

**EXHIBIT #1**  
**ENGINEERING STATEMENT**

KUWZ  
The University of Wyoming  
Minor Amendment to BPED-20031217AAI  
Channel 213 – 50 kW H & V  
Rock Springs, Wyoming

April 2004

CH 213C0

50 kW H & V

This engineering statement supports the application of the University of Wyoming to make a minor amendment to the pending application BPED-20031217AAI for NCE FM station KUWZ, Rock Springs, WY. This amendment proposes to correct the site coordinates, overall tower height and antenna height above ground, mean sea level and average terrain.

A 60 dBu coverage map is included as Page #3. A total of 36 evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 arc second database was employed to determine the elevations along the radials that were averaged using the required four-point interpolation method. The resulting averaged radial antenna heights were employed using the Commission's own TVFMINT algorithm to project the distances to signal contours. A tabular listing of the distance to the one mV/m contour of the modified facility can be found on page #4 of this exhibit. A change area map of the 60 dBu contours of both the proposed amendment and the licensed facility is found on Page #5

Exhibit #15 is an Allocation Report. The first page is a computer channel study of all stations having a frequency and distance relationship. The exhibit gives current operating powers, HAAT's bearings and distances. (All distances were computed according to the method described under Section 73.208 of the Commission's Rules.) The second page is a narrative of the methods and conventions used in the report. There are no pertinent I.F. relationships and the station is outside the required distance to Canada, Mexico, AM stations, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone.

With regard to protection to channel 6 television stations, Exhibit #18 explains the relationship between the proposed station and the only channel 6 television station within the 193 kilometer cutoff distance for FM channel 213. KBCJ, a construction permit, is authorized for 83.2 kW ERP, 2541 meters AMSL at a distance of 119 kilometers from the FM transmitter, along an azimuth of 180.9°. The change in the FM/TV interference area is depicted on the map on Page #1. The interference contours used to calculate the predicted interference are listed on Page #2. The entire interference area is within the applicable angle for the 6 dB receiver directivity credit, so it was applied. According to Section 73.525(b)(2), "...for each person predicted to receive new interference as a result of the change, existing predicted interference to two persons will be eliminated." And Section 73.525(b)(2)(ii) states that "The following adjustment to the population calculation may be made: up to 1,000 persons may be subtracted from the population predicted to receive new interference if, for each person subtracted, the applicant effectively installs two filters within 90 days after commencing program tests with the proposed facilities and, no later than 45 days thereafter, provides the affected TV Channel 6 station (as defined in paragraph (a) of this section) with a certification containing sufficient information to permit verification of such installation. The required number of filters will be installed on television receivers located within the predicted interference area; provided that half of the installations are within the area predicted to receive new interference." As shown on the map, a total of 7<sup>1</sup> persons reside within the "new" interference area, whereas 2 people live in the "old" area. The applicant agrees to install the required filters to 14 households within the interference area, and will notify the licensee of KBCJ when work is completed.

Exhibit #22 is an R.F. emissions compliance statement.

Page #6 of Exhibit #1 is a statement of the qualifications of the preparer.

Kate Michler

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<sup>1</sup> Based on the US 2000 block census.

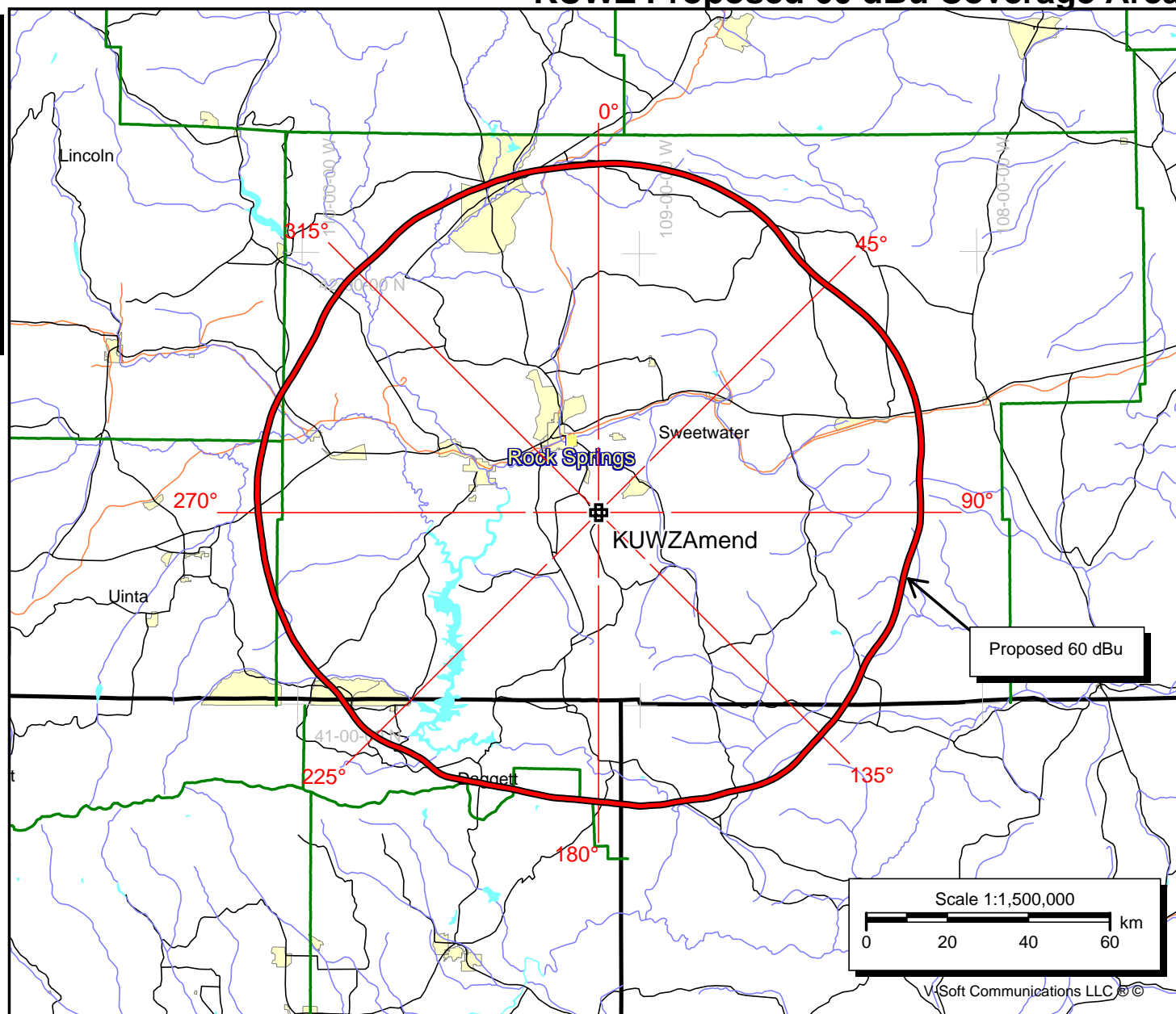
# KUWZ Proposed 60 dBu Coverage Area

KUWZAmend  
 Latitude: 41-25-39 N  
 Longitude: 109-07-17 W  
 ERP: 50.00 kW  
 Channel: 213  
 Frequency: 90.5 MHz  
 AMSL Height: 2680.0 m  
 Elevation: 2630 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No

Pop = 37,837  
 Area = 20,092 sq km

April 26, 2004

**V** Doug Vernier  
 721 West 1st Street, Suite A  
 Cedar Falls, Iowa 50613  
 Telecommunications Consultants



Doug Vernier Telecommunications Consultants

N. Lat. = 41 25 39 W. Lng. = 109 07 17

HAAT and Distance to Contour - FCC Method - 30 Arc. Sec.

KUWZ - Minor Amendment to BPED-20031217AAI

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	2056.7	623.3	50.0000	16.99	1.000	85.69
010	2052.8	627.2	50.0000	16.99	1.000	85.83
020	2074.9	605.1	50.0000	16.99	1.000	85.02
030	2123.2	556.8	50.0000	16.99	1.000	82.90
040	2191.0	489.0	50.0000	16.99	1.000	79.01
050	2168.3	511.7	50.0000	16.99	1.000	80.41
060	2127.9	552.1	50.0000	16.99	1.000	82.66
070	2127.4	552.6	50.0000	16.99	1.000	82.69
080	2167.4	512.6	50.0000	16.99	1.000	80.46
090	2189.5	490.5	50.0000	16.99	1.000	79.10
100	2222.2	457.8	50.0000	16.99	1.000	76.79
110	2219.8	460.2	50.0000	16.99	1.000	76.97
120	2240.3	439.7	50.0000	16.99	1.000	75.41
130	2218.7	461.3	50.0000	16.99	1.000	77.05
140	2207.2	472.8	50.0000	16.99	1.000	77.90
150	2212.3	467.7	50.0000	16.99	1.000	77.53
160	2248.0	432.0	50.0000	16.99	1.000	74.83
170	2272.2	407.8	50.0000	16.99	1.000	73.08
180	2300.6	379.4	50.0000	16.99	1.000	71.09
190	2302.7	377.3	50.0000	16.99	1.000	70.95
200	2291.5	388.5	50.0000	16.99	1.000	71.72
210	2247.0	433.0	50.0000	16.99	1.000	74.91
220	2236.7	443.3	50.0000	16.99	1.000	75.68
230	2202.4	477.6	50.0000	16.99	1.000	78.24
240	2183.9	496.1	50.0000	16.99	1.000	79.46
250	2149.2	530.8	50.0000	16.99	1.000	81.50
260	2128.2	551.8	50.0000	16.99	1.000	82.64
270	2108.9	571.1	50.0000	16.99	1.000	83.59
280	2100.3	579.7	50.0000	16.99	1.000	83.98
290	2114.1	565.9	50.0000	16.99	1.000	83.35
300	2142.2	537.8	50.0000	16.99	1.000	81.89
310	2107.8	572.2	50.0000	16.99	1.000	83.64
320	2107.5	572.5	50.0000	16.99	1.000	83.66
330	2076.1	603.9	50.0000	16.99	1.000	84.97
340	2074.2	605.8	50.0000	16.99	1.000	85.04
350	2064.9	615.1	50.0000	16.99	1.000	85.39

Ave El = 2168.28 M HAAT= 511.72 M AMSL= 2680

# KUWZ Proposed 60 dBu Change Area

KUWZAmend  
 Latitude: 41-25-39 N  
 Longitude: 109-07-17 W  
 ERP: 50.00 kW  
 Channel: 213  
 Frequency: 90.5 MHz  
 AMSL Height: 2680.0 m  
 Elevation: 2630 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No

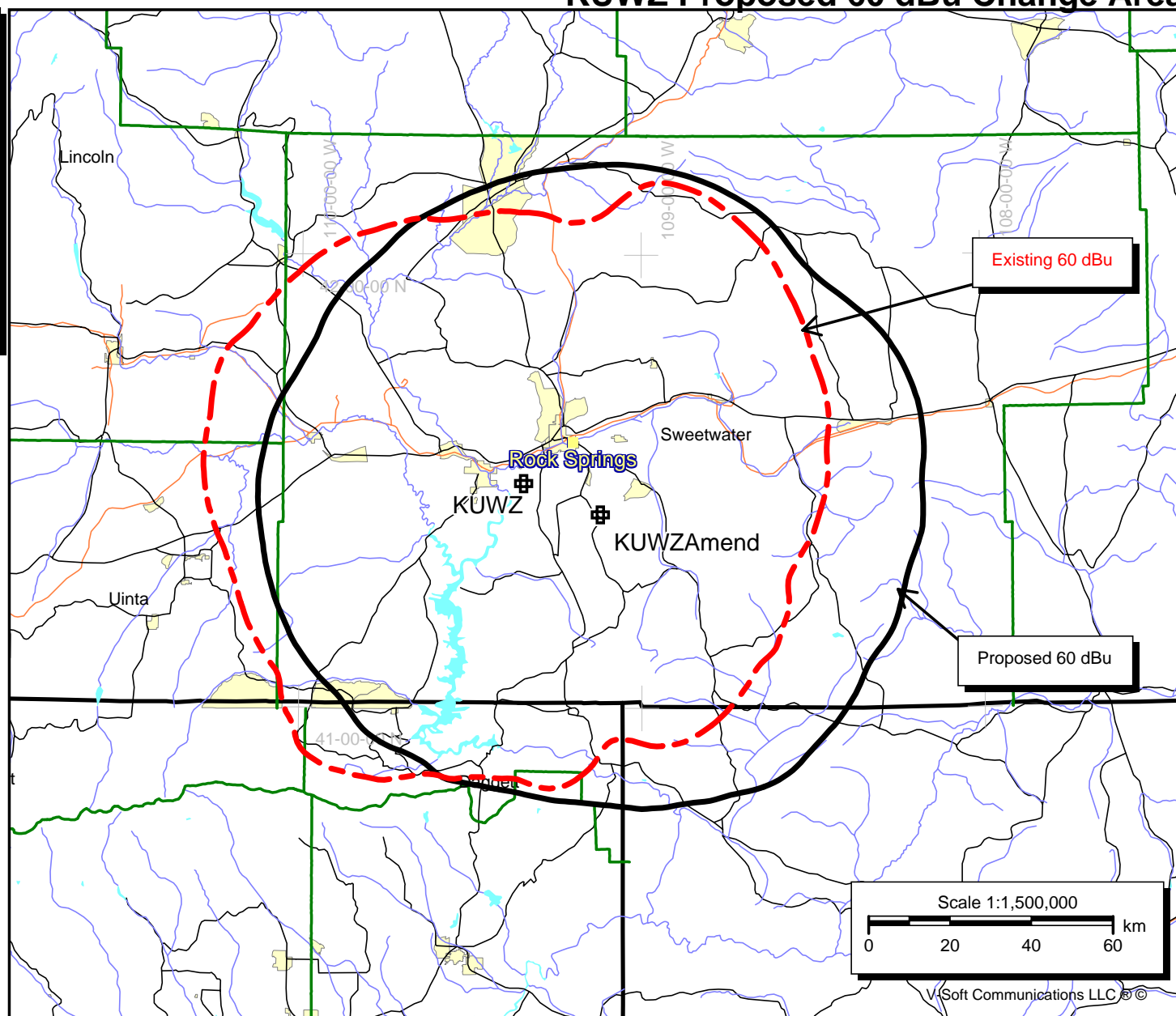
Pop = 37,837  
 Area = 20,092 sq km

KUWZ  
 BLED19941109KG  
 Latitude: 41-29-47 N  
 Longitude: 109-20-47 W  
 ERP: 100.00 kW  
 Channel: 213  
 Frequency: 90.5 MHz  
 AMSL Height: 2364.0 m  
 Elevation: 2319.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No

Pop = 37,656  
 Area = 17,811 sq km

April 26, 2004

**V**  
 Doug Vernier  
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 Telecommunications Consultants



Scale 1:1,500,000  
 0 20 40 60 km  
 VSoft Communications LLC ©

**Declaration:**

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have apprenticed under Douglas Vernier for over six years, and;

That, he has been active in broadcast consulting for over 25 years, and;

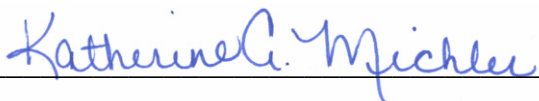
That, his qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by the University of Wyoming, Laramie;

That, I have personally prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

That, under penalty of perjury, I declare that the foregoing is correct.

 Katherine A. Michler

Executed on April 26, 2004