

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-08660
Exam Date: 8/28/2017

1. Current Owner:

BARBARA BENSON
97 FREEDOM LOOP
BELLEVUE ID 83313-5013
(208) 720-5929

2. Accompanied by: Barbara Benson, Permit Holder

Phone No: Same as above

Address: Same as above

Relationship to Permit Holder: Permit Holder

3. **SOURCE:**

GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: 37-8384 Irrigation, additive acres to this right
2. Other water rights with the same point-of-diversion: 37-8384, 37-10696

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L4 (SW¼SW¼SW¼) Sec. 18, Twp 01N, Rge 19E, B.M. BLAINE County

Method of Determination: Site visit and ArcMap aerial imagery

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	19E	18											0.7 L 4						.7

Total Acres: 0.7

Method of Determination: ArcMap aerial imagery, site visit, and 37-8384 field exam.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

 X

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.

 X X

Aerial Photo Attached (required for irrigation of 10+ acres).

 X

Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Per 1992 field exam	Sta-rite	5	CP4J020-04		

*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

2. Measurements: No measurement made per Beneficial Use Exam Rules

E. FLOW X Additional Computation Sheets Attached**CALCULATIONS**

Measured Method: Used theoretical calculation of flow rate from 37-8384 Field Exam.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.7 \times 3.5 = 2.45 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 200 \times 1.9835 = 7.93 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{2.45 \text{ AF}}$$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 37-8660 was completed on August 28, 2017 with the permit holder, Barbara Benson present. This permit was filed 2 years after 37-8384, which sought 3.0 acres of irrigation for the 9.8 acre parcel. In the field exam for 37-8384, which was conducted on June 5, 1992, the examiner found 3.5 acres of irrigation and in my review of past aerial imagery, I have found 3.7 acres of irrigation. Since the first permit was licensed for its full 3.0 acres, it left only 0.7 acres for this permit. This reduction in acres also causes a reduction in the flow rate, which, since it is less than 5 acres, according to the Field Examination Rules, is calculated at 0.03 cfs/acre, in this case $0.03 \times 0.7 = 0.02$ cfs.

The theoretical flow rate analysis calculated by Mr. Block in 1992 allows sufficient rate of flow (0.24 cfs) for domestic right 37-10696 (0.04 cfs), the first irrigation permit 37-8384 (0.09 cfs), and this permit (0.02 cfs). The recommended volume should be 2.45 AF (0.7 acres x the standard headgate requirement for the area of 3.5 AF/acre).

Permit 37-8660 is mitigated by the non-use of Big Wood River irrigation right 37-353H (apparently formerly designated as 37-353F) and I contacted Water District 37 Watermaster Kevin Lakey to confirm that it is still left in the Big Wood River as mitigation. He confirmed that it is, and that permit 37-8660 is shut off when 37-353H is no longer in priority.

The irrigation season of use is being updated from the permitted 4/15 to 10/15 to the current 4/15 to 10/31.

The irrigation system for the property consists of drip irrigation for the trees and shrubs, sprinklers for the lawn area, and the 2 pastures each have a large oscillating sprinkler in the middle with smaller oscillating sprinklers around the periphery.

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

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	0.02 CFS	2.5 AF
<u>Totals:</u>		0.020 CFS	2.50 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

Field Examiner's Name  Date 8-28-2017

Reviewer _____ Date _____

Benso System Diagram 37-8660



Legend

 Taxlots



Field exam: 37-8660

0 0.01 0.02 0.04 Miles

State of Idaho
Department of Water Resources
Water Right License
37-8660

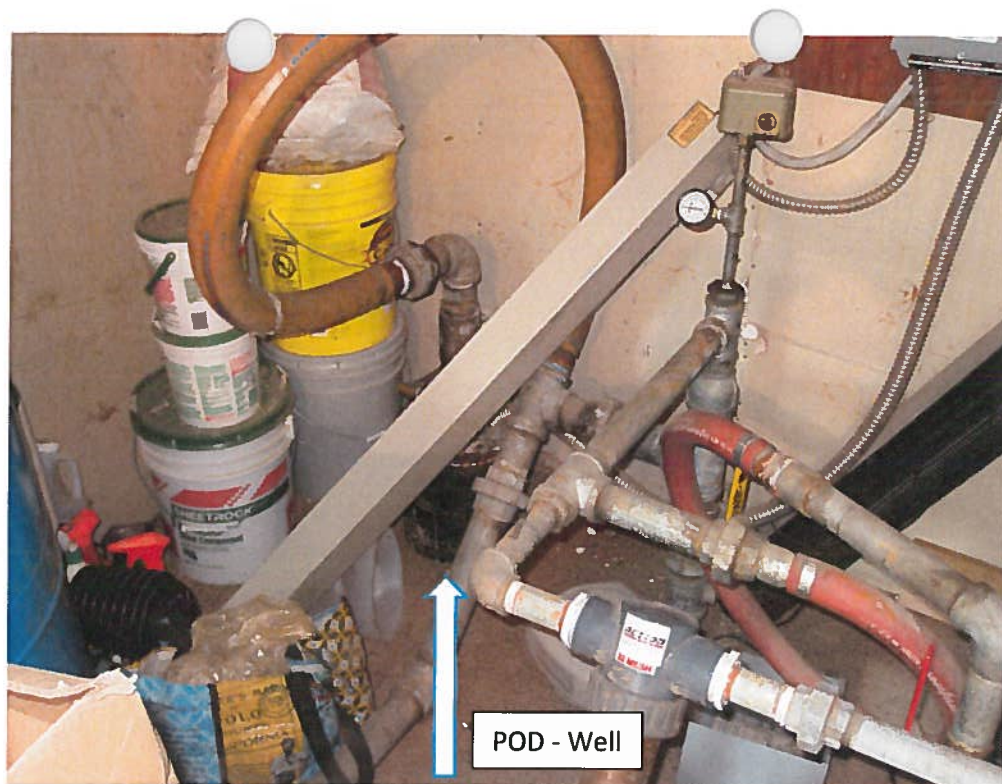


0 0.035 0.07 0.14 Miles

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections



Field exam: 37-8660



Well – located in well house adjacent to horse barn

Trees on Benson property



Field exam: 37-8660



Irrigated trees and lawn



Field exam: 37-8660



Pasture irrigation system



Field exam: 37-8660



Irrigated trees



Field exam: 37-8660

State law requires this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>Reid Karitnavein</u> Address <u>Bellme Ida</u> Owner's Permit No. _____	7. WATER LEVEL Static water level <u>33</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ OF. Quality <u>Good</u> <i>Describe artesian or temperature zones below</i>																																																																
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)	8. WELL TEST DATA ☐ Pump ☐ Bailer ☒ Air ☐ Other _____																																																																
3. PROPOSED USE ☒ Domestic ☒ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Discharge G.P.M.</th> <th style="width: 33%;">Pumping Level</th> <th style="width: 33%;">Hours Pumped</th> </tr> <tr> <td style="text-align: center;">70</td> <td style="text-align: center;">130</td> <td style="text-align: center;">1</td> </tr> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	70	130	1																																																										
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4. METHOD DRILLED ☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____	9. LITHOLOGIC LOG <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0</td> <td>20</td> <td>Dirt and gravel</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>20</td> <td>30</td> <td>Conglomerate</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>30</td> <td>37</td> <td>" " " "</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>37</td> <td>100</td> <td>Pea gravel</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>100</td> <td>105</td> <td>Gravel and little water</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>105</td> <td>135</td> <td>Clay</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>135</td> <td>140</td> <td>Pea gravel and water</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>140</td> <td>145</td> <td>Silt, clay and sand</td> <td></td> <td>X</td> </tr> <tr> <td>8</td> <td>145</td> <td>149</td> <td>Gravel</td> <td>X</td> <td></td> </tr> </tbody> </table>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	10	0	20	Dirt and gravel		X	8	20	30	Conglomerate		X	8	30	37	" " " "		X	8	37	100	Pea gravel		X	8	100	105	Gravel and little water		X	8	105	135	Clay		X	8	135	140	Pea gravel and water		X	8	140	145	Silt, clay and sand		X	8	145	149	Gravel	X	
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5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>250 inches</td> <td>8 inches</td> <td>1 feet</td> <td>149 feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforation _____ inches by _____ inches <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>20</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Pudding clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port _____	Thickness	Diameter	From	To	250 inches	8 inches	1 feet	149 feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	10. Work started <u>June 14, 87</u> finished <u>June 19, 87</u>																																
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6. LOCATION OF WELL Sketch map location <u>must</u> agree with written location. Subdivision Name _____ Lot No. _____ Block No. _____ County <u>B. Lane</u> <u>N.E. 1/4 N. 4 1/2 Sec. 19, T. 1 N.S. R. 19 E.W.</u>	11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>WIND RIVER DRILLING AND PUMP</u> Firm No. <u>265</u> Address <u>11111 WIND RIVER</u> Date <u>7-7-87</u> Signed by (Firm Official) <u>Ken Smith</u> and (Operator) <u>Gay Jones</u>																																																																