

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22719

Exam Date: 8/3/2012

1. Current Owner: IDAHO POWER CO
C/O JON BOWLING
PO BOX 70
BOISE ID 83707
(208)388-2905
2. Accompanied by: Jon Bowling
Phone No: Same
Address: Same
Relationship to Permit Holder: Idaho Power Employee

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE1/4SE1/4 Sec. 28, Twp 18N, Rge 03E, B.M.
VALLEY County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.44°51.862', Longitude W.116°05.391'; Datum – NAD83.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
18N	03E	28																3.0	3.0

Total Acres: 3

Method of Determination: Arc Map (Aerial Photo)

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
D0029356	_Franklin_	_5_	_____	Unknown_	_____Unknown_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____N/A_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements: No field measurement. Unable to obtain a pressure reading by pitot tube. Pitot tube did not fit sprinkler head nozzles.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: (Theoretical)

$$Q = 8.8 \times 0.7 \times 5/150 + (2.31 \times 50) = 30.8/265.5 = 0.12 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.12 \text{ cfs} > 0.09 \text{ cfs } Q(\text{permit})$$

$$Q(\text{sprinklers}) = 50 \text{ gpm} = 0.11 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.12 \text{ cfs} \sim Q(\text{sprinklers}) = 0.11 \text{ cfs, confirming}$$

Far West Landscapes sprinkler discharge estimate of 50 gpm

$$HP = 5$$

Z = 150' (Pump location per Far
West Landscape)

$$P = 50 \text{ psi (Assumed)}$$

Q(sprinklers) per Far West
Landscape

Appears pumping system can attain the permit diversion rate of 0.09 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.0 \times 3.0 = 9.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.09 \times 200 \times 1.9835 = 35.7 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 9.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER DELIVERY SYSTEM:**

A ground water well, located in the northwest corner of the power substation building pad, provides water to the pressurized irrigation system for irrigating the open space and landscaping surrounding the power substation. A pump house located west of the irrigation well, houses the pump and irrigation controls.

IRRIGATION SYSTEM:

A 5 hp submersible pump discharges ground water to the pressurized irrigation system located in the open space areas surrounding the power substation. The pressurized irrigation system is comprised of 27 zones and 9 stations, with 3 zones per station. Each zone is comprised of a mixture of pop-up and rotary sprinkler heads. According to Far West Landscape, the irrigation maintenance company, each zone has a discharge rate between 40 and 50 gpm.

Have conditions of permit approval been met? ☒ Yes ☐ No

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.09	&/or	N/A
Beneficial Use Limit	0.09	&/or	N/A
System Measurement	0.12(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	20.0
Recommended Amount	0.09	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	04/15 to 10/31	0.090 CFS	9.0 AFA
<u>Totals:</u>		0.090 CFS	9.0 AFA

2. Recommended Amendments

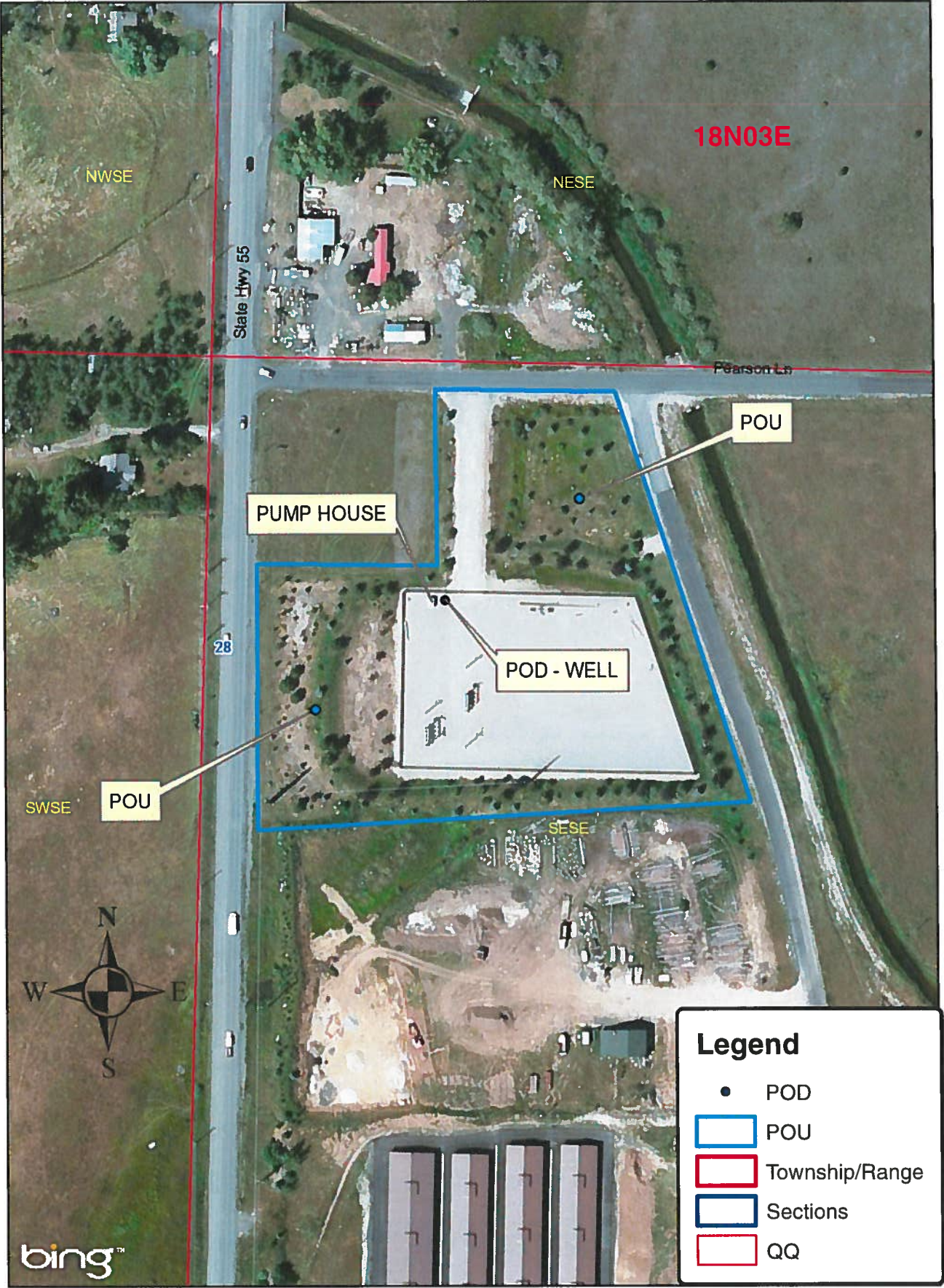
___Change P.D. as reflected above ___Add P.D. as reflected above XNone

___Change P.U. as reflected above ___Add P.U. as reflected above ___Other

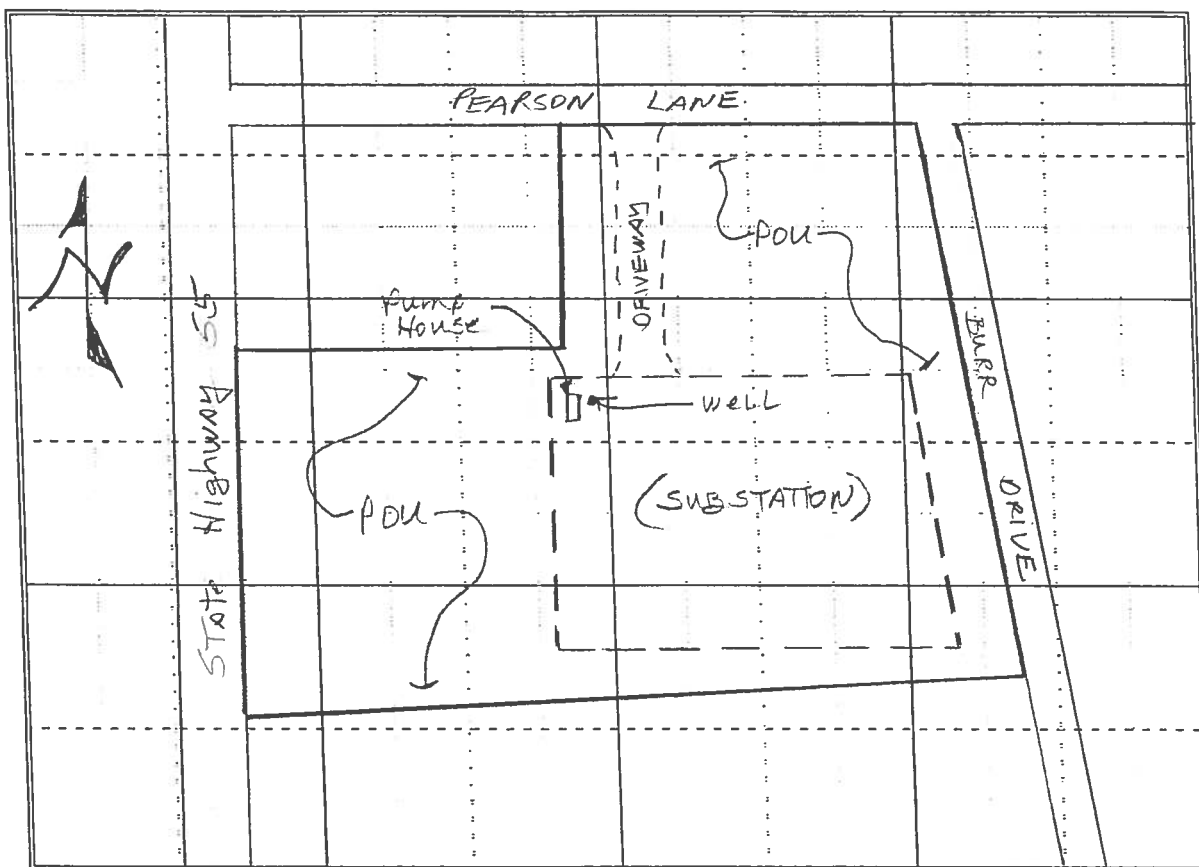
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/2/12

Reviewer _____ Date _____



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" = NTS

- ☐ 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

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Well ID No. 800873
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 _____ 1/4 _____ 1/4 _____
Lat: _____ : _____ Long: _____ : _____

1. WELL TAG NO. D D0029356
DRILLING PERMIT NO. 876679-800873
Water Right or Injection Well No. 65-22719

2. OWNER:
Name Idaho Power Co (Bisnie Johnston)
Address PO Box 70
City Boise State ID Zip 83707

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 18 North ☒ or South ☐
Rge. 3 East ☒ or West ☐
Sec. 23 1/4 3E 1/4 3E 1/4
Gov't Lot _____
County Valley 10 acres 40 acres 160 acres

Lat: _____ : _____ Long: _____ : _____
Address of Well Site Hwy 55 and Pearson Ln
City McCall

(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Chip Bentonite	0	30	1200#	10" Temp Casing Over bore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 148

Was drive shoe seal tested? ☒ Y ☐ N How? Air/Water

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	1/4"	148	.280	Steel	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method Air star wheel Perforator, tech

Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
112	113	1/4" x 1"	10	6"	Steel	☒	☐
119	123	1/4" x 1"	40	6"	Steel	☒	☐
142-6"	146-6"	1/4" x 1"	30	6"	Steel	☒	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

77' ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: _____

Sanitary Well Seal

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>40</u>		<u>123</u>	<u>1 Hr. 30 min.</u>

Water Temp. 48°

Bottom hole temp. 48°

Water Quality test or comments: Good

Depth first Water Encounter 94

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	6	Fill		x
10	6	8	Basalt Gravel, Clay		x
10	8	11	Boulders		x
10	11	25	Broken Basalt, Boulders, Br. Clay		x
10	25	30	Broken Basalt Gravel		x
6	30	50	Broken Basalt, Brown Sand		x
6	50	75	Broken Blk Basalt		x
6	75	84	Broken Blk Basalt, Brown Sand		x
6	84	94	Dk Brown Clay		x
6	94	102	Br./Gray Sand and Basalt Gravel	x	
6	102	104	Brown Clay		x
6	104	113	Br. Pn Gravel 1/3 Sand 25gpm	x	
6	113	117	Br. Sandy Clay 1/2 Sand streak		x
6	117	124	Brown Pn Gravel and Sand 25	x	
6	124	125	Brown Clay		x
6	125	128	Cemented tight Br. Sand 15gpm	x	
6	128	130	Gray Brown Sand		x
6	130	142	Brown Sand 1/2 Clay streak		x
6	142	143	Brown Clay		x
6	143	148	Brown Sand 1/2 lots of fines 12gpm	x	
6	148	150	Brown Clay 1/2 Sand streaks 10gpm	x	
6	150		Brown Clay		x

Plug in bottom of casing was applied as listed

126-134 Gravel
134-142 Chip Bentonite 100#
142-150 Sand

Completed Depth 126 (Measurable)

Date: Started 5-7-03 Completed 5-15-03

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Gestira Well Drilling Firm No. 408

Principal Driller Robert W. Gestira Date 5-20-03

and Driller or Operator II Sam P. Ditt Date 5-16-03

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

FIELD EXAM PHOTOS

Water Right Permit: 65-22719
PLS: SE1/4, SE1/4 Section 28, T.18N, R.03E.
Field Examiner: RC

Field Exam Date: 8-3-12



Point of Diversion: View northwesterly of irrigation ground water well. Pump house is located 10 – 15' west of well.



Place of Use: View southerly along State Highway 55 of landscaped area around Idaho Power substation.