

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100819\
 Data File : VL034263.D
 Acq On : 9 Oct 2019 00:32
 Operator : SY/AP
 Sample : K5243-04
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Manual Integrations
 APPROVED

MMDadoda
 10/11/2019 5:07:43 PM

Quant Time: Oct 10 21:03:46 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 18
 QLast Update : Wed Sep 18 12:53:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1038033	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.21	114	1726119	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1678823	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1519861	10.42	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	1042689	6.800	ppbv	99
3) Chlorodifluoromethane	2.96	51	77417m	0.636	ppbv	
4) Chloromethane	3.12	50	43195	0.604	ppbv	96
9) Propene	3.00	41	220396m	3.670	ppbv	
10) Heptane	8.17	43	31318m	0.200	ppbv	
11) Trichlorofluoromethane	3.94	101	99349	0.712	ppbv	96
13) Ethanol	3.64	45	17976002m	1236.254	ppbv	
15) Acetone	3.84	43	4015504	28.863	ppbv	94
19) Isopropyl Alcohol	4.02	45	22522375	263.258	ppbv	100
20) Methylene Chloride	4.35	84	76169	1.899	ppbv	92
26) Hexane	5.70	57	93428m	0.854	ppbv	
29) Chloroform	5.77	83	66173	0.423	ppbv #	83
30) Cyclohexane	7.17	84	56907	0.720	ppbv	93
34) 2-Butanone	5.26	43	233838	1.327	ppbv	99
35) Carbon Tetrachloride	7.05	117	8370m	0.058	ppbv	
36) Benzene	6.92	78	31862	0.167	ppbv #	91
37) 1,2-Dichloroethane	6.33	62	14850	0.110	ppbv #	95
38) Trichloroethene	7.88	130	17201	0.253	ppbv #	81
52) Tetrachloroethene	11.28	164	10230m	0.162	ppbv	
53) Toluene	9.86	91	159314	0.765	ppbv	96
58) Ethyl Benzene	12.78	91	35472	0.131	ppbv	92
59) m/p-Xylene	13.03	91	89368m	0.398	ppbv	
60) o-Xylene	13.76	91	37365m	0.167	ppbv	
74) 1,2,4-Trimethylbenzene	16.84	105	81204m	0.312	ppbv	
76) 1,4-Dichlorobenzene	17.22	146	26489m	0.185	ppbv	
79) Naphthalene	22.31	128	73012m	0.319	ppbv	

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

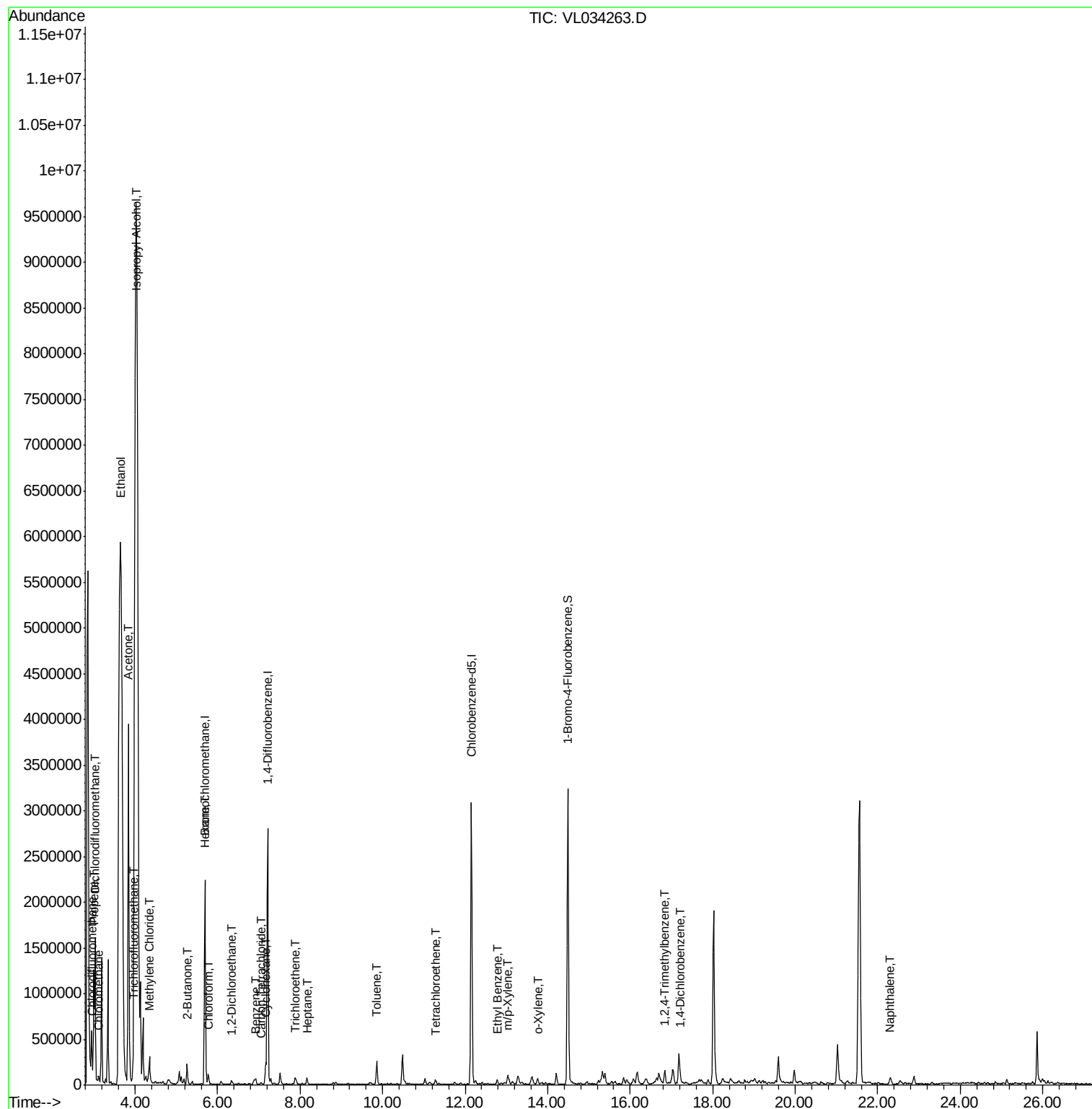
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL100819\
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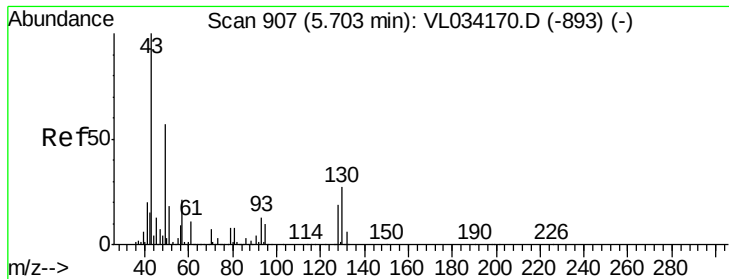
Instrument :
MSVOA_L
ClientSampleId :
IA3

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Quant Time: Oct 10 21:03:46 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep
QLast Update : Wed Sep 18 12:53:31 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tgt Ion: 49 Resp: 1038033

Ion Ratio Lower Upper

49 100

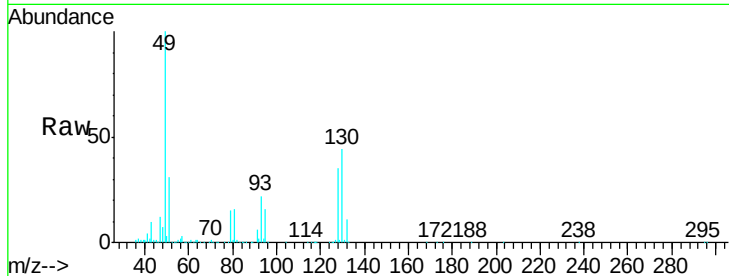
128 34.7 17.6 52.9

130 44.7 22.3 66.9

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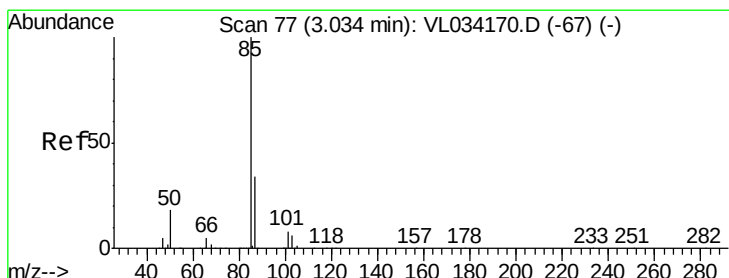
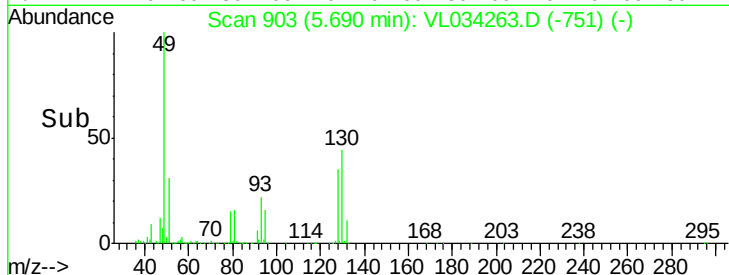
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.69

Time--> 5.60 5.65 5.70 5.75



#2

Dichlorodifluoromethane

Concen: 6.800 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.01 min

Lab File: VL034263.D

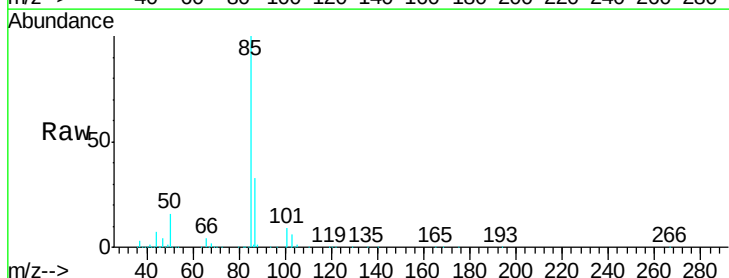
Acq: 9 Oct 2019 00:32

Tgt Ion: 85 Resp: 1042689

Ion Ratio Lower Upper

85 100

87 33.5 27.2 40.8

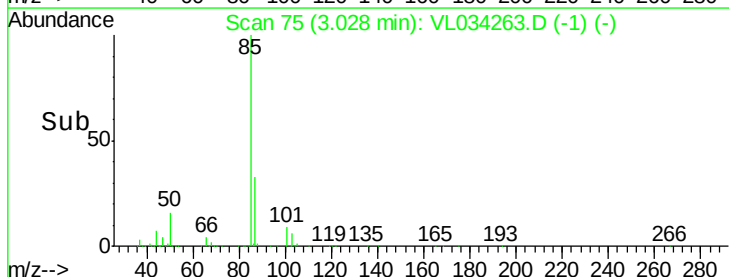


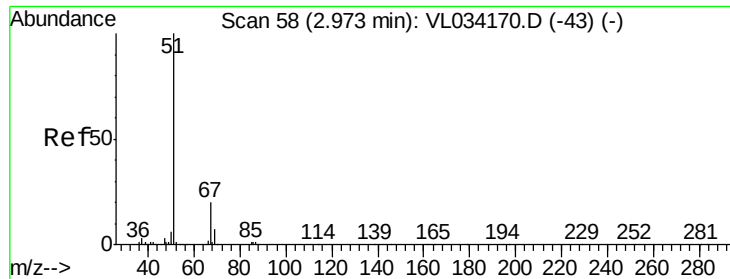
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.03

Time--> 2.95 3.00 3.05





#3

Chlorodifluoromethane

Concen: 0.636 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.01 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion: 51 Resp: 77417

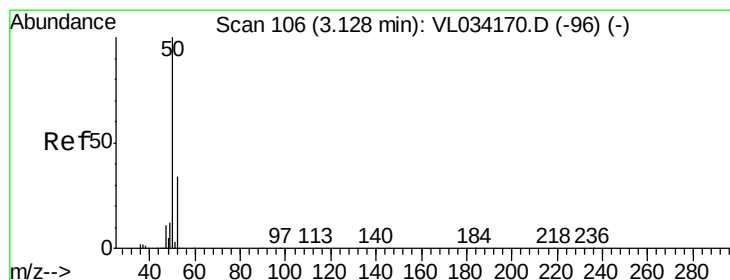
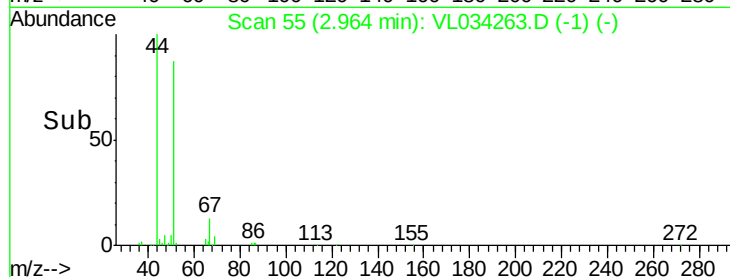
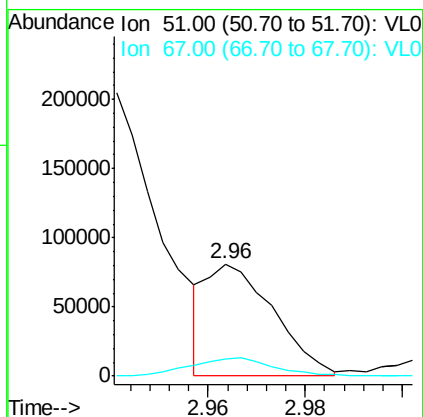
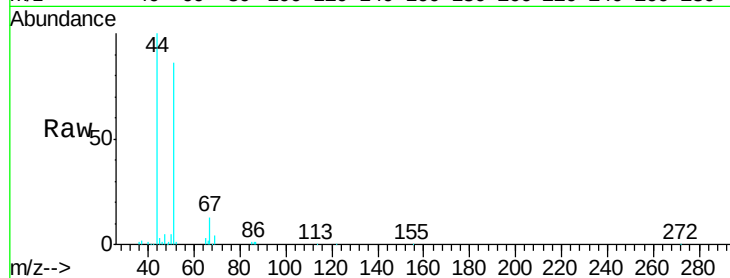
Ion Ratio Lower Upper

51 100

67 21.0 14.8 22.2

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#4

Chloromethane

Concen: 0.604 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL034263.D

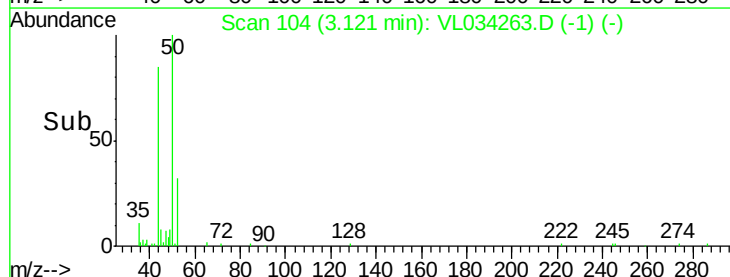
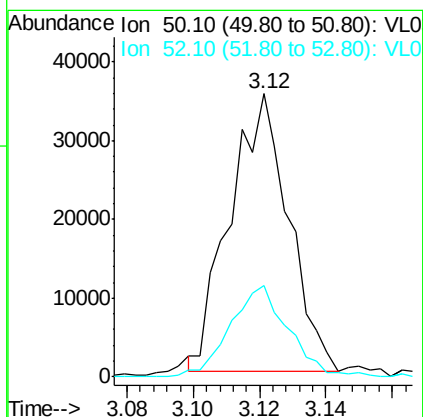
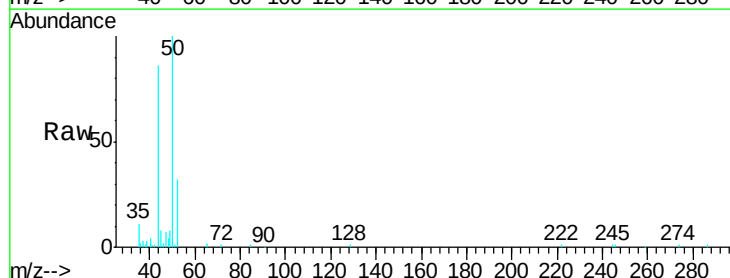
Acq: 9 Oct 2019 00:32

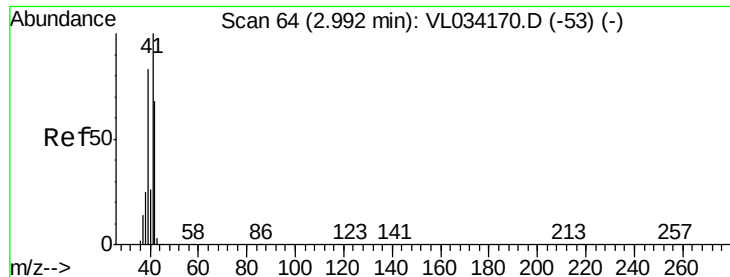
Tgt Ion: 50 Resp: 43195

Ion Ratio Lower Upper

50 100

52 31.4 27.1 40.7





#9

Propene

Concen: 3.670 ppbv m

RT: 3.00 min Scan# 67

Delta R.T. 0.01 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion: 41 Resp: 220396

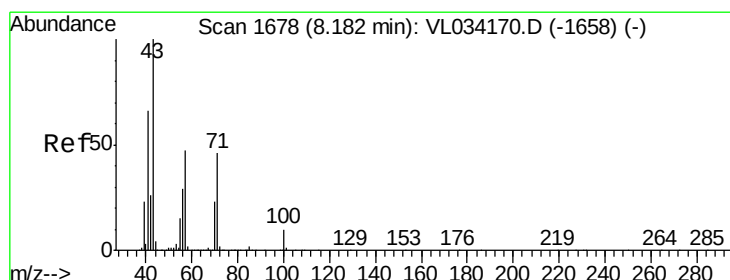
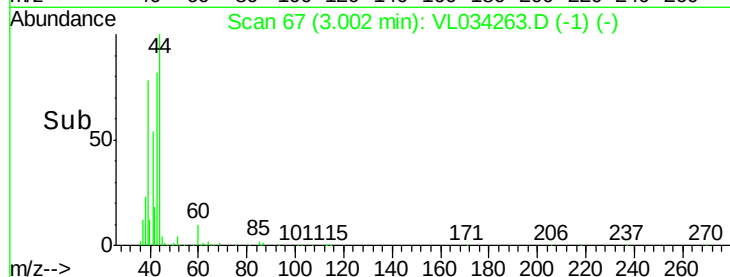
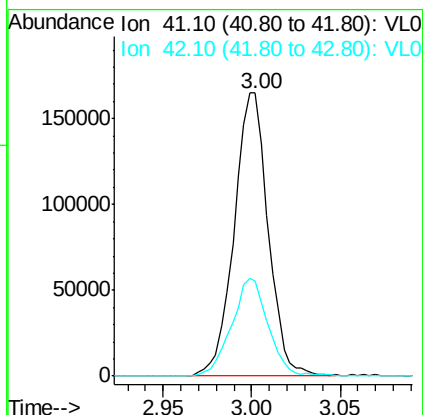
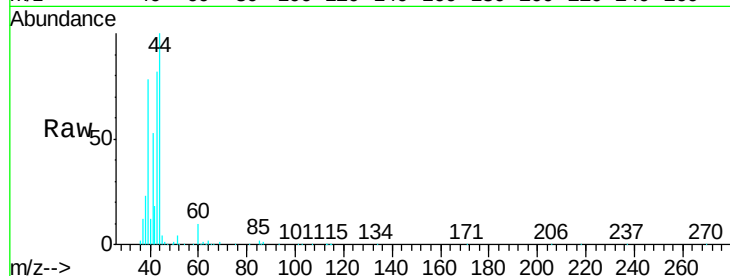
Ion Ratio Lower Upper

41 100

42 103.9 55.8 83.6#

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#10

Heptane

Concen: 0.200 ppbv m

RT: 8.17 min Scan# 1674

Delta R.T. -0.01 min

Lab File: VL034263.D

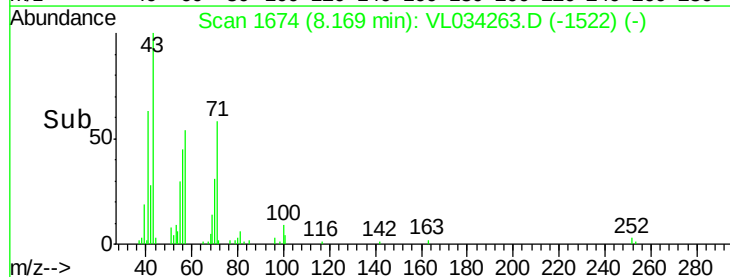
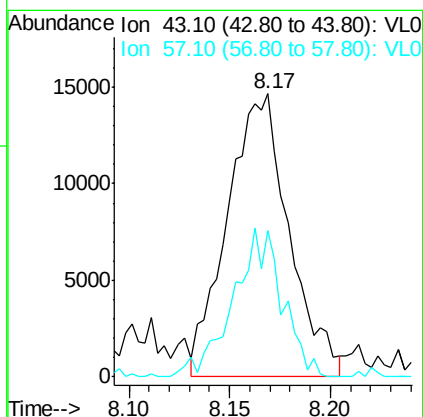
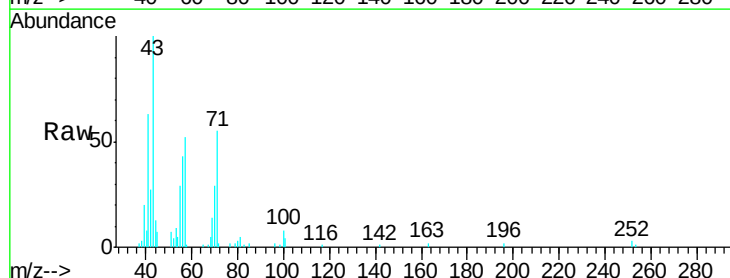
Acq: 9 Oct 2019 00:32

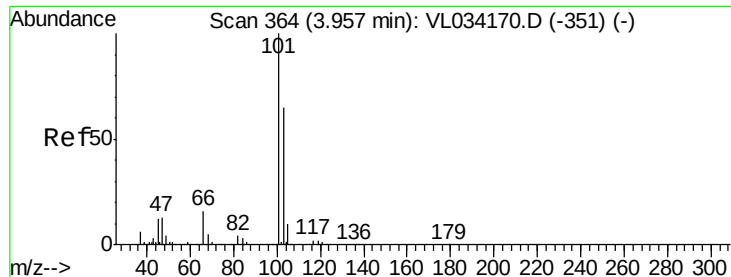
Tgt Ion: 43 Resp: 31318

Ion Ratio Lower Upper

43 100

57 41.6 37.5 56.3





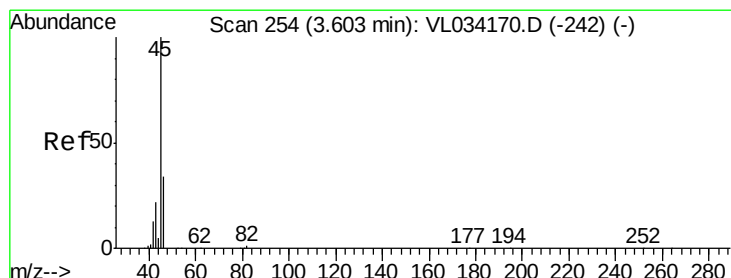
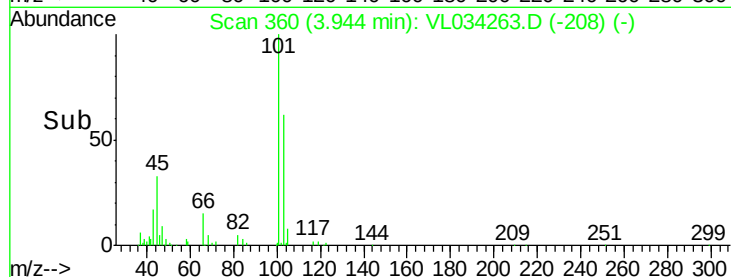
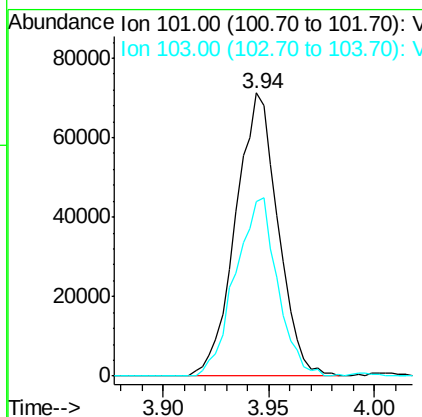
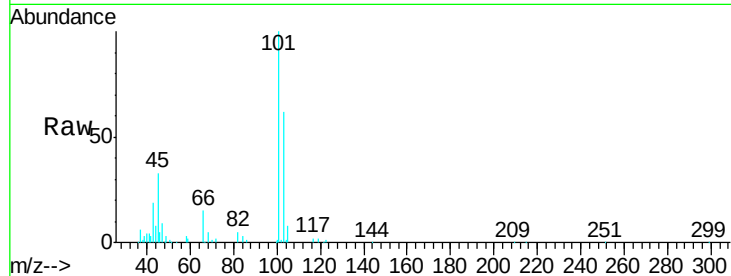
#11
 Trichlorofluoromethane
 Concen: 0.712 ppbv
 RT: 3.94 min Scan# 360
 Delta R.T. -0.01 min
 Lab File: VL034263.D
 Acq: 9 Oct 2019 00:32

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Tgt Ion: 101 Resp: 99349
 Ion Ratio Lower Upper
 101 100
 103 61.6 52.1 78.1

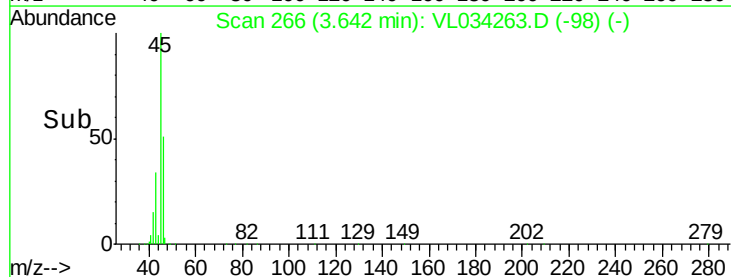
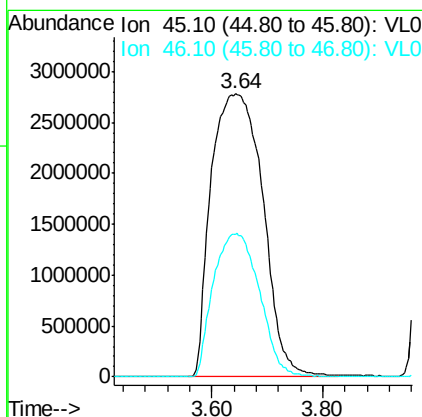
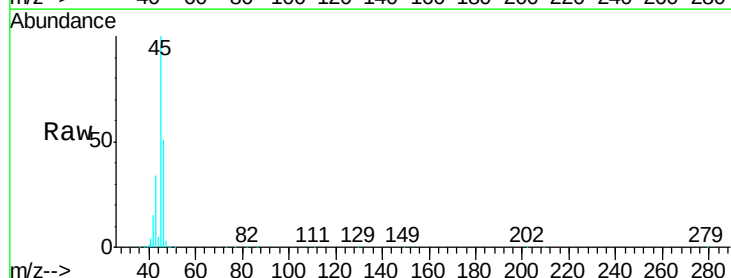
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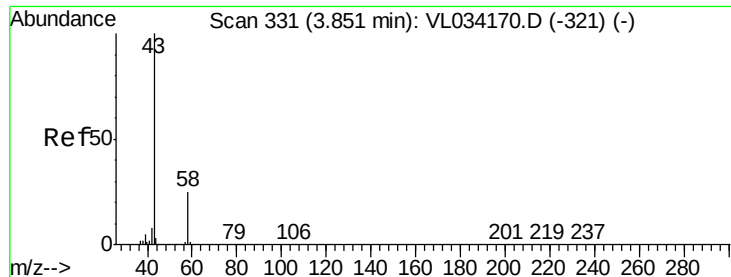
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#13
 Ethanol
 Concen: 1236.254 ppbv m
 RT: 3.64 min Scan# 266
 Delta R.T. 0.04 min
 Lab File: VL034263.D
 Acq: 9 Oct 2019 00:32

Tgt Ion: 45 Resp: 17976002
 Ion Ratio Lower Upper
 45 100
 46 0.0 15.5 61.9#





#15

Acetone

Concen: 28.863 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion: 43 Resp: 4015504

Ion Ratio Lower Upper

43 100

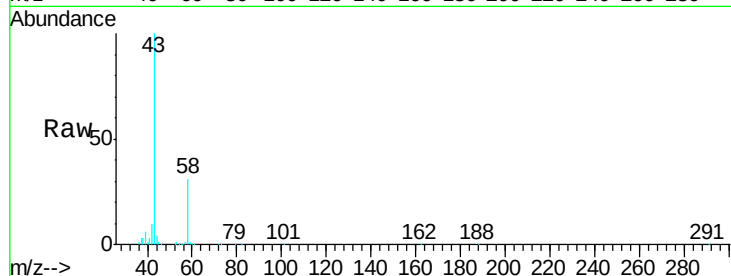
58 28.4 20.5 30.7

Manual Integrations

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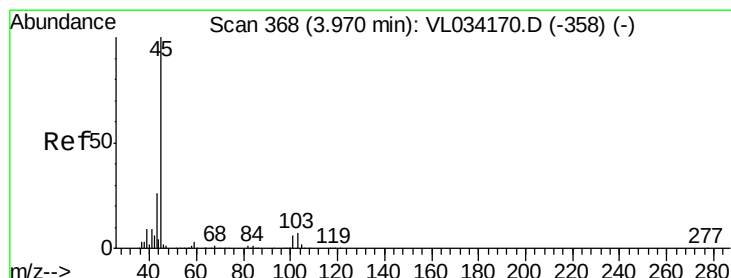
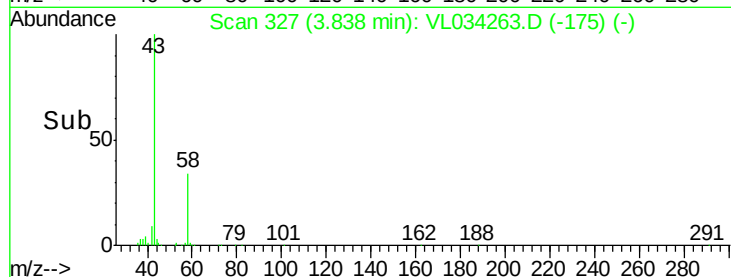
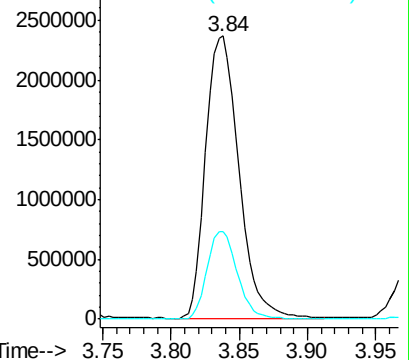
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 263.258 ppbv

RT: 4.02 min Scan# 385

Delta R.T. 0.05 min

Lab File: VL034263.D

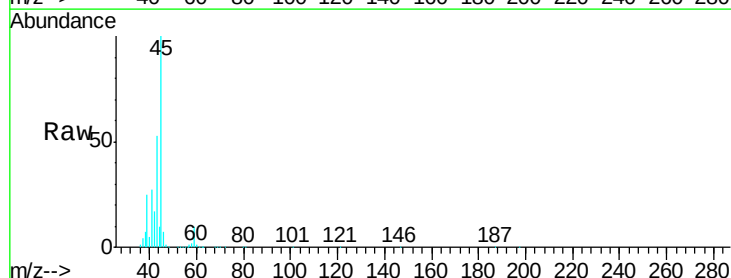
Acq: 9 Oct 2019 00:32

Tgt Ion: 45 Resp: 22522375

Ion Ratio Lower Upper

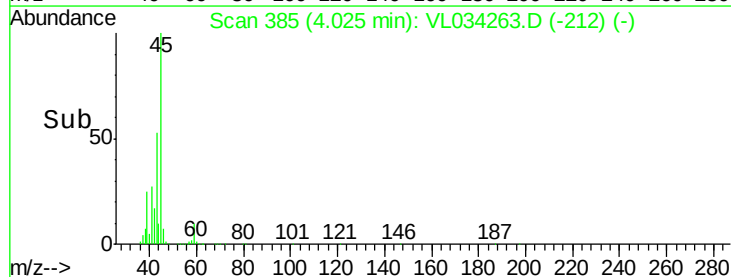
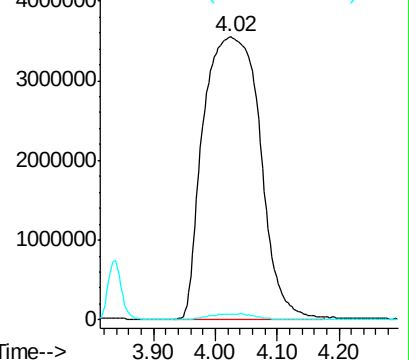
45 100

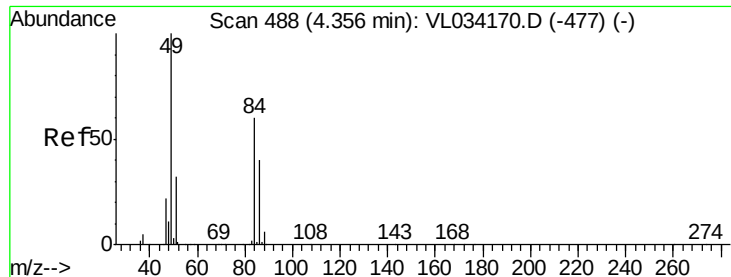
58 1.9 1.4 2.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





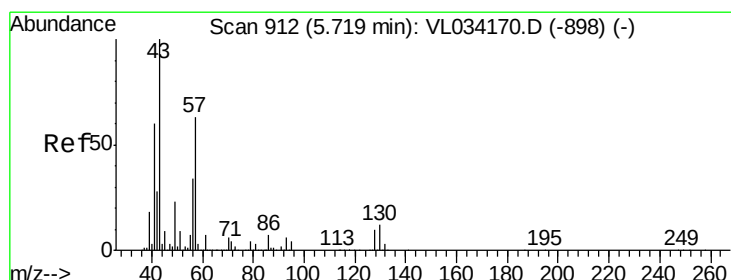
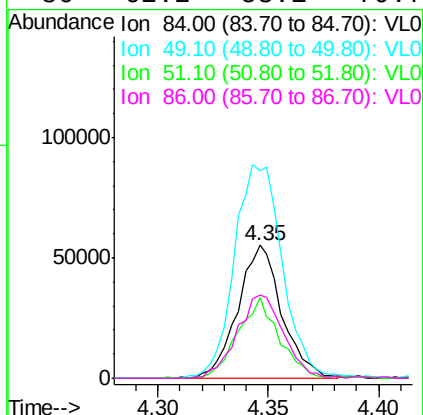
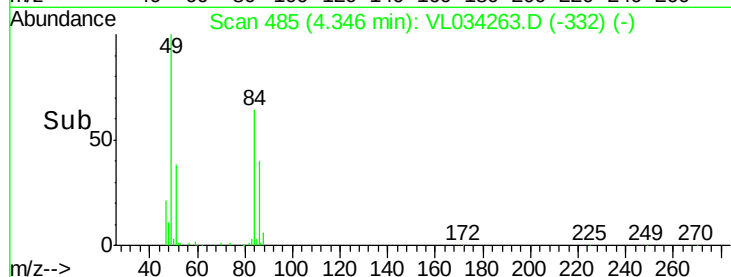
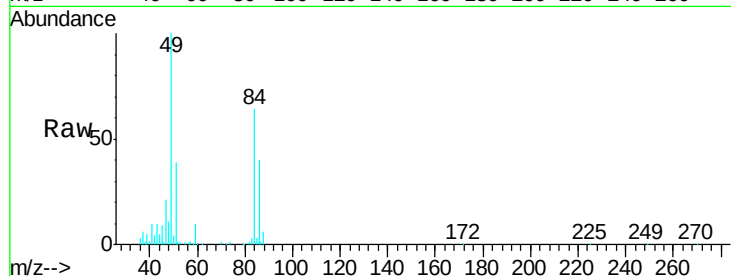
#20
Methylene Chloride
Concen: 1.899 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.01 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Instrument :
MSVOA_L
ClientSampled :
IA3

Tgt Ion	Ratio	Lower	Upper
84	100		
49	155.6	133.8	200.8
51	60.5	43.6	65.4
86	62.2	53.1	79.7

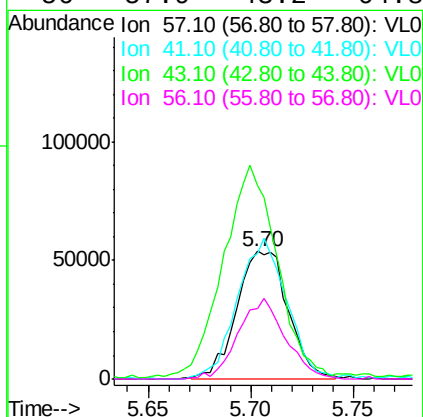
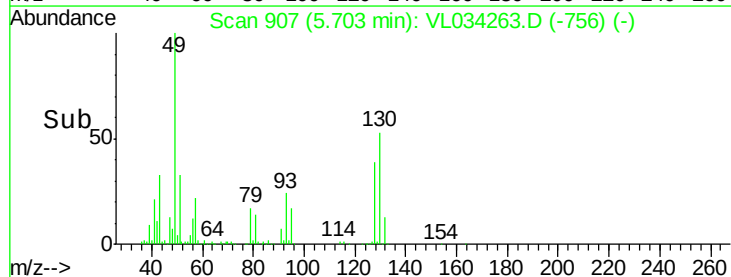
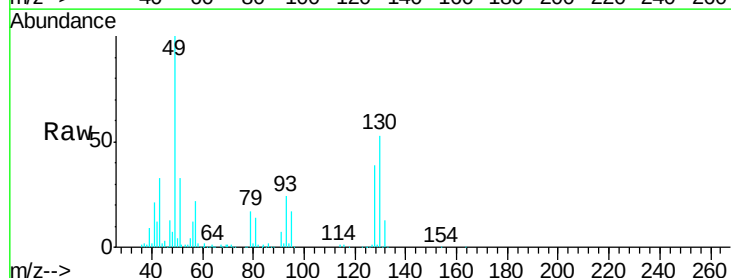
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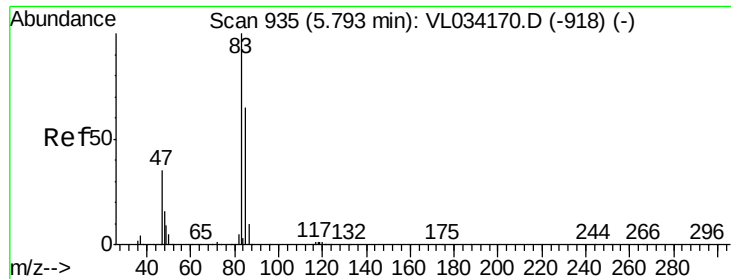
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#26
Hexane
Concen: 0.854 ppbv m
RT: 5.70 min Scan# 907
Delta R.T. -0.02 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Tgt Ion	Ratio	Lower	Upper
57	100		
41	109.6	78.5	117.7
43	182.2	189.5	284.3#
56	57.9	43.2	64.8





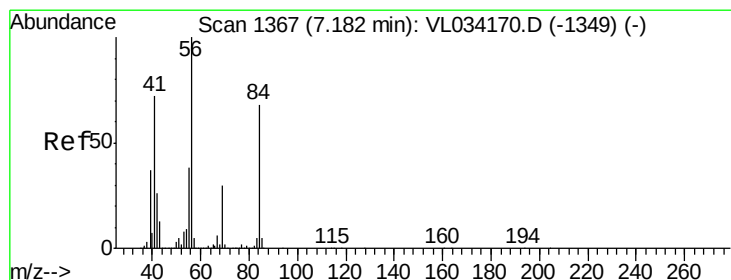
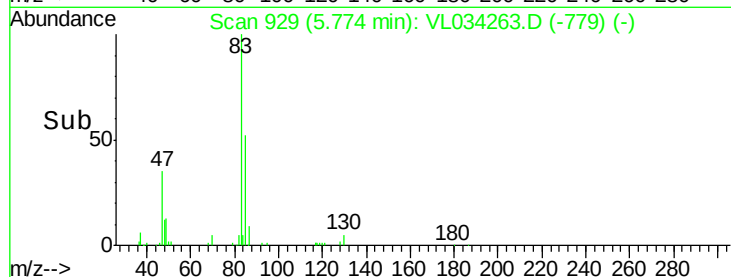
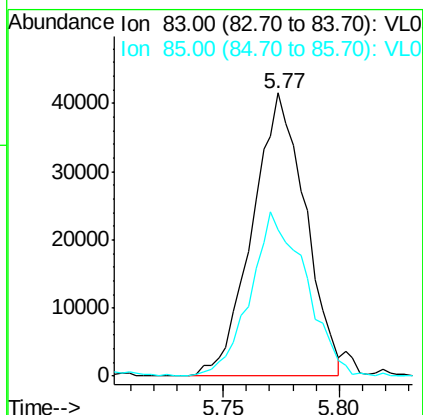
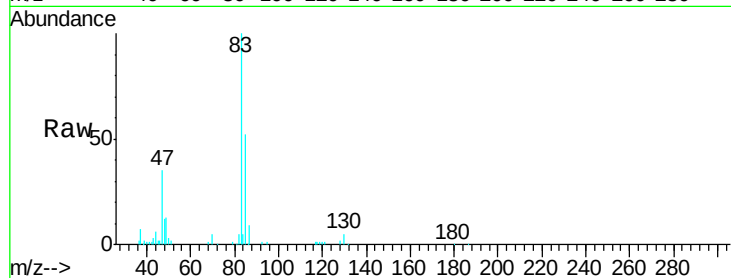
#29
Chloroform
Concen: 0.423 ppbv
RT: 5.77 min Scan# 929
Delta R.T. -0.02 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion: 83 Resp: 66173
Ion Ratio Lower Upper
83 100
85 51.6 52.3 78.5#

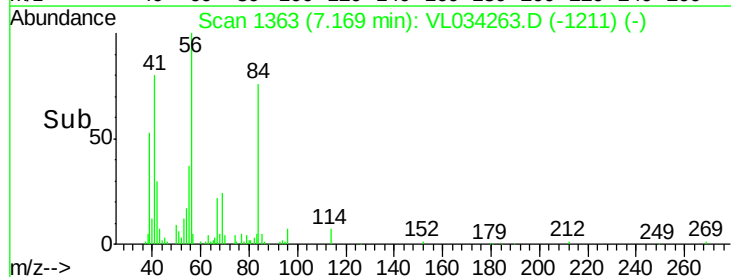
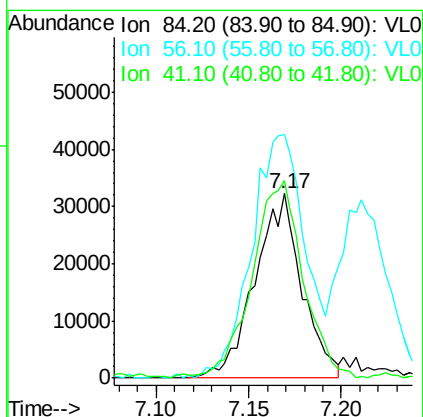
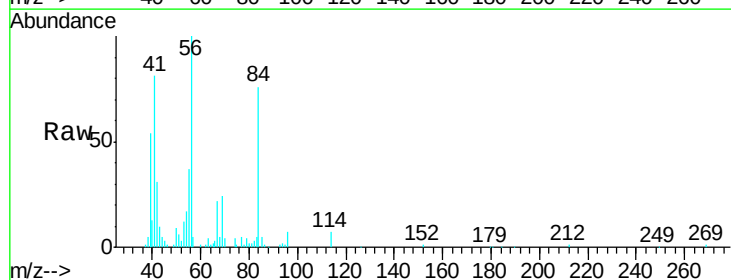
Manual Integrations
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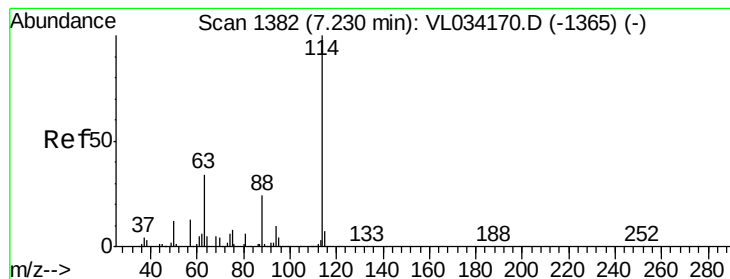
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#30
Cyclohexane
Concen: 0.720 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.01 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Tgt Ion: 84 Resp: 56907
Ion Ratio Lower Upper
84 100
56 148.6 126.2 189.2
41 115.3 85.8 128.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.21 min Scan# 1376

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tgt Ion: 114 Resp: 1726119

Ion Ratio Lower Upper

114 100

63 33.7 27.8 41.6

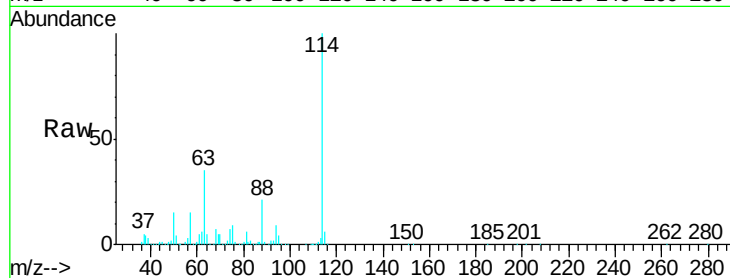
88 20.9 17.1 25.7

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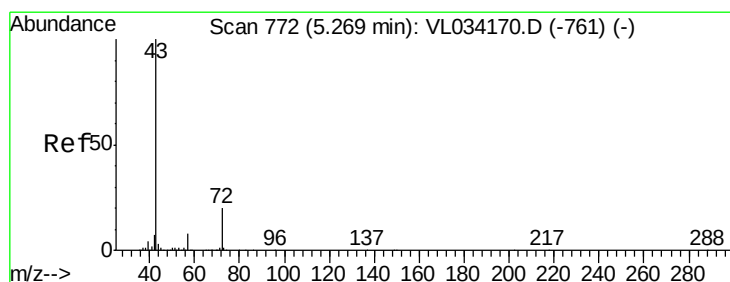
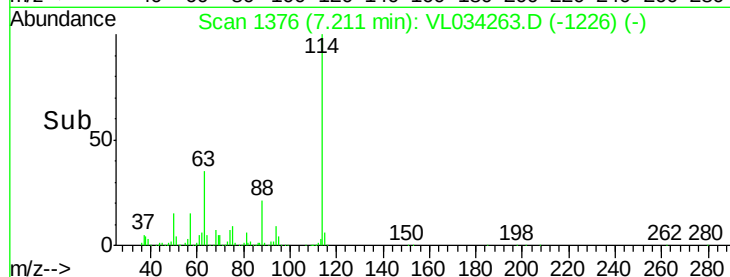
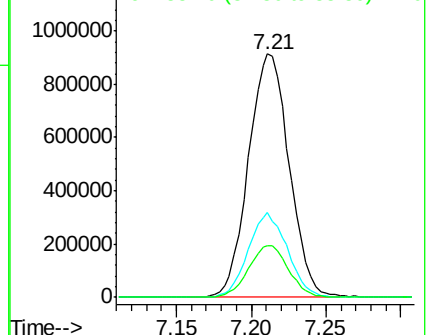
10/11/2019 5:07:43 PM



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.327 ppbv

RT: 5.26 min Scan# 769

Delta R.T. -0.01 min

Lab File: VL034263.D

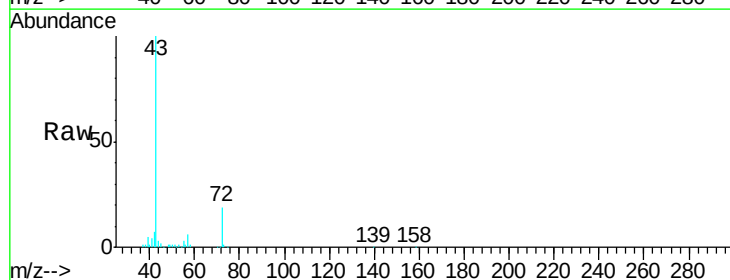
Acq: 9 Oct 2019 00:32

Tgt Ion: 43 Resp: 233838

Ion Ratio Lower Upper

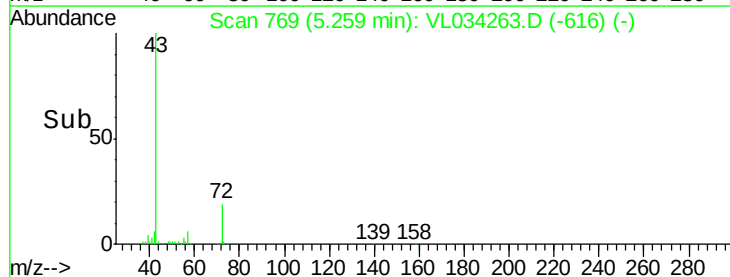
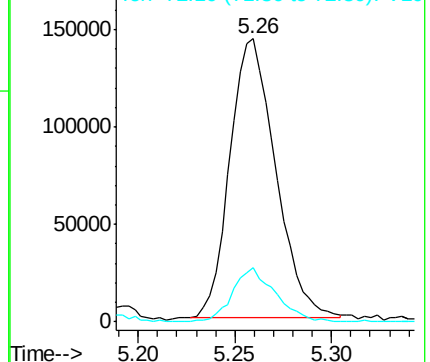
43 100

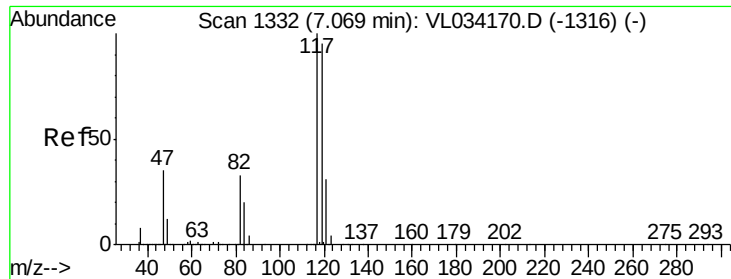
72 18.5 15.0 22.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





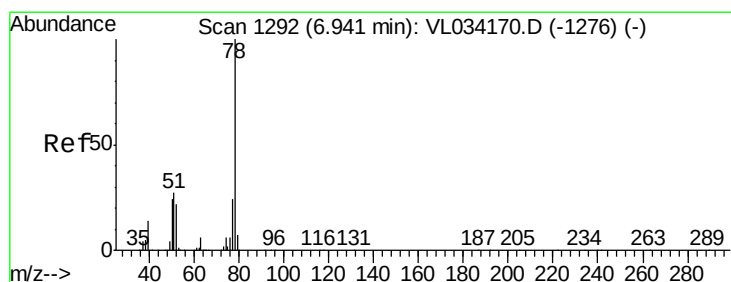
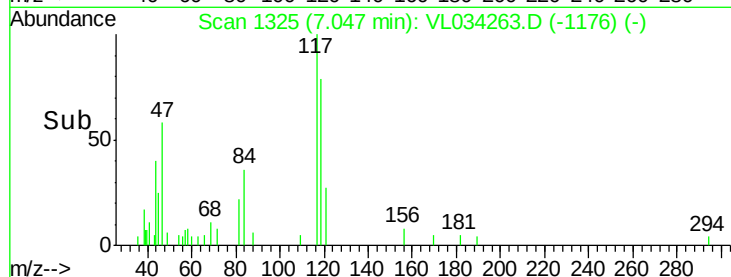
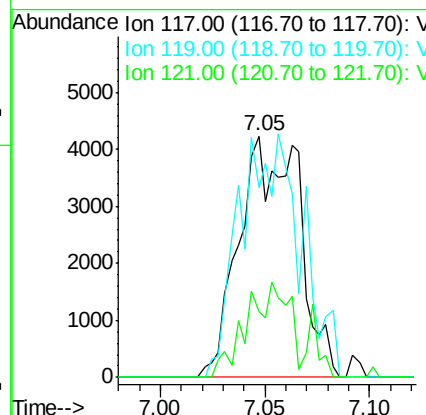
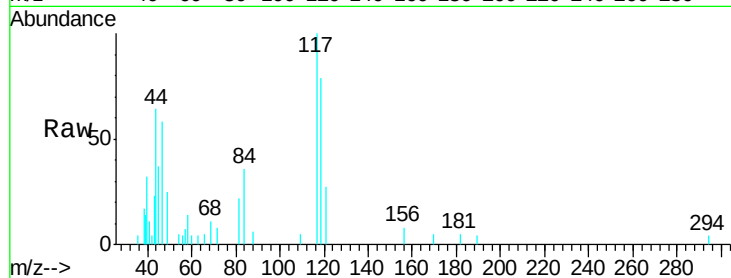
#35
 Carbon Tetrachloride
 Concen: 0.058 ppbv m
 RT: 7.05 min Scan# 1325
 Delta R.T. -0.02 min
 Lab File: VL034263.D
 Acq: 9 Oct 2019 00:32

Instrument :
 MSVOA_L
 ClientSampled :
 IA3

Tgt Ion	Ratio	Lower	Upper
117	100		
119	78.6	75.8	113.6
121	27.5	25.0	37.6

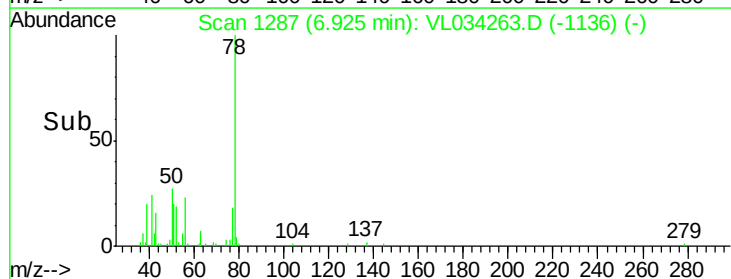
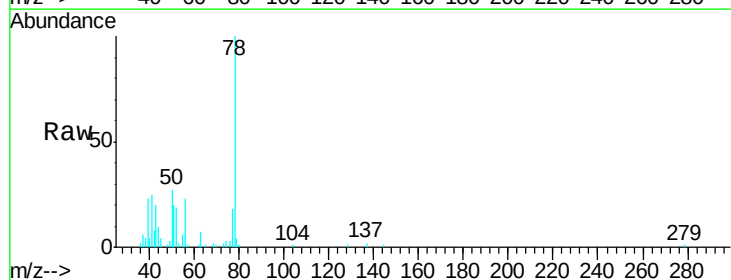
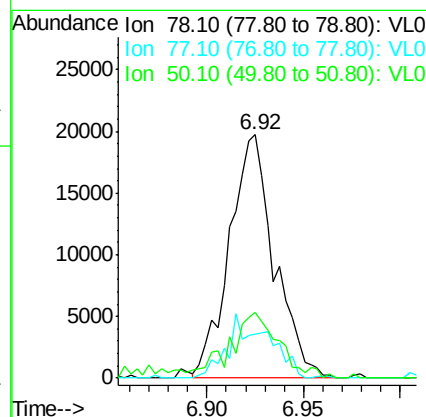
Manual Integrations
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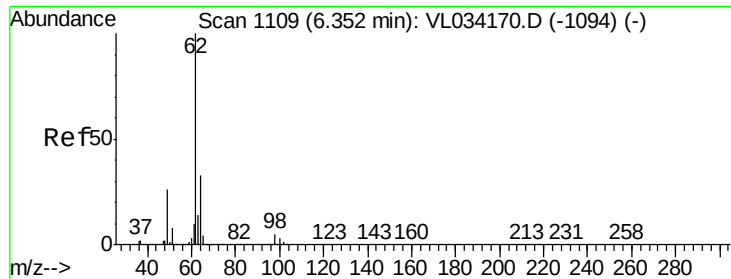
MMDadoda
 10/11/2019 5:07:43 PM



#36
 Benzene
 Concen: 0.167 ppbv
 RT: 6.92 min Scan# 1287
 Delta R.T. -0.02 min
 Lab File: VL034263.D
 Acq: 9 Oct 2019 00:32

Tgt Ion	Ratio	Lower	Upper
78	100		
77	18.0	19.0	28.4#
50	26.7	18.9	28.3





#37

1,2-Dichloroethane

Concen: 0.110 ppbv

RT: 6.33 min Scan# 1102

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampled :

IA3

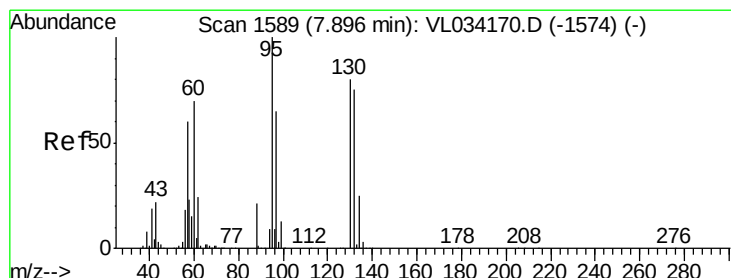
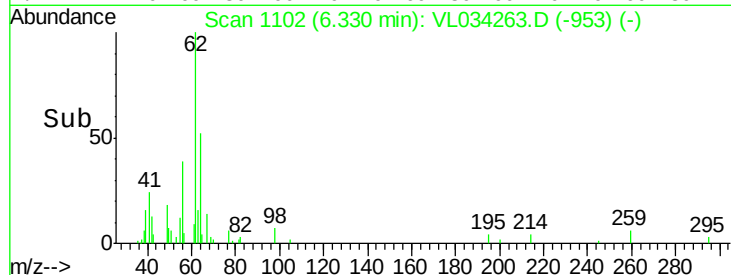
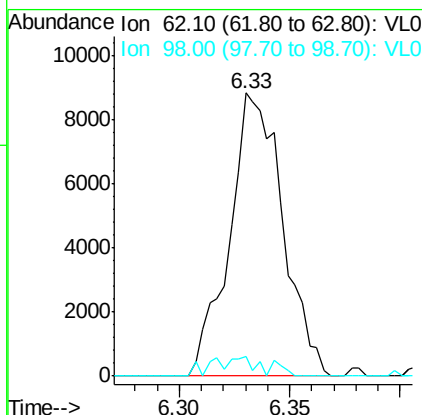
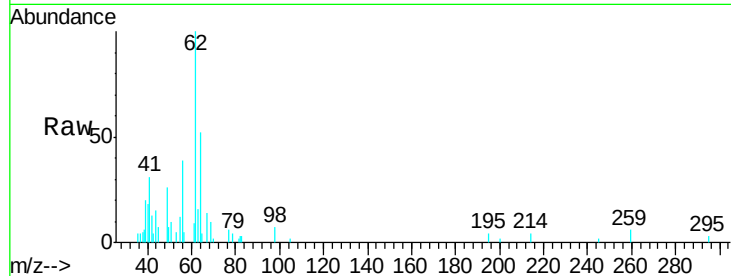
Tgt Ion: 62 Resp: 14850
Ion Ratio Lower Upper

62 100

98 6.5 3.8 5.8#

Manual Integrations
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#38

Trichloroethene

Concen: 0.253 ppbv

RT: 7.88 min Scan# 1584

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

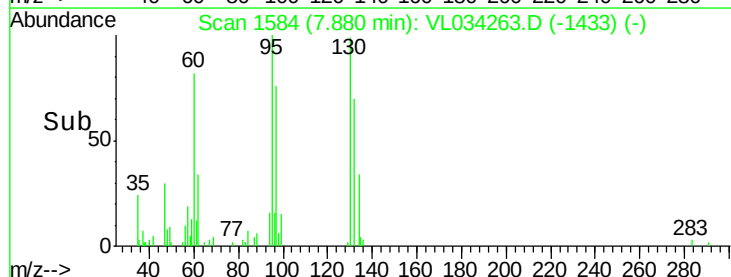
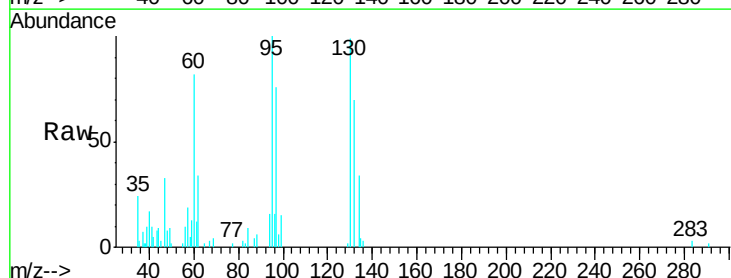
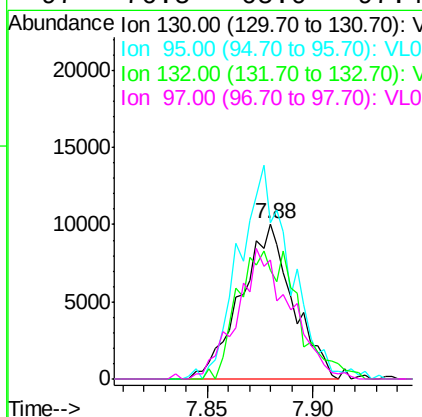
Tgt Ion: 130 Resp: 17201
Ion Ratio Lower Upper

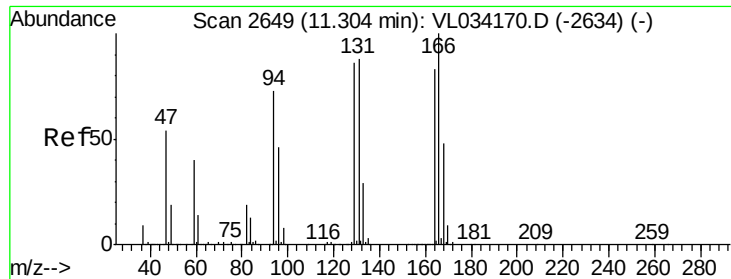
130 100

95 99.1 99.8 149.6#

132 70.0 75.2 112.8#

97 76.5 65.0 97.4





#52

Tetrachloroethene

Concen: 0.162 ppbv m

RT: 11.28 min Scan# 2643

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tgt Ion:164 Resp: 10230
Ion Ratio Lower Upper

164 100

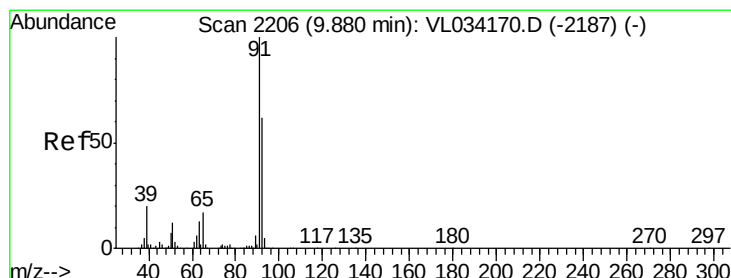
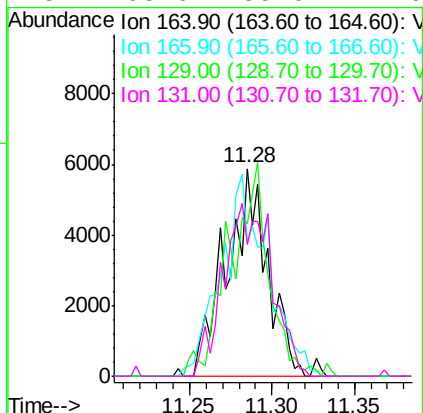
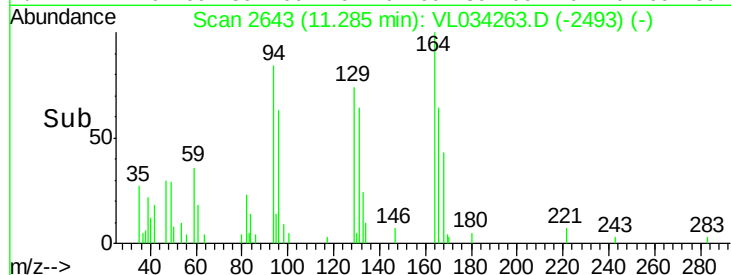
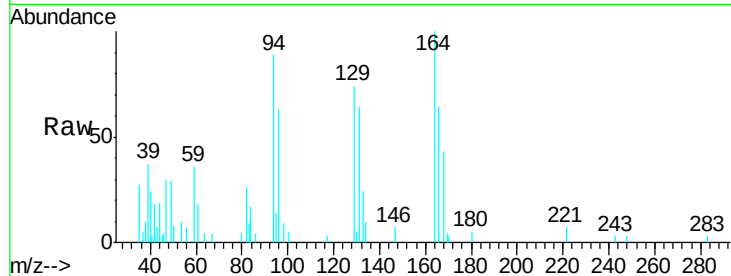
166 64.1 96.7 145.1#

129 73.7 82.8 124.2#

131 63.6 85.0 127.6#

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#53

Toluene

Concen: 0.765 ppbv

RT: 9.86 min Scan# 2199

Delta R.T. -0.02 min

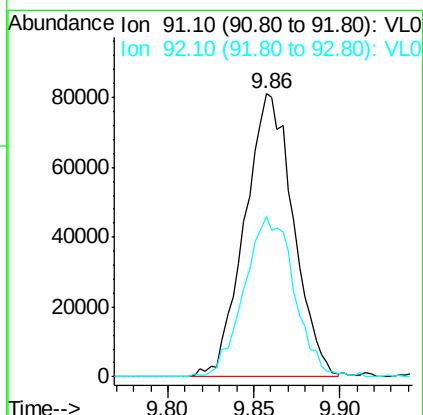
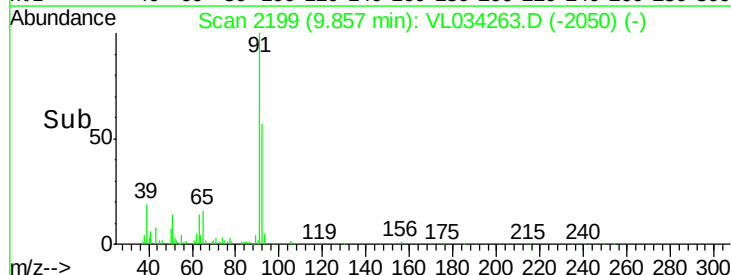
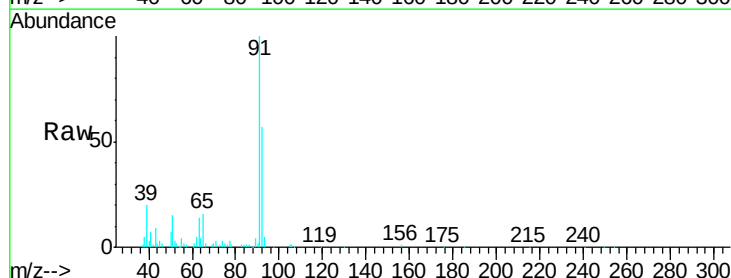
Lab File: VL034263.D

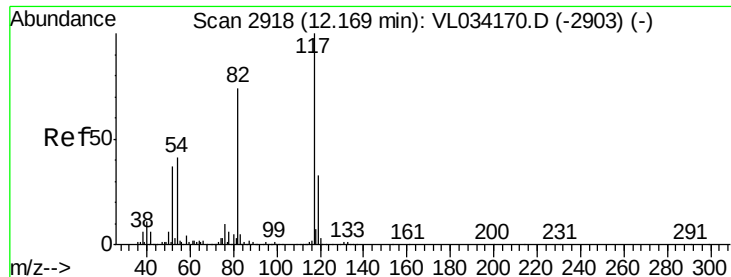
Acq: 9 Oct 2019 00:32

Tgt Ion: 91 Resp: 159314
Ion Ratio Lower Upper

91 100

92 58.4 49.0 73.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tgt Ion:117 Resp: 1678823

Ion Ratio Lower Upper

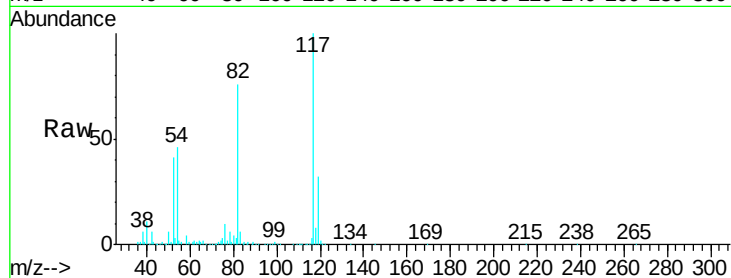
117 100

82 77.7 58.2 87.4

119 32.8 23.7 35.5

Manual Integrations
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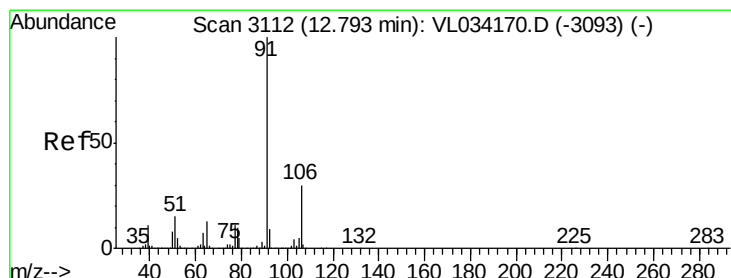
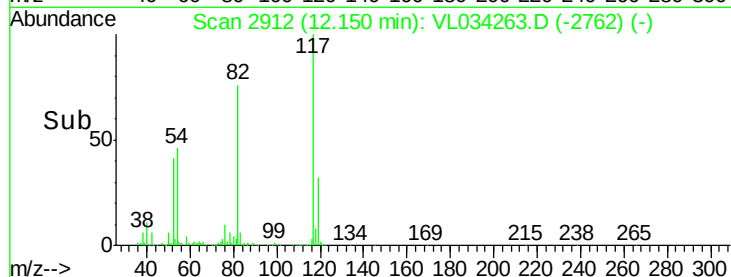
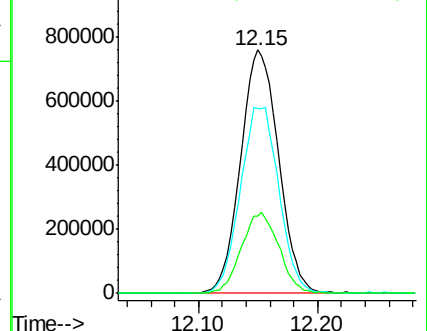
MMDadoda
10/11/2019 5:07:43 PM



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.131 ppbv

RT: 12.78 min Scan# 3108

Delta R.T. -0.01 min

Lab File: VL034263.D

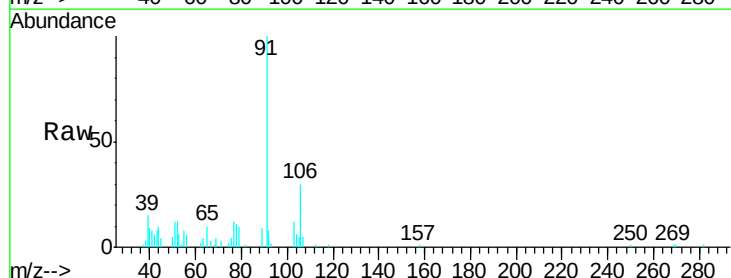
Acq: 9 Oct 2019 00:32

Tgt Ion: 91 Resp: 35472

Ion Ratio Lower Upper

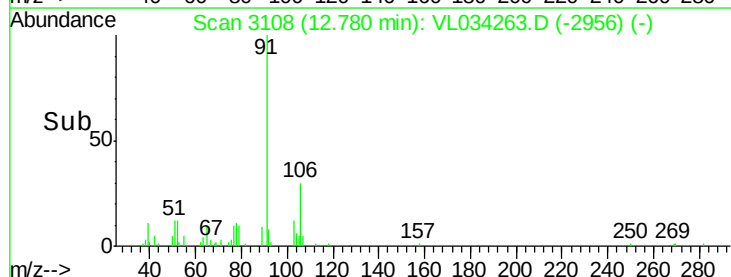
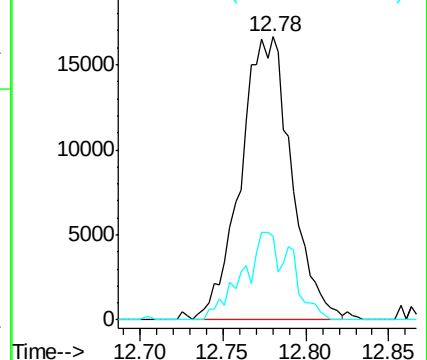
91 100

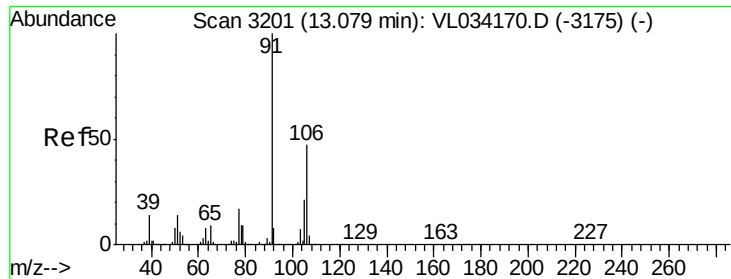
106 34.5 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





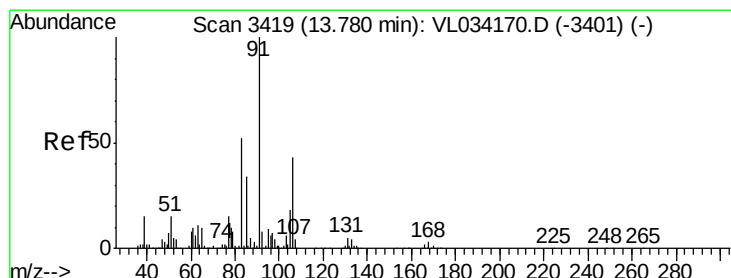
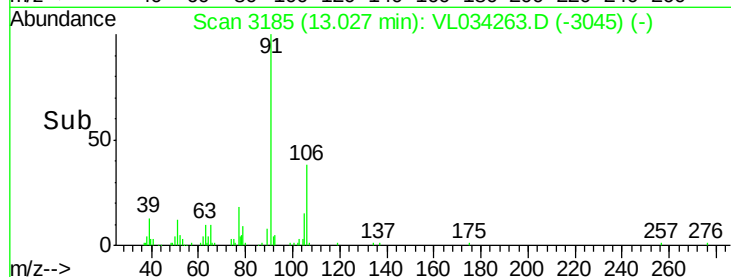
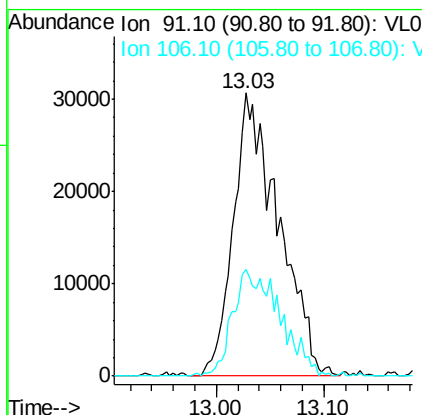
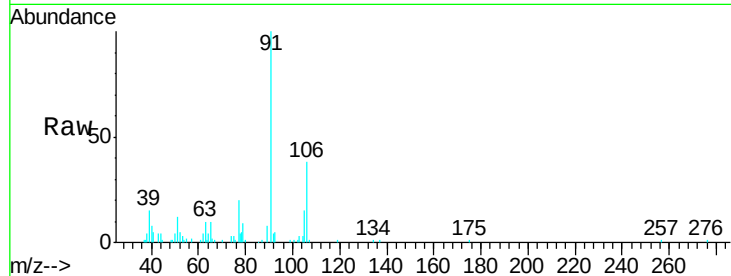
#59
m/p-Xylene
Concen: 0.398 ppbv m
RT: 13.03 min Scan# 3185
Delta R.T. -0.05 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion: 91 Resp: 89368
Ion Ratio Lower Upper
91 100
106 0.0 35.5 53.3#

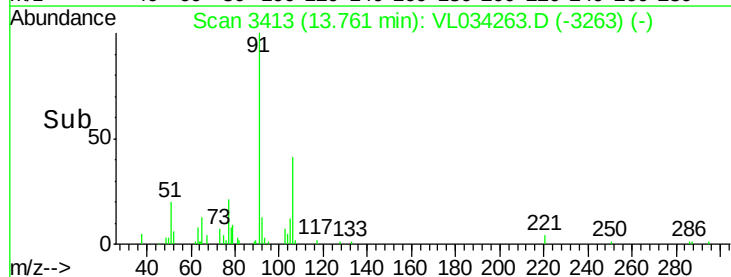
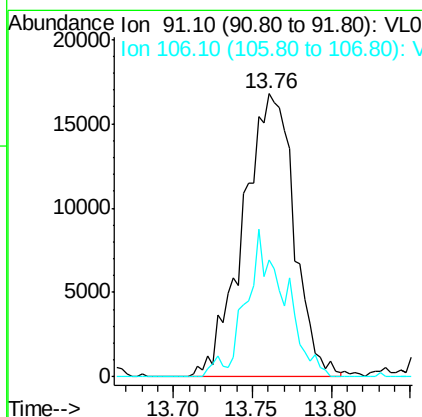
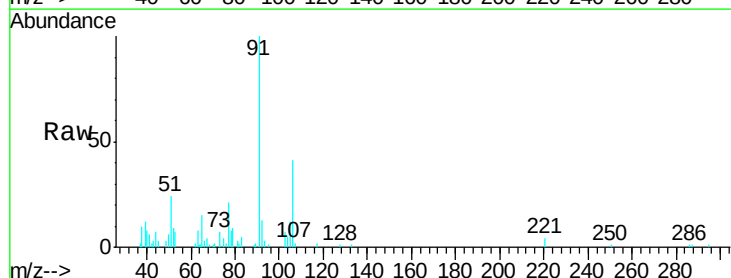
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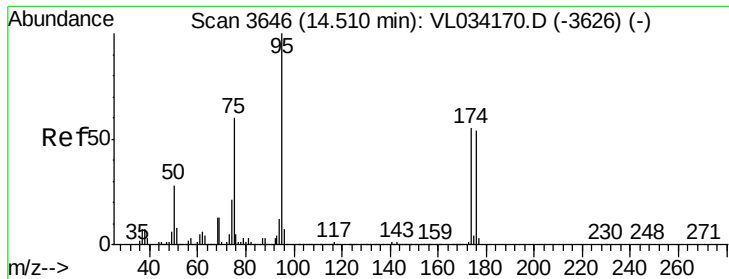
MMDadoda
10/11/2019 5:07:43 PM



#60
o-Xylene
Concen: 0.167 ppbv m
RT: 13.76 min Scan# 3413
Delta R.T. -0.02 min
Lab File: VL034263.D
Acq: 9 Oct 2019 00:32

Tgt Ion: 91 Resp: 37365
Ion Ratio Lower Upper
91 100
106 39.6 21.2 63.6





#68

1-Bromo-4-Fluorobenzene

Concen: 10.419 ppbv

RT: 14.49 min Scan# 3640

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

ClientSampled :

IA3

Tgt Ion: 95 Resp: 1519861

Ion Ratio Lower Upper

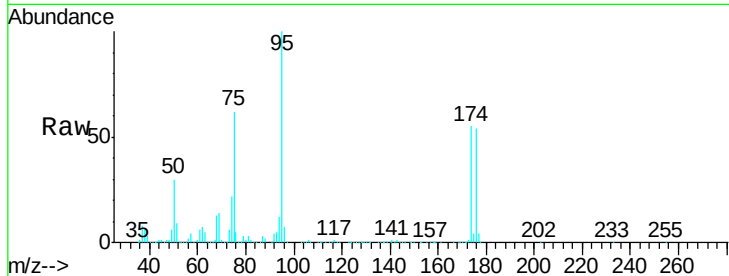
95 100

174 54.8 45.1 67.7

175 3.9 3.3 4.9

Manual Integrations
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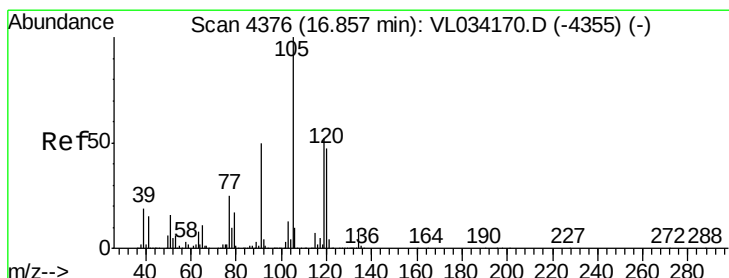
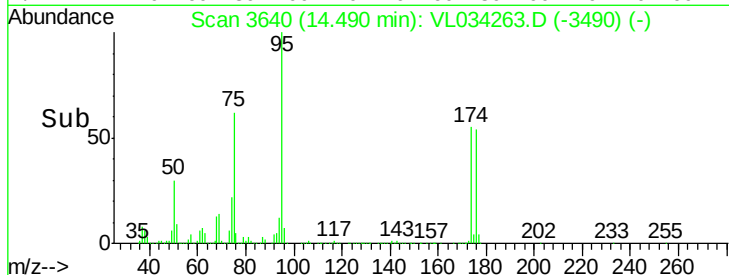
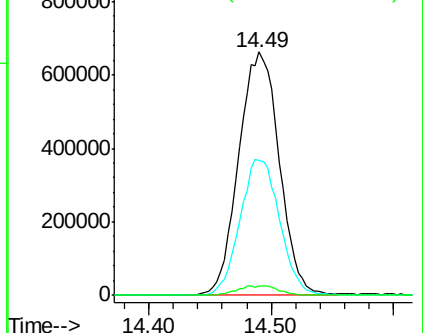
MMDadoda
10/11/2019 5:07:43 PM



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: 0.312 ppbv m

RT: 16.84 min Scan# 4371

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Tgt Ion: 105 Resp: 81204

Ion Ratio Lower Upper

105 100

120 30.0 37.5 56.3#

91 13.7 41.1 61.7#

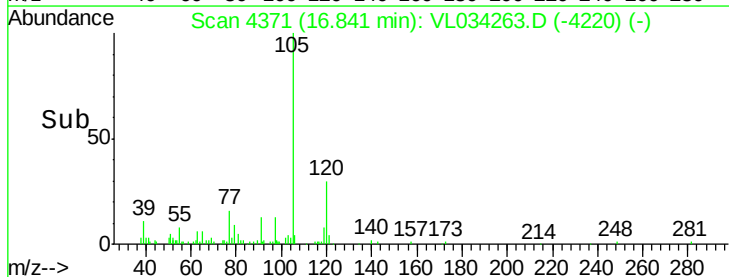
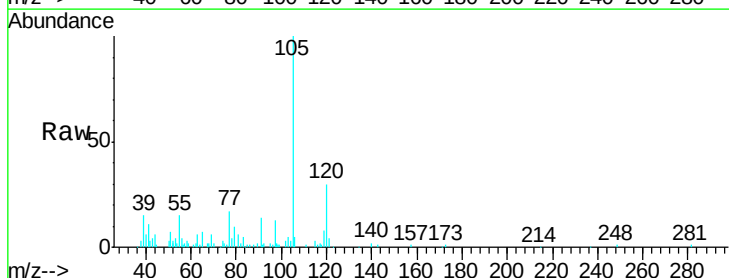
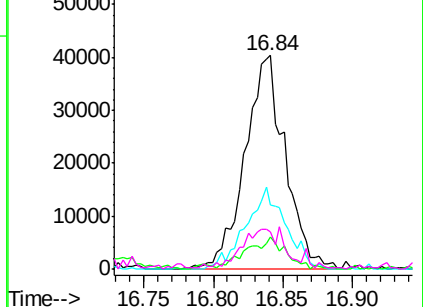
77 17.2 19.9 29.9#

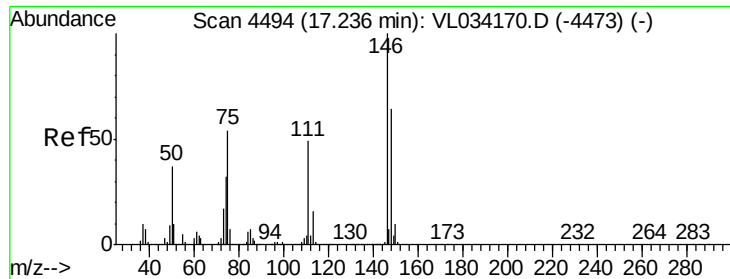
Abundance Ion 105.10 (104.80 to 105.80): V

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: 0.185 ppbv m

RT: 17.22 min Scan# 4489

Delta R.T. -0.02 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Instrument :

MSVOA_L

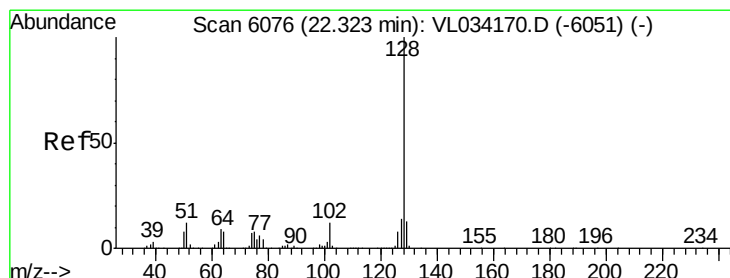
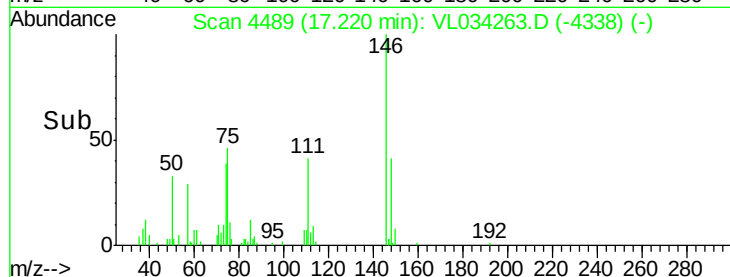
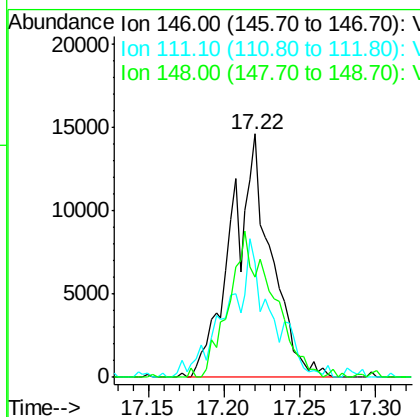
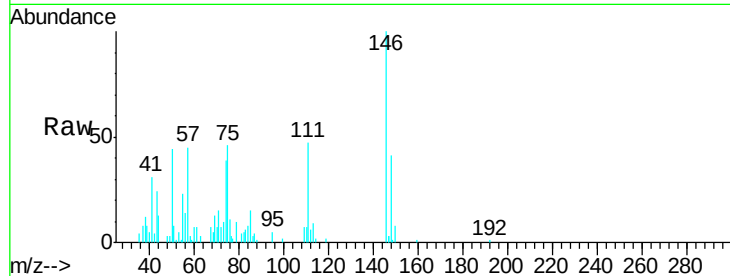
ClientSampled :

IA3

Tgt Ion:	146	Resp:	26489
Ion Ratio	Lower	Upper	
146	100		
111	0.0	24.6	74.0#
148	0.0	32.4	97.0#

Manual Integrations
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#79

Naphthalene

Concen: 0.319 ppbv m

RT: 22.31 min Scan# 6073

Delta R.T. -0.01 min

Lab File: VL034263.D

Acq: 9 Oct 2019 00:32

Tgt Ion:	128	Resp:	73012
Ion Ratio	Lower	Upper	
128	100		
127	11.5	11.1	16.7
129	12.1	10.2	15.4

