

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
BENEFICIAL USE FIELD REPORT

**A. GENERAL INFORMATION**

Permit No: 96-9788

Exam Date: 09/30/2020

1. Current Owner:  
TIMOTHY J BRADY 217 CEDAR ST  
PMB 333 SANDPOINT ID 83864-1410 AND/OR  
YUAN BRADY 217 CEDAR ST  
PMB 333 SANDPOINT ID 83864-1410

2. Accompanied by: Timothy J Brady  
Phone No: 208-255-4565  
Address: Same as above  
Relationship to permit Holder: Permit holder

3 **SOURCE:**  
PEND OREILLE RIVER

Tributary  
COLUMBIA RIVER

**Method of Determination: Arcmap and DRG.**

**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
96-2222	PEND OREILLE RIVER	IRRIGATION	LICENSE
96-2246	PEND OREILLE RIVER	IRRIGATION	LICENSE
96-8961	PEND OREILLE RIVER	IRRIGATION	LICENSE

Comments: Three licensed rights 96-2222, 96-2246, and 96-8961 have the same source and beneficial use (irrigation) as this right and overlap the POU. Each of the three rights listed above are not associated with this right, and their respective irrigation POUs are located in different parcels than this rights POU (96-2222 and 96-8961), or the irrigation POU is not able to be determined referencing the backfile (96-2246). None of the three rights listed pose a concern for overlap with this water right.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: \_\_\_\_\_

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

PEND OREILLE RIVER L2 ( SW¼ SE¼), Sec. 29, Twp 57N, Rge 02W, B.M. BONNER County

Method of Determination: GPS. POD is a screened intake pipe located at -116°35.859, 48°15.111.

**PLACE OF USE:** IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
57N	02W	29															7.1 L2		7.1

Total Acres: 7.1

Method of Determination: Field exam and Arcmap aerial imagery.

3.

X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

X 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 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
RIVER PUMP	CENTURY	5			

#### D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
GE PANEMETRIC	ULTRASONIC		PT878	PCC1316134		4/2/2019

2. Measurements: flow measurement taken using GE Panemetric Ultrasonic Flowmeter.

#### E. FLOW CALCULATIONS

Measured Method: flow rate determined by GE Panemetric Ultrasonic Flowmeter = **0.11 cfs**

Starting gallons on meter = 511.812

Ending gallons on meter = 1,002.467

$1,002.467 - 511.812 = 490.655$  gallons / 10 minutes = 49.1 gpm or 0.11 cfs.

#### F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 7.1 \text{ acres} \times 3.0 \text{ afa} = 21.3 \text{ af}$

$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.11 \text{ cfs} \times 214 \text{ days} \times 1.9835 = 46.7 \text{ af}$

$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 21.3 \text{ af}$

2. Volume Calculations for Other Uses:

This is a surface source water right; no annual or maximum diversion volumes will be applied to this water right license.

**G. NARRATIVE/REMARKS/COMMENTS**

Field exam performed on 9/30/2020 with the applicant, Timothy Brady, identified water being diverted from the Pend Oreille River. At the POD, the applicant had a screened intake pipe that routed to a stone pump house, with a 5 hp electric pump installed. From the pump house, the water conveyance system main trunk irrigation pipe routed to the multiple pressurized irrigation system zone controls. An adequate surface area of pipe was located near the POD to complete flow measurements using a GE Panametric Ultrasonic Flowmeter (S/N PCC1316134). Flowmeter measurements derived the rate of diversion to be **0.11 cfs**, which will be carried forward to licensing.

The permit was approved for 8.8 acres of irrigation. During field exam, the irrigated acreage POU was sketched out on field maps and notes. Arcmap aerial imagery was used to trace out irrigation during licensing review, equaling 7.1 acres; the annual volume associated with the irrigation equals 7.1 acres x 3.0 afa = 21.3 af, but as this is a surface water source, no volume metrics will be applied to the license. The smaller irrigation POU is due to a house, separate shop, utility building, beach area incorporated at time of permit approval, and driveways with large paved park areas by the house being excluded from the POU traced out at time of licensing. Speaking with the applicant's landscape representative at time of field exam, it was identified that the landscaper used 6.5 acres worth of fertilizer to treat the irrigation POU. It is reasonable to assume the 7.1 acres includes minor pathways and sprinkler overspray areas not treated by the landscaper. The applicant's pressurized irrigation system includes 78 zones with varying size nozzles depending on the zone. Only 4 zones operated at one time, and irrigation occurred from sun up to sun down during the summer months.

Condition 029 was removed from the permit during licensing review, as applicant had installed the required fish screen on the intake pipe in river. All other conditions on permit remain on license. Three licensed rights: 96-2222, 96-2246, and 96-8961 have the same source and beneficial use (irrigation) as this right and overlap the POU for 96-9788. Each of the three rights listed above are not associated with the four parcels included in this right, and their respective irrigation POUs are located in different parcels than this rights POU (96-2222 and 96-8961), or the irrigation POU is not able to be determined referencing the backfile (96-2246). None of the three rights listed pose a concern for overlap with this water right. There are no other overlap concerns for this right.

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

**H. RECOMMENDATIONS****1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>
IRRIGATION	04/01 to 10/31	0.11 CFS

**Totals:** 0.11 CFS

**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**

Luke Bates - Water Resource Agent

Field Examiner's Name FB Date 10/20/2020

Reviewer Douglas Jones P.E. Date 10/23/2020



State of Idaho  
Department of Water Resources  
**Attachment to Field Exam**  
96-9788

IRRIGATION system diagram.

02W

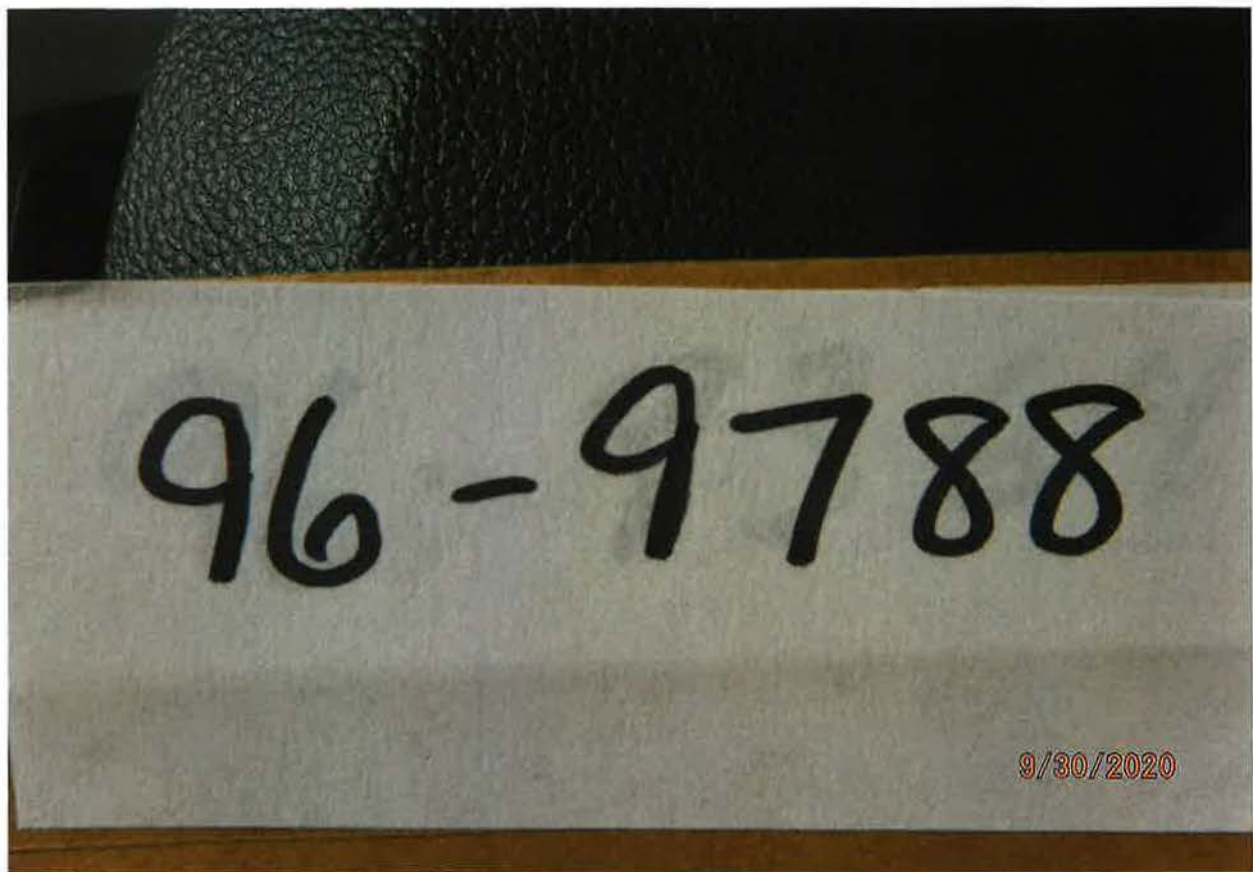


- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles







POD -- SCREENED INTAKE PIPE IN THE PEND OREILLE RIVER



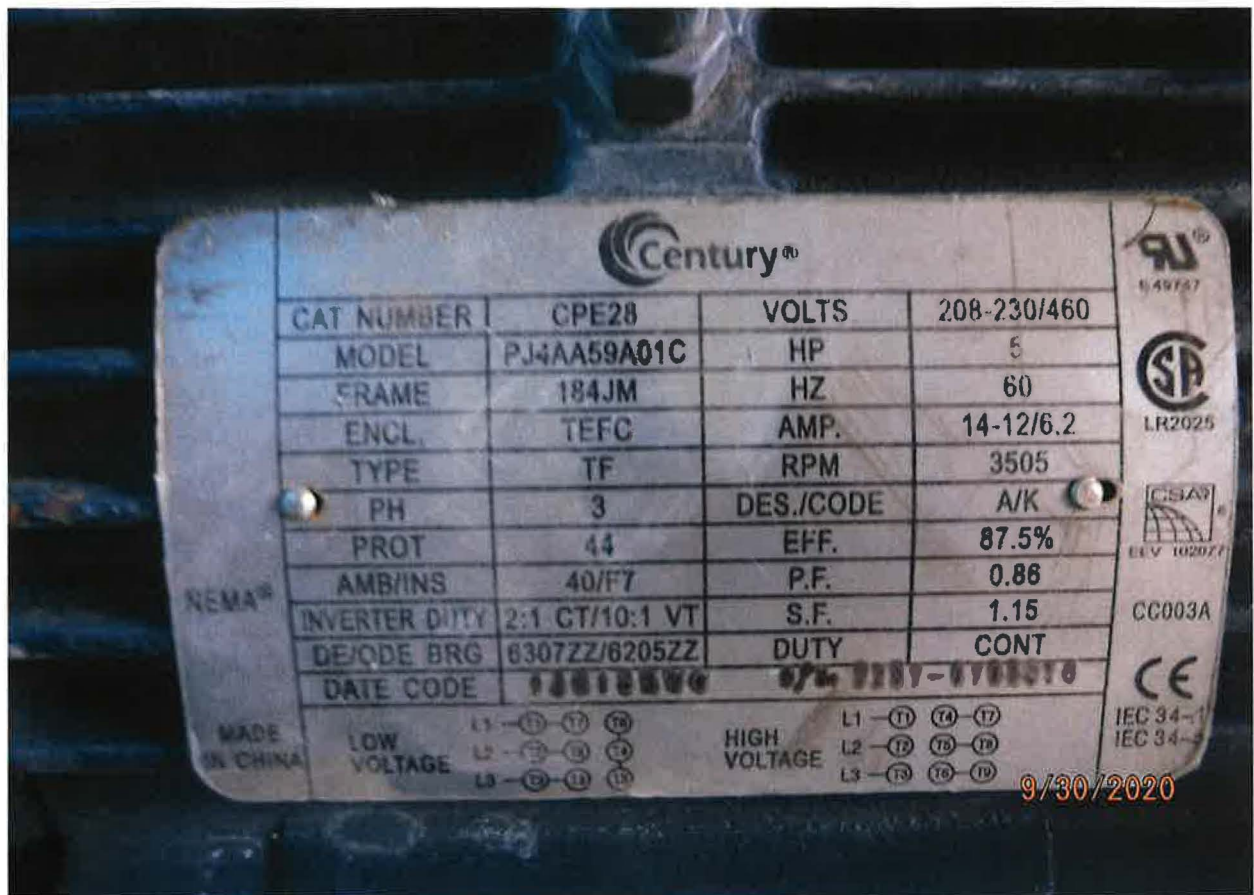


PUMP HOUSE ALONG RIVER FRONT

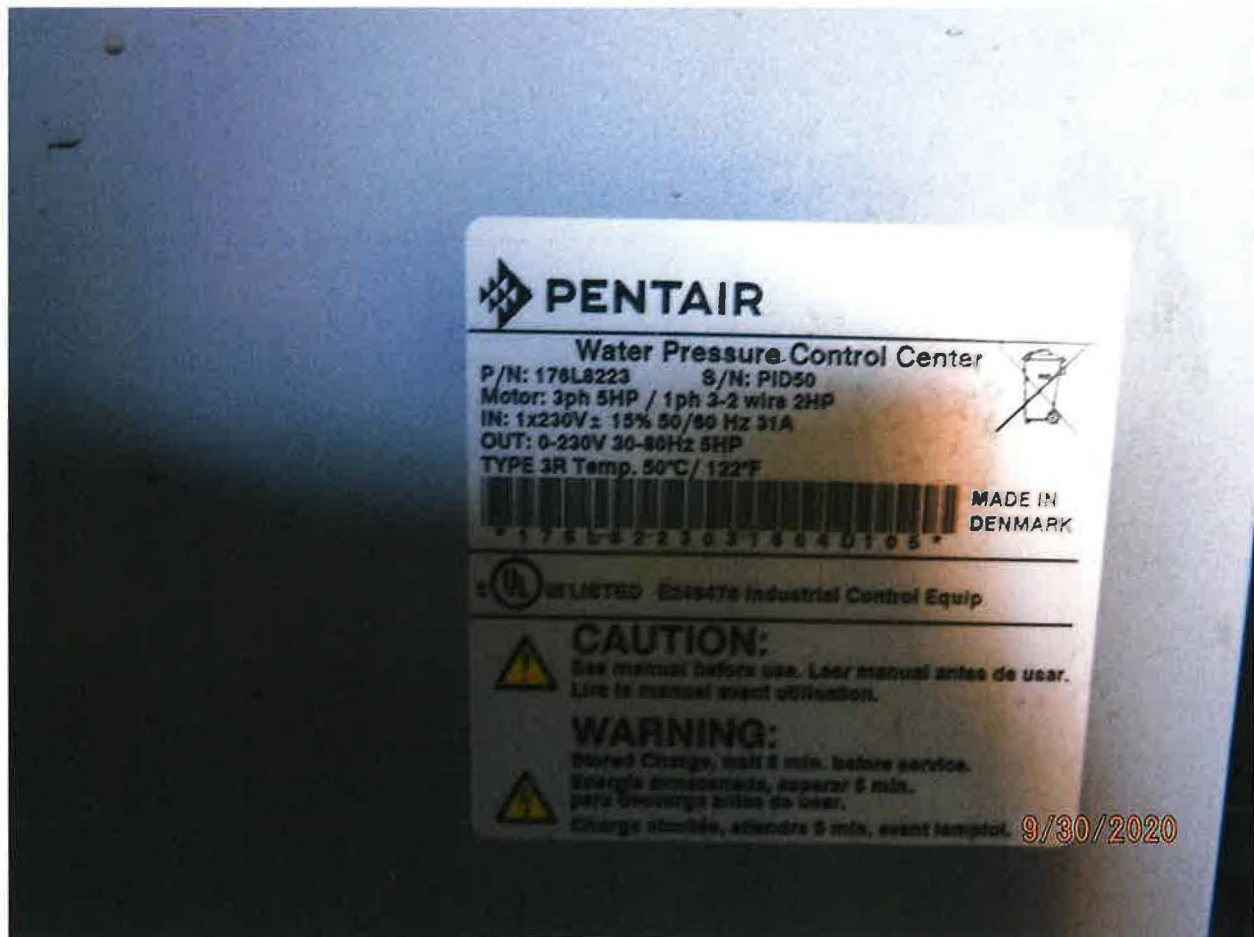


INTERIOR PUMP HOUSE – WATER SYSTEM





5 HP PUMP AT POD







ULTRASONIC FLOW MEASUREMENT TAKEN IN LINE PRIOR TO PRESSURE TANK INPUT TO SYSTEM



IRRIGATION POU





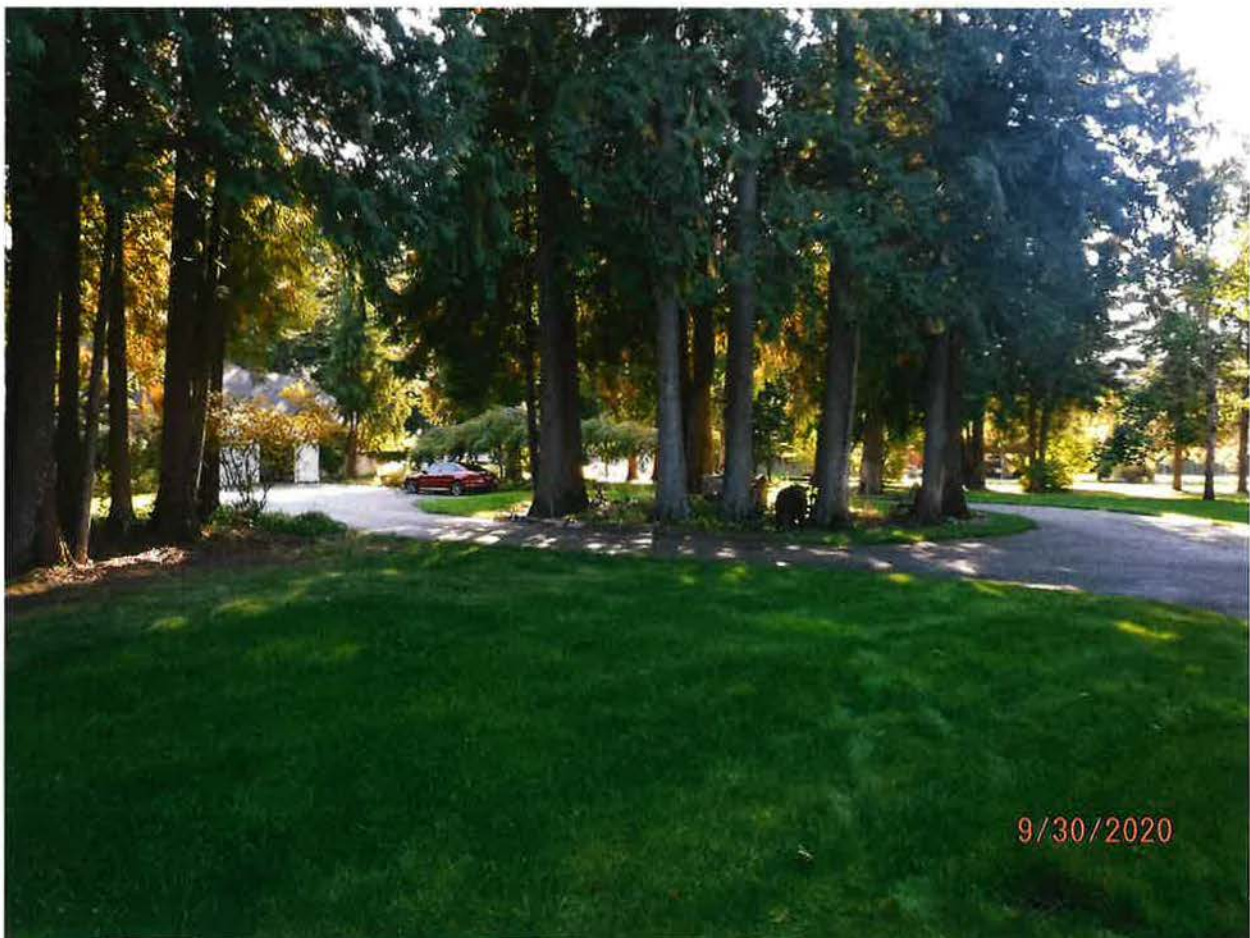
IRRIGATION POU







IRRIGATION POU







IRRIGATION POU







IRRIGATION POU







IRRIGATION POU







IRRIGATION POU – ALONG ROAD FRONTAGE FROM APPLICANT'S GATE AND WALL

