

TECHNICAL STATEMENT
K231BQ IDAHO SPRINGS, COLORADO 231D
CEDAR COVE BROADCASTING, INC.
FCC FORM 349
SEPTEMBER 2011

This Technical Statement is in support of FCC form 349 filed by Cedar Cove Broadcasting, Inc. for a minor change in the licensed facility of K231BQ, facility ID 142150. It is proposing to make changes at its currently licensed tower site located at N. 39°-40'-31", W. 105°-29'-02", NAD 27, with an Effective Radiated Power of 5 Watts (0.005 KW) and utilizing a Nicom BKG 77 directional type antenna. The antenna will be mounted at the 25 meter level on a 43 meter overall, unregistered, existing tower, with a Center of Radiation at 3244 meters Above Mean Sea Level.

Figure 1 shows a channel interference study conducted from the proposed site for K231BQ. It shows that the proposed operation of K231BQ on channel 231D, will not cause any prohibited outgoing interference to any licensed or proposed FM services, with the exception of KRKS-FM Lafayette, Colorado operating on channel 234C, facility ID 58631. The proposed operation of K231BQ on 231D is located within the protected 60 dBμ contour of 3rd adjacent station KRKS-FM. Figure 2 shows the coverage area for the worse case 100 dBμ interference contour F(50-10) and shows that there is no population in the area of interference. The applicant, Cedar Cove Broadcasting, Inc., respectfully requests a waiver of C.F.R. 74.1204(d) of the Commission's rules based on the fact that there is no population within the area of predicted interference. There are no homes nearby the proposed existing tower site, which is a privately owned 10 acre wooded area,

with private access. The transmitter building is uninhabited and does not have indoor plumbing.

Figure 3 shows the antenna polar plot of the proposed directional composite antenna system.

Figure 4 is a tabulation of distance to contours for the pertinent contours proposed by K231BQ.

It was concluded that the new proposed operation of K231BQ Idaho Springs, Colorado on channel 231D will not cause any harmful interference to any existing stations, and will be in full compliance with the commission's rules.

FIGURE 1, DETAILED INTERFERENCE STUDY
K231BQ IDAHO SPRINGS, CO, CH. 231D
Average Protected F(50-50)= 10.19 km
Standard Directional

REFERENCE
39 40 31.0 N.
105 29 02.0 W.

CH# 231D - 94.1 MHz, Pwr= 0.005 kW DA, HAAT= 487.5 M, COR= 3244 M
Average Protected F(50-50)= 10.19 km
Standard Directional

DISPLAY DATES
DATA 09-23-11
SEARCH 09-25-11

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT* (Overlap in km)
231D Estes Park	K231BQ *	LIC DV_	CO	0.0 0.0	0.0 BFFT20110711AGS	39 40 31.0 105 29 02.0	0.016 3244	49.8 3244	13.4 Cedar Cove Broadcasting, I	-56.2*	-42.7*
232C Colorado Springs	KILO	LIC _C_	CO	152.4 332.8	116.4 BLH20070426AAL	38 44 44.0 104 51 42.0	79.000 670	136.1 2922	92.0 Colorado Springs Radio Bro	-30.5	7.1
234C Lafayette	KRKS-FM **	LIC DCN	CO	14.1 194.2	45 BMLH19981009K	40 04 19.0 105 21 14.0	100.000 30	7.4 2442	60.0 Salem Media Of Colorado, I	31.6	-14.7**
230A Frisco	KYSL	LIC _CN	CO	256.4 76.0	55.8 BLH19940808KA	39 33 22.0 106 06 53.0	0.560 324	58.5 3549	37.8 Krystal Broadcasting, Inco	-5.4	14.2
231D Boulder	K231AA	LIC _CN	CO	33.4 213.5	38.6 BLFT19960111TK	39 57 54.0 105 14 05.0	0.205 -133	22.6 1719	6.7 Citicasters Licenses, Inc.	9.5	1.1
229D Lakewood	K229BS	LIC DC_	CO	74.1 254.3	22.1 BLFT20100719AFS	39 43 46.0 105 14 08.0	0.099 218	0.7 2246	5.5 4-k's Lllp	13.3	16.5
231C2 Phippsburg	KEZZ	LIC NCX	CO	307.2 126.4	128.6 BLH20090522ACV	40 22 03.0 106 41 28.0	1.750 380	105.5 3107	40.9 Youngers Colorado Broadcas	15.0	57.1
229D Ward	K229AC	LIC _E_	CO	354.6 174.6	33.2 BLFT20061218ACR	39 58 22.0 105 31 13.0	0.028 -188	0.4 2655	4.1 Boulder Community Broadcas	26.3	29.0
232D Breckenridge	K232AC	LIC DHN	CO	240.6 60.3	48.7 BLFT129	39 27 35.0 105 58 40.0	0.048 505	9.4 3840	6.2 Summit Public Radio And Tv	36.7	38.8
231C Montrose	KKXK	LIC _CY	CO	232.1 50.7	238.6 BLH19961009KC	38 20 16.0 107 38 23.0	100.000 574	198.2 3094	92.1 Ccr-montrose Iv, Llc	37.7	138.1
230A Loveland	KCWA	LIC ZCX	CO	15.7 195.9	94.5 BLH20101214ACL	40 29 37.0 105 10 53.0	0.580 319	50.0 2098	32.5 Way Media, Inc.	38.0	51.0
230D Westcreek	631674	APP _C_	CO	145.0 325.3	67.6 BNPFT20030310BGE	39 10 33.0 105 02 03.1	0.010 380	11.8 2823	8.3 Way-fm Media Group, Inc.	44.3	40.0
231D Eagle	K231AP	LIC _C_	CO	274.0 93.1	113.0 BLFT20051006ACY	39 44 18.0 106 47 58.0	0.010 703	58.1 3181	15.8 Skandia, Llc	49.4	78.8
230D Fort Lupton	630344	APP _C_	CO	54.8 235.3	76.3 BNPFT20030317AZW	40 04 05.0 104 45 08.0	0.170 90	15.2 1611	10.7 Horizon Christian Fellowsh	53.9	52.9
230D Fort Lupton	644473	APP _C_	CO	51.4 231.9	80.6 BNPFT20030317GEL	40 07 28.1 104 44 36.1	0.115 125	17.3 1630	11.8 Radio Assist Ministry, Inc	56.3	56.7
231D Byers	649226	APP _C_	CO	87.8 268.7	109.8 BNPFT20030312ARO	39 42 19.0 104 12 18.0	0.200 102	28.5 1705	8.6 Frank G. Mccoy	72.2	61.6
232C3 Wellington	KMAX-FM	LIC _CX	CO	11.6 191.8	142.1 BLH20021101AAV	40 55 41.0 105 08 36.0	8.700 168	72.1 2131	48.8 Townsquare Media Of Ft. Co	63.5	82.3
229D Berthoud	631534	APP DE_	CO	30.0 210.3	72.6 BNPFT20030312ADC	40 14 24.0 105 03 23.0	0.100 99	0.1 1637	4.2 Educational Communications	65.9	68.2
228D Leadville	K228AG	LIC DHN	CO	232.9 52.5	75.4 BLFT19790511IC	39 15 54.0 106 10 54.0	0.107 546	0.1 4011	6.4 Lake County Tv-fm, Inc	72.6	68.9
228D Woodland Park	K228EM	LIC _C_	CO	154.8 335.1	84.4 BLFT20070823AEI	38 59 12.0 105 04 04.0	0.015 34	0.3 2774	10.0 Cheyenne Mountain Public B	73.6	74.2
229D Monument	631407	APP _C_	CO	141.3 321.7	87.7 BNPFT20030310AVZ	39 03 31.0 104 50 54.1	0.250 -191	1.1 2103	7.1 Way-fm Media Group, Inc.	75.0	80.4
234D Vail	633927	APP DC_	CO	267.2 86.6	82.7 BNPFT20030313APU	39 38 05.0 106 26 47.0	0.010 37	0.0 2963	2.5 Educational Communications	79.4	80.0
230D Windsor	631544	APP DE_	CO	15.7 195.9	94.4 BNPFT20030312ADM	40 29 36.0 105 10 52.0	0.010 332	1.2 2078	0.6 Educational Communications	86.7	82.9
229C2 Salida	KSBV	LIC _CX	CO	198.6 18.2	143.8 BLH20020828AAQ	38 26 47.0 106 00 37.0	1.000 830	2.2 3572	58.8 Arkansas Valley Broadcasti	133.4	84.9
233D Avon	640651	APP _V_	CO	269.2 88.4	102.4 BNPFT20030314BPJ	39 39 20.0 106 40 36.9	0.023 304	0.3 2841	14.6 Professional Antenna, Towe	98.6	87.6

Page # 2											
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap	*OUT* in km)
229C1 Limon	KIIQ	RSV-A CO	___	101.7 282.8	157.3	39 22 34.0 103 41 43.0	100.000 299	9.3 1996	68.6 Percheron Associates, Llc	137.7	88.7
234D Colorado Springs	K234AJ	LIC _C_ CO		149.6 330.0	101.5 BLFT20101201AQE	38 53 10.0 104 53 24.0	0.019 -107	0.3 2213	3.7 Educational Communications	90.0	97.6
228D Fort Collins	K228EZ	LIC DV_ CO		14.0 194.2	99.7 BLFT20110407ACR	40 32 47.0 105 11 53.0	0.036 379	0.1 2198	5.4 Mountain Community Transla	93.2	94.2
228D Fort Collins	K228EZ	CP DV_ CO		14.0 194.2	99.7 BPFT20110718AAK	40 32 47.0 105 11 53.0	0.009	0.0 2198	3.1 Mountain Community Transla	93.2	96.6
233D Greeley	652147	APP _C_ CO		38.6 219.1	101.4 BNPFT20030317MSW	40 23 05.0 104 44 12.0	0.060 62	0.5 1508	7.7 Kevin J. Youngers	94.2	93.6
229C1 Limon	KIIQ	APP NCX CO		101.7 282.8	157.3 BPH20070313ABN	39 22 34.0 103 41 43.0	100.000 205	7.3 1901	59.6 Percheron Associates, Llc	139.7	97.6
229D Colorado Springs	629875	APP DE_ CO		152.4 332.8	116.4 BNPFT20030312AJI	38 44 43.0 104 51 39.0	0.010 499	0.0 2718	0.2 Educational Communications	105.6	116.1
229D Thomasville	K229AI	LIC DV_ CO		251.2 70.4	109.2 BLFT20041105AKJ	39 21 12.0 106 41 00.0	0.010 -419	0.1 2666	1.6 Pitkin County Translator D	106.4	107.4
231C1 Scottsbluff	KNEB-FM	LIC _CN NE		33.4 214.6	271.8 BLH19810904AB	41 42 04.0 103 40 49.0	100.000 207	155.2 1512	58.7 Nebraska Rural Radio Assoc	110.0	182.3
229C1 Limon	KIIQ	CP _CX CO		101.7 282.8	157.4 BPH20070313ABN	39 22 34.0 103 41 41.0	100.000 117	5.2 1823	47.0 Percheron Associates, Llc	141.9	110.3
228C3 Aspen	KTND	LIC _C_ CO		252.9 72.0	133.0 BLH20100816ABF	39 18 56.0 106 57 32.0	21.000 109	2.2 2682	21.8 Bs&t Wireless, Inc.	128.2	111.1
229C1 Craig	KRAI-FM	LIC _CN CO		299.7 118.3	206.9 BLH6997	40 34 35.0 107 36 29.0	100.000 299	11.0 2315	76.4 Wild West Radio, Inc.	188.6	130.4
229A Limon	KIIQ	LIC _CX CO		105.8 287.0	161.1 BLH20041025AEJ	39 16 00.0 103 41 15.0	1.000 -32	1.6 1649	10.2 Percheron Associates, Llc	148.7	150.8
229C3 Cheyenne	KAZY	LIC _CX WY		22.2 202.7	175.4 BLH20060615AAH	41 08 04.0 104 41 32.0	25.000 35	2.3 1859	22.7 Freisland Broadcasting Cor	166.7	152.7
233C3 New Castle	KTUN	LIC _CX CO		266.7 85.4	176.4 BLH20050603ABU	39 33 56.0 107 32 01.0	25.000 -121	2.3 1935	22.7 Wildcat Communications Llc	170.9	153.6
233D Glenwood Springs	KTUN-FM1	LIC DV_ CO		266.0 84.8	157.9 BLFTB20051229AAQ	39 33 40.0 107 19 01.0	0.340	0.2 2216	3.3 Wildcat Communications, L.	154.5	154.5
234C3 Beulah	KFVR-FM	CP _CX CO		166.9 347.3	204.8 BPH20080311ACG	37 52 40.0 104 57 19.0	18.000 118	4.4 2426	42.4 Greeley Broadcasting Corpo	190.4	162.2
233C2 Merino	KRFD	CP _CX CO		63.9 245.4	222.7 BPH20110321AAE	40 31 57.0 103 07 22.0	50.000 124	6.1 1431	53.3 Northeast Colorado Broadca	208.9	169.3
233C3 Merino	KRFD	LIC _CX CO		63.9 245.4	222.7 BLH20090622ADG	40 31 57.0 103 07 22.0	15.000 124	4.4 1431	42.7 Northeast Colorado Broadca	210.6	179.9

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= West Zone, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside protected contour.

* Translator being modified by this application.

** No interference will be caused to KRKS-FM since the proposed 100 dbu contour does not cover any
population. See the technical statement for more details.

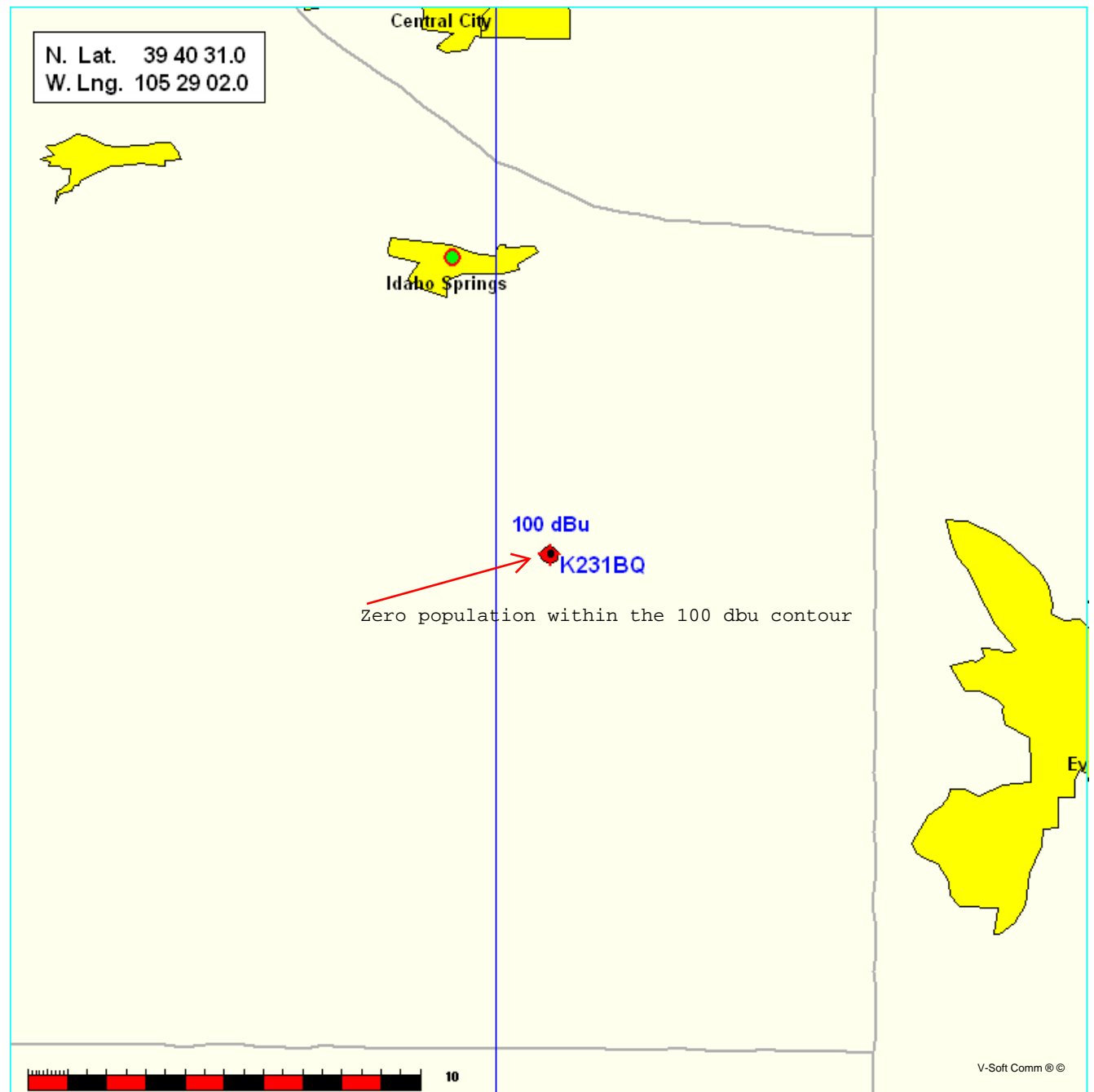


FIGURE 3, DIRECTIONAL ANTENNA DATA

K231BQ IDAHO SPRINGS, CO

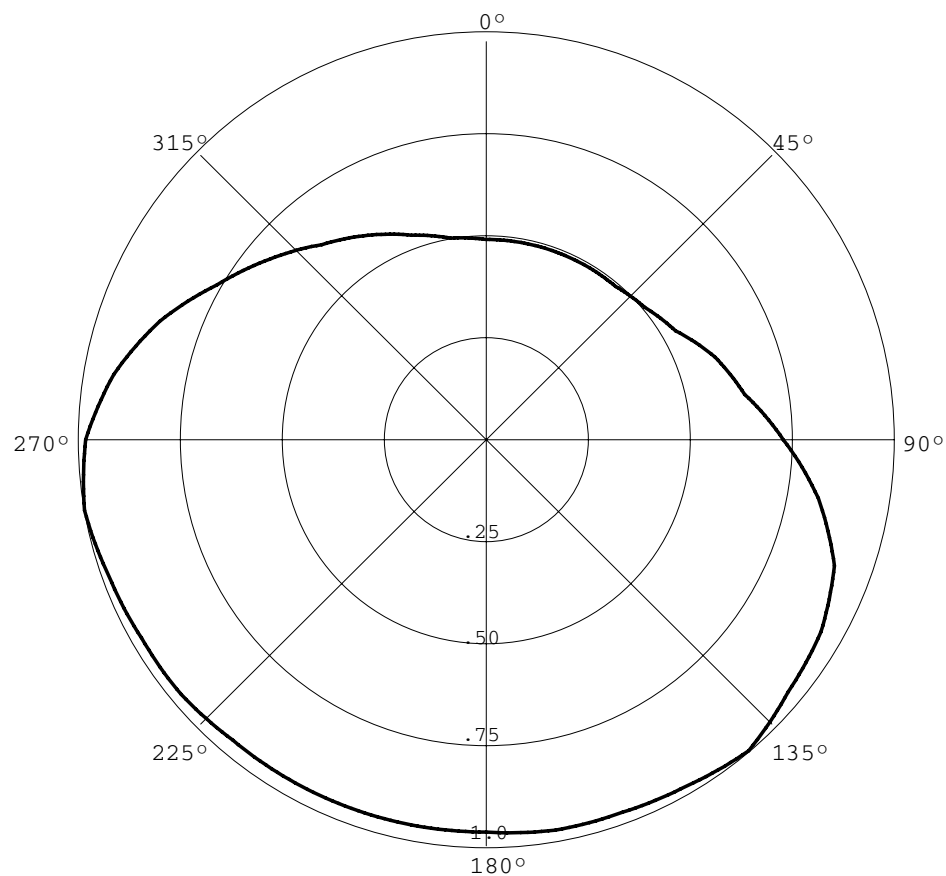
09-25-2011

RMS(V) = .811

NICOM BKG 77/1L Directional antenna

Graph is Relative Field

Azi	Field	dBk	kW
000	0.493	-29.153	0.001
010	0.493	-29.153	0.001
020	0.493	-29.153	0.001
030	0.493	-29.153	0.001
040	0.493	-29.153	0.001
050	0.507	-28.910	0.001
060	0.536	-28.427	0.001
070	0.596	-27.505	0.002
080	0.643	-26.846	0.002
090	0.728	-25.768	0.003
100	0.826	-24.671	0.003
110	0.908	-23.849	0.004
120	0.947	-23.483	0.004
130	0.966	-23.311	0.005
140	1.000	-23.010	0.005
150	0.984	-23.150	0.005
160	0.976	-23.221	0.005
170	0.976	-23.221	0.005
180	0.966	-23.311	0.005
190	0.966	-23.311	0.005
200	0.966	-23.311	0.005
210	0.966	-23.311	0.005
220	0.966	-23.311	0.005
230	0.976	-23.221	0.005
240	0.976	-23.221	0.005
250	0.984	-23.150	0.005
260	1.000	-23.010	0.005
270	0.982	-23.168	0.005
280	0.927	-23.669	0.004
290	0.852	-24.402	0.004
300	0.762	-25.371	0.003
310	0.692	-26.208	0.002
320	0.627	-27.065	0.002
330	0.581	-27.727	0.002
340	0.536	-28.427	0.001
350	0.504	-28.962	0.001



Contour.out

N. Lat. = 394031.0 W. Lng. = 1052902.0
 HAAT and Distance to Contour,
 FCC, FM 2-10 Mi, 51 pts Method - NGDC 30 SEC

Figure 4, Distance to contours, K231BQ, CH 231D

Azi.	AV EL	HAAT	ERP kW	dBk	60-F5	54-F1	40-F1	100-F1
000	2629.8	614.2	0.0012	-29.15	6.47	10.91	29.31	0.08
010	2624.8	619.2	0.0012	-29.15	6.48	10.94	29.47	0.08
020	2645.6	598.4	0.0012	-29.15	6.45	10.80	28.80	0.08
030	2596.3	647.7	0.0012	-29.15	6.53	11.12	30.36	0.08
040	2523.1	720.9	0.0012	-29.15	6.66	11.53	32.43	0.08
050	2461.6	782.4	0.0013	-28.91	6.92	12.08	34.42	0.08
060	2356.4	887.6	0.0014	-28.43	7.40	13.06	37.78	0.08
070	2406.6	837.4	0.0018	-27.51	8.00	13.95	38.79	0.09
080	2487.4	756.6	0.0021	-26.85	8.35	14.26	38.37	0.10
090	2518.1	725.9	0.0026	-25.77	9.16	15.82	40.01	0.11
100	2500.5	743.5	0.0034	-24.67	10.18	17.52	43.10	0.13
110	2394.3	849.7	0.0041	-23.85	11.35	19.86	48.34	0.14
120	2446.8	797.2	0.0045	-23.48	11.54	19.82	47.77	0.15
130	2517.8	726.2	0.0047	-23.31	11.40	19.16	45.97	0.15
140	2539.8	704.3	0.0050	-23.01	11.58	19.25	46.03	0.16
150	2596.8	647.2	0.0048	-23.15	11.12	18.13	43.76	0.15
160	2727.9	516.1	0.0048	-23.22	10.18	15.51	38.14	0.15
170	2765.1	478.9	0.0048	-23.22	9.99	14.72	36.49	0.15
180	2822.6	421.4	0.0047	-23.31	9.52	13.84	33.68	0.15
190	2811.2	432.8	0.0047	-23.31	9.62	14.01	34.25	0.15
200	2968.6	275.4	0.0047	-23.31	7.86	11.33	26.63	0.15
210	3028.1	215.9	0.0047	-23.31	6.95	10.04	23.78	0.15

				Contour. out				
220	3085.2	158.8	0.0047	-23.31	6.02	8.57	20.26	0.15
230	3266.4	-22.4	0.0048	-23.22	2.65	3.69	8.39	0.15
240	3377.0	-133.0	0.0048	-23.22	2.65	3.69	8.39	0.15
250	3309.5	-65.5	0.0048	-23.15	2.66	3.71	8.43	0.15
260	3221.1	22.9	0.0050	-23.01	2.68	3.74	8.50	0.16
270	3182.6	61.4	0.0048	-23.17	3.81	5.38	12.03	0.15
280	3045.5	198.5	0.0043	-23.67	6.53	9.43	22.34	0.15
290	2953.9	290.1	0.0036	-24.40	7.49	10.94	25.68	0.13
300	2916.4	327.6	0.0029	-25.37	7.36	10.96	25.78	0.12
310	2706.4	537.6	0.0024	-26.21	8.13	12.75	32.34	0.11
320	2599.5	644.5	0.0020	-27.06	7.89	13.10	34.64	0.10
330	2610.9	633.1	0.0017	-27.73	7.40	12.35	32.80	0.09
340	2693.7	550.3	0.0014	-28.43	6.78	11.01	28.51	0.08
350	2646.5	597.5	0.0013	-28.96	6.56	10.96	29.11	0.08

Ave EI = 2749.55 M HAAT= 494.45 M AMSL= 3244