

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033558.D
 Acq On : 5 Apr 2019 9:07
 Operator : SY/AP
 Sample : K2226-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
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 4/8/2019 3:22:36 AM

Quant Time: Apr 05 10:06:03 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	933018	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2443468	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2880746	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	2177015	9.64	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	25931	0.191	ppbv	91
4) Chloromethane	3.17	50	30944	0.544	ppbv	99
9) Propene	3.03	41	130261	2.888	ppbv	97
10) Heptane	8.24	43	832906	6.908	ppbv	100
11) Trichlorofluoromethane	4.00	101	40060m	0.239	ppbv	
13) Ethanol	3.66	45	327796	28.081	ppbv	65
15) Acetone	3.89	43	5133119	45.755	ppbv	91
17) tert-Butyl alcohol	4.37	59	36006m	1.746	ppbv	
19) Isopropyl Alcohol	4.04	45	177823m	2.506	ppbv	
20) Methylene Chloride	4.40	84	360189	7.564	ppbv	96
26) Hexane	5.77	57	459188	4.962	ppbv #	39
29) Chloroform	5.85	83	1378300	8.688	ppbv	99
30) Cyclohexane	7.24	84	280564	3.832	ppbv	95
34) 2-Butanone	5.32	43	1029594	7.013	ppbv	96
36) Benzene	6.99	78	87439	0.426	ppbv	97
52) Tetrachloroethene	11.37	164	49270m	0.637	ppbv	
53) Toluene	9.94	91	1499167	6.292	ppbv	99
58) Ethyl Benzene	12.86	91	1095095	2.847	ppbv	97
59) m/p-Xylene	13.11	91	3609110	10.503	ppbv #	100
60) o-Xylene	13.84	91	1491638	4.489	ppbv	97
61) Styrene	13.68	104	64554	0.283	ppbv	96
62) Isopropylbenzene	14.82	105	228281	0.485	ppbv	100
69) p-Isopropyltoluene	17.81	119	47233	0.098	ppbv	97
72) 4-Ethyltoluene	16.00	105	202010	0.541	ppbv	99
73) 1,3,5-Trimethylbenzene	16.15	105	223751	0.626	ppbv	96
74) 1,2,4-Trimethylbenzene	16.92	105	637872	1.665	ppbv #	69

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033558.D

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Instrument :

MSVOA_L

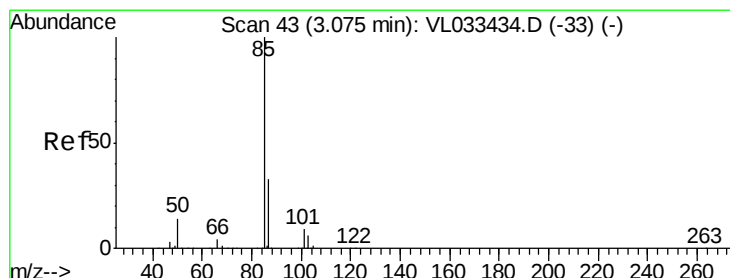
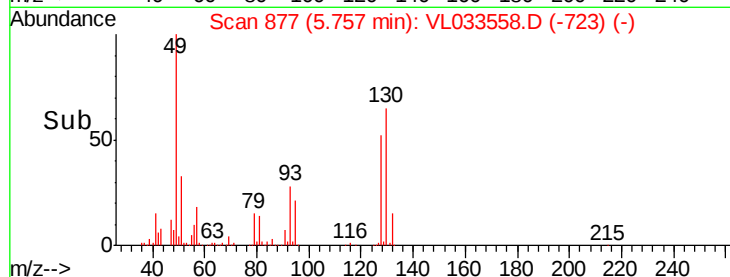
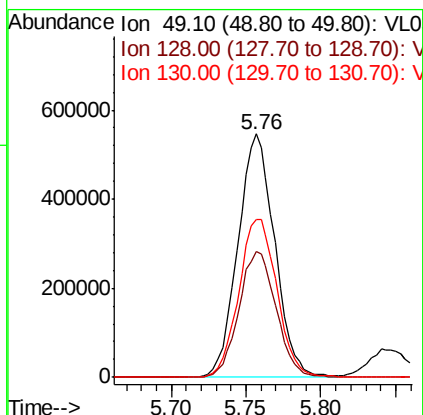
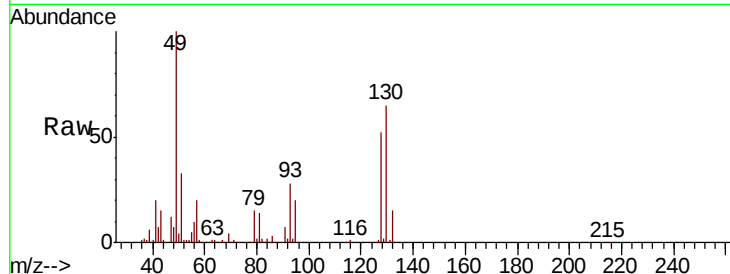
ClientSampleId :

SV1

Tot Ion	Ratio	Lower	Upper
49	100		
128	52.4	24.0	72.0
130	67.9	31.2	93.6

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#2

Dichlorodifluoromethane

Concen: 0.191 ppbv

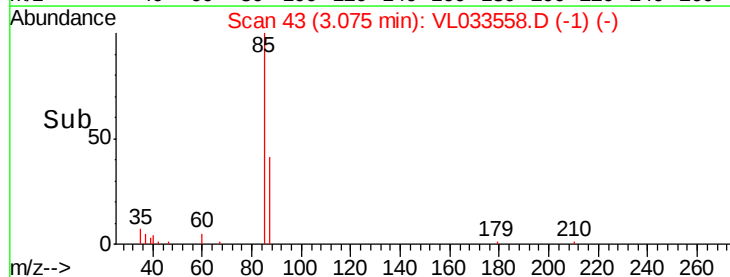
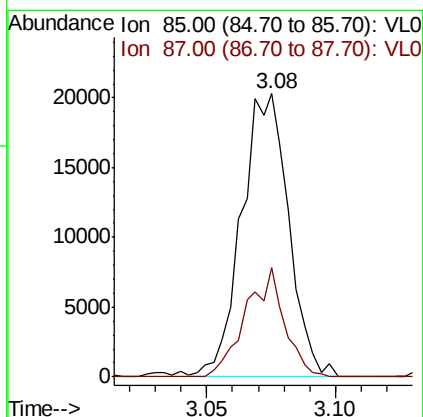
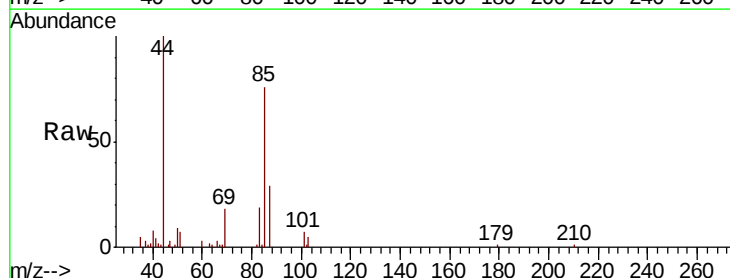
RT: 3.08 min Scan# 43

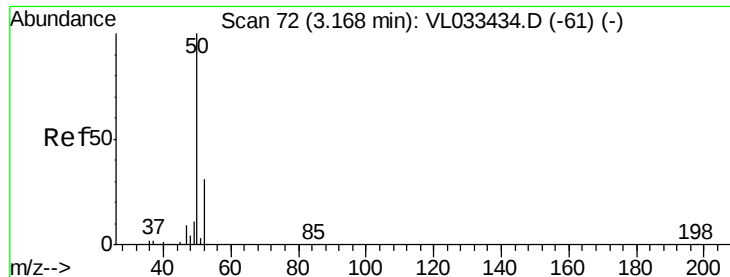
Delta R.T. 0.00 min

Lab File: VL033558.D

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Tgt Ion	Ratio	Lower	Upper
85	100		
87	38.7	26.7	40.1





#4

Chloromethane

Concen: 0.544 ppbv

RT: 3.17 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033558.D

Acq: 5 Apr 2019 9:07

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 50 Resp: 30944

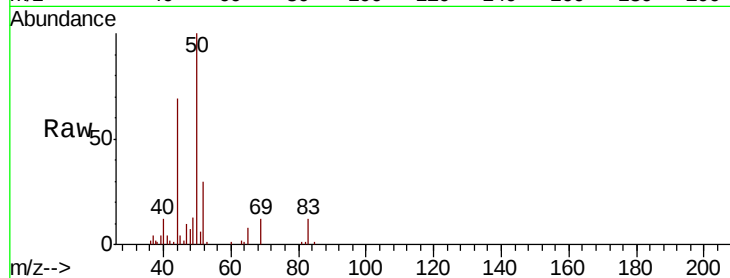
Ion Ratio Lower Upper

50 100

52 30.7 25.0 37.6

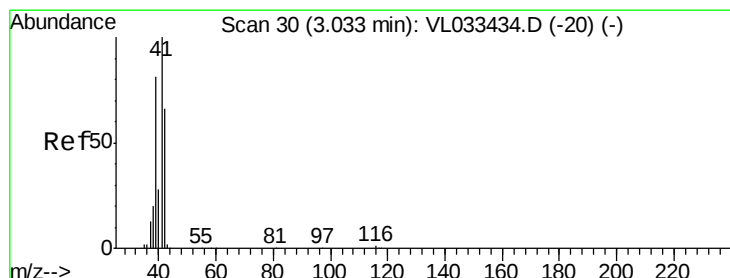
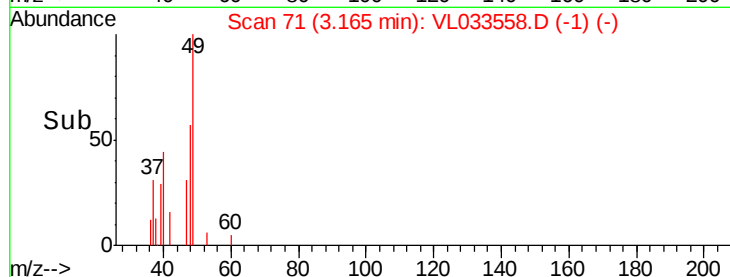
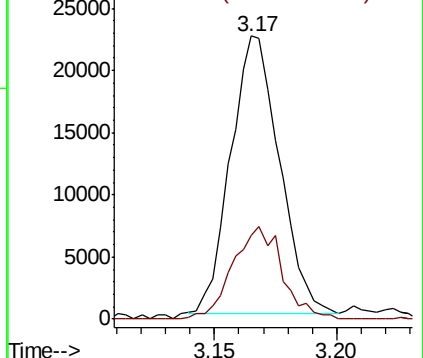
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Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 2.888 ppbv

RT: 3.03 min Scan# 29

Delta R.T. -0.00 min

Lab File: VL033558.D

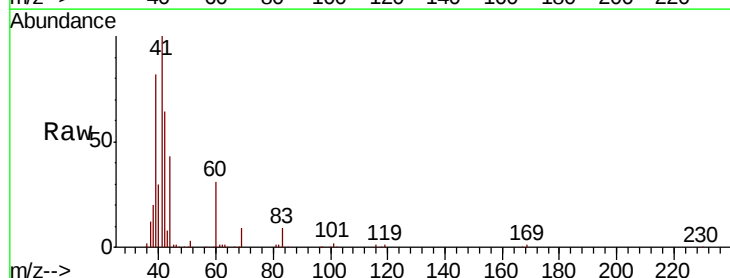
Acq: 5 Apr 2019 9:07

Tgt Ion: 41 Resp: 130261

Ion Ratio Lower Upper

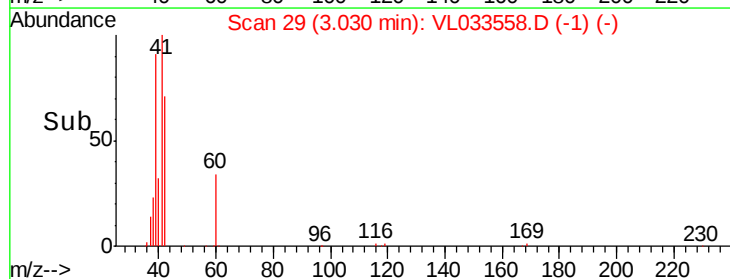
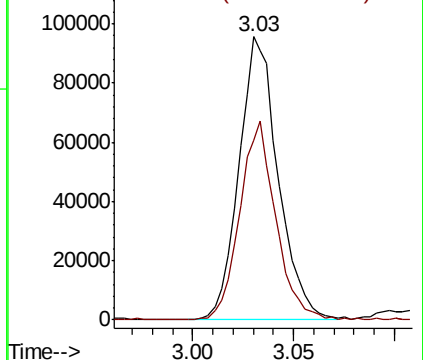
41 100

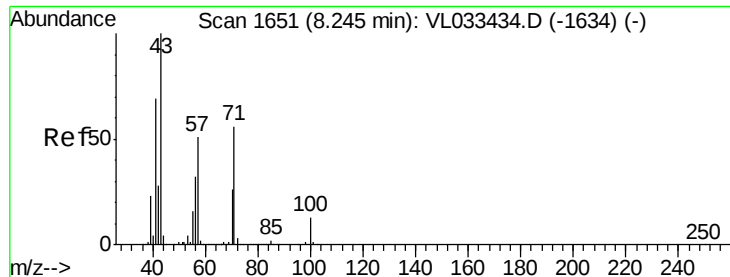
42 64.8 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





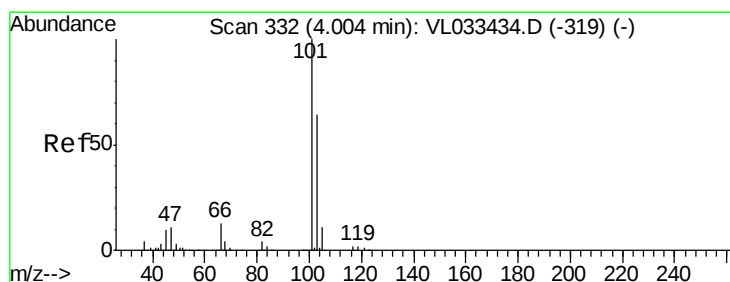
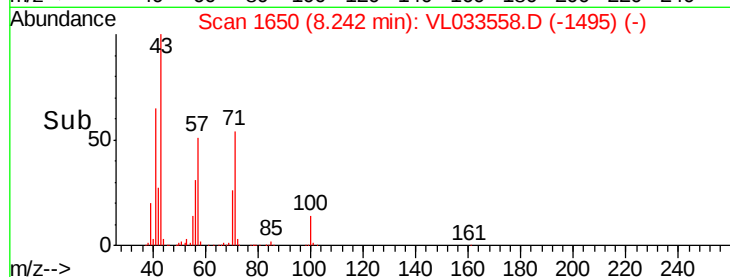
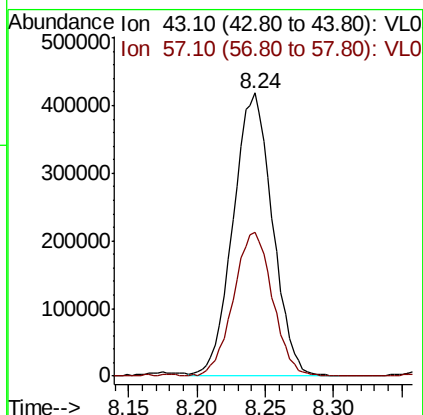
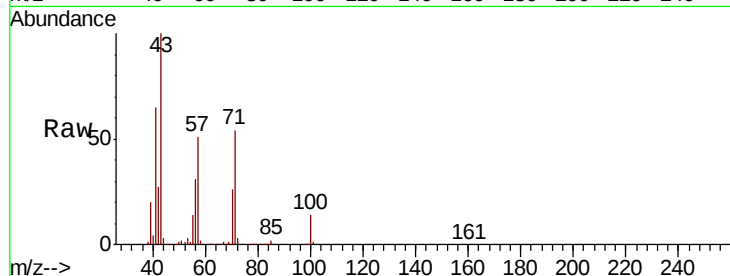
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Heptane
Concen: 6.908 ppbv
RT: 8.24 min Scan# 1650
Delta R.T. -0.00 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion: 43 Resp: 832906
Ion Ratio Lower Upper
43 100
57 50.7 40.6 60.8

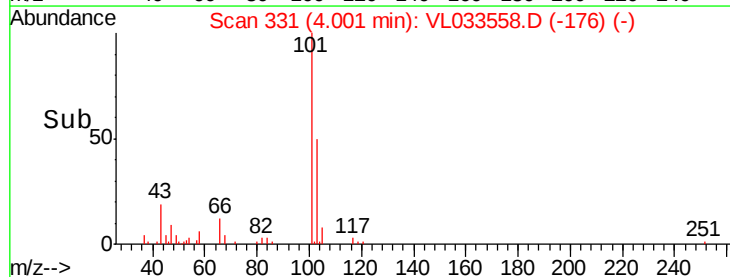
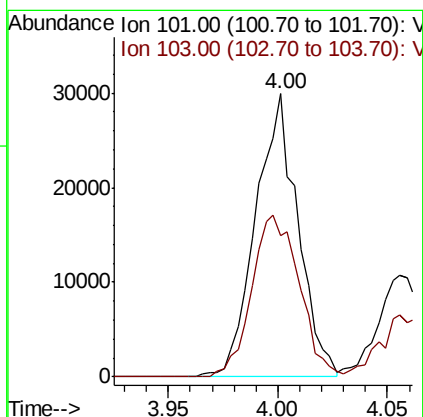
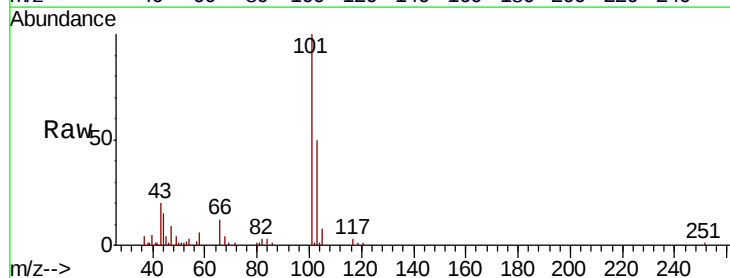
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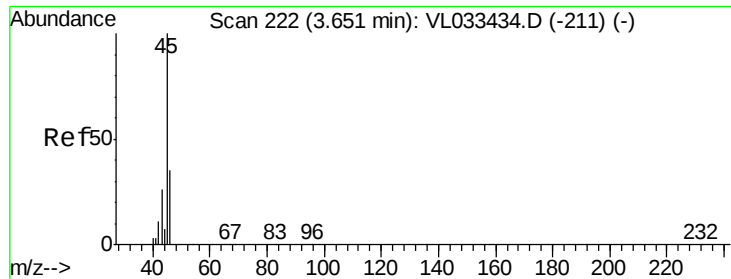
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#11
Trichlorofluoromethane
Concen: 0.239 ppbv m
RT: 4.00 min Scan# 331
Delta R.T. -0.00 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion: 101 Resp: 40060
Ion Ratio Lower Upper
101 100
103 49.9 51.3 76.9#





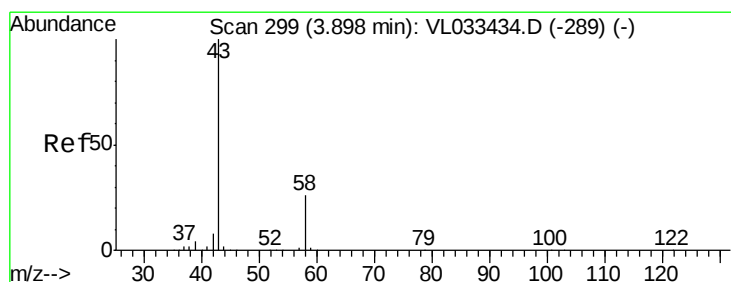
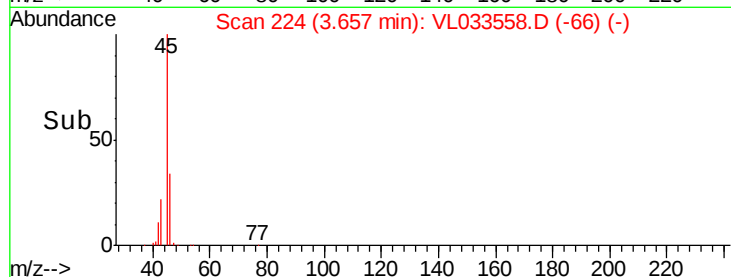
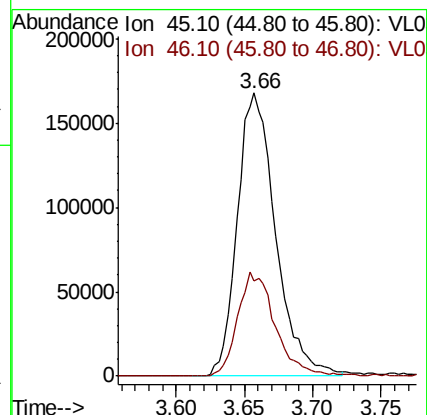
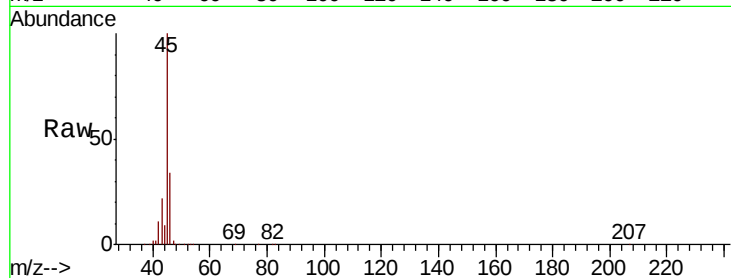
#13
Ethanol
Concen: 28.081 ppbv
RT: 3.66 min Scan# 224
Delta R.T. 0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion	45	Resp	327796
Ion Ratio	100	Lower	Upper
46	36.1	25.4	101.8

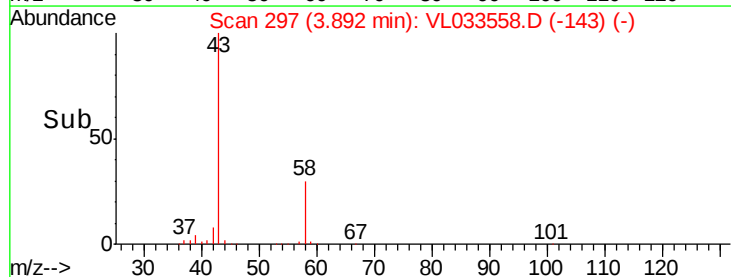
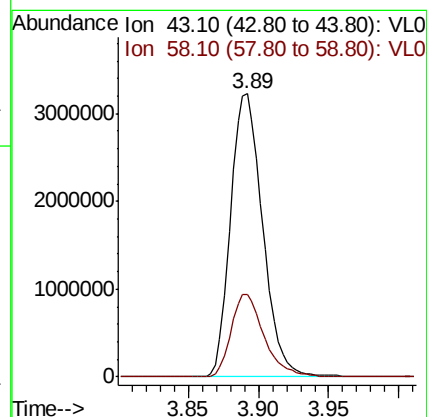
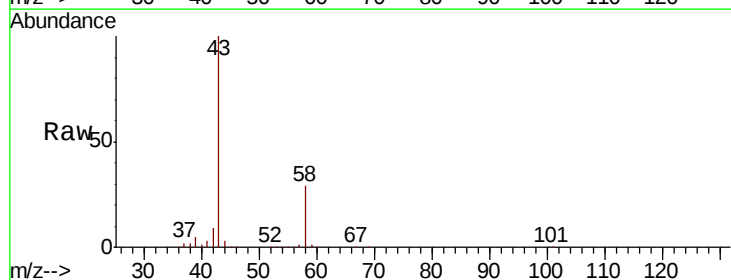
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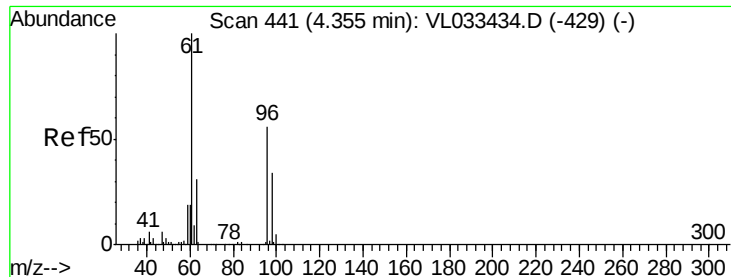
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#15
Acetone
Concen: 45.755 ppbv
RT: 3.89 min Scan# 297
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion	43	Resp	5133119
Ion Ratio	100	Lower	Upper
58	30.3	20.5	30.7





#17

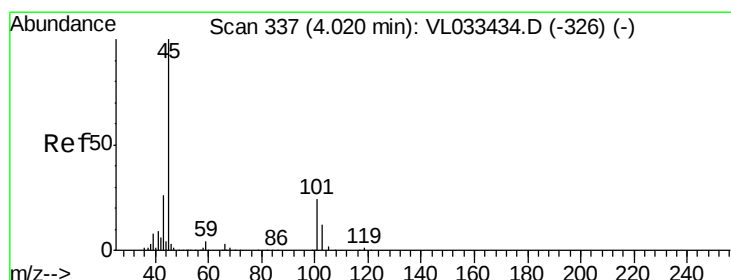
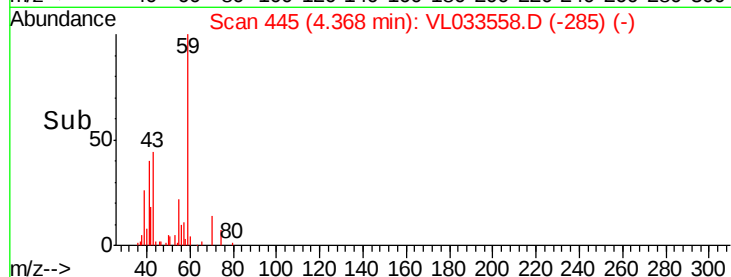
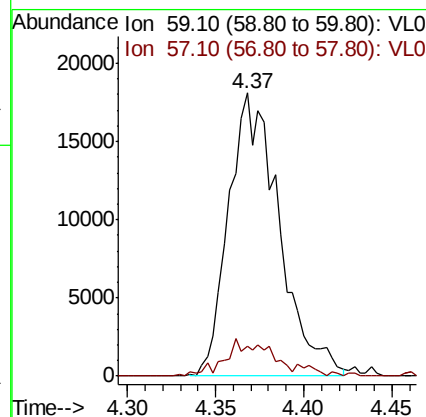
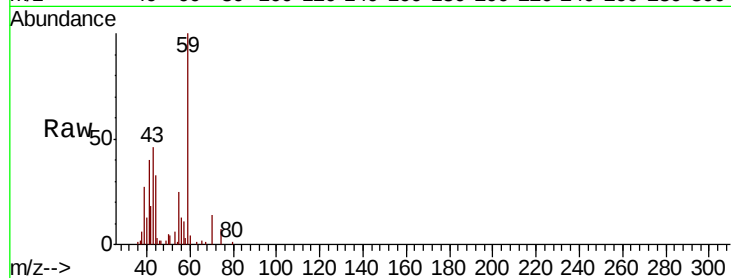
tert-Butyl alcohol
 Concen: 1.746 ppbv m
 RT: 4.37 min Scan# 445
 Delta R.T. 0.01 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tot Ion: 59 Resp: 36006
 Ion Ratio Lower Upper
 59 100
 57 13.2 7.8 11.8#

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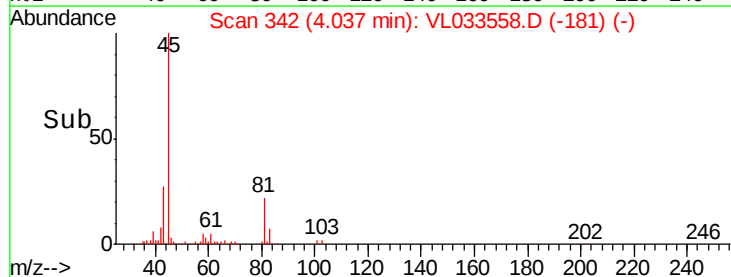
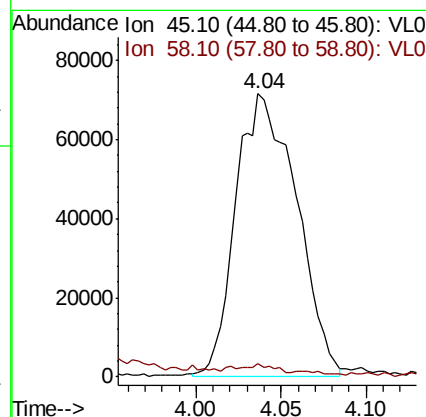
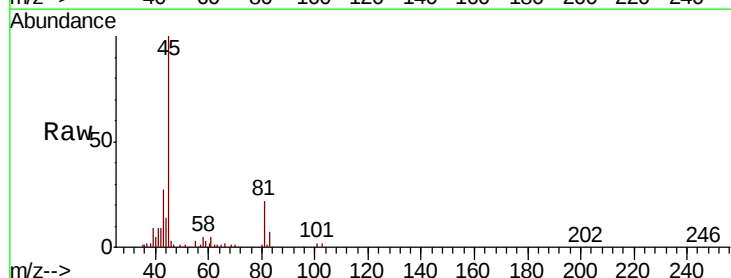
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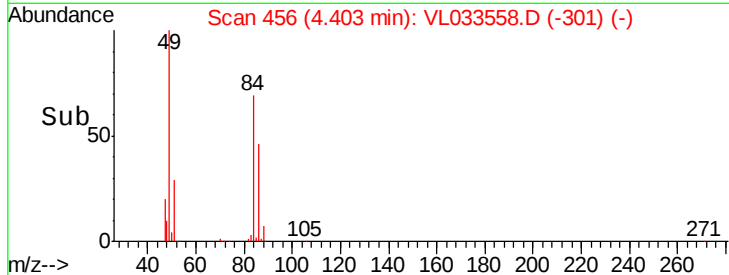
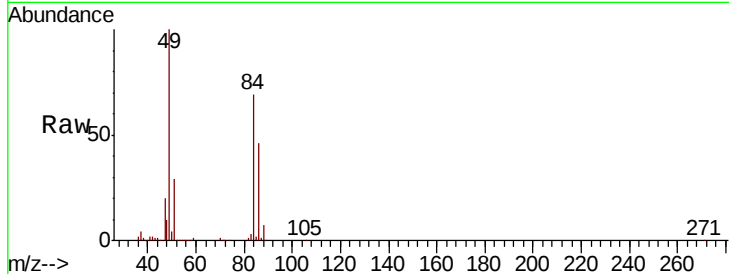
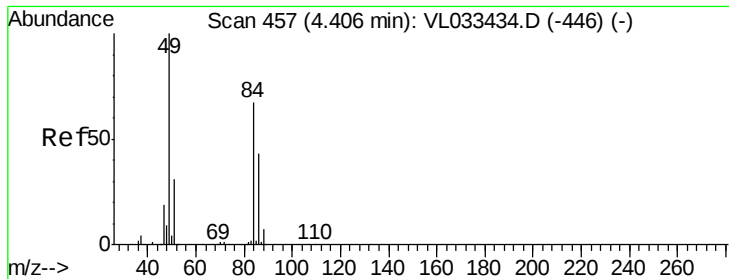


#19

Isopropyl Alcohol
 Concen: 2.506 ppbv m
 RT: 4.04 min Scan# 342
 Delta R.T. 0.02 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Tgt Ion: 45 Resp: 177823
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.4 2.2#





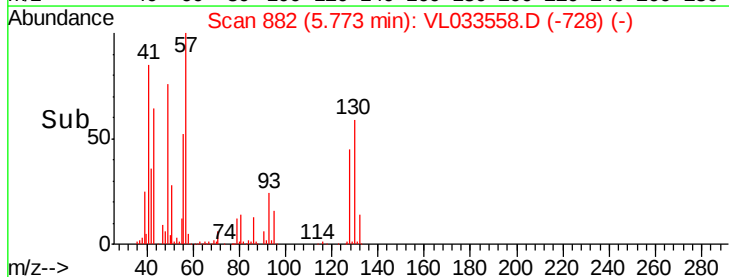
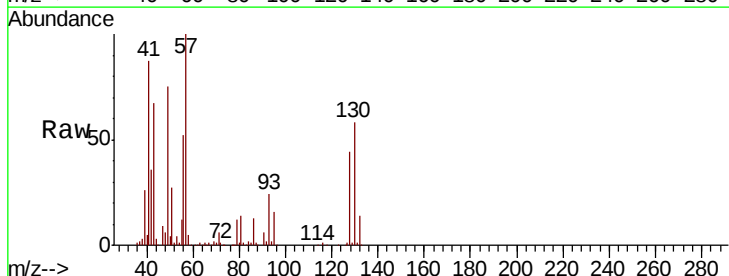
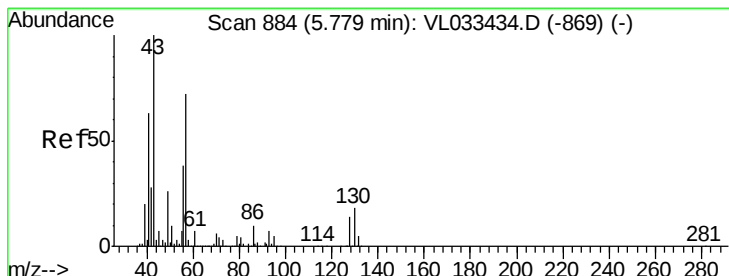
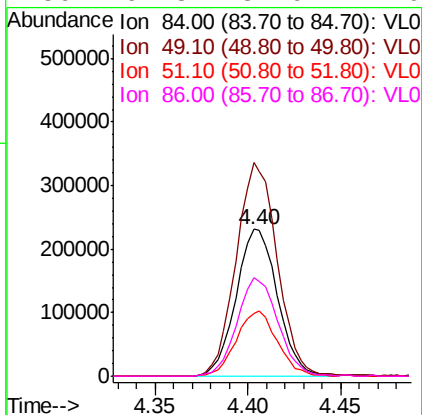
#20
Methvlene Chloride
Concen: 7.564 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.00 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tot Ion	84	Resp	360189
Ion Ratio	Lower	Upper	
84	100		
49	145.1	120.0	180.0
51	42.1	36.7	55.1
86	67.3	51.9	77.9

Instrument :
MSVOA_L
ClientSampled :
SV1

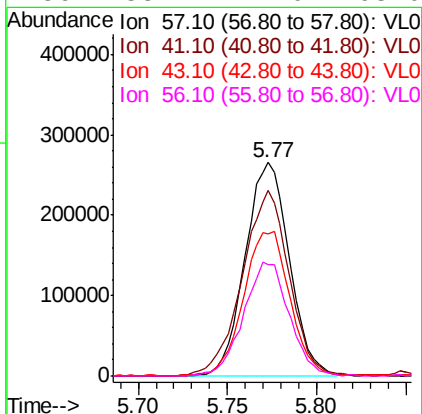
Manual Integrations
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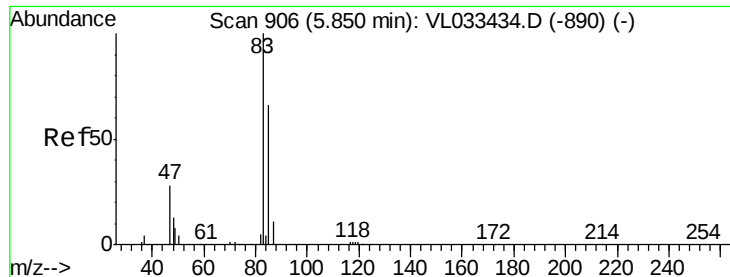
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#26
Hexane
Concen: 4.962 ppbv
RT: 5.77 min Scan# 882
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion	57	Resp	459188
Ion Ratio	Lower	Upper	
57	100		
41	92.4	70.7	106.1
43	70.3	182.6	274.0#
56	55.1	42.0	63.0





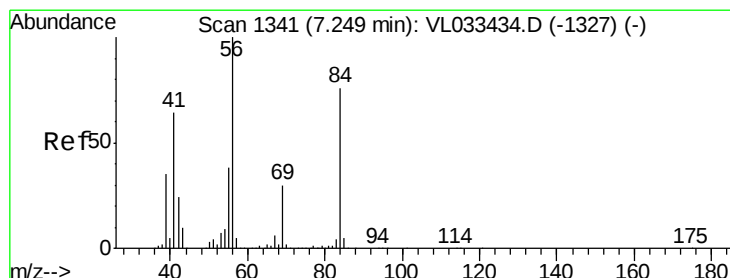
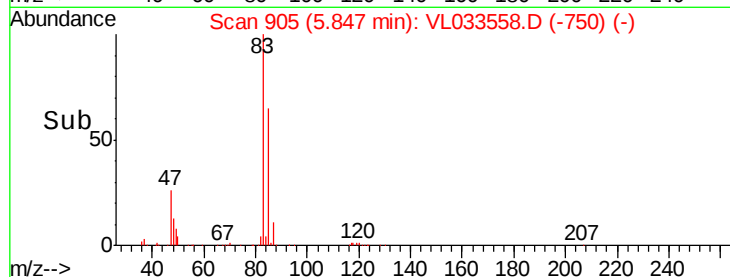
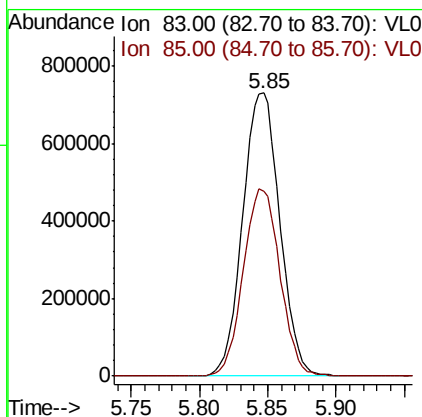
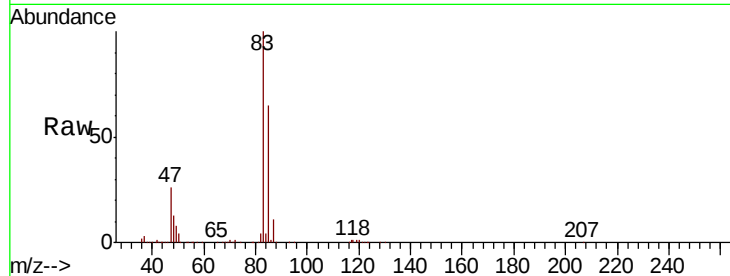
#29
Chloroform
Concen: 8.688 ppbv
RT: 5.85 min Scan# 905
Delta R.T. -0.00 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion: 83 Resp: 1378300
Ion Ratio Lower Upper
83 100
85 65.1 52.6 79.0

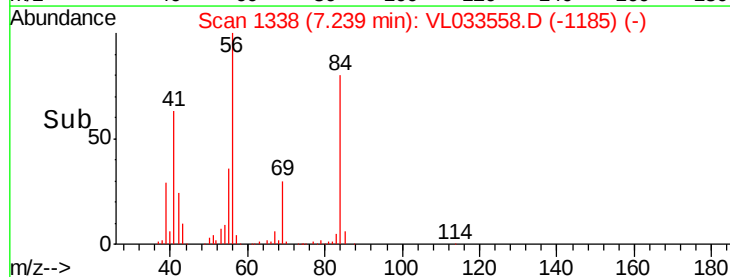
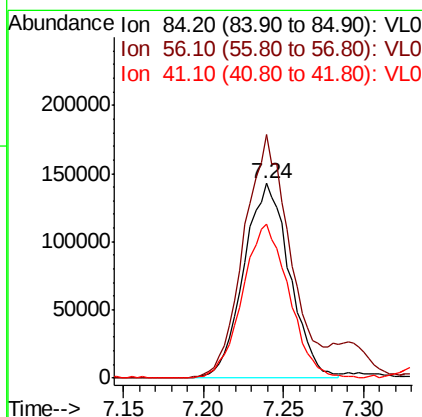
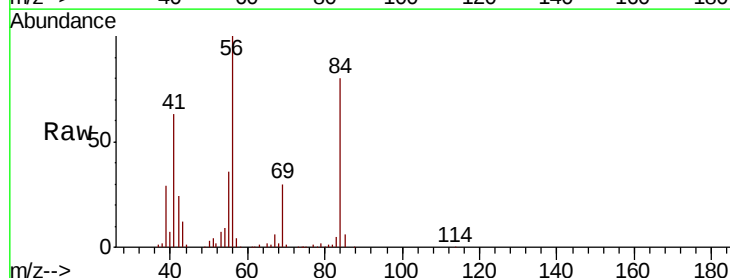
Manual Integrations
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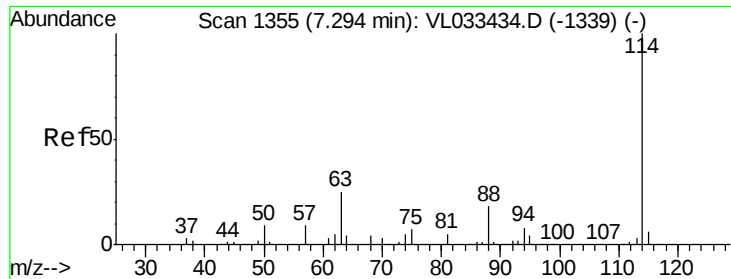
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#30
Cyclohexane
Concen: 3.832 ppbv
RT: 7.24 min Scan# 1338
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion: 84 Resp: 280564
Ion Ratio Lower Upper
84 100
56 141.5 109.7 164.5
41 79.6 68.2 102.2





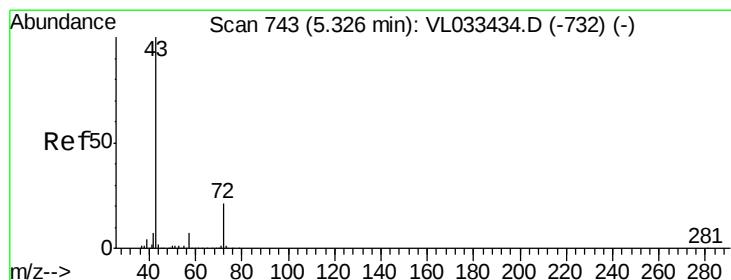
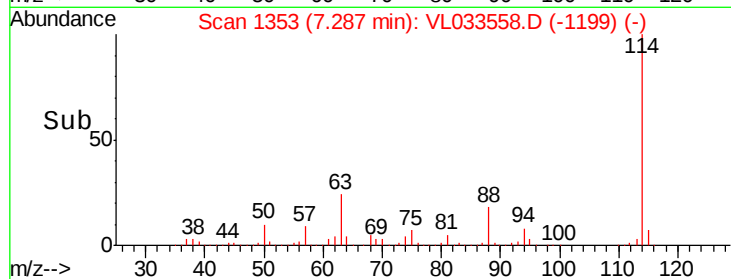
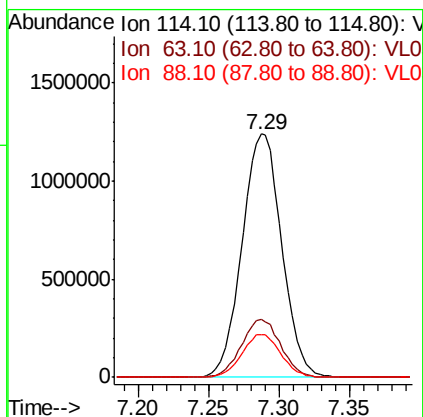
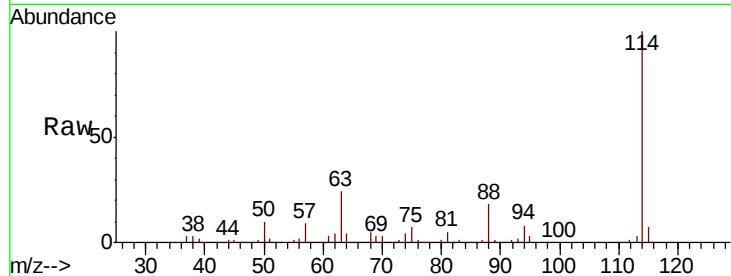
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tot Ion:114 Resp: 2443468
 Ion Ratio Lower Upper
 114 100
 63 23.8 21.5 32.3
 88 17.4 14.5 21.7

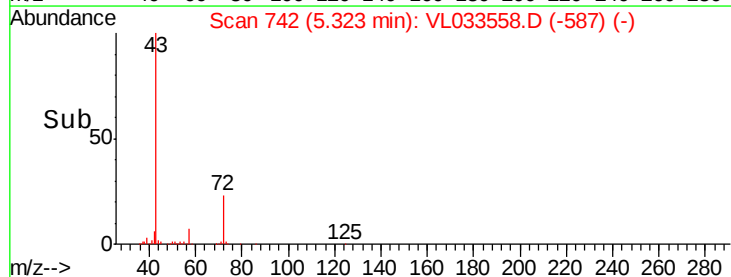
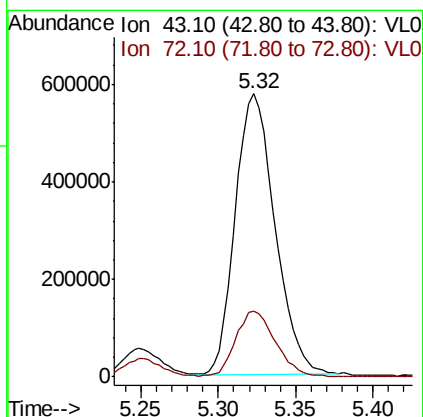
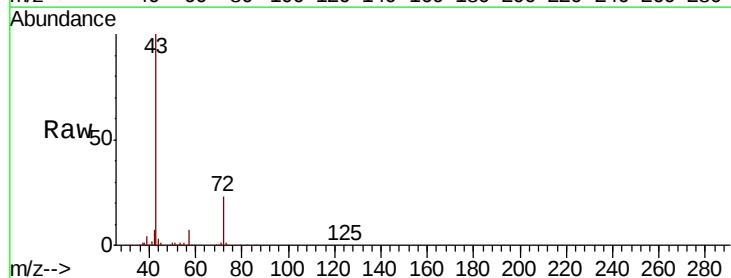
Manual Integrations
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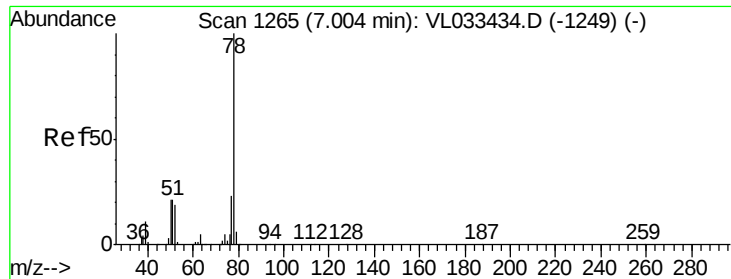
MMDadoda
 4/8/2019 3:22:36 AM



#34
 2-Butanone
 Concen: 7.013 ppbv
 RT: 5.32 min Scan# 742
 Delta R.T. -0.00 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Tgt Ion: 43 Resp: 1029594
 Ion Ratio Lower Upper
 43 100
 72 23.7 17.4 26.2





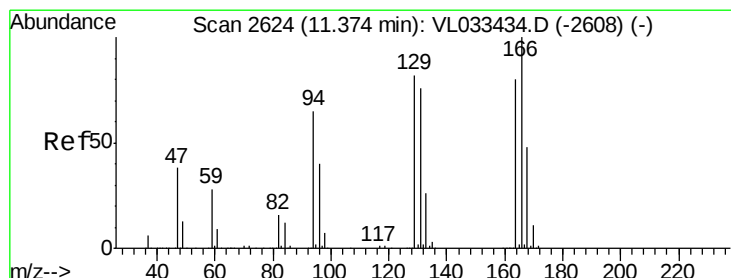
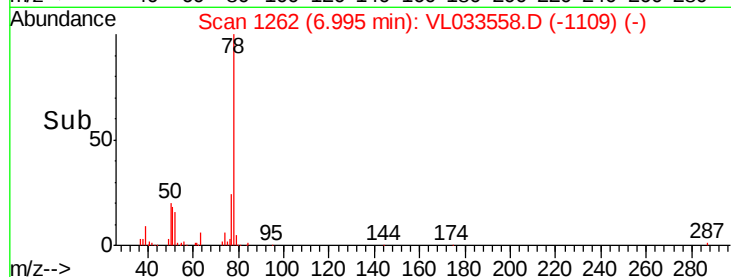
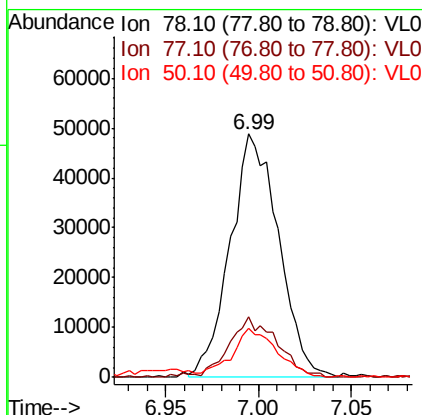
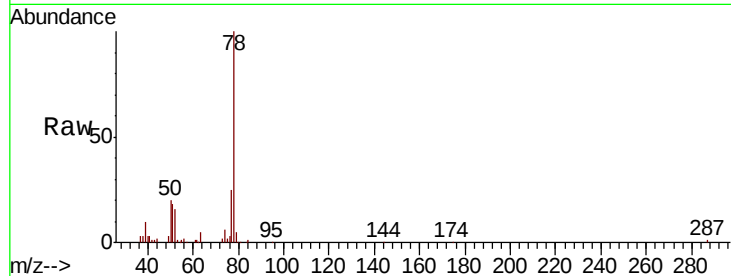
#36
Benzene
Concen: 0.426 ppbv
RT: 6.99 min Scan# 1262
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion	Ratio	Lower	Upper
78	100		
77	24.3	18.1	27.1
50	19.5	16.7	25.1

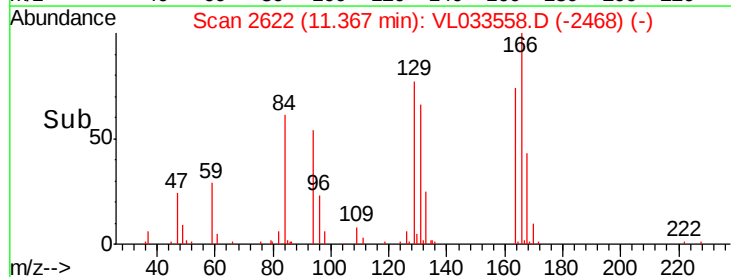
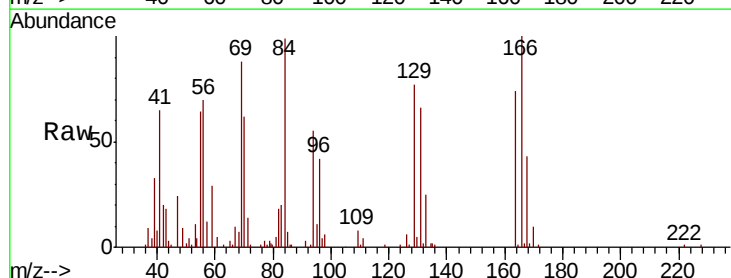
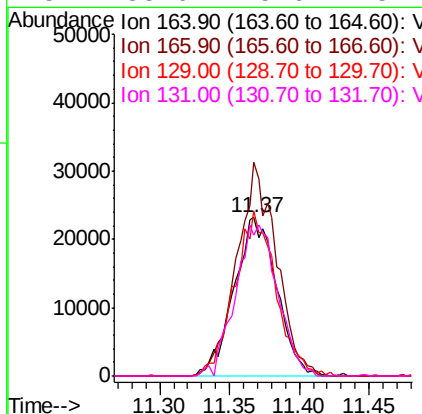
Manual Integrations
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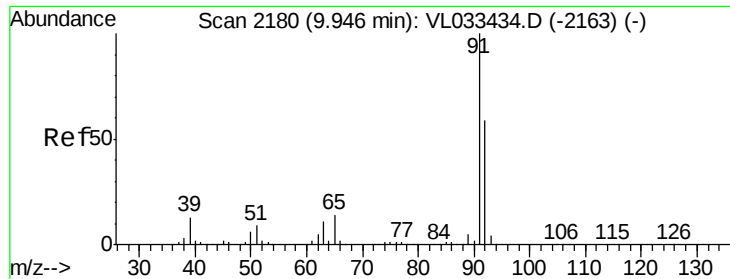
MMDadoda
4/8/2019 3:22:36 AM



#52
Tetrachloroethene
Concen: 0.637 ppbv m
RT: 11.37 min Scan# 2622
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion	Ratio	Lower	Upper
164	100		
166	135.0	99.5	149.3
129	104.3	81.4	122.2
131	88.6	75.6	113.4





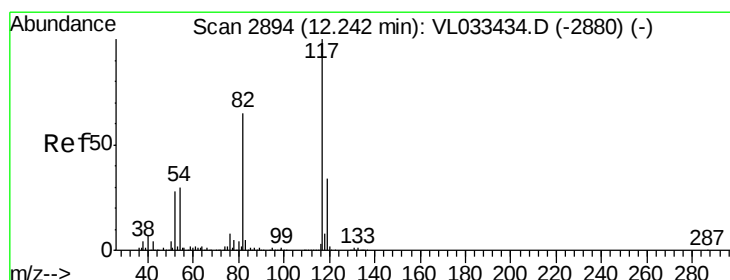
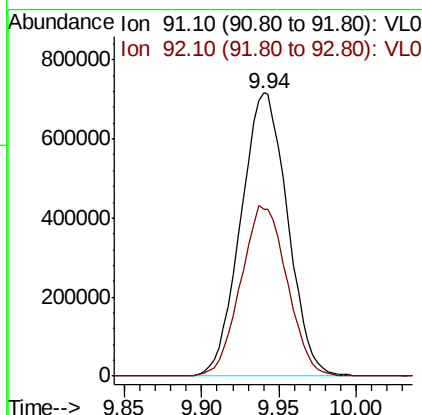
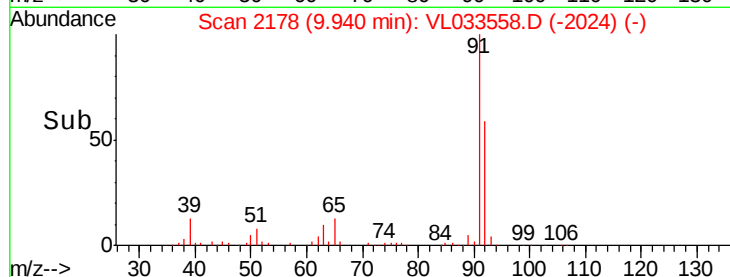
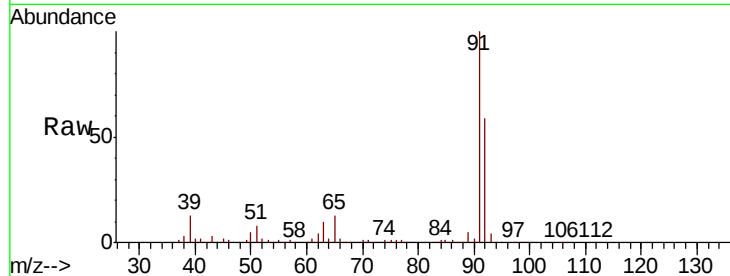
#53
Toluene
Concen: 6.292 ppbv
RT: 9.94 min Scan# 2178
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion: 91 Resp: 1499167
Ion Ratio Lower Upper
91 100
92 60.0 47.4 71.0

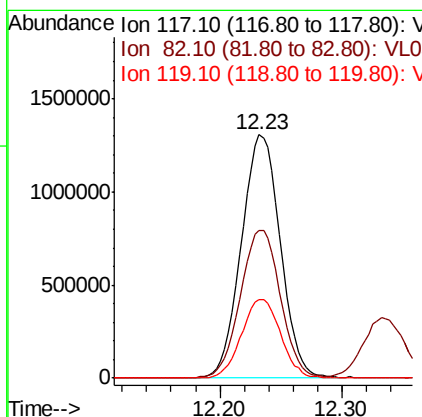
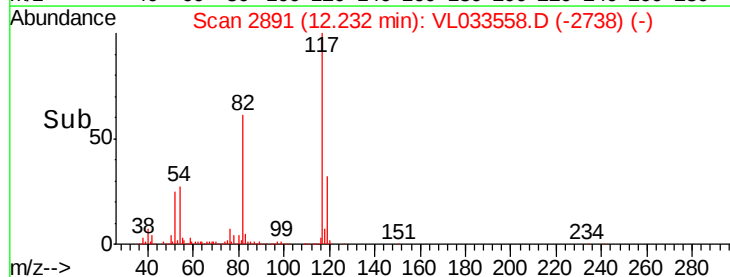
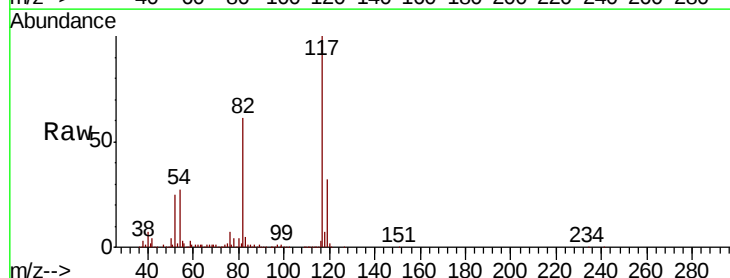
Manual Integrations
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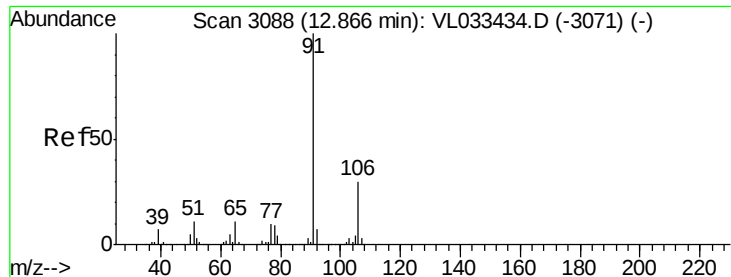
MMDadoda
4/8/2019 3:22:36 AM



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion: 117 Resp: 2880746
Ion Ratio Lower Upper
117 100
82 62.7 51.5 77.3
119 32.7 25.5 38.3





#58

Ethyl Benzene

Concen: 2.847 ppbv

RT: 12.86 min Scan# 3085

Delta R.T. -0.01 min

Lab File: VL033558.D

Acq: 5 Apr 2019 9:07

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 91 Resp: 1095095

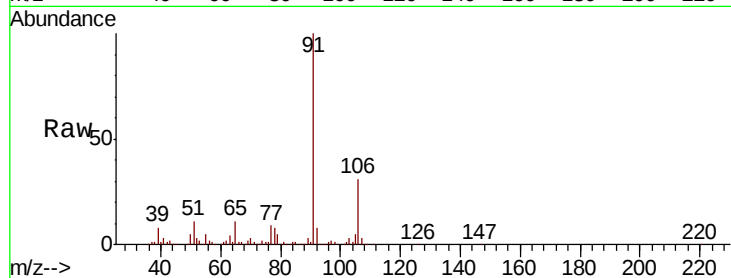
Ion Ratio Lower Upper

91 100

106 31.4 23.8 35.6

Manual Integrations
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MMDadoda
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

12.86

500000

400000

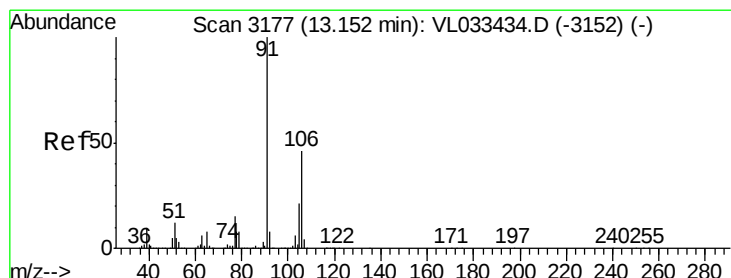
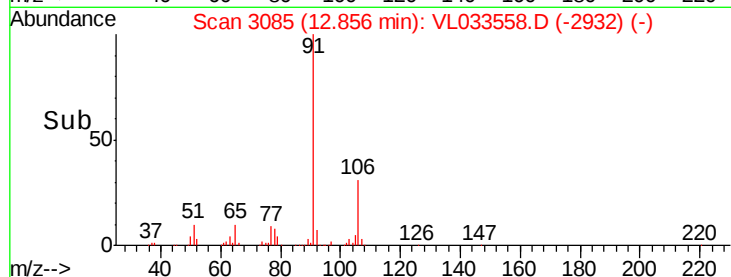
300000

200000

100000

0

Time-->



#59

m/p-Xylene

Concen: 10.503 ppbv

RT: 13.11 min Scan# 3165

Delta R.T. -0.04 min

Lab File: VL033558.D

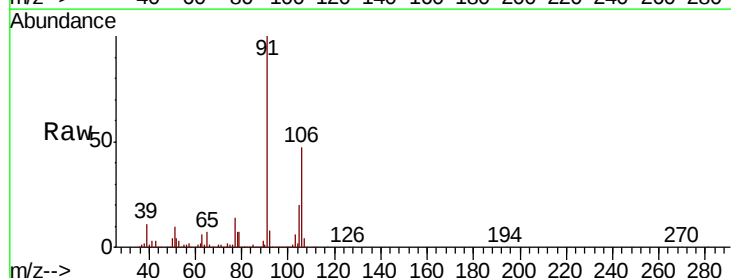
Acq: 5 Apr 2019 9:07

Tgt Ion: 91 Resp: 3609110

Ion Ratio Lower Upper

91 100

106 47.3 0.0 0.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.11

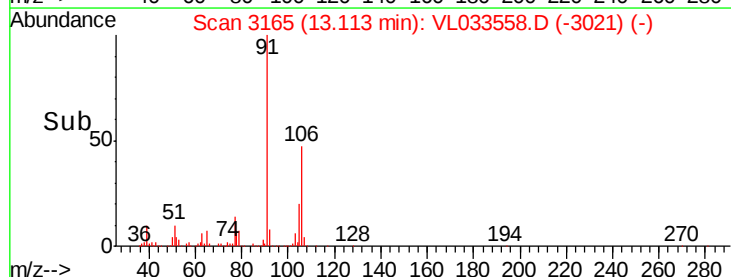
1500000

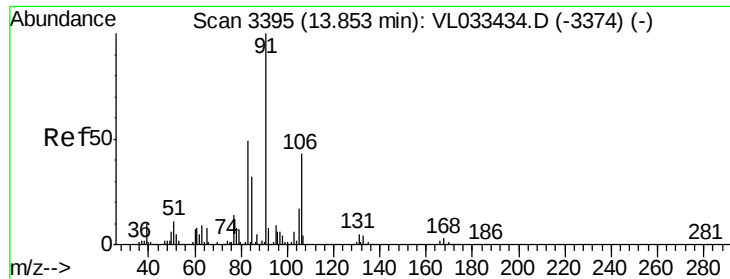
1000000

500000

0

Time-->





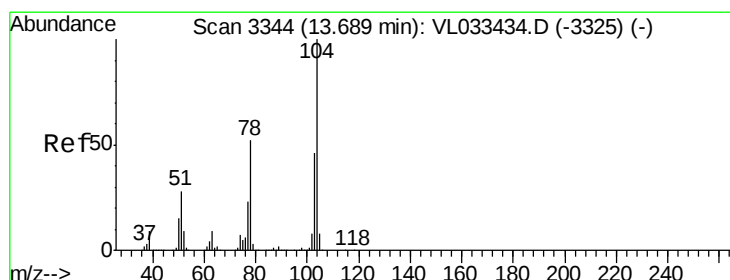
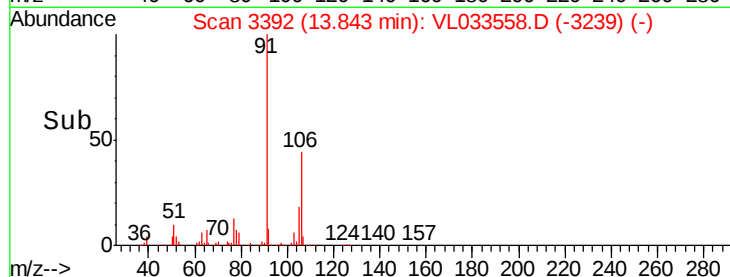
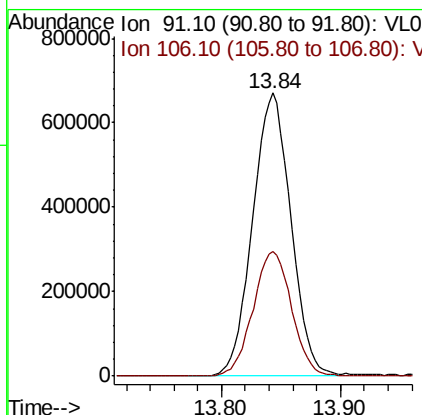
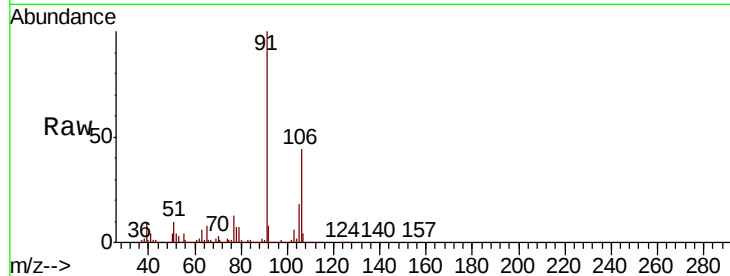
#60
o-Xylene
Concen: 4.489 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion: 91 Resp: 1491638
Ion Ratio Lower Upper
91 100
106 44.7 21.4 64.3

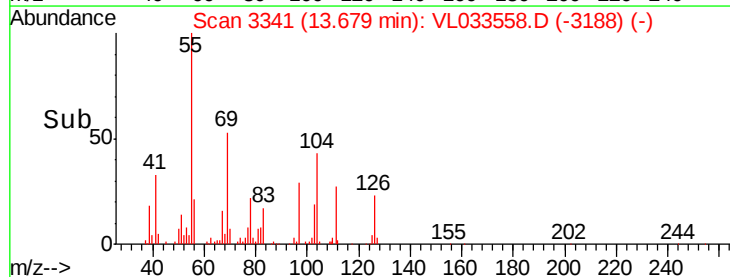
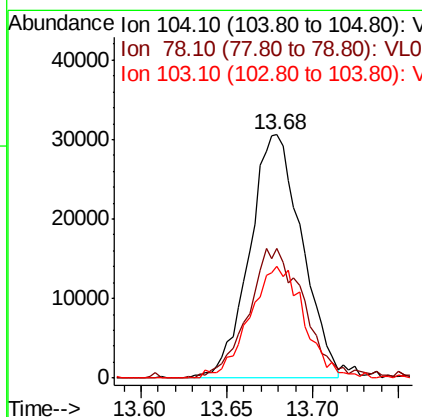
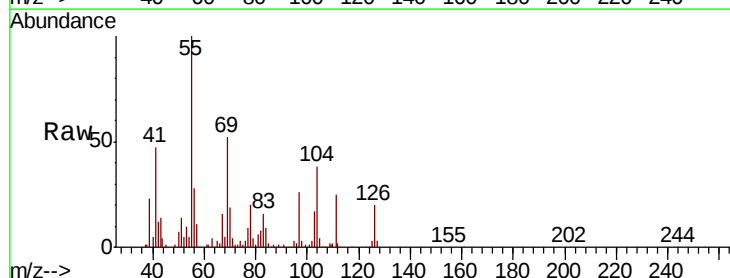
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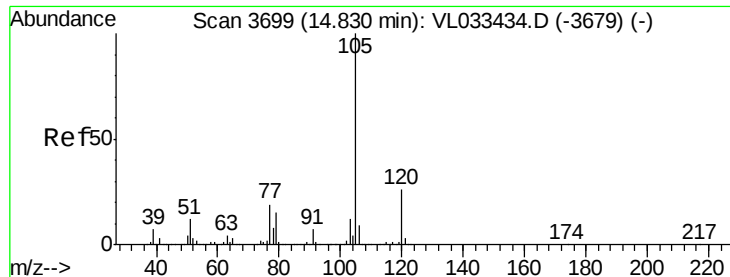
MMDadoda
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#61
Styrene
Concen: 0.283 ppbv
RT: 13.68 min Scan# 3341
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion: 104 Resp: 64554
Ion Ratio Lower Upper
104 100
78 58.3 43.2 64.8
103 48.1 37.8 56.8





#62

Isopropylbenzene

Concen: 0.485 ppbv

RT: 14.82 min Scan# 3697

Delta R.T. -0.01 min

Lab File: VL033558.D

Acq: 5 Apr 2019 9:07

Instrument :

MSVOA_L

ClientSampled :

SV1

Tot Ion: 105 Resp: 228281

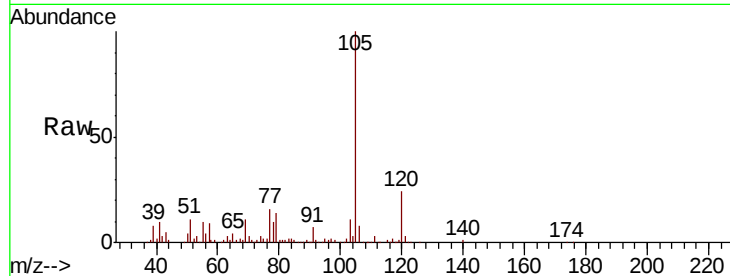
Ion Ratio Lower Upper

105 100

120 25.3 20.2 30.2

Manual Integrations
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MMDadoda
4/8/2019 3:22:36 AM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

120000

100000

80000

60000

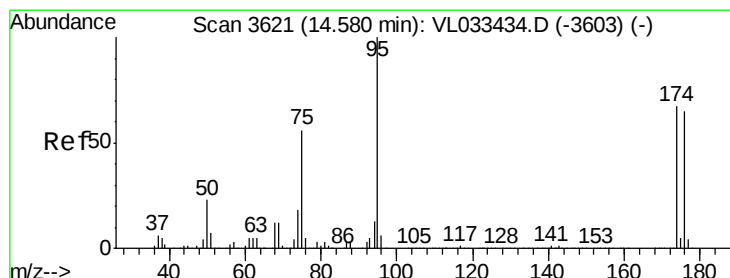
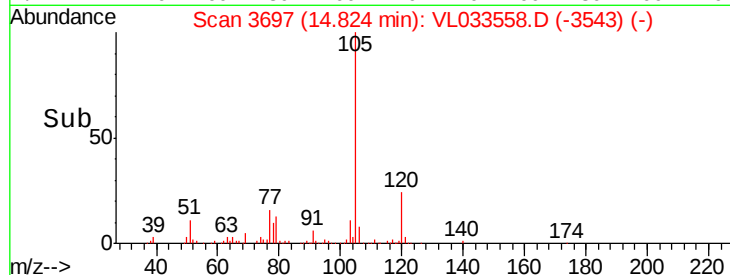
40000

20000

0

14.75 14.80 14.85 14.90

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 9.640 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL033558.D

Acq: 5 Apr 2019 9:07

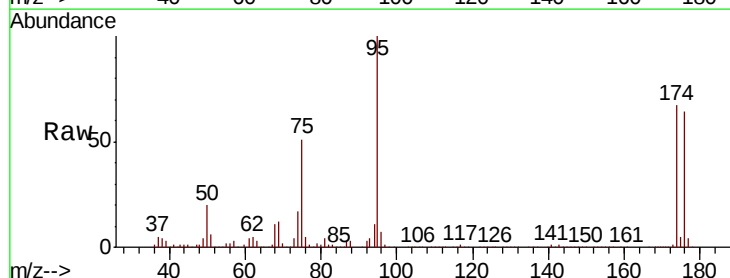
Tgt Ion: 95 Resp: 2177015

Ion Ratio Lower Upper

95 100

174 69.2 52.9 79.3

175 5.0 3.8 5.6



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

1200000

1000000

800000

600000

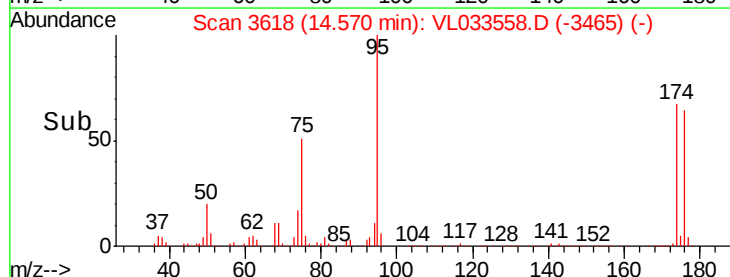
400000

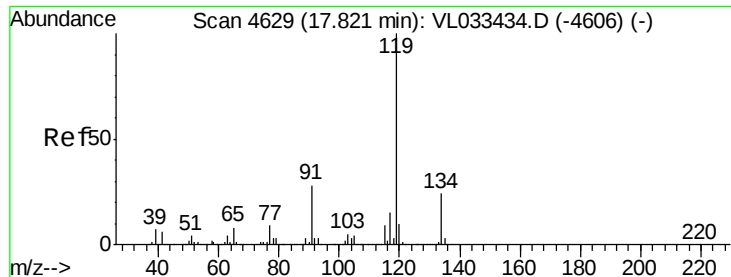
200000

0

14.55 14.60

Time-->





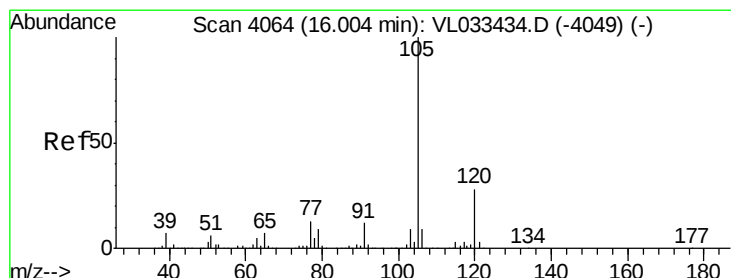
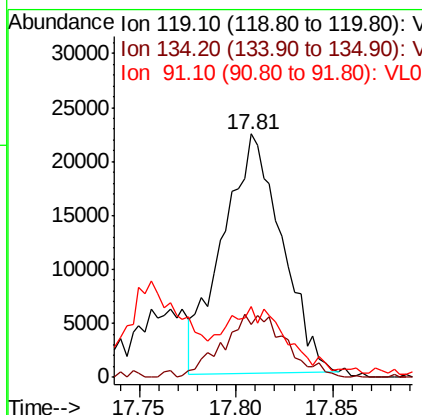
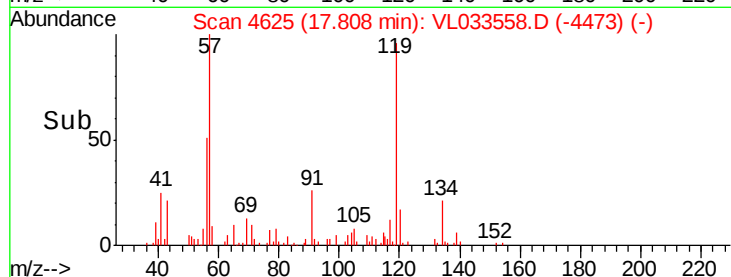
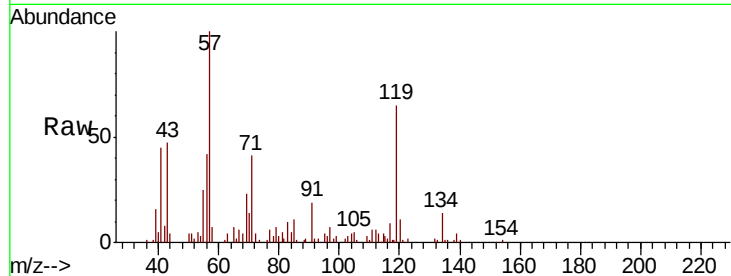
#69
p-Isopropyltoluene
Concen: 0.098 ppbv
RT: 17.81 min Scan# 4625
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion:	119	Resp:	47233
Ion Ratio	Lower	Upper	
119	100		
134	27.9	19.9	29.9
91	29.6	23.4	35.0

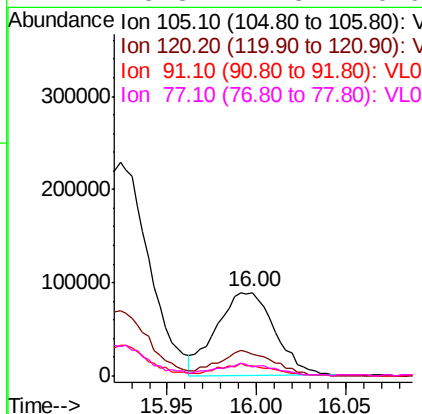
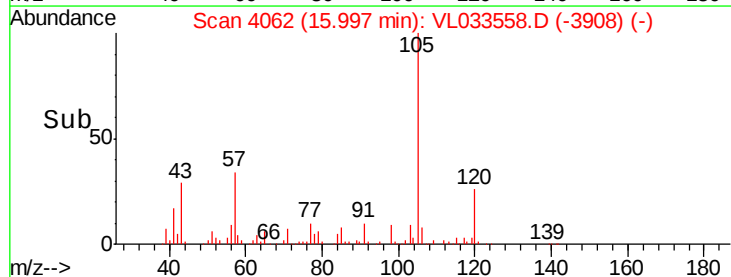
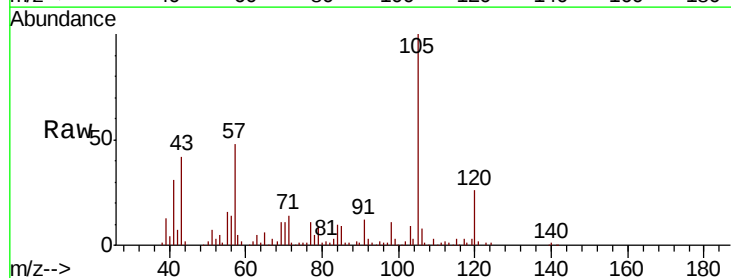
Manual Integrations
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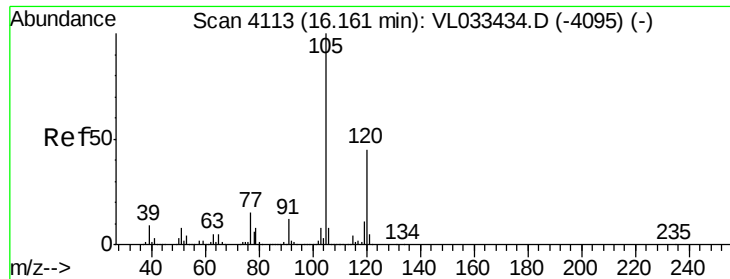
MMDadoda
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#72
4-Ethyltoluene
Concen: 0.541 ppbv
RT: 16.00 min Scan# 4062
Delta R.T. -0.01 min
Lab File: VL033558.D
Acq: 5 Apr 2019 9:07

Tgt Ion:	105	Resp:	202010
Ion Ratio	Lower	Upper	
105	100		
120	29.1	23.2	34.8
91	12.4	10.4	15.6
77	15.3	11.3	16.9





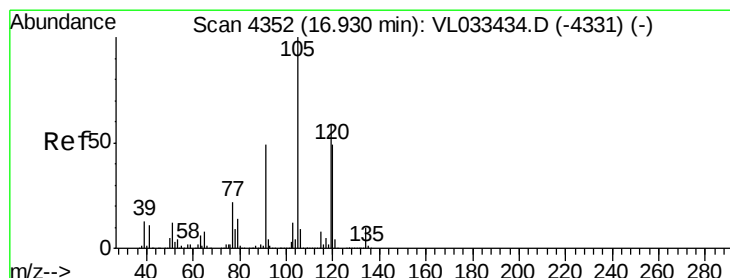
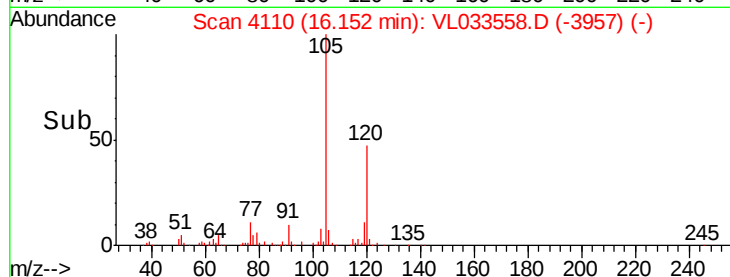
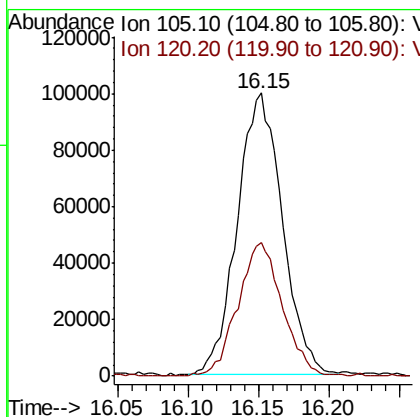
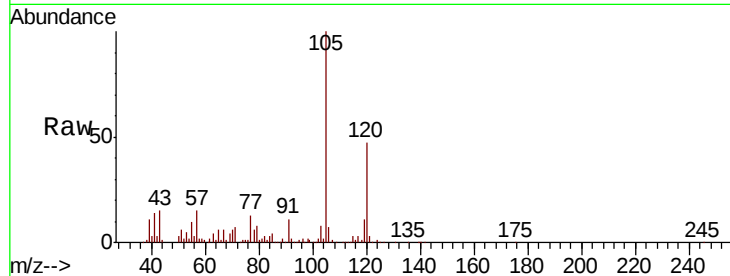
#73
 1,3,5-Trimethylbenzene
 Concen: 0.626 ppbv
 RT: 16.15 min Scan# 4110
 Delta R.T. -0.01 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Instrument :
 MSVOA_L
 ClientSampled :
 SV1

Tot Ion	Ratio	Resp	Lower	Upper
105	100	223751		
120	47.2	35.7	53.5	

Manual Integrations
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#74
 1,2,4-Trimethylbenzene
 Concen: 1.665 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.01 min
 Lab File: VL033558.D
 Acq: 5 Apr 2019 9:07

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	637872		
120	41.8	39.0	58.6	
91	10.6	40.0	60.0#	
77	14.2	17.5	26.3#	

