

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033535.D
 Acq On : 4 Apr 2019 16:23
 Operator : SY/AP
 Sample : K2096-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

Manual Integrations
 APPROVED

MMDadoda
 4/8/2019 3:22:14 AM

Quant Time: Apr 05 02:23:11 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 2
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1053788	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2118646	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2318508	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1919130	10.56	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	119715	0.779	ppbv	93
3) Chlorodifluoromethane	3.01	51	55484m	0.457	ppbv	
4) Chloromethane	3.17	50	31922m	0.497	ppbv	
9) Propene	3.05	41	49051m	0.963	ppbv	
10) Heptane	8.24	43	83164	0.611	ppbv	98
11) Trichlorofluoromethane	4.00	101	44082	0.233	ppbv	96
13) Ethanol	3.65	45	2150482	163.113	ppbv	65
15) Acetone	3.90	43	1320214	10.419	ppbv	99
19) Isopropyl Alcohol	4.03	45	538879	6.724	ppbv #	98
20) Methylene Chloride	4.41	84	181284	3.370	ppbv	95
26) Hexane	5.78	57	499860	4.782	ppbv #	51
34) 2-Butanone	5.33	43	61075	0.480	ppbv	99
35) Carbon Tetrachloride	7.13	117	8793m	0.059	ppbv	
36) Benzene	6.99	78	33323	0.187	ppbv #	89
53) Toluene	9.94	91	1503167	7.277	ppbv	100
58) Ethyl Benzene	12.86	91	31334m	0.101	ppbv	
59) m/p-Xylene	13.11	91	104100m	0.376	ppbv	
60) o-Xylene	13.84	91	48149m	0.180	ppbv	
74) 1,2,4-Trimethylbenzene	16.92	105	67836m	0.220	ppbv	
79) Naphthalene	22.41	128	43544m	0.165	ppbv	

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

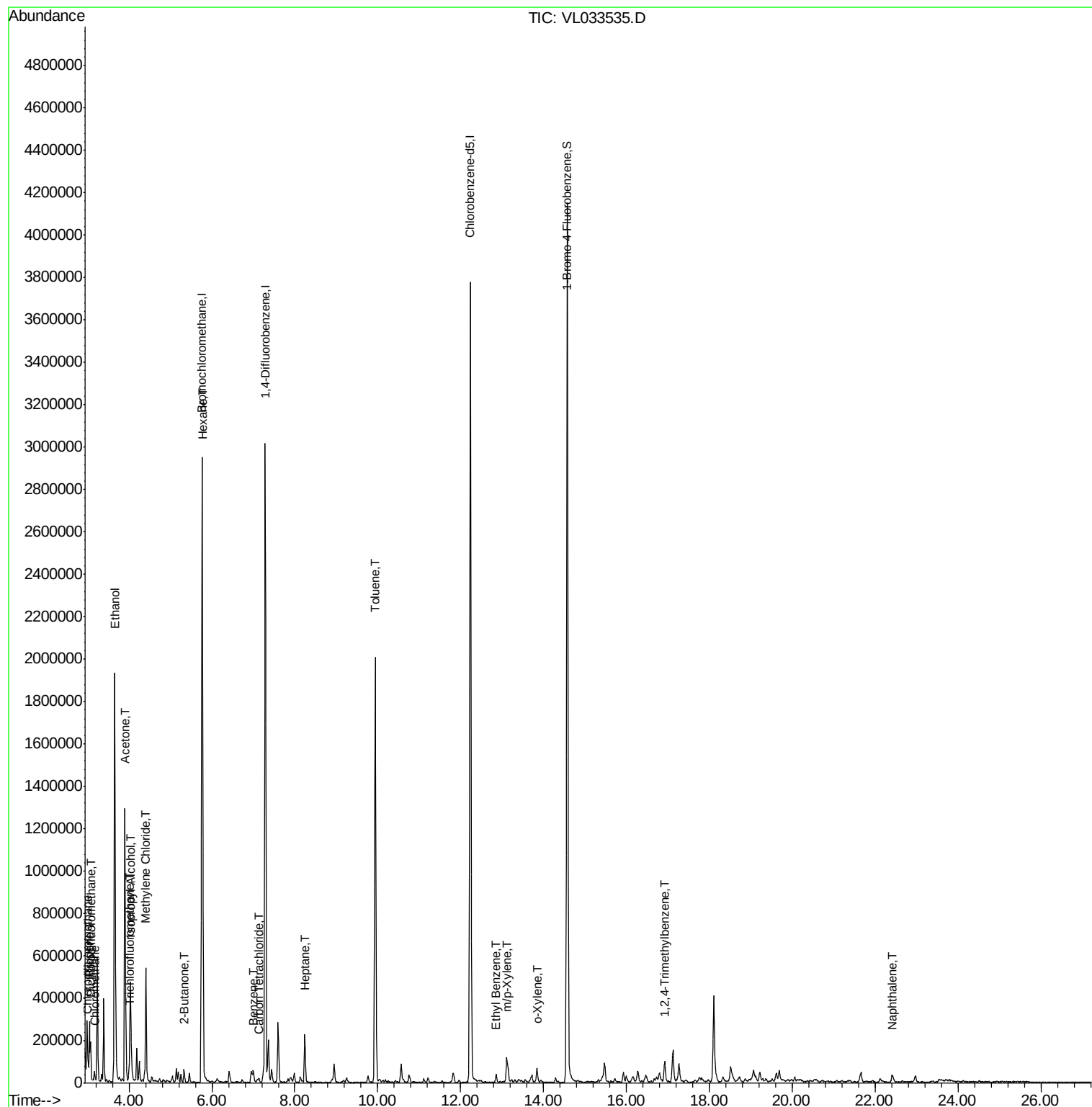
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040419\
Data File : VL033535.D
Acq On : 4 Apr 2019 16:23
Operator : SY/AP
Sample : K2096-01
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

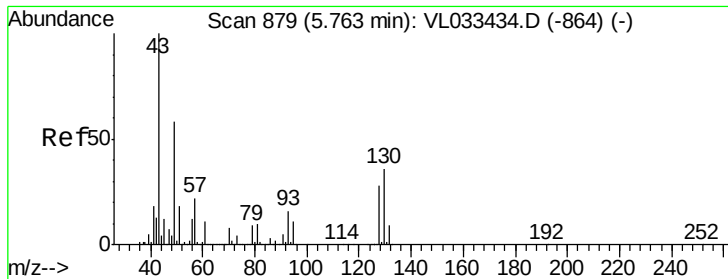
Instrument :
MSVOA_L
ClientSampleId :
A-1

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:14 AM

Quant Time: Apr 05 02:23:11 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampled :

A-1

Tot Ion: 49 Resp: 1053788

Ion Ratio Lower Upper

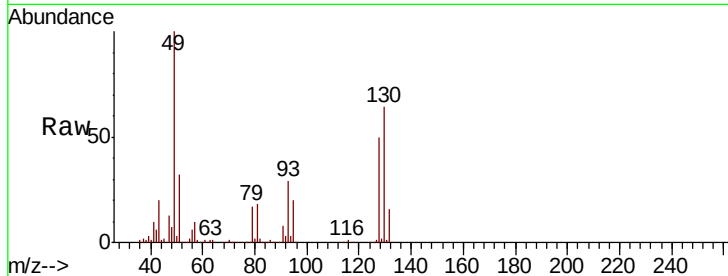
49 100

128 49.6 24.0 72.0

130 63.4 31.2 93.6

Manual Integrations
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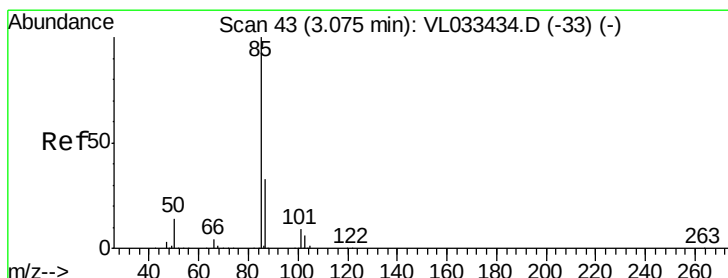
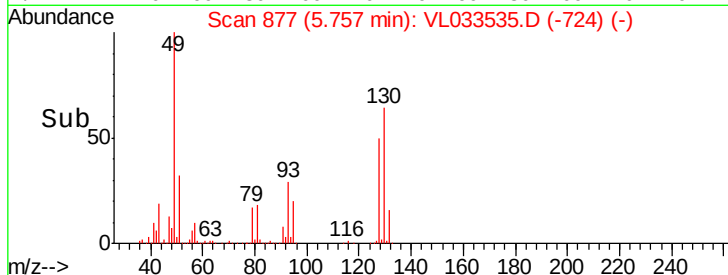
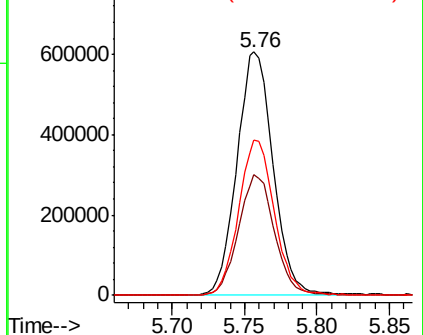
MMDadoda
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.779 ppbv

RT: 3.07 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033535.D

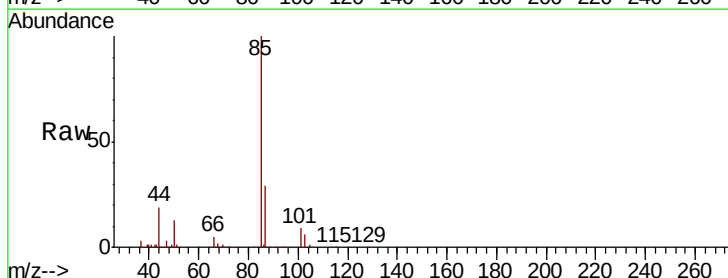
Acq: 4 Apr 2019 16:23

Tgt Ion: 85 Resp: 119715

Ion Ratio Lower Upper

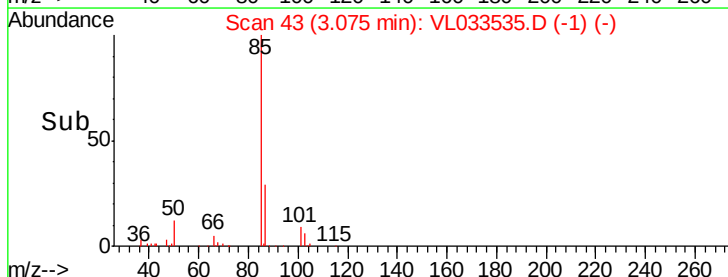
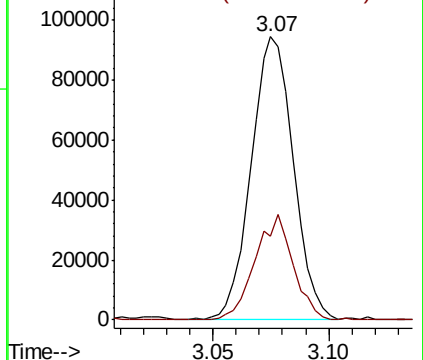
85 100

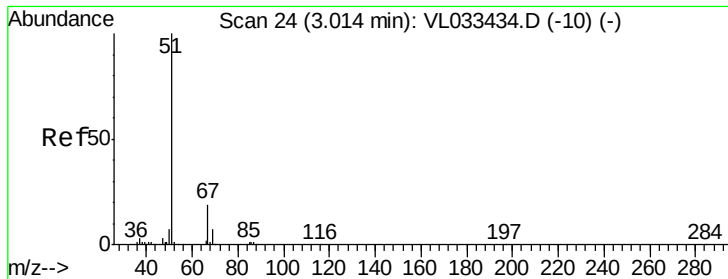
87 29.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.457 ppbv m

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tot Ion: 51 Resp: 55484

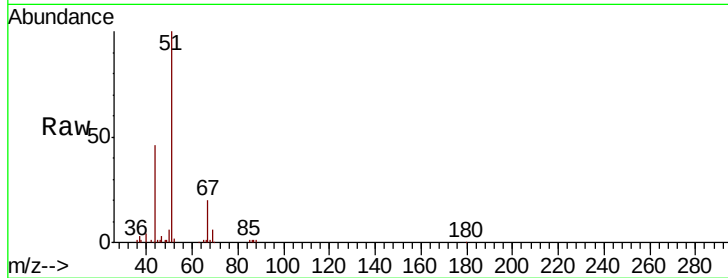
Ion Ratio Lower Upper

51 100

67 22.6 15.7 23.5

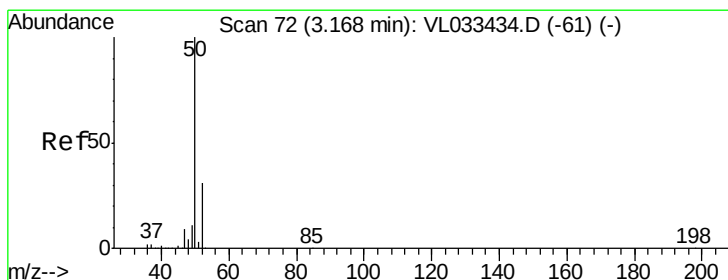
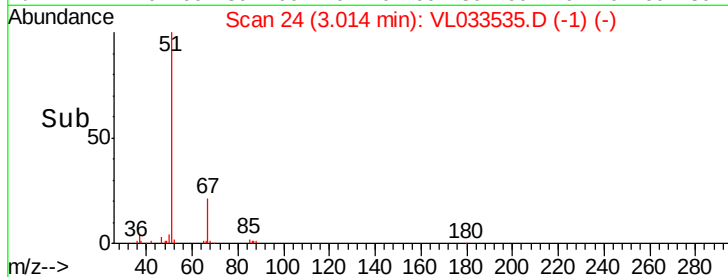
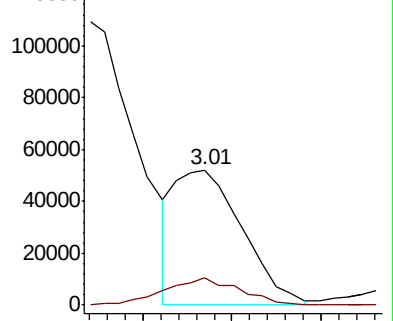
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.497 ppbv m

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033535.D

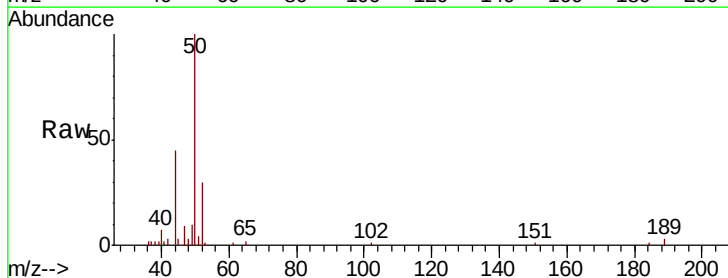
Acq: 4 Apr 2019 16:23

Tgt Ion: 50 Resp: 31922

Ion Ratio Lower Upper

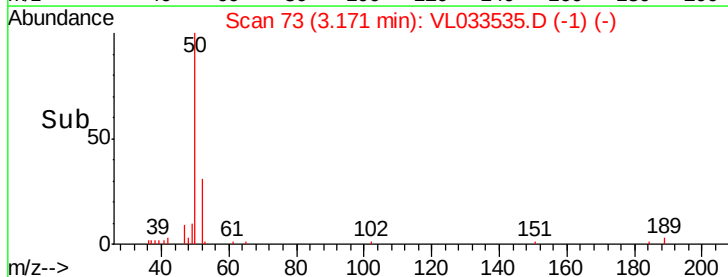
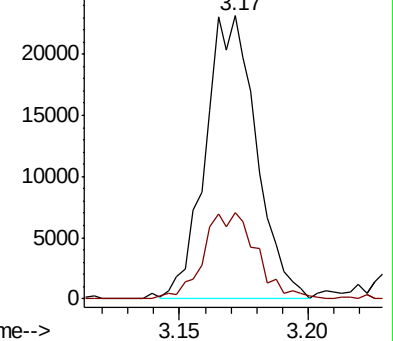
50 100

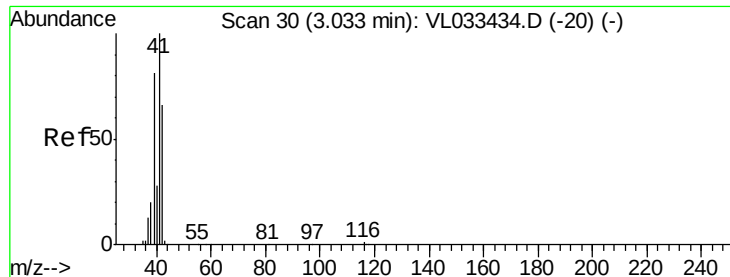
52 30.5 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.963 ppbv m

RT: 3.05 min Scan# 34

Delta R.T. 0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tot Ion: 41 Resp: 49051

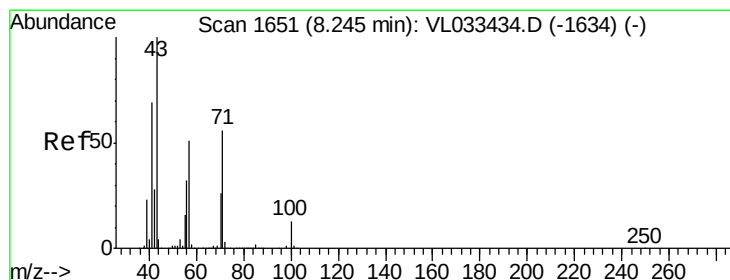
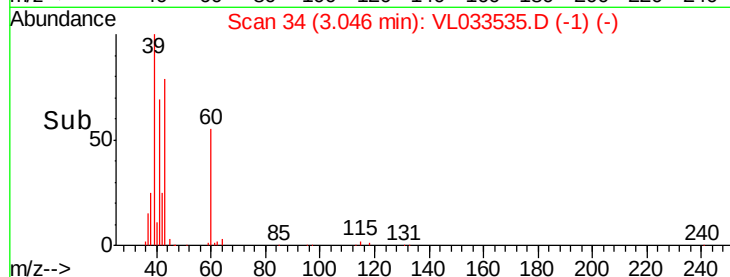
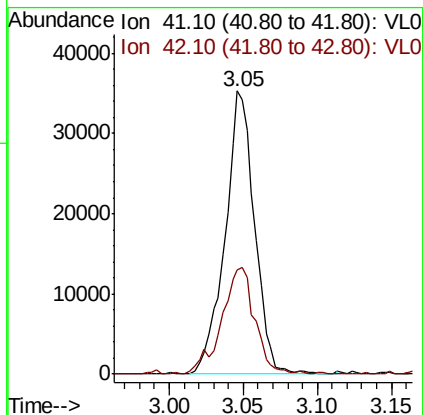
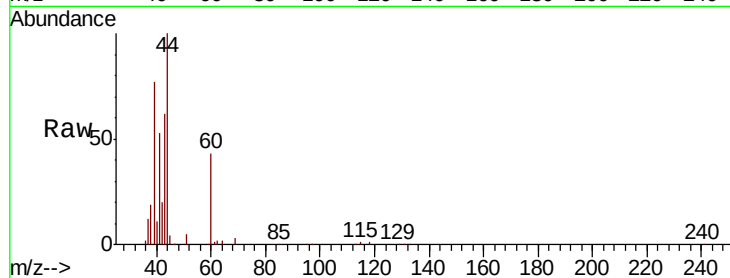
Ion Ratio Lower Upper

41 100

42 199.9 53.9 80.9#

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#10

Heptane

Concen: 0.611 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033535.D

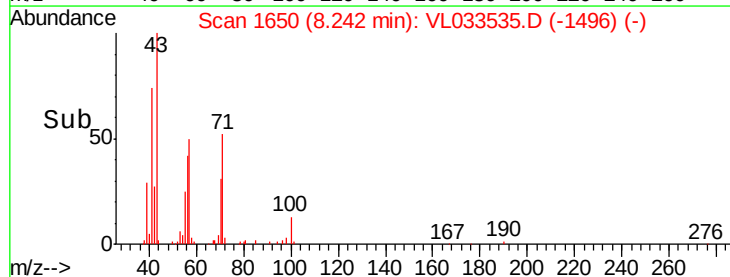
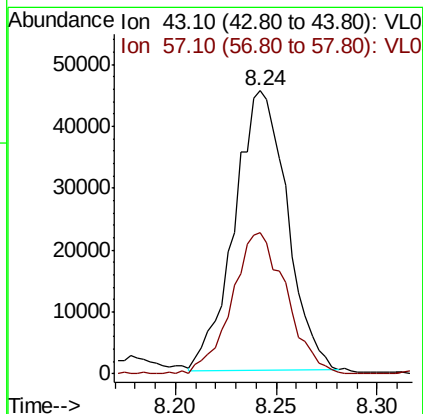
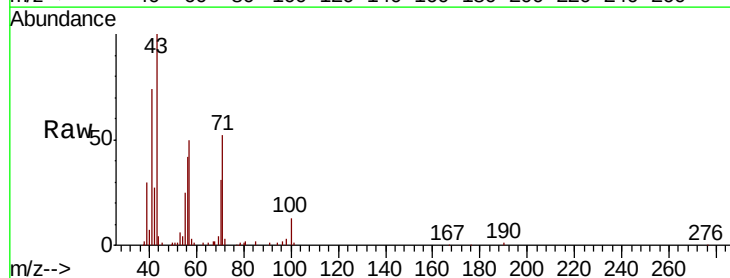
Acq: 4 Apr 2019 16:23

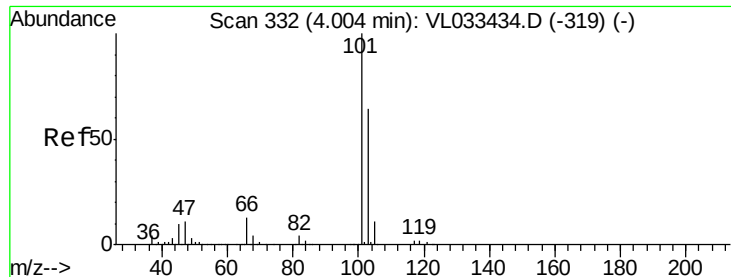
Tgt Ion: 43 Resp: 83164

Ion Ratio Lower Upper

43 100

57 51.7 40.6 60.8





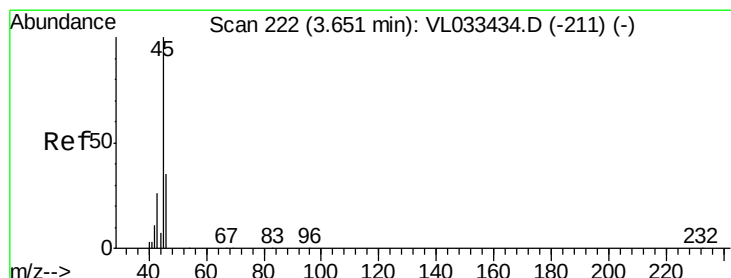
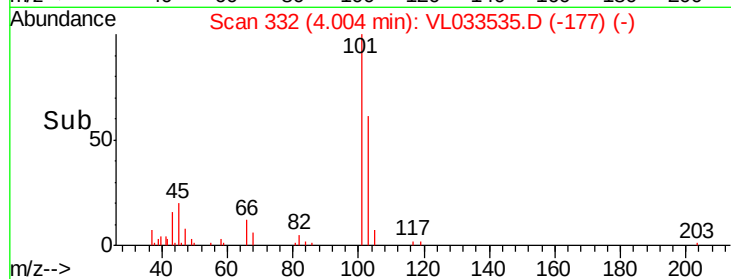
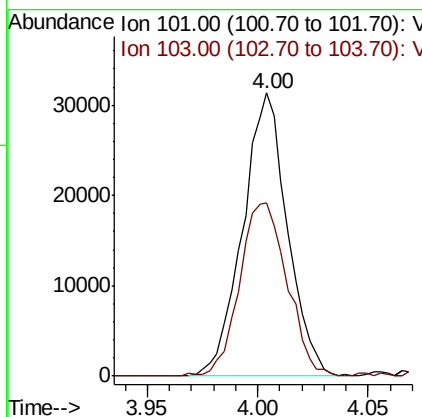
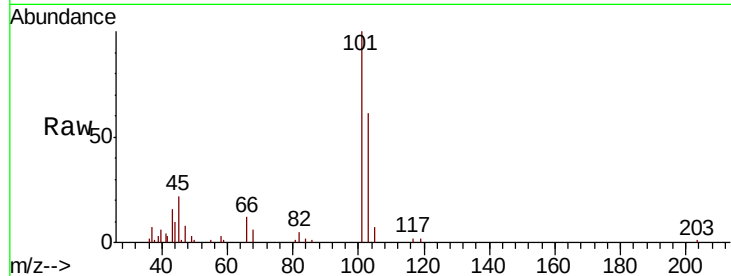
#11
 Trichlorofluoromethane
 Concen: 0.233 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		44082		
103	61.0	51.3	76.9		

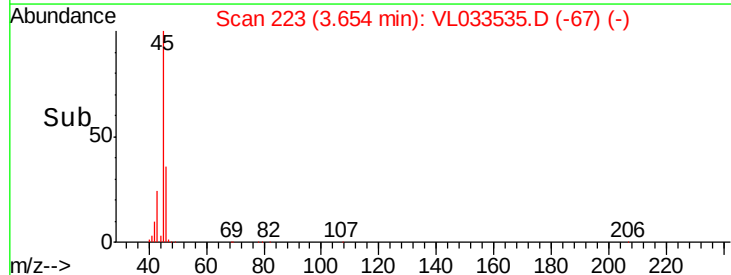
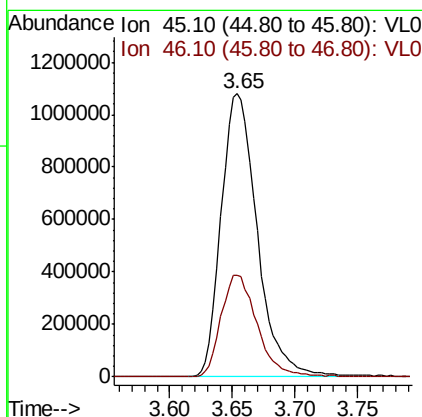
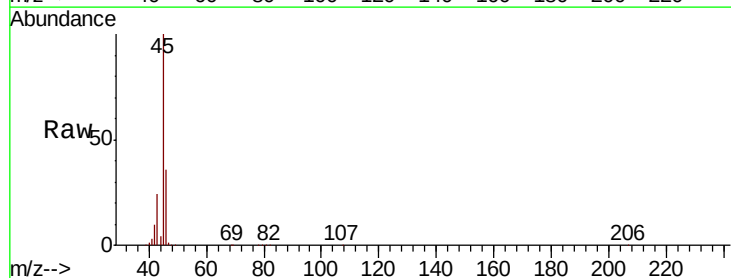
Manual Integrations
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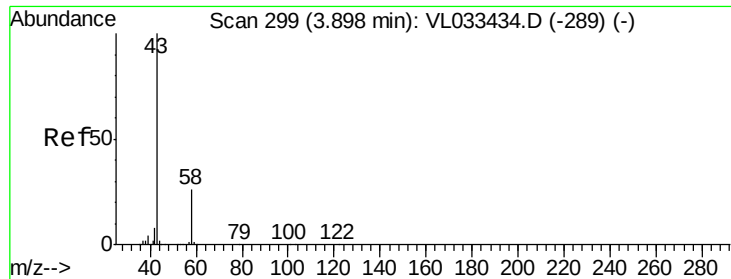
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#13
 Ethanol
 Concen: 163.113 ppbv
 RT: 3.65 min Scan# 222
 Delta R.T. 0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
45	100		2150482		
46	36.4	25.4	101.8		





#15

Acetone

Concen: 10.419 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tot Ion: 43 Resp: 1320214

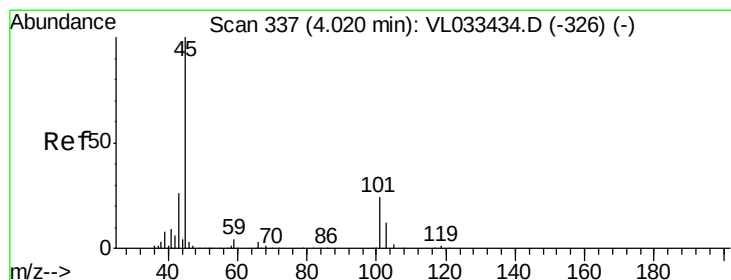
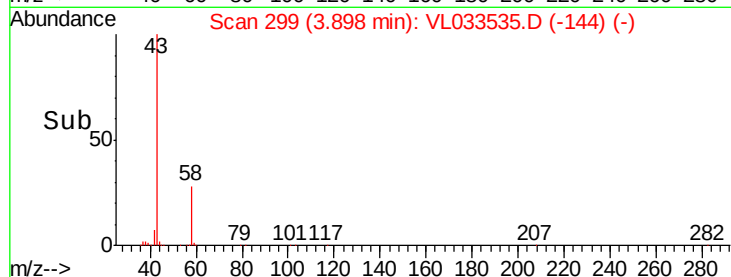
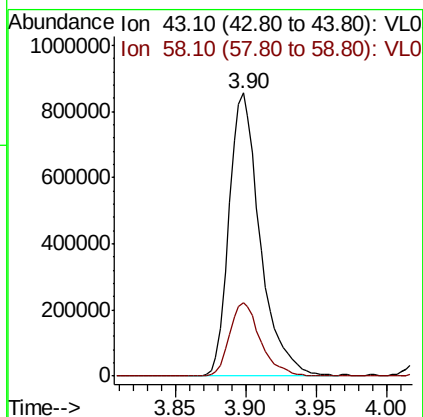
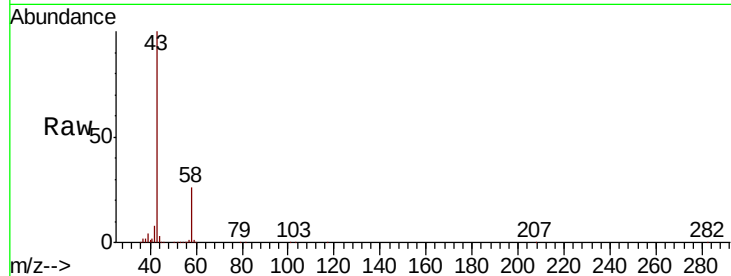
Ion Ratio Lower Upper

43 100

58 26.1 20.5 30.7

Manual Integrations
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#19

Isopropyl Alcohol

Concen: 6.724 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033535.D

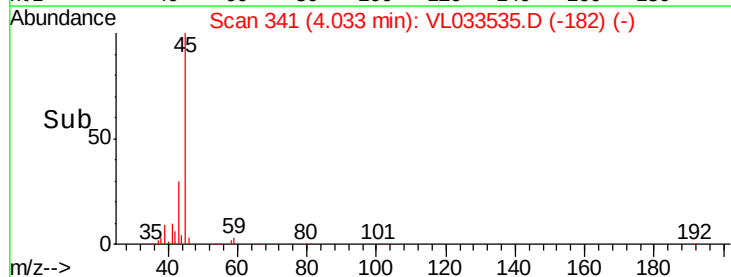
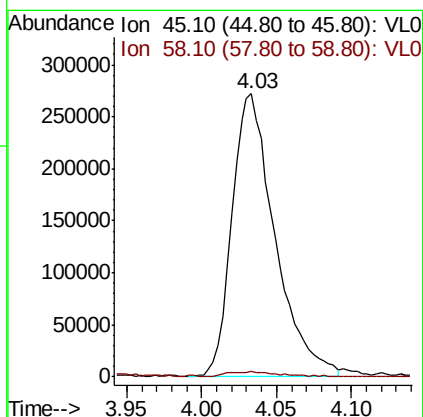
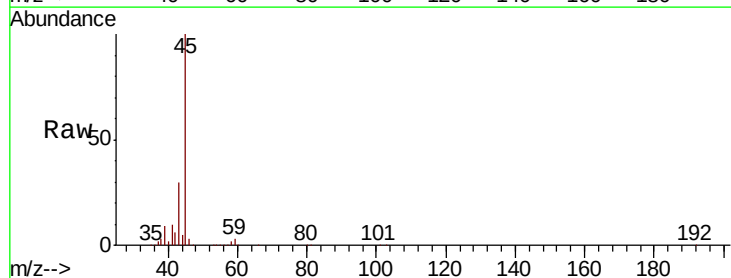
Acq: 4 Apr 2019 16:23

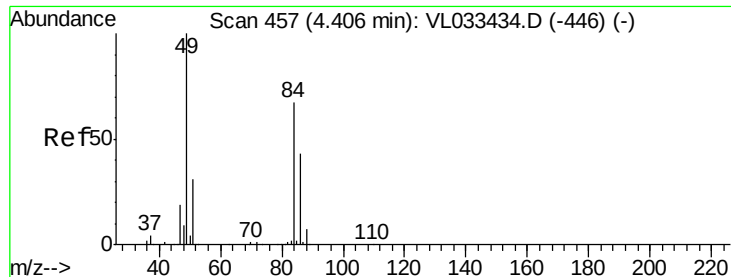
Tgt Ion: 45 Resp: 538879

Ion Ratio Lower Upper

45 100

58 2.4 1.4 2.2#





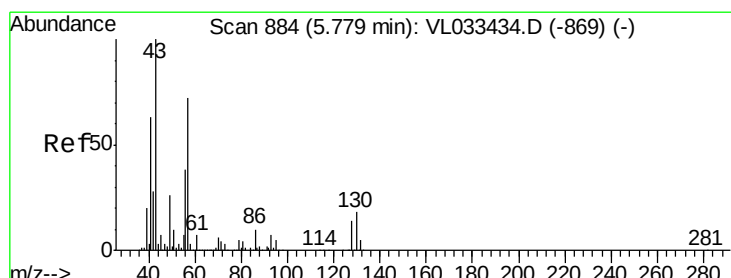
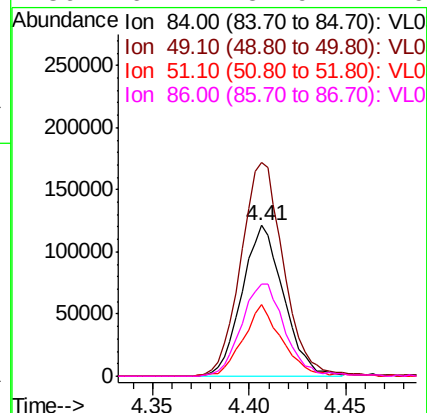
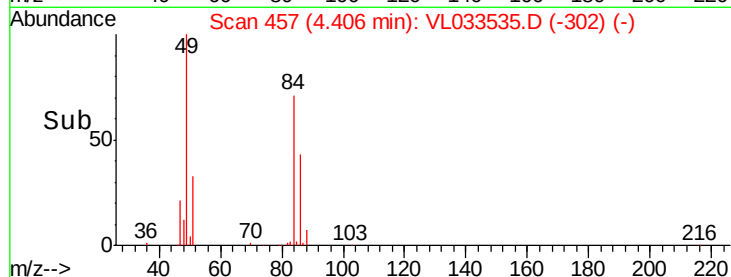
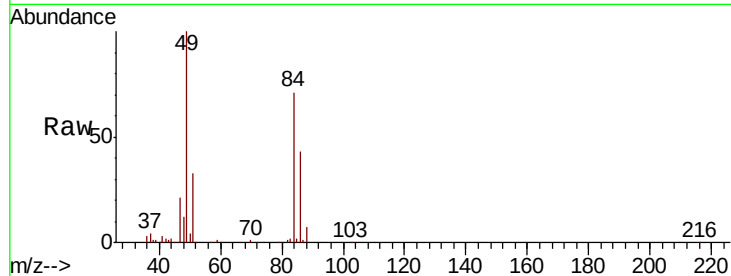
#20
Methvlene Chloride
Concen: 3.370 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Instrument :
MSVOA_L
ClientSampled :
A-1

Tot Ion	Ratio	Lower	Upper
84	100		
49	141.5	120.0	180.0
51	47.4	36.7	55.1
86	61.2	51.9	77.9

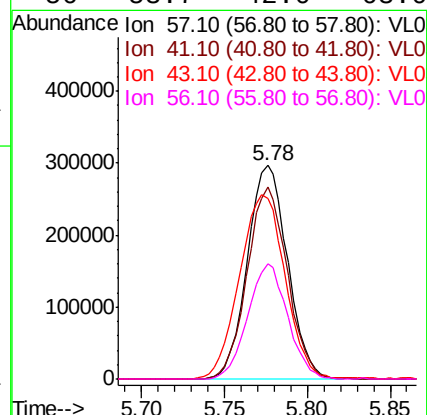
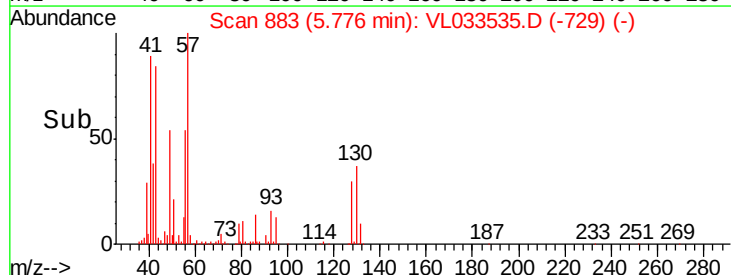
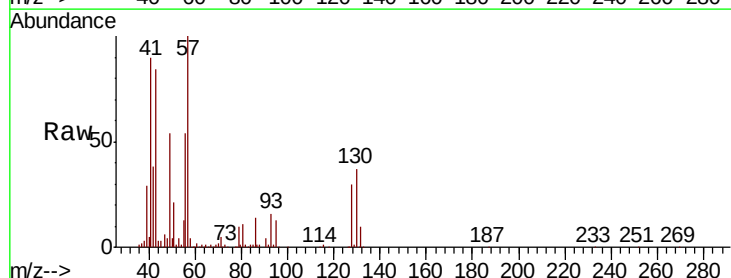
Manual Integrations
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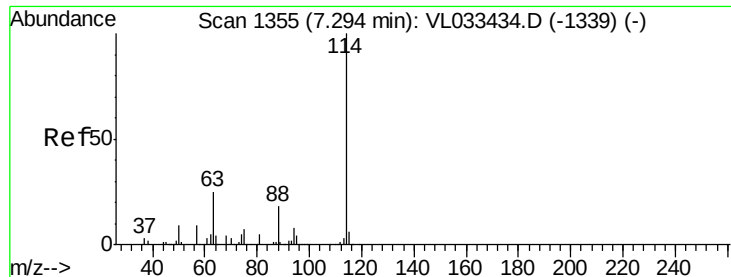
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#26
Hexane
Concen: 4.782 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion	Ratio	Lower	Upper
57	100		
41	90.6	70.7	106.1
43	98.7	182.6	274.0#
56	53.7	42.0	63.0





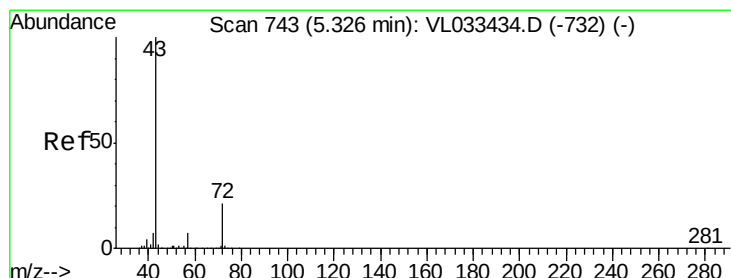
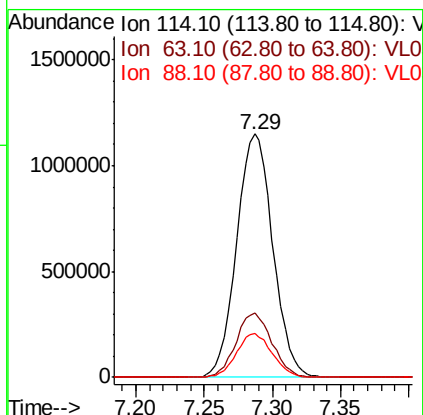
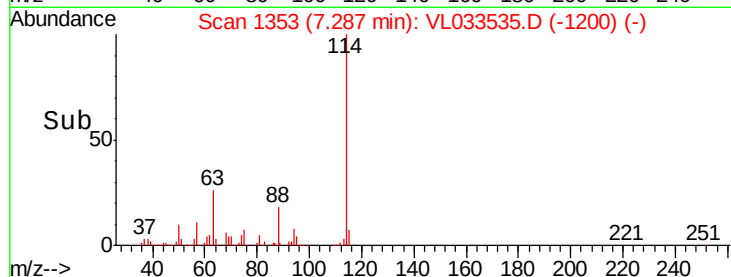
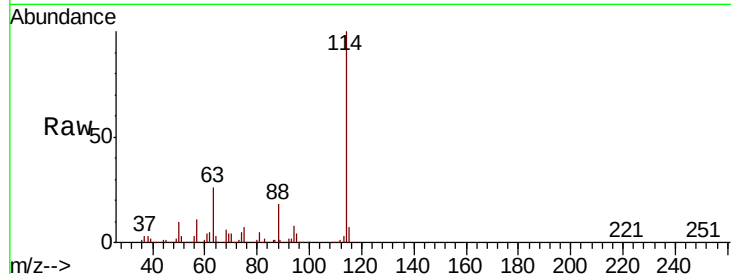
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.3	21.5	32.3
88	17.9	14.5	21.7

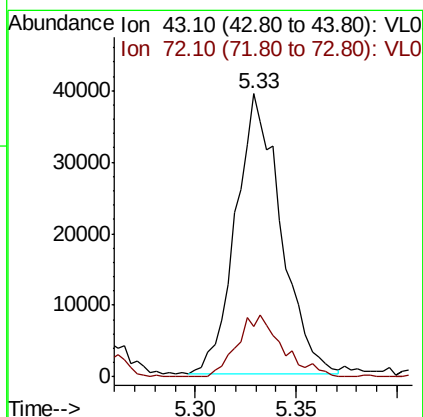
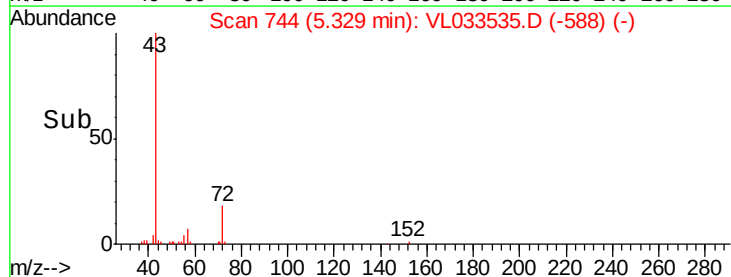
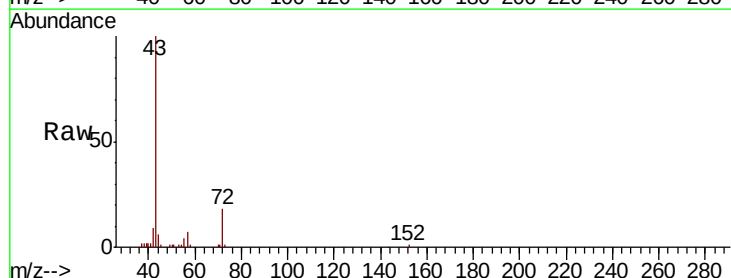
Manual Integrations
 APPROVED

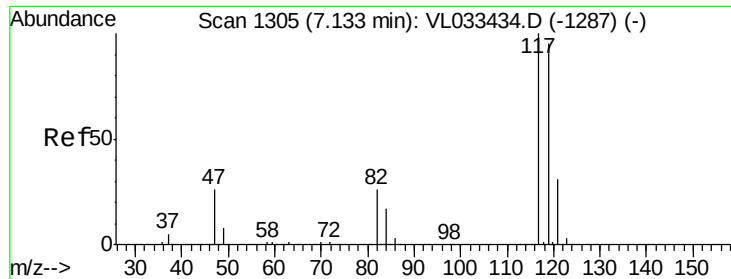
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#34
 2-Butanone
 Concen: 0.480 ppbv
 RT: 5.33 min Scan# 744
 Delta R.T. 0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.2	17.4	26.2





#35

Carbon Tetrachloride

Concen: 0.059 ppbv m

RT: 7.13 min Scan# 1305

Delta R.T. -0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

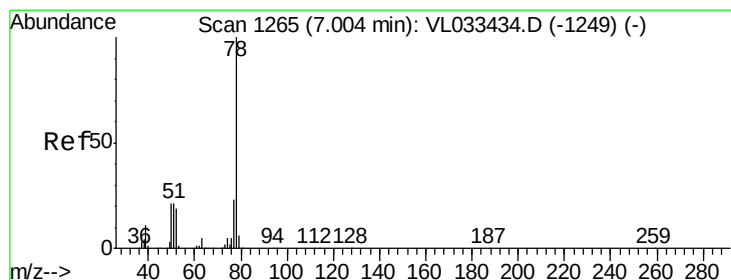
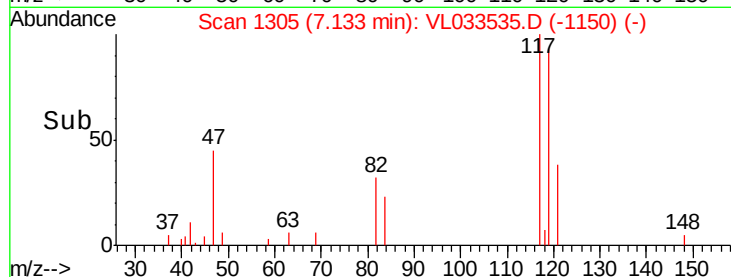
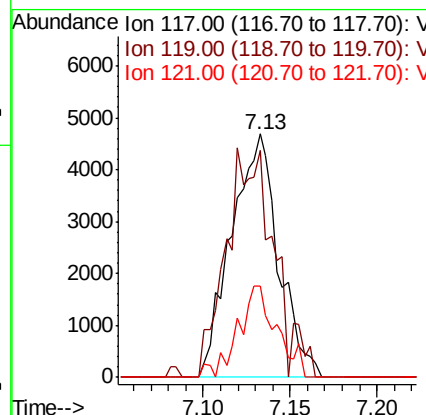
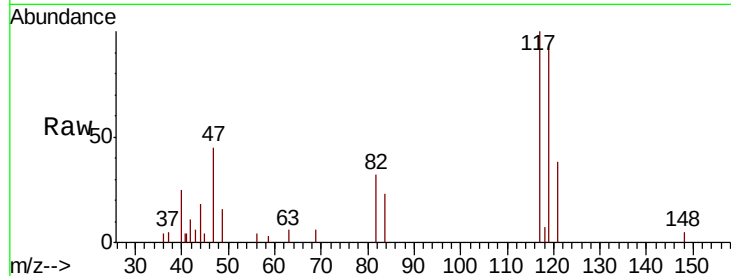
ClientSampleId :

A-1

Tot Ion:	117	Resp:	8793
Ion Ratio	Lower	Upper	
117	100		
119	93.0	75.8	113.8
121	37.7	24.7	37.1#

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#36

Benzene

Concen: 0.187 ppbv

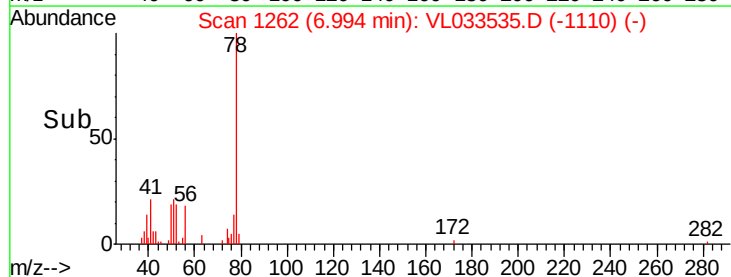
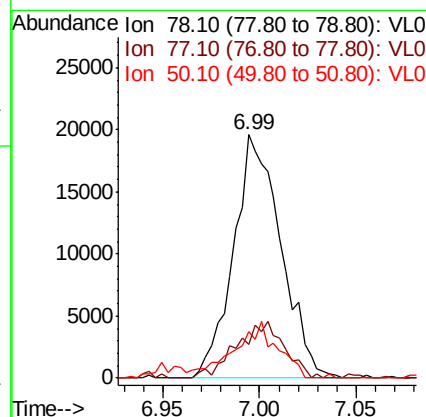
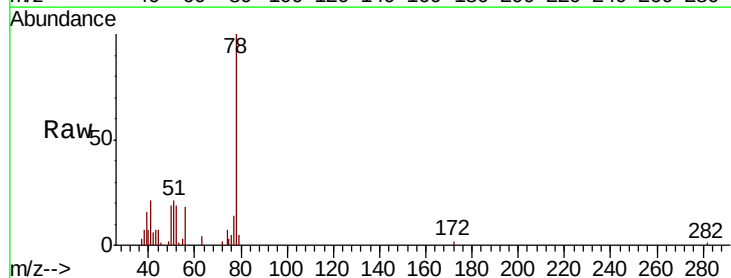
RT: 6.99 min Scan# 1262

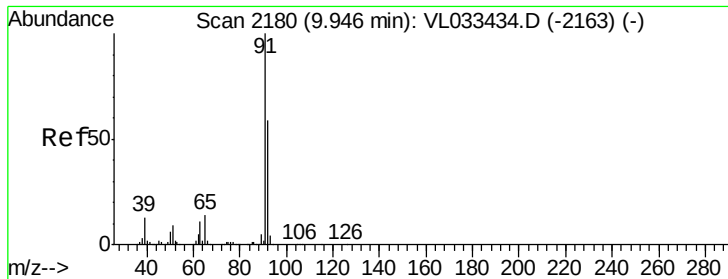
Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Tgt Ion:	78	Resp:	33323
Ion Ratio	Lower	Upper	
78	100		
77	14.1	18.1	27.1#
50	19.0	16.7	25.1





#53

Toluene

Concen: 7.277 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tot Ion: 91 Resp: 1503167

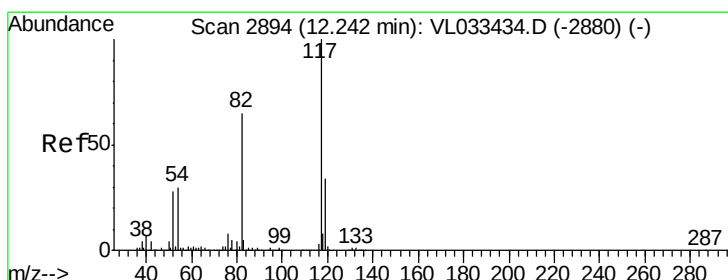
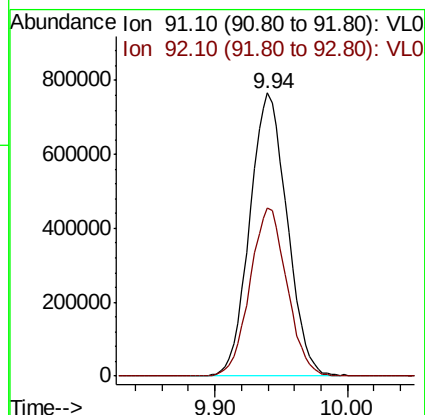
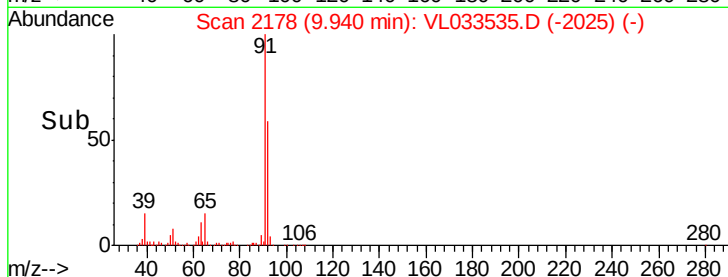
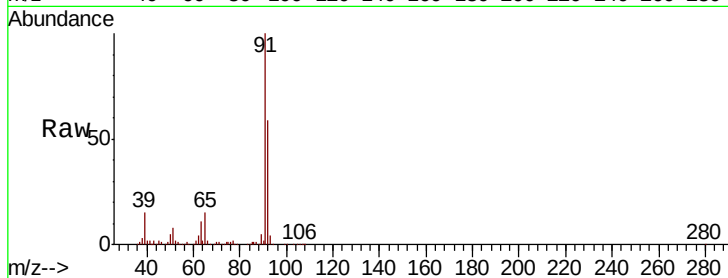
Ion Ratio Lower Upper

91 100

92 59.2 47.4 71.0

Manual Integrations
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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

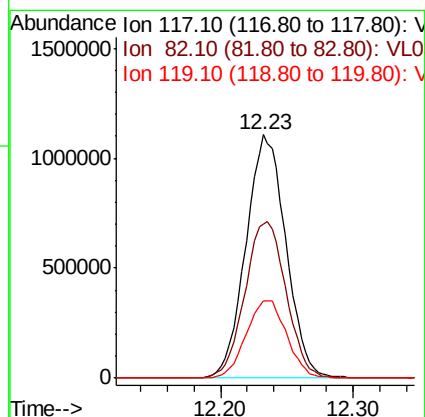
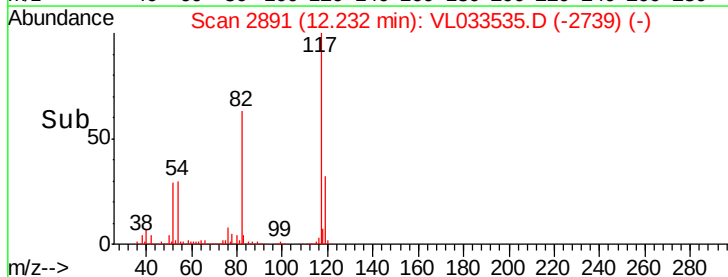
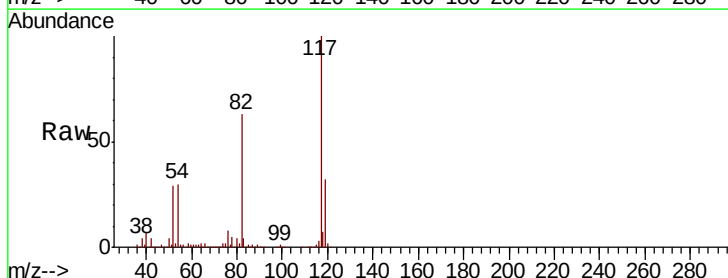
Tgt Ion: 117 Resp: 2318508

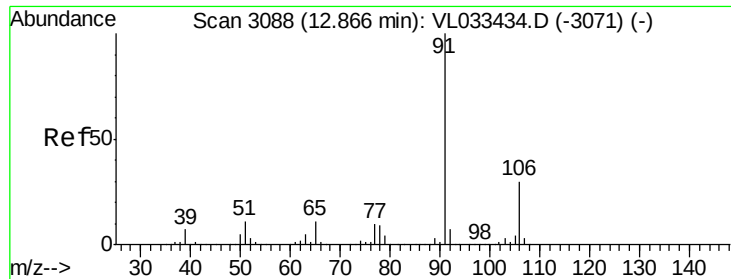
Ion Ratio Lower Upper

117 100

82 66.8 51.5 77.3

119 32.6 25.5 38.3





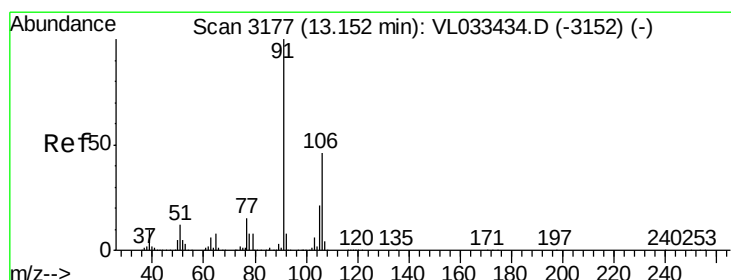
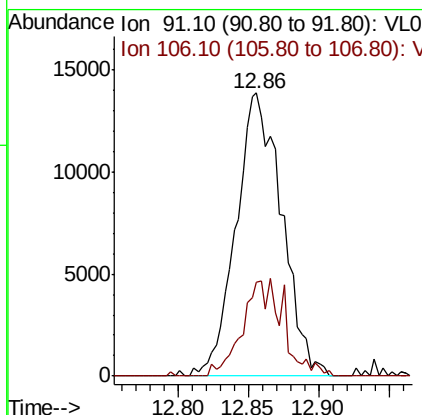
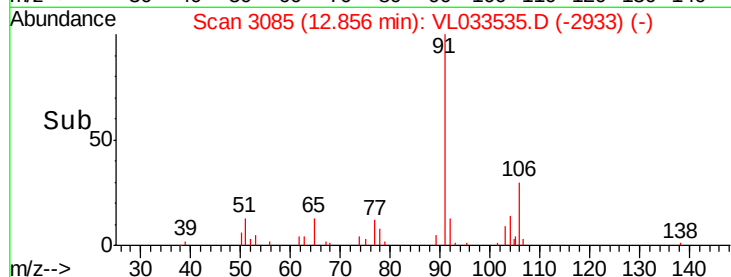
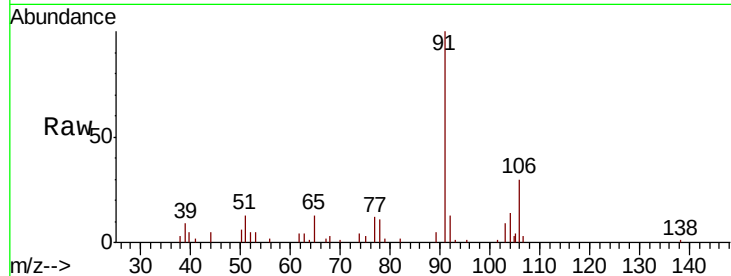
#58
Ethyl Benzene
Concen: 0.101 ppbv m
RT: 12.86 min Scan# 3085
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Instrument :
MSVOA_L
ClientSampleId :
A-1

Tot Ion: 91 Resp: 31334
Ion Ratio Lower Upper
91 100
106 30.0 23.8 35.6

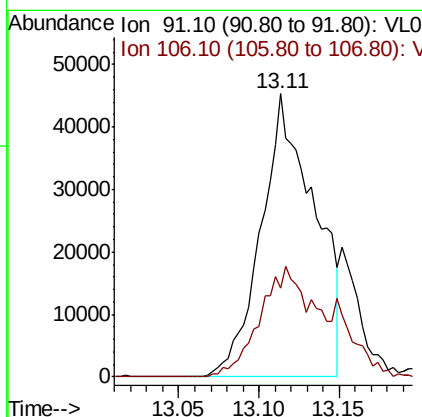
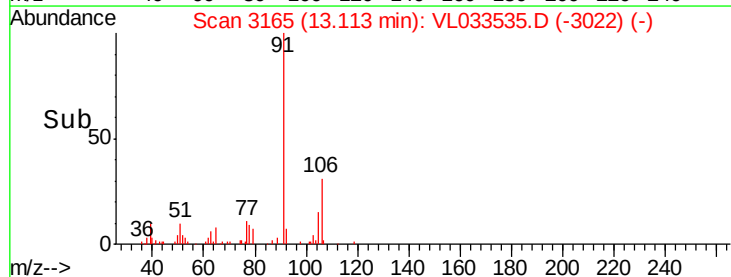
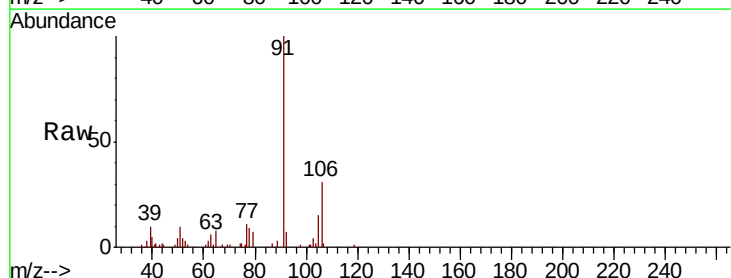
Manual Integrations
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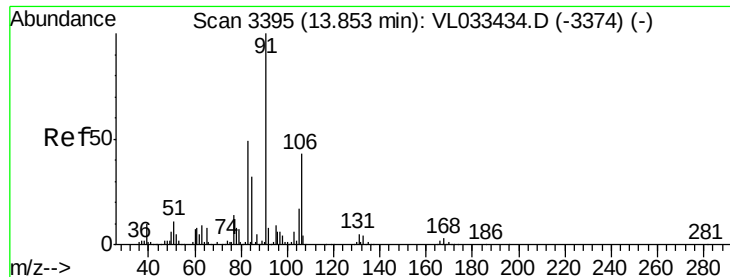
MMDadoda
4/8/2019 3:22:14 AM



#59
m/p-Xylene
Concen: 0.376 ppbv m
RT: 13.11 min Scan# 3165
Delta R.T. -0.04 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 91 Resp: 104100
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0





#60

o-Xylene

Concen: 0.180 ppbv m

RT: 13.84 min Scan# 3390

Delta R.T. -0.02 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampled :

A-1

Tot Ion: 91 Resp: 48149

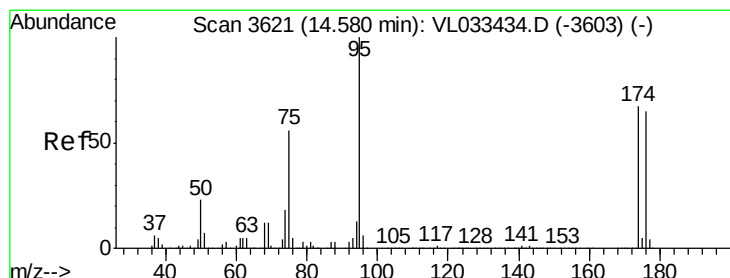
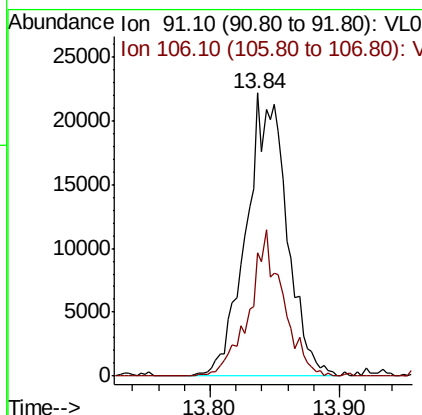
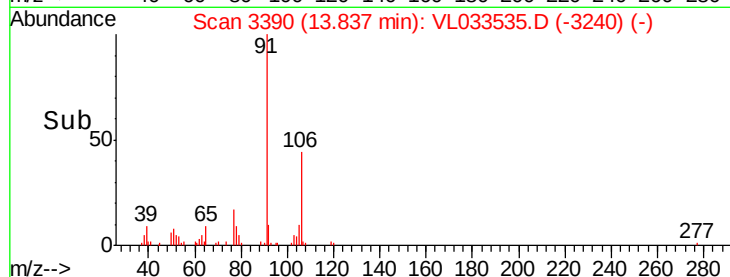
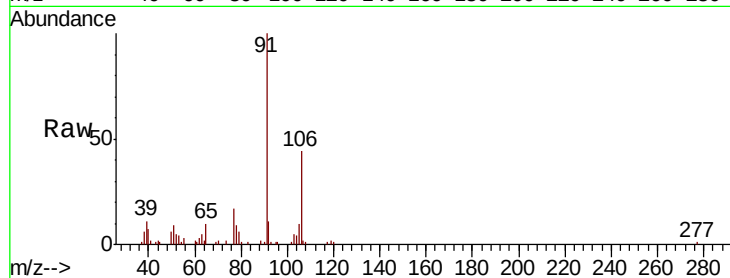
Ion Ratio Lower Upper

91 100

106 42.5 21.4 64.3

Manual Integrations
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#68

1-Bromo-4-Fluorobenzene

Concen: 10.558 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

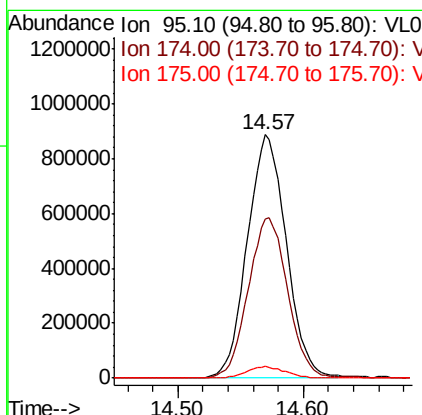
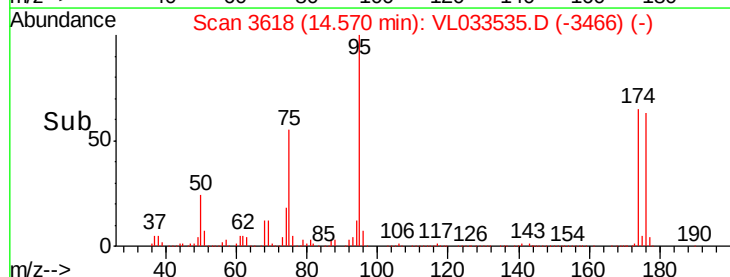
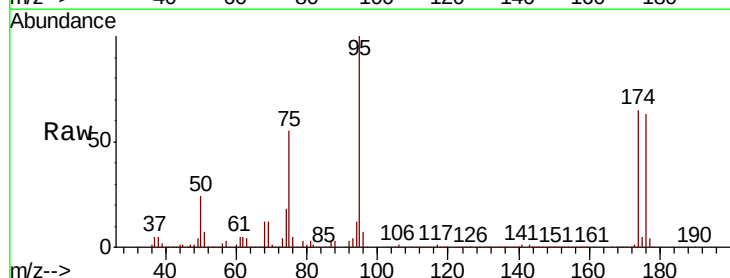
Tgt Ion: 95 Resp: 1919130

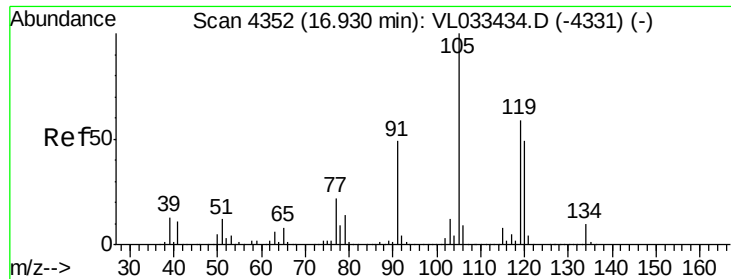
Ion Ratio Lower Upper

95 100

174 66.8 52.9 79.3

175 4.8 3.8 5.6





#74

1,2,4-Trimethylbenzene

Concen: 0.220 ppbv m

RT: 16.92 min Scan# 4350

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

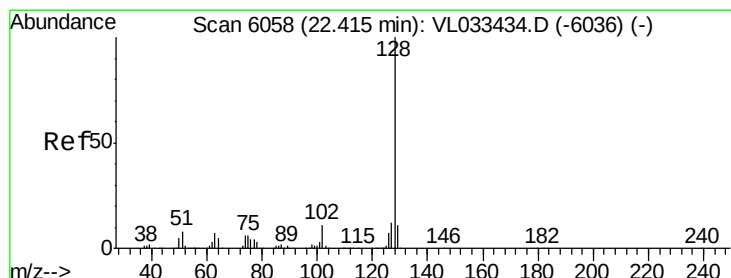
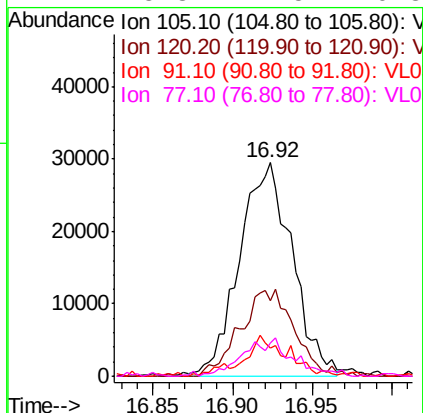
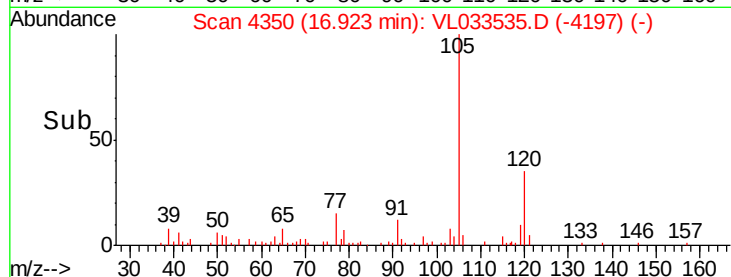
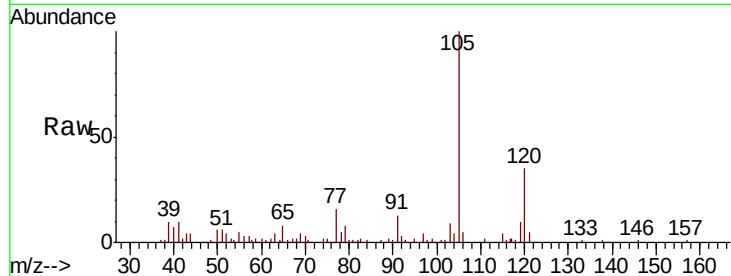
ClientSampleId :

A-1

Tot Ion	Ratio	Lower	Upper
105	100		
120	35.4	39.0	58.6#
91	13.2	40.0	60.0#
77	15.8	17.5	26.3#

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#79

Naphthalene

Concen: 0.165 ppbv m

RT: 22.41 min Scan# 6055

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Tgt Ion	Ratio	Lower	Upper
128	100		
127	9.1	9.8	14.8#
129	13.2	8.6	12.8#

