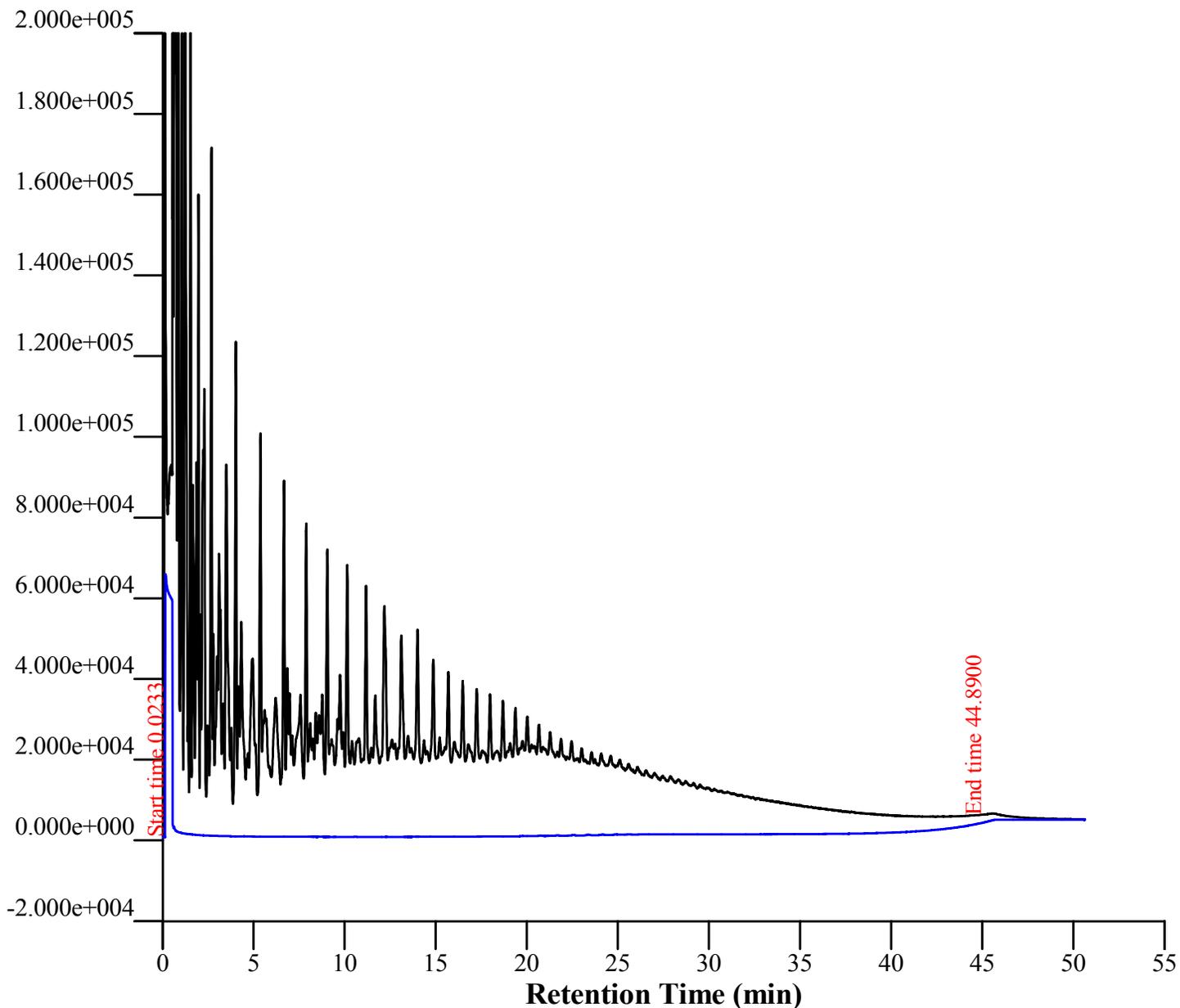


**HTSD1 ASTM High temperature****1**

Sample name	: Gulf of Mexico Deepwater Crude	Vial	: 12
Acquired on	: 08-Aug-07, 02:16:43	Injection	: 1
Processed on	: 8/3/2010 10:23:15 AM	Sample (g)	: 0.0876
Sample type	: Carbon Number	Solvent (g)	: 4.8711
Method name	: ht750c	ISTD (g)	: 0.0000
Operator	: THN		
Sequence name	: 0807A.S		

Data File : 0807A\012F1501.D



**HTSD1 ASTM High temperature****2**

Sample name : Gulf of Mexico Deepwater Crude  
 Acquired on : 08-Aug-07, 02:16:43 Vial : 12  
 Processed on : 8/3/2010 10:23:15 AM Injection : 1  
 Data File : 0807A\012F1501.D

**General Variables**

Used Blank 0807A\011F1401.D  
 Used BP calibrant 0807A\090F0101.D  
 Used Reference 0807A\095F0301.D  
 Solvent start 0.120  
 Solvent end 0.533  
 Quenching factor 2.4  
 Used Start elution (min) 0.023  
 Used End elution (min) 44.890 set  
 Total area 293894753  
 Found Recovery 98.8  
 Used Recovery 98.8  
 Response factor 5.9400e-011

**BP Distribution table - Percent**

Recovered mass%	BP °F						
1.3	96.8	26.0	304.4	51.0	546.0	76.0	828.4
2.0	101.6	27.0	312.4	52.0	554.6	77.0	841.2
3.0	122.8	28.0	318.6	53.0	565.6	78.0	854.6
4.0	141.6	29.0	328.0	54.0	575.8	79.0	868.4
5.0	151.2	30.0	332.4	55.0	584.8	80.0	882.0
6.0	154.8	31.0	344.4	56.0	597.0	81.0	895.6
7.0	164.8	32.0	349.4	57.0	605.0	82.0	909.4
8.0	175.0	33.0	357.8	58.0	618.0	83.0	923.4
9.0	183.8	34.0	370.8	59.0	627.6	84.0	938.0
10.0	192.6	35.0	382.8	60.0	640.8	85.0	953.2
11.0	206.8	36.0	387.8	61.0	651.8	86.0	969.4
12.0	209.8	37.0	398.8	62.0	664.0	87.0	986.4
13.0	211.4	38.0	410.4	63.0	674.4	88.0	1003.8
14.0	220.4	39.0	420.8	64.0	687.2	89.0	1022.8
15.0	225.8	40.0	428.6	65.0	698.0	90.0	1042.6
16.0	235.6	41.0	440.4	66.0	711.2	91.0	1063.4
17.0	238.6	42.0	451.4	67.0	722.2	92.0	1085.8
18.0	244.2	43.0	458.8	68.0	735.0	93.0	1110.2
19.0	258.4	44.0	471.0	69.0	746.6	94.0	1137.4
20.0	263.2	45.0	481.6	70.0	758.0	95.0	1167.4
21.0	270.8	46.0	490.2	71.0	770.4	96.0	1201.6
22.0	275.8	47.0	502.6	72.0	781.6	97.0	1243.4
23.0	283.6	48.0	512.2	73.0	792.4	98.0	1295.8
24.0	288.0	49.0	520.6	74.0	804.6	98.8	1351.0
25.0	300.2	50.0	533.2	75.0	816.2		

**HTSD1 ASTM High temperature****3**

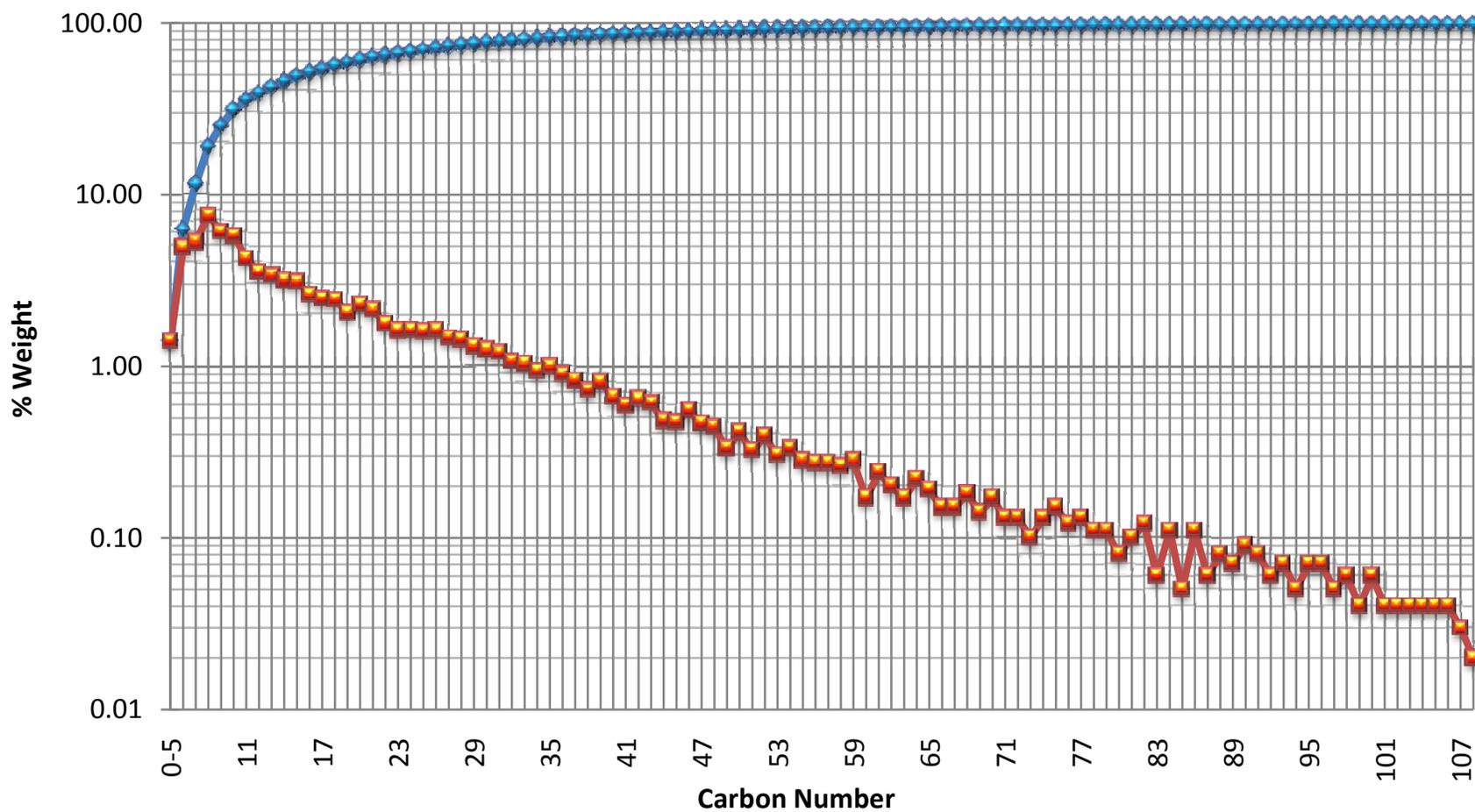
Sample name : Gulf of Mexico Deepwater Crude  
 Acquired on : 08-Aug-07, 02:16:43 Vial : 12  
 Processed on : 8/3/2010 10:23:15 AM Injection : 1  
 Data File : 0807A\012F1501.D

**BP Distribution table - cut points**

BP °F	Recovered mass%	Fraction mass%	BP °F	Recovered mass%	Fraction mass%	BP °F	Recovered mass%	Fraction mass%
97.0	1.41	1.41	972.0	86.16	0.67	1222.0	96.52	0.15
156.0	6.33	4.92	982.0	86.75	0.60	1227.0	96.64	0.12
209.0	11.66	5.33	993.0	87.39	0.64	1233.0	96.77	0.14
259.0	19.29	7.64	1004.0	88.01	0.61	1238.0	96.88	0.11
303.0	25.43	6.14	1013.0	88.50	0.49	1243.0	96.99	0.11
345.0	31.25	5.81	1022.0	88.97	0.47	1247.0	97.07	0.08
385.0	35.55	4.30	1033.0	89.52	0.55	1252.0	97.17	0.10
421.0	39.10	3.55	1042.0	89.98	0.46	1258.0	97.29	0.12
455.0	42.56	3.46	1051.0	90.42	0.44	1261.0	97.35	0.06
489.0	45.76	3.21	1058.0	90.75	0.33	1267.0	97.46	0.11
520.0	48.89	3.13	1067.0	91.17	0.42	1270.0	97.52	0.05
549.0	51.53	2.64	1074.0	91.49	0.32	1276.0	97.62	0.11
576.0	54.03	2.50	1083.0	91.89	0.40	1279.0	97.68	0.06
601.0	56.51	2.48	1090.0	92.19	0.30	1283.0	97.76	0.08
625.0	58.59	2.08	1098.0	92.51	0.33	1287.0	97.84	0.08
651.0	60.90	2.31	1105.0	92.80	0.28	1292.0	97.93	0.09
675.0	63.06	2.16	1112.0	93.07	0.27	1296.0	98.00	0.08
696.0	64.84	1.79	1119.0	93.34	0.27	1299.0	98.06	0.06
716.0	66.49	1.64	1126.0	93.60	0.26	1303.0	98.13	0.07
736.0	68.13	1.65	1134.0	93.88	0.28	1306.0	98.19	0.05
755.0	69.74	1.61	1139.0	94.06	0.17	1310.0	98.26	0.07
774.0	71.39	1.65	1146.0	94.30	0.24	1314.0	98.32	0.07
791.0	72.87	1.49	1152.0	94.51	0.20	1317.0	98.37	0.05
808.0	74.33	1.45	1157.0	94.67	0.17	1321.0	98.43	0.06
824.0	75.65	1.32	1164.0	94.90	0.22	1324.0	98.48	0.04
840.0	76.90	1.26	1170.0	95.08	0.19	1328.0	98.53	0.06
856.0	78.12	1.22	1175.0	95.23	0.15	1331.0	98.58	0.04
871.0	79.21	1.09	1180.0	95.39	0.15	1334.0	98.62	0.04
885.0	80.25	1.04	1186.0	95.56	0.18	1337.0	98.65	0.04
898.0	81.20	0.95	1191.0	95.71	0.14	1340.0	98.69	0.04
912.0	82.21	1.00	1197.0	95.88	0.17	1343.0	98.73	0.04
925.0	83.11	0.90	1202.0	96.01	0.13	1346.0	98.77	0.04
937.0	83.94	0.83	1207.0	96.14	0.13	1349.0	98.80	0.03
948.0	84.67	0.73	1211.0	96.25	0.10	1351.0	98.82	0.02
961.0	85.49	0.82	1216.0	96.37	0.13			

# Gulf of Mexico Deepwater Crude 8/6/07 Carbon Number Report

Triton Analytics Corp. (281) 578-2289



Product Version      Version 6,6,0,0  
 Company             Shell Global Solutions  
 Instrument           HTSD1  
 Application          ASTM High temperature  
 Sample name         **Gulf of Mexico Deepwater Crude**  
 Method name         ht750c  
 Sample type         Carbon Number  
 Vial                 12  
 Injection            1  
 Sequence name       0807A.S  
 Operator             THN  
 Acquired on         08-Aug-07, 02:16:43  
 Processed on         8/8/2007 11:13  
 Data File            C:\HPCHEM\2\DATA\0807A\012F1501.D\FID1A.CH

Carbon Number Report

General Variables	Carbon Number	%wt Cum	%wt	Temp Eq Carbon#
Used Blank	0807A\011F1401.D	0-5	1.40	1.40 97
Used BP calibrant	0807A\090F0101.D	6	6.28	4.88 156
Used Reference	0807A\095F0301.D	7	11.57	5.29 209
Solvent start	0.12	8	19.15	7.58 259
Solvent end	0.533	9	25.24	6.09 303
Quenching factor	2.4	10	31.01	5.77 345
Used Start elution (min)	0.023	11	35.28	4.27 385
Used End elution (min)	44.890 set	12	38.80	3.52 421
Total area	293894753	13	42.23	3.43 455
Found Recovery	98.1	14	45.41	3.18 489
Used Recovery	98.1	15	48.52	3.11 520
Response factor	5.89E-11	16	51.14	2.62 549
		17	53.61	2.48 576
		18	56.08	2.46 601
		19	58.14	2.06 625
		20	60.44	2.30 651
		21	62.58	2.14 675
		22	64.35	1.77 696
		23	65.98	1.63 716
		24	67.62	1.64 736
		25	69.21	1.60 755
		26	70.84	1.63 774
		27	72.32	1.47 791
		28	73.76	1.44 808
		29	75.07	1.31 824
		30	76.31	1.25 840
		31	77.52	1.21 856
		32	78.61	1.08 871
		33	79.64	1.04 885
		34	80.58	0.94 898
		35	81.58	1.00 912
		36	82.48	0.90 925
		37	83.30	0.83 937
		38	84.03	0.72 948
		39	84.84	0.81 961
		40	85.50	0.66 972
		41	86.09	0.59 982
		42	86.73	0.64 993
		43	87.34	0.61 1004
		44	87.82	0.48 1013
		45	88.29	0.47 1022
		46	88.84	0.55 1033
		47	89.29	0.46 1042
		48	89.73	0.44 1051
		49	90.06	0.33 1058
		50	90.47	0.41 1067
		51	90.79	0.32 1074
		52	91.19	0.39 1083
		53	91.48	0.30 1090
		54	91.81	0.33 1098
		55	92.09	0.28 1105
		56	92.36	0.27 1112

BP Distribution table - Percent

Recovered mass%	BP °F	BP °C	Carbon Number	%wt Cum	%wt	Temp Eq Carbon#
1.3	96.8	36.0	21	62.58	2.14	675
2	102.0	38.9	22	64.35	1.77	696
3	123.2	50.7	23	65.98	1.63	716
4	142.2	61.2	24	67.62	1.64	736
5	151.2	66.2	25	69.21	1.60	755
6	154.8	68.2	26	70.84	1.63	774
7	164.8	73.8	27	72.32	1.47	791
8	175.0	79.4	28	73.76	1.44	808
9	184.4	84.7	29	75.07	1.31	824
10	193.8	89.9	30	76.31	1.25	840
11	207.4	97.4	31	77.52	1.21	856
12	209.8	98.8	32	78.61	1.08	871
13	211.6	99.8	33	79.64	1.04	885
14	221.2	105.1	34	80.58	0.94	898
15	226.4	108.0	35	81.58	1.00	912
16	236.0	113.3	36	82.48	0.90	925
17	239.2	115.1	37	83.30	0.83	937
18	245.6	118.7	38	84.03	0.72	948
19	258.8	126.0	39	84.84	0.81	961
20	263.8	128.8	40	85.50	0.66	972
21	271.6	133.1	41	86.09	0.59	982
22	276.2	135.7	42	86.73	0.64	993
23	284.6	140.3	43	87.34	0.61	1004
24	288.6	142.6	44	87.82	0.48	1013
25	302.0	150.0	45	88.29	0.47	1022
26	304.8	151.6	46	88.84	0.55	1033
27	314.0	156.7	47	89.29	0.46	1042
28	319.8	159.9	48	89.73	0.44	1051
29	328.8	164.9	49	90.06	0.33	1058
30	334.6	168.1	50	90.47	0.41	1067
31	345.0	173.9	51	90.79	0.32	1074
32	352.0	177.8	52	91.19	0.39	1083
33	362.0	183.3	53	91.48	0.30	1090
34	372.6	189.2	54	91.81	0.33	1098
35	384.2	195.7	55	92.09	0.28	1105
36	390.6	199.2	56	92.36	0.27	1112

37	403.6	206.4	57	92.63	0.27	1119
38	414.2	212.3	58	92.88	0.26	1126
39	421.8	216.6	59	93.17	0.28	1134
40	431.4	221.9	60	93.34	0.17	1139
41	443.6	228.7	61	93.58	0.24	1146
42	454.2	234.6	62	93.78	0.20	1152
43	462.8	239.3	63	93.95	0.17	1157
44	475.0	246.1	64	94.17	0.22	1164
45	486.6	252.6	65	94.36	0.19	1170
46	494.2	256.8	66	94.51	0.15	1175
47	506.4	263.6	67	94.66	0.15	1180
48	516.8	269.3	68	94.84	0.18	1186
49	525.0	273.9	69	94.98	0.14	1191
50	537.6	280.9	70	95.15	0.17	1197
51	548.4	286.9	71	95.28	0.13	1202
52	559.6	293.1	72	95.41	0.13	1207
53	571.2	299.6	73	95.51	0.10	1211
54	578.2	303.4	74	95.64	0.13	1216
55	589.8	309.9	75	95.78	0.15	1222
56	600.6	315.9	76	95.90	0.12	1227
57	610.8	321.6	77	96.04	0.13	1233
58	624.0	328.9	78	96.14	0.11	1238
59	633.8	334.3	79	96.25	0.11	1243
60	647.2	341.8	80	96.33	0.08	1247
61	657.6	347.6	81	96.43	0.10	1252
62	670.2	354.6	82	96.55	0.12	1258
63	680.8	360.4	83	96.61	0.06	1261
64	693.4	367.4	84	96.72	0.11	1267
65	704.4	373.6	85	96.77	0.05	1270
66	716.2	380.1	86	96.88	0.11	1276
67	729.0	387.2	87	96.94	0.06	1279
68	740.6	393.7	88	97.02	0.08	1283
69	753.2	400.7	89	97.09	0.07	1287
70	764.6	407.0	90	97.18	0.09	1292
71	775.8	413.2	91	97.26	0.08	1296
72	788.0	420.0	92	97.31	0.06	1299
73	799.4	426.3	93	97.39	0.07	1303
74	811.0	432.8	94	97.44	0.05	1306
75	823.4	439.7	95	97.51	0.07	1310
76	836.2	446.8	96	97.57	0.07	1314
77	849.2	454.0	97	97.62	0.05	1317
78	862.8	461.6	98	97.68	0.06	1321
79	876.4	469.1	99	97.73	0.04	1324
80	890.0	476.7	100	97.78	0.06	1328
81	904.0	484.4	101	97.82	0.04	1331
82	918.2	492.3	102	97.86	0.04	1334
83	932.8	500.4	103	97.90	0.04	1337
84	947.8	508.8	104	97.94	0.04	1340
85	963.8	517.7	105	97.98	0.04	1343
86	980.4	526.9	106	98.01	0.04	1346
87	998.0	536.7	107	98.04	0.03	1349
88	1016.4	546.9	108	98.07	0.02	1351
89	1036.4	558.0				
90	1056.8	569.3				
91	1078.8	581.6				
92	1102.8	594.9				
93	1129.2	609.6				
94	1158.6	625.9				
95	1191.8	644.3				
96	1231.4	666.3				
97	1282.2	694.6				
98	1345.0	729.4				
98.1	1351.0	732.8				