

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 91-07344
Exam Date: 8/4/2016

1. Current Owner:

TERRY BRANDVOLD PO BOX 877 NEWMAN LAKE WA 99025-0877 (509) 226-0355 And/Or
BEVERLEE BRANDVOLD PO BOX 877 NEWMAN LAKE WA 99025-0877 (509) 226-0355

2. Accompanied by: IN HOUSE

Phone No:

Address:

Relationship to Permit Holder:

3. **SOURCE:**

ST JOE RIVER

TRIBUTARY:

COEUR D ALENE LAKE

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: Pump in river and pipe to property1. **LOCATION OF POINT(S) OF DIVERSION:**

ST JOE RIVER L9 (NE¼SE¼) Sec. 20, Twp 46N, Rge 01E, B.M. BENEWAH County

Method of Determination: Map included with application

2.

PLACE OF USE: FIRE PROTECTION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	01E	20				X L 9									X L 9				

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	
46N	01E	20				0.1 L 9									0.9 L 9				1.0

Total Acres: 1

Method of Determination: ArcMap Irrigated acres

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.

Well or Diversion ID 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

2. Measurements:

E. FLOW

_____ Additional Computation Sheets Attached

CALCULATIONS

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1 \times 3.0 = 3.0$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 231 \times 1.9835 = 13.74$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 3.0$$

2. Volume Calculations for Other Uses: No volume for fire protection

G. NARRATIVE/REMARKS/COMMENTS:

ArcMap taxlot information (updated 6/6/2016) lists the Brandvold's as current owner of the property. Point of diversion and the place of use are located within Lots 37, Whitetail Flats 1st Addition. Lot size is 1.3 acres. Took out area around house and driveway for a total irrigation of 1.0 acres. This property is located in Gov't Lot 9 (SENE and NESE). Permit listed NESE. Even though Gov't Lot 9 includes both the SENE and NESE, I added the SENE to avoid confusion.

Have conditions of permit approval been met? x 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	03/15 to 10/31	0.03 CFS	3.0 AF
FIRE PROTECTION	01/01 to 12/31	0.03 CFS	
	<u>Totals:</u>	0.030 CFS	3.0 AF

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above x None

____ Change P.U. as reflected above ____ Add P.U. as reflected above x None

I. AUTHENTICATION

Field Examiner's Name Jan Husley Date 8-4-16

Reviewer Daniel A. Bolin Date 8-4-16

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 91-7344
 Reviewer: Jean Hersley
 Date of Review: 8/4/2016

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Well #1
0.5
0
10
50
0.02
11

Well #2
0.75
0
20
50
0.03
15

Well #3
1
0
10
20
0.11
49

0.17
75.51

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes: