TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
STATION KPLC-DT
LAKE CHARLES, LOUISIANA
CH 8 17 KW 451 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KPLC-DT on NTSC (analog) channel 7 at Lake Charles, Louisiana. This application requests modification to its construction permit (CP) for a digital television operation on channel 8 at Lake Charles. The herein application just proposes to reduce the effective radiated power to 17 kilowatts. No site or radiation center change is required.

The proposed noise-limited contour is completely encompassed by the KPLC-DT construction permit, FCC File Number: BMPCDT-20021002AAU, noise-limited contour.

Proposed Facilities

Station KPLC-DT proposes to operate DTV channel 8 from its NTSC transmitter site. The proposed DTV transmission system will be combined with the NTSC transmitting antenna. The antenna height above average terrain for the channel 8 DTV operation, and also the NTSC facility, will be 451 meters. The proposed KPLC-DT effective radiated power exceeds the Commission’s allocated

maximum effective radiated power. Therefore, an allocation study was completed to ensure no prohibited interference would occur.

The proposed DTV transmitter site will be located at its new NTSC facility. Therefore, the proposed site location is:

30° 23′ 46″ North Latitude
93° 00′ 03″ West Longitude

Figure 1 is a map showing the DTV predicted coverage contour. The map provides the predicted F(50,90) noise limited contour. The extent of the contour has been calculated using the normal FCC prediction method. The Lake Charles city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Allocation Considerations

The proposed KPLC-DT Channel 8 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing NTSC facilities and DTV allotments and assignments except to KNOE(TV) as discussed below. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software developed by du Treil, Lundin & Rackley, Inc. based on the FCC published

software routines.[1] Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. The proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations with the exception of KNOE(TV).[2]

It is noted that the predicted interference to KNOE(TV) at Monroe exceeds the Commission's *de minimis* interference standards. However, an interference agreement between KPLC-DT and the licensee of KNOE(TV) has been reached permitting the proposed effective radiated power. Therefore, KNOE(TV) is not an allocation concern.

Radiofrequency Electromagnetic Field Exposure

The proposed KPLC-DT facility was evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level to workers and the general public. The radiation center for the proposed KPLC-DT antenna is located 450 meters (1475 feet) above ground level. The maximum effective radiated power is 17 kilowatts. A "worst-case" relative field value of 1.0 is assumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 0.003 mW/cm^2. This is less than five percent of the Commission's

1 The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.
2 Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e. "masking") including the allotment facility for KPLC-DT. This properly reflects the net interference change for determining compliance with the FCC DTV2%/10% *de minimis* standard.

recommended limit of 0.2 mW/cm^2 for channel 8 for an "uncontrolled" environment.

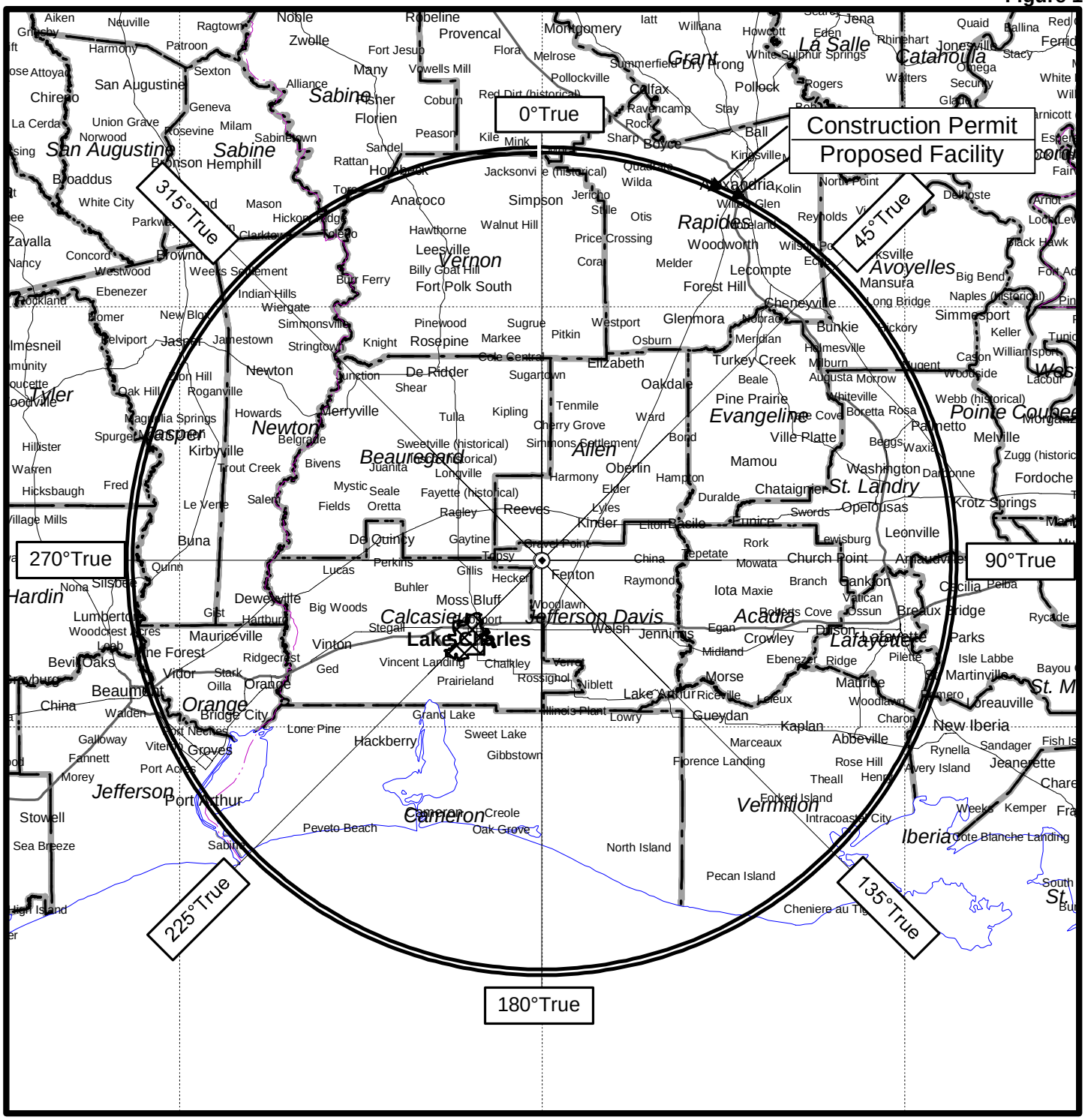
Access to the transmitting site is restricted and appropriately marked with warning signs. As this is a multi-user site, an agreement will control access to the site. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed KPLC-DT operation appears to be otherwise categorically excluded from environmental processing.

Charles Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 324237
941.329.6000

October 27, 2004

Figure 1



20 0 20 40 60 80 100 120 miles

20 0 40 80 120 160 kilometers

DTV NOISE-LIMITED COVERAGE CONTOUR

TELEVISION STATION KPLC-DT
LAKE CHARLES, LOUISIANA
CH 8 17 KW 451 M

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

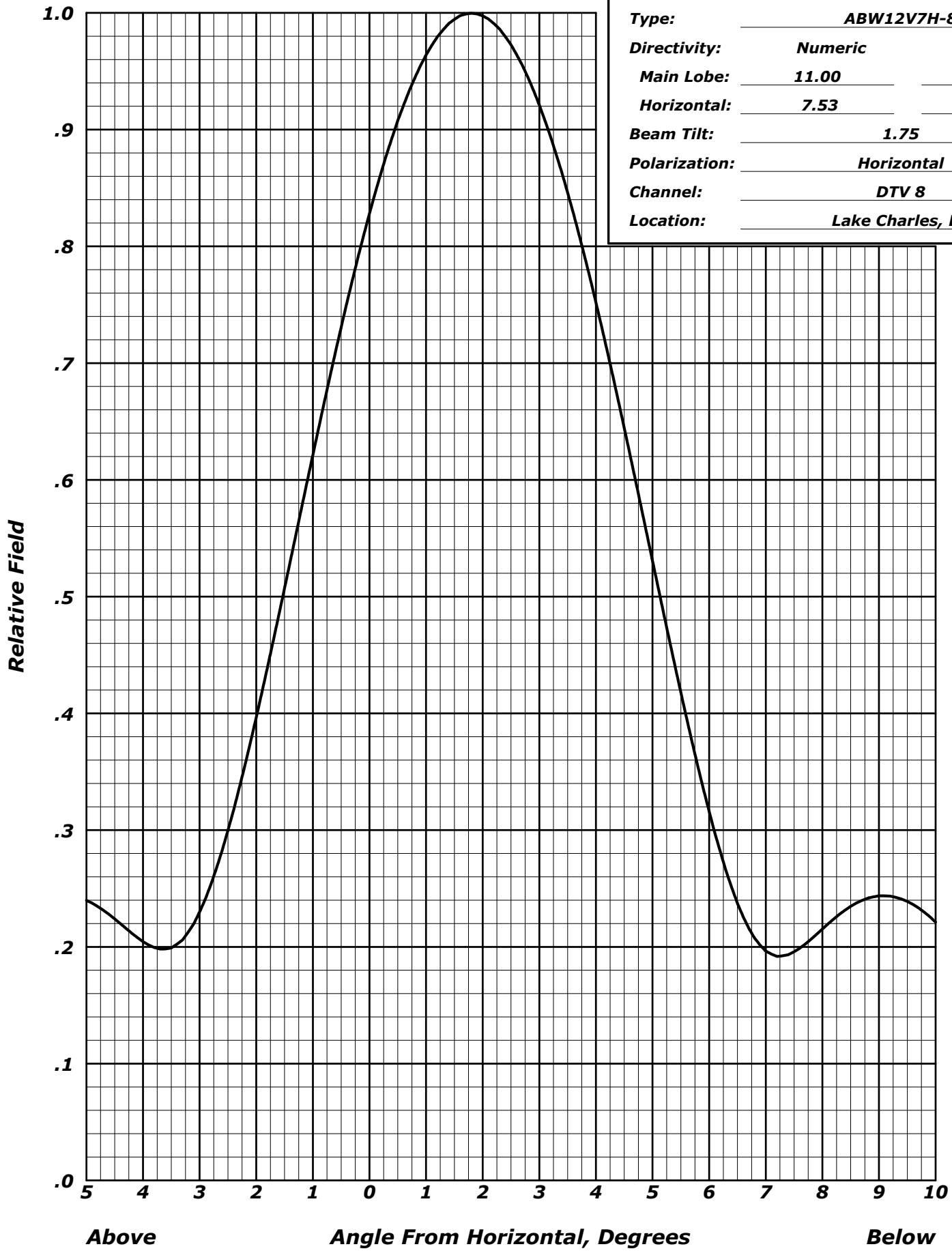
APPENDIX

TRANSMITTING ANTENNA PATTERN SPECIFICATIONS

ANDREW

ELEVATION PATTERN

Type:	ABW12V7H-8	
Directivity:	Numeric	dBd
Main Lobe:	11.00	(10.41)
Horizontal:	7.53	(8.77)
Beam Tilt:	1.75	
Polarization:	Horizontal	
Channel:	DTV 8	
Location:	Lake Charles, LA	



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

ANDREW

TABULATED DATA FOR ELEVATION PATTERN
TYPE : ABW12V7H-8

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5 To 10			10 To 90								
In 0.25 Increments			In 0.5 Increments								
-5.00	0.240	-12.40	8.75	0.241	-12.37	35.00	0.050	-26.09	62.50	0.038	-28.46
-4.75	0.233	-12.65	9.00	0.244	-12.26	35.50	0.053	-25.54	63.00	0.039	-28.20
-4.50	0.224	-13.00	9.25	0.243	-12.29	36.00	0.061	-24.25	63.50	0.040	-28.07
-4.25	0.214	-13.40	9.50	0.239	-12.43	36.50	0.072	-22.89	64.00	0.040	-28.05
-4.00	0.204	-13.79	9.75	0.232	-12.71	37.00	0.081	-21.81	64.50	0.039	-28.14
-3.75	0.199	-14.03	10.00	0.221	-13.11	37.50	0.088	-21.07	65.00	0.038	-28.32
-3.50	0.199	-14.02	10.50	0.194	-14.26	38.00	0.092	-20.70	65.50	0.037	-28.63
-3.25	0.209	-13.58	11.00	0.160	-15.89	38.50	0.092	-20.69	66.00	0.035	-29.00
-3.00	0.230	-12.77	11.50	0.129	-17.82	39.00	0.088	-21.06	66.50	0.034	-29.49
-2.75	0.261	-11.68	12.00	0.106	-19.46	39.50	0.081	-21.85	67.00	0.031	-30.04
-2.50	0.300	-10.46	12.50	0.101	-19.92	40.00	0.070	-23.12	67.50	0.029	-30.67
-2.25	0.346	-9.23	13.00	0.110	-19.17	40.50	0.056	-25.03	68.00	0.027	-31.32
-2.00	0.397	-8.03	13.50	0.124	-18.14	41.00	0.040	-27.97	68.50	0.025	-32.00
-1.75	0.451	-6.92	14.00	0.134	-17.43	41.50	0.023	-32.95	69.00	0.023	-32.66
-1.50	0.507	-5.90	14.50	0.138	-17.18	42.00	0.006	-44.75	69.50	0.022	-33.23
-1.25	0.564	-4.97	15.00	0.134	-17.44	42.50	0.014	-36.97	70.00	0.021	-33.72
-1.00	0.621	-4.13	15.50	0.123	-18.20	43.00	0.031	-30.13	70.50	0.020	-34.04
-0.75	0.677	-3.39	16.00	0.107	-19.40	43.50	0.047	-26.64	71.00	0.019	-34.22
-0.50	0.731	-2.73	16.50	0.091	-20.83	44.00	0.060	-24.44	71.50	0.019	-34.23
-0.25	0.781	-2.14	17.00	0.080	-21.91	44.50	0.071	-23.00	72.00	0.020	-34.15
0.00	0.828	-1.64	17.50	0.080	-21.94	45.00	0.079	-22.08	72.50	0.020	-33.99
0.25	0.870	-1.21	18.00	0.089	-20.97	45.50	0.084	-21.55	73.00	0.020	-33.78
0.50	0.908	-0.84	18.50	0.103	-19.78	46.00	0.086	-21.36	73.50	0.021	-33.58
0.75	0.939	-0.55	19.00	0.114	-18.85	46.50	0.084	-21.47	74.00	0.021	-33.43
1.00	0.964	-0.32	19.50	0.121	-18.35	47.00	0.081	-21.88	74.50	0.022	-33.32
1.25	0.982	-0.15	20.00	0.121	-18.32	47.50	0.074	-22.58	75.00	0.022	-33.23
1.50	0.994	-0.05	20.50	0.115	-18.78	48.00	0.066	-23.61	75.50	0.022	-33.23
1.75	0.999	-0.01	21.00	0.103	-19.73	48.50	0.056	-25.01	76.00	0.022	-33.24
2.00	0.997	-0.02	21.50	0.087	-21.19	49.00	0.046	-26.83	76.50	0.022	-33.35
2.25	0.988	-0.10	22.00	0.071	-23.02	49.50	0.035	-29.18	77.00	0.021	-33.50
2.50	0.973	-0.24	22.50	0.059	-24.53	50.00	0.025	-31.99	77.50	0.021	-33.72
2.75	0.950	-0.45	23.00	0.060	-24.48	50.50	0.019	-34.28	78.00	0.020	-33.96
3.00	0.921	-0.71	23.50	0.071	-22.98	51.00	0.020	-33.89	78.50	0.019	-34.28
3.25	0.886	-1.05	24.00	0.087	-21.24	51.50	0.026	-31.63	79.00	0.018	-34.66
3.50	0.846	-1.45	24.50	0.101	-19.89	52.00	0.034	-29.46	79.50	0.018	-35.06
3.75	0.801	-1.93	25.00	0.112	-19.02	52.50	0.041	-27.81	80.00	0.017	-35.54
4.00	0.752	-2.48	25.50	0.117	-18.64	53.00	0.047	-26.63	80.50	0.016	-36.08
4.25	0.700	-3.10	26.00	0.116	-18.72	53.50	0.051	-25.82	81.00	0.015	-36.65
4.50	0.645	-3.81	26.50	0.109	-19.27	54.00	0.054	-25.32	81.50	0.014	-37.27
4.75	0.588	-4.61	27.00	0.096	-20.33	54.50	0.056	-25.08	82.00	0.013	-37.93
5.00	0.531	-5.51	27.50	0.080	-21.99	55.00	0.056	-25.06	82.50	0.012	-38.72
5.25	0.474	-6.49	28.00	0.061	-24.34	55.50	0.055	-25.26	83.00	0.011	-39.51
5.50	0.418	-7.58	28.50	0.043	-27.31	56.00	0.052	-25.63	83.50	0.010	-40.38
5.75	0.365	-8.76	29.00	0.034	-29.33	56.50	0.049	-26.17	84.00	0.009	-41.34
6.00	0.316	-10.01	29.50	0.040	-27.98	57.00	0.045	-26.86	84.50	0.008	-42.41
6.25	0.273	-11.28	30.00	0.054	-25.37	57.50	0.041	-27.65	85.00	0.007	-43.53
6.50	0.237	-12.50	30.50	0.068	-23.30	58.00	0.038	-28.49	85.50	0.006	-44.71
6.75	0.212	-13.48	31.00	0.080	-21.95	58.50	0.034	-29.29	86.00	0.005	-46.04
7.00	0.196	-14.14	31.50	0.087	-21.19	59.00	0.032	-29.93	86.50	0.004	-47.62
7.25	0.192	-14.33	32.00	0.090	-20.93	59.50	0.031	-30.28	87.00	0.003	-49.29
7.50	0.196	-14.16	32.50	0.088	-21.14	60.00	0.030	-30.32	87.50	0.003	-51.37
7.75	0.205	-13.78	33.00	0.081	-21.78	60.50	0.031	-30.08	88.00	0.002	-53.67
8.00	0.215	-13.34	33.50	0.072	-22.82	61.00	0.033	-29.67	88.50	0.001	-56.70
8.25	0.226	-12.92	34.00	0.062	-24.15	61.50	0.035	-29.22	89.00	0.001	-60.00
8.50	0.235	-12.59	34.50	0.053	-25.48	62.00	0.036	-28.79	89.50	0.001	-60.00