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**ENGINEERING EXHIBIT FOR AN
APPLICATION FOR A CONSTRUCTION PERMIT
CHANNEL 229 C0 KZBQ
IDAHO WIRELESS CORPORATION
POCATELLO, IDAHO**

CHANNEL 229 100 KW (H&V) 333 METERS HAAT

April 15, 2004

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ENGINEERING STATEMENT

This engineering exhibit, of which this Statement is a part, was prepared in accordance with the Rules and Regulations of the Federal Communications Commission and pursuant to the provisions of Section III-B of FCC Form 301 on behalf of Idaho Wireless Corporation (hereafter “IDW”) in support of an application for authority to modify an existing FM broadcast facility operating on channel 229 (93.7 MHz) at Pocatello, Idaho. The instant application proposes to change the station location. The effective radiated power proposed is 100KW, both in the horizontal and vertical plane, and the antenna center of radiation is 333 meters above the average terrain. This power/height combination is an allowable Class C0 facility permitted under the current rules and regulations.

“IDW” proposes to operate from a site uniquely described by the geographic coordinates:

(NAD 27)

42° 51' 46" North Latitude

112° 31' 03" West Longitude

(NAD 83)

42° 51' 45.8" North Latitude

112° 31' 05.9" West Longitude

Engineering Exhibit Figure 1 is a portion of the Michaud Creek, Idaho 7.5 minute U.S.G.S. topographic quadrangle map showing the proposed transmitter site.

Because the area is rural, there is not expected to be any problem with blanketing interference. The 115 dbuv signal contour is predicted to have an area of 32 square kilometers and the surrounding area is not very populated. There are only 162 people located within this contour.

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The applicant is aware of the provisions of Section 73.318 of the FCC's Rules and the requirement for satisfying all complaints of blanketing interference that are received within a one-year period. The main studio for the station is presently located in the Pocatello, Idaho area and the 70 dbuv coverage contour encompasses the studio. Therefore, the instant application complies with Section 73.1125 of the Rules.

COVERAGE CONTOURS

The three-to-sixteen-kilometer average terrain elevations were derived from the Defense Mapping Agency 3-second topography database. However, the site elevation was determined from the U.S.G.S. 7.5 minute Michaud Creek topography quadrangle map.

The effective antenna radiation center height for each of the eight standard 45-degree spaced radials was used in conjunction with the F(50,50) metric curves of Figure 1 of Section 73.333 of the Rules to determine the distances to the 70 dBu and 60 dBu coverage contours. The terrain data was determined using the 3-second Defense Mapping Agency database.

Distance to Contours

DISTANCES TO CONTOURS (Kilometers):
Antenna COR elevation (AMSL): 1861 mtrs Average HAAT: 333 mtrs
Frequency: 93.7000 MHz
Coordinates: N 42 51 46.00 W 112 31 3.00
F(50,50) Curves Number of Contours: 2

AZ (degs)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu):	
			70.0	60.0
0.0	496	100.0000	62.0	86.2
45.0	413	100.0000	57.5	80.8
90.0	273	100.0000	48.3	70.1
135.0	211	100.0000	43.8	64.9
180.0	-79	100.0000	18.1	31.2
225.0	367	100.0000	54.6	77.3
270.0	484	100.0000	61.3	85.5
315.0	497	100.0000	62.1	86.3

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The contours drawn from the data are depicted on the maps included as Engineering Figure 2. As is readily evident, all of Pocatello, Idaho is included within the proposed 70 dBu coverage contour as required by the Section 73.315 (a) of the Rules.

The radial drawn through the principal city is depicted on the profile plot in Engineering Figure 3. This permitted a determination to be made that there are no major obstructions in the intervening path from the transmitter site to the principal community which demonstrates compliance with Section 73.315 (b) of the Rules.

POPULATION AND AREA DATA

Based on the 2000 U.S. Census of Population, the number of persons enclosed by the proposed 60 dBu coverage contour is 169,806 persons. The population count was made through the employment of a computer program containing a database including the geographic coordinates of the centroids of population groupings. The area within the proposed 60 dBu coverage contour is 17,478 square kilometers. A computerized integration program determined this area.

Since the proposed facility is increasing the overall height of the tower an application Form 7460 has been submitted to the Northwest Mountain Regional Office of the FAA. A copy is attached as Figure 4.

ALLOCATION CONSIDERATIONS

A review of allotments and assignments on channel 229, on the three immediately upper adjacent, the three immediately lower adjacent channels shows that the site proposed would be in full compliance with Section 73.207 of the Rules.

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KZBQ SPACING STUDY

REFERENCE

42 51 46 N

112 31 03 W

CLASS = C0

Current Spacings

SEARCH 04-15-04

Channel 229 - 93.7 MHz							
Call	Channel	Location	Dist	Azi	FCC	Margin	
KZBQ	LIC	229C	Pocatello	ID	0.51	48.6	281.0
KADQFM	LIC	232C2	Rexburg	ID	108.82	24.0	89.0
RADD	ADD	228A	Ketchum	ID	178.75	302.1	152.0
ALLO	VAC	232C3	Hazelton	ID	135.42	258.0	87.0
RADD	ADD	283A	Ammon	ID	77.63	32.6	25.0
KJAX	LIC	227C	Jackson	WY	158.18	64.5	105.0
RADD	ADD	229C	Levan	UT	349.19	163.1	281.0

ENVIRONMENTAL IMPACT STATEMENT

The instant proposal is categorically excluded from environmental processing since none of the conditions of Section 1.1306(b)(2) and (3) would be involved for the following reasons:

- 1) The site proposed is not in or near any location referenced in Section 1.1306(b)(1) as being of environmental interest.
- 2) The provisions of Section 1.1306(b)(2) relating to the use of high intensity strobe lighting does not apply since this tower is already utilizing an approved lighting system.
- 3) Compliance to Section 1.1306(b)(3) regarding human exposure to RF radiation was examined. A search was made about the proposed site coordinates to locate any additional sources of RF radiation and one additional source was found and considered in the calculations. The calculations show that the instant proposal is in compliance with the requirements.

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ANSI Power Density Calculations

The proposed antenna will be energized such that it produces an effective radiated power of 100 kW from a center of radiation 81 meters above ground level. There is also another FM station proposed to be located on the tower KORR.

Using the FCC FM Model program the maximum RF Radiation level assuming the combined power levels of KORR and KZBQ with type 3 antennas the predicted radiation levels are:

STATION	Power Density (uw/cm²)	% of maximum uncontrolled
KORR	10.8	5.4
KZBQ	30.5	15.3
TOTAL	41.3	20.7

Based on the calculations it was determined that the RF radiation would be only 20.7% of the uncontrolled limit.

Access to RF circuitry is restricted by a metal fence that surrounds the property that limits access to the public. Signs are posted warning of the potential danger. When persons require access to the site, tower or antenna for maintenance purposes, the transmitter power will be reduced or completely eliminated to comply with ANSI guidelines. Hence, the conditions of Section 1.1306(b)(3) would not be involved.

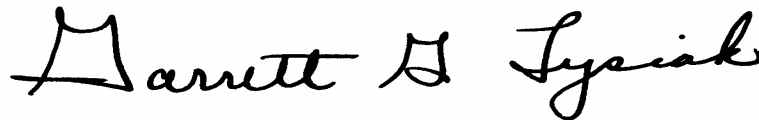
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CONCLUSIONS

Based on the engineering studies provided, the following conclusions can be obtained:

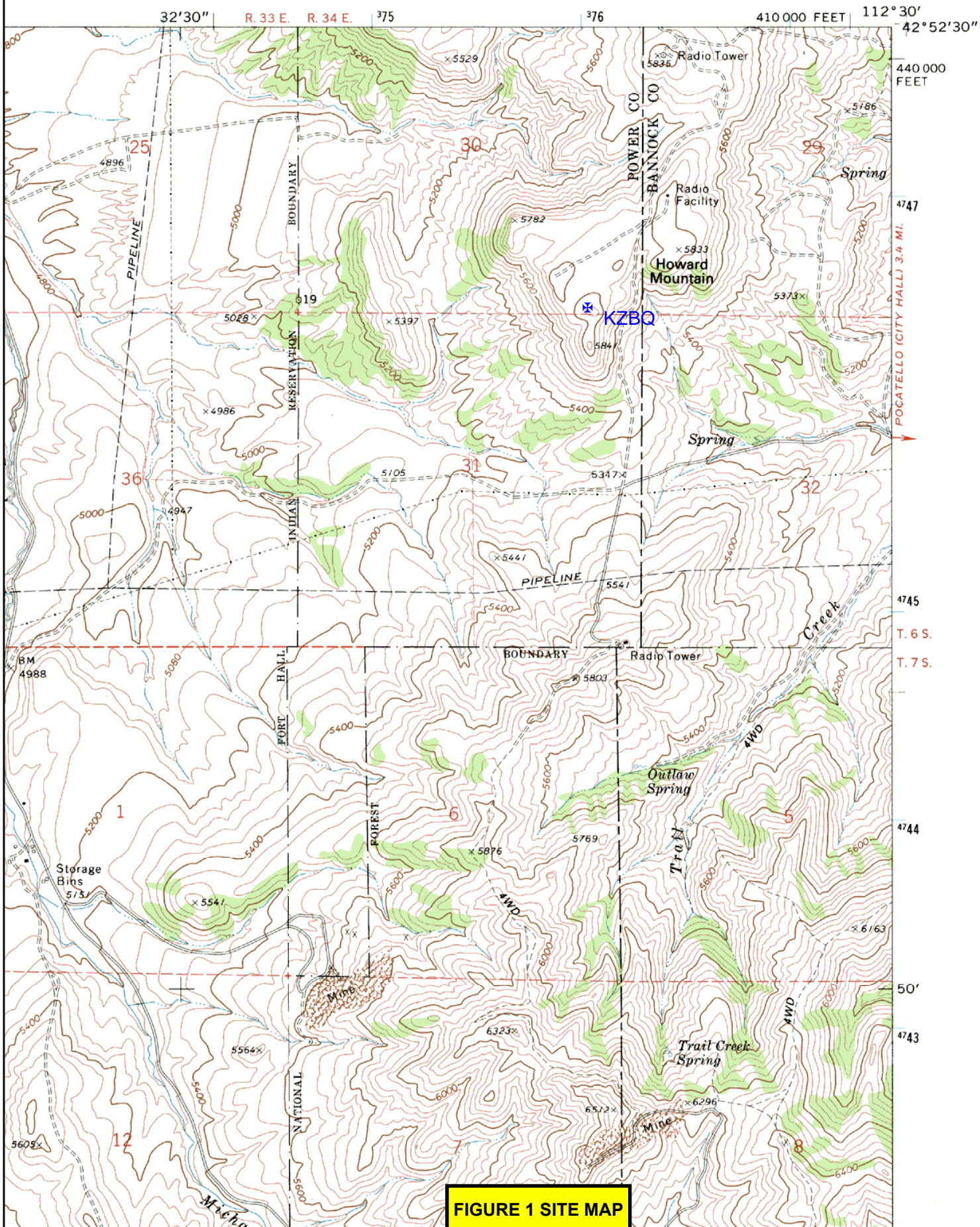
- (1) Implementation of the instant proposal will provide Pocatello with a full time aural broadcast service.
- (2) 169,806 persons in 17,478 square kilometers would have an available signal strength of 60 dBu or greater from the proposed construction location.
- (3) All of Pocatello would be served with a signal of 70 dBu or greater from the proposed construction site.
- (4) The proposal is in complete conformance with all technical rules of the Federal Communications Commission.

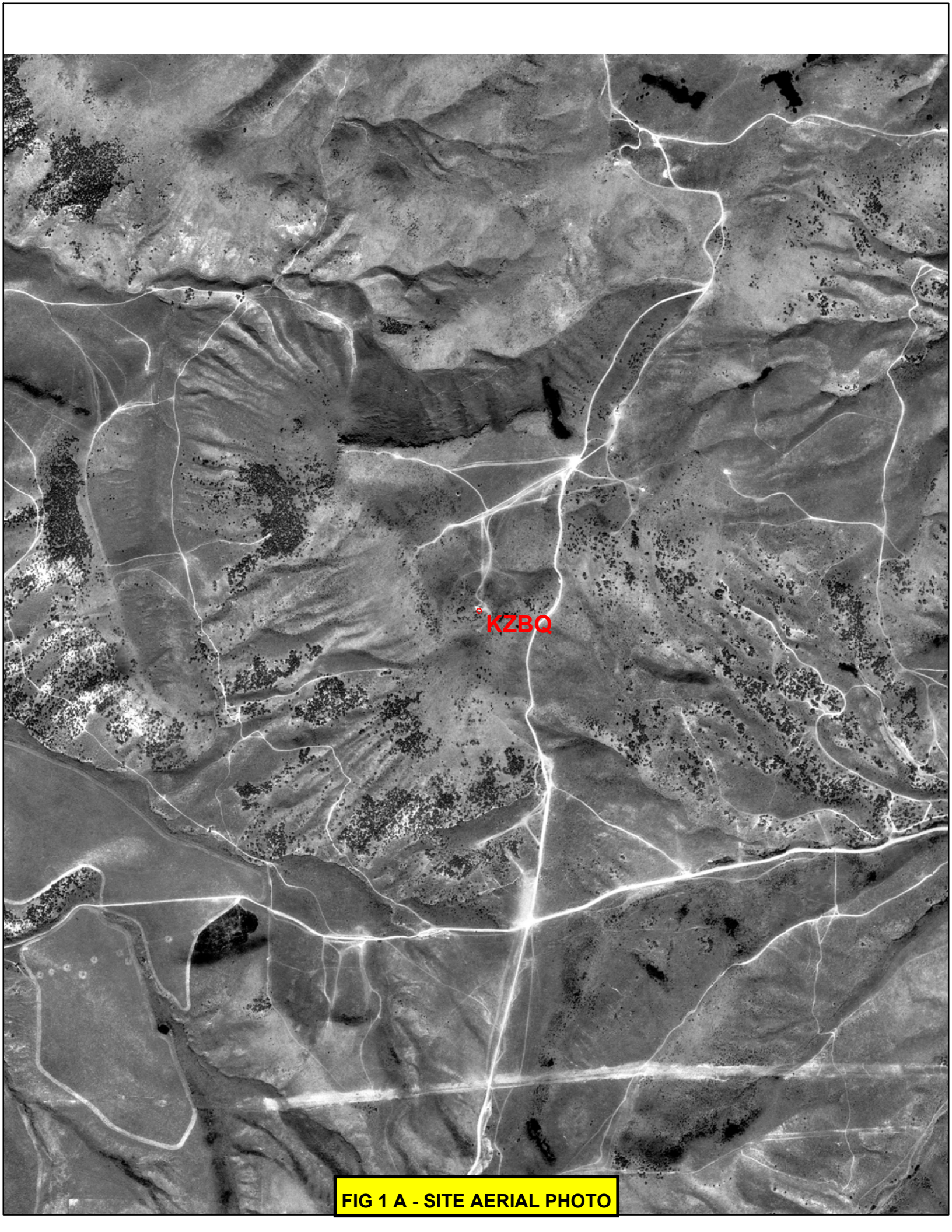
A handwritten signature in black ink, reading "Garrett G. Lysiak". The signature is written in a cursive, flowing style with a large initial 'G'.

Garrett G. Lysiak, P.E.

April 15, 2004

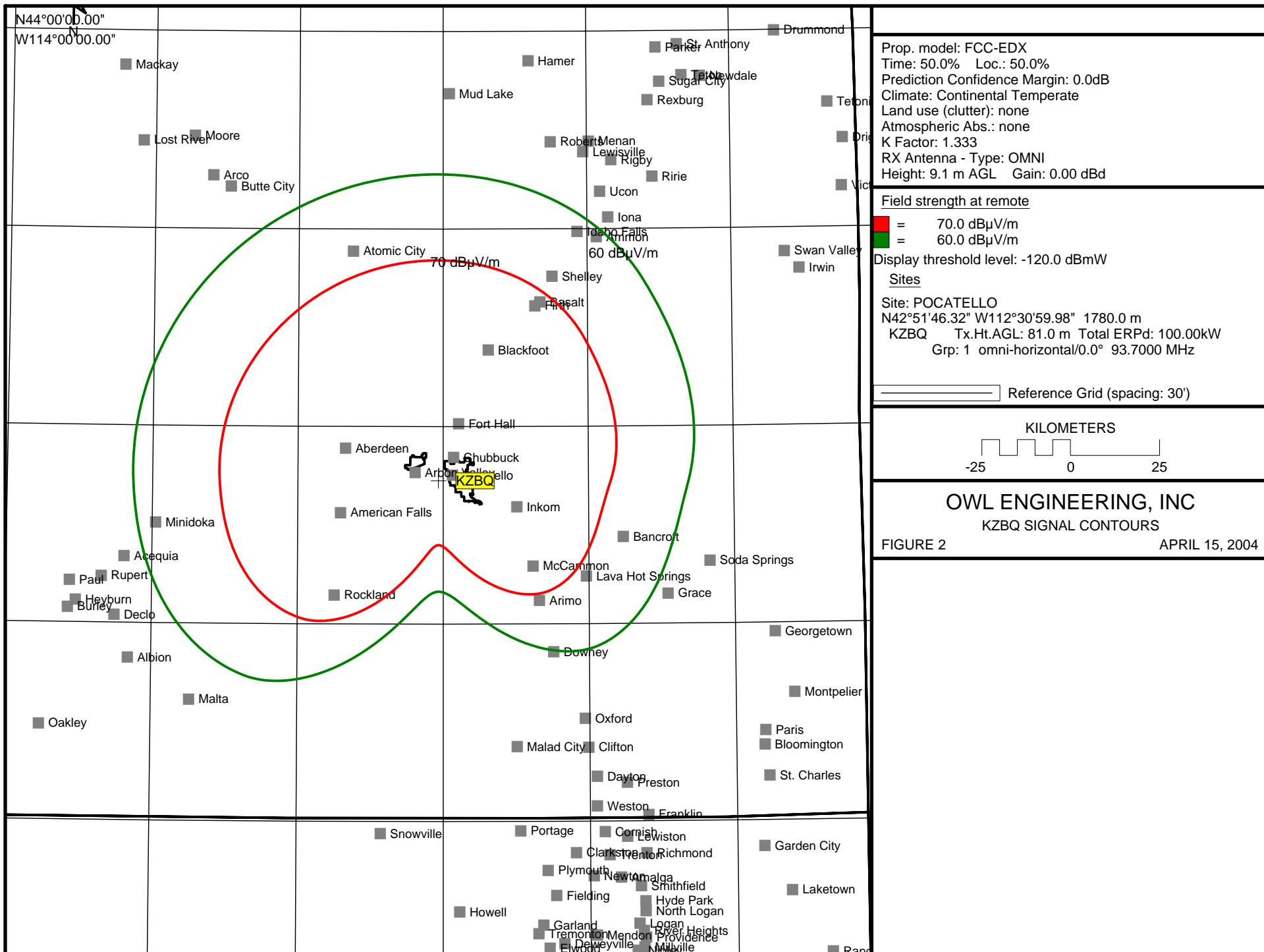
3569 IV NW
(POCATELLO NORTH)

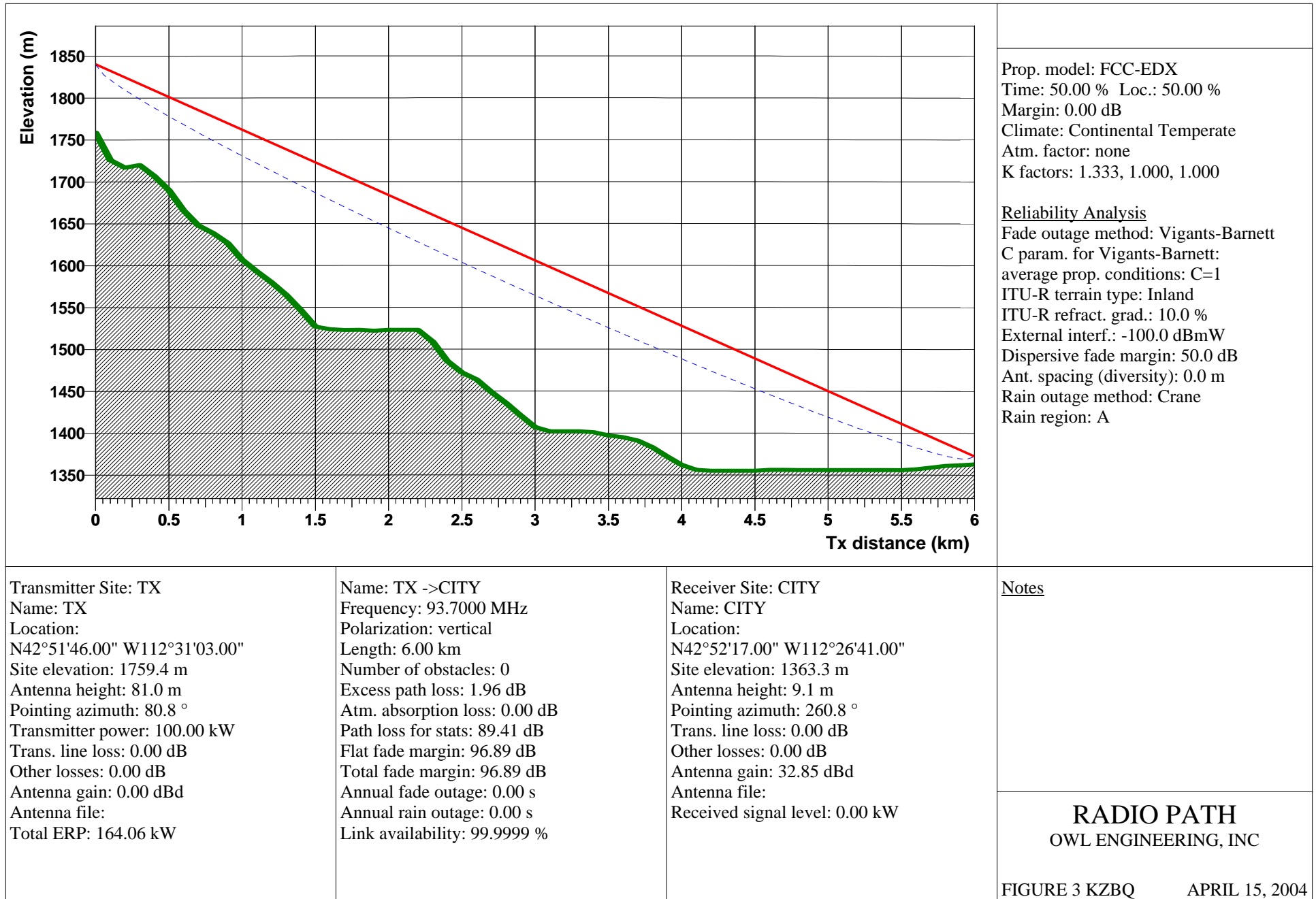




KZBQ

FIG 1 A - SITE AERIAL PHOTO





U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USA ONLY

Aeronautical Study Number

1. Sponsor (person, company, etc. proposing this action):

Attn.of: PAUL ANDERSON

Name: IDAHO WIRELESS

Address: 436 N MAIN STREET

City: POCATELLO State: ID Zip: 83204

Telephone: (208) 234-1290 Fax: (208) 234-9451

2. Sponsor's Representative (if other than #1):

Attn.of: GARRETT G. LYSIAK, P.E.

Name: OWL ENGINEERING, INC

Address: 5844 HAMLINE AVE NORTH

City: SHOREVIEW State: MN Zip: 55126

Telephone: (651) 784-7445 Fax: (651) 784-7541

3. Notice of: ☐ New Construction ☒ Alteration ☐ Existing4. Duration: ☒ Permanent ☐ Temporary (months, days)

5. Work Schedule: Beginning End

6. Type: ☒ Antenna Tower ☐ Crane ☐ Building ☐ Power Line☐ Landfill ☐ Water Tank ☐ Other

7. Marking/Painting and/or Lighting Preferred:

☒ Red Lights and Paint ☐ Dual - Red and Medium Intensity White☐ White - Medium Intensity ☐ Dual - Red and High Intensity White☐ White - High Intensity ☐ Other

8. FCC Antenna Structure Registration Number (if applicable):

1213130

9. Latitude: 42 ° 51 ' 46.0 "

10. Longitude: 112 ° 31 ' 3.00 "

11. Datum: ☐ NAD 83 ☒ NAD 27 ☐ Other:

12. Nearest: City: Pocatello State: ID

13. Nearest **Public-use** (not private-use) or Military Airport or Heliport:

ID64: BANNOCK REGIONAL MEDICAL CE

14. Distance from #13. to Structure: 3.8349 nm to ARP

15. Direction from #13. to Structure: 266 degrees

16. Site Elevation (AMSL): 5840 ft.

17. Total Structure Height (AGL): 348 ft.

18. Overall Height (#16. + #17.) (AMSL): 6188 ft.

19. Previous FAA Aeronautical Study Number (if applicable):

00-ANM-0050 - OE

20. Description of Location: (Attach a USGS 7.5 minute
Quadrangle Map with the precise site marked and any certified survey.)

MICHAUD CREEK QUADRANGLE MAP ENCLOSED

21. Complete Description of Proposal:

STEEL LATTICE TOWER WITH FM ANTENNA

Frequency/Power (KW)

104.1 52

93.7 100

Notice is required by 14 Code of Federal Regulations, Part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U.S.C., Section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date

3/17/2004

Typed or Printed Name and Title, of Person Filing Notice

GARRETT G. LYSIAK, P.E.

Signature