

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
 Data File : VL034233.D
 Acq On : 7 Oct 2019 22:17
 Operator : SY/AP
 Sample : K5225-04
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Manual Integrations
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 10/11/2019 5:05:24 PM

Quant Time: Oct 09 03:44:25 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	1127237	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.21	114	1835365	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1899614	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1769509	10.72	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	106550	0.640	ppbv	96
3) Chlorodifluoromethane	2.97	51	1389589	10.514	ppbv	98
4) Chloromethane	3.12	50	56465	0.727	ppbv	100
9) Propene	3.00	41	124449	1.908	ppbv #	73
10) Heptane	8.17	43	52357	0.308	ppbv	97
11) Trichlorofluoromethane	3.95	101	40768	0.269	ppbv #	79
13) Ethanol	3.60	45	2059479	130.427	ppbv	98
15) Acetone	3.84	43	2005170	13.272	ppbv	99
19) Isopropyl Alcohol	3.98	45	568932	6.124	ppbv #	1
20) Methylene Chloride	4.35	84	101173	2.323	ppbv	93
26) Hexane	5.71	57	127140	1.070	ppbv #	69
29) Chloroform	5.78	83	61216	0.360	ppbv	97
34) 2-Butanone	5.26	43	298166	1.591	ppbv	98
35) Carbon Tetrachloride	7.05	117	12813m	0.084	ppbv	
36) Benzene	6.92	78	47898m	0.236	ppbv	
43) Methyl Methacrylate	8.06	69	100528	1.201	ppbv	93
44) 2,2,4-Trimethylpentane	7.92	57	47186m	0.121	ppbv	
50) 4-Methyl-2-Pentanone	8.80	43	37712m	0.138	ppbv	
53) Toluene	9.86	91	166964	0.754	ppbv	95
58) Ethyl Benzene	12.78	91	88642m	0.289	ppbv	
59) m/p-Xylene	13.03	91	157976m	0.622	ppbv	
60) o-Xylene	13.76	91	45350m	0.179	ppbv	
69) p-Isopropyltoluene	17.73	119	46023m	0.138	ppbv	
73) 1,3,5-Trimethylbenzene	16.08	105	30603m	0.110	ppbv	
74) 1,2,4-Trimethylbenzene	16.83	105	75251m	0.256	ppbv	
76) 1,4-Dichlorobenzene	17.25	146	12713166	78.644	ppbv	82
79) Naphthalene	22.30	128	129310m	0.499	ppbv	

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

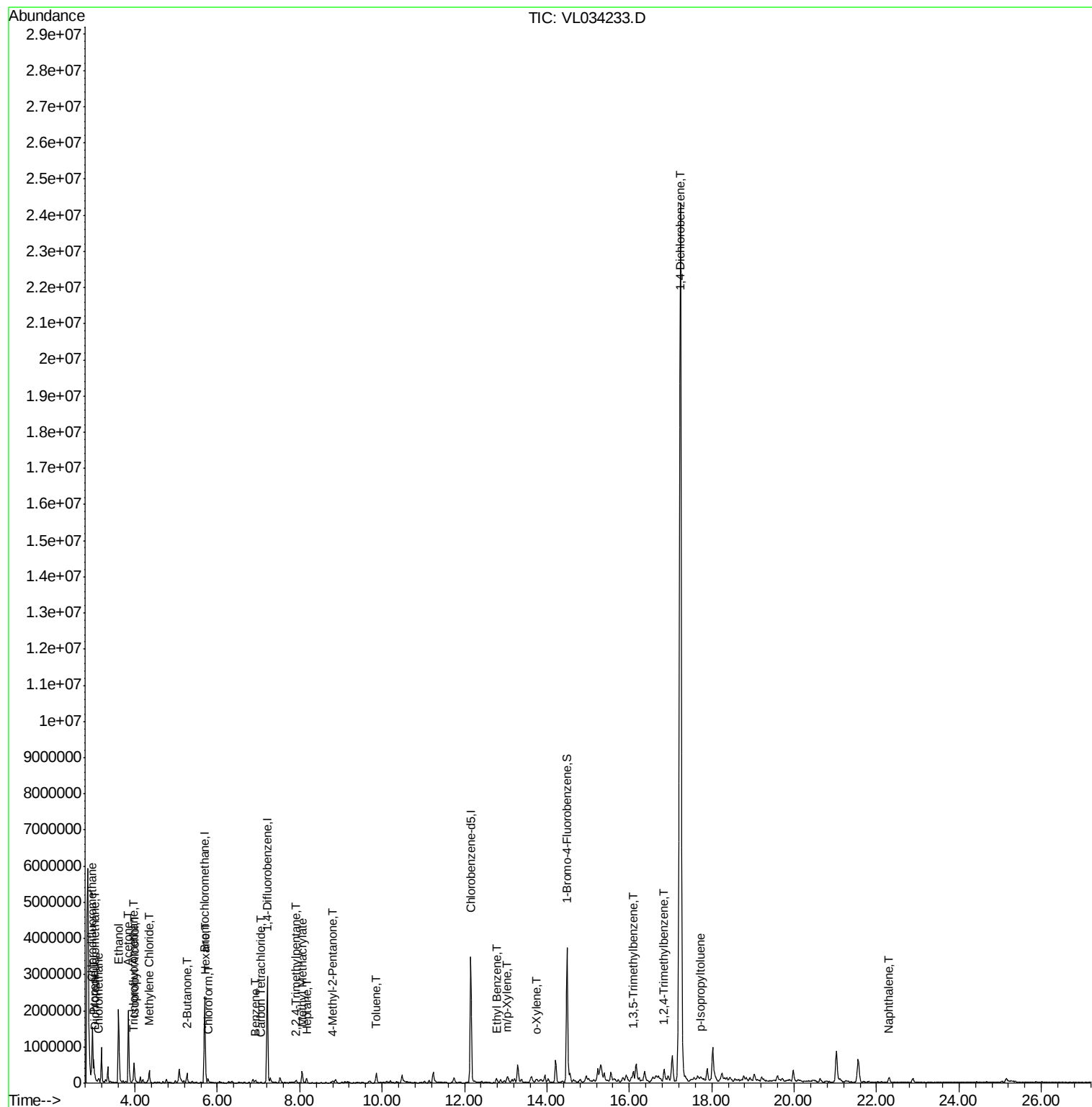
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
Data File : VL034233.D
Acq On : 7 Oct 2019 22:17
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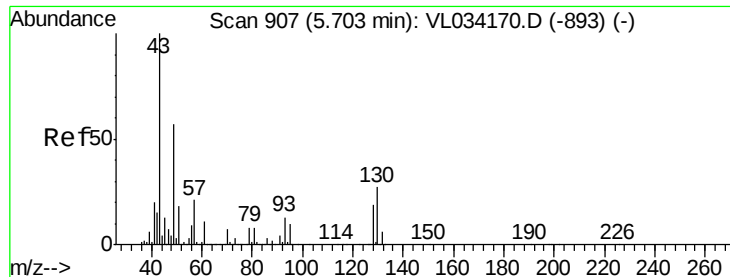
Instrument :
MSVOA_L
ClientSampleId :
IA2

Manual Integrations
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10/11/2019 5:05:24 PM

Quant Time: Oct 09 03:44:25 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: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampled :

IA2

Tgt Ion: 49 Resp: 1127237

Ion Ratio Lower Upper

49 100

128 35.0 17.6 52.9

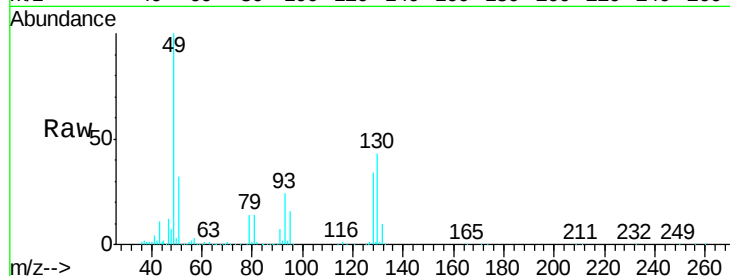
130 44.5 22.3 66.9

Manual Integrations

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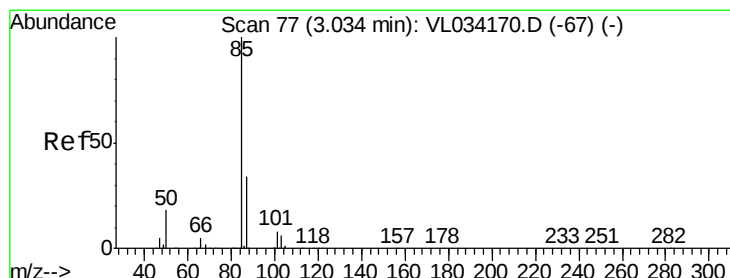
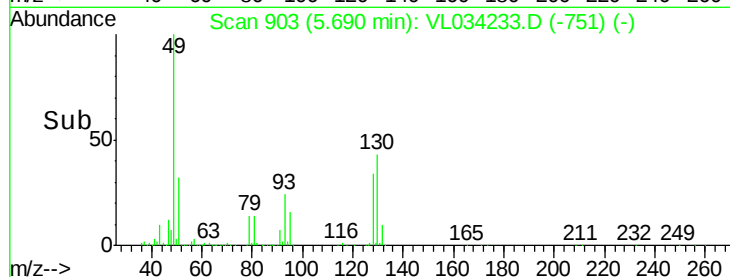
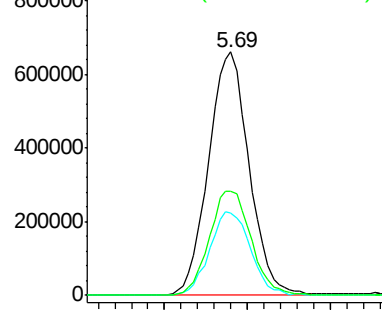
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.640 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.00 min

Lab File: VL034233.D

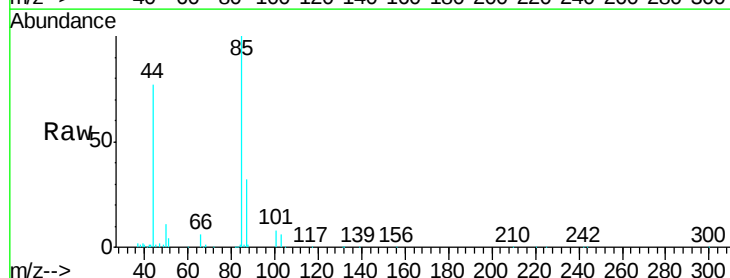
Acq: 7 Oct 2019 22:17

Tgt Ion: 85 Resp: 106550

Ion Ratio Lower Upper

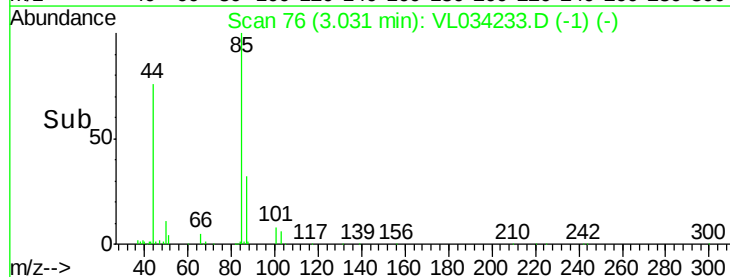
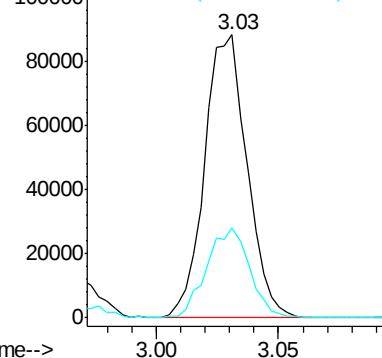
85 100

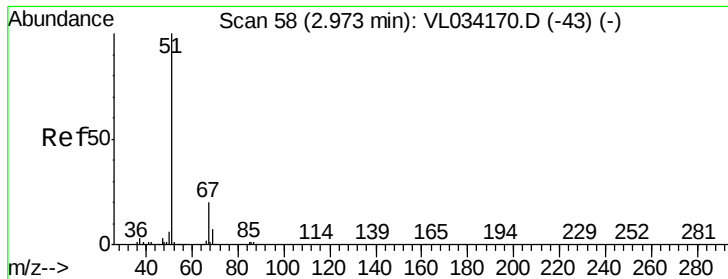
87 31.8 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 10.514 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampled :

IA2

Tgt Ion: 51 Resp: 1389589

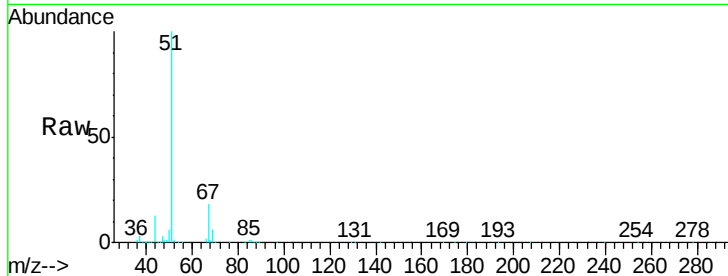
Ion Ratio Lower Upper

51 100

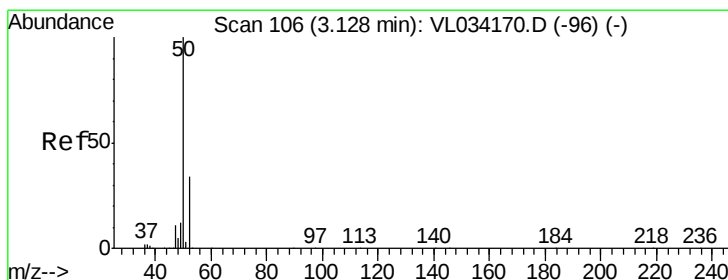
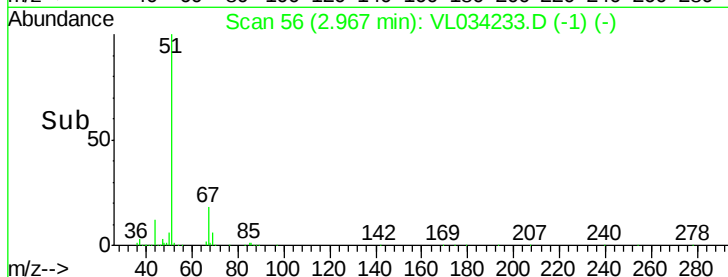
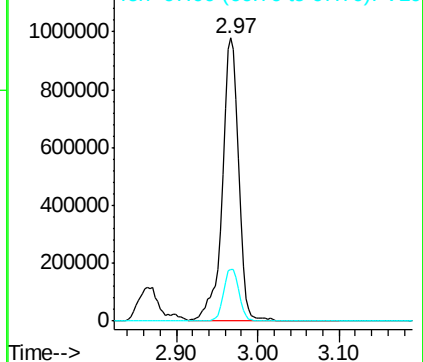
67 17.5 14.8 22.2

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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: 0.727 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL034233.D

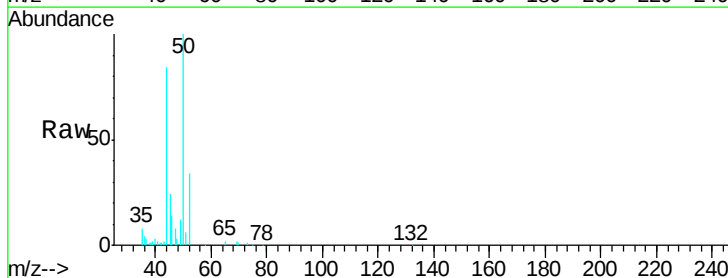
Acq: 7 Oct 2019 22:17

Tgt Ion: 50 Resp: 56465

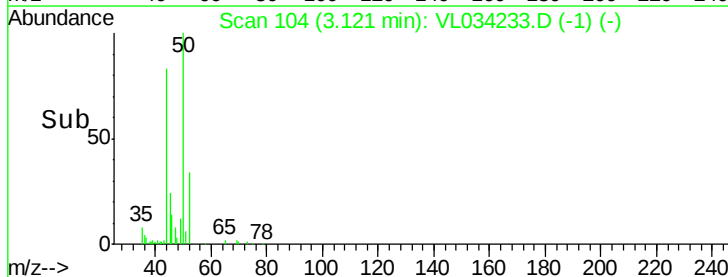
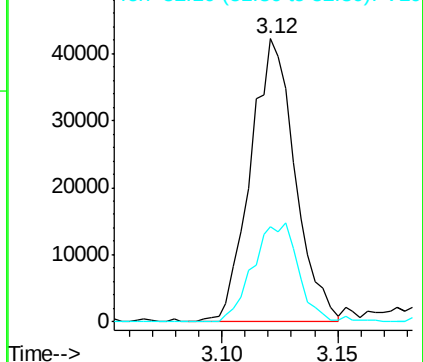
Ion Ratio Lower Upper

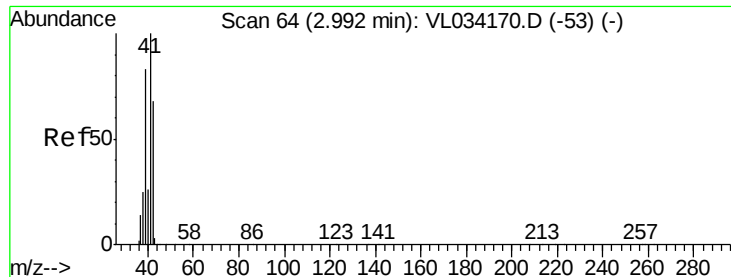
50 100

52 33.7 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0
Ion 52.10 (51.80 to 52.80): VL0





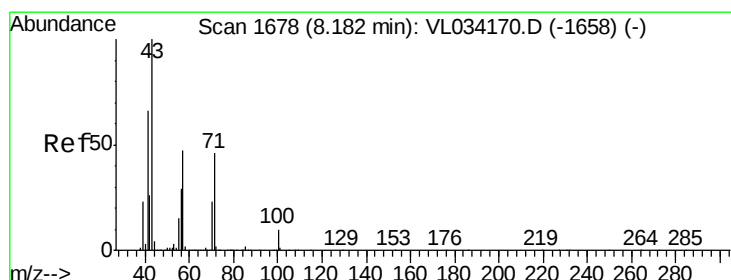
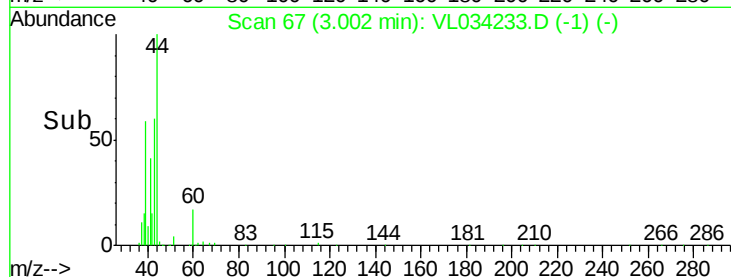
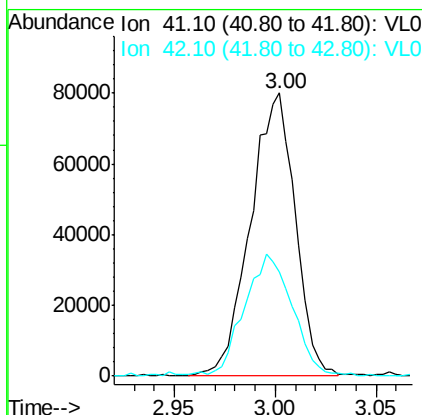
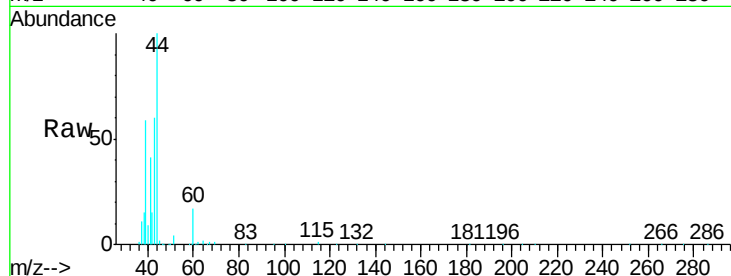
#9
 Propene
 Concen: 1.908 ppbv
 RT: 3.00 min Scan# 67
 Delta R.T. 0.01 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tgt Ion: 41 Resp: 124449
 Ion Ratio Lower Upper
 41 100
 42 47.2 55.8 83.6#

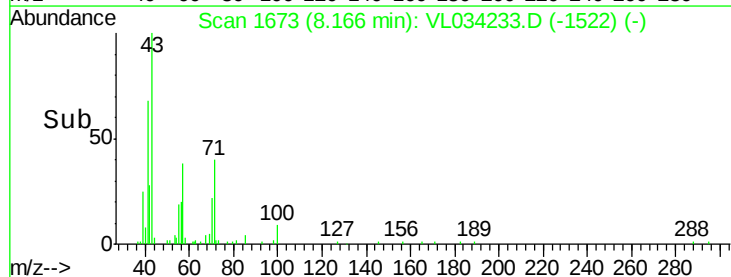
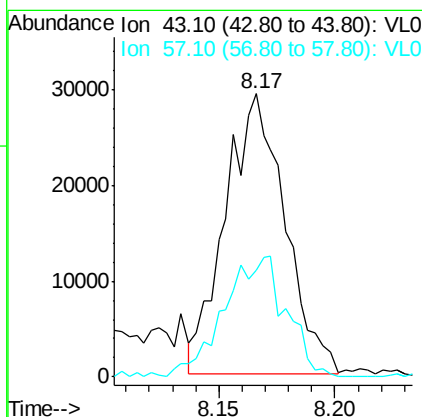
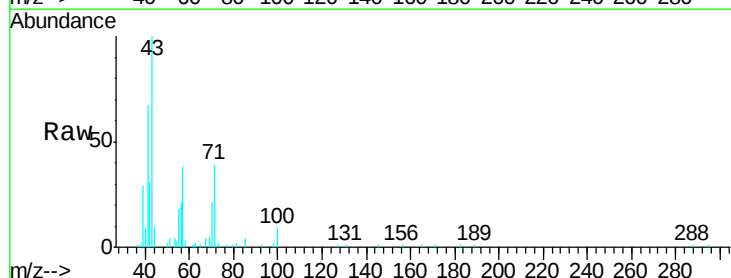
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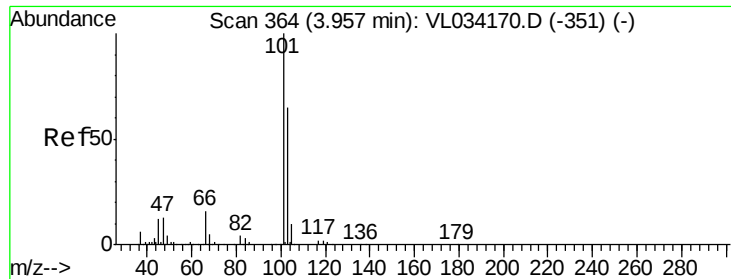
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#10
 Heptane
 Concen: 0.308 ppbv
 RT: 8.17 min Scan# 1673
 Delta R.T. -0.02 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Tgt Ion: 43 Resp: 52357
 Ion Ratio Lower Upper
 43 100
 57 45.0 37.5 56.3





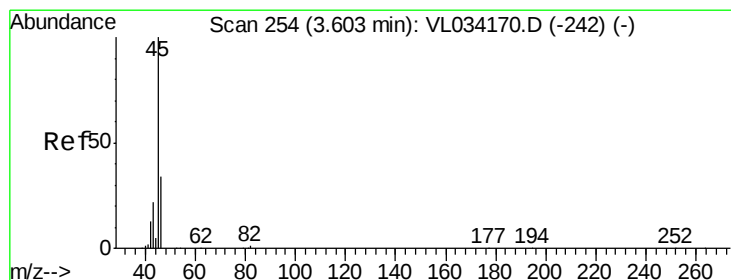
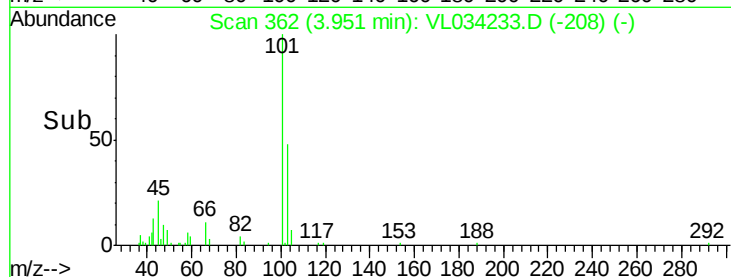
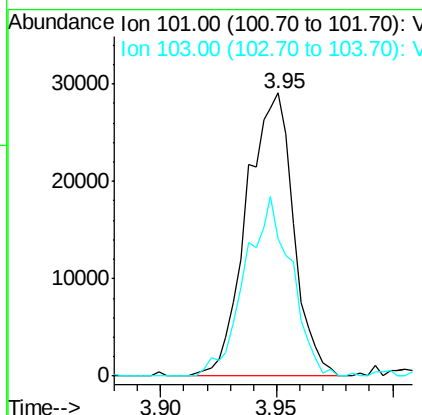
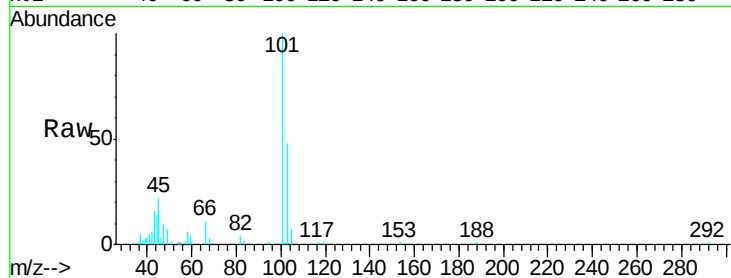
#11
 Trichlorofluoromethane
 Concen: 0.269 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. -0.01 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tgt Ion: 101 Resp: 40768
 Ion Ratio Lower Upper
 101 100
 103 48.5 52.1 78.1#

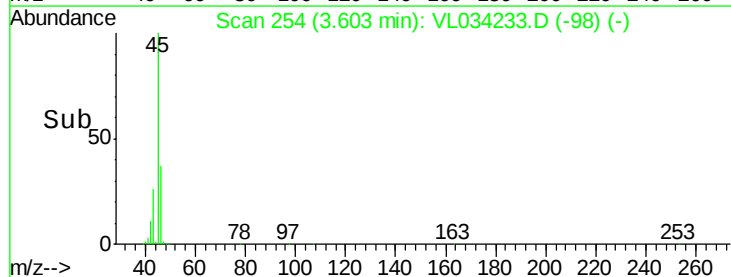
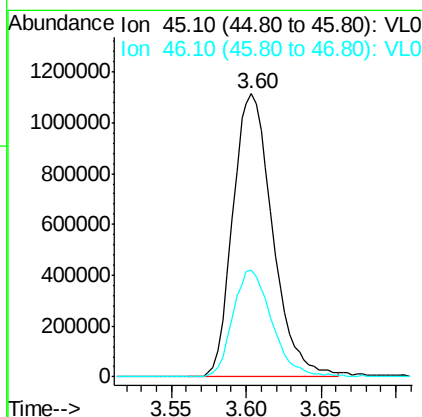
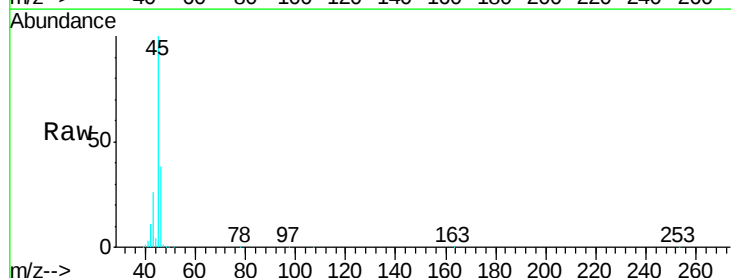
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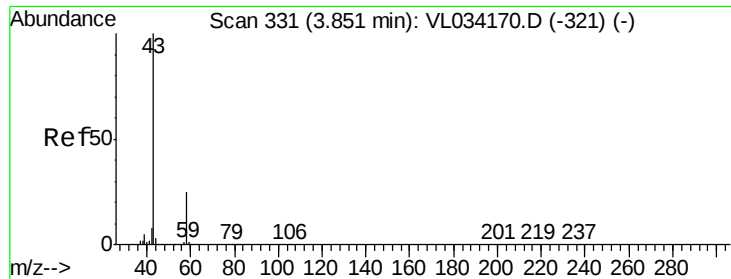
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#13
 Ethanol
 Concen: 130.427 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. 0.00 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Tgt Ion: 45 Resp: 2059479
 Ion Ratio Lower Upper
 45 100
 46 37.4 15.5 61.9





#15

Acetone

Concen: 13.272 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampled :

IA2

Tgt Ion: 43 Resp: 2005170

Ion Ratio Lower Upper

43 100

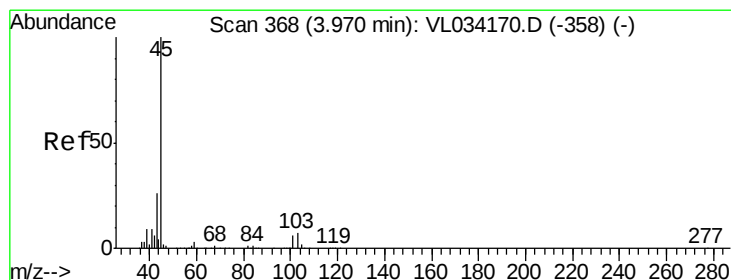
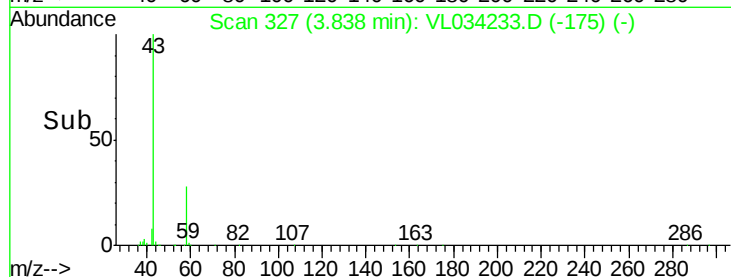
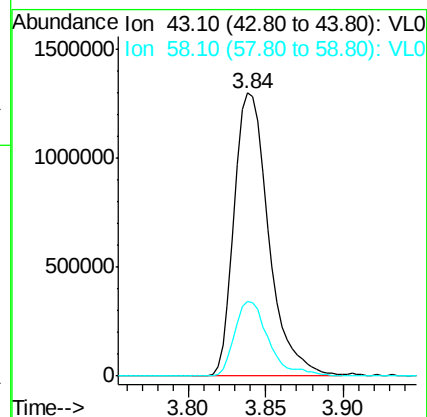
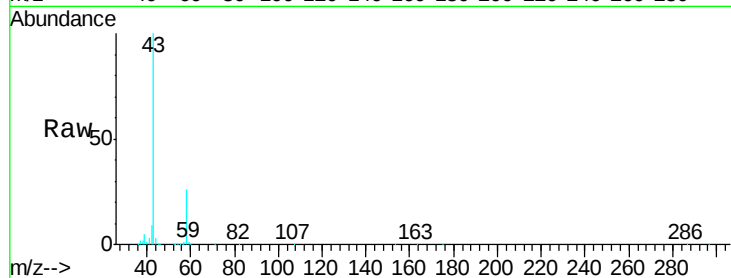
58 26.4 20.5 30.7

Manual Integrations

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#19

Isopropyl Alcohol

Concen: 6.124 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.01 min

Lab File: VL034233.D

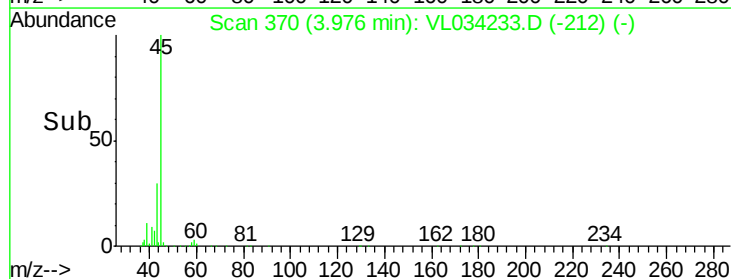
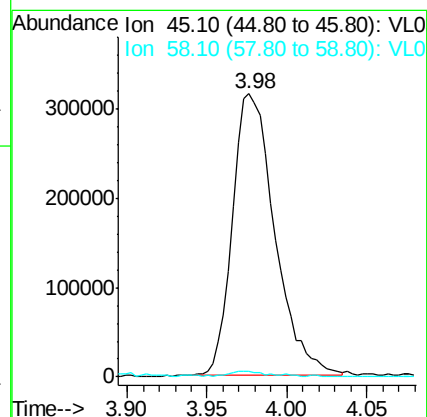
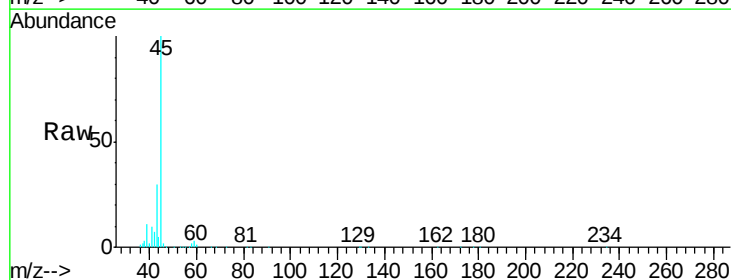
Acq: 7 Oct 2019 22:17

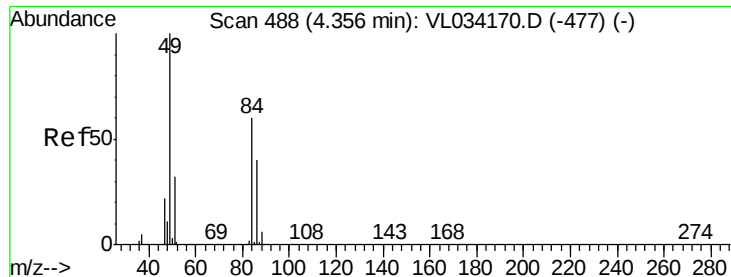
Tgt Ion: 45 Resp: 568932

Ion Ratio Lower Upper

45 100

58 93.1 1.4 2.0#





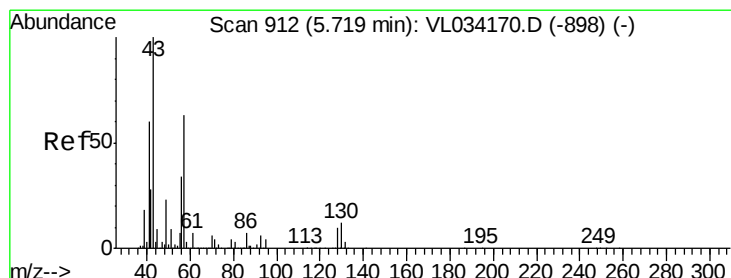
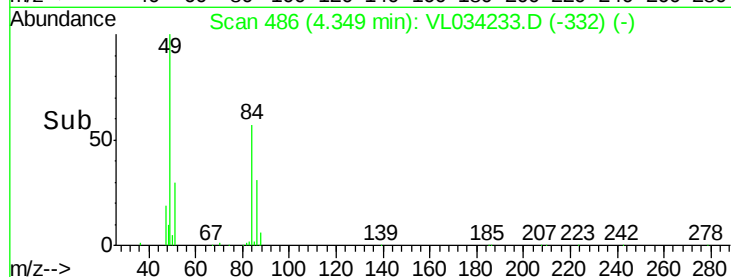
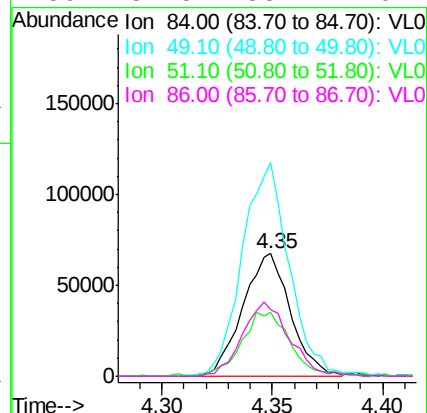
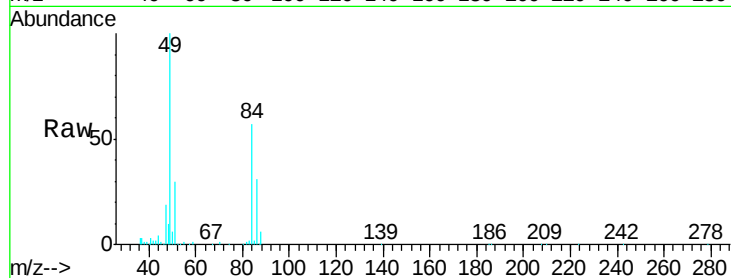
#20
Methylene Chloride
Concen: 2.323 ppbv
RT: 4.35 min Scan# 486
Delta R.T. -0.01 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Instrument :
MSVOA_L
ClientSampled :
IA2

Tgt Ion	Ratio	Lower	Upper
84	100		
49	173.6	133.8	200.8
51	52.1	43.6	65.4
86	54.8	53.1	79.7

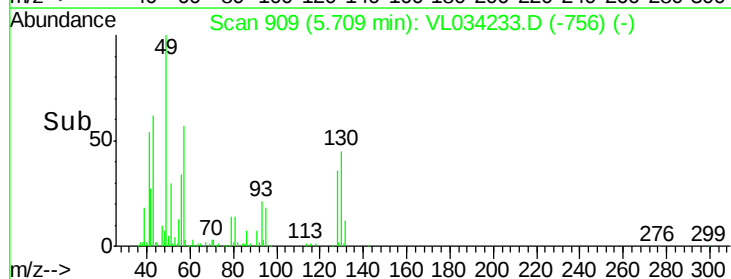
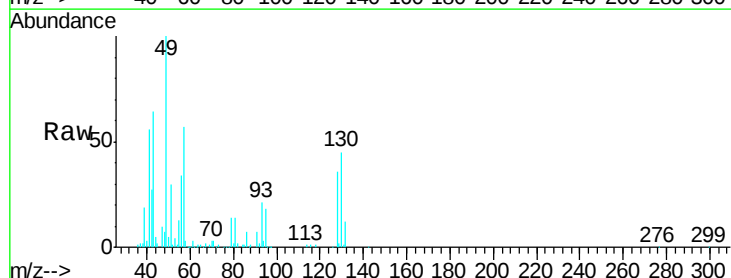
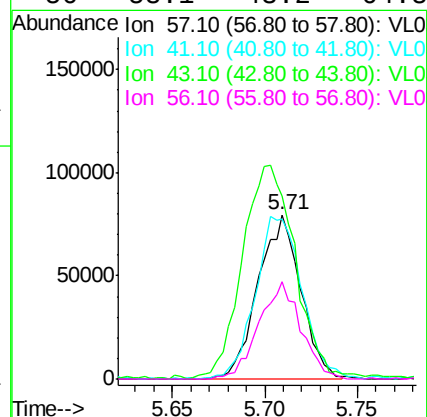
Manual Integrations
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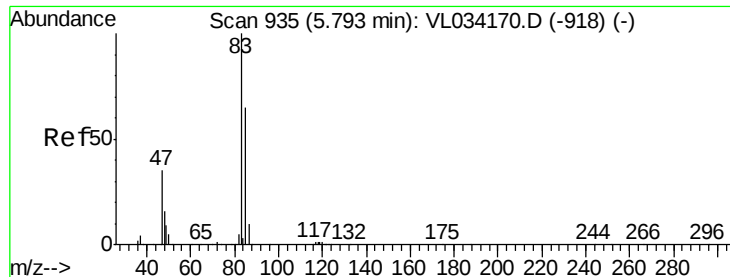
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#26
Hexane
Concen: 1.070 ppbv
RT: 5.71 min Scan# 909
Delta R.T. -0.01 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Tgt Ion	Ratio	Lower	Upper
57	100		
41	108.7	78.5	117.7
43	160.8	189.5	284.3#
56	58.1	43.2	64.8





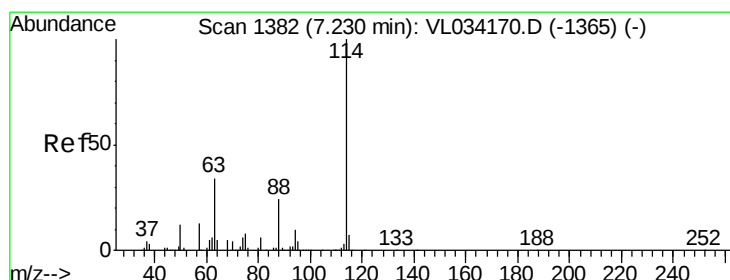
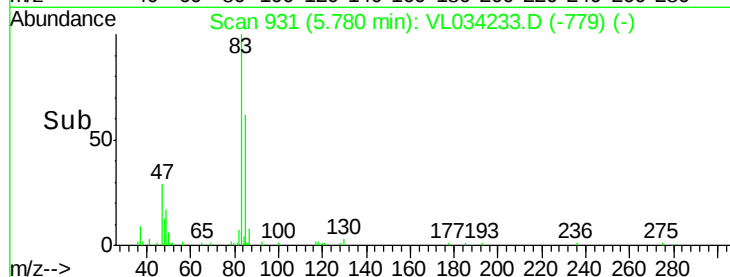
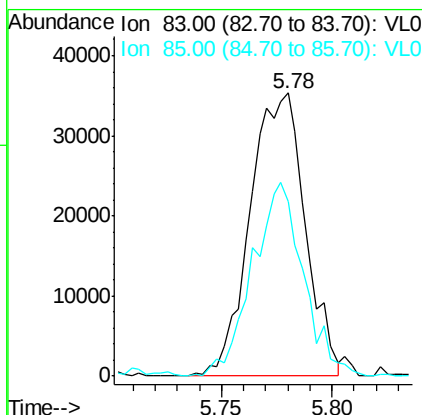
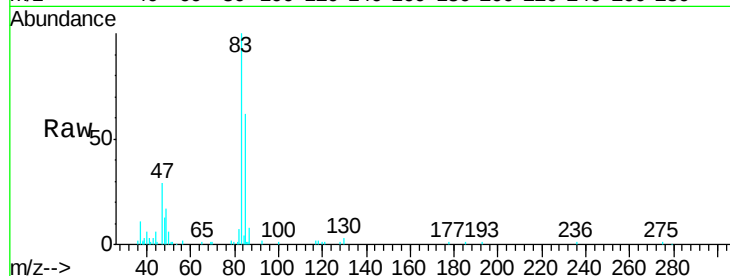
#29
Chloroform
Concen: 0.360 ppbv
RT: 5.78 min Scan# 931
Delta R.T. -0.01 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 83 Resp: 61216
Ion Ratio Lower Upper
83 100
85 63.2 52.3 78.5

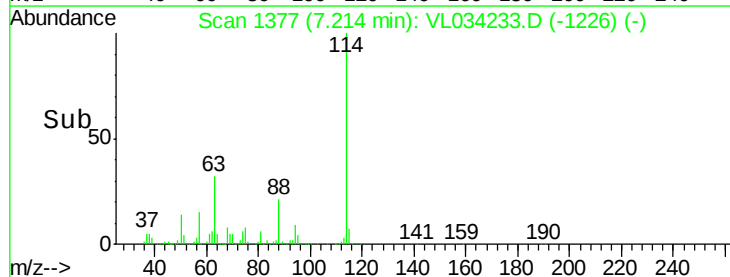
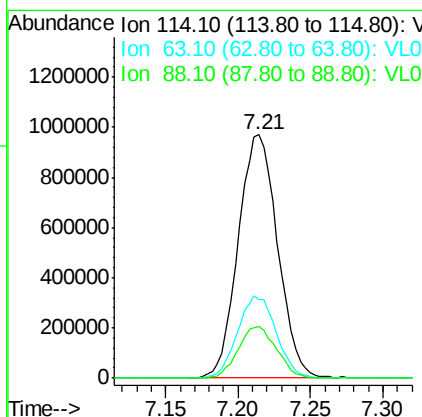
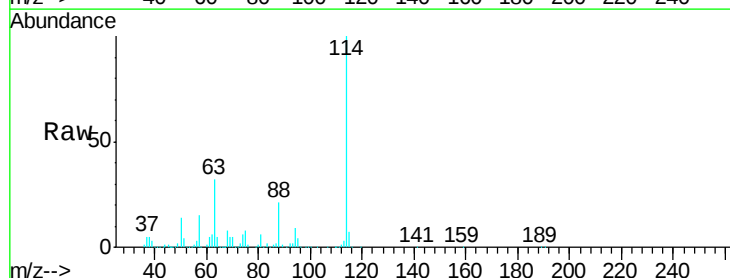
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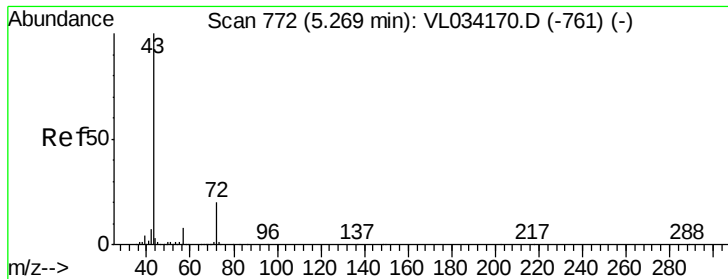
MMDadoda
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1377
Delta R.T. -0.02 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Tgt Ion: 114 Resp: 1835365
Ion Ratio Lower Upper
114 100
63 33.2 27.8 41.6
88 20.7 17.1 25.7





#34

2-Butanone

Concen: 1.591 ppbv

RT: 5.26 min Scan# 770

Delta R.T. -0.01 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion: 43 Resp: 298166

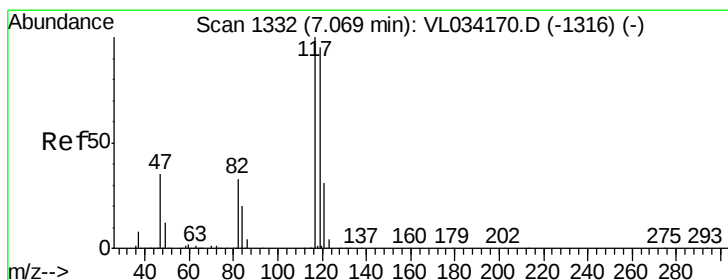
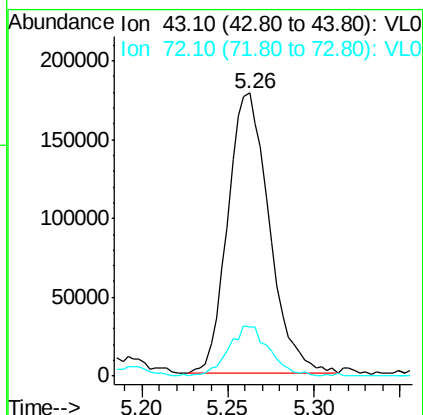
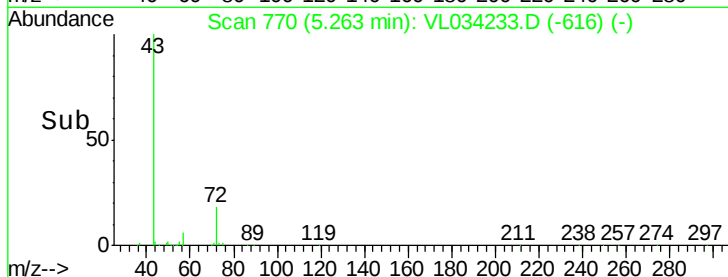
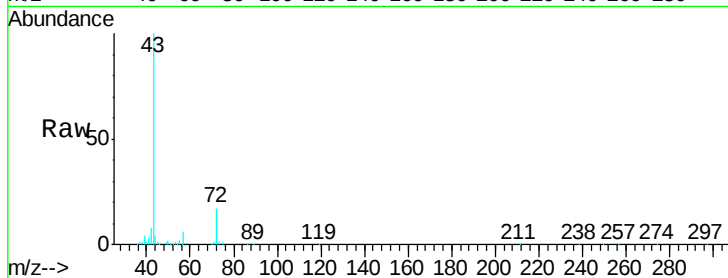
Ion Ratio Lower Upper

43 100

72 18.0 15.0 22.6

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#35

Carbon Tetrachloride

Concen: 0.084 ppbv m

RT: 7.05 min Scan# 1327

Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

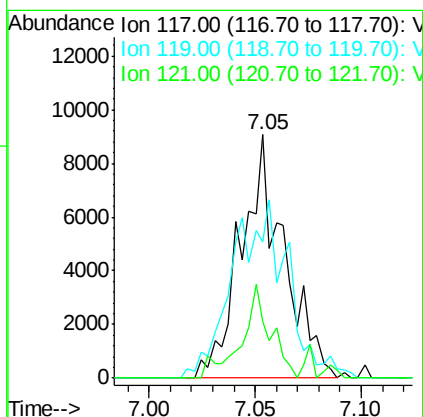
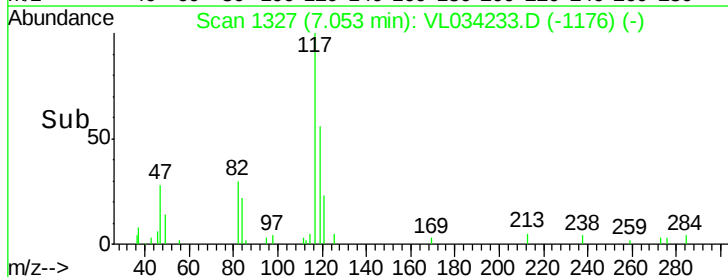
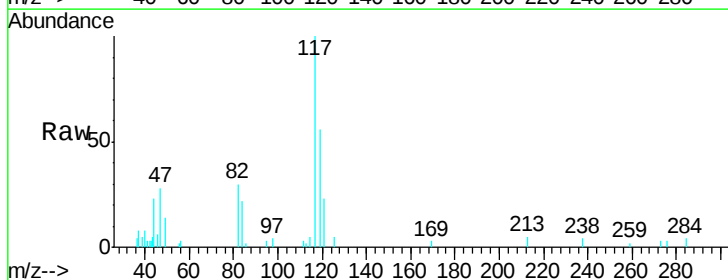
Tgt Ion: 117 Resp: 12813

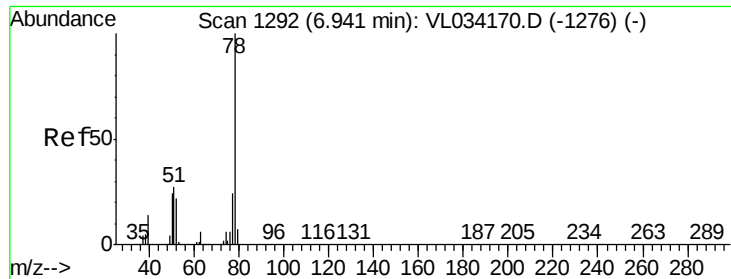
Ion Ratio Lower Upper

117 100

119 55.8 75.8 113.6#

121 23.4 25.0 37.6#





#36

Benzene

Concen: 0.236 ppbv m

RT: 6.92 min Scan# 1286

Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

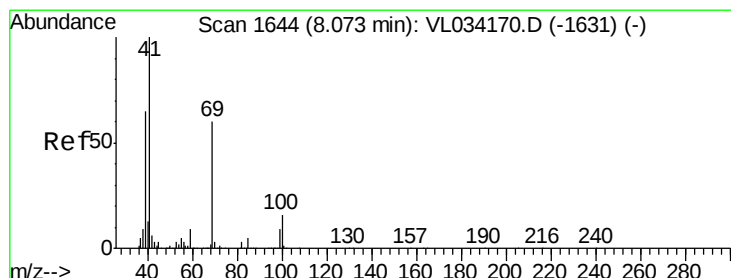
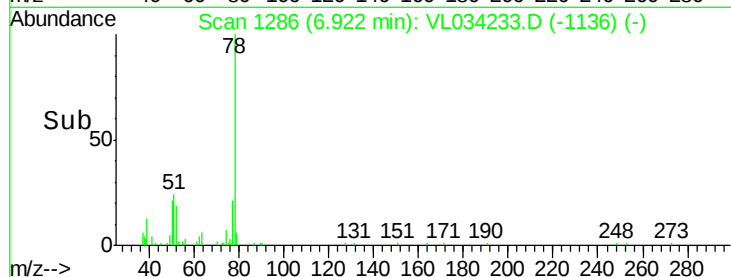
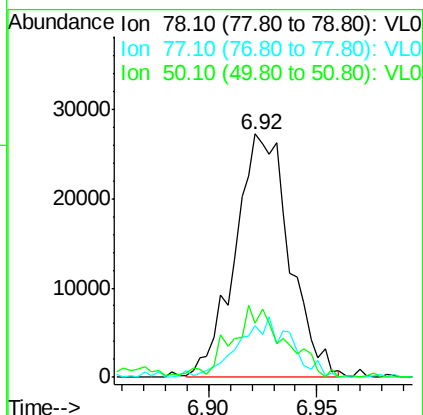
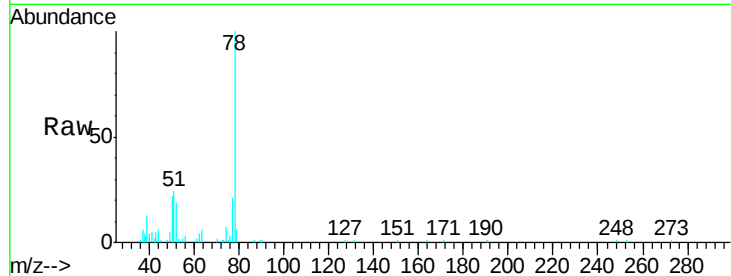
ClientSampleId :

IA2

Tgt Ion:	78	Resp:	47898
Ion	Ratio	Lower	Upper
78	100		
77	21.4	19.0	28.4
50	22.5	18.9	28.3

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#43

Methyl Methacrylate

Concen: 1.201 ppbv

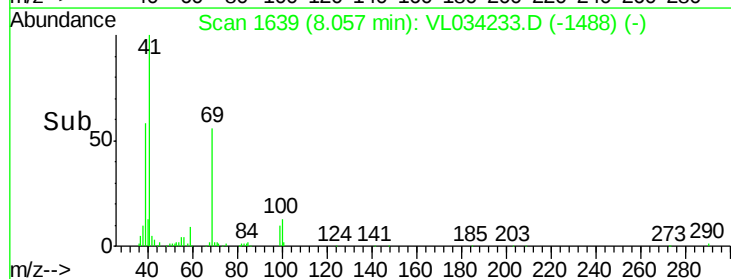
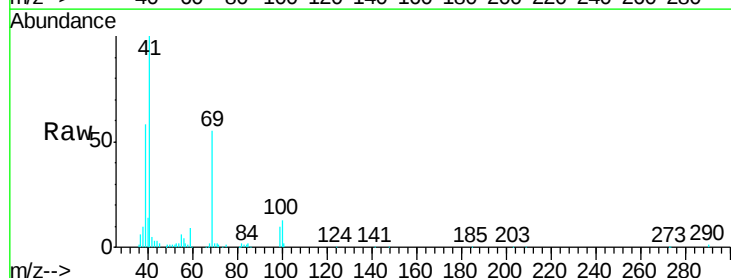
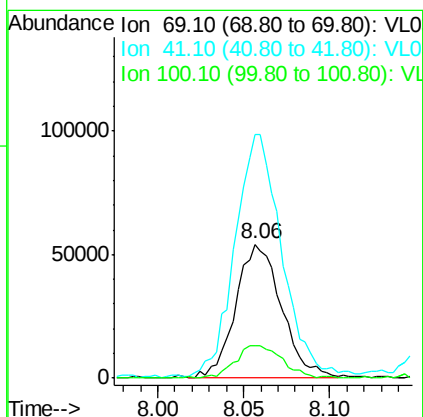
RT: 8.06 min Scan# 1639

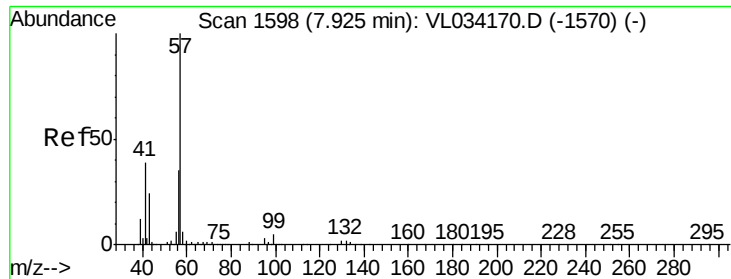
Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Tgt Ion:	69	Resp:	100528
Ion	Ratio	Lower	Upper
69	100		
41	186.5	140.4	210.6
100	25.1	21.9	32.9





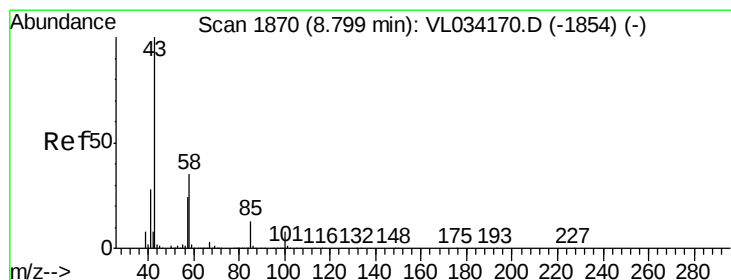
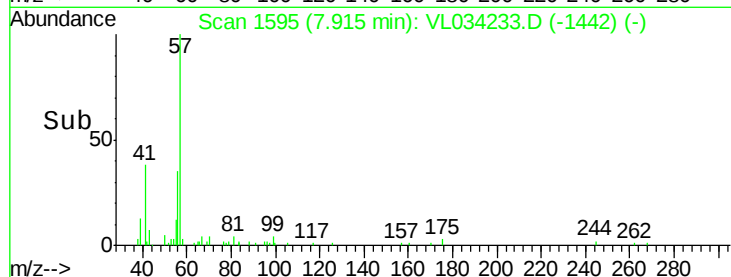
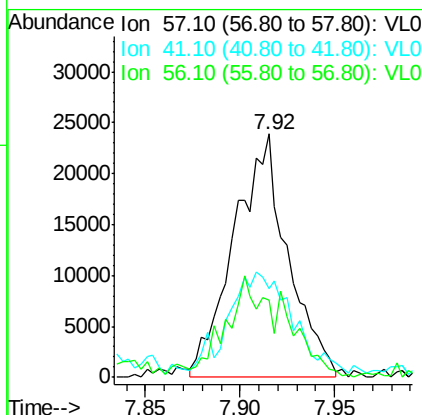
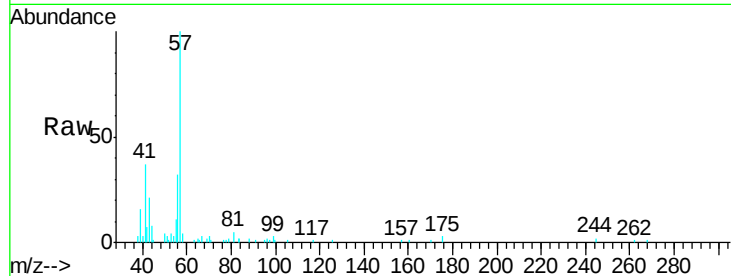
#44
 2,2,4-Trimethylpentane
 Concen: 0.121 ppbv m
 RT: 7.92 min Scan# 1595
 Delta R.T. -0.01 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tgt Ion	Ratio	Lower	Upper
57	100		
41	52.7	29.8	44.6#
56	48.0	25.9	38.9#

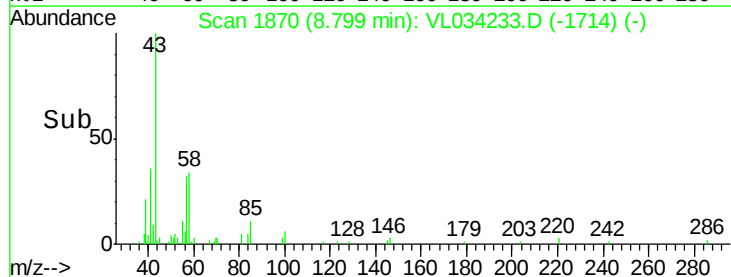
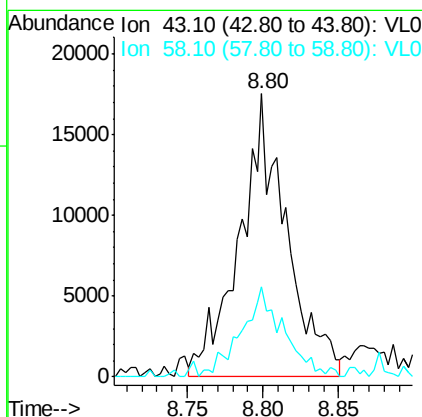
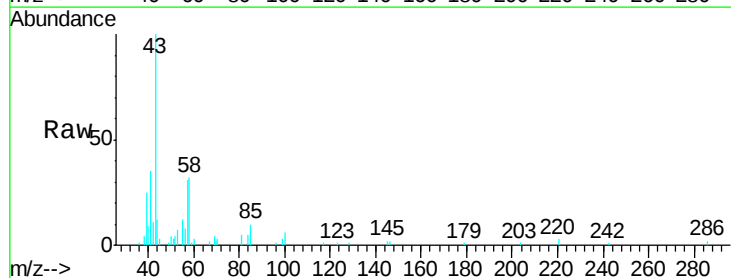
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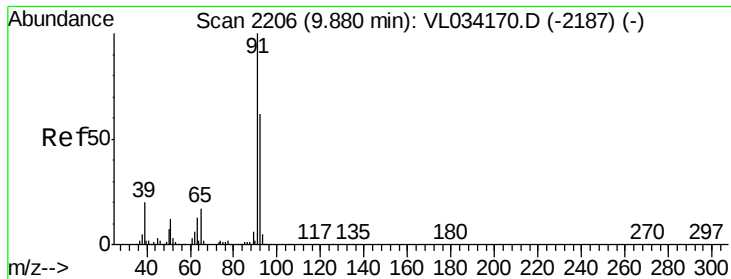
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#50
 4-Methyl-2-Pentanone
 Concen: 0.138 ppbv m
 RT: 8.80 min Scan# 1870
 Delta R.T. 0.00 min
 Lab File: VL034233.D
 Acq: 7 Oct 2019 22:17

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	27.6	41.4#





#53

Toluene

Concen: 0.754 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampled :

IA2

Tgt Ion: 91 Resp: 166964

Ion Ratio Lower Upper

91 100

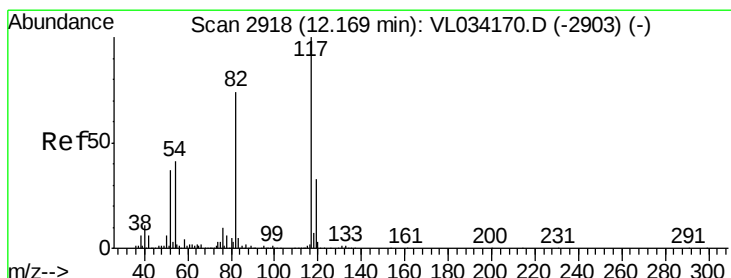
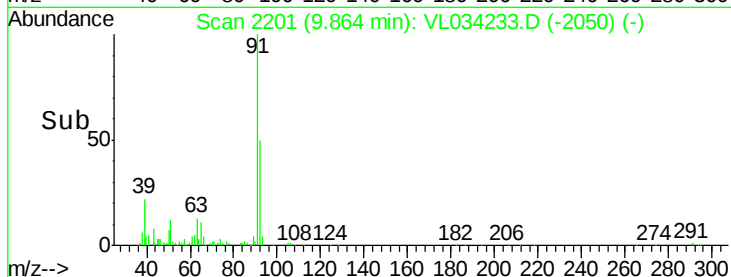
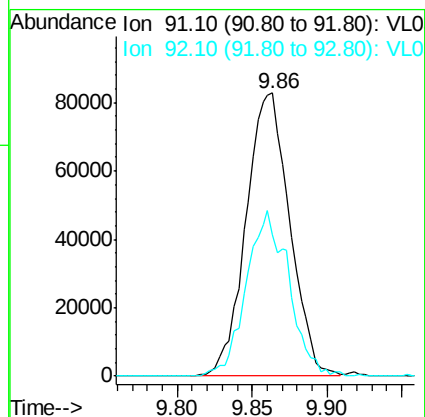
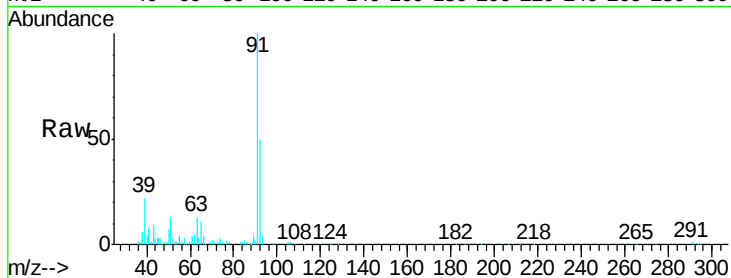
92 57.5 49.0 73.6

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2913

Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

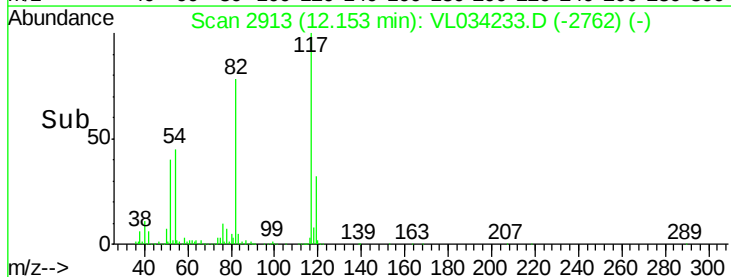
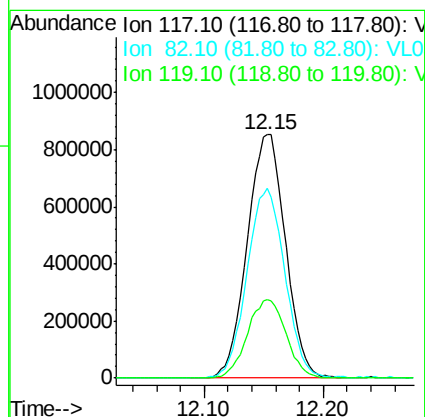
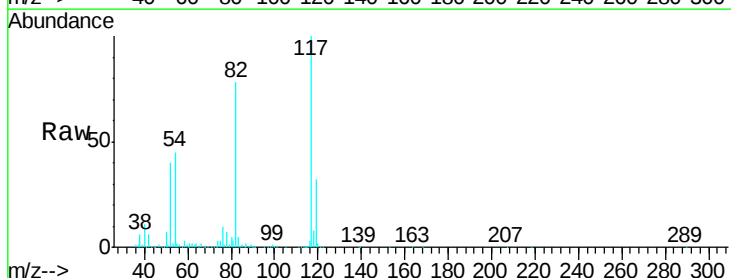
Tgt Ion: 117 Resp: 1899614

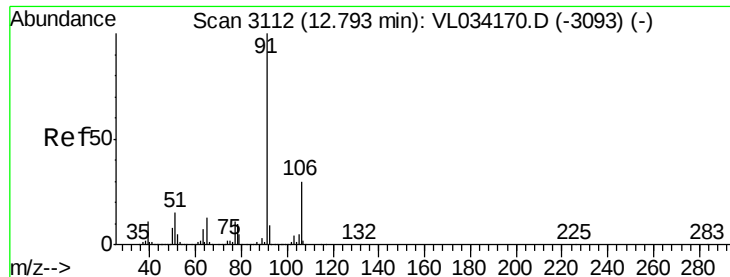
Ion Ratio Lower Upper

117 100

82 77.0 58.2 87.4

119 32.7 23.7 35.5





#58

Ethyl Benzene

Concen: 0.289 ppbv m

RT: 12.78 min Scan# 3108

Delta R.T. -0.01 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampled :

IA2

Tgt Ion: 91 Resp: 88642

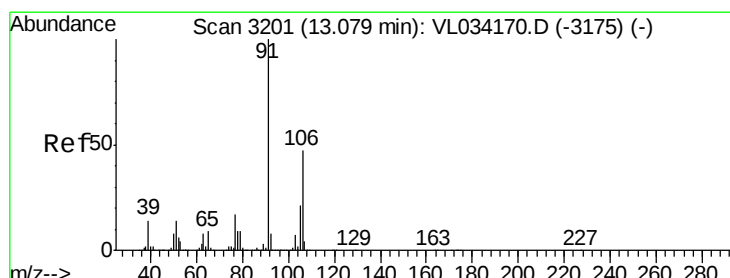
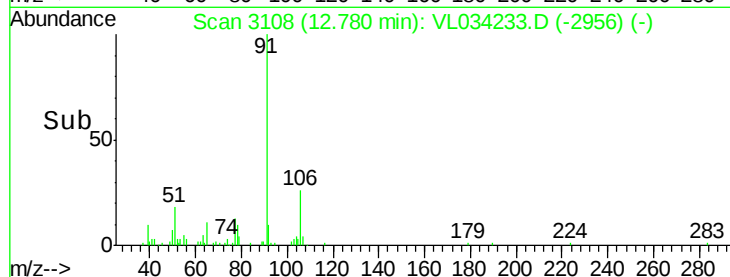
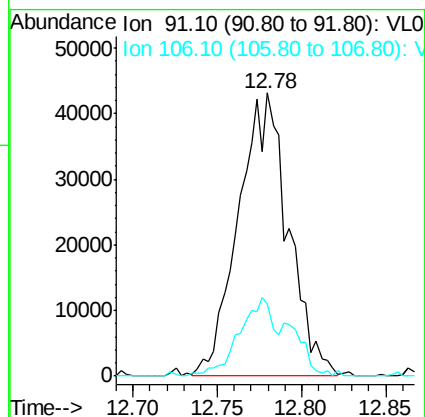
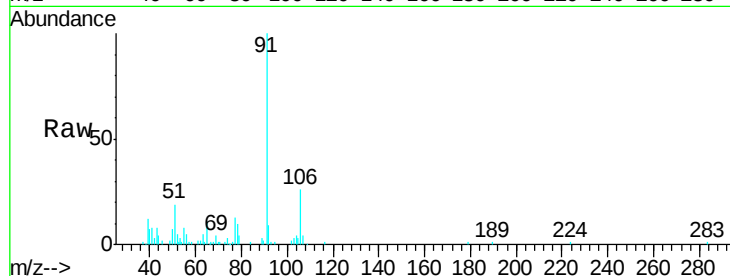
Ion Ratio Lower Upper

91 100

106 25.7 24.2 36.4

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#59

m/p-Xylene

Concen: 0.622 ppbv m

RT: 13.03 min Scan# 3186

Delta R.T. -0.05 min

Lab File: VL034233.D

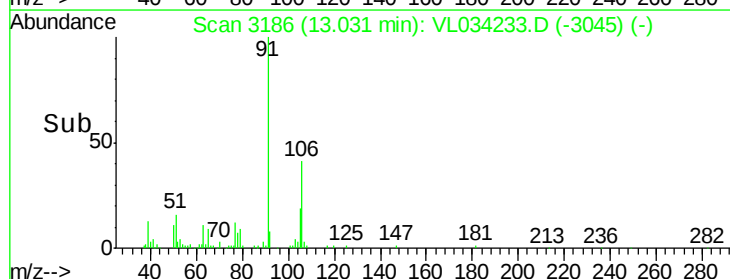
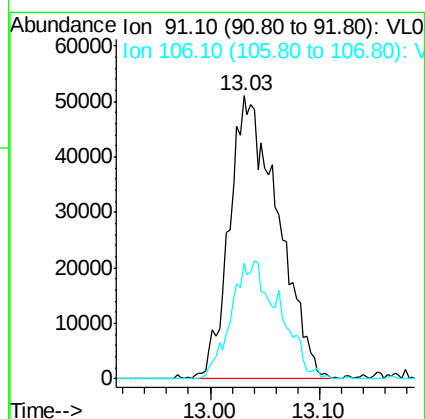
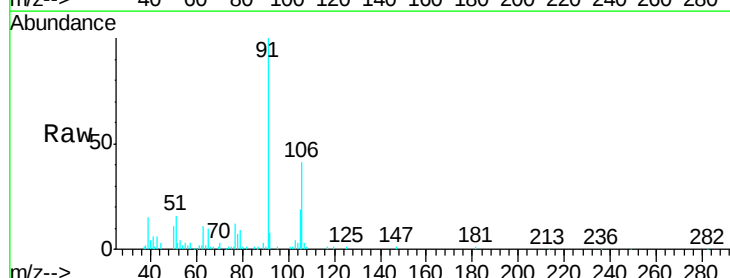
Acq: 7 Oct 2019 22:17

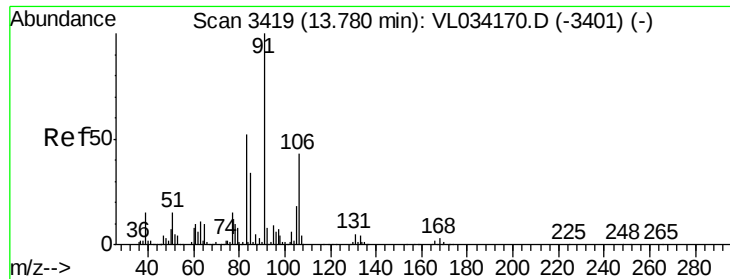
Tgt Ion: 91 Resp: 157976

Ion Ratio Lower Upper

91 100

106 0.0 35.5 53.3#





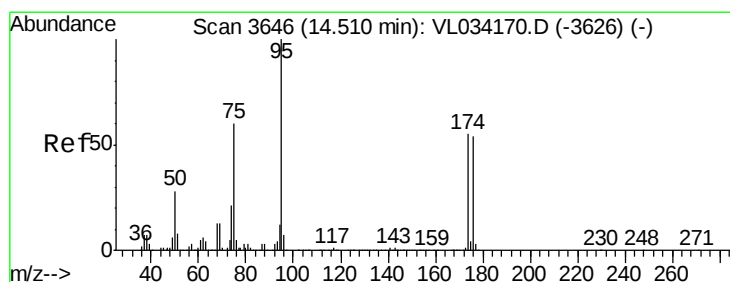
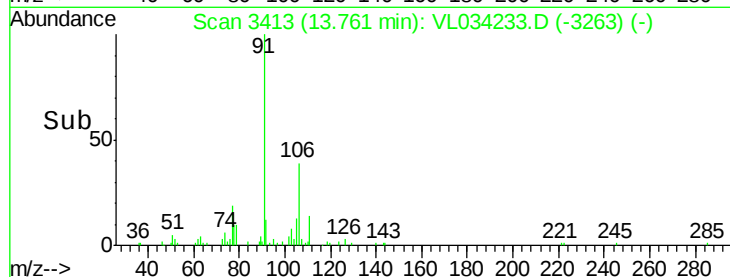
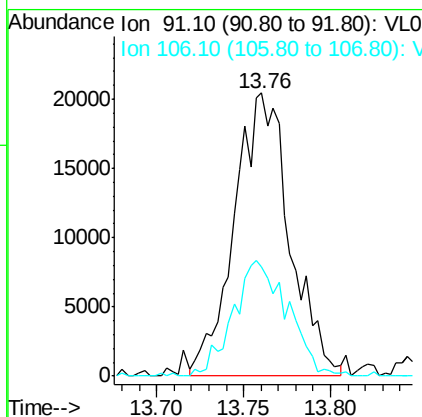
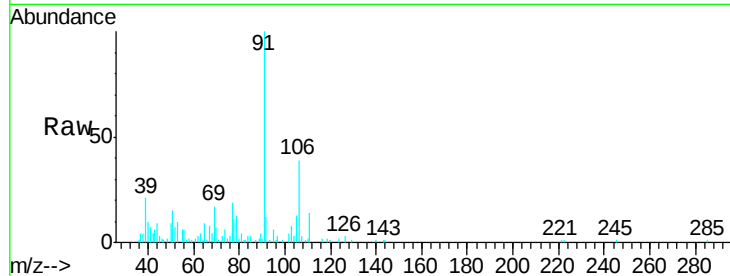
#60
o-Xylene
Concen: 0.179 ppbv m
RT: 13.76 min Scan# 3413
Delta R.T. -0.02 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 91 Resp: 45350
Ion Ratio Lower Upper
91 100
106 40.2 21.2 63.6

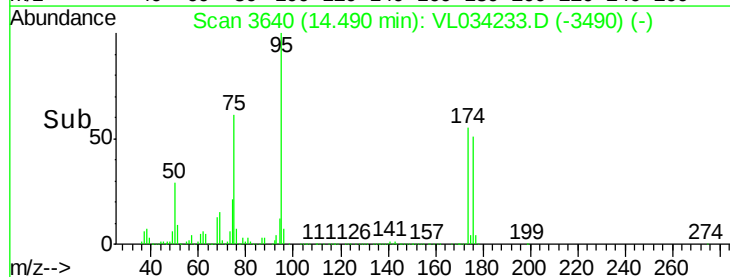
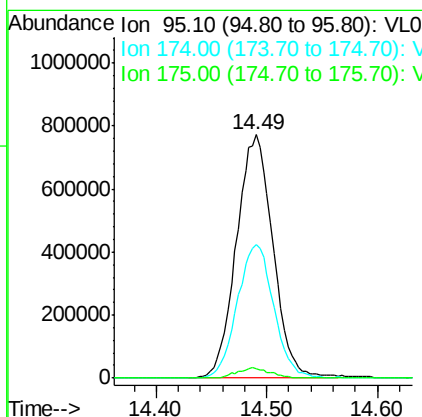
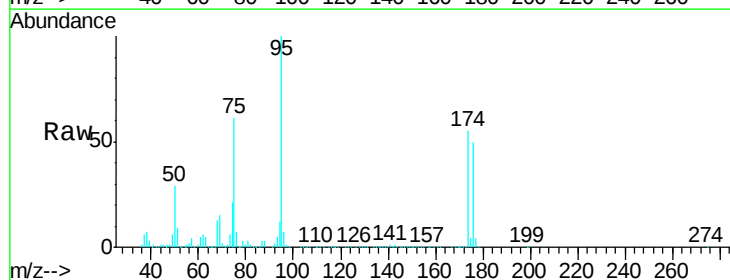
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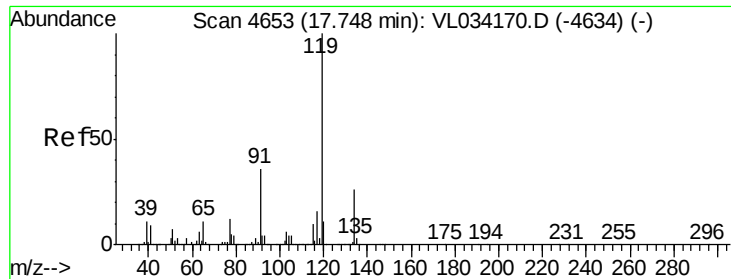
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.720 ppbv
RT: 14.49 min Scan# 3640
Delta R.T. -0.02 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Tgt Ion: 95 Resp: 1769509
Ion Ratio Lower Upper
95 100
174 54.8 45.1 67.7
175 3.9 3.3 4.9





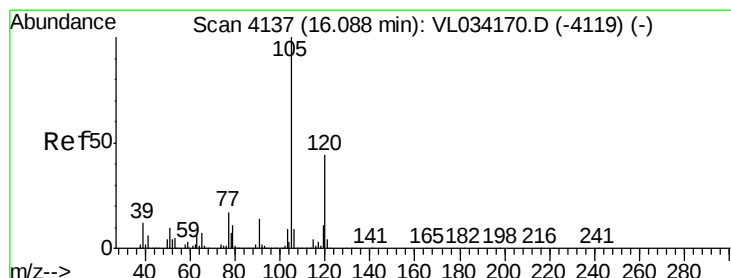
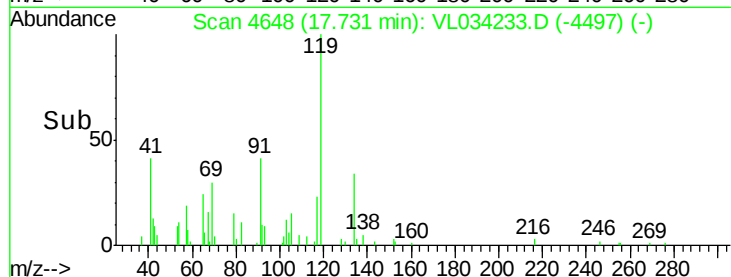
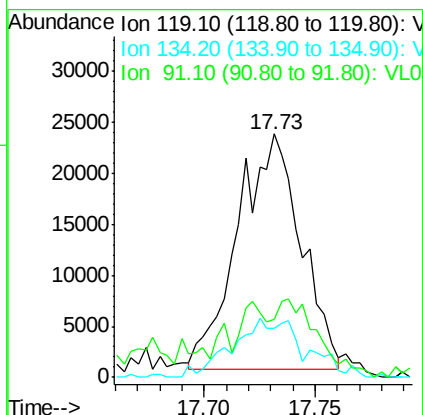
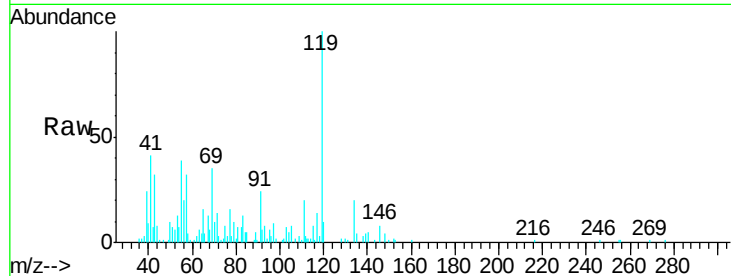
#69
p-Isopropyltoluene
Concen: 0.138 ppbv m
RT: 17.73 min Scan# 4648
Delta R.T. -0.02 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Instrument :
MSVOA_L
ClientSampled :
IA2

Tgt Ion	Ratio	Lower	Upper
119	100		
134	0.0	20.6	30.8#
91	0.0	27.6	41.4#

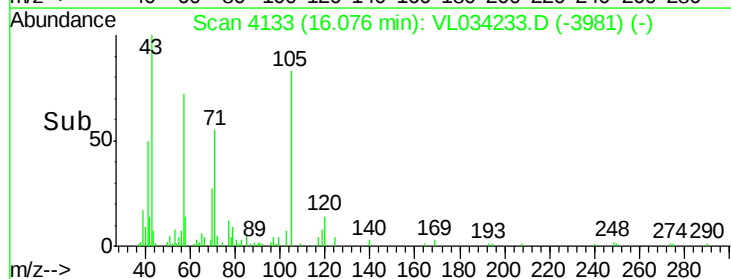
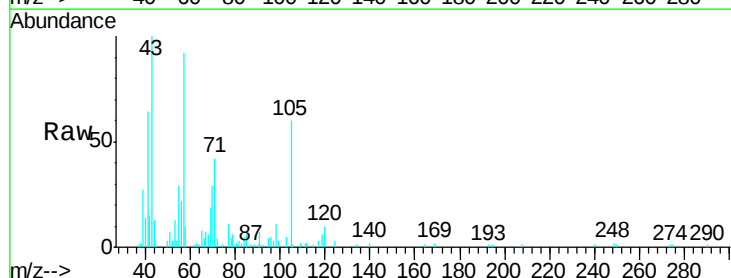
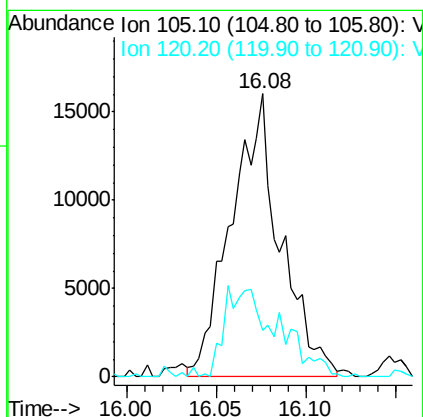
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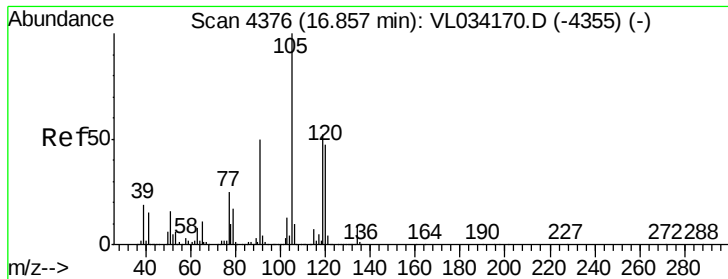
MMDadoda
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#73
1,3,5-Trimethylbenzene
Concen: 0.110 ppbv m
RT: 16.08 min Scan# 4133
Delta R.T. -0.01 min
Lab File: VL034233.D
Acq: 7 Oct 2019 22:17

Tgt Ion	Ratio	Lower	Upper
105	100		
120	16.5	35.6	53.4#





#74

1,2,4-Trimethylbenzene

Concen: 0.256 ppbv m

RT: 16.83 min Scan# 4369

Delta R.T. -0.02 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

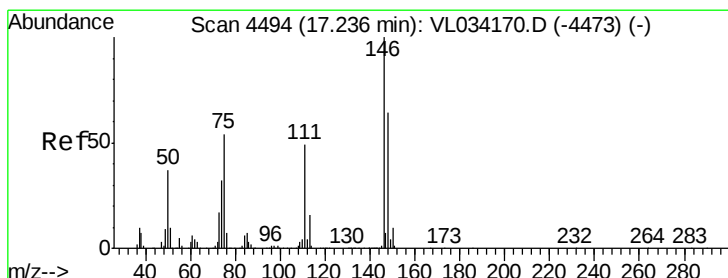
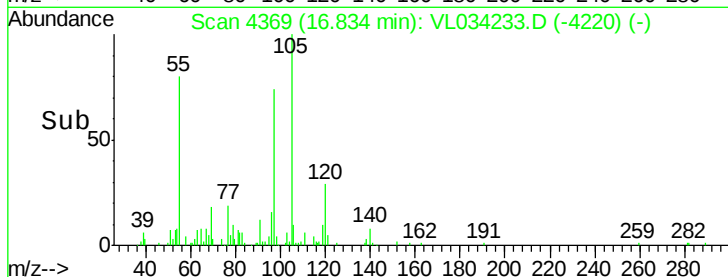
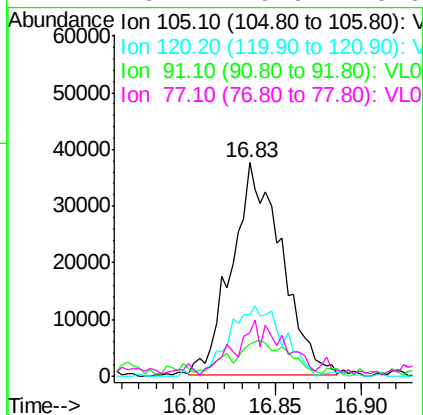
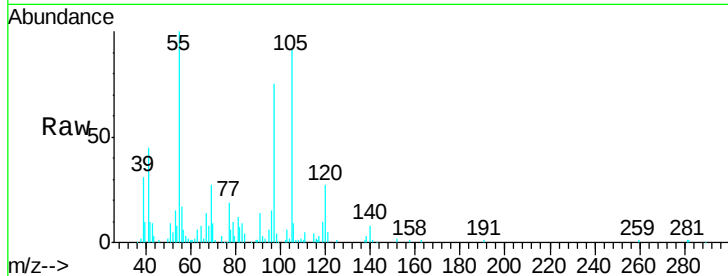
ClientSampleId :

IA2

Tgt Ion:	105	Resp:	75251
Ion Ratio	Lower	Upper	
105	100		
120	29.0	37.5	56.3#
91	14.8	41.1	61.7#
77	20.1	19.9	29.9

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#76

1,4-Dichlorobenzene

Concen: 78.644 ppbv

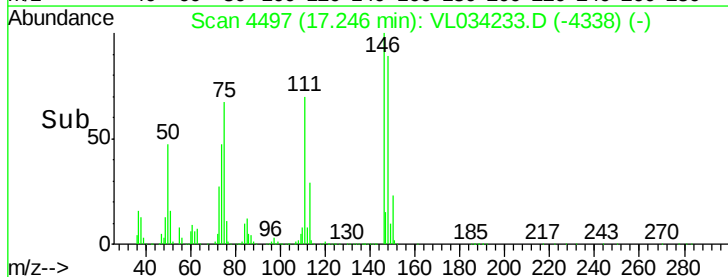
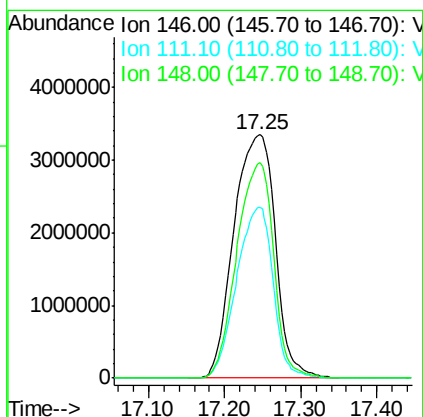
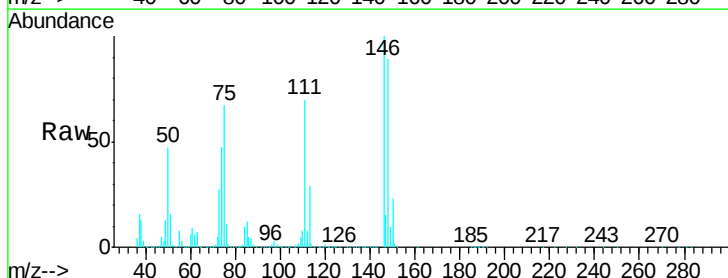
RT: 17.25 min Scan# 4497

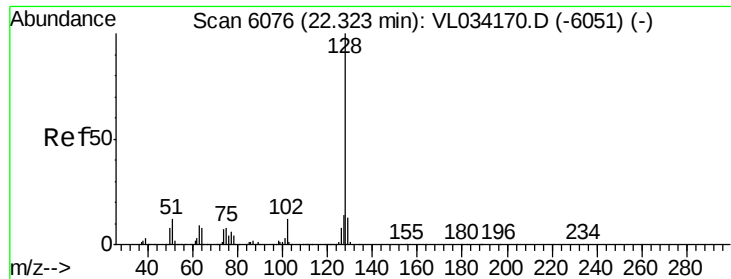
Delta R.T. 0.01 min

Lab File: VL034233.D

Acq: 7 Oct 2019 22:17

Tgt Ion:	146	Resp:	12713166
Ion Ratio	Lower	Upper	
146	100		
111	61.9	24.6	74.0
148	79.0	32.4	97.0





#79

Naphthalene

Concen: 0.499 ppbv m

RT: 22.30 min Scan# 6069

Delta R.T. -0.02 min

Lab File: VL034233.D

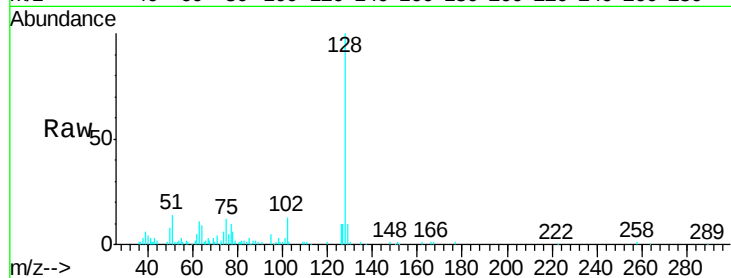
Acq: 7 Oct 2019 22:17

Instrument :

MSVOA_L

ClientSampleId :

IA2



Tgt Ion	Ratio	Resp	Lower	Upper
128	100	129310		
127	10.1	11.1	16.7#	
129	10.2	10.2	15.4	

Manual Integrations
APPROVED

MMDadoda
10/11/2019 5:05:24 PM

