

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110718\
 Data File : VL032718.D
 Acq On : 7 Nov 2018 15:39
 Operator : SY/AP
 Sample : J5809-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-110118

Manual Integrations
 APPROVED

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 11/12/2018 12:30:05 PM

Quant Time: Nov 12 00:43:48 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct 25 2018
 QLast Update : Thu Oct 25 05:15:43 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1501105	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3681722	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3467725	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	2609634	10.11	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	34178	0.223	ppbv	94
3) Chlorodifluoromethane	3.02	51	51497m	0.439	ppbv	
4) Chloromethane	3.18	50	37651	0.574	ppbv	90
9) Propene	3.06	41	136417m	2.824	ppbv	
10) Heptane	8.26	43	57147	0.307	ppbv	99
11) Trichlorofluoromethane	4.01	101	42494	0.213	ppbv	86
13) Ethanol	3.69	45	21364367	1547.253	ppbv	98
15) Acetone	3.90	43	2859145m	20.626	ppbv	
17) tert-Butyl alcohol	4.43	59	265574m	6.514	ppbv	
19) Isopropyl Alcohol	4.09	45	1399479m	14.177	ppbv	
20) Methylene Chloride	4.42	84	55513	0.789	ppbv	88
26) Hexane	5.79	57	97555	0.646	ppbv #	11
29) Chloroform	5.86	83	23137m	0.096	ppbv	
34) 2-Butanone	5.34	43	127390	0.645	ppbv	99
35) Carbon Tetrachloride	7.14	117	19272m	0.074	ppbv	
36) Benzene	7.02	78	131754	0.441	ppbv	97
44) 2,2,4-Trimethylpentane	8.00	57	144842	0.284	ppbv #	79
52) Tetrachloroethene	11.39	164	20152m	0.193	ppbv	
53) Toluene	9.96	91	685999	2.002	ppbv	98
58) Ethyl Benzene	12.88	91	72402m	0.180	ppbv	
59) m/p-Xylene	13.14	91	220679m	0.615	ppbv	
60) o-Xylene	13.86	91	82122m	0.237	ppbv	
74) 1,2,4-Trimethylbenzene	16.93	105	117509m	0.307	ppbv	

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

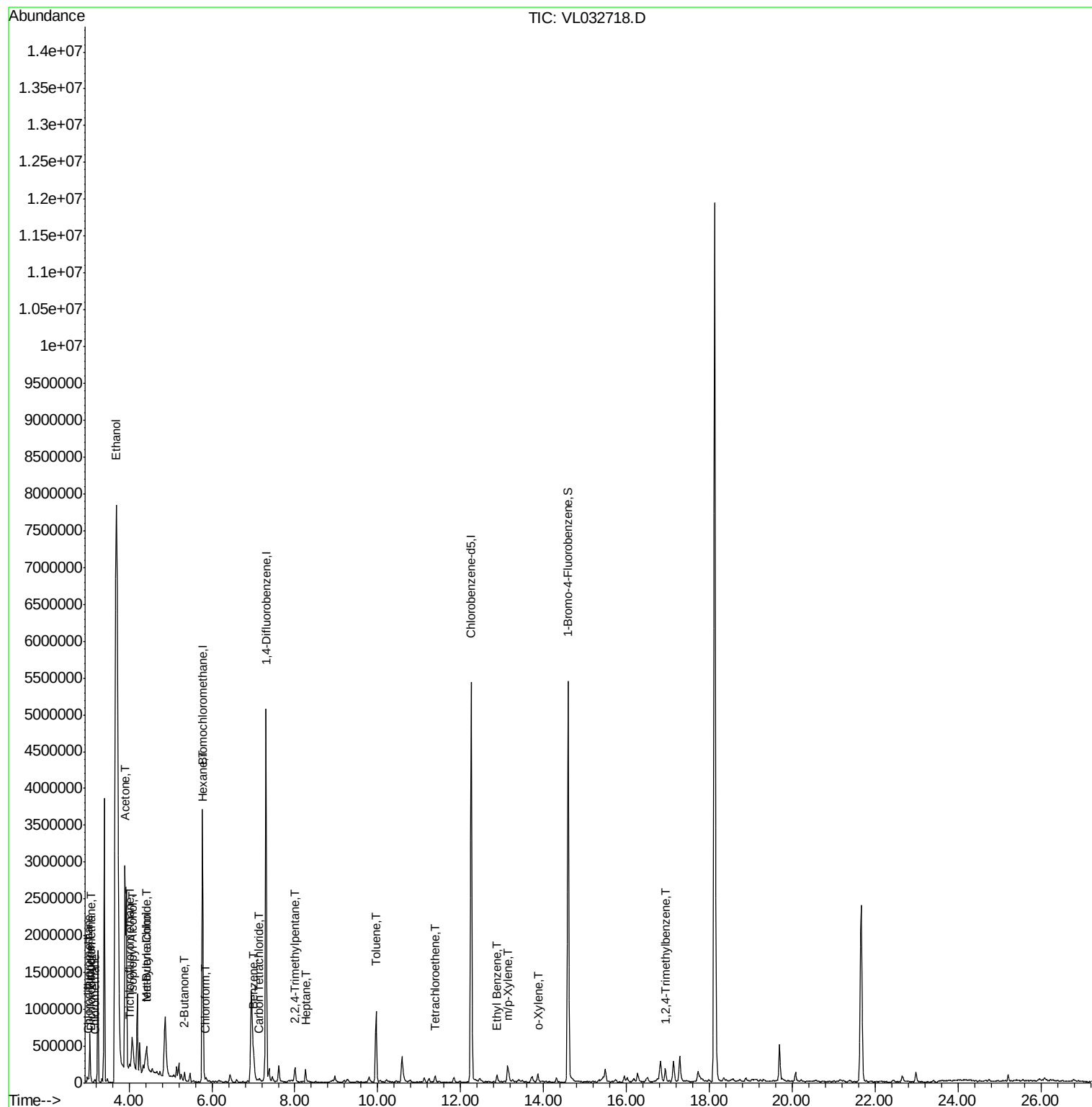
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110718\
Data File : VL032718.D
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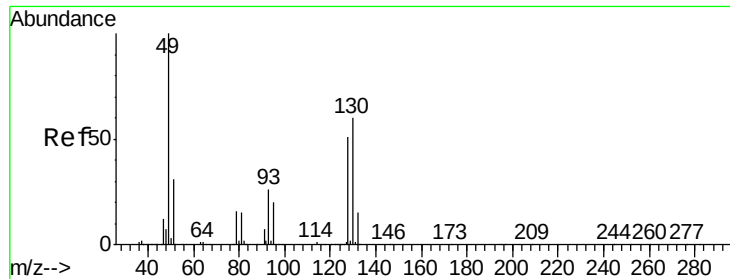
Instrument :
MSVOA_L
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Quant Time: Nov 12 00:43:48 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct
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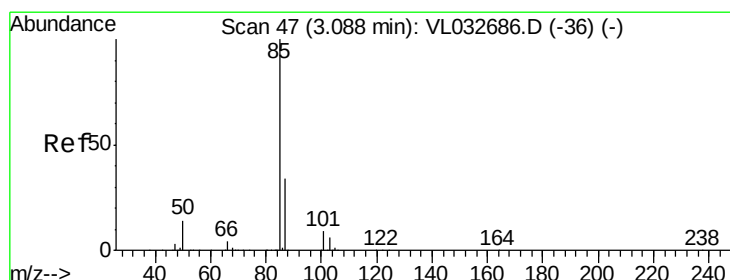
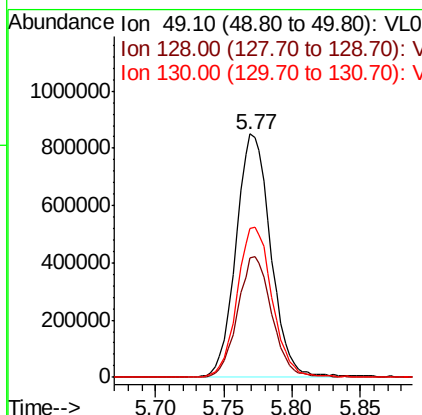
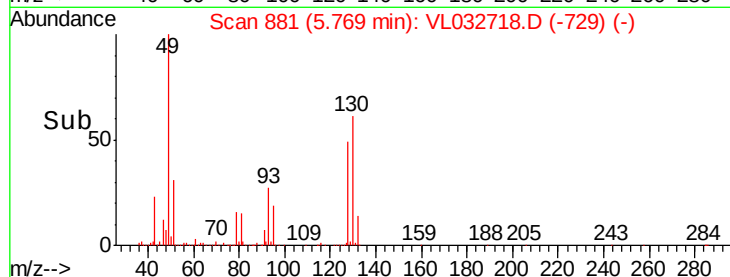
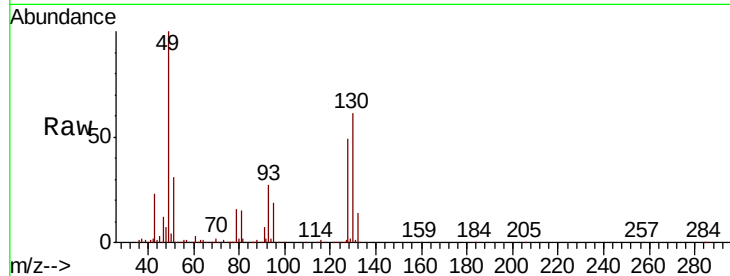
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.77 min Scan# 881
 Delta R.T. -0.01 min
 Lab File: VL032718.D
 Acq: 7 Nov 2018 15:39

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-110118

Tot Ion:	49	Resp:	1501105
Ion	Ratio	Lower	Upper
49	100		
128	49.2	22.3	66.8
130	62.8	28.4	85.3

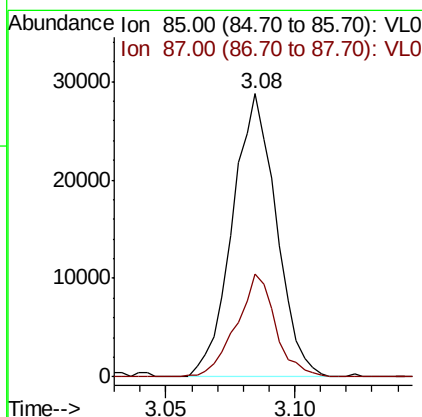
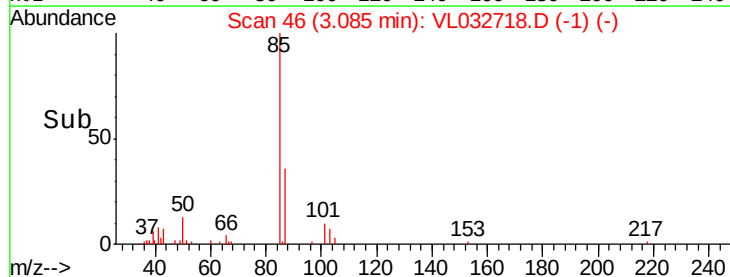
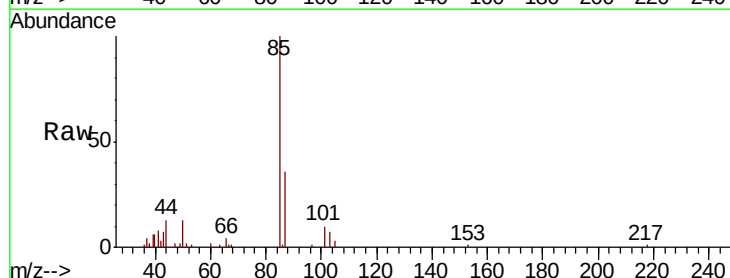
Manual Integrations
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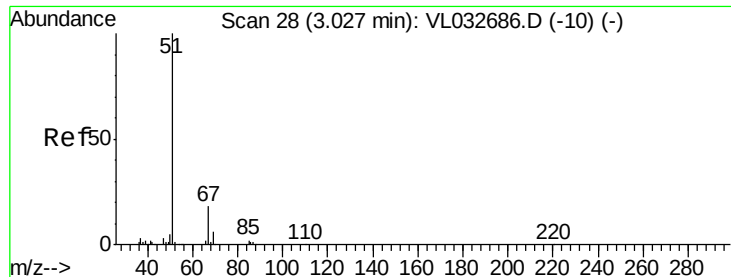
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#2
 Dichlorodifluoromethane
 Concen: 0.223 ppbv
 RT: 3.08 min Scan# 46
 Delta R.T. -0.00 min
 Lab File: VL032718.D
 Acq: 7 Nov 2018 15:39

Tgt Ion:	85	Resp:	34178
Ion	Ratio	Lower	Upper
85	100		
87	36.2	26.2	39.2





#3

Chlorodifluoromethane

Concen: 0.439 ppbv

RT: 3.02 min Scan# 27

Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 51 Resp: 51497

Ion Ratio Lower Upper

51 100

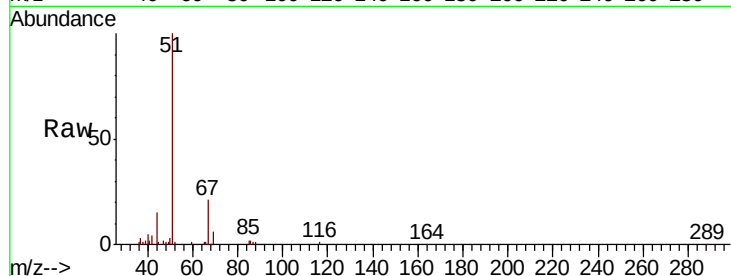
67 19.5 15.2 22.8

Manual Integrations

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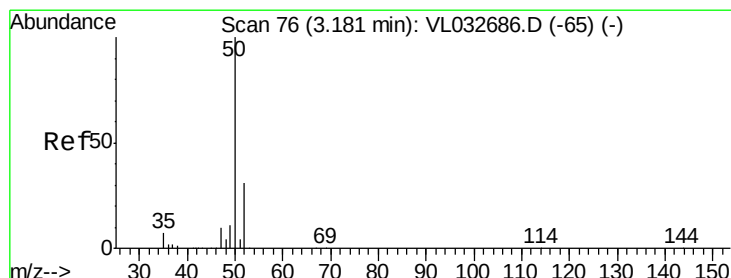
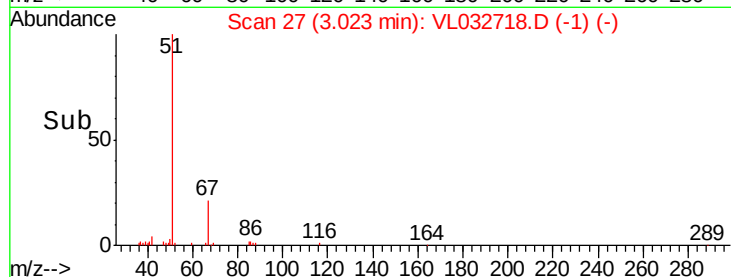
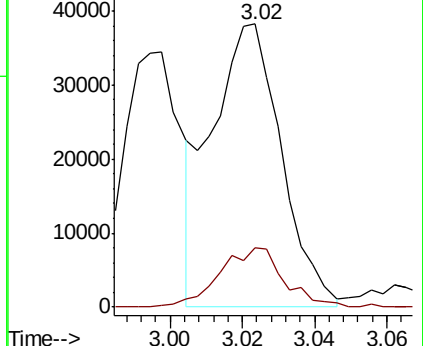
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.574 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032718.D

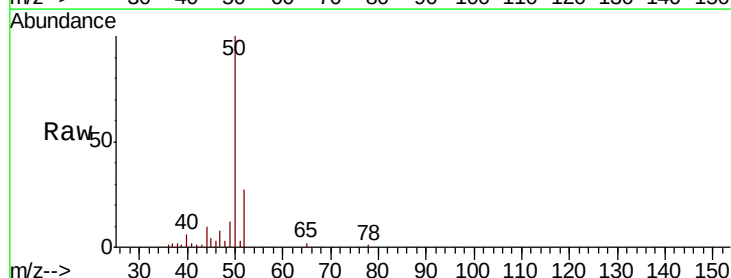
Acq: 7 Nov 2018 15:39

Tgt Ion: 50 Resp: 37651

Ion Ratio Lower Upper

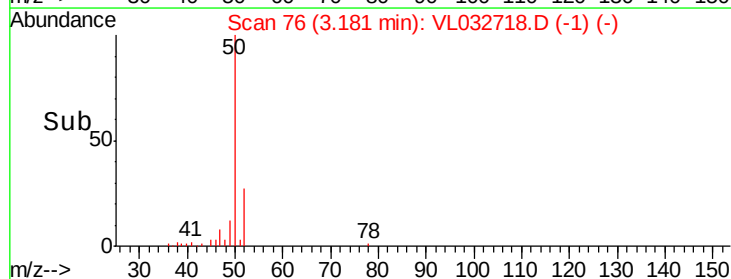
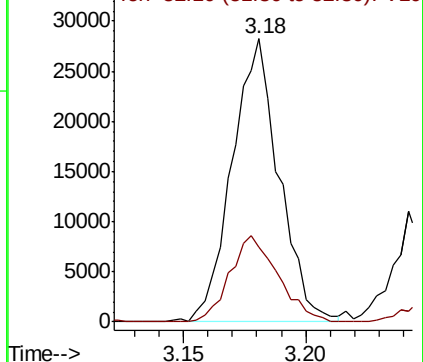
50 100

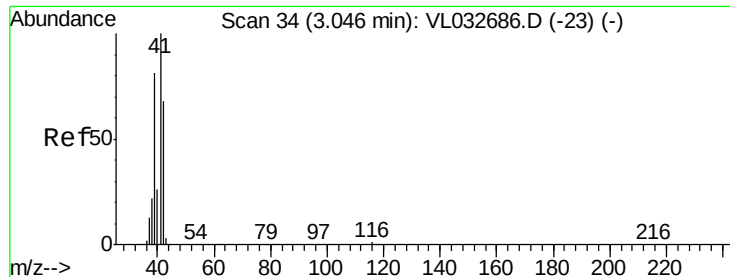
52 26.6 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.824 ppbv m

RT: 3.06 min Scan# 38

Delta R.T. 0.02 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 41 Resp: 136417

Ion Ratio Lower Upper

41 100

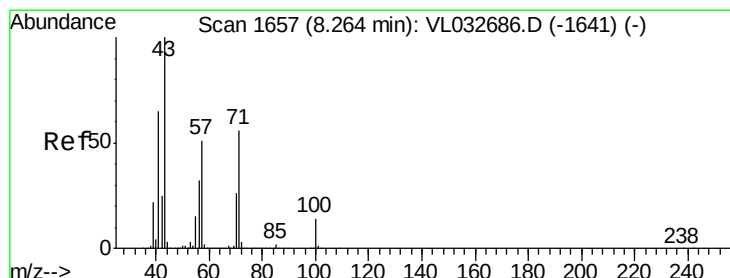
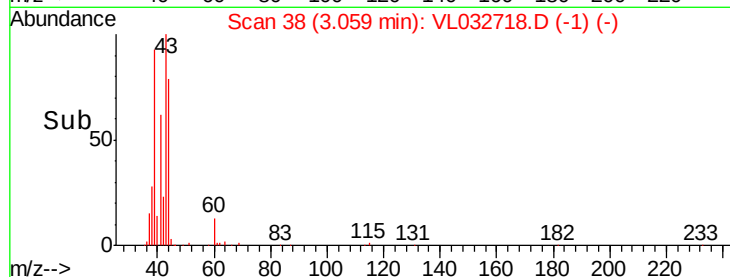
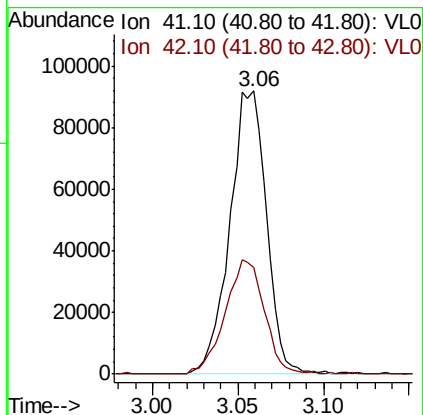
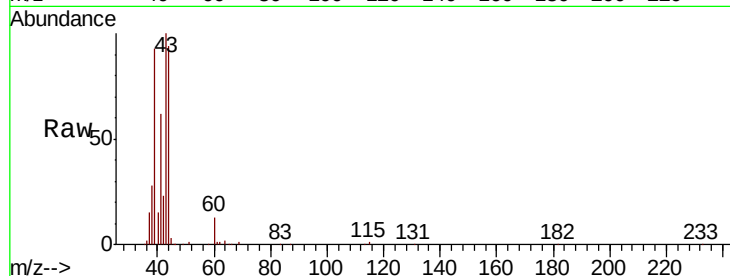
42 231.1 55.4 83.0#

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#10

Heptane

Concen: 0.307 ppbv

RT: 8.26 min Scan# 1655

Delta R.T. -0.00 min

Lab File: VL032718.D

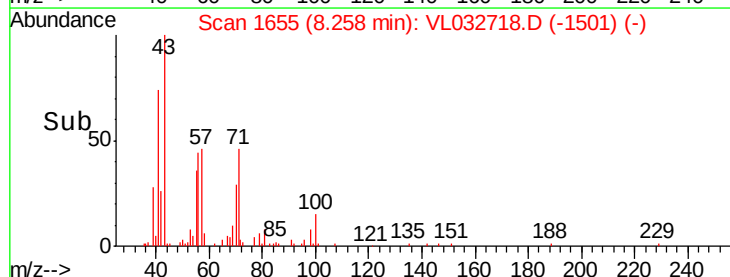
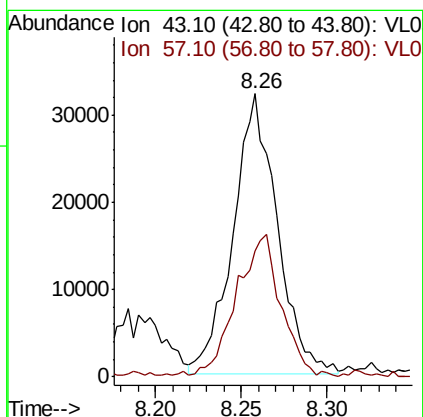
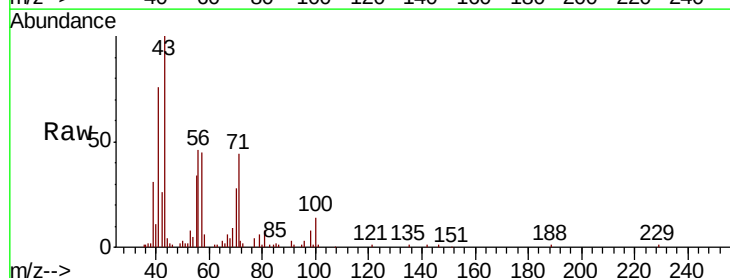
Acq: 7 Nov 2018 15:39

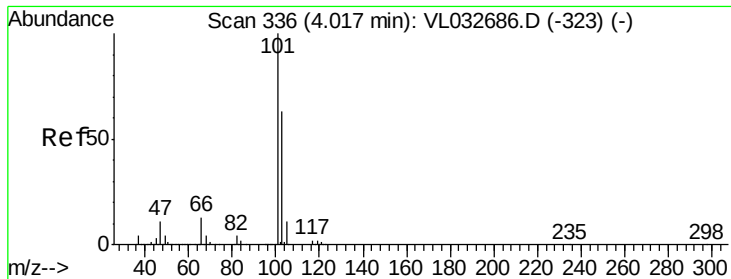
Tgt Ion: 43 Resp: 57147

Ion Ratio Lower Upper

43 100

57 52.3 41.5 62.3





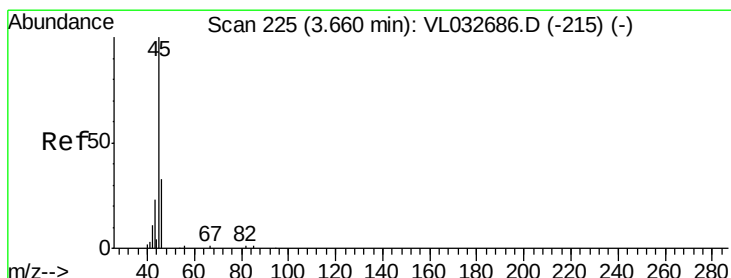
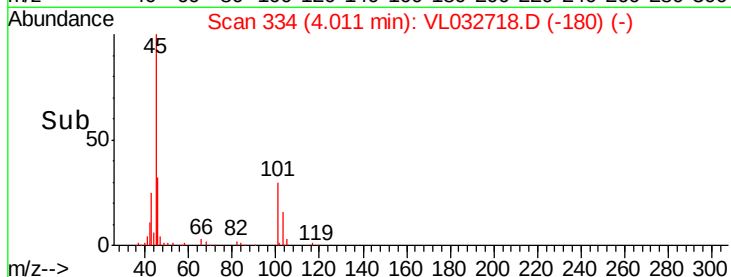
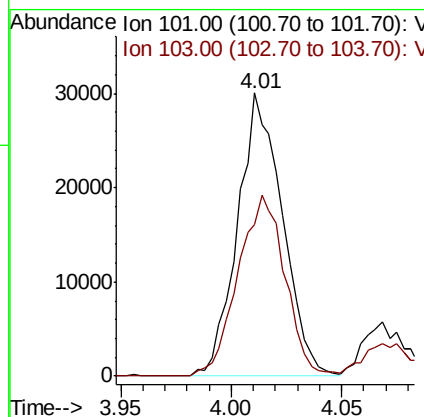
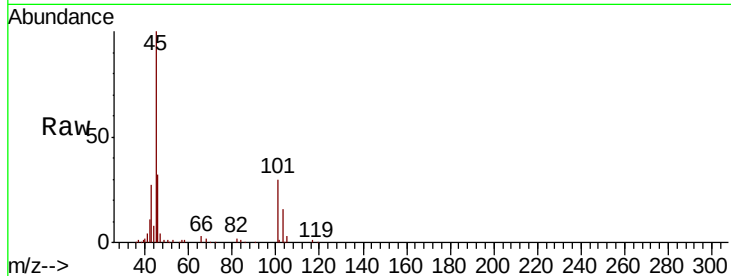
#11
Trichlorofluoromethane
Concen: 0.213 ppbv
RT: 4.01 min Scan# 334
Delta R.T. -0.00 min
Lab File: VL032718.D
Acq: 7 Nov 2018 15:39

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-110118

Tot Ion	Ratio	Lower	Upper
101	100		
103	53.5	51.4	77.2

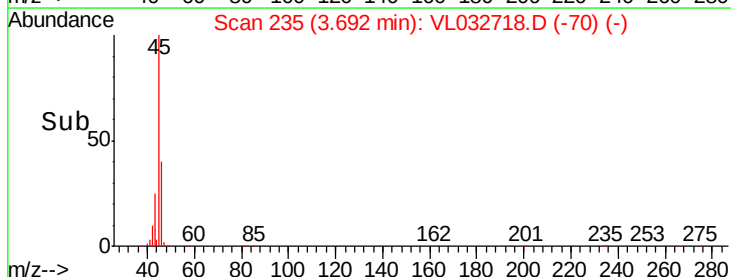
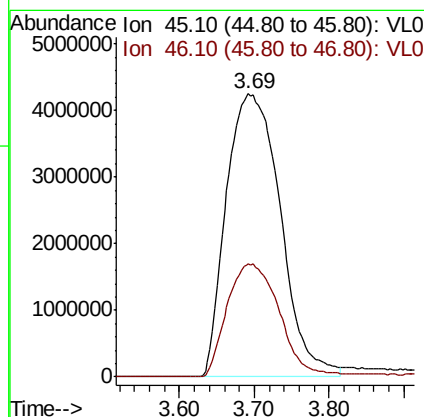
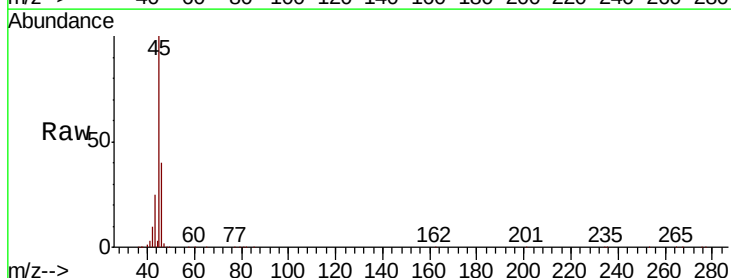
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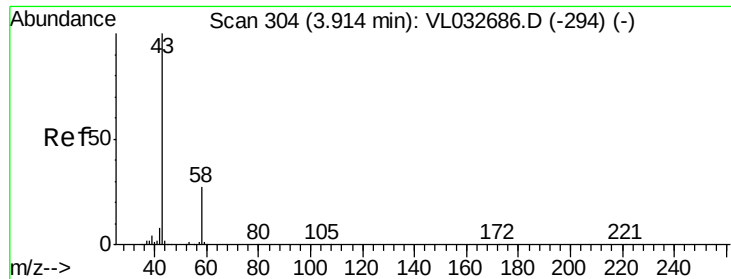
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#13
Ethanol
Concen: 1547.253 ppbv
RT: 3.69 min Scan# 235
Delta R.T. 0.03 min
Lab File: VL032718.D
Acq: 7 Nov 2018 15:39

Tgt Ion	Ratio	Lower	Upper
45	100		
46	39.7	15.4	61.8





#15

Acetone

Concen: 20.626 ppbv m

RT: 3.90 min Scan# 301

Delta R.T. -0.01 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Tot Ion: 43 Resp: 2859145

Ion Ratio Lower Upper

43 100

58 27.3 22.1 33.1

Instrument :

MSVOA_L

ClientSampleId :

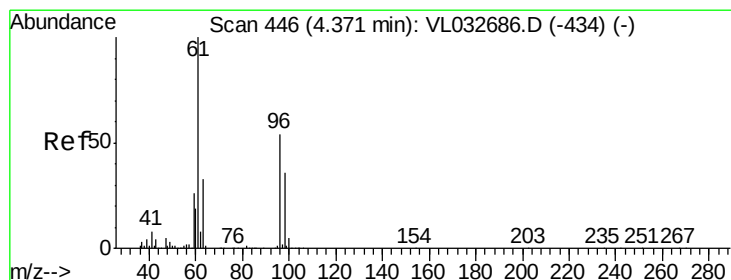
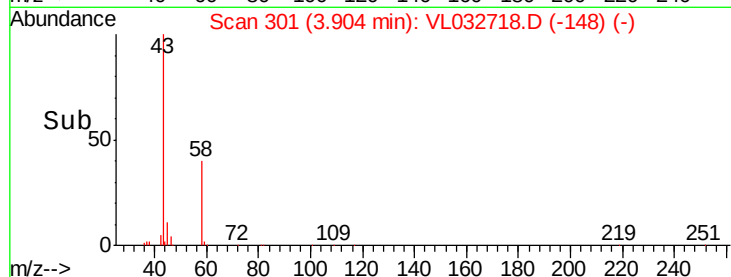
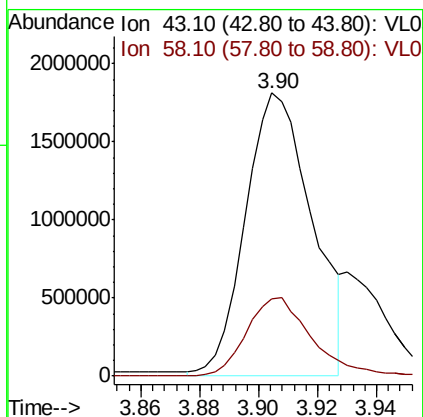
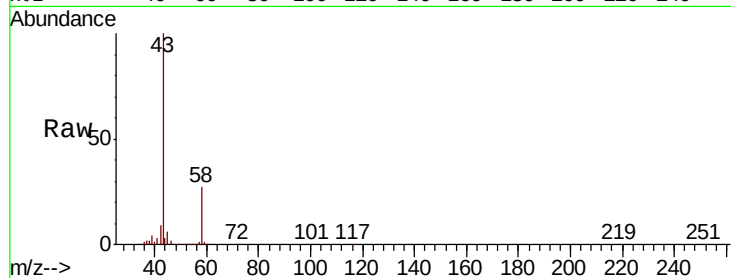
LIHA-IA1-110118

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#17

tert-Butyl alcohol

Concen: 6.514 ppbv m

RT: 4.43 min Scan# 463

Delta R.T. 0.05 min

Lab File: VL032718.D

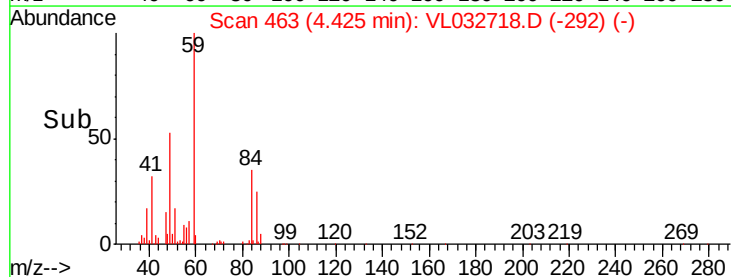
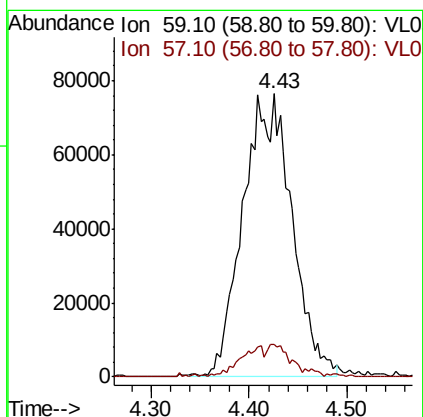
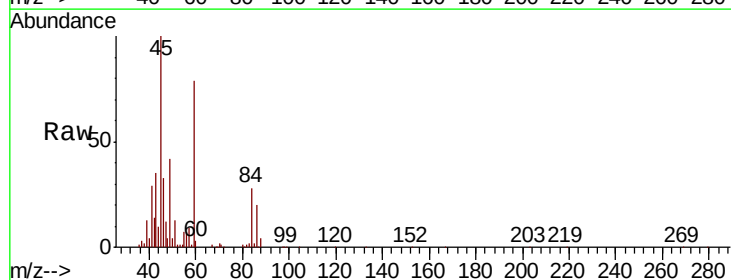
Acq: 7 Nov 2018 15:39

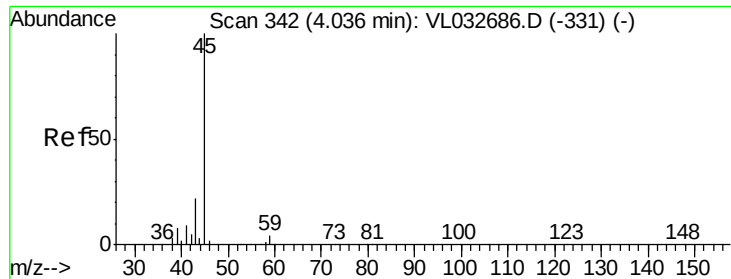
Tgt Ion: 59 Resp: 265574

Ion Ratio Lower Upper

59 100

57 0.0 0.0 0.0





#19

Isopropyl Alcohol

Concen: 14.177 ppbv m

RT: 4.09 min Scan# 358

Delta R.T. 0.05 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 45 Resp: 1399479

Ion Ratio Lower Upper

45 100

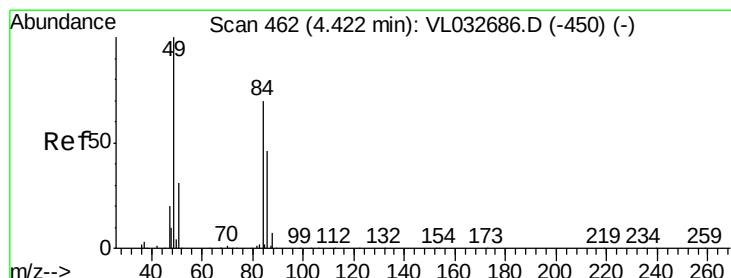
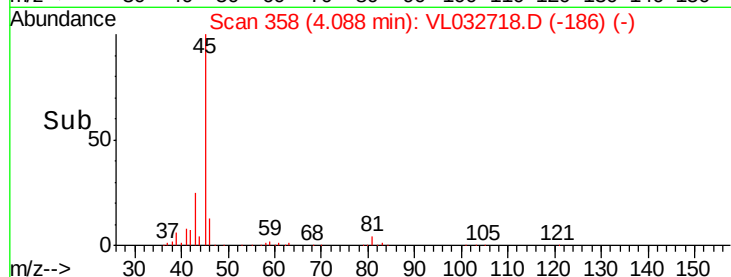
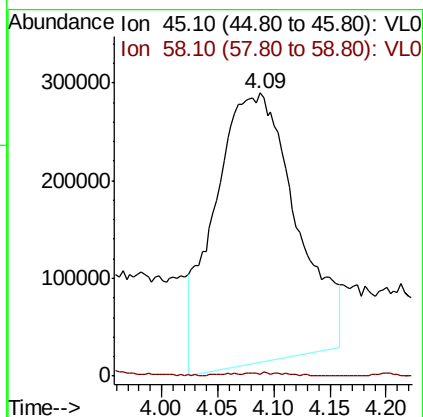
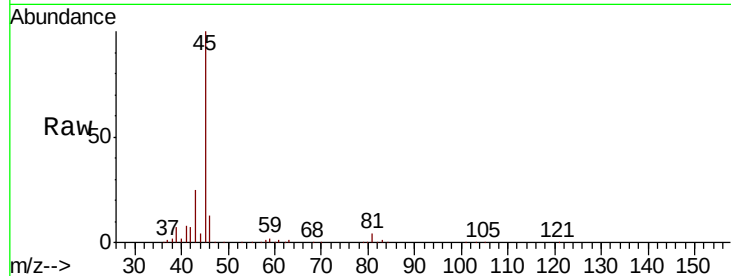
58 55.8 2.0 3.0#

Manual Integrations

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#20

Methylene Chloride

Concen: 0.789 ppbv

RT: 4.42 min Scan# 460

Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Tgt Ion: 84 Resp: 55513

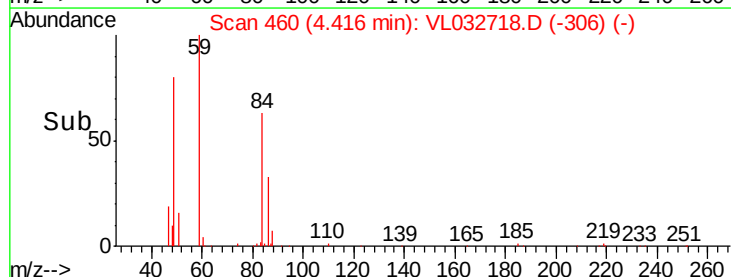
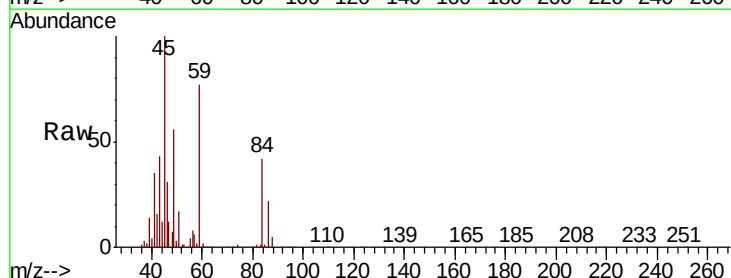
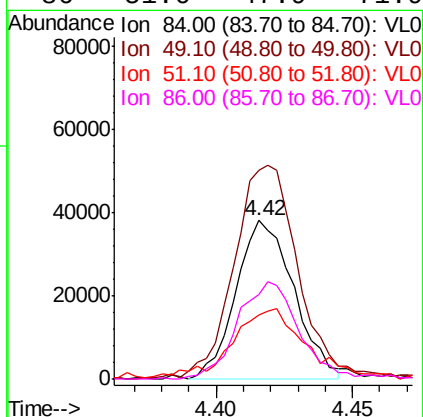
Ion Ratio Lower Upper

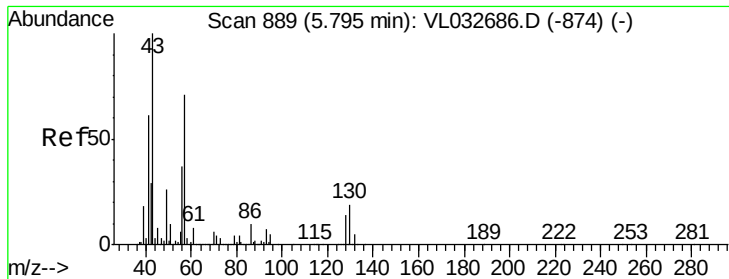
84 100

49 127.0 113.5 170.3

51 35.9 34.8 52.2

86 51.6 47.9 71.9





#26

Hexane

Concen: 0.646 ppbv

RT: 5.79 min Scan# 887

Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 57 Resp: 97555

Ion Ratio Lower Upper

57 100

41 98.2 67.4 101.0

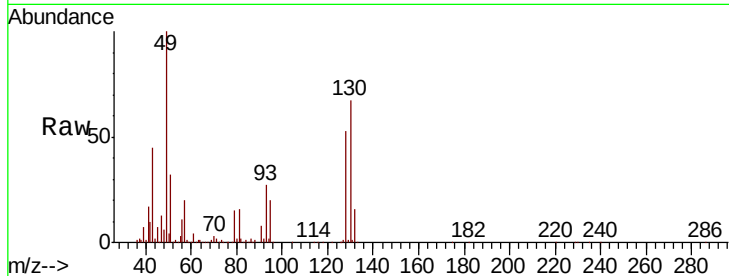
43 433.8 171.9 257.9#

56 57.4 42.6 63.8

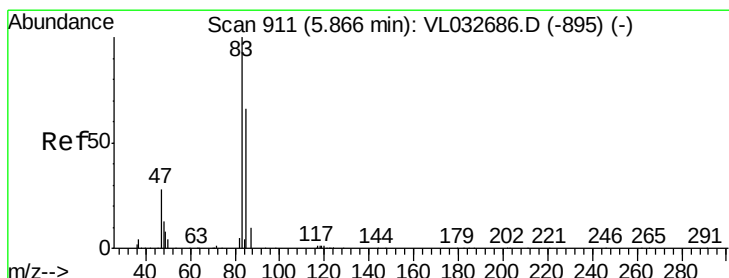
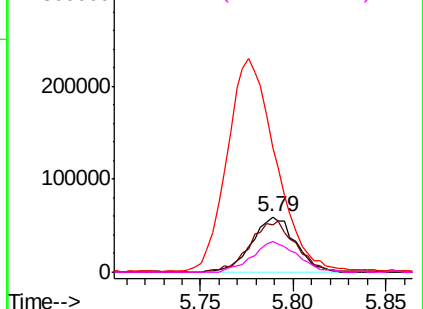
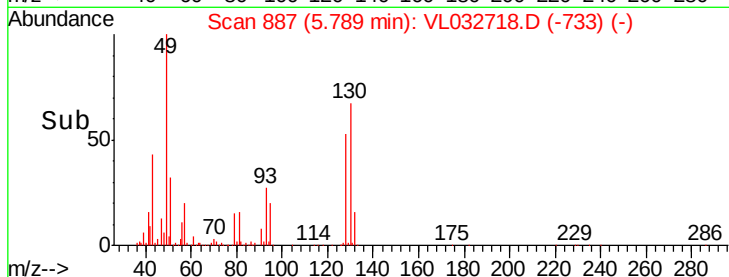
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Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.096 ppbv m

RT: 5.86 min Scan# 909

Delta R.T. -0.00 min

Lab File: VL032718.D

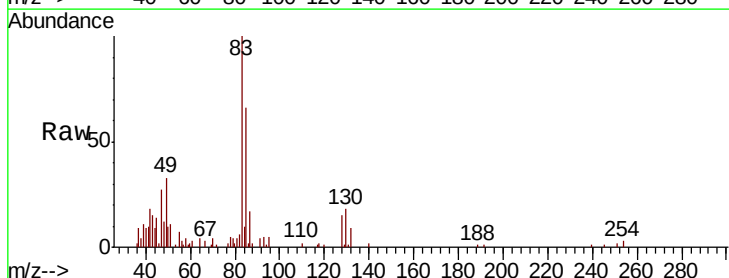
Acq: 7 Nov 2018 15:39

Tgt Ion: 83 Resp: 23137

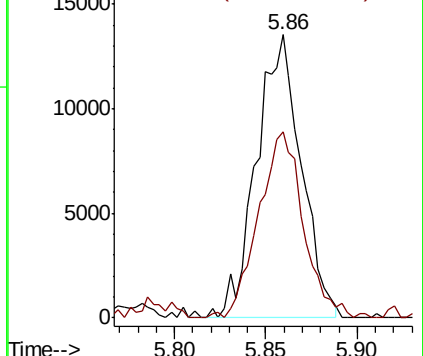
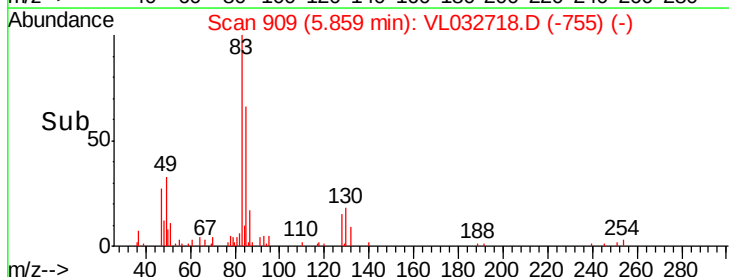
Ion Ratio Lower Upper

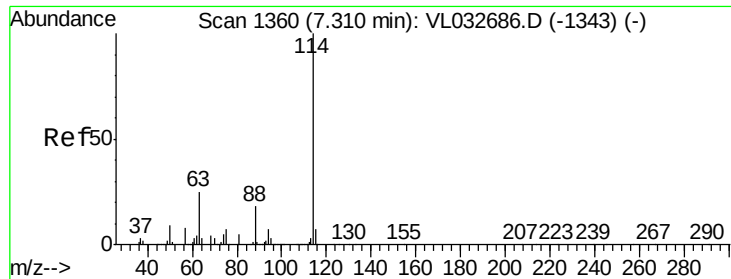
83 100

85 66.0 53.0 79.6



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





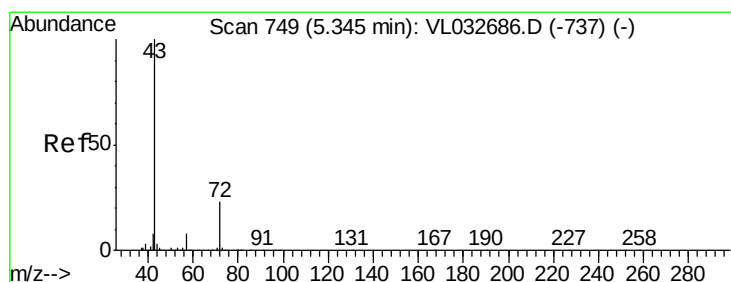
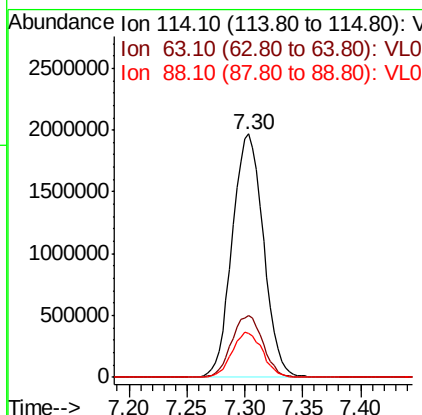
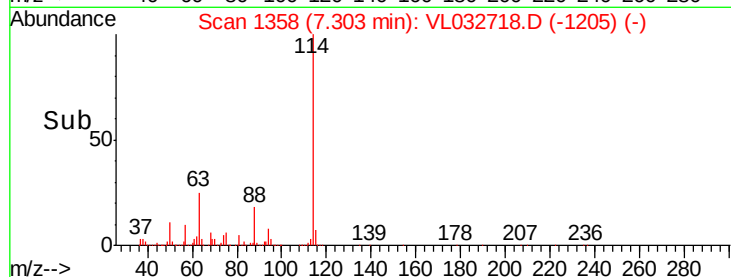
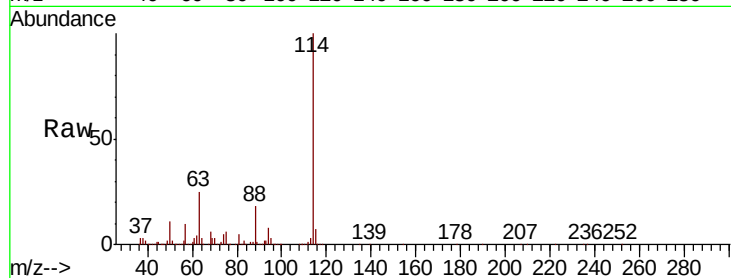
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1358
 Delta R.T. -0.01 min
 Lab File: VL032718.D
 Acq: 7 Nov 2018 15:39

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-110118

Tot Ion	Ratio	Lower	Upper
114	100		
63	25.5	21.7	32.5
88	18.2	14.9	22.3

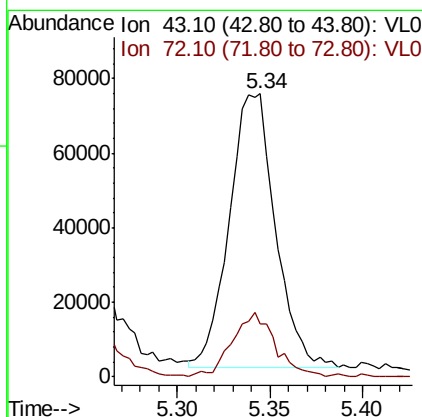
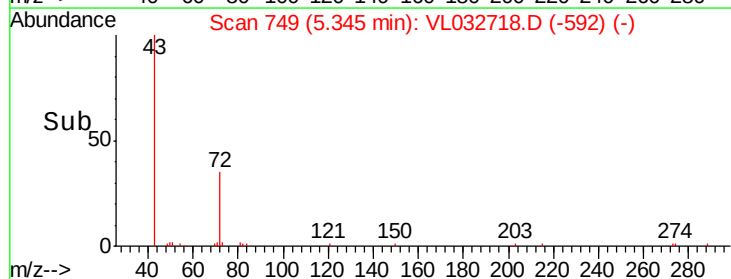
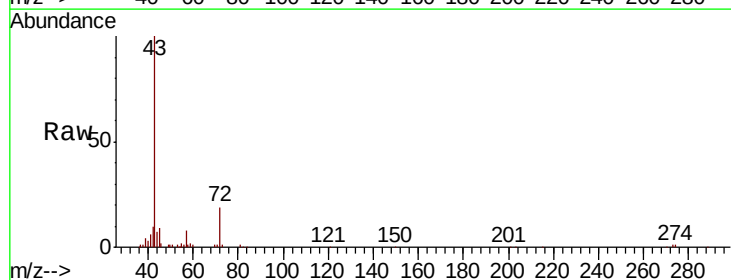
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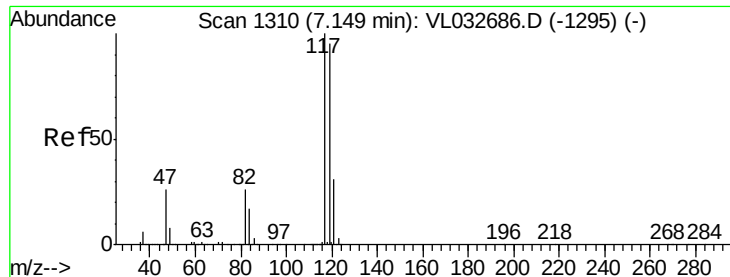
MMDadoda
 11/12/2018 12:30:05 PM



#34
 2-Butanone
 Concen: 0.645 ppbv
 RT: 5.34 min Scan# 749
 Delta R.T. 0.01 min
 Lab File: VL032718.D
 Acq: 7 Nov 2018 15:39

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.6	18.6	27.8





#35

Carbon Tetrachloride

Concen: 0.074 ppbv m

RT: 7.14 min Scan# 1307

Delta R.T. -0.01 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

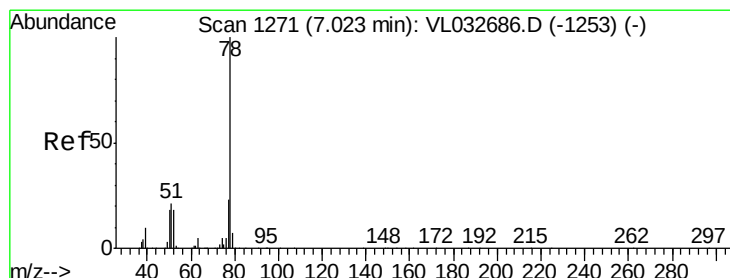
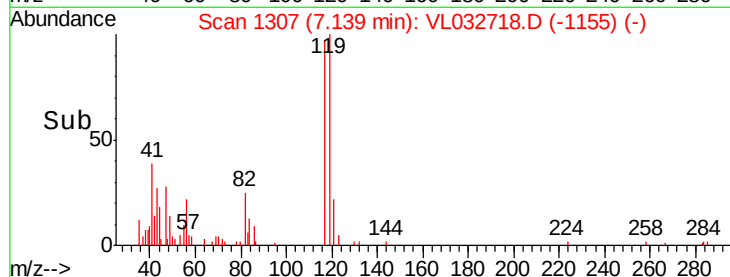
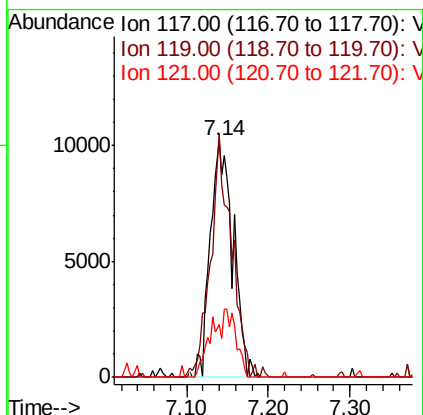
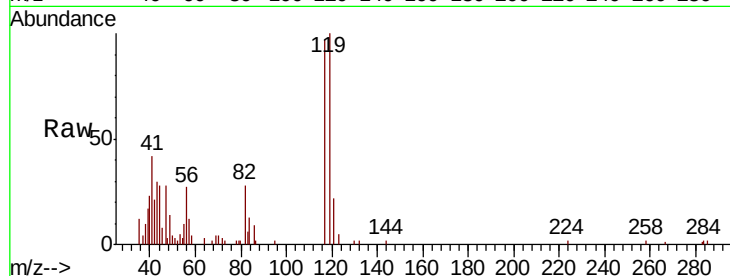
ClientSampleId :

LIHA-IA1-110118

Tot Ion	Ratio	Lower	Upper
117	100		
119	102.8	75.7	113.5
121	22.3	24.7	37.1#

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#36

Benzene

Concen: 0.441 ppbv

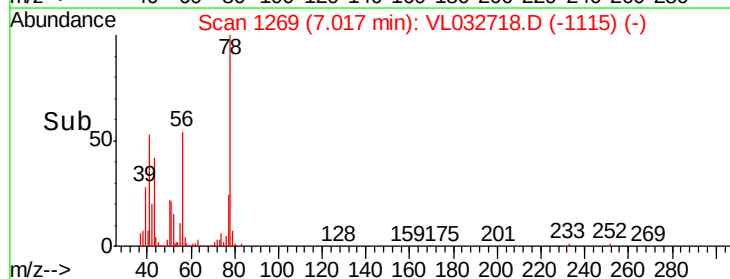
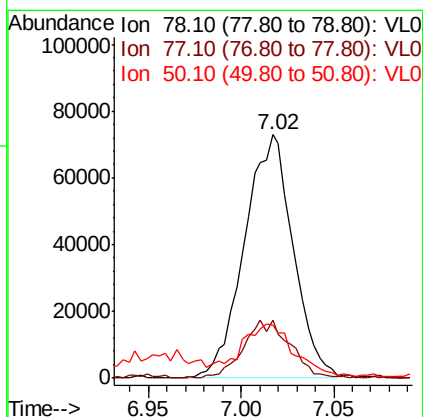
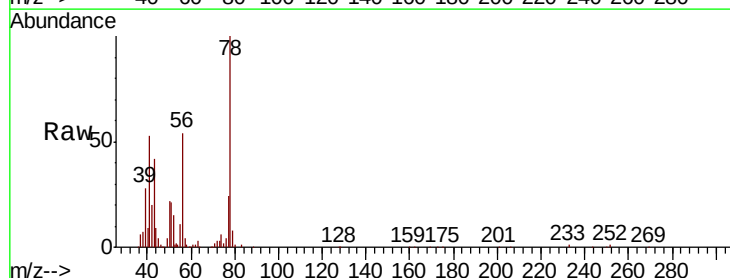
RT: 7.02 min Scan# 1269

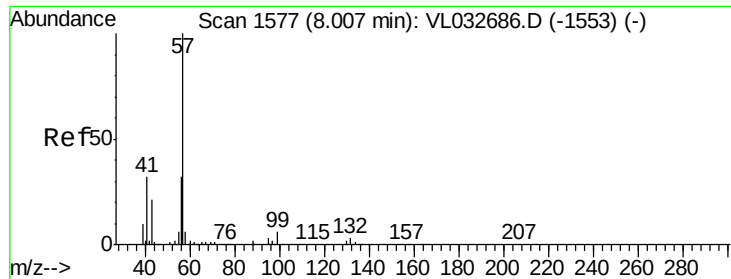
Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.1	27.1
50	20.5	15.1	22.7





#44

2,2,4-Trimethylpentane

Concen: 0.284 ppbv

RT: 8.00 min Scan# 1576

Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

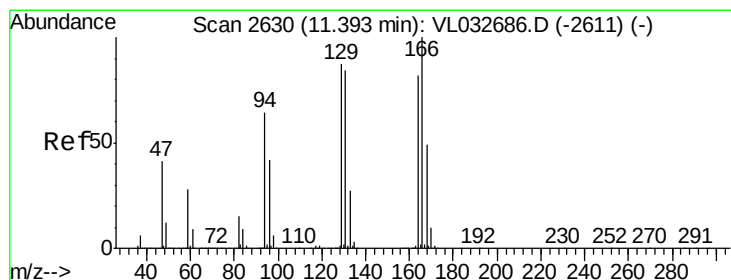
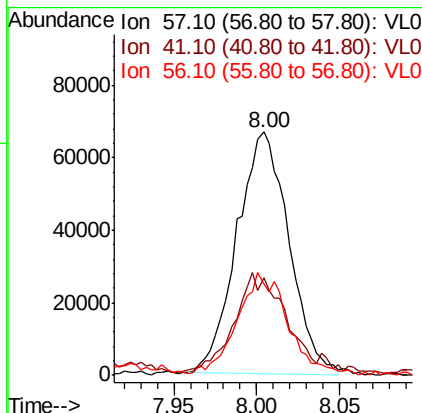
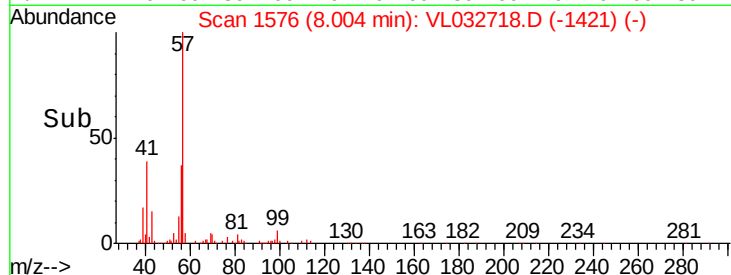
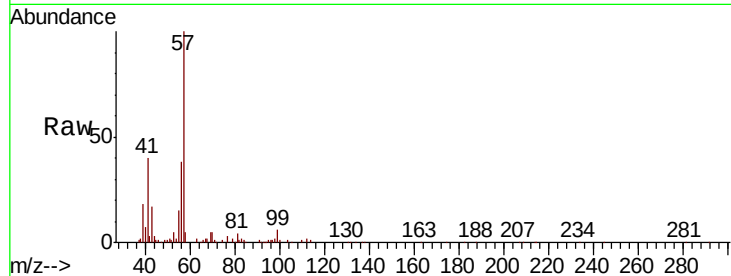
ClientSampleId :

LIHA-IA1-110118

Tot Ion:	57	Resp:	144842
Ion	Ratio	Lower	Upper
57	100		
41	43.3	24.7	37.1#
56	42.1	25.0	37.4#

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#52

Tetrachloroethene

Concen: 0.193 ppbv m

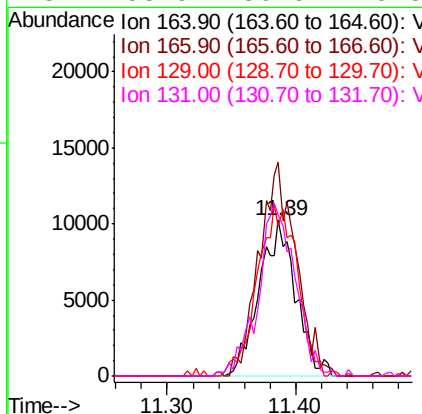
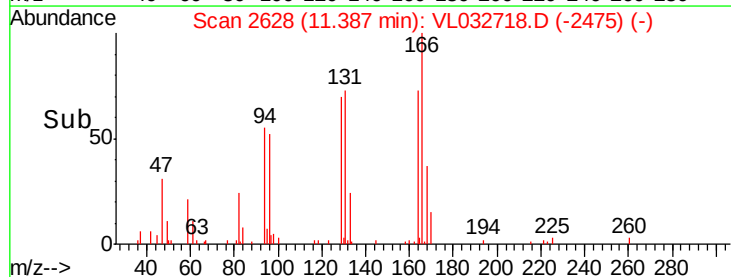
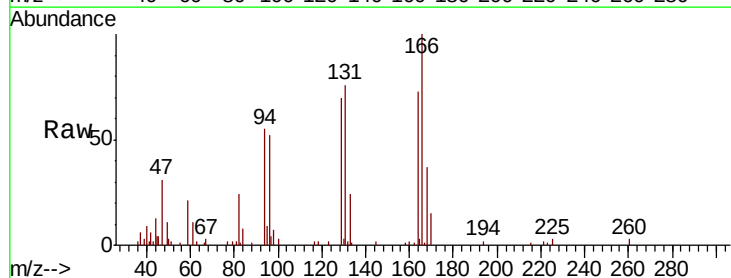
RT: 11.39 min Scan# 2628

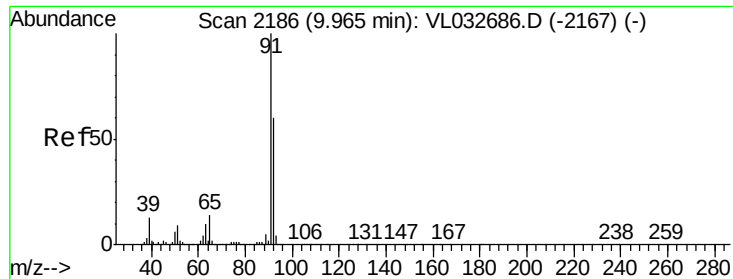
Delta R.T. -0.01 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Tgt Ion:	164	Resp:	20152
Ion	Ratio	Lower	Upper
164	100		
166	137.0	100.5	150.7
129	96.1	90.0	135.0
131	103.9	86.6	129.8





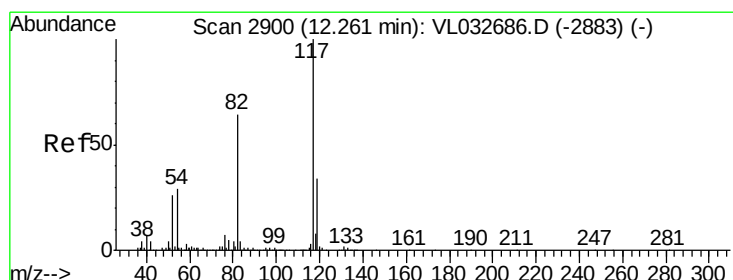
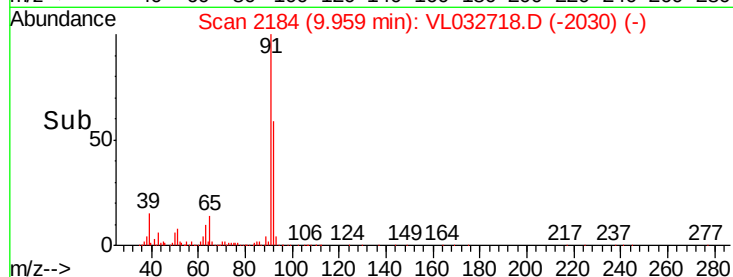
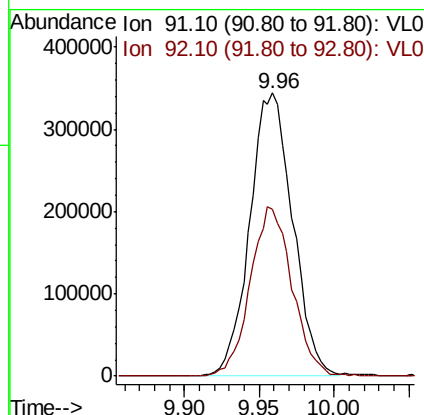
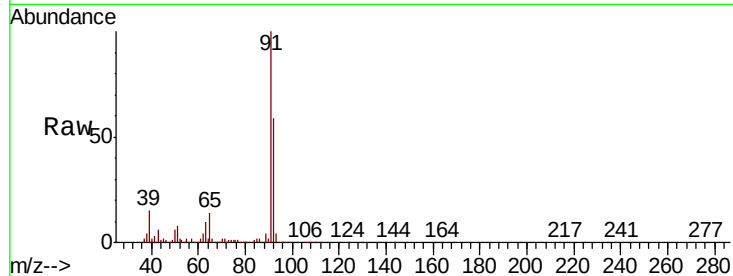
#53
Toluene
Concen: 2.002 ppbv
RT: 9.96 min Scan# 2184
Delta R.T. -0.00 min
Lab File: VL032718.D
Acq: 7 Nov 2018 15:39

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-110118

Tot Ion	Ratio	Lower	Upper
91	100		
92	58.8	48.4	72.6

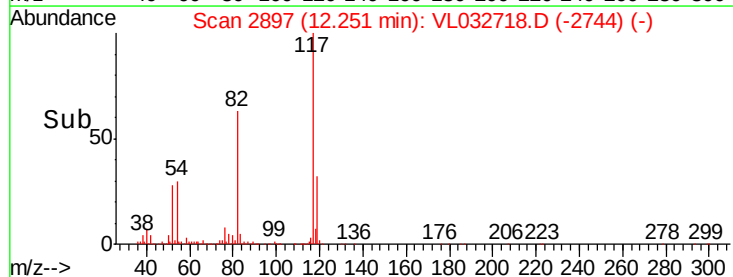
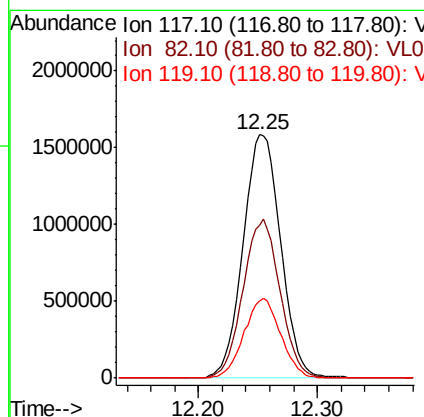
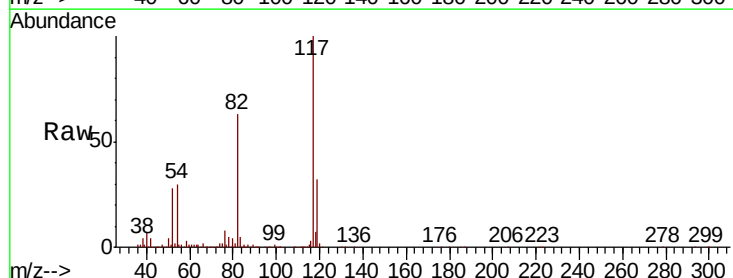
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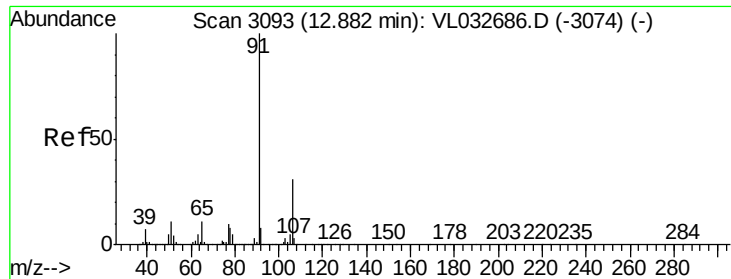
MMDadoda
11/12/2018 12:30:05 PM



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2897
Delta R.T. -0.01 min
Lab File: VL032718.D
Acq: 7 Nov 2018 15:39

Tgt Ion	Ratio	Lower	Upper
117	100		
82	64.7	52.7	79.1
119	32.0	26.7	40.1





#58

Ethyl Benzene

Concen: 0.180 ppbv m

RT: 12.88 min Scan# 3091

Delta R.T. -0.01 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 91 Resp: 72402

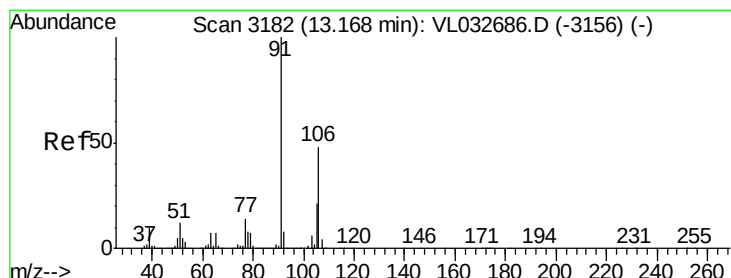
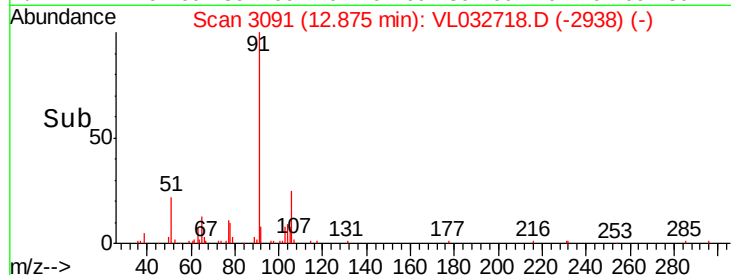
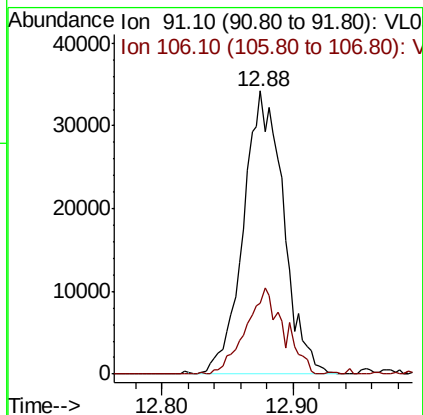
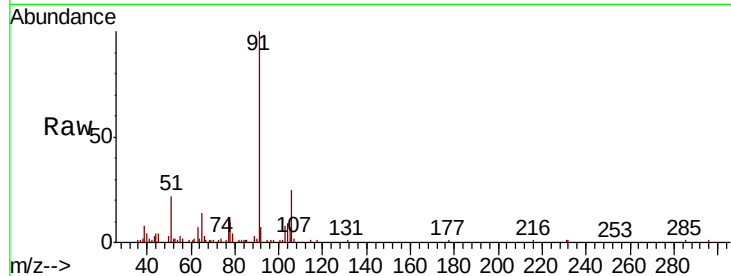
Ion Ratio Lower Upper

91 100

106 25.2 24.2 36.2

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#59

m/p-Xylene

Concen: 0.615 ppbv m

RT: 13.14 min Scan# 3172

Delta R.T. -0.03 min

Lab File: VL032718.D

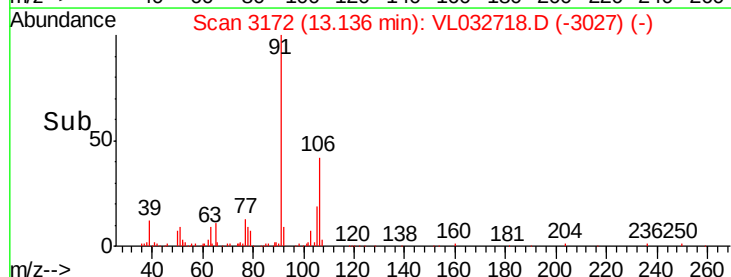
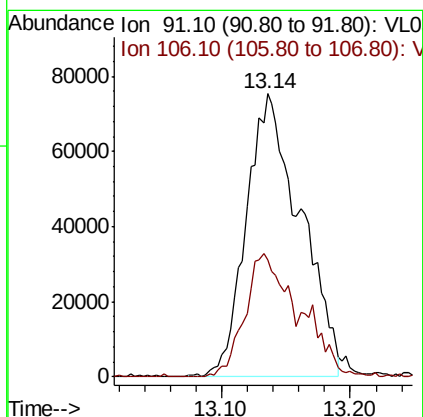
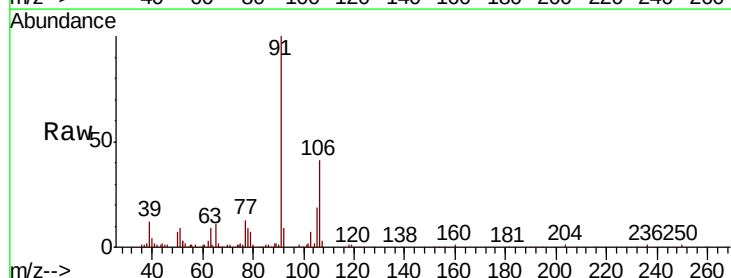
Acq: 7 Nov 2018 15:39

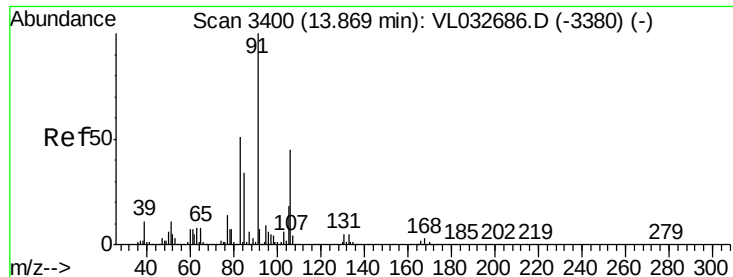
Tgt Ion: 91 Resp: 220679

Ion Ratio Lower Upper

91 100

106 0.0 35.9 53.9#





#60

o-Xylene

Concen: 0.237 ppbv m

RT: 13.86 min Scan# 3398

Delta R.T. -0.01 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-110118

Tot Ion: 91 Resp: 82122

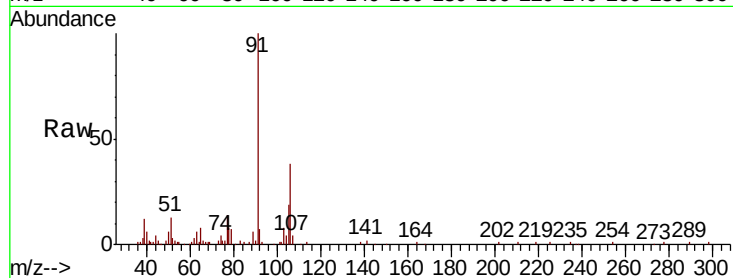
Ion Ratio Lower Upper

91 100

106 41.3 22.1 66.1

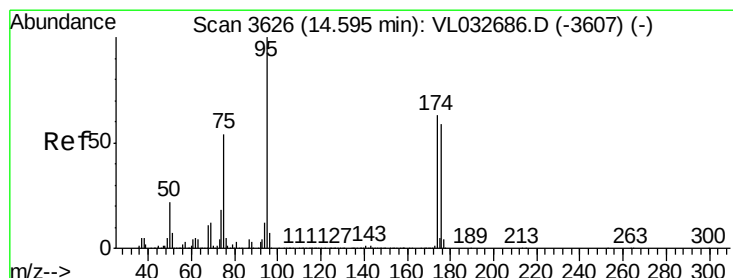
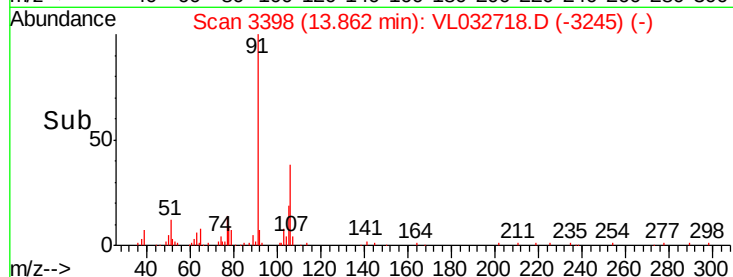
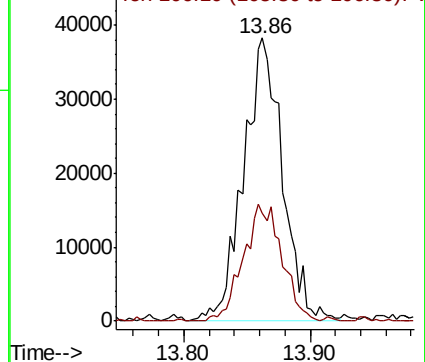
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.107 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL032718.D

Acq: 7 Nov 2018 15:39

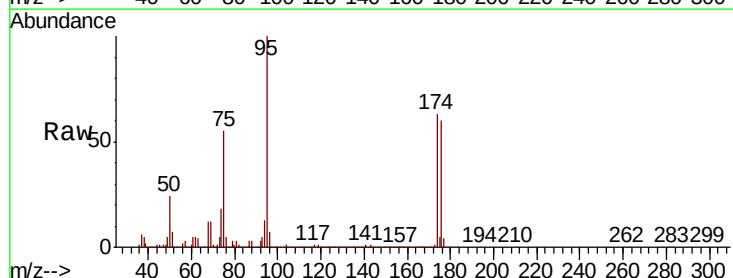
Tgt Ion: 95 Resp: 2609634

Ion Ratio Lower Upper

95 100

174 64.4 46.0 69.0

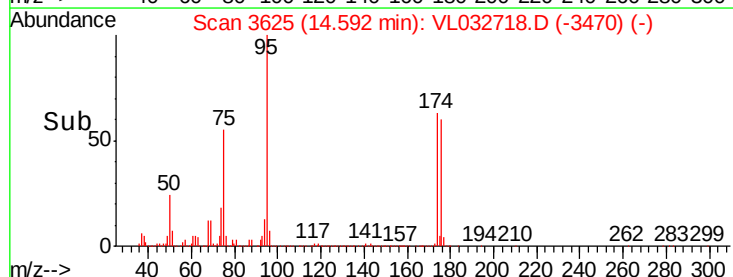
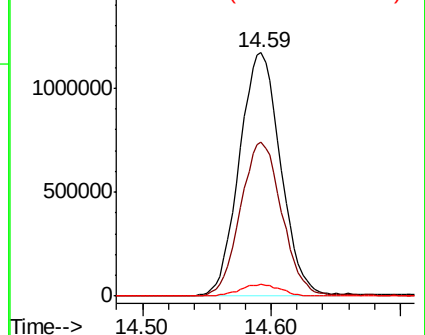
175 4.8 3.4 5.0

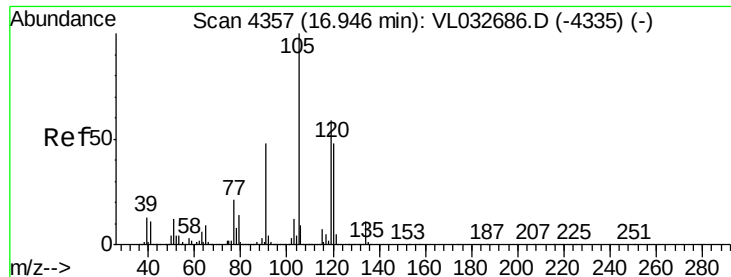


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.307 ppbv m
 RT: 16.93 min Scan# 4353
 Delta R.T. -0.01 min
 Lab File: VL032718.D
 Acq: 7 Nov 2018 15:39

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-110118

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	40.7	35.8	53.8
91	14.8	33.2	49.8#
77	15.4	16.2	24.4#

Manual Integrations
 APPROVED

MMDadoda
 11/12/2018 12:30:05 PM

