

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9448

Exam Date: 11/7/2014

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? ☒ Yes ☐ No
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Lloyd Stock & Deanne Armstrong
 Owner of Record Correct? ☒ Yes ☐ No
 Address of Record Correct? ☒ Yes ☐ No
 If No, Address: 7708 S. Oak, Spokane, WA 99224

3. Beneficial Use Fees have been paid: ☒ Yes ☐ No Receipt No: N030719

4. SOURCE TRIBUTARY

Cocolalla Lake

Cocolalla Creek

Method of Determination: Applicant submitted an aerial photo map that outlined POD & POU.Change in Source: ☐ Yes ☒ No**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: 96-7069 is a ground water domestic use for a home nearby. Not pertinent to the Stock property.

2. Other water rights with the same point of diversion: Overlap? ☐ Yes ☒ No

Water Right No.	Source	Purpose of Use	Basis

Comments: No POD overlap.**C. DIVERSION AND DELIVERY SYSTEM****1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County
COCOLALLA LAKE	6		SW	NE	7	55N	02W	BONNER

Method of Determination: Legal Description in permit validated by PLS data and mapping.Change in POD? ☐ Yes ☒ NoAmendment Required? ☐ Yes ☒ No

2. **PLACE OF USE:** Use: Domestic

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
55N	02W	7					D												

Method of Determination: Map of property submitted by land owner identifies POU clearly. Art Young confirmed water is stubbed in for future domestic use.

Change in POU? ☐ Yes ☒ No Amendment Required? ☐ Yes ☒ No

3.

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

☒ 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
Unk.	Unk	0.5	Unk	Unk	Unk

*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: In-office field exam. Theoretical flow included in report.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

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

Efficiency = 0.70

Depth to water = 60 ft.

psi = 40-60

hp= 0.5

See attached theoretical sheet.

Average flow rate is 0.02 cfs

Measurement = 0.02 cfs

Permit allowed = 0.04 cfs

License recommend for 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses: Administrator memo #22 recommends a volume of 1.2 af for domestic use per home.

G. PURPOSE OF USE

Irrigation ☐ Yes ☒ No # Stock 0 Domestic # of Homes 1

Other: < >

Change in Purpose of Use? ☐ Yes ☒ No

Method of Determination: Information in the water right file is consistent with aerial photography of the property.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

Permit 96-9448 authorized the diversion of 0.04 cfs from Cocolalla Lake for domestic purposes. Based on the small permitted diversion rate and POU, this qualifies for an in-office field exam. The exam was completed on November 7, 2014 by WRA Patrick Kelly.

Legal description of POU & POD on the permit was used to locate the property in the name of Arthur Young. An assignment of permit was submitted giving permit ownership to a Lloyd L Stock & Deanne Armstrong. The property is located off shore from Cocolalla Lake. Aerial photography of the land showed thick tree coverage and it was difficult to confirm any domestic structures. Phone contact was made with the applicant Arthur Young. During the phone call he informed me that the domestic structure has not yet been built, but that the pump house was in place and the property was stubbed-in for future domestic use.

Overlap review found 96-7069 is a ground water domestic use for a home in the same QQ for a Verne Ellis. This right is domestic use for a home with a well built in 1974, not related to the Stock property or this water right.

Pump horsepower of 1/2 was confirmed over telephone with permit applicant Art Young. Lift was measured using the DRG map. Topography from the home to shore waters measure close to 60 feet. A range of discharge pressures were used under what we would expect to see from in home domestic tanks (40-60 psi). Theoretical average flow rate is 0.02 cfs. This will be a limiting factor on license.

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

I. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Domestic	01/01-12/31	0.02 cfs	1.2 af
	<u>Totals</u>	0.02 cfs	1.2 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 ☒ Other

Other: < >

J. AUTHENTICATION

Field Examiner's Name Patricia Kelly Date 11-7-2014

Reviewer Camille Skaggs Date 11-12-2014

State of Idaho
Department of Water Resources
Field Exam Map
96-9448

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.05 0.1 0.2 Miles



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 96-9448
 Reviewer: Patrick Kelly
 Date of Review: 11/7/2014

P/D No.:	Senerio 1	Senerio 2	Senerio 3
PUMP HORSEPOWER	0.5	0.5	0.5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	60	60	60
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	0.02	0.02	0.02 0.02

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:

Pump horsepower of 1/2 was confirmed over telephone with permit applicant Art Young. Lift was measured using the DRG map. Topography from the home to shore waters measure close to 60 feet. A range of discharge pressures were used under what we would expect to see from in home domestic tanks (40-60 psi). Theoretical average flow rate is 0.02 cfs. This will be a limiting factor on license.

MEMORANDUM

TO: Water Right File – 96-9448

FROM: Patrick Kelly – Water Resource Agent

DATE: November 7, 2014

SUBJECT: Information request for field exam.

I was assigned to do the field exam for 96-9448. This qualifies for an in-office field exam. Upon initial investigation, I used aerial photography to confirm domestic use has been established. The property is completely covered with trees and it is difficult to make out any ground on the property.

Phone contact was made with Art Young on Nov 7, 2014. He informed me that there is no domestic structure at this time. However, the property has been stubbed in for domestic use and a pump house exists that utilizes a ½ hp pump. The property has recently been sold to a Logan Stock phone #509-869-4881.

Under the domestic stub in rule, I will move forward with the licensing process.