

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 29-137201. Owner Tam Simko Phone No. 208-775-3400Current address 245 N. Bonneville Rd., Inkom, ID 832452. Examiner's name Blake Jordan EXAM DATE 07-27-11

3. Accompanied by _____ Email _____

Address _____

Relationship to permit holder _____ Phone No. _____

4. Source Lower Rock Creek tributary to Portneuf River**B. OVERLAP REVIEW**1. Other water rights with the same place of use None2. Other water rights with the same source and point of diversion None**C. DIVERSION AND DELIVERY SYSTEM**

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
		NE	SE	SE	36	07S	36E	Bannock	GPS / map

2. Place(s) of Use:

Method of determination GPS / map

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07S	36E	36																X	

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.

Scale: 1" = _____

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☐ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size

*Code to correspond with no. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Fuji Ultrasonic Flowmeter	S10A1-004	Fuji	Portaflow	A0255371	—	—

2. **Measurements:** Measured flow at transport pipe just above powerplant. Flow was 85.42 gpm (0.19 cfs). Black plastic pipe - O.D. = 3.53", Thickness = 0.23"

E. NARRATIVE/REMARKS/COMMENTS

Water is diverted from culverts in Lower Rock Creek through small penstocks into 3.5" plastic pipe where it runs approximately 0.25 miles to a small hydro-electric turbine. After generating power in the turbine, the water is discharged directly back into Lower Rock Creek. The pipe runs mostly in or near the creek, so any leaks flow back into the creek.

Power runs to a converter, then to a net meter. Power is used for 1 home.

No visual measuring device was found anywhere in the system. However, measuring the rate of diversion for this system can consist of using a 5 gallon bucket with a stopwatch. This could be done at the outlet pipe of the hydro turbine.

The measured flow on this day was 0.09 above the appropriated amount.

NOTE: The attached map shows the point of diversion in a different township, section, and range. We believe that the legal description on the permit is correct. The error is probably a shift in the GCDR.

Point of Diversion GPS Coordinates: N 42.76529, W -112.18332

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

Though no measuring device was visible, the water right holder could use a 5 gallon bucket and a stopwatch to measure the diversion.

F. FLOW CALCULATIONS☒ Additional computation sheets attached

Measured Method:

Used a Fuji ultrasonic flowmeter placed just above the hydroelectric generator. Measured flow was 0.09 cfs above the permitted rate of diversion.
See Excel printout for Rate of Diversion.

$$Q = .19 \text{ cfs}$$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{NA}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{NA}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \underline{NA}$$

2. Volume Calculations for Other Uses:

NA

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use

Period of Use

From

To

Rate of Diversion
Q (cfs)Annual Volume
V (afa)

Power Generation

1/1

12/31

0.100

Totals:

0.100

2. Recommended Amendments

☐ Change P.D. as reflected on page 1☐ Add P.D. as reflected on page 1☒ None☐ Change P.U. as reflected on page 1☐ Add P.U. as reflected on page 1☐ Other**I. AUTHENTICATION**

Field Examiner's Signature



Date

7/27/2011

SEAL

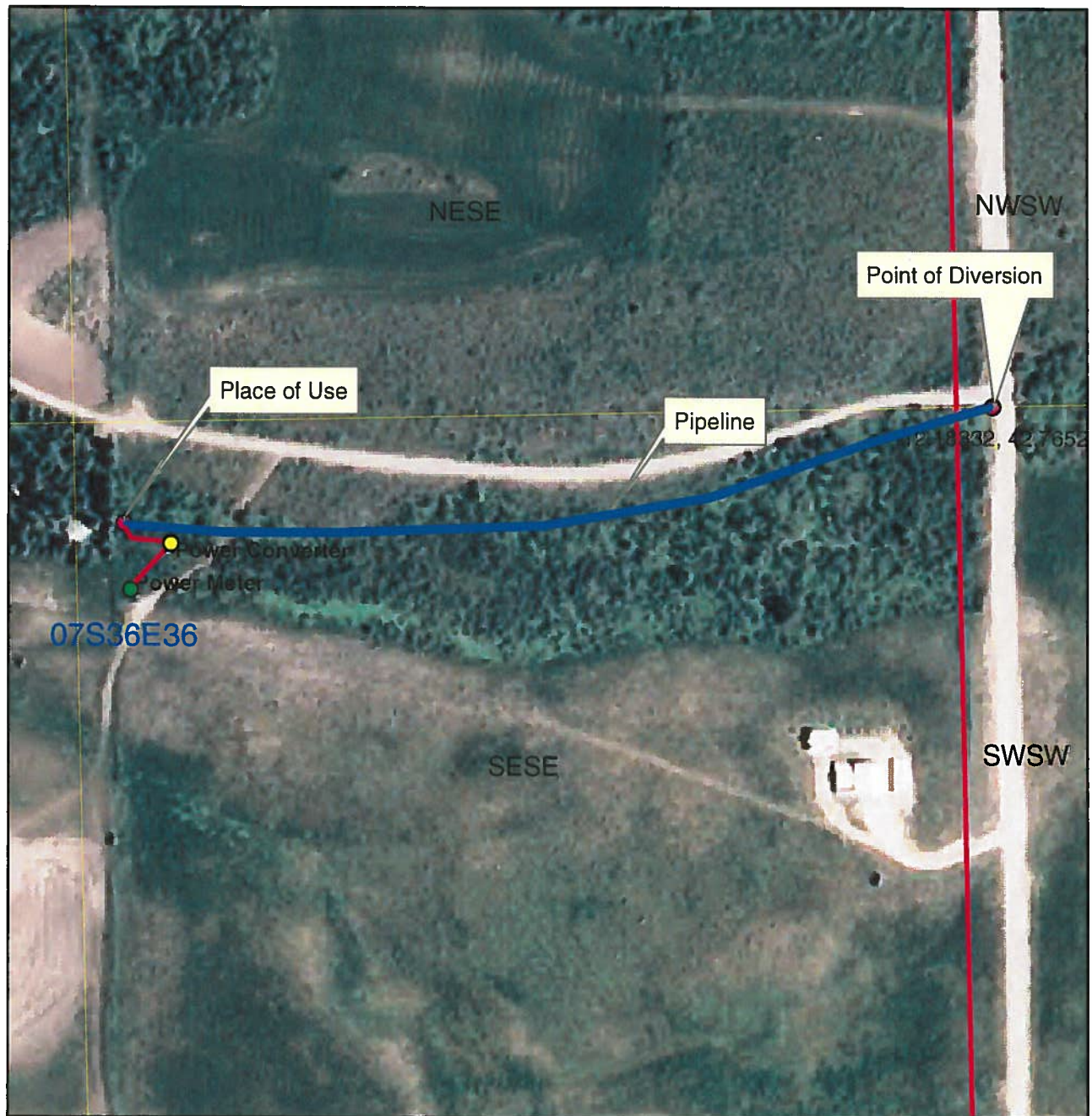
Reviewer

Date

Permit 29-13720

	'VELOCITY ft/s	'FLOW RAT gal/min	'FLOW RAT %	'TOTALIZER gal
7/27/2011 13:00	3.693	85.2913	23.651	1455.41
7/27/2011 13:01	3.698	85.4059	23.683	1541.119
7/27/2011 13:02	3.708	85.641	23.748	1626.132
7/27/2011 13:03	3.708	85.6272	23.744	1711.603
7/27/2011 13:04	3.7	85.445	23.694	1797.048
7/27/2011 13:05	3.693	85.2783	23.647	1882.799
7/27/2011 13:06	3.696	85.3648	23.671	1968.204
7/27/2011 13:07	3.711	85.6988	23.764	2053.542
7/27/2011 13:08	3.698	85.4057	23.683	2139.281
7/27/2011 13:09	3.702	85.5047	23.71	2224.061
7/27/2011 13:10	3.706	85.5965	23.736	2309.577

GPM= 85.4167

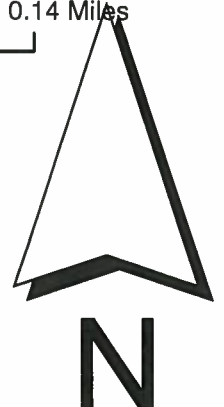


0 0.035 0.07 0.14 Miles

1 inch = 0.05 miles

Legend

-  Township/Range
-  Sections
-  QQ





Penstock and pipe inlet at County road
culvert outlet.



Close-up view showing regulating valve
on pipe.



IDWR Flowmeter attached to pipe above generator.



Upstream view of delivery pipe and plant.



Hydroelectric Generator (Background) and Discharge pipe.



Hydroelectric generator, inlet hoses, and relation to Lower Rock Creek.



Water Discharging from Hydroelectric Generator
Back into Lower Rock Creek