



GL01921

COLORADO WELL LOGGING

1019-8th ST., SUITE 308 • GOLDEN, CO 80401 • (303) 279-0171 • TELEX: 45-0286

June 23, 1986

Mr. Joe Iovenitti
Thermal Power Co.
Suite 120
3333 Mendocino Avenue
Santa Rosa, CA 95401

Re: Borehole Geophysical Logging for Clackamas Geothermal Well-Shallow Logging Run.

Dear Joe,

The following letter serves as a report on the shallow logging run for Thermal Power's Clackamas Geothermal Well recorded June 13th, 1986.

The Clackamas Geothermal Well was drilled to 517 feet at 8 3/4 inches and was then logged before running 7" casing and begining core drilling. The logging suite consisted of Temperature, Fluid Resistivity, Gamma, Guard Resistivity, Dual G-G Density, Caliper, 16-64" (short and long) Normal Resistivity, Spontaneous Potential, and Deviation. Drilling was completed June 12th, 1986 and the well had not been circulated for 14.5 hours prior to logging.

The initial logging run consisted of Temperature and Fluid Resistivity. This probe was recorded from the surface (measured at ground level) downward. The temperature log was recorded at a very sensitive scale - 2.0 degrees Kelvin full scale (273 degrees Kelvin = zero degrees Celcius) to help identify near surface hydrologic effects. Depth was set to the temperature log, the fluid resistivity log was offset slightly due to recorder pen configuration. Key points on the temperature log include overall cooling with depth - the bottom hole temperature was 282 degrees Kelvin (9 degrees C, 48 degrees F) versus a fluid temperature at 18 feet (fluid level) of 289 degrees Kelvin. There was a major cooling zone, 3 degrees K, at 130-135 feet. This is indicative of a significant fracture zone. The temperature gradient from 30 to 126 feet and 444 to 490 feet are nearly the same - rapid cooling with depth. The zone from 126 to 355 feet shows significant temperature changes foot by foot, including the zone at 130-135 discussed earlier and a zone from 200-298 which warmed slightly.

The fluid resistivity was approximately 19-20 ohm-M except for the zone at 130 feet in which the fluid resistivity increased to 23 ohm-M. This indicates that this zone was making fresh water.

The second logging run in the well recorded Spontaneous Potential and 16-64" normal resistivity. The depth was set with respect to the 16" normal resistivity log and the other logs were offset slightly due to recorder pen configuration. The initial logging run showed resistivities from 300 to 7000 ohm-M. The log appears to have some high frequency noise superimposed on top of the log response. This noise is a result of the very high resistivity scale used. The SP log also showed what appeared to be noise. The SP and 16-64" logs were repeated to verify the data. The SP log was repeated with a different probe, module, and surface electrode. Therefore, I have a high degree of confidence that the log is valid. Considering that the fresh water (low TDS) used was also the same type of water encountered in the borehole and the unaltered andesitic formations drilled, this SP response is not unusual.

With the rerun of the SP log, a single point resistance log was attempted. However, the formation resistivity was too high and this log could not be recorded. It has a maximum full scale of 1000 ohms with up to 1000 ohms displacement.

A deviation survey was recorded with the rerun of the SP log. This log was run at this time because the deviation can not accurately be made through steel casing. Steel casing has an artificial magnetic field that distorts apparent tool orientation. Digital inclination and orientation readings were made every 10 feet. The borehole was near vertical at the top of the well and from 290-430 feet. There was a small (up to 1.5 degree) inclination to the north from 80-290 feet and an inclination to the south below 430 feet. The bottom 20 feet are inclined up to 2.6 degrees. A magnetic declination of minus 20 degrees East was used for the deviation survey.

The next logging run recorded gamma ray and guard resistivity both digitally and analog. The gamma log was uneventful and repeatable. The gamma log was also the basis for depth calculation. The guard resistivity log showed the same basic signatures as the normal resistivity log but at much lower resistivity values. This is a result of tool design. Highly resistive formations require more power to focus the current at depth. In this case, the tool was seeing very shallow effects of the borehole wall. It is valuable to more accurately pick bed boundaries, but doesn't approximate formation resistivity.

The last logging run recorded dual G-G density and caliper. This log was also simultaneously recorded in both digital and analog format. There was a mistake in recording the analog caliper calibration initially, but was detected during logging and upon post-logging calibration. A repeat section was made and the calibration repeated. The digital data was not effected by this mistake. The only effect of this is that the caliper log doesn't fall exactly on even lines; e.g. 4" is not on the 4th line of the paper.

The dual density data shows lower density (higher apparent porosity) to the right. The depth was set to the long spaced G-G detector. On the analog, the short (near) spaced G-G log is offset downward because of recorder pen configuration. The short spaced G-G log also goes off scale frequently on the analog. It was recorded only to help correlate formation breaks and validate the long density log. It should be noted that the lower density zones were frequently associated with small washouts and significant borehole rugosity.

The following steps will be made to this data for the final report:

1. Attempt to correct the normal resistivity data for borehole fluid resistivity and better approximate formation resistivity.
2. Digitize the analog data not recorded digitally in the field. Replot this data corrected for probe offset.
3. Compensate the dual density data.
4. Make a plan and profile view plot of the deviation data.
5. Integrate this log data with data from the next logging phases.

It is anticipated that most of the processing of this data will be done shortly. I am forwarding several copies of the final analog prints recorded in the field. I will also forward copies of the initial processed logs. If you have any questions about this letter or the data, please call.

Sincerely,



Robert E. Crowder
President

thermall.rep

To: J. Iovenitti
From: D. GOODWIN/A. McDANIEL

Re: Summary of Field Operations for CTGH-1 Shallow Logging Run

Geophysical borehole surveys were run in CTGH-1 on the morning of June 13, 1986. Surveys were performed by Colorado Well Logging employees Robert E. Crowder, Jr., and Robert E. Crowder, Sr. The surveys prescribed by the CTGH-1 Logging Program (temperature, fluid resistance, sp, 16"-64" resistivity, natural gamma, gamma-gamma density, guard resistivity, caliper), along with a deviation survey and an additional SP survey, were completed in five logging runs.

Three maximum recording thermometers (MRT) were run with the logging tool during the first trip. Due to a sustained temperature reversal with depth an ambient temperature which was greater than downhole temperatures, MRT's were not included in subsequent trips.

The hole was open and unobstructed to its total depth at 517 feet. Hole diameter was 8 3/4 inches. Thirty-five feet of 10 3/4 inch ^{diameter} casing was in the top part of the hole. Static water level was 18 feet below ground level.

35 - S17,

100

Trip (3) Spontaneous Potentiometer, Single Point Resistivity, and Deviation

25 rpm, 450, ② 30 rpm

1st pass (logging rates: S17 - 450, ②

turn on S.P. ② 475, - looks the same as

POH logging 16-64 resistivity only S17-475,
in shunts

potentiometer noise difference between the two

R1H to reading 16-64 resistivity without S.P. -

logging 00H ② 25 rpm

07:40 - 07:54 R1H to BH

35 - S17 Trip (2) Spontaneous Potentiometer and 16-64 Resistivity

curved below a maximum temperature at the top of the tube fluid column.
It was decided not to run MRTs on later trips due to the sustained temperature fluctuations

55°F - thermometer isolated from fluids

60°F - sensing open to tube fluids

columns: MRT results: 1 broken - w/ sensing slot ② 35, hard.

07:11 - 07:20 POH

07:03 - 07:11 Stop on bottom

06:38 - 07:03 Log on R1H ② 20 rpm

3 Maximum Registering Thermometers (readings 50, 52, and 55°F)

Trip (1) Temperature and Fluid Resistance 0 - S17,

09:02 - 09:10 RIH to BH

09:10 - 09:30 POH logging @ 25 fpm

Comments: Using new S.P. tool (Trip(2) tool appeared to drift but Trip(3) S.P. had similar response: noisy, flat, drifting).

No Single Point Resistivity record (maximum deflection for tool is $1,000\Omega$ and formation resistivity is $>1,000\Omega$).

Using $20^\circ E$ declination with Deviation Tool.

Trip (4) Natural Gamma 0'-514' and

Guard Resistivity 18'-514'

09:50 - 10:00 RIH to BH

10:00 - 10:22 POH, logging @ 25 fpm

10:22 - 10:28 RIH to 150' to check for repeatability

10:25 - 10:30 Relogging 150' to surface @ 25 fpm (same response)

Comments: Sampling analog record at 0.5' spacing for digital record of log.

Trip (5) Caliper and Gamma-Gamma Density 35'-517'

10:30 - 11:05 Calibrating both tools

11:05 - 11:15 RIH to BH

11:15 - 11:40 POH, logging @ 20 fpm

Comments: Caliper mal functioning, readings systematically narrower than hole by 2"-3"

11:40 - 11:53 Recalibrate caliper and RIH to 150'

11:53 - 11:59 P014; relogging hole @ 20fpm from 150'
to 35'

Comments: Good repeatability on both gamma-gamma resistivity
and caliper. Caliper scale adjusted to accurately reflect hole
diameter. Digital record again sampled at 0.5' spacing.

11:59 - 12:15 Recalibrate gamma-gamma resistivity tool

12:15 - 12:30 Logging operations complete, Rig down and move
to Detroit to copy field logs.

FULVYNOGRAPH

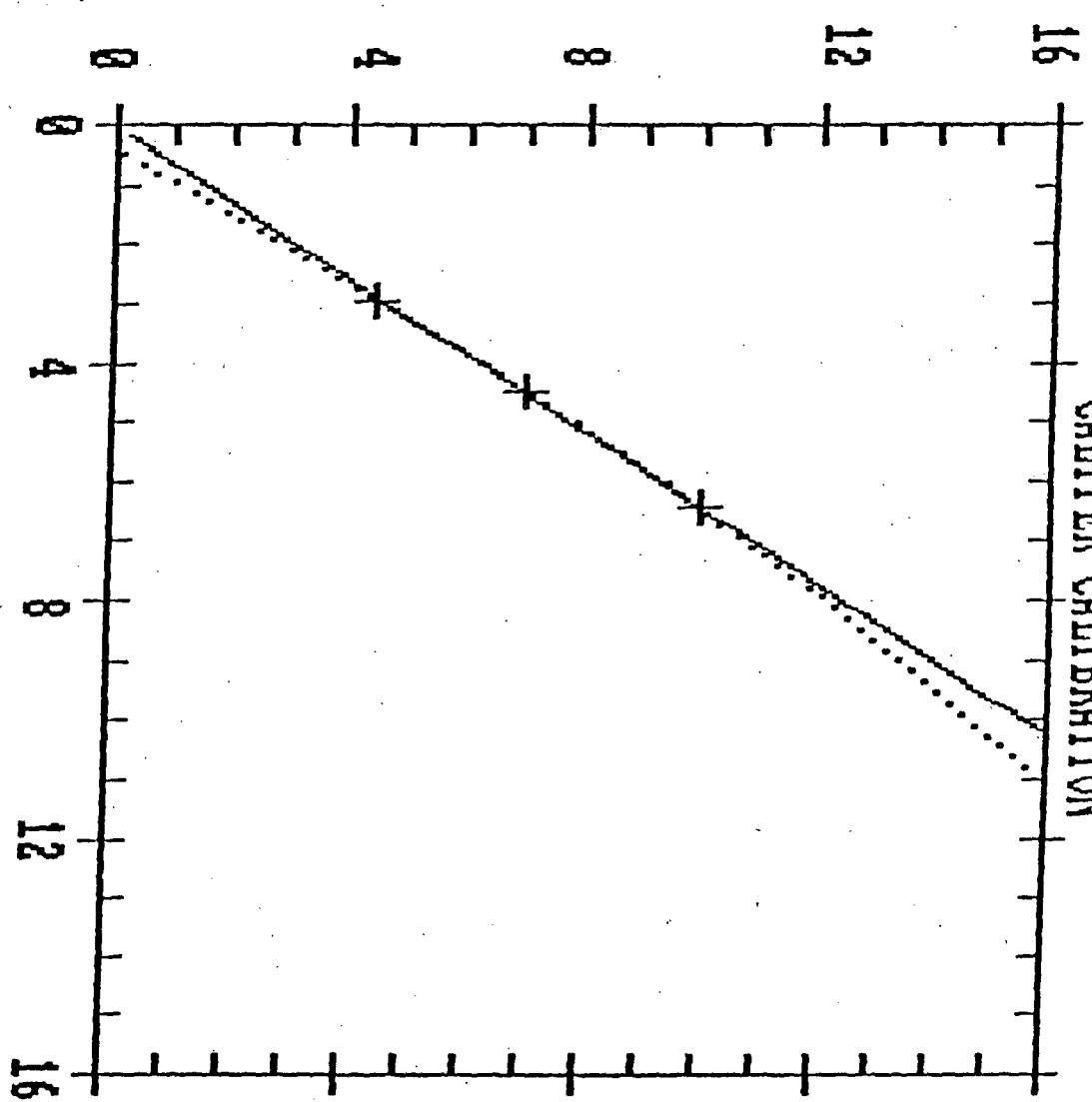
DEGREE PATTERN

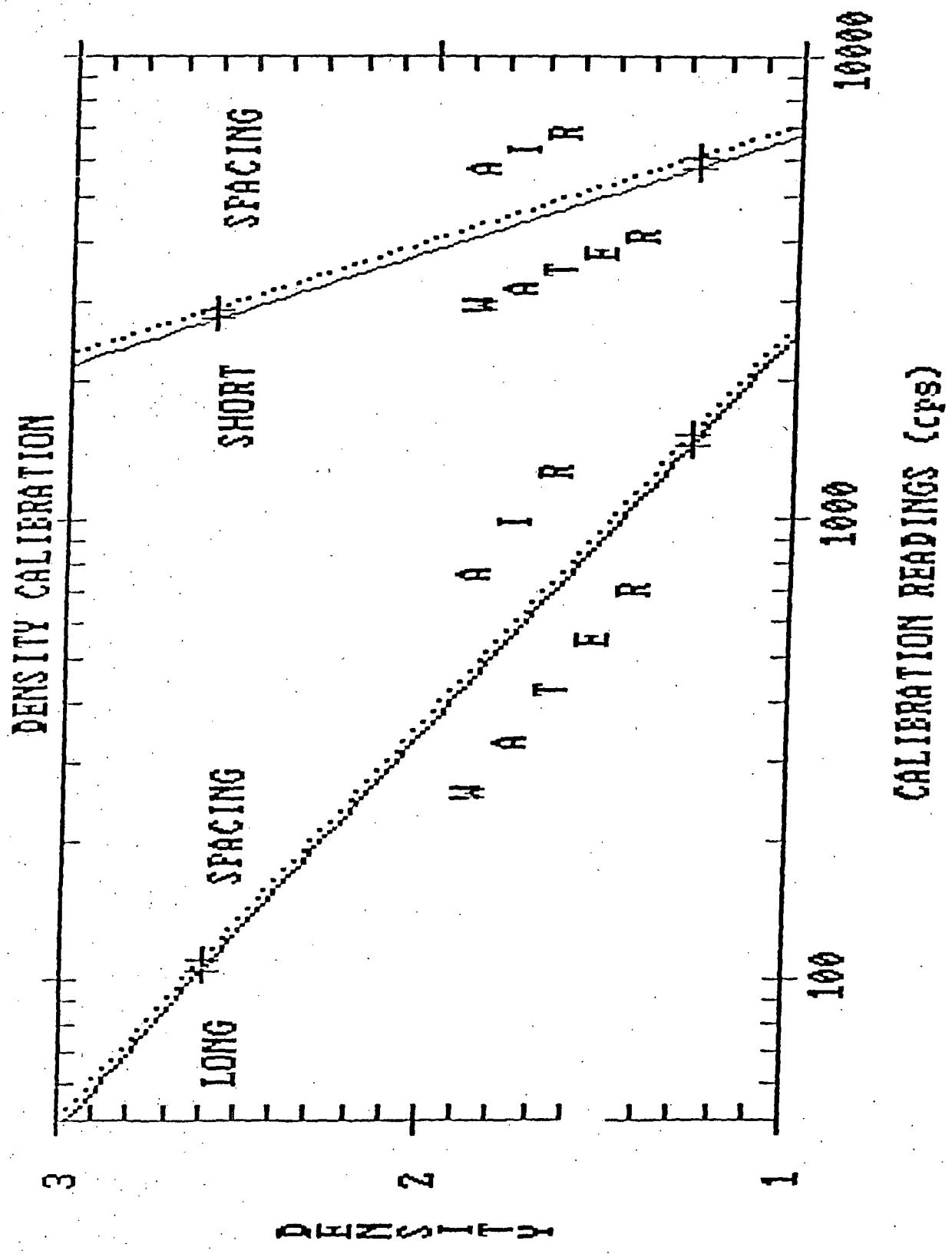
1

2

REFLECTIONS FROM

CALIBRATION READINGS (inches)





CTG 12-1

Calculated Data for SP, shot normal and long normal resistivity (16)
 fluid resistivity, temperature ($^{\circ}$ K and $^{\circ}$ F) and long-spoon density
 (repeat log only).

(ft)	MV	OHM-M	OHM-M	OHM-M	OK	OF	CPS
DEPTH	SP	SN16	LN64	FRES	TEMP K	TEMP F	LSD
35.00	47.40	36.62	45.91	18.93	289.08	60.94	415.28
35.50	46.48	34.57	52.63	18.95	289.06	60.91	494.63
36.00	47.81	28.75	18.74	19.06	289.05	60.90	501.60
36.50	49.26	27.72	-1.30	19.33	289.05	60.90	500.08
37.00	58.97	33.07	-11.64	19.71	289.05	60.90	449.34
37.50	74.34	52.62	-7.48	19.87	289.05	60.90	293.26
38.00	93.01	90.95	-10.51	20.00	289.05	60.90	212.99
38.50	98.20	142.58	-11.18	20.15	289.05	60.88	217.15
39.00	107.18	205.02	1.38	20.11	289.04	60.86	207.83
39.50	117.17	274.09	20.47	20.00	289.02	60.84	145.72
40.00	118.41	368.17	69.22	20.26	289.01	60.82	142.67
40.50	104.52	514.70	137.01	20.51	289.00	60.80	153.97
41.00	91.68	637.65	210.14	20.63	289.00	60.80	144.97
41.50	87.36	698.88	288.67	20.36	289.00	60.80	118.34
42.00	82.08	757.18	515.59	20.05	288.99	60.78	104.29
42.50	71.85	819.78	622.93	19.98	288.97	60.74	97.42
43.00	59.59	849.85	683.57	20.03	288.96	60.72	97.21
43.50	49.34	863.42	712.24	19.97	288.95	60.70	105.29
44.00	39.61	866.72	733.20	19.65	288.94	60.70	131.23
44.50	28.95	861.74	753.20	19.46	288.94	60.70	164.11
45.00	19.47	816.38	767.76	19.48	288.94	60.69	198.07
45.50	13.80	745.00	782.99	19.46	288.93	60.68	219.56
46.00	7.66	686.65	806.49	19.47	288.93	60.67	236.67
46.50	2.99	651.05	841.55	19.43	288.92	60.66	260.31
47.00	-2.25	622.51	854.19	19.40	288.92	60.65	277.55
47.50	-7.57	599.97	867.35	19.65	288.91	60.63	264.74
48.00	-12.65	580.14	868.60	19.86	288.90	60.63	228.37
48.50	-19.16	575.23	864.21	19.93	288.91	60.63	218.59
49.00	-24.04	575.05	858.93	19.94	288.91	60.64	218.73

100.50	57.88	508.06	898.24	21.97	288.14	9.25	163.02
101.00	57.60	528.26	886.57	22.03	288.12	13.80	138.77
101.50	59.59	524.73	879.95	21.97	288.12	11.22	119.22
102.00	63.69	589.73	904.58	21.76	288.11	12.21	120.73
102.50	66.85	636.06	858.15	21.50	288.11	10.29	135.35
103.00	68.00	661.09	869.91	21.32	288.10	9.99	149.35
103.50	69.21	672.04	893.87	21.13	288.09	9.17	185.10
104.00	69.13	674.30	934.70	21.08	288.09	9.15	230.21
104.50	66.48	669.32	898.14	21.05	288.08	9.14	282.56
105.00	63.21	651.97	967.91	21.02	288.07	9.13	295.64
105.50	64.25	645.41	1038.70	21.00	288.07	9.12	310.64
106.00	65.15	641.79	1013.78	21.00	288.06	9.11	355.52
106.50	62.30	635.64	1026.37	21.00	288.05	9.10	346.43
107.00	61.30	634.92	1000.21	21.00	288.04	9.09	430.09
107.50	37.30	643.71	998.25	21.00	288.03	9.08	494.76
108.00	60.31	648.39	975.91	21.00	288.02	9.07	436.31
108.50	70.25	652.63	885.01	21.00	288.01	9.06	333.02
109.00	71.64	646.40	868.60	21.00	288.00	9.05	250.00
110.00	69.28	651.63	806.89	21.00	288.00	9.04	277.84
110.50	67.38	600.13	874.89	21.00	288.00	9.03	303.23
111.00	68.55	600.94	807.24	21.00	288.00	9.02	346.00
111.50	64.00	575.92	820.04	21.00	288.00	9.01	435.51
112.00	63.16	527.92	777.26	21.00	288.00	9.00	348.23
112.50	70.72	506.20	700.61	21.00	288.00	9.00	319.71
113.00	73.38	493.38	731.39	21.00	288.00	9.00	306.77
113.50	72.96	477.70	726.13	21.00	288.00	9.00	288.55
114.00	72.58	460.21	787.13	21.00	288.00	9.00	251.75
114.50	71.50	440.72	799.13	21.00	288.00	9.00	306.41
115.00	66.16	436.62	764.56	21.00	288.00	9.00	304.20
115.50	64.28	423.77	823.28	21.00	288.00	9.00	241.49
116.00	68.89	414.97	788.65	21.00	288.00	9.00	224.69
116.50	68.47	411.78	764.16	21.00	288.00	9.00	229.96
117.00	69.69	393.09	793.48	21.00	288.00	9.00	209.39
117.50	72.34	394.91	748.45	21.00	288.00	9.00	235.17
118.00	69.08	396.00	658.06	21.00	288.00	9.00	278.95
118.50	70.02	413.71	701.68	21.00	288.00	9.00	237.75
119.00	63.95	400.70	750.05	21.00	288.00	9.00	216.87
119.50	86.06	411.91	763.51	21.00	288.00	9.00	241.71
120.00	88.53	416.59	815.24	21.00	288.00	9.00	262.32
120.50	87.56	399.87	745.29	21.00	288.00	9.00	267.74
121.00	88.49	409.34	718.48	21.00	288.00	9.00	287.31
121.50	87.99	417.04	733.75	21.00	288.00	9.00	287.71
122.00	87.29	415.08	700.34	21.00	288.00	9.00	287.69
122.50	85.48	413.16	758.03	21.00	288.00	9.00	287.67
123.00	86.51	431.84	775.71	21.00	288.00	9.00	287.73
123.50	87.40	456.53	783.95	21.00	288.00	9.00	287.72
124.00	90.41	478.26	753.93	21.00	288.00	9.00	287.71
124.50	89.61	500.42	777.00	21.00	288.00	9.00	236.24
125.00	90.44	524.97	859.70	21.00	288.00	9.00	174.02
125.50	89.53	546.50	938.47	21.00	288.00	9.00	133.39
126.00	91.34	570.97	921.37	21.00	288.00	9.00	128.68
126.50	93.55	598.58	910.43	21.00	288.00	9.00	124.91
127.00	95.08	648.79	932.94	21.00	288.00	9.00	119.74
127.50	97.23	747.59	931.93	21.00	288.00	9.00	116.31
128.00	94.92	788.03	1001.75	21.00	288.00	9.00	140.63
128.50	92.30	832.41	1213.41	21.00	288.00	9.00	149.92
129.00	92.50	872.20	1249.46	21.00	288.00	9.00	123.16
129.50	95.08	883.23	1232.49	21.00	288.00	9.00	110.76
130.00	97.20	901.07	1185.44	21.00	288.00	9.00	94.30
130.50	92.50	920.41	1158.13	21.00	288.00	9.00	94.30
131.00	95.08	953.61	1119.82	21.00	288.00	9.00	97.97
131.50	97.23	981.73	987.92	21.00	288.00	9.00	102.61
132.00	94.92	1002.30	968.02	21.00	288.00	9.00	134.17
132.50	90.56	1051.95	958.15	21.00	288.00	9.00	229.52
133.00	69.74	1065.74	951.83	21.00	288.00	9.00	182.05
133.50	99.77	928.73	1019.48	21.00	288.00	9.00	241.80
134.00	102.19	837.24	972.15	21.00	288.00	9.00	224.91
134.50	95.06	769.36	951.83	21.00	288.00	9.00	236.40
135.00	89.88	709.91	921.43	21.00	288.00	9.00	208.40
135.50	102.93	654.87	904.88	21.00	288.00	9.00	190.04
136.00	101.56	616.63	876.38	21.00	288.00	9.00	149.36
136.50	101.56	571.13	721.05	21.00	288.00	9.00	148.43
137.00	102.47	552.53	861.81	21.00	288.00	9.00	142.42
137.50	102.47	543.72	952.75	21.00	288.00	9.00	140.40
138.00	101.56	539.39	866.07	21.00	288.00	9.00	135.40
138.50	102.47	538.41	798.22	21.00	288.00	9.00	134.40
139.00	101.56	541.49	855.85	21.00	288.00	9.00	133.40
139.50	102.47	542.11	880.91	21.00	288.00	9.00	132.40
140.00	95.39	20.33	841.01	21.00	288.00	9.00	121.40
140.50	96.96	550.01	831.42	21.00	288.00	9.00	119.39
141.00	96.96	568.66	789.47	21.00	288.00	9.00	118.40
141.50	101.41	555.65	766.03	21.00	288.00	9.00	117.40
142.00	95.39	532.46	843.32	21.00	288.00	9.00	116.40
142.50	92.78	566.66	914.70	21.00	288.00	9.00	115.40
143.00	91.49	568.29	867.46	21.00	288.00	9.00	114.40
143.50	102.93	555.08	872.44	21.00	288.00	9.00	113.40
144.00	102.93	555.65	766.03	21.00	288.00	9.00	112.40
144.50	99.15	532.46	843.32	21.00	288.00	9.00	111.40
145.00	99.39	566.66	914.70	21.00	288.00	9.00	110.40
145.50	96.34	582.01	867.46	21.00	288.00	9.00	109.40
146.00	97.53	593.05	995.50	21.00	288.00	9.00	108.40
146.50	97.53	603.43	1028.28	21.00	288.00	9.00	107.40

150.00	92.35	710.99	938.08	864.00
150.00	90.90	722.91	921.05	844.00
151.00	95.93	735.97	937.67	844.00
151.00	98.00	716.94	949.44	844.00
152.00	98.00	723.90	963.53	844.00
153.00	95.14	693.45	972.41	844.00
154.00	93.56	601.60	979.60	844.00
154.00	88.97	580.99	949.62	844.00
155.00	88.95	560.01	974.35	844.00
156.00	86.86	553.68	907.27	844.00
156.00	86.59	560.29	1038.72	844.00
157.00	87.72	567.02	996.49	844.00
158.00	88.40	564.73	968.56	844.00
158.00	85.41	573.73	1006.57	844.00
159.00	86.14	417.79	1074.53	844.00
160.00	90.68	642.20	998.33	844.00
160.00	91.81	693.85	1037.13	844.00
161.00	90.53	719.85	1141.49	844.00
161.00	91.11	747.10	1006.98	844.00
162.00	92.94	842.48	933.64	844.00
162.00	93.82	875.70	934.32	844.00
163.00	94.18	837.69	983.96	844.00
164.00	91.72	827.86	990.58	844.00
164.50	91.31	790.32	961.75	844.00
165.00	92.30	729.56	876.63	844.00
165.50	88.87	658.83	746.86	844.00
166.00	87.54	605.59	805.17	844.00
167.00	79.08	563.74	811.06	844.00
167.50	90.70	526.68	735.45	844.00
168.00	92.01	502.27	753.08	844.00
168.50	89.79	476.59	673.55	844.00
169.00	90.00	443.66	754.49	844.00
169.50	90.64	437.31	766.69	844.00
170.00	90.55	426.14	747.16	844.00
170.50	90.25	421.26	744.40	844.00
171.00	92.31	416.85	743.03	844.00
171.50	95.74	408.05	737.32	844.00
172.00	95.73	407.74	741.99	844.00
172.50	95.64	398.62	749.77	844.00
173.00	95.90	418.62	745.95	844.00
173.50	95.70	428.93	716.42	844.00
174.00	95.18	425.92	733.59	844.00
174.50	94.81	428.96	776.68	844.00
175.00	93.98	433.29	793.66	844.00
175.50	94.64	441.29	805.45	844.00
176.00	96.52	442.98	842.34	844.00
176.50	95.42	449.38	821.74	844.00
177.00	94.19	459.17	818.76	844.00
177.50	93.86	474.58	824.23	844.00
178.00	91.68	487.54	859.41	844.00
178.50	89.44	518.83	928.85	844.00
179.00	92.40	547.02	971.81	844.00
180.00	91.66	561.83	1007.40	844.00
180.50	83.85	588.72	1019.92	844.00
181.00	56.53	628.55	959.38	844.00
181.50	69.15	664.85	962.30	844.00
182.00	91.61	728.85	968.29	844.00
182.50	90.47	744.49	1070.30	844.00
183.00	90.27	762.91	1082.56	844.00
183.50	89.14	790.56	1052.31	844.00
184.00	82.13	779.40	1094.30	844.00
184.50	82.99	767.27	1068.33	844.00
185.00	81.20	752.25	1014.51	844.00
185.50	76.86	751.24	1076.40	844.00
186.00	75.29	746.58	1102.32	844.00
186.50	77.03	739.06	1031.27	844.00
187.00	77.14	718.49	985.03	844.00
187.50	76.16	699.36	1062.06	844.00
188.00	81.12	683.89	1082.87	844.00
188.50	85.19	669.82	1050.50	844.00
189.00	83.45	643.95	1030.57	844.00
189.50	81.70	651.02	1080.43	844.00
190.00	83.14	652.75	1069.92	844.00
191.00	84.30	606.34	1063.38	844.00
191.50	85.20	589.12	1043.98	844.00
192.00	84.54	603.72	1191.77	844.00
192.50	82.51	610.45	1119.22	844.00
193.00	78.35	595.76	1083.62	844.00
193.50	78.40	595.60	1045.42	844.00
194.00	81.62	603.43	1085.42	844.00
194.50	81.65	598.81	1056.03	844.00
195.00	80.20	585.47	1103.97	844.00
195.50	84.72	597.06	1145.67	844.00
196.00	83.37	636.83	1150.57	844.00
196.50	86.68	625.83	652.48	844.00
197.00	83.92	629.60	120.37	844.00
197.50	57.57	440.44	74.74	844.00

1. 14	75. 47	1142. 35	17. 50	884. 50
82. 04	798. 76	1141. 58	19. 60	884. 40
84. 45	816. 11	1107. 19	19. 75	884. 54
82. 28	887. 88	997. 82	19. 59	884. 77
82. 30	883. 25	1116. 96	19. 42	884. 88
78. 55	827. 02	1066. 71	19. 62	884. 88
78. 63	759. 35	1054. 83	19. 80	884. 88
82. 42	729. 34	1044. 02	19. 93	884. 88
82. 17	693. 70	1026. 77	19. 97	884. 88
81. 08	656. 09	1042. 49	19. 80	884. 88
87. 53	649. 12	1003. 07	19. 66	884. 88
86. 26	636. 64	1028. 62	19. 50	884. 88
86. 79	602. 92	1072. 76	19. 59	884. 88
84. 53	608. 63	1131. 87	19. 72	884. 88
83. 14	579. 00	987. 90	19. 85	884. 40
79. 66	578. 05	1051. 81	19. 91	884. 40
86. 14	578. 86	1028. 28	19. 81	884. 41
86. 38	578. 05	983. 93	19. 74	884. 44
85. 12	578. 28	993. 66	19. 68	884. 50
88. 07	578. 51	1035. 07	19. 62	884. 52
80. 50	578. 65	1000. 28	19. 79	884. 50
87. 85	642. 48	1042. 40	19. 84	884. 46
87. 98	650. 14	1043. 48	19. 93	884. 43
87. 98	672. 69	1094. 77	19. 79	884. 40
89. 28	668. 10	1186. 03	19. 84	884. 37
87. 60	707. 45	1214. 64	19. 95	884. 36
84. 28	713. 19	1217. 38	19. 82	884. 35
87. 39	729. 80	1322. 26	19. 46	884. 35
88. 99	751. 99	1236. 46	19. 20	884. 36
83. 86	799. 61	1151. 58	19. 24	884. 29
83. 31	853. 65	1294. 47	19. 09	884. 41
81. 38	902. 44	1326. 91	19. 06	884. 40
89. 44	944. 56	1342. 87	19. 13	884. 17
90. 60	983. 03	1362. 91	19. 18	884. 14
90. 61	997. 97	1390. 04	19. 18	884. 14
91. 52	996. 82	1402. 81	19. 25	884. 17
93. 49	972. 81	1336. 12	19. 27	884. 22
93. 85	977. 62	1301. 62	19. 59	884. 54
91. 67	961. 69	1298. 64	19. 56	884. 51
87. 81	938. 35	1288. 96	19. 37	884. 49
223. 50	914. 71	1268. 63	19. 27	884. 40
75. 60	887. 99	1266. 89	19. 59	884. 39
72. 00	859. 22	1261. 75	19. 77	884. 40
90. 03	830. 80	1175. 84	19. 88	884. 38
87. 15	802. 54	1208. 57	19. 63	884. 34
84. 97	741. 91	1230. 95	19. 40	884. 31
81. 25	712. 88	1185. 85	19. 24	884. 24
76. 22	701. 51	1117. 45	19. 77	884. 17
81. 39	692. 65	1118. 94	19. 82	884. 11
78. 81	678. 73	1234. 17	19. 90	884. 07
82. 00	641. 35	948. 84	19. 95	884. 03
83. 39	651. 15	943. 28	19. 96	884. 02
71. 29	636. 90	1034. 92	19. 97	884. 00
84. 99	620. 66	910. 82	19. 73	884. 97
76. 98	606. 69	918. 21	18. 90	884. 96
74. 03	600. 64	991. 50	18. 83	884. 97
81. 92	608. 22	937. 28	18. 72	884. 07
82. 62	602. 45	924. 36	18. 73	884. 06
87. 91	5558. 14	950. 67	18. 82	884. 18
91. 65	551. 32	942. 81	18. 82	884. 24
91. 35	527. 97	933. 39	18. 73	884. 11
90. 90	528. 80	930. 77	18. 73	884. 12
91. 82	527. 30	918. 86	18. 83	884. 25
92. 74	521. 48	938. 94	18. 83	884. 26
92. 70	515. 42	940. 93	18. 83	884. 27
101. 26	515. 44	935. 51	19. 19	884. 28
103. 12	505. 28	948. 13	19. 20	884. 20
100. 33	501. 06	934. 54	19. 18	884. 14
100. 19	501. 72	870. 78	19. 21	884. 09
98. 69	513. 96	866. 01	19. 18	884. 03
97. 29	509. 39	813. 96	19. 17	884. 03
96. 95	504. 05	700. 51	19. 11	884. 03
91. 03	502. 13	877. 70	19. 33	884. 04
70. 77	497. 81	900. 65	19. 25	884. 04
93. 22	491. 50	879. 89	19. 12	884. 04
96. 69	454. 30	888. 37	19. 08	884. 27
100. 91	463. 94	886. 42	19. 37	884. 20
99. 04	495. 32	873. 29	19. 42	884. 14
101. 45	487. 57	847. 65	19. 40	884. 09
101. 39	496. 09	830. 97	19. 35	884. 03
100. 98	506. 87	854. 03	19. 27	884. 03
102. 72	496. 18	888. 26	19. 41	884. 05
102. 03	499. 02	885. 05	19. 26	884. 03
100. 76	498. 00	815. 73	19. 26	884. 03
99. 57	498. 71	793. 54	19. 05	884. 03
96. 20	497. 50	824. 74	19. 05	884. 03
92. 72	497. 50	824. 74	19. 05	884. 03
98. 95	497. 50	824. 74	19. 05	884. 03

249.00	93.22	506.82	821.11	19.29	283.69	1.24
249.50	93.75	513.68	797.97	19.17	283.65	1.16
250.00	86.36	508.68	809.86	19.03	283.64	1.15
250.50	76.74	507.83	885.17	19.03	283.65	1.17
251.00	85.79	517.80	961.13	19.10	283.67	1.21
251.50	91.24	521.29	967.19	18.92	283.78	1.40
252.00	100.34	538.77	896.54	18.86	283.77	1.33
252.50	94.38	530.47	977.09	19.08	283.74	1.34
253.00	89.35	540.03	958.24	18.99	283.74	1.34
253.50	90.98	555.56	1012.51	18.94	283.74	1.34
254.00	91.71	586.23	1017.97	18.97	283.73	1.34
254.50	96.01	614.56	949.83	19.06	283.74	1.34
255.00	91.28	621.57	1023.50	19.89	283.80	1.55
255.50	90.78	646.38	1069.46	19.89	283.86	1.60
256.00	99.73	694.09	1000.42	19.85	283.89	1.62
256.50	98.43	708.44	1100.08	19.72	283.90	1.63
257.00	96.76	740.45	1254.83	19.62	283.91	1.64
257.50	98.74	752.08	1087.06	19.67	283.91	1.64
258.00	101.34	775.79	1096.23	19.38	283.91	1.64
258.50	103.91	790.88	1111.44	19.16	283.90	1.64
259.00	104.42	769.62	1157.54	19.08	283.80	1.64
259.50	104.60	753.24	1176.61	19.10	283.86	1.64
260.00	104.64	772.48	1048.52	19.37	283.89	1.64
261.00	100.02	750.36	1186.74	19.35	283.80	1.44
262.00	94.68	722.95	1153.06	18.87	283.78	1.41
262.50	96.72	712.17	1108.10	18.76	283.80	1.41
263.00	102.13	687.97	1148.34	18.82	283.86	1.44
263.50	95.17	668.58	1182.00	18.88	283.90	1.50
264.00	100.09	674.30	1127.87	18.88	283.97	1.45
264.50	103.88	652.63	1144.25	19.10	284.01	1.48
265.00	102.99	658.90	1183.94	19.20	284.07	1.61
265.50	101.96	626.93	1223.46	19.21	284.11	1.74
266.00	97.53	606.29	1172.08	19.12	284.03	1.81
266.50	93.62	601.19	1079.94	19.17	284.01	1.92
267.00	105.96	597.58	1041.92	19.19	284.07	2.00
267.50	108.30	592.11	1036.76	19.47	284.10	2.02
268.00	107.52	586.63	1050.33	19.50	284.16	2.05
268.50	106.44	587.93	1058.27	19.12	284.21	2.17
269.00	109.83	592.00	1007.18	18.77	284.03	2.21
269.50	111.35	580.79	1004.76	18.85	284.01	2.24
270.00	105.50	577.00	1047.51	19.00	284.98	2.27
270.50	104.06	582.35	1041.80	18.95	284.94	2.27
271.00	106.58	579.06	1016.76	18.92	284.93	2.27
271.50	105.68	571.36	1007.10	18.97	283.92	2.27
272.00	102.52	567.84	1113.44	19.06	283.92	2.27
272.50	104.34	558.89	1107.15	19.16	284.00	2.27
273.00	107.93	552.60	1066.63	19.21	284.10	2.27
273.50	106.33	580.80	1108.54	19.26	284.16	2.27
274.00	101.52	591.08	1136.50	18.97	284.21	2.27
274.50	103.31	591.88	1062.18	18.84	284.24	2.27
275.00	109.86	598.10	1072.10	18.86	284.25	2.27
275.50	112.15	611.71	1226.34	18.90	284.08	2.27
276.00	111.29	630.18	1045.71	18.88	284.07	2.27
276.50	109.55	650.24	1016.61	18.90	284.15	2.27
277.00	111.40	664.28	1004.27	18.94	284.16	2.27
277.50	114.47	684.44	999.56	18.92	284.19	2.27
278.00	114.74	671.91	979.39	18.89	284.21	2.27
278.50	114.69	672.54	964.13	18.85	284.25	2.27
279.00	115.04	696.46	1084.06	19.00	284.19	2.27
279.50	115.44	674.35	1140.53	19.35	284.23	2.27
280.00	115.13	620.07	1119.76	19.61	284.23	2.27
280.50	113.91	618.08	1069.16	19.48	284.25	2.27
281.00	113.64	612.71	1074.63	19.32	284.26	2.27
281.50	113.74	602.68	1123.11	19.25	284.26	2.27
282.00	109.98	591.63	1127.90	19.13	284.27	2.27
282.50	108.69	579.30	1106.58	19.01	284.27	2.27
283.00	102.86	585.28	1094.04	18.97	284.28	2.27
283.50	108.92	580.46	1085.97	18.94	284.29	2.27
284.00	112.81	580.79	1053.58	18.97	284.30	2.27
284.50	112.51	599.55	1105.25	19.06	284.24	2.27
285.00	112.81	607.44	1127.77	19.08	284.24	2.27
285.50	109.72	607.48	1159.32	19.01	284.24	2.27
286.00	108.90	609.61	1178.23	18.86	284.24	2.27
286.50	110.33	620.33	1193.80	18.82	284.24	2.27
287.00	110.97	639.60	1240.82	18.97	284.24	2.27
288.00	115.28	666.17	1244.11	19.09	284.24	2.27
288.50	116.36	714.81	1255.38	19.15	284.24	2.27
289.00	116.68	762.34	1332.97	19.11	284.24	2.27
289.50	115.89	786.54	1393.01	19.00	284.24	2.27
290.00	114.35	793.21	1466.92	18.85	284.22	1.9
290.50	100.82	891.52	1507.88	18.73	284.20	1.6
291.00	91.42	950.79	1557.10	18.67	284.20	1.6
291.50	115.44	998.41	1690.02	18.66	284.20	1.7
292.00	116.84	1040.43	1718.86	18.77	284.07	1.81
292.50	115.61	1096.23	1813.85	18.88	284.04	1.87
293.00	114.89	1152.90	2036.06	18.90	284.13	2.03
293.50	115.93	1214.85	2086.80	18.91	284.20	1.72
294.00	111.17	1223.16	2093.58	18.87	284.15	1.72
294.50	112.22	1262.27	2191.38	18.78	284.15	1.72
295.00	114.66	1304.20	2171.12	18.80	284.15	1.72
295.50	112.81	1326.69	2344.30	18.96	284.15	1.72
296.00	111.31	1344.65	2543.13	18.96	284.15	1.72

298.50	107.11	1407.63	2569.77	19.21	284.80	4.92
299.00	107.97	1433.99	2518.77	19.27	284.60	8.99
299.50	104.79	1462.05	2519.63	19.40	284.00	8.88
300.00	101.77	1473.99	2516.20	19.51	284.00	8.88
300.50	107.58	1476.69	2494.52	19.43	284.00	8.88
301.00	110.35	1469.68	2499.57	19.46	284.04	8.63
301.50	106.46	1463.21	2463.50	19.72	284.03	7.81
302.00	103.84	1473.41	2449.60	19.84	284.02	7.21
302.50	109.33	1444.09	2387.57	19.86	284.04	6.63
303.00	105.96	1432.33	2244.39	19.51	284.03	5.99
303.50	106.70	1385.05	2126.13	19.18	284.03	5.39
304.00	98.81	1339.11	1914.33	18.87	284.02	4.71
304.50	102.97	1287.43	1865.80	18.76	284.04	4.04
305.00	108.60	1239.97	1766.91	18.78	283.96	3.92
305.50	109.40	1189.17	1715.32	18.80	283.92	3.82
306.00	110.42	1134.26	1639.05	18.76	283.85	3.77
306.50	112.01	1074.37	1611.30	18.70	283.78	3.71
307.00	111.54	996.96	1584.01	18.71	283.77	3.67
307.50	111.16	921.64	1591.86	18.78	283.82	3.62
308.00	111.33	867.63	1501.13	18.78	283.97	3.59
308.50	110.27	836.60	1456.73	18.77	284.04	3.59
309.00	114.15	816.13	1420.28	18.73	284.05	3.59
309.50	114.92	802.87	1408.67	18.71	284.00	3.59
310.00	114.97	797.82	1351.00	18.90	284.09	3.59
311.00	114.86	809.67	1337.02	18.85	284.09	3.59
311.50	114.28	805.73	1346.54	18.86	284.09	3.59
312.00	112.94	781.26	1349.19	18.86	284.09	3.59
312.50	112.24	782.28	1350.57	18.87	284.09	3.59
313.00	113.81	787.12	1350.58	18.87	284.09	3.59
313.50	111.74	787.88	1344.92	18.88	284.09	3.59
314.00	104.02	788.48	1244.74	18.89	284.00	3.59
314.50	95.87	788.14	1329.97	19.13	284.02	3.44
315.00	105.75	784.15	1301.66	19.16	284.04	3.44
315.50	111.29	779.79	1296.36	19.12	284.05	3.44
316.00	109.93	773.88	1253.23	19.09	284.05	3.44
316.50	110.06	767.45	1281.13	19.03	284.05	3.44
317.00	111.73	759.42	1302.80	19.02	284.05	3.44
317.50	110.96	735.79	1256.01	19.02	284.05	3.44
318.00	108.91	737.15	1290.21	19.05	284.05	3.44
318.50	108.20	722.34	1306.90	19.05	284.05	3.44
319.00	110.57	728.53	1284.85	18.91	284.05	3.44
319.50	111.32	708.30	1266.97	18.75	284.05	3.44
320.00	109.30	717.02	1321.07	18.84	284.05	3.44
320.50	110.01	725.05	1351.53	18.86	284.05	3.44
321.00	113.13	712.83	1380.24	18.81	284.05	3.44
321.50	110.29	735.93	1405.66	18.79	284.05	3.44
322.00	99.56	750.67	1407.64	18.83	284.05	3.44
322.50	106.49	756.03	1448.82	18.93	284.05	3.44
323.00	110.67	765.23	1558.21	19.01	284.05	3.44
323.50	111.08	784.81	1453.90	19.01	284.05	3.44
324.00	100.04	820.64	1506.95	19.15	284.05	3.44
324.50	97.30	875.20	1484.80	19.30	284.05	3.44
325.00	109.64	895.52	1548.40	19.45	284.05	3.44
325.50	110.72	919.93	1511.55	19.42	284.05	3.44
326.00	105.75	955.71	1590.68	19.20	284.05	3.44
326.50	109.49	993.08	1656.75	19.17	284.05	3.44
327.00	111.16	1009.69	1709.34	19.31	284.05	3.44
327.50	110.18	1067.26	1837.40	19.44	284.05	3.44
328.00	107.84	1080.29	1852.70	19.54	284.05	3.44
328.50	106.82	1124.01	1880.32	19.59	284.05	3.44
329.00	108.32	1150.54	2063.03	19.56	284.05	3.44
329.50	104.21	1188.80	2006.84	19.67	284.05	3.44
330.00	104.81	1218.03	1931.88	19.69	284.05	3.44
330.50	113.81	1244.03	2101.52	19.60	284.05	3.44
331.00	108.28	1275.42	2101.52	19.56	284.05	3.44
331.50	106.80	1260.81	2135.50	19.61	284.05	3.44
332.00	111.03	1252.05	2095.13	19.74	284.05	3.44
332.50	110.80	1268.58	2071.00	19.81	284.05	3.44
333.00	112.55	1266.33	2026.52	19.74	284.05	3.44
333.50	111.20	1234.02	1974.32	19.66	284.05	3.44
334.00	111.45	1216.14	1947.46	19.66	284.05	3.44
334.50	113.71	1203.76	1964.98	19.70	284.05	3.44
335.00	112.91	1186.19	1968.40	19.58	284.05	3.44
335.50	111.10	1146.11	1902.93	19.46	284.05	3.44
336.00	108.35	1108.01	1842.99	19.94	284.05	3.44
336.50	113.27	1081.28	1778.14	19.92	284.05	3.44
337.00	114.52	1054.53	1712.79	19.93	284.05	3.44
337.50	114.20	1042.67	1654.54	19.94	284.05	3.44
338.00	114.21	1031.77	1609.20	19.94	284.05	3.44
338.50	113.65	1006.98	1549.46	19.04	284.05	3.44
339.00	113.64	964.94	1474.70	19.02	284.05	3.44
339.50	111.82	934.22	1458.90	19.03	284.05	3.44
340.00	113.47	902.34	1449.20	19.06	284.05	3.44
340.50	112.87	862.63	1442.91	19.01	284.05	3.44
341.00	111.61	827.98	1392.53	18.89	284.05	3.44
341.50	109.92	787.41	1342.09	18.80	284.05	3.44
342.00	109.14	781.15	1349.73	18.82	284.05	3.44
342.50	108.55	774.00	1350.94	18.81	284.05	3.44
343.00	108.88	766.00	1313.38	19.11	283.36	3.44
343.50	108.61	766.34	1246.07	19.21	283.36	3.44
344.00	106.95	754.28	1250.47	19.21	283.36	3.44
344.50	99.20	730.27	1216.25	19.21	283.36	3.44

348.00	95.23	741.01	1130.64	18.86	283.36	64
348.50	107.61	730.71	1157.89	18.86	283.37	66
349.00	105.55	739.18	1185.79	18.96	283.38	69
349.50	85.09	732.59	1195.53	19.01	283.40	71
350.00	105.90	732.44	1147.68	19.03	283.41	73
351.00	113.13	741.85	1102.00	18.99	283.42	75
351.50	109.98	679.86	1109.48	19.12	283.43	76
352.00	110.98	654.64	1122.02	19.06	283.44	78
352.50	112.48	631.98	1138.78	18.90	283.45	80
353.00	113.48	629.82	1072.03	18.72	283.46	82
353.50	111.14	622.28	1090.22	18.76	283.47	84
354.00	110.64	600.43	1038.72	18.81	283.48	86
354.50	111.71	600.49	1073.57	18.85	283.49	89
355.00	111.57	601.11	1141.51	18.97	283.50	90
356.00	110.67	605.44	1075.62	19.07	283.51	91
357.00	108.99	609.57	1038.02	19.15	283.51	91
357.50	109.94	613.69	967.69	19.22	283.51	91
358.00	107.86	621.55	1035.80	19.08	283.51	91
358.50	105.43	620.90	1069.95	19.06	283.51	91
359.00	109.11	635.03	997.72	19.01	283.51	91
361.00	110.66	641.27	1030.12	19.11	283.48	87
362.00	109.86	635.13	1026.88	19.05	283.48	85
363.00	110.06	632.09	1099.88	19.04	283.47	84
364.00	104.92	658.51	1151.82	19.11	283.47	84
364.50	104.54	675.54	1152.73	19.12	283.47	84
365.00	106.99	678.31	1093.12	18.88	283.47	84
366.00	103.69	664.74	1062.54	18.70	283.47	84
366.50	85.51	672.54	1028.04	18.68	283.47	84
367.00	107.94	666.05	877.90	18.74	283.47	84
367.50	112.47	673.73	1014.57	18.84	283.47	84
368.00	103.87	677.29	1028.66	18.96	283.47	84
368.50	101.50	665.85	969.93	19.05	283.47	84
369.00	102.84	639.45	1138.88	19.08	283.47	84
369.50	98.63	633.88	989.19	19.11	283.46	84
370.00	103.72	630.81	963.55	19.24	283.47	84
370.50	98.91	624.19	1111.29	19.46	283.47	84
371.00	93.24	631.23	1064.61	19.44	283.47	84
371.50	100.14	654.83	995.49	19.41	283.47	84
372.00	101.32	641.78	937.87	19.36	283.47	84
372.50	86.52	672.72	867.82	19.20	283.47	84
373.00	99.01	666.47	915.78	19.03	283.47	84
373.50	109.69	630.19	899.88	18.81	283.47	84
374.00	108.41	633.17	896.02	18.57	283.47	84
374.50	105.91	607.61	956.79	18.54	283.47	84
375.00	107.68	580.93	961.77	18.66	283.48	85
375.50	109.90	556.27	964.98	18.84	283.48	87
376.00	109.61	525.74	951.47	18.99	283.48	87
376.50	109.04	529.99	855.93	18.99	283.48	87
377.00	108.66	506.73	936.98	19.12	283.48	86
377.50	108.40	476.81	924.79	19.14	283.49	87
378.00	107.78	470.23	831.56	18.97	283.49	87
378.50	103.80	463.30	833.88	18.67	283.49	87
379.00	104.74	455.65	861.16	18.42	283.49	87
379.50	103.31	444.91	669.73	18.31	283.49	87
380.00	97.82	422.72	631.05	18.54	283.49	87
380.50	89.78	408.68	727.81	18.44	283.49	88
381.00	70.89	417.66	772.48	18.27	283.49	88
381.50	76.77	382.45	768.34	18.26	283.49	88
382.00	44.06	368.63	679.82	18.26	283.49	89
382.50	46.23	384.16	723.74	18.30	283.49	89
383.00	106.68	354.12	768.42	18.30	283.49	89
383.50	77.46	425.37	849.61	18.30	283.49	89
384.00	83.14	335.37	938.30	18.30	283.49	89
384.50	99.61	354.43	839.56	18.30	283.49	90
385.00	106.70	330.08	839.56	18.61	283.49	90
385.50	104.65	330.06	874.51	18.61	283.49	90
386.00	100.46	344.17	728.59	18.67	283.49	90
386.50	78.37	374.03	761.71	18.72	283.49	90
387.00	76.92	392.27	924.86	18.67	283.49	90
387.50	90.06	410.59	875.28	18.67	283.49	90
388.00	112.84	474.91	733.92	18.72	283.49	90
388.50	109.34	433.30	824.58	18.72	283.49	90
389.00	107.25	468.74	888.97	18.67	283.49	90
389.50	102.44	445.33	917.67	18.67	283.49	90
390.00	101.61	437.63	957.33	18.67	283.49	90
390.50	104.76	425.03	957.79	18.67	283.49	90
391.00	101.72	464.70	949.68	18.63	283.49	90
391.50	109.51	478.30	958.91	18.91	283.49	91
392.00	108.58	430.80	958.05	18.99	283.49	91
392.50	102.65	432.60	948.98	18.03	283.49	91
393.00	85.03	487.76	935.37	18.95	283.49	91
393.50	85.89	518.71	918.32	18.78	283.49	91
394.00	87.73	548.24	890.55	18.99	283.49	91
394.50	88.68	585.30	948.98	18.03	283.49	91
395.00	107.66	588.44	935.37	18.95	283.49	91
395.50	109.50	605.08	918.32	18.78	283.49	91
396.00	108.58	664.88	890.55	18.99	283.49	91
396.50	118.55	646.47	983.95	18.81	283.49	91
397.00	125.73	628.39	986.35	18.81	283.49	91
397.50	129.74	604.70	991.88	18.81	283.49	92

400.00	122.51	5/4.40	1123.14	18.02	94
400.00	112.51	587.54	1066.14	18.02	94
400.00	97.51	600.02	1120.89	18.02	94
400.00	85.90	608.00	1073.59	18.02	94
400.00	79.13	625.43	1021.84	18.02	94
400.00	80.23	650.01	1007.96	18.02	94
401.00	100.67	684.97	1243.63	18.02	94
401.00	106.91	713.18	1242.41	18.02	94
402.00	111.21	749.20	1343.14	18.02	94
402.00	132.22	806.29	1476.79	18.02	94
403.00	132.02	824.96	1494.76	18.02	94
404.00	134.21	869.21	1590.72	18.02	94
404.00	132.79	1012.78	1872.85	18.02	94
405.00	133.47	1049.05	1925.86	18.02	94
406.00	133.49	1122.24	1981.99	18.02	94
406.00	131.51	1218.75	2033.40	18.02	94
407.00	128.24	1254.93	2118.32	18.02	94
407.00	127.42	1283.80	2338.24	18.02	94
408.00	126.68	1442.93	2441.58	18.02	94
408.00	115.32	1457.90	2619.58	18.02	94
409.00	119.48	1479.19	2782.84	18.02	94
409.00	121.28	1496.43	2701.06	18.02	94
410.00	115.76	1532.91	2940.14	18.02	94
410.00	99.31	1589.99	3063.29	18.02	94
411.00	80.78	1616.56	2953.29	18.02	94
411.00	90.96	1632.53	2979.65	18.02	94
412.00	100.85	1631.71	3044.82	18.02	94
412.00	89.05	1644.30	2997.07	18.02	94
413.00	87.86	1629.93	2952.99	18.02	94
413.00	77.41	1668.65	3010.24	18.02	94
414.00	83.46	1677.46	3202.16	18.02	94
414.00	96.94	1659.62	3245.35	18.02	94
415.00	102.23	1664.62	3194.16	18.02	94
415.00	104.83	1698.66	3244.59	18.02	94
416.00	92.83	1694.03	3307.14	18.02	94
416.00	101.45	1677.67	3307.02	18.02	94
417.00	105.39	1707.78	3380.60	18.02	94
417.00	100.09	1759.57	3471.81	18.02	94
418.00	95.71	1782.59	3533.23	18.02	94
418.00	103.99	1784.24	3330.38	18.02	94
419.00	100.90	1788.93	3519.42	18.02	94
419.00	110.60	1831.57	3480.65	18.02	94
420.00	106.61	1839.72	3279.14	18.02	94
420.00	108.65	1844.44	3258.37	18.02	94
421.00	108.29	1845.20	3238.84	18.02	94
421.00	111.43	1813.06	3116.14	18.02	94
422.00	108.05	1779.48	3067.19	18.02	94
422.00	97.13	1775.50	3029.80	18.02	94
423.00	90.97	1746.45	3082.29	18.02	94
423.00	100.96	1654.21	2768.98	18.02	94
424.00	104.31	1623.10	2501.98	18.02	94
424.00	107.00	1612.20	2452.45	18.02	94
425.00	98.16	1536.25	2417.16	18.02	94
425.00	95.24	1463.58	2253.41	18.02	94
426.00	88.83	1379.68	2006.45	18.02	94
426.00	88.06	1278.34	1878.03	18.02	94
427.00	96.70	1178.47	1808.05	18.02	94
427.00	95.58	1103.99	1774.02	18.02	94
428.00	94.29	1034.13	1699.43	18.02	94
428.00	94.83	991.81	1521.47	18.02	94
429.00	90.28	902.40	1694.53	18.02	94
429.00	82.84	871.64	1821.58	18.02	94
430.00	87.80	835.74	1530.71	18.02	94
430.00	87.90	803.22	1482.69	18.02	94
431.00	99.89	798.01	1490.17	18.02	94
431.00	100.31	790.65	1397.29	18.02	94
432.00	90.42	769.22	1561.87	18.02	94
432.00	87.52	773.99	1575.58	18.02	94
433.00	87.49	813.77	1386.69	18.02	94
433.00	92.62	778.66	1398.59	18.02	94
434.00	99.44	738.71	1340.19	18.02	94
435.00	104.68	746.60	1420.43	18.02	94
435.00	111.77	740.45	1316.26	18.02	94
436.00	111.36	770.88	1372.39	18.02	94
436.50	97.61	785.41	1318.46	18.02	94
437.00	83.02	757.75	1297.34	18.02	94
437.00	94.16	756.85	1407.44	18.02	94
438.00	98.26	767.07	1436.50	18.02	94
438.00	89.15	762.22	1256.87	18.02	94
439.00	104.76	772.51	1208.19	18.02	94
439.50	108.65	774.56	1293.59	18.02	94
440.00	108.22	743.13	1269.11	18.02	94
440.50	103.75	765.02	1356.95	18.02	94
441.00	104.35	778.59	1364.83	18.02	94
441.50	104.36	783.95	1357.21	18.02	94
442.00	103.33	775.10	1371.69	18.02	94
442.50	110.60	742.83	1353.71	18.02	94
443.00	109.89	725.97	1359.41	18.02	94
443.50	101.46	753.72	1249.78	18.02	94
444.00	99.72	767.49	1412.78	18.02	94
444.50	103.45	781.02	1387.61	18.02	94
445.00	105.22	779.75	1474.33	18.02	94

447.00	92.34	787.95	1559.43	19.45	22
447.50	87.60	808.82	1509.99	19.43	21
448.00	83.92	859.25	1585.92	19.41	20
448.50	83.90	897.87	1587.04	19.41	18
449.00	104.44	920.53	1753.72	19.39	17
449.50	102.38	969.82	1688.90	19.36	16
450.00	99.11	1049.51	1916.15	19.32	15
450.50	83.32	1099.27	1817.98	19.27	14
451.00	58.31	1134.10	1918.44	19.27	13
451.50	68.50	1173.19	2175.90	19.29	12
452.00	66.62	1207.02	2195.28	19.28	11
452.50	71.52	1279.34	2190.81	19.27	10
453.00	64.86	1345.69	2355.59	19.27	09
453.50	70.68	1375.00	2460.60	19.27	08
454.00	71.58	1445.17	2570.75	19.29	07
454.50	91.78	1440.31	2726.06	19.61	06
455.00	79.07	1530.31	2693.70	19.57	05
455.50	92.60	1600.04	2994.21	19.51	04
456.00	96.47	1605.59	2990.10	19.43	03
456.50	83.80	1647.74	2918.96	19.47	02
457.00	79.29	1668.93	2917.64	19.86	01
457.50	99.11	1696.61	3071.17	19.77	00
458.00	101.37	1711.39	2910.60	19.84	00
458.50	85.86	1709.91	2904.90	20.00	00
459.00	85.14	1705.33	2873.35	20.06	00
459.50	101.65	1710.56	2833.55	20.04	00
460.00	95.33	1661.20	2716.45	20.03	00
460.50	90.48	1629.16	2625.39	20.09	00
461.00	87.45	1604.70	2734.82	20.12	00
461.50	86.55	1503.54	2563.70	19.72	00
462.00	88.03	1484.17	2301.57	19.38	00
462.50	88.02	1440.82	2643.69	19.09	00
463.00	88.01	1394.88	2573.88	18.90	00
463.50	88.03	1354.33	2527.13	18.84	00
464.00	94.16	1295.03	2459.62	18.86	00
464.50	85.13	1290.49	2409.97	18.89	00
465.00	81.84	1233.05	2349.75	18.94	00
465.50	89.73	1228.00	2234.80	19.01	00
466.00	82.42	1239.79	2183.39	19.05	00
466.50	90.88	1209.08	2105.46	18.97	00
467.00	92.13	1184.01	1901.79	18.97	00
468.00	93.01	1159.48	1818.71	19.03	00
468.50	100.95	1128.04	1785.96	19.14	00
469.00	101.35	1093.61	1708.95	19.40	00
469.50	101.65	1046.47	1823.02	19.47	00
470.00	103.46	1045.41	1939.82	19.27	00
470.50	89.76	1000.47	1672.38	19.35	00
471.00	104.58	970.13	1704.23	19.39	00
471.50	99.52	925.17	1731.07	19.37	00
472.00	100.19	897.79	1643.99	19.20	00
472.50	98.03	877.45	1771.99	19.17	00
473.00	100.31	859.02	1691.73	19.19	00
473.50	105.84	888.21	1718.45	19.24	00
474.00	102.46	862.27	1740.78	19.27	00
474.50	110.95	867.23	1760.93	19.33	00
475.00	107.77	865.01	1735.44	19.31	00
475.50	105.79	883.44	1832.77	19.22	00
476.00	103.54	919.28	1873.20	19.13	00
476.50	102.53	947.64	1815.25	19.11	00
477.00	104.63	991.90	1838.12	19.16	00
477.50	106.18	1030.57	1928.42	19.21	00
478.00	101.72	1062.78	1999.73	19.24	00
478.50	100.07	1107.58	1956.75	19.33	00
479.00	100.16	1191.73	2175.05	19.40	00
479.50	95.55	1198.46	2260.37	19.45	00
480.00	94.44	1245.13	2226.25	19.55	00
480.50	95.98	1287.12	2441.49	19.72	00
481.00	90.62	1308.01	2379.01	19.89	00
481.50	66.35	1373.18	2668.57	19.67	00
482.00	78.18	1388.43	2535.67	19.47	00
482.50	75.12	1398.11	2594.29	19.49	00
483.00	92.93	1484.94	2828.66	19.47	00
483.50	84.66	1483.50	2865.72	19.52	00
484.00	69.07	1534.29	2734.26	19.49	00
484.50	84.02	1534.67	2700.45	19.49	00
485.00	71.34	1600.00	2778.67	19.49	00
485.50	80.30	1596.89	2740.21	19.49	00
486.00	75.40	1588.46	2915.48	19.46	00
486.50	76.87	1640.16	2861.50	19.43	00
487.00	73.60	1654.28	2846.52	19.41	00
487.50	67.00	1610.35	2869.00	19.39	00
488.00	82.28	1584.33	2691.95	19.28	00
488.50	86.84	1586.12	2700.35	19.25	00
489.00	81.50	1548.57	2560.91	19.25	00
489.50	84.25	1564.35	2516.88	19.25	00
490.00	83.07	1537.49	2445.09	19.74	00
490.50	84.16	1488.46	2287.87	19.77	00
491.00	88.35	1424.47	2270.88	19.83	00
491.50	86.54	1346.13	2348.91	19.87	00
492.00	90.79	1302.63	2325.54	19.85	00
492.50	87.47	1228.11	2087.16	19.62	00
493.00	81.59	1143.87	1865.06	19.42	00
493.50	83.53	1088.84	1836.27	19.29	00
494.00	82.44	1042.56	2048.38	19.21	00
494.50	82.71	1007.74	1001.11	10.17	00

496.50	92.38	916.23	1878.44	19.09	0.06
497.00	98.64	940.95	1837.24	19.13	0.05
497.50	103.19	952.67	1896.86	19.18	0.05
498.00	107.24	953.76	1967.97	19.27	0.04
498.50	105.25	962.12	1950.14	19.37	0.04
499.00	102.98	972.14	1930.85	19.43	0.04
499.50	106.29	981.17	1981.86	19.43	0.04
500.00	105.43	969.98	1995.25	19.48	0.03
500.50	104.17	1005.03	2081.39	19.51	0.02
501.00	111.15	1021.11	2134.35	19.51	0.01
501.50	112.80	1088.61	2169.29	19.52	0.01
502.00	111.89	1139.40	2216.17	19.89	0.00
502.50	111.61	1172.41	2297.02	19.85	0.00
503.00	112.12	1191.84	2443.16	19.80	0.00
503.50	112.39	1229.57	2421.71	19.72	0.00
504.00	111.78	1307.99	2440.79	19.61	0.00
504.50	111.61	1376.04	2491.78	19.54	0.00
505.00	109.98	1461.74	2550.37	19.50	0.00
505.50	108.47	1531.71	2617.80	19.54	0.00
506.00	106.87	1568.92	2781.21	19.65	0.00
506.50	103.97	1621.83	2894.11	19.77	0.00
507.00	102.25	1659.41	2876.02	19.85	0.00
507.50	102.27	1663.15	2945.01	19.91	0.00
508.00	99.80	1684.45	2957.02	19.92	0.00
508.50	98.05	1695.40	2999.02	20.02	0.00
509.00	96.88	1682.63	2874.96	19.94	0.00
509.50	94.99	1682.04	2852.94	19.40	0.00
10.00	92.03	1653.86	2747.62	19.76	0.00
10.50	89.24	1632.94	2687.64	19.96	0.00
11.00	78.14	1625.51	2727.71	20.04	0.00
11.50	73.61	1590.55	2674.10	20.04	0.00
12.00	66.55	1507.68	2598.73	20.00	0.00
12.50	76.56	1439.64	2460.98	20.02	0.00
13.00	92.15	1378.40	2463.39	19.99	0.00
13.50	103.48	1329.20	2465.80	19.99	0.00
14.00	103.84	1266.84	2468.22	20.28	0.00
14.50	103.75	1265.84	2470.63	23.70	0.00
15.00	103.66	1262.33	2473.04	23.70	0.00
15.50	103.57	1241.78	2475.45	23.71	0.00
16.00	103.48	1234.29	2477.86	23.71	0.00

CTA H-1

ft. depth	f/min speed	CPS GAMMA	OHM-m Guard
509.5	11.5	190.158	25.0248
509.0	14.0	195.681	24.7535
508.5	15.7	224.055	29.9511
508.0	15.9	215.417	29.8523
507.5	16.1	232.697	28.8153
507.0	19.3	242.990	23.4127
506.5	20.1	239.967	23.1655
506.0	19.9	205.338	28.8145
505.5	19.8	229.621	29.1835
505.0	20.1	240.651	28.6645
504.5	20.1	230.452	37.9671
504.0	21.8	234.813	36.0798
503.5	23.6	241.080	30.2668
503.0	24.3	235.342	29.8753
502.5	24.8	234.200	26.6919
502.0	25.1	235.325	34.5304
501.5	24.7	224.530	23.9037
501.0	24.7	214.405	24.2861
500.5	24.7	213.777	24.7947
500.0	24.7	208.409	33.0119
499.5	24.7	213.572	20.9961
499.0	24.7	211.312	28.8307
498.5	24.7	201.993	17.6313
498.0	24.7	196.625	14.8896
497.5	24.7	176.121	25.3098
497.0	24.8	163.529	26.8908
496.5	24.7	154.423	28.1338
496.0	24.7	164.578	27.0911
495.5	24.8	162.137	27.5943
495.0	24.9	165.180	21.6793
494.5	24.5	160.727	19.4114
494.0	24.8	159.487	23.4683
493.5	24.8	158.864	22.8156
493.0	24.7	159.077	16.2324
492.5	24.5	158.150	27.7734
492.0	24.9	150.748	27.4086
491.5	24.8	151.461	29.7316
491.0	24.8	155.413	25.3528
490.5	24.7	155.396	28.0134
490.0	24.8	155.763	38.1356
489.5	24.7	161.341	34.9476
489.0	24.7	160.501	18.1279
488.5	24.8	185.800	26.2645
488.0	24.7	208.232	27.4919
487.5	24.9	213.593	22.9670
487.0	24.7	212.473	25.2143
486.5	25.1	218.249	29.2447
486.0	24.8	234.660	27.1631
485.5	24.8	234.318	38.2425
485.0	24.8	236.447	30.4003
484.5	24.8	237.872	21.3511
484.0	24.7	236.302	31.7183
483.5	24.3	238.277	28.2181
483.0	24.8	233.147	23.8998

482.5	24.9	233.737	24.3839
482.0	24.7	236.727	26.5459
481.5	24.7	223.452	38.5404
481.0	24.7	226.524	31.9076
480.5	24.8	220.580	22.9942
480.0	24.7	221.442	29.0627
479.5	24.5	221.839	25.4892
479.0	24.8	216.536	18.7330
478.5	24.8	215.916	33.4364
478.0	24.7	215.326	33.2489
477.5	24.9	213.888	24.0864
477.0	24.7	209.334	30.4363
476.5	24.7	203.522	28.4022
476.0	24.4	200.220	27.9141
475.5	24.7	206.399	28.7196
475.0	24.8	206.243	38.3941
474.5	24.5	196.555	24.1325
474.0	24.8	189.856	23.2442
473.5	24.7	183.874	25.5714
473.0	24.5	177.035	25.8484
472.5	24.5	165.941	22.1824
472.0	24.5	159.095	25.6071
471.5	24.9	156.346	23.6649
471.0	24.8	151.696	30.7666
470.5	24.5	140.537	34.4573
470.0	24.8	145.986	27.7988
469.5	24.8	144.450	33.1233
469.0	24.8	143.804	28.6299
468.5	24.4	145.416	27.6266
468.0	24.9	148.447	27.2248
467.5	24.9	152.923	28.2464
467.0	24.7	155.753	28.0043
466.5	24.8	147.481	21.7524
466.0	24.5	153.746	23.6889
465.5	24.8	158.562	26.3074
465.0	24.7	174.853	25.9849
464.5	25.1	173.231	28.0737
464.0	24.9	178.354	18.5874
463.5	24.5	194.876	30.2394
463.0	24.8	201.864	29.7332
462.5	24.9	205.007	29.4503
462.0	24.8	208.150	32.7389
461.5	24.5	207.218	22.6605
461.0	24.7	206.199	22.4719
460.5	24.8	206.328	28.6123
460.0	24.9	204.432	28.6509
459.5	24.4	203.793	23.1884
459.0	24.9	218.155	30.0467
458.5	24.7	232.023	30.0326
458.0	24.7	234.123	38.5151
457.5	24.5	235.677	33.7981
457.0	24.7	239.427	21.8086
456.5	25.1	244.870	31.2421
456.0	24.5	250.166	19.1284

455.5	24.9	265.902	25.4734
455.0	24.7	278.008	27.3267
454.5	24.5	285.739	21.2857
454.0	24.3	285.436	22.7328
453.5	24.7	276.934	28.3286
453.0	24.8	271.735	26.7023
452.5	24.4	266.689	27.1963
452.0	24.5	267.232	26.0285
451.5	24.7	256.531	29.0264
451.0	24.7	249.199	29.5060
450.5	24.5	256.452	25.7310
450.0	24.7	254.791	28.7017
449.5	24.5	240.676	27.1855
449.0	25.2	227.046	24.0724
448.5	25.1	216.472	21.2228
448.0	25.3	211.582	30.7846
447.5	25.3	207.833	22.7810
447.0	25.3	201.360	30.5992
446.5	24.9	195.766	16.1590
446.0	25.2	193.535	26.3673
445.5	25.5	190.095	24.7229
445.0	25.9	183.879	37.3491
444.5	25.5	178.455	21.2349
444.0	25.5	168.401	18.6094
443.5	25.3	147.715	29.2675
443.0	25.5	141.360	27.2665
442.5	25.2	150.720	24.9457
442.0	25.5	147.868	29.7240
441.5	25.5	145.381	21.0952
441.0	25.1	148.516	25.2292
440.5	25.3	146.311	18.0936
440.0	25.3	151.433	21.1972
439.5	25.3	151.847	16.4005
439.0	25.1	143.162	29.0425
438.5	25.1	135.241	25.6301
438.0	25.5	144.143	27.6418
437.5	25.3	147.856	29.2346
437.0	25.3	140.958	25.4349
436.5	25.2	142.807	26.3968
436.0	25.2	135.039	16.2417
435.5	25.2	137.543	26.4505
435.0	25.2	136.612	36.2166
434.5	25.3	137.871	35.6863
434.0	25.6	137.975	22.4611
433.5	25.1	135.471	20.3063
433.0	25.3	141.153	23.1680
432.5	25.1	137.343	24.6197
432.0	25.5	136.716	25.3345
431.5	25.1	143.213	29.1921
431.0	25.3	142.845	25.3122
430.5	25.5	136.535	22.7850
430.0	25.1	141.474	25.0182
429.5	25.3	135.339	31.3533
429.0	25.3	138.431	25.1235

428.5	25.5	138.970	31.9064
428.0	25.1	135.630	31.8218
427.5	25.1	132.963	23.9419
427.0	25.5	130.273	27.0522
426.5	25.6	135.322	25.3696
426.0	25.2	141.329	26.7472
425.5	25.2	144.401	20.6628
425.0	25.3	148.136	22.9865
424.5	25.3	150.572	31.2067
424.0	25.3	152.661	26.5275
423.5	25.1	152.912	24.9356
423.0	25.3	183.370	23.9051
422.5	25.3	202.371	27.2898
422.0	25.5	221.047	27.9164
421.5	25.3	226.646	33.0387
421.0	25.2	236.229	29.2172
420.5	25.2	243.608	20.2497
420.0	25.1	246.944	25.8242
419.5	25.5	249.200	32.7997
419.0	25.6	250.565	33.4206
418.5	25.3	253.637	27.0636
418.0	25.5	252.671	37.5626
417.5	25.3	252.697	33.7587
417.0	25.3	255.223	14.4386
416.5	25.1	250.931	26.8538
416.0	25.2	257.634	32.5036
415.5	25.5	267.666	33.1256
415.0	25.5	267.987	36.8066
414.5	25.1	265.393	25.4777
414.0	25.3	262.477	26.9074
413.5	25.1	247.945	23.1244
413.0	25.5	243.107	31.9668
412.5	25.1	245.293	23.5356
412.0	25.1	243.148	22.2698
411.5	25.7	242.686	39.6962
411.0	25.1	242.824	23.3175
410.5	25.5	242.044	26.3091
410.0	25.1	239.462	29.2129
409.5	25.3	235.289	27.4725
409.0	25.3	233.558	29.6760
408.5	25.2	231.505	32.7126
408.0	25.5	231.581	16.2964
407.5	25.3	240.873	25.8911
407.0	25.3	248.676	26.8971
406.5	25.3	250.171	23.0868
406.0	25.2	249.957	24.8330
405.5	25.3	246.548	27.9647
405.0	25.1	242.144	27.4273
404.5	25.5	236.751	27.0476
404.0	25.6	220.566	25.8859
403.5	25.2	196.657	26.0439
403.0	25.2	191.964	23.9158
402.5	25.3	204.501	25.6956
402.0	25.2	221.405	22.5583

401.5	25.3	215.225	18.4178
401.0	25.2	205.618	23.5472
400.5	25.5	197.799	23.1315
400.0	25.3	194.201	26.0462
399.5	25.2	180.191	28.6682
399.0	25.3	167.373	19.1078
398.5	25.2	158.093	30.9494
398.0	25.3	150.147	27.6962
397.5	25.1	143.626	23.0690
397.0	25.2	139.448	20.9041
396.5	25.7	136.842	34.3053
396.0	25.1	134.940	20.8786
395.5	25.1	128.830	22.6935
395.0	25.2	122.803	24.9938
394.5	25.2	120.642	18.0062
394.0	25.2	114.461	24.2592
393.5	25.2	107.795	23.0258
393.0	25.3	107.589	26.9815
392.5	25.7	112.319	22.8889
392.0	25.1	109.712	28.2631
391.5	25.3	111.816	28.7575
391.0	25.3	113.189	22.7253
390.5	25.2	112.996	19.4821
390.0	25.2	120.504	29.4118
389.5	25.1	139.122	32.5733
389.0	25.5	152.866	25.3054
388.5	25.3	157.260	30.5525
388.0	25.5	156.528	20.2233
387.5	25.3	141.215	20.1861
387.0	25.3	114.456	29.7644
386.5	25.3	99.739	22.7082
386.0	25.2	94.4599	23.6967
385.5	25.3	91.4041	28.8731
385.0	25.6	89.1285	27.8501
384.5	25.2	83.4598	21.0775
384.0	25.3	84.3121	24.9377
383.5	25.3	91.0595	27.8600
383.0	25.5	90.4786	21.9855
382.5	25.1	84.9235	18.0505
382.0	25.2	87.3748	27.8264
381.5	25.6	98.0325	24.8075
381.0	25.3	112.955	20.9680
380.5	25.2	109.261	21.9048
380.0	25.3	98.2973	26.8012
379.5	25.2	91.4485	20.9424
379.0	25.2	75.1170	19.5661
378.5	25.1	69.0520	26.7514
378.0	25.3	65.3367	15.7938
377.5	25.7	61.6971	32.1163
377.0	25.2	59.7668	30.8695
376.5	25.3	60.7015	27.1145
376.0	25.3	69.1733	25.4626
375.5	25.3	67.8952	30.7145
375.0	25.2	69.4338	19.5213

374.5	25.2	69.5456	19.2485
374.0	25.3	65.2405	31.8246
373.5	25.3	77.8784	28.8438
373.0	25.3	81.6274	27.5269
372.5	25.2	77.9712	24.6154
372.0	25.3	88.1099	23.8826
371.5	25.1	98.4968	27.6899
371.0	25.1	102.433	20.4203
370.5	25.5	95.9912	29.6008
370.0	25.6	99.885	20.4190
369.5	25.3	100.470	14.5725
369.0	25.2	96.3988	26.3292
368.5	25.3	84.6013	30.4321
368.0	25.5	83.8474	23.4619
367.5	25.2	96.6312	24.9839
367.0	25.2	108.787	21.0013
366.5	25.3	128.493	18.2815
366.0	25.6	133.815	24.9398
365.5	25.2	133.983	27.9441
365.0	25.2	138.168	19.7628
364.5	25.2	141.613	22.6441
364.0	25.3	147.598	20.0873
363.5	25.2	149.091	26.6978
363.0	25.5	133.432	26.3223
362.5	25.7	123.763	23.6887
362.0	25.2	120.430	31.1904
361.5	25.6	118.676	19.6229
361.0	25.3	124.131	17.3899
360.5	25.5	122.873	23.0868
360.0	25.2	123.445	27.0750
359.5	25.1	128.149	24.4927
359.0	25.3	133.208	29.0949
358.5	25.7	146.859	29.6684
358.0	25.3	148.521	27.6590
357.5	25.5	139.427	20.1560
357.0	25.3	129.495	29.8339
356.5	25.3	123.278	23.2438
356.0	25.2	124.088	29.0186
355.5	25.1	127.168	23.7994
355.0	25.7	133.523	26.8839
354.5	25.2	133.055	20.4569
354.0	25.6	134.018	15.4044
353.5	25.3	126.506	24.4456
353.0	25.3	121.251	13.7775
352.5	25.2	119.134	20.9890
352.0	25.1	118.056	10.4167
351.5	25.6	116.804	28.8487
351.0	25.5	115.593	29.1691
350.5	25.3	114.434	32.9544
350.0	25.6	113.364	22.7273
349.5	25.3	114.276	30.2496
349.0	25.3	118.052	25.5867
348.5	25.2	122.660	25.0627
348.0	25.5	126.898	30.8880

347.5	25.7	128.293	21.0748
347.0	25.6	129.222	24.6305
346.5	25.6	133.830	14.2540
346.0	25.3	134.507	27.2887
345.5	25.3	134.835	19.6279
345.0	25.6	133.834	19.1939
344.5	25.2	134.426	32.3064
344.0	25.5	141.431	26.9121
343.5	25.7	145.300	21.9241
343.0	25.5	148.394	28.1114
342.5	25.6	148.200	26.9432
342.0	25.2	141.635	17.1057
341.5	25.3	139.150	31.5861
341.0	25.1	154.730	21.7562
340.5	25.3	161.806	24.2346
340.0	25.6	157.895	27.5648
339.5	25.3	154.440	30.3846
339.0	25.6	151.341	25.7821
338.5	25.5	150.082	26.6163
338.0	25.3	149.584	26.3461
337.5	25.3	148.304	26.6186
337.0	25.2	151.470	25.4641
336.5	25.6	162.056	26.7714
336.0	25.7	172.268	32.6264
335.5	25.2	186.296	20.4516
335.0	25.5	197.692	23.4314
334.5	25.6	204.500	35.6181
334.0	25.5	198.841	32.9927
333.5	25.5	187.119	22.6284
333.0	25.1	182.852	29.4811
332.5	25.7	181.467	20.6115
332.0	25.6	182.125	18.9098
331.5	25.6	183.556	26.6046
331.0	25.3	191.833	25.2411
330.5	25.2	201.710	22.8542
330.0	25.5	206.265	31.4846
329.5	25.2	206.885	24.7103
329.0	25.5	203.828	25.3474
328.5	25.6	205.944	16.7912
328.0	25.3	209.617	24.7872
327.5	25.5	212.386	24.0178
327.0	25.5	211.695	23.8875
326.5	25.5	206.812	25.3550
326.0	25.2	201.363	29.7151
325.5	25.2	200.094	28.2375
325.0	25.5	203.323	28.8613
324.5	25.7	202.183	23.7676
324.0	25.5	197.755	27.6382
323.5	25.5	188.384	23.1654
323.0	25.3	183.944	22.6282
322.5	25.3	171.436	28.0899
322.0	25.1	176.581	22.9768
321.5	25.2	173.614	18.9484
321.0	25.7	173.733	24.7306

320.5	25.2	170.198	21.3602
320.0	25.6	167.001	29.6348
319.5	25.3	151.415	26.7296
319.0	25.2	146.294	27.0133
318.5	25.2	144.759	23.4885
318.0	25.1	136.743	19.1371
317.5	25.3	131.780	33.8519
317.0	25.3	133.509	21.2730
316.5	25.3	128.956	22.6678
316.0	25.3	129.574	23.3938
315.5	25.3	130.403	31.3402
315.0	25.3	129.085	23.9521
314.5	24.9	125.741	30.0791
314.0	25.3	126.327	28.0374
313.5	25.5	129.063	29.8717
313.0	25.1	131.347	24.4402
312.5	25.3	142.265	23.8011
312.0	25.3	143.121	23.5314
311.5	25.3	152.045	24.0117
311.0	25.3	154.113	20.9914
310.5	25.2	161.820	21.7014
310.0	25.5	164.379	25.4194
309.5	25.5	153.063	21.0637
309.0	25.3	149.302	31.5457
308.5	25.2	151.266	29.2113
308.0	25.3	156.053	23.0493
307.5	25.5	155.101	28.7381
307.0	25.1	156.388	28.9482
306.5	25.6	151.925	27.1901
306.0	25.7	153.616	29.0672
305.5	25.2	160.728	23.1819
305.0	25.3	164.551	19.8350
304.5	25.3	157.209	24.1463
304.0	25.3	157.285	24.0261
303.5	25.1	156.861	33.3187
303.0	25.3	148.087	36.2148
302.5	25.5	162.828	26.4415
302.0	25.5	200.511	23.7760
301.5	25.3	208.177	30.5117
301.0	25.2	211.341	24.9833
300.5	25.2	209.471	28.7711
300.0	25.2	211.009	22.0863
299.5	24.9	218.597	28.4115
299.0	25.2	214.042	14.4853
298.5	25.5	217.827	34.4358
298.0	25.3	223.498	26.0892
297.5	25.5	219.653	27.1072
297.0	25.2	228.138	23.8011
296.5	25.2	236.811	29.1775
296.0	25.2	230.980	24.8735
295.5	25.1	230.840	25.8808
295.0	25.3	235.910	25.7389
294.5	25.5	237.680	27.4216
294.0	25.5	239.114	22.0694

293.5	25.3	229.042	21.0452
293.0	25.1	227.504	28.0136
292.5	25.2	222.971	26.7835
292.0	24.8	216.861	25.7005
291.5	25.3	221.045	29.4390
291.0	25.6	223.235	23.0048
290.5	25.2	222.177	20.1613
290.0	25.1	222.532	29.6033
289.5	25.2	218.844	25.6959
289.0	25.2	212.794	23.0027
288.5	25.3	215.766	31.2949
288.0	25.2	204.126	24.2718
287.5	25.6	192.346	19.7109
287.0	25.5	179.706	23.0619
286.5	25.3	167.515	31.0693
286.0	25.2	168.409	23.9444
285.5	25.1	170.453	14.7390
285.0	25.3	162.457	19.2257
284.5	25.2	147.165	25.9653
284.0	25.2	130.476	31.9208
283.5	25.6	125.476	17.7085
283.0	25.2	124.157	19.0213
282.5	25.5	121.843	29.1121
282.0	25.3	121.575	22.2346
281.5	25.5	117.652	13.7705
281.0	25.3	114.865	19.6716
280.5	25.1	114.130	23.5492
280.0	25.6	113.578	20.7848
279.5	25.6	113.079	28.3773
279.0	25.3	114.939	34.8827
278.5	25.3	110.394	24.9527
278.0	25.2	112.925	26.4242
277.5	25.3	120.612	18.8020
277.0	25.2	124.340	35.2142
276.5	25.2	118.970	17.6189
276.0	25.7	116.768	21.3599
275.5	25.2	119.381	24.1682
275.0	25.5	118.851	20.3891
274.5	25.3	134.849	29.3151
274.0	25.2	133.634	30.1104
273.5	25.3	139.317	18.1159
273.0	25.2	148.920	29.4142
272.5	25.5	152.458	31.7979
272.0	25.5	137.276	14.0166
271.5	25.2	127.762	17.3611
271.0	25.2	128.306	23.0336
270.5	25.3	119.717	27.7579
270.0	25.3	117.514	26.0395
269.5	24.9	115.233	24.1410
269.0	25.1	108.674	34.5904
268.5	25.5	120.504	24.8646
268.0	25.2	110.325	17.9043
267.5	25.3	109.261	21.4082
267.0	25.2	113.658	25.2767

266.5	25.2	116.313	26.7311
266.0	25.2	104.628	19.4224
265.5	25.1	109.325	22.7433
265.0	25.2	124.583	16.6798
264.5	25.7	125.865	22.2165
264.0	25.1	111.320	24.7948
263.5	25.2	121.714	22.7830
263.0	25.3	119.140	23.0800
262.5	25.3	116.297	18.1850
262.0	25.1	114.543	22.0619
261.5	25.2	113.989	23.8541
261.0	25.6	116.688	15.4824
260.5	25.3	120.567	24.9034
260.0	25.3	123.014	35.9562
259.5	25.3	119.916	32.3625
259.0	25.2	122.128	19.1449
258.5	25.2	146.952	26.8422
258.0	25.2	143.516	26.4663
257.5	25.3	131.950	22.1051
257.0	25.7	132.389	20.3550
256.5	25.2	132.105	23.1442
256.0	25.2	146.539	22.7407
255.5	25.3	159.536	24.5981
255.0	25.5	150.775	30.5245
254.5	25.1	159.767	23.4823
254.0	25.1	164.675	27.5150
253.5	25.3	167.151	23.9419
253.0	25.2	163.491	19.9283
252.5	25.7	147.603	29.2624
252.0	25.3	138.704	22.4972
251.5	25.3	129.493	27.5150
251.0	25.3	122.430	19.4602
250.5	25.1	117.994	25.8440
250.0	25.3	119.299	18.7186
249.5	25.7	117.021	19.3424
249.0	25.3	110.329	20.9433
248.5	25.3	108.962	24.7995
248.0	25.5	110.035	22.2832
247.5	25.3	105.825	19.9670
247.0	25.1	103.469	17.0039
246.5	25.1	107.232	23.2242
246.0	25.6	106.690	15.6386
245.5	25.3	105.268	18.0459
245.0	25.6	105.250	16.2449
244.5	25.2	106.009	19.8965
244.0	25.3	103.341	23.2518
243.5	25.2	102.902	21.2784
243.0	25.2	105.986	19.2543
242.5	25.3	109.193	23.2820
242.0	25.7	104.488	21.6600
241.5	25.3	101.930	15.5092
241.0	25.5	101.431	17.9902
240.5	25.2	101.598	16.6945
240.0	25.3	102.202	24.9484

239.5	25.1	102.330	15.2491
239.0	25.2	95.1036	15.4083
238.5	25.6	95.3437	20.3973
238.0	25.2	91.4513	27.8330
237.5	25.6	99.3195	25.8420
237.0	25.1	94.8276	17.2414
236.5	25.5	105.071	22.0826
236.0	25.3	102.773	20.3269
235.5	25.1	98.7110	19.0328
235.0	25.5	103.445	20.4673
234.5	25.7	102.946	25.2789
234.0	25.2	102.616	26.6332
233.5	25.2	103.291	16.6740
233.0	25.3	110.400	21.3438
232.5	25.3	110.422	21.5499
232.0	25.2	105.635	20.0674
231.5	25.1	108.311	14.4755
231.0	25.5	107.598	19.2140
230.5	25.5	106.127	22.8230
230.0	25.2	100.529	23.2297
229.5	25.3	100.398	23.3867
229.0	25.3	108.454	18.9231
228.5	25.3	113.324	22.2222
228.0	25.1	113.741	29.3907
227.5	25.3	119.445	24.9742
227.0	25.6	124.161	25.4777
226.5	25.2	124.056	24.0385
226.0	25.6	123.783	16.6667
225.5	25.5	122.592	17.8833
225.0	25.3	125.342	21.4023
224.5	25.2	122.517	23.2138
224.0	25.2	125.368	22.6853
223.5	25.5	131.634	27.4238
223.0	25.2	126.767	22.8484
222.5	25.5	129.429	30.4960
222.0	25.2	132.991	27.3855
221.5	25.3	140.174	27.0636
221.0	25.3	138.233	18.0273
220.5	25.2	156.824	33.7750
220.0	25.3	148.525	40.6883
219.5	25.7	147.697	28.4345
219.0	25.2	162.499	19.9014
218.5	25.2	185.476	18.7970
218.0	25.5	176.909	31.7134
217.5	25.6	171.856	22.7642
217.0	25.2	182.416	29.8737
216.5	25.2	193.297	25.7158
216.0	25.6	191.714	37.2572
215.5	25.3	192.729	26.9884
215.0	25.3	186.087	22.3579
214.5	25.5	180.092	31.3719
214.0	25.5	172.682	21.5834
213.5	25.3	161.025	27.3973
213.0	24.9	151.703	23.0800

212.5	25.2	149.629	27.5815
212.0	25.5	143.787	20.8388
211.5	25.2	141.913	24.5700
211.0	25.5	139.085	22.7476
210.5	25.5	143.185	20.4186
210.0	25.5	142.161	26.9659
209.5	25.3	130.304	23.1919
209.0	25.2	131.539	20.7006
208.5	25.5	128.552	21.5257
208.0	26.1	115.897	25.0223
207.5	25.9	120.751	25.4950
207.0	25.9	124.843	20.0955
206.5	25.9	123.615	20.7756
206.0	26.0	122.722	28.1715
205.5	25.6	119.878	17.9324
205.0	25.7	119.344	27.6221
204.5	26.1	116.564	27.7107
204.0	25.6	113.550	23.8053
203.5	26.1	108.200	28.8210
203.0	25.9	113.961	24.8437
202.5	25.9	116.325	21.6587
202.0	25.7	119.888	29.6451
201.5	25.7	122.805	25.4565
201.0	26.0	128.798	29.9529
200.5	26.5	128.277	37.3293
200.0	25.7	132.160	29.7775
199.5	25.7	132.084	19.9601
199.0	26.1	132.572	20.8560
198.5	26.1	159.845	26.4092
198.0	25.7	186.187	22.6853
197.5	25.6	189.400	24.8161
197.0	26.0	183.916	14.9740
196.5	26.2	189.056	23.8663
196.0	25.9	194.389	25.1082
195.5	25.7	197.641	23.9404
195.0	26.0	165.481	27.4348
194.5	26.0	140.273	31.1343
194.0	25.6	136.082	36.1508
193.5	25.9	131.849	21.4535
193.0	26.4	126.140	17.5439
192.5	25.3	119.097	22.2534
192.0	25.1	120.704	26.5025
191.5	25.2	124.905	21.8690
191.0	25.3	120.988	25.8153
190.5	25.1	120.139	19.7597
190.0	25.1	120.720	21.2898
189.5	25.2	120.601	15.8452
189.0	25.6	115.627	15.3374
188.5	25.2	110.639	28.3236
188.0	25.3	111.810	28.2144
187.5	25.3	123.067	28.7405
187.0	25.3	124.978	25.0475
186.5	25.2	125.313	27.6362
186.0	25.1	122.041	28.6967

185.5	25.3	128.022	26.0242
185.0	25.3	123.740	23.9112
184.5	25.3	116.335	18.7333
184.0	25.3	120.951	22.3392
183.5	25.2	134.911	26.0089
183.0	25.2	126.882	22.1356
182.5	25.2	128.373	30.0739
182.0	25.3	153.031	23.7379
181.5	25.5	165.935	19.8054
181.0	25.3	165.462	28.3944
180.5	25.5	143.830	22.1408
180.0	25.1	134.554	19.2678
179.5	25.5	134.837	28.8307
179.0	25.3	150.129	27.5360
178.5	25.1	162.307	18.4440
178.0	25.3	173.543	21.5037
177.5	25.6	170.308	13.8181
177.0	25.2	162.087	26.8701
176.5	25.2	153.255	18.7954
176.0	25.3	132.776	22.4003
175.5	25.5	122.929	16.6442
175.0	25.2	124.140	26.6713
174.5	25.1	118.286	17.2444
174.0	25.6	113.584	23.7853
173.5	25.5	110.823	16.9999
173.0	25.2	110.245	17.3205
172.5	25.2	112.059	29.8711
172.0	25.2	99.797	21.9910
171.5	25.2	95.7583	20.7303
171.0	24.9	95.3122	25.0822
170.5	25.2	94.1370	20.7846
170.0	25.5	91.0302	18.3211
169.5	25.3	94.0939	17.6426
169.0	25.3	94.0769	27.8481
168.5	25.1	95.5398	31.6754
168.0	25.3	93.9683	17.8906
167.5	25.5	94.2081	17.6240
167.0	25.1	97.7678	24.2277
166.5	25.3	97.7732	20.4761
166.0	25.5	91.7920	24.9248
165.5	25.2	91.6667	26.9630
165.0	25.5	94.4936	23.1939
164.5	25.3	96.2173	25.3850
164.0	25.3	97.2342	22.4719
163.5	25.3	112.011	27.5719
163.0	25.2	111.656	34.0271
162.5	25.2	115.931	28.4042
162.0	25.6	119.025	25.0670
161.5	25.2	127.237	20.4516
161.0	25.3	130.269	25.0850
160.5	25.1	138.259	22.0807
160.0	25.5	137.806	18.2007
159.5	25.2	171.238	31.3188
159.0	25.1	186.356	20.5047

158.5	25.5	186.119	24.0819
158.0	25.5	188.561	27.5648
157.5	25.5	186.451	27.2384
157.0	25.2	179.231	18.8650
156.5	25.3	167.035	23.8014
156.0	25.3	154.312	19.9169
155.5	24.9	146.221	20.8514
155.0	25.2	131.796	18.4162
154.5	25.6	126.774	13.8444
154.0	25.2	133.076	29.4044
153.5	25.2	133.951	20.2822
153.0	25.2	130.094	21.4048
152.5	25.3	128.615	19.0602
152.0	25.2	116.977	22.7651
151.5	25.1	120.572	27.0483
151.0	25.5	115.250	22.4514
150.5	25.6	116.150	29.0167
150.0	25.2	116.081	24.9914
149.5	25.2	114.618	18.6646
149.0	25.2	132.413	30.3899
148.5	25.5	164.557	15.4381
148.0	25.2	163.475	19.6850
147.5	24.9	158.745	28.4495
147.0	25.6	165.766	20.9169
146.5	25.3	168.314	23.1223
146.0	25.2	160.190	21.5889
145.5	25.1	165.490	22.9729
145.0	25.2	165.955	17.4231
144.5	25.3	171.876	19.7832
144.0	24.9	166.823	23.9051
143.5	25.2	159.777	21.9354
143.0	25.6	141.496	19.2274
142.5	25.2	124.960	32.1880
142.0	25.3	120.642	19.8481
141.5	25.3	116.584	13.6356
141.0	25.3	115.375	17.3626
140.5	25.3	118.063	17.4909
140.0	25.1	123.224	17.8723
139.5	25.1	132.600	22.8330
139.0	25.5	154.511	27.0766
138.5	25.3	148.787	18.1238
138.0	25.5	136.793	17.9241
137.5	25.2	136.062	17.4332
137.0	25.2	116.633	28.7231
136.5	25.2	122.753	27.2596
136.0	25.1	116.204	27.3422
135.5	25.6	119.874	25.5232
135.0	25.5	126.257	28.1138
134.5	25.2	126.973	30.3556
134.0	25.2	136.389	28.3470
133.5	25.3	139.785	20.1613
133.0	25.3	133.900	21.2540
132.5	25.2	143.179	27.5023
132.0	25.1	194.805	26.1352

131.5	25.5	210.286	32.6825
131.0	25.3	221.282	19.8498
130.5	25.5	225.311	27.2921
130.0	25.5	224.874	19.5472
129.5	25.3	222.127	23.9952
129.0	25.2	220.562	16.9794
128.5	25.1	214.440	19.8413
128.0	25.2	206.561	28.0505
127.5	25.7	189.069	24.1114
127.0	25.2	183.562	17.6664
126.5	25.3	180.749	24.7250
126.0	25.3	188.783	20.9662
125.5	25.2	193.418	20.9711
125.0	25.2	191.571	17.8072
124.5	25.1	175.842	14.6463
124.0	25.6	159.300	24.2676
123.5	25.5	163.051	19.2108
123.0	25.2	149.052	25.9673
122.5	25.5	139.233	25.6257
122.0	25.5	132.753	26.1301
121.5	25.3	123.678	21.4729
121.0	24.9	120.534	17.5577
120.5	25.2	114.926	21.8267
120.0	25.6	109.149	23.4823
119.5	25.3	103.540	21.7707
119.0	25.3	104.554	15.6440
118.5	25.5	89.7828	20.3631
118.0	25.3	95.4839	17.2043
117.5	25.1	100.096	23.2223
117.0	25.1	94.3476	17.6902
116.5	25.2	90.2120	21.5387
116.0	25.5	101.473	19.8122
115.5	25.2	106.781	28.9273
115.0	25.3	98.0155	18.9819
114.5	25.2	99.1506	14.7339
114.0	25.3	98.5230	22.1976
113.5	25.1	98.0475	16.9033
113.0	24.9	96.5804	23.2242
112.5	25.3	98.5183	20.7972
112.0	25.5	97.8176	19.1288
111.5	25.3	95.9097	17.4230
111.0	25.2	103.564	21.3027
110.5	25.3	105.729	17.3611
110.0	25.3	108.619	13.7492
109.5	25.1	113.177	21.2260
109.0	25.2	116.520	22.7701
108.5	25.6	126.118	16.9946
108.0	25.5	132.962	14.7929
107.5	25.3	143.014	20.2497
107.0	25.2	161.812	25.0809
106.5	25.3	172.396	16.5347
106.0	25.3	149.244	16.7126
105.5	25.2	139.846	20.9900
105.0	25.2	139.664	28.1418

104.5	25.6	143.211	24.7800
104.0	25.3	164.921	21.8150
103.5	25.5	147.121	24.5909
103.0	25.3	136.123	24.4200
102.5	25.2	138.039	18.6425
102.0	25.3	133.456	21.0582
101.5	25.1	129.360	14.2893
101.0	25.5	128.445	14.5960
100.5	25.5	133.655	23.3494
100.0	25.2	149.411	23.1979
99.5	25.3	152.226	23.3000
99.0	25.3	168.028	12.7616
98.5	25.5	167.535	25.2484
98.0	25.2	156.301	17.2995
97.5	25.1	157.073	15.3492
97.0	25.6	144.808	30.4401
96.5	25.6	123.067	14.9125
96.0	25.5	116.271	25.8975
95.5	25.5	114.857	26.0658
95.0	25.3	113.396	15.3584
94.5	25.2	111.720	26.1909
94.0	25.1	103.219	24.3759
93.5	25.3	103.120	22.2889
93.0	25.7	102.360	22.7273
92.5	25.5	99.983	14.0484
92.0	25.5	105.510	13.6682
91.5	25.3	113.363	17.3205
91.0	25.3	128.214	26.9746
90.5	25.1	151.186	23.3213
90.0	24.9	153.755	20.2515
89.5	25.3	158.281	29.8966
89.0	25.6	135.890	30.6480
88.5	25.1	130.126	21.9048
88.0	25.3	125.187	22.8598
87.5	25.2	114.810	19.1205
87.0	25.5	115.754	27.1762
86.5	25.1	115.199	27.5719
86.0	25.1	120.202	24.0404
85.5	25.5	165.950	21.4850
85.0	25.3	196.776	24.6631
84.5	25.3	212.739	25.5820
84.0	25.5	218.994	23.0855
83.5	25.2	221.453	18.1661
83.0	25.5	237.975	19.1005
82.5	25.1	231.859	17.9288
82.0	25.2	226.390	19.8208
81.5	25.6	233.252	20.8805
81.0	25.3	227.428	20.5585
80.5	25.7	225.533	29.7099
80.0	25.5	213.818	17.3515
79.5	25.5	182.980	14.0081
79.0	25.5	145.747	17.3611
78.5	25.2	125.000	11.6589
78.0	25.7	114.220	21.4575

77.5	25.7	108.663	18.4324
77.0	25.1	107.871	24.9462
76.5	25.3	107.719	15.8800
76.0	25.6	100.606	17.9349
75.5	25.5	97.4371	23.0104
75.0	25.5	101.388	22.5518
74.5	25.2	98.1472	13.1085
74.0	25.6	97.9297	18.8987
73.5	25.9	100.744	19.8495
73.0	25.2	101.709	12.6925
72.5	25.6	99.3246	19.0493
72.0	25.5	99.1349	25.6003
71.5	25.5	102.342	23.9641
71.0	25.2	103.079	18.4227
70.5	25.2	100.421	20.1914
70.0	25.6	109.082	19.6313
69.5	25.5	114.064	17.1695
69.0	25.5	108.312	23.1362
68.5	25.3	111.304	15.6399
68.0	25.3	111.092	11.1521
67.5	25.3	117.680	20.2741
67.0	24.9	119.631	11.3270
66.5	25.3	122.444	20.1140
66.0	25.7	116.196	21.7922
65.5	25.1	115.661	18.5379
65.0	25.7	108.547	26.3273
64.5	25.6	104.364	20.0366
64.0	25.5	112.559	16.4005
63.5	25.2	112.981	29.7543
63.0	25.3	117.418	23.8152
62.5	25.5	119.151	11.3063
62.0	26.0	116.428	22.7432
61.5	25.2	129.730	23.6510
61.0	25.5	132.816	11.8727
60.5	25.5	140.950	21.0748
60.0	25.3	158.408	17.6382
59.5	25.5	177.333	20.3019
59.0	25.2	187.701	22.7469
58.5	25.5	191.160	27.6793
58.0	25.6	192.653	22.6856
57.5	25.3	192.166	22.7830
57.0	25.5	188.394	30.0691
56.5	25.1	185.192	20.4726
56.0	25.3	191.957	29.8202
55.5	25.2	189.379	19.9896
55.0	25.2	185.401	23.4173
54.5	25.7	207.930	21.2898
54.0	25.3	189.765	25.0259
53.5	25.5	168.051	29.9786
53.0	25.5	144.891	23.0616
52.5	25.5	122.407	21.5183
52.0	25.3	119.393	22.3023
51.5	25.2	120.802	29.6083
51.0	25.5	118.286	23.1605

50.5	25.7	114.251	28.5016
50.0	25.3	114.533	22.4913
49.5	25.5	124.799	21.1667
49.0	25.5	129.779	30.6910
48.5	25.5	126.029	14.2495
48.0	25.6	131.757	19.3356
47.5	25.2	131.570	24.7440
47.0	25.6	134.724	17.3837
46.5	25.9	149.015	17.7591
46.0	25.3	137.922	28.7138
45.5	25.5	152.657	22.8371
45.0	25.5	149.803	24.0096
44.5	25.3	136.498	22.9546
44.0	25.2	136.411	28.4189
43.5	25.3	140.276	28.2607
43.0	25.7	147.721	33.8782
42.5	25.5	153.114	30.8900
42.0	25.5	146.653	23.5433
41.5	25.3	144.373	28.4777
41.0	25.6	175.800	19.4449
40.5	25.3	191.663	23.0250
40.0	25.3	190.029	20.6647
39.5	25.3	188.121	21.4261
39.0	25.6	228.189	23.9638
38.5	25.3	259.810	17.8374
38.0	25.3	228.583	22.7994
37.5	25.5	224.027	24.6557
37.0	25.6	218.853	21.2823
36.5	25.5	215.899	13.7955
36.0	25.2	212.095	16.0205
35.5	25.3	200.831	15.5817
35.0	25.7	189.640	15.5655
34.5	25.2	142.759	21.3730
34.0	25.7	92.7033	10.6461
33.5	25.3	76.6009	14.8316
33.0	25.5	69.0759	10.9511
32.5	25.5	83.2045	17.1733
32.0	25.3	82.1394	17.5117
31.5	25.7	33.2563	12.4489
31.0	25.6	44.5017	21.4795
30.5	25.3	38.4881	25.0259
30.0	25.5	37.4979	22.2515
29.5	25.5	38.4515	23.4355
29.0	25.5	39.3788	18.6694
28.5	25.1	38.7664	21.5369
28.0	25.2	39.0244	23.5772
27.5	25.9	38.1204	14.4977
27.0	25.5	40.8092	15.6277
26.5	25.3	39.5308	12.1633
26.0	25.6	41.7131	17.9872
25.5	25.5	41.2050	11.4924
25.0	25.6	42.6164	13.9726
24.5	25.2	44.0592	12.6839
24.0	25.3	42.5642	9.5164

23.5	26.0	43.2059	14.6461
23.0	25.3	44.6559	7.71407
22.5	25.7	43.7944	15.5790
22.0	25.5	44.1484	11.3201
21.5	25.5	45.3262	15.3226
21.0	25.5	48.0655	14.4878
20.5	25.3	48.9380	16.1427
20.0	25.6	268.479	13.4553
19.5	25.6	428.628	17.4936
19.0	25.3	407.535	17.2429
18.5	25.6	389.010	10.4502
18.0	25.5	1239.68	14.8731
17.5	25.3	2388.42	10.2946
17.0	24.9	2503.29	17.1072
16.5	25.2	2458.75	9.6339
16.0	25.7	2442.58	19.6665
15.5	25.5	2641.09	15.6417
15.0	25.3	2004.59	16.1482
14.5	25.5	1579.92	16.3737
14.0	25.3	2546.20	14.0425
13.5	25.3	2762.82	17.0634
13.0	25.1	2703.38	17.4354
12.5	25.2	2329.68	13.7186
12.0	25.6	12192.6	16.3272
11.5	24.9	14860.5	16.7062
11.0	25.5	14867.3	20.9037
10.5	25.3	14867.3	16.0310
10.0	25.3	14870.7	10.2669
9.5	25.5	14870.7	22.0985
9.0	25.1	14867.3	15.9426
8.5	25.5	14867.3	12.9199
8.0	25.9	14870.7	15.4839
7.5	25.1	14870.7	15.2014
7.0	25.5	14867.3	11.3535
6.5	25.1	14870.7	16.9463
6.0	25.2	14867.3	19.8687
5.5	25.1	14867.3	18.3808
5.0	24.7	14870.7	18.2760
150.0	0.0	116.237	27.6194
150.0	0.0	116.118	21.1230
150.0	0.0	115.525	23.4687
149.5	14.3	117.165	27.1361
149.0	19.4	163.936	24.3841
148.5	21.8	164.994	28.2828
148.0	21.9	161.725	19.1527
147.5	24.0	163.326	22.5330
147.0	24.8	168.364	18.5201
146.5	24.4	163.301	23.0561
146.0	24.4	165.990	16.2324
145.5	24.5	164.962	22.2699
145.0	24.4	170.093	25.2738
144.5	24.4	168.510	29.6019
144.0	24.5	162.448	15.9758
143.5	24.5	152.268	26.9718

143.0	24.4	127.177	20.0017
142.5	24.4	121.796	22.2169
142.0	24.4	120.345	22.1948
141.5	24.5	112.330	19.2662
141.0	24.7	124.158	22.4449
140.5	24.1	120.843	27.0485
140.0	24.3	130.194	14.0438
139.5	24.7	148.721	29.5558
139.0	24.8	153.625	17.2258
138.5	24.7	140.392	26.8052
138.0	24.4	139.292	17.3721
137.5	24.3	120.391	21.5428
137.0	24.4	121.971	25.2896
136.5	24.4	120.509	22.7070
136.0	24.4	118.021	31.0139
135.5	24.8	126.829	28.0684
135.0	24.3	126.117	19.4916
134.5	24.5	134.633	30.6952
134.0	24.7	141.290	31.6725
133.5	24.7	139.717	32.3735
133.0	24.3	135.462	22.0462
132.5	24.3	182.250	36.6331
132.0	24.5	212.068	26.2002
131.5	24.8	224.748	24.9813
131.0	24.4	232.092	26.7156
130.5	24.4	231.707	31.3144
130.0	24.5	228.488	26.8160
129.5	24.3	226.894	31.0838
129.0	24.4	222.371	24.2272
128.5	24.3	213.370	17.2655
128.0	24.7	201.569	26.1573
127.5	24.3	186.606	22.1857
127.0	24.5	182.796	20.9996
126.5	24.4	185.155	24.0462
126.0	24.4	193.011	19.4618
125.5	24.4	194.094	21.1516
125.0	24.3	184.684	13.1331
124.5	24.3	164.590	23.4172
124.0	24.7	162.660	14.8687
123.5	24.3	156.510	19.8777
123.0	24.4	141.485	13.5950
122.5	24.5	136.650	18.7862
122.0	24.5	126.490	20.9357
121.5	24.4	122.441	20.6300
121.0	24.4	119.398	16.0051
120.5	24.5	109.722	19.0972
120.0	24.8	106.346	18.7862
119.5	24.9	105.548	18.8058
119.0	25.1	95.3537	25.1387
118.5	24.9	92.9167	19.1667
118.0	25.2	99.825	13.1245
117.5	25.1	97.6802	13.9654
117.0	24.9	92.0597	13.4998
116.5	25.1	95.9883	24.9656

116.0	25.1	109.216	15.2737
115.5	25.1	100.561	20.3417
115.0	25.1	99.1556	12.5397
114.5	24.8	99.4635	15.3283
114.0	24.8	100.176	21.8506
113.5	24.8	98.9706	19.4076
113.0	25.1	96.8850	19.9681
112.5	25.2	98.6555	22.6891
112.0	24.8	96.0191	21.3566
111.5	25.2	100.700	15.1822
111.0	25.1	105.058	15.6104
110.5	25.1	107.751	24.3309
110.0	24.9	110.979	26.2401
109.5	24.9	114.536	27.4749
109.0	25.1	122.432	18.6104
108.5	25.3	131.720	25.4777
108.0	25.1	140.045	22.5460
107.5	24.9	154.545	21.0438
107.0	25.1	171.009	20.4050
106.5	25.1	159.986	19.1304
106.0	24.9	141.429	12.7108
105.5	24.8	139.634	20.8160
105.0	25.2	143.006	22.4954
104.5	24.9	158.057	21.3456
104.0	25.2	157.151	23.6827
103.5	25.1	140.632	23.7067
103.0	24.8	138.301	19.7348
102.5	25.1	134.378	17.7830
102.0	24.7	131.682	20.9153
101.5	25.1	128.085	26.4708
101.0	25.1	131.985	17.9995
100.5	25.1	143.502	19.3377
100.0	25.1	153.213	20.5885
99.5	24.9	163.930	9.8506
99.0	24.9	172.947	17.2876
98.5	25.1	162.060	16.5864
98.0	24.8	157.635	19.5362
97.5	24.9	149.113	17.6515
97.0	25.3	132.215	20.8623
96.5	25.1	117.600	20.1645
96.0	25.1	115.468	24.1949
95.5	25.1	115.947	28.9017
95.0	24.8	111.465	17.5850
94.5	24.9	105.214	22.7380
94.0	25.1	100.564	21.6732
93.5	25.1	106.480	14.3436
93.0	25.1	100.318	17.1615
92.5	25.1	104.147	19.2123
92.0	24.8	111.304	19.8758
91.5	24.9	121.272	15.5588
91.0	24.8	151.235	25.2058
90.5	24.5	152.495	17.9589
90.0	24.9	164.260	25.3357
89.5	25.2	146.568	28.6707

89.0	24.7	133.300	31.6192
88.5	25.2	130.161	28.8663
88.0	24.9	119.224	26.7212
87.5	25.1	117.944	26.0789
87.0	24.8	118.456	28.8527
86.5	24.5	121.280	22.5075
86.0	24.8	146.154	26.4423
85.5	25.2	192.609	30.0817
85.0	24.9	212.173	23.8035
84.5	24.9	222.052	22.1541
84.0	25.1	225.125	19.0582
83.5	25.1	235.156	25.9610
83.0	25.1	241.175	23.0947
82.5	24.7	234.616	24.2676
82.0	25.2	237.474	12.5068
81.5	25.1	236.792	17.3792
81.0	24.8	231.730	19.4093
80.5	25.1	227.118	15.7965
80.0	24.8	198.063	16.0051
79.5	25.1	159.385	21.9743
79.0	24.7	129.418	11.9515
78.5	24.8	122.961	16.0568
78.0	25.5	110.399	23.5237
77.5	25.2	109.832	19.6129
77.0	25.1	109.992	25.4022
76.5	25.1	104.425	19.2759
76.0	25.1	99.2412	22.1692
75.5	24.9	102.212	20.6153
75.0	24.7	100.900	18.5138
74.5	25.1	99.3707	17.4795
74.0	25.5	100.891	19.1619
73.5	24.9	101.831	11.2432
73.0	25.1	103.265	16.5433
72.5	24.9	100.092	21.7228
72.0	24.8	101.373	18.7569
71.5	25.1	104.744	17.4825
71.0	24.8	100.576	19.4899
70.5	25.1	106.314	21.2459
70.0	25.2	114.669	20.7702
69.5	24.8	110.244	14.8345
69.0	25.3	111.737	15.9865
68.5	24.9	110.473	15.9095
68.0	25.1	118.510	20.8351
67.5	24.8	119.764	16.7558
67.0	24.9	121.313	14.1255
66.5	25.5	120.432	25.4972
66.0	24.9	118.691	12.1824
65.5	25.1	111.668	26.2467
65.0	25.2	105.699	18.9983
64.5	24.9	111.870	39.6524
64.0	25.1	114.624	31.5323
63.5	24.8	117.131	28.3854
63.0	24.9	120.873	30.6007
62.5	25.3	118.457	23.9460

62.0	25.1	128.557	35.5721
61.5	24.9	133.650	22.0751
61.0	25.1	140.301	28.5058
60.5	25.1	153.961	21.0029
60.0	25.1	175.838	17.0968
59.5	24.9	190.400	20.3288
59.0	25.1	195.277	18.0449
58.5	25.3	196.924	17.2801
58.0	24.9	198.188	19.4717
57.5	25.3	193.839	22.0657
57.0	25.1	191.337	21.0885
56.5	25.1	189.997	31.5242
56.0	24.8	186.391	17.5762
55.5	24.9	174.638	17.9687
55.0	25.2	190.983	29.8411
54.5	25.2	183.710	29.6008
54.0	25.1	164.800	19.5180
53.5	24.9	149.128	22.7483
53.0	24.9	124.789	22.5443
52.5	25.1	119.718	24.0447
52.0	24.8	122.509	23.5393
51.5	24.9	122.604	30.0050
51.0	25.2	117.541	19.8344
50.5	25.1	115.693	21.6173
50.0	25.1	122.910	20.3718
49.5	25.1	131.930	30.0817
49.0	24.9	130.394	21.1954
48.5	25.2	130.833	14.2124
48.0	24.7	139.360	13.6461
47.5	25.1	135.756	23.9472
47.0	25.5	155.237	23.4681
46.5	25.1	146.202	30.6773
46.0	25.2	151.107	19.1380
45.5	25.1	155.073	27.5862
45.0	25.1	144.140	33.3618
44.5	24.9	143.277	21.4558
44.0	24.8	141.928	25.8333
43.5	25.1	157.062	16.2449
43.0	25.3	162.547	22.0115
42.5	25.1	165.049	27.4970
42.0	25.2	160.487	28.9687
41.5	25.1	193.676	24.5270
41.0	24.9	219.634	32.3356
40.5	24.8	221.649	16.6534
40.0	24.8	222.815	25.8087
39.5	25.5	238.633	13.4964
39.0	25.1	264.266	20.6256
38.5	25.1	243.374	28.4257
38.0	25.1	240.964	24.7347
37.5	25.1	224.071	21.5554
37.0	25.1	225.079	6.65668
36.5	24.7	226.232	14.3666
36.0	25.1	212.740	16.2088
35.5	25.3	201.497	11.9078

35.0	24.9	164.239	10.0452
34.5	25.3	104.756	14.7544
34.0	25.1	81.0916	11.7297
33.5	24.9	72.1064	20.3338
33.0	24.9	74.4556	11.7253
32.5	24.7	100.986	15.4308
32.0	25.2	40.6649	16.2338
31.5	25.2	42.8393	11.5782
31.0	24.8	39.2679	20.7987
30.5	24.8	38.3866	13.5593
30.0	24.9	38.0576	27.6374
29.5	25.1	39.7713	22.5284
29.0	24.7	39.2289	20.2926
28.5	24.9	38.8115	15.8571
28.0	25.2	38.8715	15.2280
27.5	25.2	39.9306	15.6250
27.0	25.1	40.1040	20.9767
26.5	24.9	40.2108	19.5528
26.0	24.7	40.8869	14.3315
25.5	24.8	41.6308	15.6507
25.0	24.5	43.4562	10.1266
24.5	24.8	42.9335	11.6930
24.0	25.6	42.8353	17.8496
23.5	24.9	43.9873	15.4472
23.0	25.2	44.0968	14.1443
22.5	24.9	44.0007	12.9668
22.0	24.9	45.2703	13.5135
21.5	24.9	46.0130	14.8681
21.0	24.5	47.5948	21.2477
20.5	25.1	83.1477	14.0229
20.0	25.2	325.343	11.2906
19.5	24.7	320.474	10.3413
19.0	25.1	319.583	14.1667
18.5	25.1	1047.55	8.44666
18.0	24.9	2847.25	14.1513
17.5	24.7	3077.64	14.4381
17.0	24.7	3071.25	13.6530
16.5	25.1	3098.19	15.8096
16.0	25.2	3262.09	15.6767
15.5	24.8	2921.66	13.3438
15.0	24.8	1896.34	14.4325
14.5	24.9	2892.67	12.3742
14.0	24.8	3490.52	16.3723
13.5	24.9	3537.37	11.5741
13.0	24.8	3425.88	15.8115
12.5	25.2	6744.37	12.8722
12.0	24.8	14810.2	11.8906
11.5	24.9	11.3148	19.3131
11.0	24.9	14830.3	15.6006
10.5	24.8	14833.6	14.2965
10.0	24.9	14830.3	19.6296
9.5	24.7	14833.6	14.1454
9.0	25.2	14830.3	21.4883
8.5	25.1	14837.0	16.3878

8.0 24.3 14833.6 11.4491
7.5 24.0 14830.3 20.2135

Ft.

FT/min.

Depth

	Speed	CPS	index	CPS
	LSD	CALIPER	SSD	

1004.5	0.0	0.00000	2.93455	2.16732
1004.5	0.0	3.32834	2.93393	6.65668
1004.5	0.0	8.09848	2.93489	1.61970
1007.0	0.0	1.64366	4.46252	3.28731
1007.0	0.0	6.58762	4.46311	3.29381
1007.0	0.0	3.20873	4.46334	0.00000
1010.0	0.0	3.72335	6.44606	1.86168
1010.0	0.0	6.46374	6.44553	2.93807
1010.0	0.0	7.05136	6.46139	2.93807
5000.0	0.0	127.306	0.42907	2907.41
5000.0	0.0	123.151	0.42897	2933.83
8000.0	0.0	1464.78	0.43030	6070.14
8000.0	0.0	1528.35	0.42968	6093.36
8000.0	0.0	1468.82	0.43027	6206.53
515.5	14.7	256.809	4.98543	3708.09
515.0	18.1	303.742	5.05416	4214.57
514.5	19.6	237.732	5.37087	4098.55
514.0	19.6	197.273	5.52562	3869.32
513.5	19.8	133.197	5.68400	3593.61
513.0	19.8	110.979	5.63564	3015.77
512.5	19.6	108.652	5.64191	3287.56
512.0	19.7	94.5455	5.69190	3077.02
511.5	19.8	114.112	5.71506	2697.50
511.0	19.7	228.697	5.63596	3001.88
510.5	19.4	271.056	5.66574	4648.29
510.0	19.8	143.099	5.69956	3486.61
509.5	19.8	87.3767	5.67154	2776.20
509.0	19.7	90.5694	5.66850	2842.49
508.5	19.6	100.379	5.67972	2996.74
508.0	19.7	119.278	5.66136	2873.33
507.5	19.7	139.670	5.58140	3249.71
507.0	19.7	141.975	5.56173	3280.25
506.5	19.7	136.732	5.55556	3321.39
506.0	19.7	142.886	5.55786	3318.42
505.5	19.8	112.910	5.58563	3238.33
505.0	19.6	124.543	5.57903	3209.62
504.5	19.8	134.855	5.58849	3412.78
504.0	19.4	96.7677	5.63000	2938.65
503.5	19.7	109.396	5.62550	2914.09
503.0	19.3	121.329	5.62718	3031.98
502.5	19.7	181.136	5.63850	3077.37
502.0	19.8	305.766	5.70832	3776.59
501.5	19.6	369.498	5.90254	4242.83
501.0	19.6	318.743	5.92074	4612.25
500.5	19.6	256.947	5.88821	3660.07
500.0	19.7	231.145	5.81957	3728.04
499.5	19.4	261.822	5.71787	3536.24
499.0	19.7	318.763	5.53732	4036.99
498.5	19.7	335.490	5.45643	4107.56
498.0	19.6	316.234	5.50010	4297.22
497.5	19.6	284.502	5.62769	3918.03
497.0	19.7	291.466	5.69376	4073.75
496.5	19.7	307.218	5.98273	4309.07
496.0	19.6	242.887	5.82452	3861.64

CTGH-1

♦ dual density

♦ Caliper

Caliper
calibration

Alarm BKS

Sonicite Bases

495.5	19.4	262.248	5.75576	3694.96
495.0	19.8	264.607	5.73271	3864.34
494.5	19.7	284.890	5.73983	3992.22
494.0	19.6	240.718	5.88934	3869.95
493.5	19.8	176.311	5.78843	3592.50
493.0	19.4	128.336	5.73437	2967.34
492.5	19.7	106.619	5.67176	2897.82
492.0	19.4	124.030	5.61916	3013.86
491.5	19.6	121.285	5.59576	3059.44
491.0	19.7	131.265	5.60461	3123.18
490.5	19.6	130.080	5.57167	3172.96
490.0	19.7	149.838	5.51946	3339.52
489.5	19.6	126.271	5.55725	3135.51
489.0	19.6	106.134	5.55904	3178.03
488.5	19.4	126.532	5.61601	3393.71
488.0	19.6	113.036	5.64934	3085.52
487.5	19.7	98.4002	5.63759	2918.54
487.0	19.7	77.7676	5.65808	2881.98
486.5	19.3	101.010	5.65387	2795.29
486.0	19.6	106.024	5.65852	3099.22
485.5	19.6	114.305	5.67096	2774.36
485.0	19.6	108.947	5.64824	3002.86
484.5	19.3	115.382	5.64317	2917.52
484.0	19.6	146.751	5.54446	3054.63
483.5	19.8	122.793	5.48055	3389.75
483.0	19.4	120.675	5.49637	3492.90
482.5	19.6	121.296	5.56174	3111.29
482.0	19.6	121.548	5.58000	2965.16
481.5	19.6	154.163	5.52462	3025.45
481.0	19.3	205.635	5.41680	3707.29
480.5	19.7	193.424	5.50123	3855.13
480.0	19.8	139.414	5.61373	3260.43
479.5	19.3	202.310	5.51045	3519.40
479.0	19.6	245.752	5.40000	4222.88
478.5	19.6	210.519	5.55504	3980.49
478.0	19.7	200.201	5.61823	3414.13
477.5	19.4	266.002	5.57310	3667.72
477.0	19.4	307.559	5.47363	4123.16
476.5	19.7	290.775	5.62634	4405.75
476.0	19.8	247.906	5.79157	3910.67
475.5	19.3	243.258	5.73377	3489.16
475.0	19.6	212.794	5.78133	3716.06
474.5	19.4	204.329	5.82170	3508.67
474.0	19.7	216.080	5.76655	3598.46
473.5	19.4	244.900	5.60481	3876.87
473.0	19.4	282.704	5.60608	4086.54
472.5	19.8	215.329	5.69477	3862.46
472.0	19.4	232.285	5.82213	3699.60
471.5	19.7	239.031	5.84847	3465.64
471.0	19.6	335.196	5.73063	4186.58
470.5	19.3	261.429	5.70895	3775.92
470.0	19.6	191.641	5.66293	3996.60
469.5	19.6	203.883	5.55218	3438.11
469.0	19.6	266.354	5.34653	4287.15

468.5	19.6	155.880	5.46698	3643.78
468.0	19.4	148.046	5.56718	3326.75
467.5	19.8	152.695	5.56689	3330.86
467.0	19.6	148.143	5.52673	3359.89
466.5	19.3	151.330	5.59989	3222.72
466.0	19.4	134.464	5.63357	3227.13
465.5	19.7	161.516	5.49582	3427.81
465.0	19.4	163.868	5.51395	3673.48
464.5	19.3	136.769	5.55071	3471.42
464.0	19.6	154.550	5.53993	3704.56
463.5	19.4	128.569	5.67086	3776.62
463.0	19.7	112.028	5.73003	3158.93
462.5	19.3	96.0392	5.73785	2750.70
462.0	19.4	96.7441	5.73859	2726.18
461.5	19.9	114.271	5.62816	3000.59
461.0	19.4	141.577	5.55597	3323.31
460.5	19.4	125.363	5.55622	3122.20
460.0	19.7	120.650	5.55585	3146.83
459.5	19.6	131.227	5.55004	2969.25
459.0	19.6	139.327	5.49489	3396.17
458.5	19.4	125.050	5.50951	3169.48
458.0	19.7	139.092	5.51777	3085.32
457.5	19.6	143.133	5.49564	3297.38
457.0	19.4	131.255	5.50592	3295.54
456.5	19.3	124.919	5.58706	2996.76
456.0	19.8	124.207	5.58589	3241.66
455.5	19.4	111.517	5.62280	3033.13
455.0	19.2	102.545	5.67087	2975.66
454.5	19.7	118.482	5.68713	2844.90
454.0	19.7	168.686	5.62822	3122.03
453.5	19.8	209.689	5.54066	3628.48
453.0	20.1	260.647	5.39801	4078.13
452.5	20.1	200.906	5.40892	4032.33
452.0	20.1	173.383	5.49340	3729.77
451.5	20.1	159.842	5.55639	3521.97
451.0	19.8	149.963	5.64498	3281.54
450.5	20.1	174.067	5.63320	3135.09
450.0	20.3	189.399	5.59681	3456.19
449.5	19.9	201.039	5.60859	3579.73
449.0	20.1	176.250	5.59102	3373.94
448.5	19.9	207.414	5.59324	3532.97
448.0	19.8	214.276	5.63737	3631.77
447.5	19.8	218.779	5.68161	3680.01
447.0	20.1	193.836	5.76507	3507.53
446.5	20.2	197.381	5.90877	3340.29
446.0	19.8	211.103	5.76971	3373.54
445.5	19.8	237.538	5.80729	3584.48
445.0	20.1	229.055	5.83161	3468.15
444.5	20.1	243.180	5.80294	3586.59
444.0	19.8	288.265	5.76530	3826.50
443.5	19.7	275.510	5.70139	4031.73
443.0	20.3	236.902	5.67603	3947.68
442.5	19.9	229.900	5.71023	3513.55
442.0	19.8	266.813	5.62290	3504.14

441.5	19.7	376.301	5.49440	4277.42
441.0	19.8	294.483	5.54483	3956.55
440.5	19.9	335.766	5.55379	4085.05
440.0	19.7	339.479	5.66465	4801.30
439.5	20.1	237.655	5.94548	4140.13
439.0	20.2	208.082	5.80950	3847.50
438.5	19.8	262.000	5.75368	3531.84
438.0	20.2	484.977	5.41454	4695.18
437.5	20.1	399.255	5.55234	4740.04
437.0	20.1	337.756	5.65317	4599.30
436.5	19.8	327.419	5.87144	4012.05
436.0	19.8	334.422	5.70568	4041.26
435.5	20.1	299.113	5.74000	4338.50
435.0	19.9	301.446	5.77500	4038.29
434.5	19.8	305.214	5.98124	4243.08
434.0	19.8	272.481	6.33692	4002.27
433.5	19.9	243.553	6.17137	3643.06
433.0	19.9	266.534	6.12164	3803.26
432.5	19.7	270.233	6.21056	3707.13
432.0	20.1	208.897	6.58088	3644.37
431.5	19.9	215.024	6.49769	3709.85
431.0	19.9	243.985	6.23012	3513.66
430.5	19.7	248.497	6.04810	3597.86
430.0	19.9	238.472	6.06300	3601.75
429.5	20.1	238.339	6.03906	3654.99
429.0	19.9	262.329	5.99589	3697.95
428.5	19.8	246.996	5.93597	3760.66
428.0	19.9	179.239	5.72614	3584.14
427.5	19.9	173.340	5.62436	3520.49
427.0	19.8	135.034	5.58890	3197.16
426.5	19.9	135.837	5.59129	3339.99
426.0	19.8	104.195	5.65945	2900.33
425.5	20.1	96.9029	5.67800	2742.42
425.0	19.7	105.474	5.69626	2791.05
424.5	19.9	92.8729	5.69070	2826.09
424.0	20.2	99.2487	5.68888	2878.90
423.5	19.7	124.019	5.66692	2930.27
423.0	19.8	125.176	5.61082	3300.76
422.5	20.1	103.748	5.66064	3095.72
422.0	19.9	114.104	5.66538	2988.32
421.5	20.1	111.451	5.62603	3155.65
421.0	19.8	103.620	5.66344	3196.74
420.5	20.1	87.9440	5.68797	2811.44
420.0	20.2	83.9938	5.68651	2645.13
419.5	19.8	91.6561	5.68710	2774.34
419.0	19.9	103.298	5.68468	2882.40
418.5	19.9	84.5897	5.67092	2833.75
418.0	20.2	111.453	5.67043	2971.62
417.5	19.8	135.847	5.66749	3313.65
417.0	19.9	122.024	5.66913	3369.34
416.5	20.1	122.813	5.67341	3789.37
416.0	20.1	99.732	5.70191	3086.87
415.5	19.8	97.3236	5.70092	3000.19
415.0	19.9	100.314	5.70151	3089.26

414.5	19.9	112.960	5.70149	3182.94
414.0	19.9	130.539	5.68877	3222.26
413.5	19.8	113.017	5.64009	3381.77
413.0	20.2	114.446	5.69367	3112.28
412.5	19.9	119.248	5.66260	2854.54
412.0	19.8	109.757	5.62992	3210.56
411.5	19.8	97.6668	5.66468	2879.82
411.0	20.2	100.984	5.66999	2852.80
410.5	19.9	109.355	5.67047	3002.60
410.0	19.8	119.533	5.68013	3032.39
409.5	19.8	144.688	5.68830	2899.27
409.0	19.9	105.263	5.69378	2954.39
408.5	20.1	131.535	5.68418	2952.15
408.0	19.8	165.061	5.86943	3404.97
407.5	19.8	122.973	5.98108	3581.76
407.0	19.9	85.1909	5.87177	2755.57
406.5	20.1	90.6588	5.82567	2713.05
406.0	19.8	108.564	5.81187	2819.29
405.5	19.9	127.634	5.76243	2995.68
405.0	20.2	129.937	5.78219	3123.63
404.5	19.8	122.807	5.76856	3192.31
404.0	19.9	138.493	5.80720	3165.65
403.5	20.2	151.515	5.77592	3156.00
403.0	19.9	184.080	5.74543	3317.21
402.5	19.7	231.609	5.91204	3668.25
402.0	19.9	292.329	6.07947	4029.72
401.5	20.1	300.747	6.23360	4580.50
401.0	20.2	207.952	6.40859	4092.66
400.5	19.8	154.141	6.05564	3157.02
400.0	20.2	155.595	6.09660	3097.69
399.5	20.1	143.680	6.03795	3205.02
399.0	20.2	158.557	6.04151	3179.31
398.5	19.7	195.539	5.90804	3288.56
398.0	20.1	222.943	5.72760	3831.24
397.5	20.2	241.784	5.80768	3717.08
397.0	19.9	260.473	5.73993	3509.25
396.5	19.9	248.424	5.80706	3829.13
396.0	19.9	257.055	5.75587	3568.85
395.5	19.9	281.653	5.79912	3816.26
395.0	19.7	332.788	5.64921	4055.51
394.5	19.8	271.174	5.49032	4353.91
394.0	20.1	183.202	5.59103	3569.07
393.5	19.9	173.756	5.62761	3482.76
393.0	19.8	170.100	5.66617	3434.54
392.5	20.2	183.585	5.66778	3563.18
392.0	19.8	226.379	5.70354	3594.28
391.5	19.8	313.245	5.89990	3654.75
391.0	19.8	397.421	5.71875	4483.95
390.5	20.1	360.687	5.78880	4726.46
390.0	20.1	419.818	5.81986	4484.07
389.5	19.7	474.232	5.83803	4890.89
389.0	20.1	392.504	5.86508	5058.94
388.5	20.1	272.640	5.82409	4207.43
388.0	20.1	245.399	5.91613	3710.71

387.5	20.1	269.049	5.96016	3733.14
387.0	19.9	392.602	5.86299	4687.85
386.5	19.8	280.933	5.87136	4759.73
386.0	20.3	180.267	5.80603	3588.55
385.5	19.9	182.272	5.77803	3363.26
385.0	20.1	219.922	5.65164	3685.21
384.5	19.9	237.546	5.69771	3994.84
384.0	19.8	363.487	5.81706	3878.04
383.5	19.9	505.874	5.93196	5028.86
383.0	19.9	482.322	6.74842	4300.70
382.5	19.9	762.984	7.42715	5218.04
382.0	19.9	818.257	6.81267	5397.70
381.5	20.1	942.412	6.52846	5628.73
381.0	19.9	600.680	6.89932	5056.46
380.5	19.9	527.429	6.82314	4332.01
380.0	20.2	562.405	6.77300	5378.11
379.5	19.8	410.605	8.04079	5080.22
379.0	20.2	396.907	6.93561	4330.39
378.5	20.1	396.744	6.23914	4567.34
378.0	20.1	300.056	6.63437	4015.75
377.5	20.1	371.050	6.87190	4121.64
377.0	20.1	297.534	6.35487	4649.14
376.5	20.2	236.247	5.96133	3965.82
376.0	19.7	179.928	5.96695	3372.65
375.5	20.1	203.247	5.90714	3371.43
375.0	19.9	213.290	5.76907	3377.77
374.5	19.9	278.242	5.67788	3686.04
374.0	19.9	333.012	5.70731	4064.26
373.5	19.9	486.120	6.04818	4133.57
373.0	20.2	1037.87	6.80041	5574.21
372.5	19.9	610.316	6.59771	5736.01
372.0	20.3	396.629	5.94342	4420.44
371.5	19.9	286.977	5.84332	4623.02
371.0	20.3	205.663	5.87235	3699.18
370.5	19.9	166.970	5.85269	3149.53
370.0	20.1	158.950	5.87906	3207.33
369.5	20.1	141.697	5.86561	3092.13
369.0	19.9	126.888	5.82029	3134.27
368.5	19.9	131.414	5.81853	3015.91
368.0	20.1	166.260	5.71390	3121.61
367.5	20.3	239.560	5.52736	3685.98
367.0	19.8	254.277	5.65159	3729.63
366.5	20.1	274.504	5.55003	3839.66
366.0	20.1	249.847	5.59330	4225.61
365.5	20.1	272.877	5.63143	3756.19
365.0	20.2	353.085	5.51534	4258.79
364.5	19.9	348.648	5.51380	4584.07
364.0	19.9	331.446	5.53434	4483.39
363.5	20.2	251.246	5.59842	4372.23
363.0	19.9	180.295	5.73578	3467.50
362.5	19.9	167.064	5.63041	3317.42
362.0	20.1	222.405	5.54572	3611.34
361.5	20.1	237.808	5.60959	3805.60
361.0	19.8	229.914	5.67889	3911.10

360.5	19.9	228.506	5.81977	3581.50
360.0	20.1	227.660	5.65674	3485.79
359.5	19.9	326.695	5.48902	4148.82
359.0	19.9	278.591	5.51711	4110.16
358.5	20.1	223.581	5.66497	3538.57
358.0	19.9	243.641	5.67871	3660.64
357.5	20.1	260.310	5.66790	3907.38
357.0	19.8	246.043	5.68399	3783.56
356.5	20.3	271.207	5.67402	4092.09
356.0	19.9	284.386	5.69046	4010.80
355.5	19.9	312.218	5.71796	4167.30
355.0	20.1	292.206	5.75071	4145.16
354.5	20.1	287.302	5.82909	4330.97
354.0	20.1	294.631	5.72436	4408.29
353.5	19.8	272.366	5.69608	4237.17
353.0	19.9	232.234	5.74302	3496.19
352.5	20.2	254.056	5.75010	3521.25
352.0	20.2	257.389	5.63357	3683.35
351.5	20.1	285.069	5.53990	4094.62
351.0	20.1	290.924	5.51321	4221.81
350.5	20.1	269.013	5.63859	3773.73
350.0	20.1	309.414	5.55494	3955.38
349.5	19.9	333.585	5.55289	4526.05
349.0	19.7	208.305	5.57468	4340.92
348.5	20.3	207.426	5.64981	3704.87
348.0	19.8	155.835	5.66451	3133.04
347.5	19.9	207.019	5.61078	3543.32
347.0	20.1	253.207	5.59727	3627.07
346.5	20.1	351.102	5.46322	4090.21
346.0	19.9	343.053	5.37702	4635.33
345.5	19.8	245.560	5.51803	4150.30
345.0	20.1	235.960	5.54507	3816.49
344.5	20.1	225.941	5.54490	3974.90
344.0	19.8	213.102	5.61490	3963.02
343.5	20.1	217.478	5.71848	3696.46
343.0	20.1	216.213	5.57485	3763.47
342.5	19.9	203.678	5.66084	3735.16
342.0	19.8	149.304	5.69036	3567.83
341.5	19.9	178.977	5.63365	3119.71
341.0	20.2	188.768	5.47091	3755.14
340.5	19.9	163.407	5.43361	3743.57
340.0	19.8	114.756	5.49413	3348.86
339.5	20.1	106.561	5.58743	3027.95
339.0	19.9	114.337	5.54431	3147.39
338.5	20.1	159.585	5.50333	3683.93
338.0	19.9	185.162	5.49062	4208.97
337.5	20.2	136.323	5.54149	4009.41
337.0	20.1	92.9255	5.66981	3386.01
336.5	19.9	92.8562	5.74556	2734.17
336.0	20.1	95.5817	5.67920	2811.12
335.5	19.8	96.5433	5.67648	3029.30
335.0	20.1	96.5010	5.69633	2670.79
334.5	19.9	82.7343	5.71613	2674.62
334.0	20.1	93.3401	5.72149	2663.98

333.5	20.2	94.4229	5.70206	2733.51
333.0	19.8	96.5395	5.68495	2793.53
332.5	20.1	93.4324	5.67346	2960.51
332.0	19.9	100.082	5.69583	2653.45
331.5	20.1	73.6598	5.69499	2752.69
331.0	20.1	78.0508	5.69703	2832.22
330.5	19.9	88.5740	5.71779	2738.98
330.0	20.1	116.552	5.70089	2712.99
329.5	20.2	96.0944	5.69154	2858.12
329.0	20.1	131.696	5.66564	2956.67
328.5	19.8	119.143	5.59371	3308.57
328.0	20.1	133.742	5.70264	3433.59
327.5	20.1	124.638	5.77781	2999.39
327.0	19.9	116.884	5.83001	2880.89
326.5	20.1	123.087	5.80483	2959.54
326.0	20.2	149.905	5.72090	2991.96
325.5	19.9	183.260	5.57057	3496.23
325.0	20.1	185.641	5.53796	3704.17
324.5	20.1	174.478	5.61888	3475.20
324.0	20.1	236.318	5.57435	3666.00
323.5	20.1	243.186	5.63797	4166.72
323.0	19.8	225.378	5.57311	3736.08
322.5	20.1	253.658	5.49022	4128.26
322.0	20.3	257.484	5.59393	4075.12
321.5	19.9	265.532	5.63440	3608.04
321.0	19.9	234.370	5.65107	3733.37
320.5	20.2	238.127	5.72377	3740.27
320.0	19.8	202.776	5.77540	3391.94
319.5	19.8	232.588	5.70547	3439.99
319.0	20.1	213.382	5.67784	3562.87
318.5	19.9	225.024	5.79572	3744.07
318.0	20.1	199.836	5.83004	3554.77
317.5	19.8	159.813	5.83665	3385.13
317.0	20.1	167.751	5.71859	3255.73
316.5	20.2	218.760	5.58369	3900.56
316.0	19.9	237.035	5.51415	3872.03
315.5	19.9	218.538	5.53205	4072.80
315.0	20.1	225.989	5.67326	3656.17
314.5	20.1	228.976	5.54927	3615.24
314.0	19.9	245.190	5.54115	4017.90
313.5	19.9	225.404	5.59605	3696.22
313.0	19.8	209.053	5.61629	3929.17
312.5	20.1	212.823	5.65654	3649.44
312.0	19.8	251.858	5.75557	3720.75
311.5	19.9	254.528	5.62050	3810.52
311.0	20.1	256.690	5.60226	4252.71
310.5	19.8	210.583	5.60861	4073.50
310.0	19.9	203.496	5.71497	4149.14
309.5	19.9	216.956	5.67957	3602.80
309.0	19.9	173.191	5.64538	3589.31
308.5	19.8	187.029	5.71582	3373.92
308.0	20.1	218.905	5.57437	3412.10
307.5	20.1	248.937	5.48202	4041.69
307.0	20.1	198.318	5.48232	3973.43

306.5	19.8	165.933	5.47579	3987.13
306.0	20.1	209.377	5.45145	4275.18
305.5	19.9	173.831	5.48039	4196.87
305.0	20.2	117.938	5.54562	3820.30
304.5	19.8	117.248	5.67469	3228.74
304.0	20.1	107.380	5.70002	2723.48
303.5	20.2	75.7986	5.69369	2606.25
303.0	19.9	88.5294	5.70346	2706.83
302.5	20.1	91.5180	5.66019	2766.10
302.0	20.1	124.861	5.64512	3183.27
301.5	19.9	90.4147	5.69273	2686.61
301.0	19.9	77.0122	5.69209	2646.36
300.5	19.8	107.731	5.67300	2890.37
300.0	20.2	96.0064	5.69305	2860.86
299.5	20.3	97.3185	5.69278	2711.62
299.0	19.8	99.659	5.70464	2910.84
298.5	20.1	89.3427	5.69113	2666.88
298.0	20.1	96.1345	5.67126	2894.12
297.5	20.1	102.354	5.69089	2774.48
297.0	19.9	125.181	5.61455	2858.52
296.5	19.9	146.857	5.55383	3507.16
296.0	20.1	94.7769	5.60083	2837.77
295.5	20.1	111.119	5.60881	3104.63
295.0	20.1	119.549	5.63886	3119.34
294.5	19.8	126.050	5.62398	2867.18
294.0	20.1	130.064	5.57174	3177.75
293.5	20.1	106.586	5.62722	3345.86
293.0	19.7	124.875	5.61736	3104.51
292.5	20.2	158.377	5.52220	3843.66
292.0	20.2	173.733	5.51741	4084.80
291.5	19.8	171.409	5.82926	3832.61
291.0	20.2	164.828	6.06069	3440.69
290.5	19.9	170.360	6.02536	3070.32
290.0	19.9	146.681	5.88887	3044.48
289.5	19.9	191.246	5.76768	3241.75
289.0	19.9	293.763	5.69148	3666.00
288.5	20.1	319.685	5.58931	4279.50
288.0	20.1	258.007	5.73198	4267.38
287.5	19.9	205.683	5.86806	3529.09
287.0	19.9	174.007	6.02954	3228.57
286.5	20.2	206.864	5.95768	3147.72
286.0	19.9	249.039	5.76130	3294.87
285.5	19.7	279.806	5.59954	3885.21
285.0	19.9	261.474	5.58627	3945.93
284.5	20.2	277.264	5.62949	3917.98
284.0	19.9	302.898	5.68168	3983.08
283.5	20.1	278.832	5.69190	3775.97
283.0	19.9	247.707	5.73609	3944.57
282.5	20.1	217.361	6.04264	3642.70
282.0	20.1	197.698	6.07920	3235.11
281.5	19.7	179.600	5.81430	3257.88
281.0	20.3	262.796	5.61159	3842.87
280.5	20.1	243.818	5.59198	4084.99
280.0	19.8	306.257	5.64978	3908.69

279.5	20.1	242.154	5.67776	4238.37
279.0	19.9	214.059	5.64657	3451.95
278.5	20.1	190.708	5.58058	3633.60
278.0	19.9	168.089	5.60512	3672.74
277.5	20.1	154.275	5.62797	3321.33
277.0	20.2	187.360	5.60111	3540.83
276.5	19.7	199.598	5.63630	3936.37
276.0	19.9	194.718	5.99178	3757.58
275.5	20.2	189.829	6.01039	3227.09
275.0	20.2	245.657	5.86183	3612.24
274.5	19.9	281.320	5.76064	3924.98
274.0	20.1	307.994	5.80722	4568.47
273.5	20.1	255.848	5.89096	4312.04
273.0	20.5	207.709	5.73549	3375.10
272.5	19.9	308.951	5.57058	4195.51
272.0	19.8	281.728	5.61222	4184.61
271.5	20.1	300.505	5.70328	3847.22
271.0	19.9	477.358	5.67586	4339.80
270.5	19.9	616.638	5.64075	5339.90
270.0	19.9	374.652	5.60073	5317.88
269.5	20.2	209.258	5.69753	3941.66
269.0	19.6	190.939	5.76307	3256.91
268.5	20.1	200.418	5.61914	3708.75
268.0	20.3	217.671	5.70473	3521.94
267.5	20.1	260.607	5.82211	3568.55
267.0	20.1	280.452	5.69694	4179.57
266.5	19.8	278.442	5.74628	3931.42
266.0	20.2	326.026	5.75258	3882.30
265.5	20.1	320.866	5.74331	3892.16
265.0	19.9	426.608	5.70520	4413.76
264.5	20.1	490.361	5.65191	4980.86
264.0	19.9	439.150	5.64854	5113.69
263.5	20.1	286.182	5.78087	4506.68
263.0	19.8	198.860	5.79797	3313.49
262.5	20.1	257.590	5.67454	3541.01
262.0	20.2	374.624	5.55373	4402.52
261.5	19.8	368.688	5.55838	4728.83
261.0	19.9	246.126	5.59459	4456.42
260.5	20.1	188.092	5.80527	3494.92
260.0	20.1	141.550	5.75683	3020.63
259.5	20.2	140.864	5.66519	3239.20
259.0	19.8	140.211	5.68012	3348.56
258.5	20.1	120.804	5.74302	3117.58
258.0	19.9	126.930	5.79074	2921.44
257.5	20.1	137.605	5.73355	2878.76
257.0	20.1	205.082	5.59009	3555.19
256.5	19.9	276.789	5.58347	4116.90
256.0	20.1	356.204	5.62388	4277.22
255.5	19.8	383.770	5.63262	4729.16
255.0	20.1	290.779	5.77669	4320.88
254.5	20.2	240.408	5.86003	3514.50
254.0	19.8	265.911	5.78592	3383.28
253.5	20.1	260.385	5.73586	3925.24
253.0	20.1	248.343	5.90620	4015.31

252.5	20.1	256.687	6.00350	3371.29
252.0	19.7	257.246	5.94448	3433.11
251.5	19.9	243.404	5.92214	3790.14
251.0	20.2	244.340	5.97322	3587.80
250.5	20.1	240.565	6.01537	3239.19
250.0	20.1	234.455	5.91760	3335.85
249.5	19.8	264.949	5.78884	3501.74
249.0	20.2	318.090	5.72144	4087.84
248.5	20.2	340.072	5.72643	4359.85
248.0	19.8	268.264	5.78833	4510.75
247.5	19.8	274.129	5.91957	3904.16
247.0	20.1	254.533	5.97605	3676.36
246.5	19.8	284.116	5.91929	3795.96
246.0	20.1	263.714	6.03271	3865.08
245.5	20.1	237.206	6.21093	3543.57
245.0	20.2	239.742	6.36559	3276.48
244.5	20.1	264.073	6.22311	3295.76
244.0	19.9	289.904	6.00081	3413.30
243.5	20.3	300.347	6.01921	4106.11
243.0	19.9	309.919	5.93010	3931.33
242.5	19.8	336.821	5.82738	4302.12
242.0	19.9	354.244	5.90540	3973.83
241.5	20.2	295.527	5.86330	4565.14
241.0	19.9	263.321	5.87372	3868.48
240.5	19.8	276.174	5.89192	3641.73
240.0	20.1	302.047	5.81391	3997.57
239.5	19.9	254.609	5.84904	3998.61
239.0	19.8	298.538	6.19247	3821.69
238.5	20.1	283.674	5.95782	3891.92
238.0	19.8	293.419	5.92103	4229.86
237.5	20.2	337.527	5.92871	3826.43
237.0	20.2	385.977	5.89795	4104.82
236.5	19.8	478.769	5.93145	4670.14
236.0	20.1	339.400	6.13965	4464.67
235.5	20.2	251.277	6.23493	4006.81
235.0	19.9	330.680	6.19786	3687.83
234.5	19.9	329.596	6.12844	4310.57
234.0	19.9	329.740	6.04249	4521.88
233.5	20.2	331.397	5.95354	4251.45
233.0	19.9	307.630	5.86110	4398.17
232.5	20.1	306.728	5.83737	4314.63
232.0	20.1	277.778	5.98914	3936.14
231.5	19.9	212.327	5.89157	3511.99
231.0	19.9	209.304	5.83620	3570.99
230.5	19.9	243.202	5.80210	3789.00
230.0	20.2	236.306	5.86242	3930.57
229.5	20.1	230.247	5.91037	3525.66
229.0	19.8	229.095	5.99286	3484.94
228.5	20.1	207.343	6.06530	3451.13
228.0	20.2	223.106	6.00910	3276.70
227.5	20.2	293.085	5.76985	3808.75
227.0	19.7	320.617	5.58239	4431.14
226.5	20.2	272.856	5.62892	4541.53
226.0	20.1	265.299	5.63966	3977.44

225.5	20.1	215.122	5.74402	4298.63
225.0	19.7	209.259	5.76033	3529.13
224.5	20.2	202.216	5.80748	3562.33
224.0	19.8	198.524	5.66801	3546.61
223.5	20.1	144.005	5.69399	3787.85
223.0	20.1	120.197	5.72085	3073.13
222.5	20.2	136.791	5.69008	3476.25
222.0	19.9	132.159	5.71724	3639.18
221.5	19.9	109.890	5.74443	3181.79
221.0	20.2	93.7669	5.73327	2761.74
220.5	20.1	138.570	5.65977	3115.38
220.0	19.8	173.696	5.63260	3497.57
219.5	19.8	180.590	5.60649	3887.73
219.0	20.2	182.707	5.65306	3835.50
218.5	19.9	157.604	5.78427	3375.86
218.0	19.8	146.118	5.88782	3083.97
217.5	20.1	153.201	5.87121	2981.37
217.0	20.1	159.450	5.80481	2921.65
216.5	20.1	183.801	5.69784	3198.01
216.0	19.9	178.355	5.69794	3281.06
215.5	19.8	180.981	5.69930	3762.87
215.0	19.9	167.869	5.73047	3238.05
214.5	20.2	197.355	5.71991	3309.60
214.0	19.7	225.916	5.69674	3719.13
213.5	20.1	215.728	5.72472	3657.04
213.0	20.6	264.506	5.73908	3683.23
212.5	20.2	249.184	5.74998	4362.46
212.0	20.2	203.498	5.77894	3909.34
211.5	20.5	214.827	5.88599	3506.74
211.0	20.3	227.813	5.75277	3451.53
210.5	20.5	267.372	5.83198	3834.83
210.0	20.3	230.505	5.84250	3695.79
209.5	20.5	245.687	5.81159	3831.61
209.0	20.5	279.256	5.81379	3876.73
208.5	20.3	321.999	5.81888	4207.49
208.0	20.5	326.269	5.79615	4680.01
207.5	20.7	272.355	5.81185	4336.14
207.0	20.5	195.433	5.88300	3746.13
206.5	20.2	162.517	5.91546	3382.16
206.0	20.3	189.335	5.84349	3319.49
205.5	20.9	214.176	6.01228	3285.20
205.0	20.3	233.443	5.81608	3488.10
204.5	20.5	220.968	5.71518	3908.41
204.0	20.5	240.674	5.78325	3901.75
203.5	20.5	207.924	5.79025	4022.90
203.0	20.6	139.285	5.78129	3492.49
202.5	20.5	119.323	5.77174	2804.10
202.0	20.3	126.912	5.69939	3113.12
201.5	21.0	109.124	5.71241	3097.59
201.0	20.2	114.182	5.73418	2924.88
200.5	20.3	125.178	5.73032	3074.33
200.0	20.5	216.996	5.72379	3027.44
199.5	20.7	420.641	5.68860	4003.29
199.0	20.5	542.344	5.69035	5649.18

198.5	20.3	336.869	5.85407	4671.81
198.0	20.5	239.850	6.12973	4117.07
197.5	20.7	216.174	6.52350	3606.92
197.0	20.5	185.350	6.32594	3503.81
196.5	20.1	206.407	6.32504	3189.87
196.0	20.6	167.709	6.28359	3210.53
195.5	20.7	179.887	6.15864	3351.27
195.0	20.2	197.958	6.11533	3377.71
194.5	20.3	228.597	6.29570	3613.37
194.0	20.6	284.091	6.33878	3699.57
193.5	20.5	403.668	6.43438	4236.09
193.0	20.2	485.062	6.70483	5196.12
192.5	20.6	378.742	6.54931	4789.62
192.0	20.7	260.953	6.54855	4027.61
191.5	20.3	223.152	6.47699	4350.77
191.0	20.1	204.506	6.48873	3552.17
190.5	20.3	191.503	6.18366	3236.60
190.0	20.9	216.201	6.05294	3204.21
189.5	20.3	251.159	6.00913	3773.61
189.0	20.2	276.498	6.04594	4153.05
188.5	20.6	239.702	6.08693	4006.75
188.0	20.5	246.257	5.93512	3530.34
187.5	20.3	228.390	5.79486	4066.72
187.0	20.5	151.177	5.73638	3676.33
186.5	20.6	124.526	5.75325	3068.49
186.0	20.5	126.762	5.82497	3042.98
185.5	20.6	149.426	5.79366	2981.05
185.0	20.2	220.364	5.75143	3470.56
184.5	20.6	272.095	5.75713	3867.78
184.0	20.6	203.151	5.94674	3712.72
183.5	20.2	188.213	5.71438	3572.61
183.0	20.5	205.951	5.55035	3862.79
182.5	20.5	221.986	5.56738	4201.42
182.0	20.3	207.515	5.56625	4114.95
181.5	20.5	188.090	5.62812	3851.33
181.0	20.6	180.230	5.73478	3442.40
180.5	20.3	193.013	5.88895	3440.26
180.0	20.5	162.304	5.98887	3242.80
179.5	20.5	199.986	5.95115	3089.75
179.0	20.5	258.078	5.82647	3624.85
178.5	20.6	301.447	5.66325	4369.22
178.0	20.5	253.022	5.83669	4055.63
177.5	20.6	245.446	5.90043	4028.65
177.0	20.6	271.402	5.93386	3662.18
176.5	20.7	265.402	5.89207	3807.74
176.0	20.5	274.981	5.91764	3787.24
175.5	20.3	260.550	5.92439	3802.59
175.0	20.7	278.278	5.98782	3680.60
174.5	20.6	276.172	6.02012	3937.06
174.0	20.6	248.864	6.06903	3855.70
173.5	20.3	270.413	6.01636	3709.27
173.0	20.6	275.031	5.99708	3783.60
172.5	20.3	263.102	5.97001	4024.33
172.0	20.3	243.370	5.93837	4120.94

171.5	20.7	301.392	5.93286	3599.55
171.0	20.5	290.127	5.95144	3651.99
170.5	20.6	317.051	5.97032	4218.52
170.0	20.6	265.026	6.04148	3935.33
169.5	20.5	274.061	6.18447	3818.76
169.0	20.5	260.638	6.31892	3889.04
168.5	20.6	242.088	6.14904	4032.70
168.0	20.2	206.047	6.10918	3556.61
167.5	20.5	243.965	6.10740	3651.82
167.0	20.9	242.770	6.07769	3804.10
166.5	20.5	222.098	5.96742	3969.23
166.0	20.3	234.985	5.96102	3669.22
165.5	20.6	280.307	5.91394	4122.08
165.0	20.5	209.736	5.84213	3877.98
164.5	20.6	173.515	5.79956	4215.71
164.0	20.3	136.958	5.86207	3400.31
163.5	20.6	125.511	5.86853	2818.11
163.0	20.6	103.045	5.86834	2804.54
162.5	20.5	116.481	5.86840	2787.21
162.0	20.6	123.680	5.86854	2778.63
161.5	20.3	133.882	5.91102	2918.21
161.0	20.6	125.823	6.04875	2846.51
160.5	20.3	131.235	6.64903	2909.85
160.0	20.5	183.711	6.43895	3039.26
159.5	20.6	266.226	5.98553	3615.48
159.0	20.5	285.005	5.70859	4111.65
158.5	20.7	243.582	5.78991	3942.98
158.0	20.5	252.615	5.89340	4384.12
157.5	21.0	320.960	5.83171	3806.87
157.0	20.3	439.165	5.89278	4459.07
156.5	20.5	369.906	6.06688	4578.89
156.0	20.3	262.883	6.24573	3800.99
155.5	20.9	251.773	6.21702	3924.11
155.0	20.5	251.849	6.23693	3731.19
154.5	20.9	278.247	6.17427	3803.18
154.0	20.7	265.376	6.20255	4061.43
153.5	20.3	214.400	6.06886	3757.94
153.0	20.7	192.445	6.03927	3320.33
152.5	20.3	192.818	6.37837	3600.67
152.0	20.9	167.649	6.09007	3502.38
151.5	20.6	170.135	5.96105	3491.99
151.0	20.5	171.824	5.95906	3250.27
150.5	20.5	172.053	5.95774	3066.86
150.0	20.6	177.646	5.95977	3216.29
149.5	20.6	136.408	5.97493	3266.17
149.0	20.3	164.085	6.02659	3150.15
148.5	20.5	166.772	6.02727	3094.48
148.0	20.7	171.752	5.98594	3204.58
147.5	20.6	201.936	6.07130	3269.97
147.0	20.5	202.269	6.18833	3359.30
146.5	20.5	219.831	6.16649	3477.03
146.0	20.6	186.344	6.17717	3537.76
145.5	20.3	227.146	6.18172	3741.64
145.0	20.3	221.771	6.05919	3274.80

144.5	20.5	216.079	5.99118	3337.88
144.0	20.7	199.972	5.99916	3737.24
143.5	20.6	189.518	6.03927	3549.53
143.0	20.9	219.505	5.98956	3376.95
142.5	20.3	241.552	5.98867	3690.34
142.0	20.6	258.812	5.99015	3682.35
141.5	20.5	239.158	5.98940	3975.74
141.0	20.3	247.990	5.99741	3529.77
140.5	20.7	266.000	6.00467	3904.67
140.0	20.7	248.586	6.02961	4053.49
139.5	20.6	257.149	6.02614	4283.71
139.0	20.2	244.839	6.02016	3908.51
138.5	20.6	242.926	5.96894	3621.12
138.0	20.5	286.282	5.93638	3888.67
137.5	20.5	222.481	5.91799	4032.04
137.0	20.5	135.087	5.92321	3513.69
136.5	20.5	98.4645	5.90030	2825.17
136.0	20.7	89.3750	5.89742	2682.59
135.5	20.6	86.0822	5.89009	2683.70
135.0	20.5	90.8903	5.88652	2737.73
134.5	20.5	88.3694	5.89581	2693.13
134.0	20.5	97.9192	5.89061	2656.06
133.5	20.5	111.248	5.87557	2775.03
133.0	20.6	137.955	5.84790	3027.94
132.5	20.6	143.233	5.83449	3252.15
132.0	20.2	123.652	5.85898	3334.65
131.5	20.6	108.590	5.87356	3026.70
131.0	20.3	98.7167	5.86730	2932.59
130.5	20.6	116.352	5.86776	2852.37
130.0	20.7	133.299	5.86709	2977.87
129.5	20.3	131.098	5.86766	2915.20
129.0	20.7	147.140	5.86757	3028.87
128.5	20.9	147.583	5.88906	3079.99
128.0	20.5	191.384	5.90567	3264.56
127.5	20.5	258.819	5.95561	3953.94
127.0	20.7	275.761	6.05348	3625.38
126.5	20.5	272.080	6.07507	4094.46
126.0	20.6	278.424	6.06102	4350.80
125.5	20.3	270.821	5.94426	4105.04
125.0	20.6	233.655	5.91878	3820.82
124.5	20.9	200.428	6.03138	3541.37
124.0	20.6	240.054	6.44883	3364.16
123.5	20.5	281.308	6.38470	3504.77
123.0	20.5	264.790	6.24486	4653.33
122.5	20.3	210.792	6.23781	3925.92
122.0	20.3	209.883	6.17366	3499.93
121.5	20.3	221.630	6.07435	3388.80
121.0	20.9	198.302	5.99708	3653.63
120.5	20.5	216.435	5.85003	3499.27
120.0	20.3	259.196	5.85428	3986.65
119.5	20.6	265.242	6.21451	4514.90
119.0	20.6	240.767	6.09233	3854.40
118.5	20.6	246.397	5.95813	3420.73
118.0	20.1	284.891	6.56690	3658.27

117.5	20.6	267.506	6.45292	4011.28
117.0	20.9	273.924	6.38802	3792.47
116.5	20.5	317.570	6.22590	4197.06
116.0	20.6	313.802	6.44265	4275.20
115.5	20.6	320.207	6.37961	4558.47
115.0	20.6	315.190	6.29408	4291.17
114.5	20.5	323.217	6.21598	4186.17
114.0	20.5	400.935	5.97719	4078.77
113.5	20.7	460.480	5.89358	5037.20
113.0	20.9	311.029	6.04019	4491.01
112.5	20.6	293.933	6.01271	4286.11
112.0	20.6	246.964	5.93328	3933.69
111.5	20.6	237.545	5.85944	3631.84
111.0	20.6	310.414	5.78705	3696.93
110.5	20.5	422.353	5.75873	4773.47
110.0	20.5	614.962	5.74739	5298.68
109.5	20.7	528.922	5.74111	5331.87
109.0	20.5	364.650	5.79410	5055.40
108.5	20.5	346.044	5.82915	3884.52
108.0	19.9	374.084	5.80141	4480.02
107.5	20.3	396.275	5.84961	4900.23
107.0	20.7	331.524	5.80919	4207.81
106.5	20.3	356.875	5.90038	4397.13
106.0	20.5	327.534	5.97380	4420.65
105.5	21.0	270.099	6.01041	4140.82
105.0	20.3	192.469	6.20019	3390.41
104.5	20.5	144.928	6.32990	3044.88
104.0	20.5	123.922	6.38299	2993.98
103.5	20.6	120.372	6.35577	2864.28
103.0	20.5	117.701	6.22173	2930.04
102.5	20.3	156.057	6.11852	3006.32
102.0	20.7	167.355	6.07851	3168.73
101.5	20.6	225.902	6.07970	3432.02
101.0	20.3	274.297	6.06656	3929.96
100.5	20.5	275.516	6.05875	3848.76
100.0	20.3	268.154	6.20011	3640.52
99.5	20.6	292.913	6.15742	3644.06
99.0	20.5	345.212	6.02241	3950.45
98.5	20.2	351.215	5.88567	4334.75
98.0	20.6	367.719	5.94814	4233.28
97.5	20.5	329.901	5.85207	4288.02
97.0	20.6	274.823	5.92335	4448.31
96.5	20.5	262.402	5.98117	3600.19
96.0	20.6	189.663	6.00759	3285.24
95.5	20.3	159.955	6.32529	3351.97
95.0	20.3	137.845	5.89738	3315.23
94.5	20.5	197.420	5.70824	3427.16
94.0	20.9	283.599	5.75440	3851.63
93.5	20.3	265.152	6.09498	4231.20
93.0	20.6	394.251	5.88296	3792.61
92.5	20.5	626.558	5.89358	5025.59
92.0	20.5	505.913	6.50129	5187.18
91.5	20.5	345.717	6.77354	4375.83
91.0	20.3	297.542	6.39477	4478.79

90.5	20.6	192.095	6.07280	4214.36
90.0	20.6	124.237	5.96827	3049.76
89.5	20.5	107.343	5.86832	2746.48
89.0	20.3	115.623	5.83542	2842.05
88.5	20.6	108.023	5.83597	2830.60
88.0	20.3	95.7314	5.83568	2817.52
87.5	20.5	91.4489	5.83635	2783.73
87.0	20.3	81.5867	5.84541	2739.49
86.5	20.7	88.7636	5.83656	2861.57
86.0	20.6	103.845	5.81663	2828.13
85.5	20.5	94.0353	5.81303	2917.15
85.0	20.7	92.1463	5.83570	2660.90
84.5	20.3	111.096	5.84298	2794.91
84.0	20.6	158.678	5.87107	3032.73
83.5	20.6	236.286	5.97268	3353.31
83.0	20.5	301.337	6.10384	3647.87
82.5	20.7	393.129	6.30892	4430.56
82.0	20.6	345.523	6.54802	4554.92
81.5	20.3	367.884	6.30857	4901.38
81.0	20.6	376.299	6.14996	4182.81
80.5	20.6	351.890	5.95749	4312.06
80.0	20.6	320.257	6.05803	4573.97
79.5	20.6	235.972	6.04198	3812.59
79.0	20.7	251.484	6.06497	3663.29
78.5	20.9	236.074	6.02596	3562.51
78.0	20.5	240.062	6.00800	3529.30
77.5	20.6	278.793	5.98724	3511.79
77.0	20.5	309.865	6.01700	4175.64
76.5	20.6	238.652	6.15466	3906.24
76.0	20.6	245.030	6.18512	3580.20
75.5	20.5	265.680	6.04521	3701.01
75.0	20.6	265.128	6.05806	3733.47
74.5	20.6	270.137	6.13718	3498.42
74.0	20.6	410.752	6.38483	3754.37
73.5	20.6	387.016	6.21920	4941.19
73.0	20.5	247.633	6.21896	3680.89
72.5	20.6	228.333	6.31507	3583.69
72.0	20.5	212.104	6.21736	3362.58
71.5	20.5	222.296	6.24744	3360.90
71.0	2.4	375.677	6.17060	3930.57
70.5	9.4	442.061	5.96348	4304.98
70.0	20.6	423.714	5.98481	4905.35
69.5	20.3	318.415	6.02691	4463.90
69.0	18.9	264.329	5.99639	4142.22
68.5	18.8	231.137	6.02154	3677.42
68.0	18.8	210.158	6.03490	3449.44
67.5	18.6	218.100	6.29171	3291.06
67.0	18.9	191.042	6.29018	3309.02
66.5	18.8	187.244	6.16884	3425.36
66.0	18.9	195.168	6.05594	3322.95
65.5	18.6	177.878	6.01141	3237.01
65.0	19.0	167.787	6.00833	3300.03
64.5	18.9	122.914	6.01898	3119.35
64.0	19.4	114.301	5.97517	2788.54

63.5	19.7	96.9094	5.86171	2716.74
63.0	19.6	101.343	5.81137	2981.22
62.5	19.6	93.3022	5.80540	2934.36
62.0	19.6	95.7226	5.80494	2797.38
61.5	19.3	115.191	5.82957	2909.22
61.0	19.6	108.539	5.82659	2769.94
60.5	19.3	119.266	5.79948	2897.12
60.0	19.3	113.173	5.76984	3323.46
59.5	19.7	115.775	5.77454	3444.82
59.0	19.8	148.194	5.79315	3337.45
58.5	19.3	159.116	5.84325	3265.83
58.0	19.7	182.813	5.97078	3212.57
57.5	19.6	255.032	6.26500	3269.52
57.0	19.6	387.626	6.46315	4567.60
56.5	19.2	279.937	7.20195	4261.63
56.0	19.6	253.364	7.44929	3614.05
55.5	19.6	298.813	7.22955	3785.62
55.0	19.2	371.017	6.91401	4926.73
54.5	19.4	220.525	6.68283	4292.26
54.0	19.7	203.265	6.38843	3506.00
53.5	19.3	175.427	6.32527	3282.99
53.0	19.3	173.645	6.26108	3176.72
52.5	19.3	203.635	6.13691	3402.10
52.0	19.8	207.192	6.00066	3511.05
51.5	19.7	192.039	5.98445	3430.79
51.0	19.4	208.569	5.98472	3303.89
50.5	19.7	193.564	5.93515	3907.39
50.0	19.4	223.537	5.89349	3437.87
49.5	19.6	271.302	5.83132	3862.54
49.0	19.4	395.376	6.10206	4234.86
48.5	19.3	419.720	6.17164	5007.57
48.0	19.6	233.686	6.05563	3878.38
47.5	19.6	208.416	5.97173	3734.39
47.0	19.4	244.982	5.92974	4032.62
46.5	19.6	206.440	5.94165	3926.08
46.0	19.4	156.819	5.97036	3403.03
45.5	19.3	119.454	5.92347	2974.53
45.0	19.3	103.692	5.91242	2707.22
44.5	19.4	103.061	5.93804	2675.88
44.0	19.6	102.908	5.95007	2680.25
43.5	19.4	113.065	5.97593	2993.92
43.0	19.7	121.457	5.92885	2764.32
42.5	19.4	125.986	5.87304	2815.73
42.0	19.4	128.188	5.82407	3217.14
41.5	19.3	143.232	5.87183	3574.74
41.0	19.6	122.610	5.90837	2887.94
40.5	19.4	129.510	5.90266	3002.83
40.0	19.7	162.475	5.78518	3132.56
39.5	19.2	217.209	5.69591	3495.38
39.0	19.7	373.218	6.04640	3829.63
38.5	19.4	1150.24	8.59016	5387.74
38.0	19.2	1856.73	9.7940	6185.67
37.5	19.4	1859.51	9.08620	6132.78
37.0	19.3	1328.42	7.58739	6013.44

36.5	19.7	494.082	6.83469	4918.87
36.0	19.4	141.666	6.79075	1775.42
35.5	18.9	226.383	6.78888	1162.58
35.0	19.2	528.233	6.77726	1908.67
34.5	19.3	571.868	6.77012	2002.54
34.0	19.3	552.125	6.76918	1924.18
33.5	19.0	582.575	6.76947	1989.59
33.0	19.4	542.591	6.76953	1960.78
32.5	19.6	554.121	6.76928	1981.46
32.0	19.4	553.118	6.76905	1884.93
31.5	19.2	377.661	6.76968	1885.10
31.0	19.4	291.191	6.76904	1755.77
30.5	19.3	221.572	6.76933	1743.34
30.0	19.3	176.485	6.76920	1543.62
29.5	19.3	147.107	6.76299	1514.87
29.0	19.2	211.478	6.74518	1621.55
28.5	19.6	224.794	6.73849	1658.02
28.0	19.4	160.518	6.73801	1697.26
27.5	19.3	132.515	6.73869	1508.58
27.0	19.3	143.781	6.73812	1486.83
26.5	19.0	131.355	6.73833	1399.16
26.0	19.3	130.466	6.73835	1423.98
25.5	19.3	148.800	6.73879	1338.58
25.0	19.4	195.756	6.73849	1588.39
24.5	19.3	230.091	6.73894	1532.39
24.0	19.0	232.740	6.73903	1580.29
23.5	19.3	230.633	6.73827	1633.30
23.0	19.3	274.224	6.73883	1684.71
22.5	19.4	279.461	6.73767	1619.44
22.0	19.3	265.092	6.73819	1684.38
21.5	19.3	266.206	6.73822	1705.17
21.0	19.4	282.564	6.73797	1717.17
20.5	19.6	268.579	6.73794	1683.83
20.0	19.2	285.351	6.73789	1696.03
19.5	19.3	285.399	6.73751	1706.88
19.0	19.3	286.507	6.73872	1720.98
18.5	19.0	295.625	6.73827	1767.18
18.0	19.4	325.649	6.73823	1643.44
17.5	19.3	331.894	6.73843	1721.16
17.0	19.7	330.129	6.73782	1813.06
16.5	19.3	221.988	6.73803	1733.09
16.0	19.2	160.133	6.73777	1502.69
15.5	19.3	188.726	6.73765	1573.13
15.0	19.3	199.565	6.73516	1703.22
14.5	19.4	269.287	6.73018	1674.61
14.0	19.2	276.293	6.71153	1771.11
13.5	19.3	202.080	6.70841	1761.08
13.0	19.6	156.260	6.70863	1599.80
12.5	19.3	169.844	6.70853	1572.20
12.0	19.3	139.685	6.69842	1609.91
11.5	19.2	157.668	6.67837	1691.29
11.0	13.6	148.092	6.67853	1563.59
10.5	16.4	169.083	6.67801	1630.11
10.0	16.3	166.703	6.67752	1672.00

9.5	15.9	139.721	6.66559	1643.20
1010.0	0.0	2.93824	6.53582	1.76294
1010.0	0.0	5.28852	6.53543	2.93807
1007.5	0.0	5.89449	4.53876	5.30504
1007.5	0.0	8.26251	4.53966	4.13126
1007.0	0.0	5.30473	4.56442	1.76824
1004.5	0.0	5.88547	2.99570	2.35419
1004.5	0.0	4.12395	2.99576	0.58914
149.5	15.0	199.435	0.48905	3399.40
149.0	18.4	174.218	0.48878	3463.19
148.5	18.8	189.154	0.48845	3569.97
148.0	21.0	206.085	0.48876	3717.89
150.0	0.0	183.871	1.02983	3414.05
150.0	0.0	144.185	5.58154	3205.70
150.0	0.0	147.341	5.58456	3105.38
150.0	0.0	146.829	5.59669	3188.07
150.0	0.3	146.988	5.60153	3086.76
150.0	0.3	166.081	5.61482	3112.42
150.0	0.4	154.903	5.62760	3118.81
150.0	0.4	133.727	5.66630	3148.81
150.0	0.3	162.939	5.67412	3065.50
150.0	0.0	148.967	5.66875	3168.35
150.0	0.3	151.684	5.67779	3108.73
150.0	0.5	155.545	5.68984	3179.34
150.0	0.7	150.112	5.69467	3257.75
150.0	0.5	159.668	5.70493	3108.73
150.0	0.5	164.484	5.72181	3094.86
150.0	0.4	149.603	5.72853	2984.26
150.0	0.4	169.248	5.73048	3159.83
150.0	0.0	161.755	5.72389	3129.40
150.0	0.0	152.170	5.72161	3110.68
150.0	0.0	167.449	5.73396	3169.01
149.5	13.9	158.389	5.75952	3120.93
149.0	16.4	154.681	5.83275	3280.52
148.5	18.6	169.054	5.85616	3268.19
148.0	20.6	143.324	5.95352	3096.78
147.5	20.5	153.964	5.95653	3125.26
147.0	20.6	152.745	5.88340	3168.09
146.5	20.6	198.059	6.03948	3254.77
146.0	20.3	194.096	6.15405	3237.87
145.5	20.2	247.172	6.09552	3508.59
145.0	20.3	220.538	6.13615	3546.36
144.5	20.5	233.405	6.11534	3688.97
144.0	20.2	203.482	5.95698	3326.73
143.5	20.6	208.818	5.90853	3414.35
143.0	20.3	186.535	5.92124	3814.32
142.5	20.3	187.958	5.97519	3492.26
142.0	20.6	221.753	5.91834	3386.13
141.5	20.3	244.345	5.90827	3728.71
141.0	20.3	228.649	5.88908	3612.79
140.5	20.2	261.514	5.89969	3960.45
140.0	20.5	224.849	5.91400	3526.26
139.5	20.2	274.113	5.91838	4013.94
139.0	20.5	274.745	5.97605	4069.74

138.5	20.1	260.589	5.96593	4284.56
138.0	20.1	247.704	5.91579	3832.62
137.5	20.5	251.475	5.87946	3588.09
137.0	20.1	267.405	5.82478	3918.75
136.5	20.3	213.882	5.82931	4255.55
136.0	20.3	152.507	5.83275	3594.08
135.5	20.5	100.120	5.78016	2801.24
135.0	20.3	102.219	5.75185	2825.82
134.5	20.2	93.7044	5.74859	2800.03
134.0	20.3	89.4063	5.78825	2781.89
133.5	20.2	101.802	5.81854	2697.76
133.0	20.2	109.752	5.79098	2688.57
132.5	20.3	119.562	5.75790	2787.08
132.0	20.2	134.267	5.75806	3123.47
131.5	20.5	158.675	5.78298	3316.93
131.0	19.9	141.149	5.80170	3403.56
130.5	20.6	129.800	5.80428	3098.20
130.0	20.3	102.693	5.81412	2967.77
129.5	20.3	122.979	5.80973	2806.41
129.0	20.3	124.314	5.81846	2873.81
128.5	20.2	132.311	5.79454	2864.02
128.0	20.3	130.537	5.75819	3148.09
127.5	20.3	134.938	5.82806	3170.34
127.0	20.2	184.116	5.90325	3216.93
126.5	20.1	261.207	5.93089	3992.25
126.0	20.2	262.924	6.03150	3535.09
125.5	20.1	282.542	6.07859	4290.03
125.0	20.1	260.434	5.98999	4449.03
124.5	20.2	265.031	5.88490	4146.95
124.0	20.3	242.644	5.87784	3871.15
123.5	20.3	194.876	6.01858	3392.91
123.0	20.1	260.296	6.40478	3370.94
122.5	20.1	306.924	6.31425	3493.34
122.0	20.2	296.001	6.16764	4686.92
121.5	20.1	201.153	6.20942	3823.79
121.0	19.8	205.354	6.10912	3456.46
120.5	20.2	252.250	6.03150	3402.65
120.0	20.2	207.269	5.90006	3733.67
119.5	20.1	244.285	5.87792	3677.47
119.0	20.1	336.954	6.16758	4421.92
118.5	20.3	289.148	6.27198	4471.15
118.0	20.1	261.730	6.15374	3794.74
117.5	20.3	244.607	5.98870	3333.33
117.0	19.8	269.652	6.54294	3633.25
116.5	20.2	270.815	6.41830	4215.68
116.0	20.3	319.675	6.32645	3972.23
115.5	19.8	327.975	6.19717	4255.25
115.0	20.3	292.386	6.44805	4223.35
114.5	20.3	294.198	6.31367	4114.00
114.0	20.2	311.801	6.33319	4354.03
113.5	20.1	321.999	6.21217	4087.11
113.0	20.1	450.631	5.94432	4235.03
112.5	20.3	445.786	5.87325	4979.64
112.0	20.2	320.863	6.06909	4284.54

111.5	20.2	301.394	6.00123	4196.28
111.0	20.1	276.024	5.90847	3879.96
110.5	20.2	239.640	5.83601	3690.18
110.0	20.1	324.632	5.78112	3704.82
109.5	20.2	443.390	5.74070	4942.60
109.0	20.1	562.831	5.72542	5398.97
108.5	20.2	511.289	5.72074	5238.62
108.0	19.9	352.026	5.78183	5027.97
107.5	20.3	337.086	5.80075	3786.42
107.0	20.2	376.684	5.78880	4338.89
106.5	20.1	339.769	5.83885	4785.43
106.0	20.1	304.126	5.83199	4058.15
105.5	19.9	297.975	6.00206	4429.80
105.0	20.2	276.367	6.06851	4364.68
104.5	19.9	239.006	6.23668	3654.06
104.0	20.1	171.020	6.36382	3152.52
103.5	20.1	149.346	6.39035	3056.79
103.0	20.1	118.605	6.39569	2931.15
102.5	20.2	119.530	6.35571	2785.60
102.0	19.8	116.185	6.24244	3010.75
101.5	20.1	150.520	6.16585	3024.77
101.0	20.2	169.503	6.12226	3079.54
100.5	20.2	202.272	6.12557	3269.53
100.0	20.1	247.398	6.14438	3569.69
99.5	20.1	267.398	6.03033	3913.48
99.0	19.9	296.754	6.19245	3617.41
98.5	19.9	316.402	6.18635	3712.07
98.0	20.1	340.901	5.96815	4002.03
97.5	19.7	364.808	5.96186	4464.75
97.0	20.3	314.619	5.96239	4165.56
96.5	20.1	325.519	5.87017	4398.01
96.0	20.1	258.860	5.92397	4206.14
95.5	19.9	246.047	5.98828	3533.26
95.0	20.2	206.617	6.00168	3281.45
94.5	20.1	172.491	6.27013	3276.05
94.0	19.9	154.674	5.90556	3772.83
93.5	20.2	190.292	5.79288	3389.20
93.0	20.2	231.904	5.80323	3723.82
92.5	19.9	299.574	6.05728	4117.57
92.0	20.2	452.258	5.84510	3950.09
91.5	19.9	714.334	5.93285	5307.55
91.0	20.2	494.955	6.55236	5162.26
90.5	20.3	339.942	6.77087	4222.26
90.0	19.9	313.570	6.40969	4220.87
89.5	20.5	205.784	6.22547	4064.40
89.0	20.2	121.416	5.97270	3291.95
88.5	20.3	116.774	5.86413	2855.47
88.0	20.1	114.611	5.81637	2894.74
87.5	20.1	105.853	5.81916	2907.87
87.0	20.2	101.586	5.82470	2954.90
86.5	20.1	95.4933	5.83127	2724.65
86.0	19.9	90.8635	5.83469	2759.74
85.5	20.3	116.774	5.83185	2821.13
85.0	20.1	104.347	5.82130	2775.21

84.5	20.2	101.324	5.82613	2807.35
84.0	20.2	84.1696	5.84073	2672.06
83.5	20.1	114.169	5.83758	2733.27
83.0	20.2	136.813	5.85243	2942.15
82.5	19.9	217.807	5.99618	3306.02
82.0	20.3	303.464	6.14678	3789.40
81.5	20.3	350.338	6.29994	4377.52
81.0	20.1	361.379	6.46043	4419.78
80.5	19.9	337.064	6.39617	4913.22
80.0	20.1	359.744	6.22459	4071.82
79.5	20.3	342.332	5.99499	4217.92
79.0	20.1	319.809	6.06410	4504.60
78.5	20.1	254.138	6.03269	3809.33
78.0	19.9	235.602	6.08479	3626.61
77.5	20.6	229.877	6.00934	3595.28
77.0	20.1	228.552	6.00737	3483.24
76.5	20.2	254.799	5.99503	3464.30
76.0	20.2	267.863	6.02861	4059.78
75.5	19.9	260.376	6.14849	3818.64
75.0	20.1	239.247	6.16182	3554.63
74.5	20.2	229.569	6.05677	3512.96
74.0	19.9	228.332	6.06075	3564.87
73.5	20.2	237.957	6.20940	3538.49
73.0	19.9	350.619	6.56875	3668.12
72.5	20.2	337.032	6.11827	4827.35
72.0	20.1	258.555	6.19979	3759.42
71.5	20.2	230.680	6.16309	3697.34
71.0	19.9	246.309	6.12953	3325.50
70.5	20.2	276.807	6.14351	3524.59
70.0	20.5	420.127	5.98283	4486.43
69.5	19.9	455.982	6.03354	4697.84
69.0	19.8	372.625	6.13579	4551.97
68.5	20.2	306.497	6.12510	4399.83
68.0	20.3	260.268	6.00176	4181.92
67.5	19.8	224.619	6.05647	3776.02
67.0	19.9	216.682	6.04764	3461.35
66.5	20.1	199.755	6.37179	3333.33
66.0	20.2	221.327	6.32284	3427.15
65.5	19.9	205.236	6.16216	3555.09
65.0	19.8	178.362	5.99270	3311.07
64.5	20.3	153.252	5.99813	3202.96
64.0	20.2	148.899	5.97134	3208.67
63.5	20.3	121.700	5.94266	3022.55
63.0	19.9	120.534	5.83597	2894.69
62.5	20.1	113.581	5.75386	3128.33
62.0	20.5	132.437	5.70782	3068.69
61.5	19.8	112.112	5.69984	3040.79
61.0	19.9	130.851	5.69577	3163.69
60.5	20.2	88.6903	5.76624	2985.91
60.0	20.1	124.344	5.78889	2877.18
59.5	19.9	137.264	5.72858	3145.58
59.0	20.2	99.855	5.75997	3081.59
58.5	20.3	109.610	5.82380	2991.18
58.0	20.1	147.099	5.78955	3299.81

57.5	20.2	178.817	5.78336	3286.80
57.0	20.1	207.264	6.04274	3415.68
56.5	19.9	321.775	6.86859	4068.40
56.0	20.2	346.111	7.20008	5028.96
55.5	19.9	259.495	7.52804	4308.69
55.0	20.1	190.421	7.59941	3476.63
54.5	20.2	225.139	7.43912	3350.56
54.0	20.1	190.214	7.18401	3687.80
53.5	20.1	173.067	6.78880	3531.64
53.0	20.1	150.352	6.60192	3241.92
52.5	20.1	181.448	6.40979	3245.67
52.0	20.2	206.402	6.32672	3331.53
51.5	20.1	202.804	6.21614	3425.89
51.0	20.3	198.734	6.09678	3643.23
50.5	20.5	203.869	6.02228	3394.78
50.0	20.2	217.676	5.99366	3598.54
49.5	20.1	231.624	5.97938	3821.13
49.0	20.1	205.895	5.90690	3440.99
48.5	20.2	253.498	6.05956	3957.77
48.0	19.8	273.798	6.48705	3934.07
47.5	20.1	286.138	6.34094	4383.86
47.0	20.2	234.992	6.05296	3816.72
46.5	20.1	223.717	5.96340	3679.04
46.0	20.2	214.194	6.06385	3694.16
45.5	20.2	176.938	6.13630	3706.94
45.0	20.1	135.524	6.07331	3230.11
44.5	19.9	117.782	5.99160	2792.39
44.0	19.9	90.8970	5.93551	2676.49
43.5	20.2	102.276	5.87646	2642.24
43.0	20.5	98.4628	5.79585	2743.50
42.5	19.9	116.912	5.76555	2778.37
42.0	20.1	129.050	5.67682	2963.99
41.5	20.1	162.035	5.80501	3345.51
41.0	19.9	151.423	5.72230	3495.57
40.5	20.5	125.161	5.77355	2848.39
40.0	19.9	175.867	5.80431	2989.75
39.5	20.3	232.704	5.75715	3856.63
39.0	20.2	210.712	5.76060	4231.24
38.5	19.9	186.788	5.76658	3165.86
38.0	20.3	403.687	6.84806	3654.16
37.5	19.9	1102.63	9.6368	5727.14
37.0	19.7	1736.21	9.8661	6130.06
36.5	20.1	1831.23	8.63729	6127.43
36.0	19.9	913.108	7.26977	6142.20
35.5	20.2	445.964	6.71819	3896.72
35.0	20.2	215.120	6.71652	1625.35
34.5	20.1	320.742	6.71635	1520.60
34.0	19.9	503.869	6.71718	1887.59
33.5	20.2	528.195	6.71697	1903.93
33.0	20.2	516.598	6.71646	1831.95
32.5	19.9	535.133	6.70849	1829.90
32.0	20.3	505.714	6.70497	1835.97
31.5	20.1	522.565	6.70602	1897.44
31.0	20.2	489.923	6.70489	1780.55

30.5	19.9	350.232	6.70551	1764.79
30.0	19.9	262.539	6.70523	1692.20
29.5	20.5	201.232	6.70500	1666.67
29.0	20.1	166.837	6.70480	1523.32
28.5	19.8	139.617	6.69754	1365.52
28.0	20.1	184.221	6.69991	1481.39
27.5	20.3	210.733	6.70062	1527.82
27.0	20.2	170.717	6.70014	1569.26
26.5	20.3	126.114	6.70048	1402.33
26.0	19.9	145.765	6.70048	1315.91
25.5	20.3	118.938	6.70062	1402.29
25.0	20.2	112.994	6.70030	1309.52
24.5	19.8	170.905	6.69699	1366.55
24.0	20.3	214.364	6.68555	1439.79
23.5	20.3	214.872	6.68577	1562.05
23.0	19.9	217.450	6.68591	1622.15
22.5	19.9	247.674	6.68582	1606.46
22.0	20.3	262.760	6.68524	1613.70
21.5	20.3	267.222	6.68568	1660.37
21.0	19.7	282.234	6.68494	1620.30
20.5	20.1	296.976	6.68469	1642.95
20.0	19.9	281.119	6.68500	1664.03
19.5	20.3	293.253	6.68605	1663.69
19.0	20.2	289.505	6.68555	1666.55
18.5	19.9	317.450	6.68523	1732.21
18.0	19.9	327.721	6.68537	1798.66
17.5	19.8	331.042	6.68516	1755.47
17.0	20.2	338.380	6.68527	1716.32
16.5	20.1	316.849	6.68491	1747.74
16.0	20.3	294.057	6.68549	1810.48
15.5	19.9	207.812	6.68463	1693.93
15.0	20.1	166.374	6.68538	1548.09
14.5	20.3	208.564	6.68445	1620.70
14.0	20.2	241.696	6.68242	1758.03
13.5	20.2	255.906	6.67866	1754.68
13.0	20.1	236.166	6.66202	1803.85
12.5	20.2	169.815	6.65553	1714.52
12.0	20.2	153.315	6.65539	1716.16
11.5	19.9	158.924	6.65512	1725.75
11.0	20.2	162.281	6.65546	1626.69
10.5	20.2	147.850	6.65531	1599.10
10.0	20.1	150.846	6.65489	1651.15
9.5	20.1	145.234	6.65485	1633.03
9.0	19.8	124.657	6.65420	1614.93
1004.5	0.0	3716.42	2.96536	1385.49
1004.5	0.0	3707.43	2.96512	1390.36
1004.5	0.0	3701.74	2.96492	1359.46
1007.0	0.0	3665.98	2.82979	1517.66
1007.0	0.0	3729.81	4.50902	1332.67
1007.0	0.0	3765.54	4.50875	1379.15
1010.0	0.0	3759.55	6.44612	1387.35
1010.0	0.0	3632.25	6.44708	1365.11
5000.0	0.0	113.069	0.40253	2812.70
5000.0	0.0	113.680	0.40238	2822.61

5000.0	0.0	124.666	0.40284	2810.86
8000.0	0.0	1511.56	0.40253	5907.99
8000.0	0.0	1508.81	0.39862	5913.36
8000.0	0.0	1465.18	0.39750	5862.35

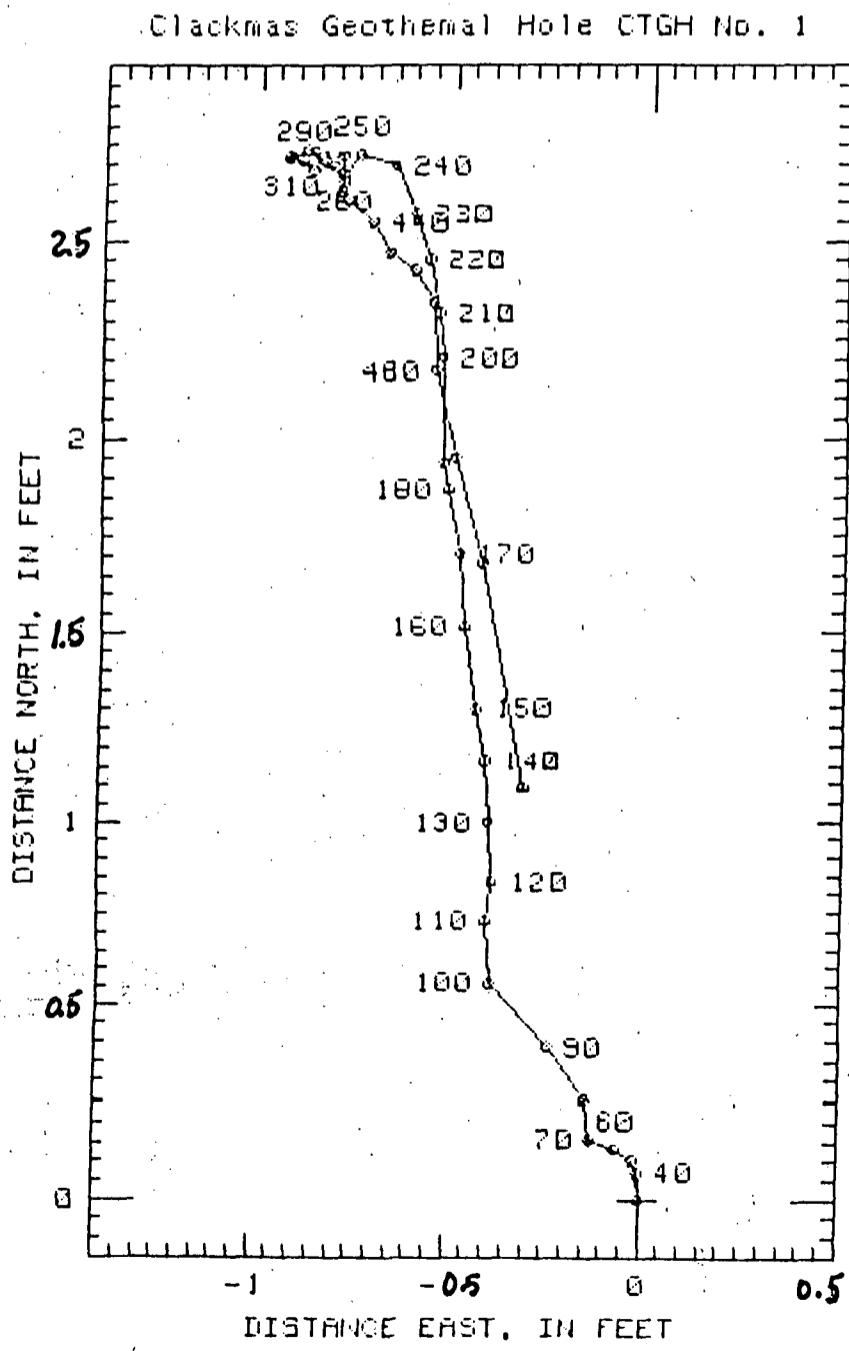
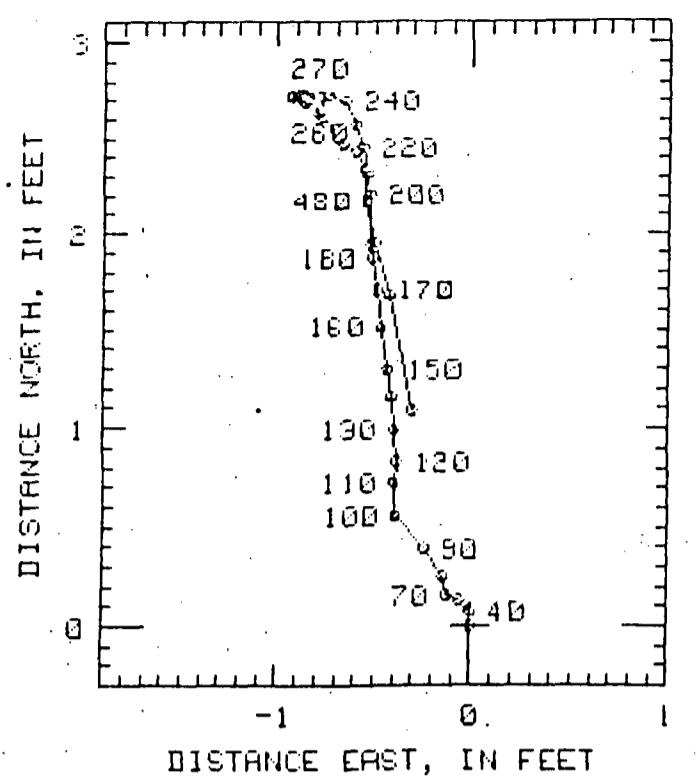
DRIFT SURVEY

Clackamas Geothermal Hole CTGH No. 1

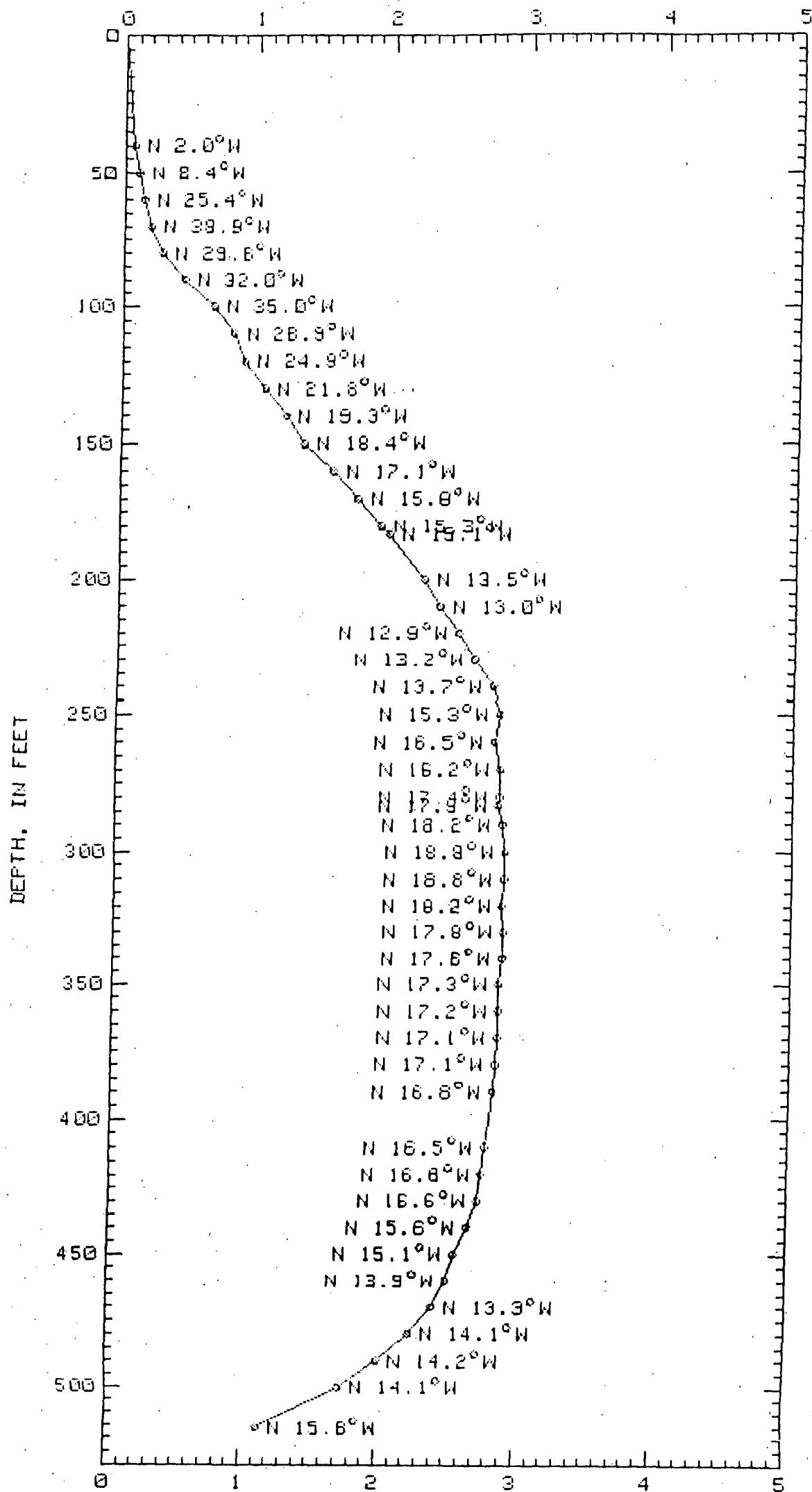
Declination = 0 deg E Depth correction = 0 ft

OBSERVED			COMPUTED			DISTANCE FROM COLLAR		
DEPTH	INCL	AZIM	DEPTH	AZIM	CUM AZIM	RADIAL	NORTH	EAST
0.0	.1	358.0	0.0	358.0	0.0	0.0	0.0	0.0
40.0	.1	358.0	40.0	358.0	358.0	.1	.1	-.0
50.0	.3	332.0	50.0	332.0	351.6	.1	.1	-.0
60.0	.4	279.0	60.0	279.0	334.6	.1	.1	-.1
70.0	.4	304.0	70.0	304.0	321.1	.2	.2	-.1
80.0	.9	8.0	80.0	8.0	330.4	.3	.3	-.1
90.0	1.4	297.0	90.0	297.0	328.0	.5	.4	-.2
100.0	1.4	341.0	100.0	341.0	325.0	.7	.5	-.4
110.0	.7	28.0	110.0	28.0	331.1	.8	.7	-.4
120.0	.6	346.0	120.0	346.0	335.1	.9	.8	-.4
130.0	1.3	360.0	130.0	0.0	338.2	1.1	1.0	-.4
140.0	.6	350.0	140.0	350.0	340.7	1.2	1.2	-.4
150.0	1.0	350.0	150.0	350.0	341.6	1.4	1.3	-.4
160.0	1.5	351.0	160.0	351.0	342.9	1.6	1.5	-.5
170.0	.7	6.0	170.0	6.0	344.2	1.8	1.7	-.5
180.0	1.3	341.0	180.0	341.0	344.7	1.9	1.9	-.5
183.0	1.3	360.0	183.0	0.0	344.9	2.0	1.9	-.5
200.0	.5	356.0	200.0	356.0	346.5	2.3	2.2	-.5
210.0	.8	355.0	210.0	355.0	347.0	2.4	2.3	-.5
220.0	.8	343.0	220.0	343.0	347.1	2.5	2.5	-.6
230.0	.6	341.0	230.0	341.0	346.8	2.6	2.6	-.6
240.0	1.0	333.0	240.0	333.0	346.3	2.8	2.7	-.7
250.0	.8	227.0	250.0	227.0	344.7	2.8	2.7	-.7
260.0	.1	118.0	260.0	118.0	343.5	2.9	2.7	-.8
270.0	.6	351.0	270.0	351.0	343.8	2.8	2.7	-.8
280.0	1.0	213.0	280.0	213.0	342.6	2.8	2.7	-.8
283.0	.4	319.0	283.0	319.0	342.1	2.8	2.7	-.9
290.0	.2	306.0	290.0	306.0	341.8	2.9	2.7	-.9
300.0	.2	275.0	300.0	275.0	341.2	2.9	2.7	-.9
310.0	.2	113.0	310.0	113.0	341.2	2.9	2.7	-.9
320.0	.2	64.0	320.0	64.0	341.8	2.9	2.7	-.9
330.0	.1	353.0	330.0	353.0	342.2	2.9	2.7	-.9
340.0	.2	122.0	340.0	122.0	342.4	2.9	2.7	-.9
350.0	.1	142.0	350.0	142.0	342.7	2.8	2.7	-.8
360.0	.1	8.0	360.0	8.0	342.8	2.8	2.7	-.8
370.0	.1	176.0	370.0	176.0	342.9	2.8	2.7	-.8
380.0	.1	147.0	380.0	147.0	342.9	2.8	2.7	-.8
390.0	.2	102.0	390.0	102.0	343.2	2.8	2.7	-.8
410.0	.2	198.0	410.0	198.0	343.5	2.8	2.7	-.8
420.0	.1	193.0	420.0	193.0	343.2	2.7	2.6	-.8
430.0	.3	121.0	430.0	121.0	343.4	2.7	2.6	-.8
440.0	.7	137.0	440.0	137.0	344.4	2.6	2.5	-.7
450.0	.4	173.0	450.0	173.0	344.9	2.6	2.5	-.7
460.0	.7	97.0	460.0	97.0	346.1	2.5	2.4	-.6
470.0	.9	189.0	470.0	189.0	346.7	2.4	2.3	-.6
480.0	1.1	169.0	480.0	169.0	345.9	2.2	2.2	-.5
490.0	1.5	165.0	490.0	165.0	345.8	2.0	1.9	-.5
500.0	1.7	165.0	500.0	165.0	345.9	1.7	1.7	-.4
516.0	2.6	172.0	515.9	172.0	344.2	1.1	1.1	-.3

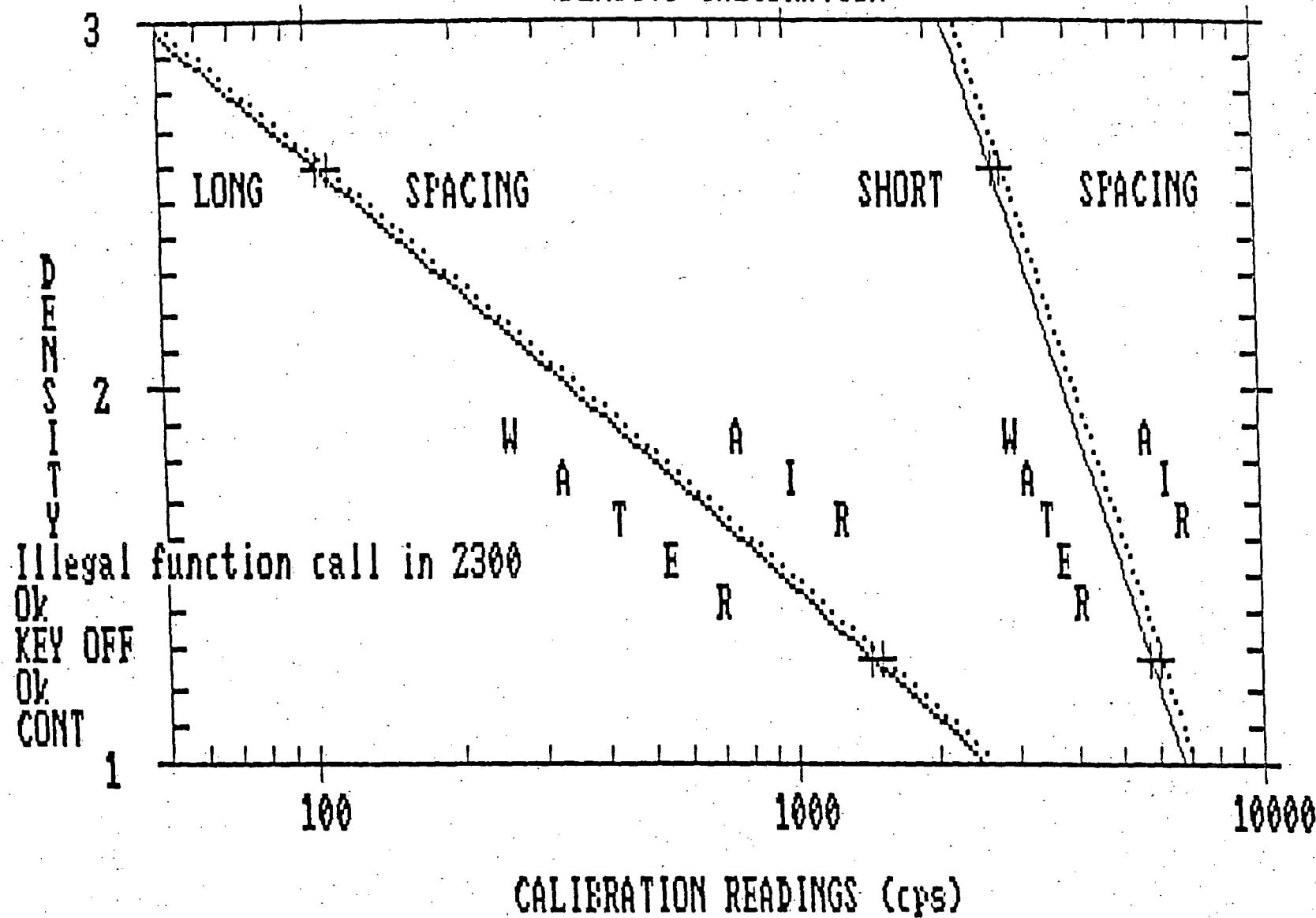
<u>READING</u>	<u>DEPTH</u>	<u>INCL</u>	<u>AZIM</u>
0	0.00	.1	358
1	40.00	.1	358
2	40.00	.7	137
3	50.00	.3	332
4	60.00	.4	279
5	70.00	.4	304
6	80.00	.9	8
7	90.00	1.4	297
8	100.00	1.4	341
9	110.00	.7	28
10	120.00	.6	346
11	130.00	1.3	360
12	140.00	.6	350
13	150.00	1.0	350
14	160.00	1.5	351
15	170.00	.7	6
16	180.00	1.3	341
17	183.00	1.3	360
18	200.00	.5	356
19	210.00	.8	355
20	220.00	.8	343
21	230.00	.6	341
22	240.00	1.0	333
23	250.00	.8	227
24	260.00	.1	118
25	270.00	.6	351
26	280.00	1.0	213
27	283.00	.4	319
28	290.00	.2	306
29	300.00	.2	275
30	310.00	.2	113
31	320.00	.2	54
32	330.00	.1	353
33	340.00	.2	122
34	350.00	.1	142
35	360.00	.1	8
36	370.00	.1	176
37	380.00	.1	147
38	390.00	.2	102
39	410.00	.2	198
40	420.00	.1	193
41	430.00	.3	121
42	440.00	.7	137
43	450.00	.4	173
44	460.00	.7	97
45	470.00	.9	189
46	480.00	1.1	169
47	490.00	1.5	165
48	500.00	1.7	165
49	516.00	2.6	172



RADIAL DISTANCE, IN FEET

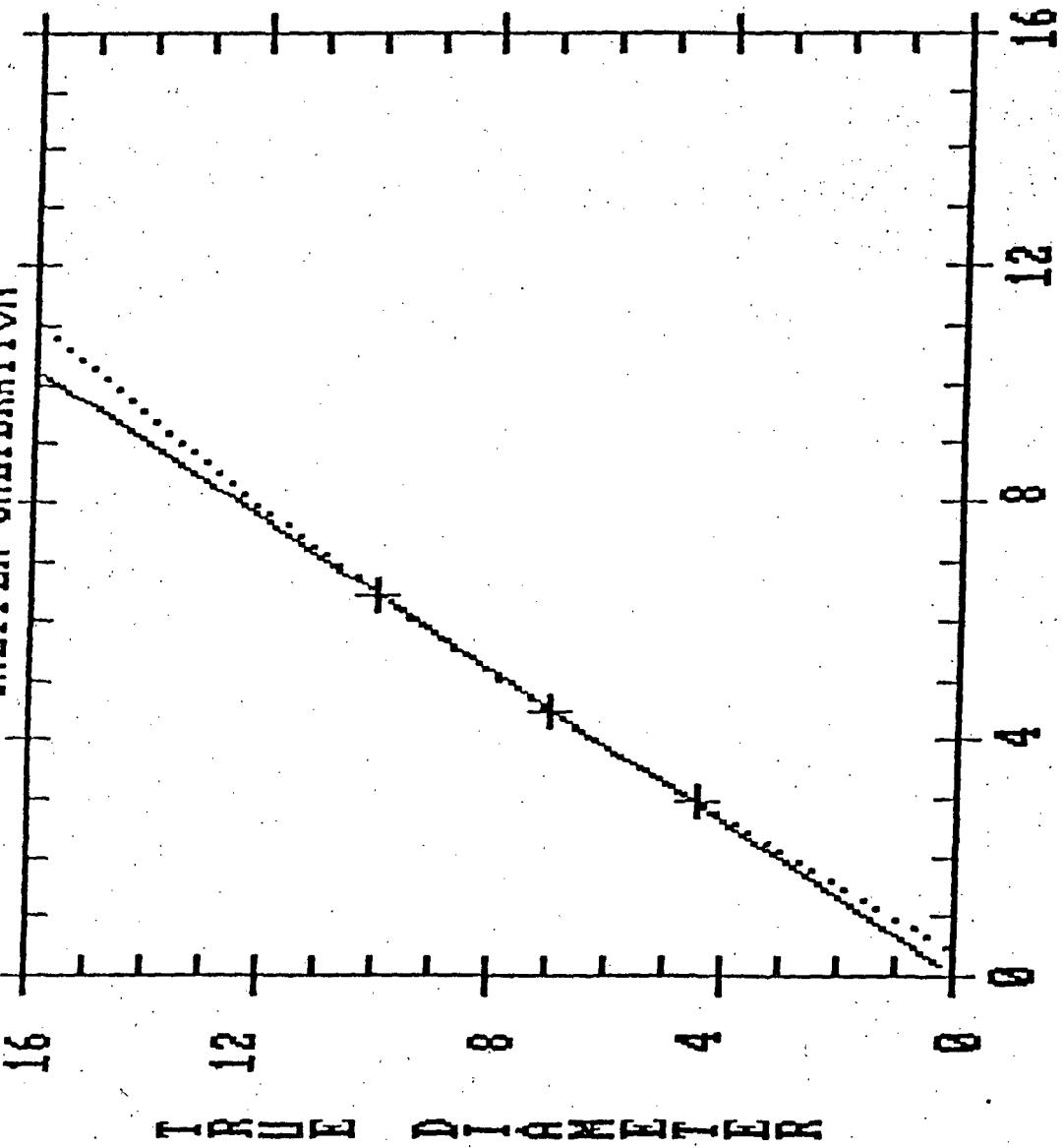


DENSITY CALIBRATION



Hit any key to continue, but if you want a SCREEN DUMP hit PrtSc first.

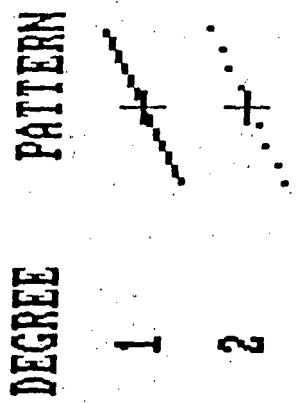
CALIPER CALIBRATION



CALIBRATION READINGS (inches)

Hit any key to continue, but if you want a SCREEN DUMP hit PrtSc first.

Input file c:\ctgh\ggc.wmc



DEGREE PATTERN
1

2

PLEASE SELECT DEGREE

(1 or 2)

DEFAULT = 1

1

SUMMARY OF PLOT INFORMATION NEEDED FOR GRAPHER

CLACKAMAS CTGH NO. 1 (REPEAT)