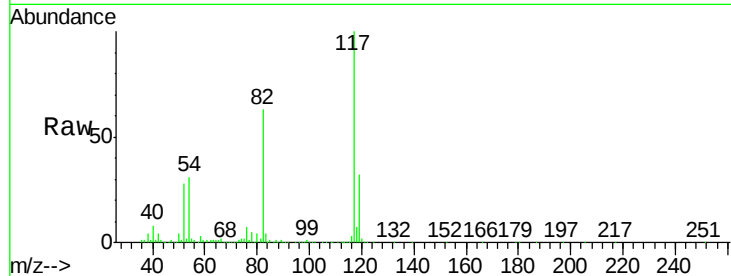
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2894
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion	Ratio	Lower	Upper
117	100		
82	64.2	47.8	71.8
119	32.5	43.1	64.7#

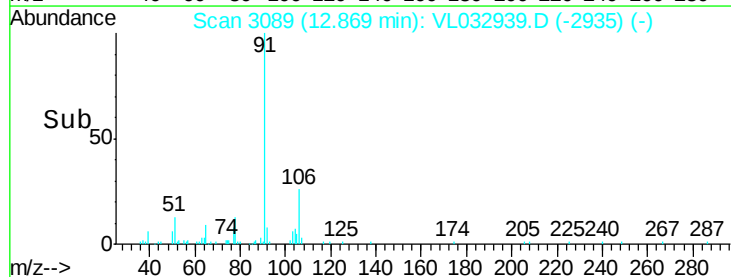
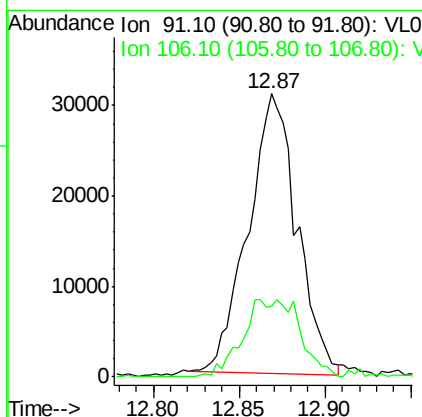
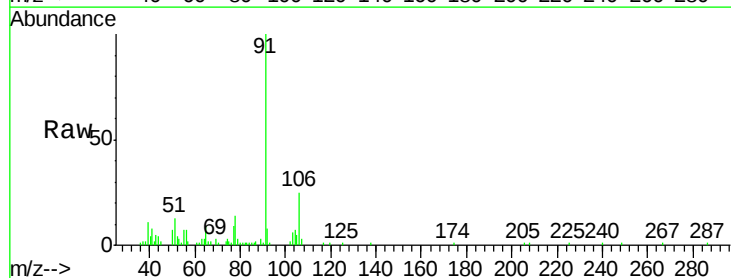
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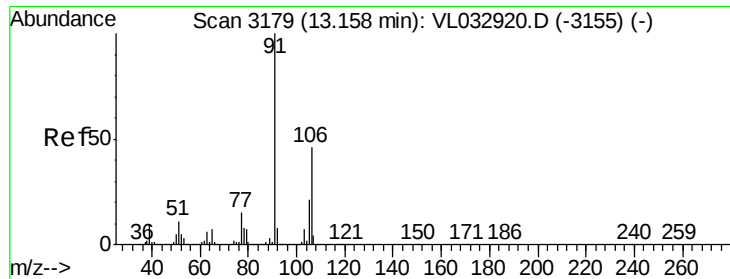
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#58
Ethyl Benzene
Concen: 0.183 ppbv
RT: 12.87 min Scan# 3089
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
91	100		
106	25.6	23.9	35.9





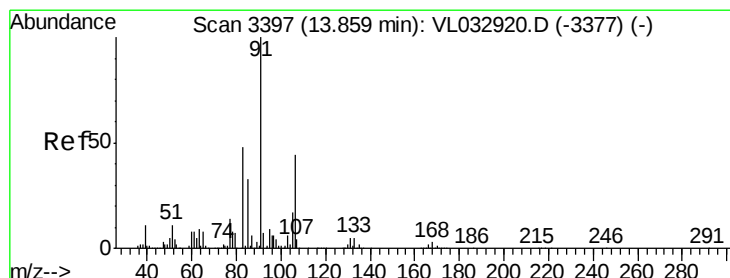
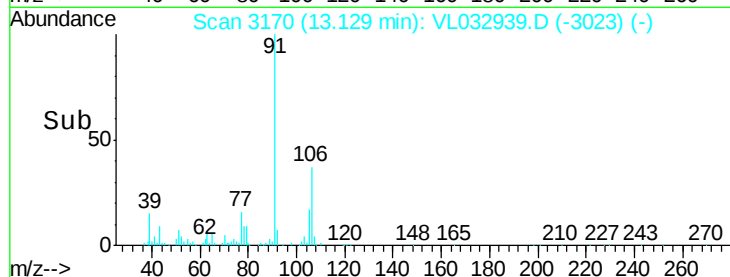
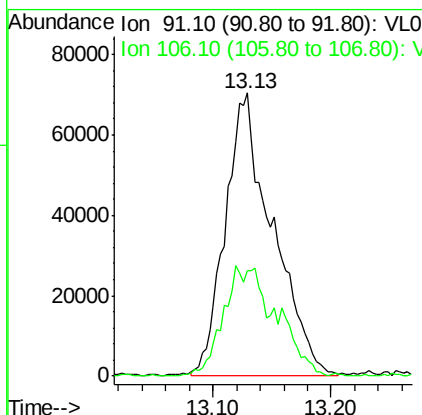
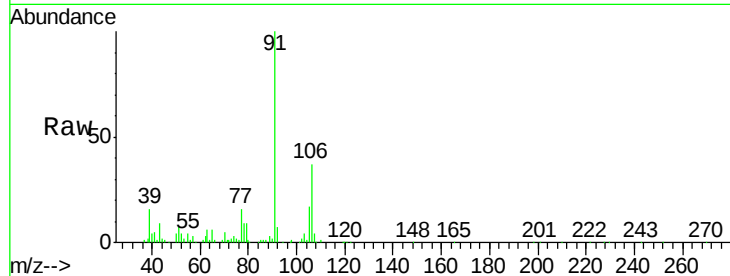
#59
m/p-Xylene
Concen: 0.645 ppbv m
RT: 13.13 min Scan# 3170
Delta R.T. -0.03 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Instrument :
MSVOA_L
ClientSampled :
IA3

Tgt Ion: 91 Resp: 194651
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0

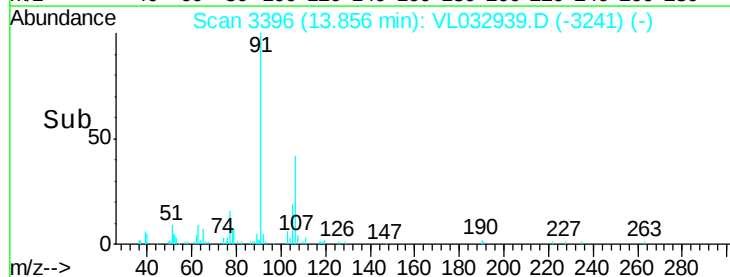
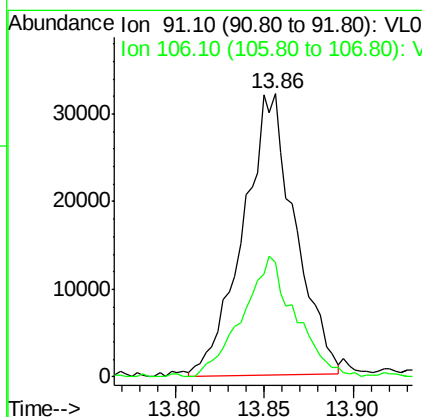
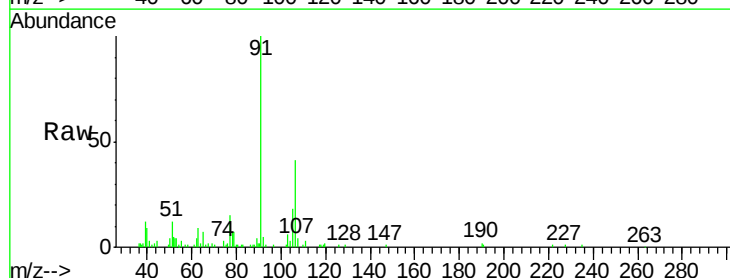
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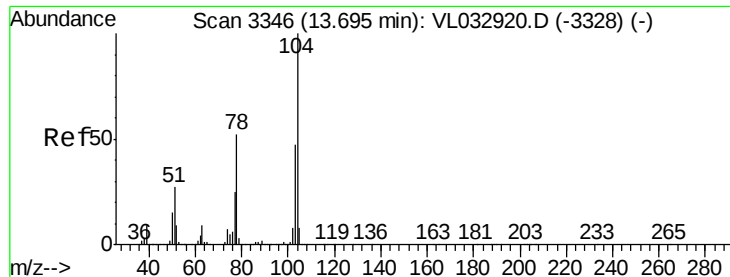
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#60
o-Xylene
Concen: 0.215 ppbv
RT: 13.86 min Scan# 3396
Delta R.T. -0.00 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion: 91 Resp: 65545
Ion Ratio Lower Upper
91 100
106 43.6 21.9 65.8





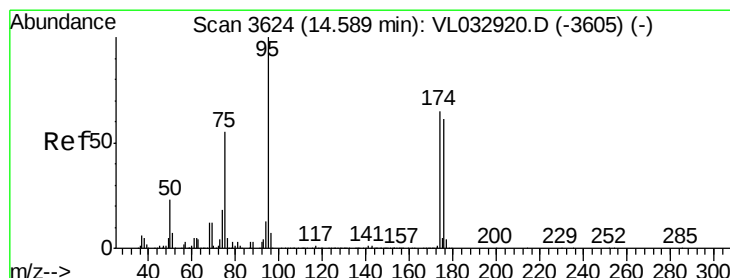
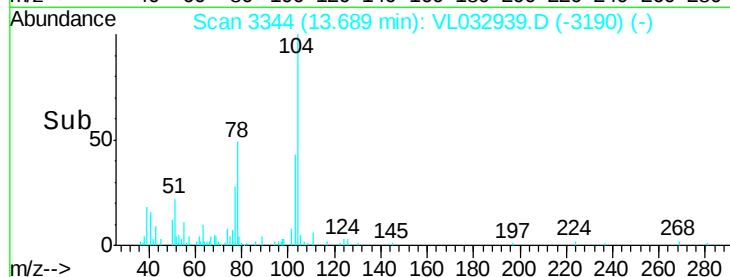
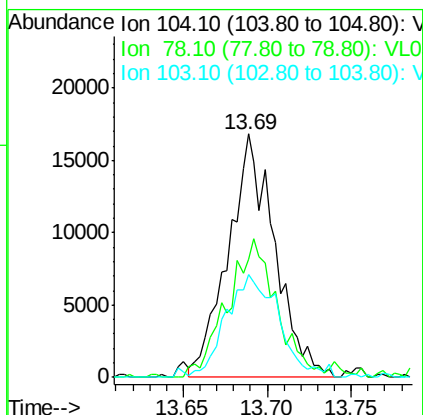
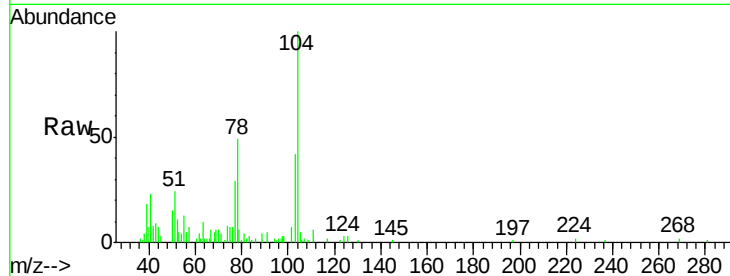
#61
Styrene
Concen: 0.159 ppbv m
RT: 13.69 min Scan# 3344
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Instrument :
MSVOA_L
ClientSampled :
IA3

Tgt Ion	Ratio	Lower	Upper
104	100		
78	62.5	42.0	63.0
103	49.0	38.3	57.5

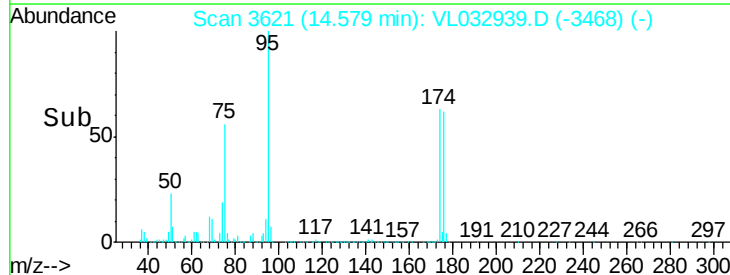
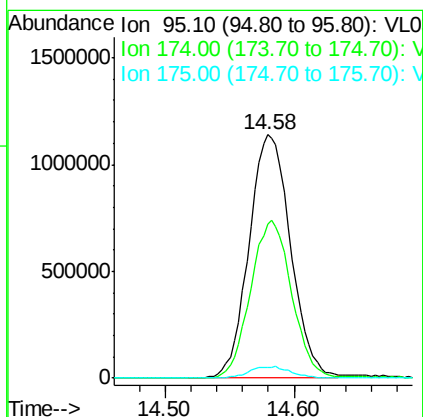
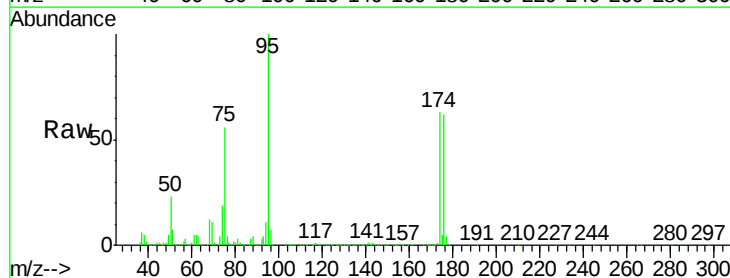
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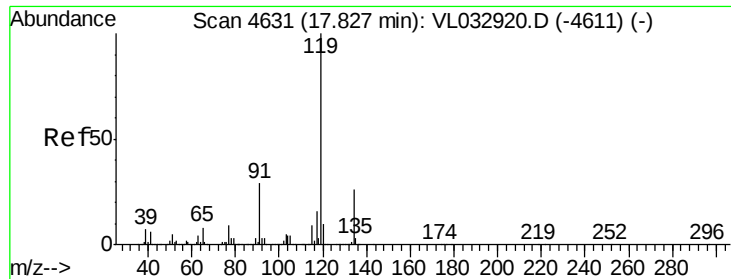
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#68
1-Bromo-4-Fluorobenzene
Concen: 11.079 ppbv
RT: 14.58 min Scan# 3621
Delta R.T. -0.01 min
Lab File: VL032939.D
Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
95	100		
174	65.1	51.4	77.0
175	4.8	3.8	5.6





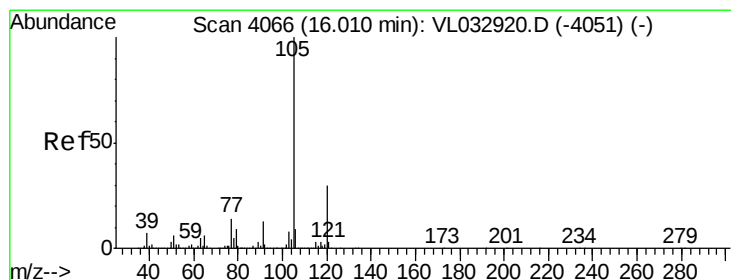
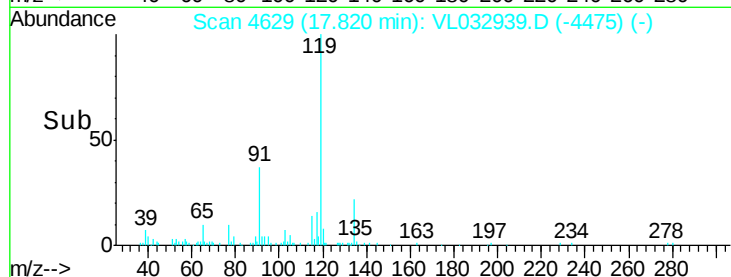
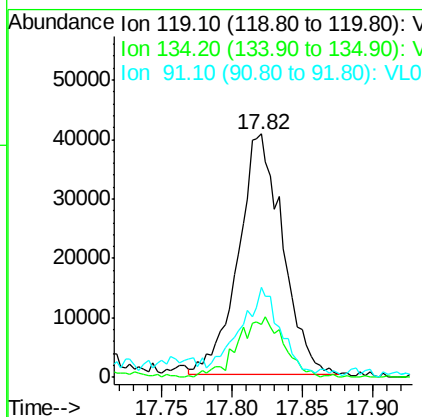
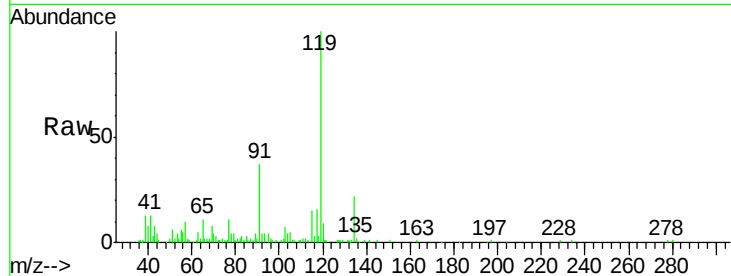
#69
 p-Isopropyltoluene
 Concen: 0.189 ppbv
 RT: 17.82 min Scan# 4629
 Delta R.T. -0.01 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Instrument :
 MSVOA_L
 ClientSampled :
 IA3

Tgt Ion	Ratio	Resp	Lower	Upper
119	100	88860		
134	26.5	20.2	30.2	
91	36.3	22.9	34.3#	

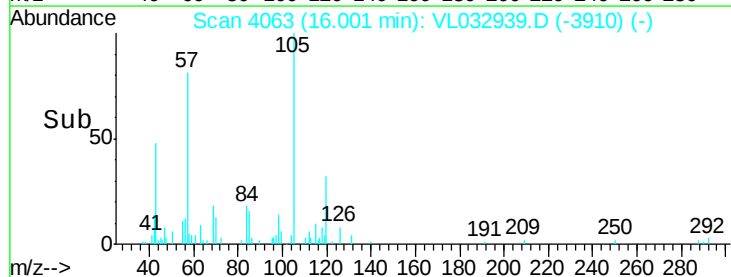
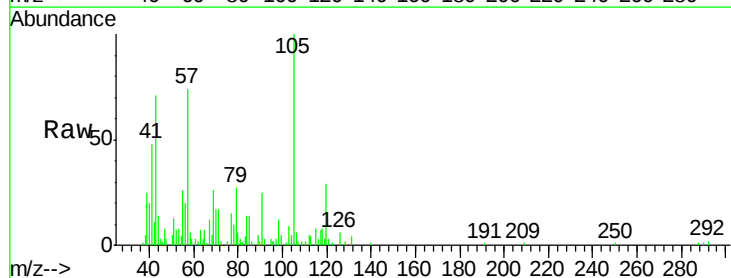
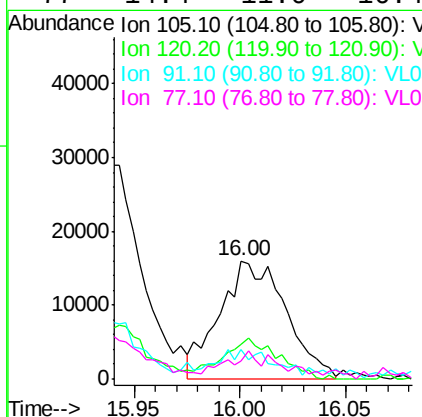
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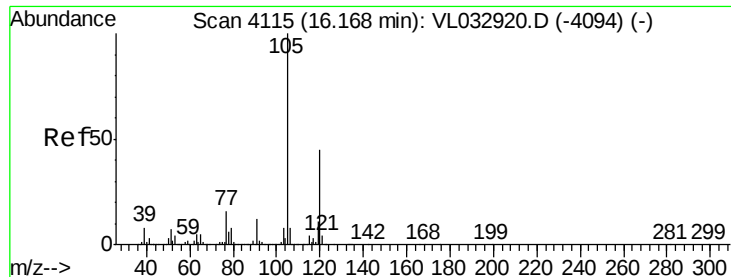
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#72
 4-Ethyltoluene
 Concen: 0.103 ppbv m
 RT: 16.00 min Scan# 4063
 Delta R.T. -0.01 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	34911		
120	29.7	23.0	34.4	
91	24.4	10.4	15.6#	
77	14.4	11.0	16.4	





#73

1,3,5-Trimethylbenzene

Concen: 0.107 ppbv

RT: 16.16 min Scan# 4114

Delta R.T. -0.00 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion:105 Resp: 35610

Ion Ratio Lower Upper

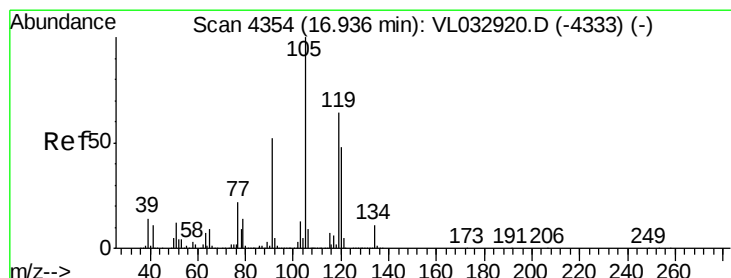
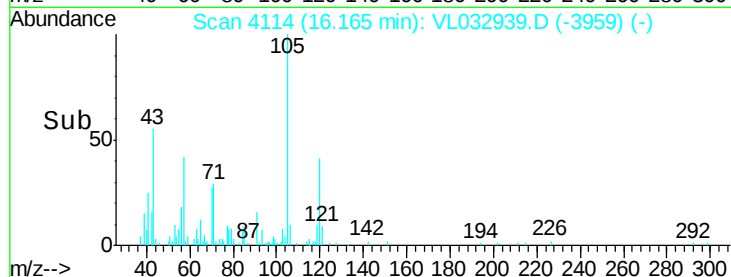
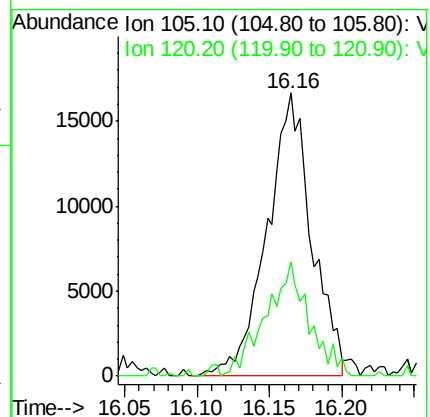
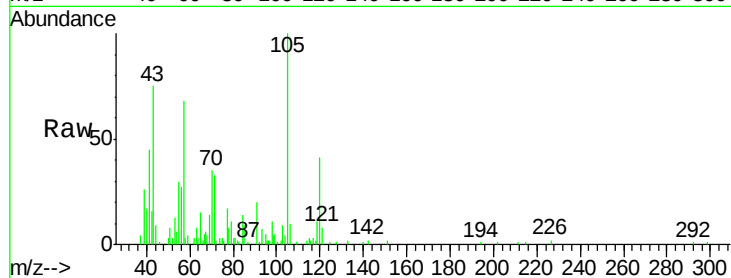
105 100

120 38.1 36.0 54.0

Manual Integrations
APPROVED

MMDadoda

12/11/2018 10:09:06 AM



#74

1,2,4-Trimethylbenzene

Concen: 0.321 ppbv

RT: 16.93 min Scan# 4352

Delta R.T. -0.01 min

Lab File: VL032939.D

Acq: 7 Dec 2018 17:53

Tgt Ion:105 Resp: 120601

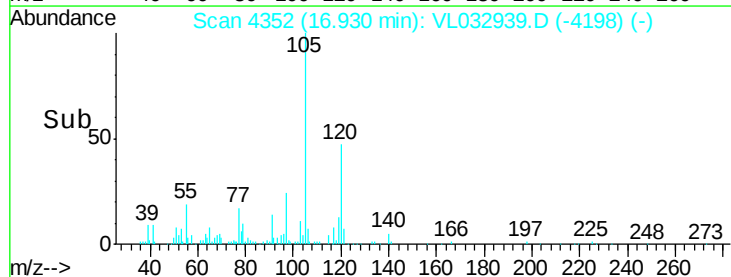
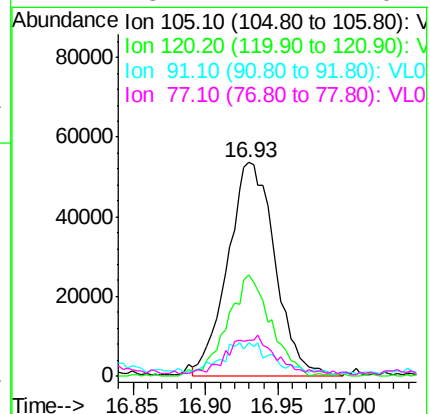
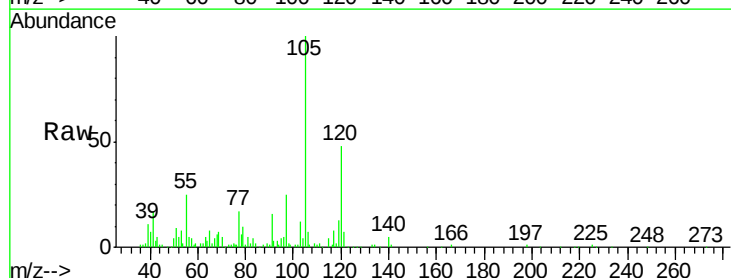
Ion Ratio Lower Upper

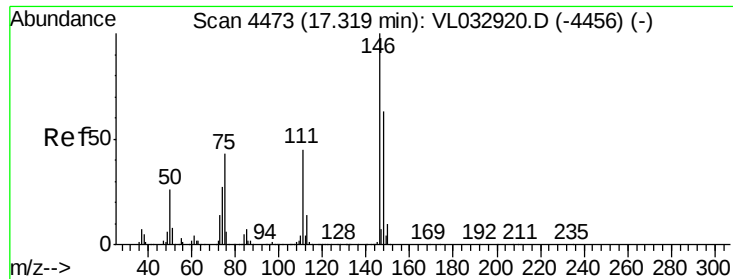
105 100

120 46.1 38.6 58.0

91 14.7 41.7 62.5#

77 15.4 17.4 26.2#





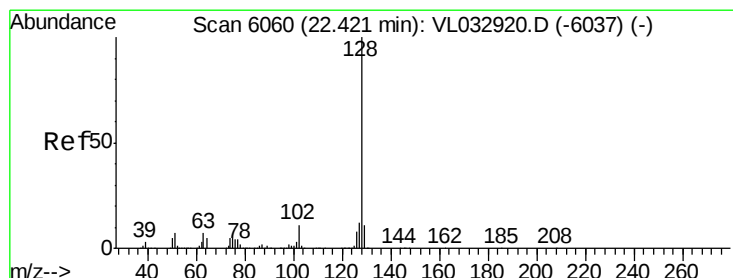
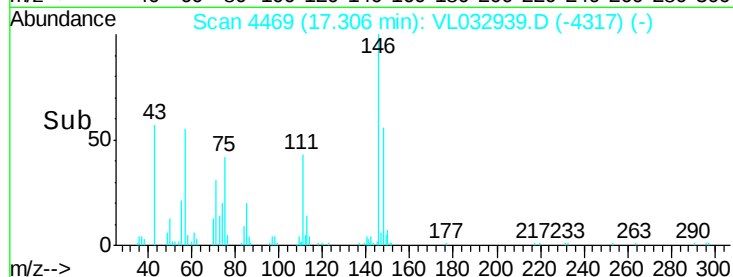
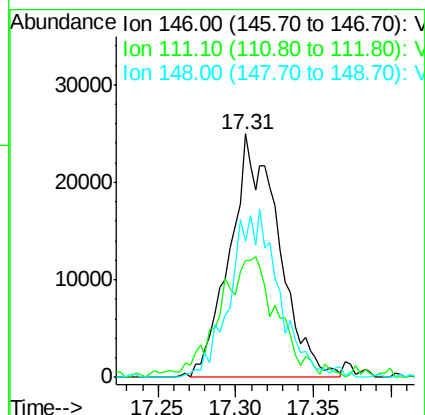
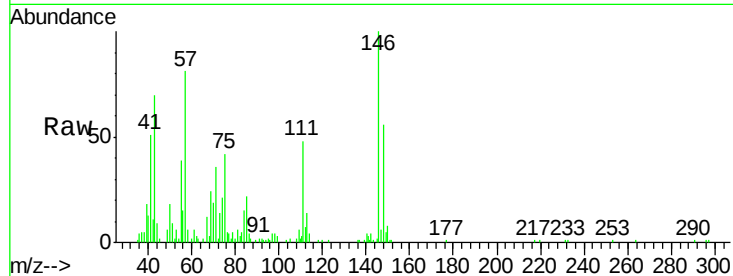
#76
 1,4-Dichlorobenzene
 Concen: 0.263 ppbv m
 RT: 17.31 min Scan# 4469
 Delta R.T. -0.01 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Instrument :
 MSVOA_L
 ClientSampled :
 IA3

Tgt Ion	Ratio	Lower	Upper
146	100		
111	0.0	22.8	68.4#
148	0.0	32.0	96.2#

Manual Integrations
 APPROVED

MMDadoda
 12/11/2018 10:09:06 AM



#79
 Naphthalene
 Concen: 0.252 ppbv m
 RT: 22.42 min Scan# 6061
 Delta R.T. 0.00 min
 Lab File: VL032939.D
 Acq: 7 Dec 2018 17:53

Tgt Ion	Ratio	Lower	Upper
128	100		
127	9.7	9.9	14.9#
129	5.3	8.6	13.0#

