

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

A. GENERAL INFORMATIONPermit No: 61-12274

Exam Date: 11/28/2014

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y N
- 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: Louis D. Jeffrey
 Owner of Record Correct? x Y N
 Address of Record Correct? x Y N
 If No: Address

3. Beneficial Use Fees have been paid: Y x N Receipt No:

4. **SOURCE** **TRIBUTARY**

GROUND WATER

N/A

Method of Determination: WELL LOG

Change in Source: Y X N**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: 37-22577, 37-21595 and 37-4112

Water Right No.	Source	Purpose of Use	Basis
N/A			
N/A			

Comments:

37-22577, 37-21595 and 37-4112 are for King Hill Irrigation District. This property falls within their Large POU. However, 2-16A is in the same 1/4, but is for property north of this location.

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

Water Right No.	Source	Purpose of Use	Basis
N/A			
N/A			

Comments:

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

Source	Govt. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.		County
GROUND WATER			NW	SW	33	05S	10E	B.M.	Elmore

Method of Determination: Map was provided with permit application showing location of diversion. I utilized Workflow Place of Use and Point of Diversion Comparison, I used Arc Map to verify and clarify my results.

Change in POD? ☐ x N Amendment Required? ☐ x N2. **PLACE OF USE:** Use: Irrigation and Stockwater and Wildlife

TW P	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05S	10E	33										1.5							1.5
											X	X							
Total Acres =																			1.5

Method of Determination: Map of property submitted by the land owner identifies the POU. PLSS data through ArcMap match.

Change in POU? ☐ No Amendment Required? ☐ No☐ 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
0060383	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 so theoretical not applicable**E. FLOW CALCULATIONS**☐ Additional Computation Sheets Attached

Measured Method:

Hp Equation Worksheet (see attachment) = 0.01 cfs

Administrator memo #17 authorizes an irrigation flow rate of 0.03cfs per acre.

@ 1.5 acres*0.03 cfs/acre = 0.05 cfs

Theoretical Measurement = 0.01 cfs**Permit allowed = 0.01 cfs****License recommend for 0.01 cfs.****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.5 \times 4.0 = 6.0 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \times 246 \times 1.9835 = 4.9 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 4.9 \text{ af}$$

2. Volume Calculations for Other Uses:

Theoretical for stockwater use is 0.4 af per table 6 of the Field Examiner's Handbook.

12 gpd x 20 horses and 6 range cattle x 365 = 113,880 gal annum or 0.3 af

G. PURPOSE OF USE

Irrigation ☒ Y ☐ N # Stock 26 Domestic # of Homes NA

Other: Wildlife reflects the same as stock with no increase

Change in Purpose of Use? ☐ Y ☒ X ☐ N

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

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

H. NARRATIVE/REMARKS/COMMENTS

Permit 61-12274 authorized the use of 0.01 cfs from a well for irrigation of 1.5 acres and 0.01 cfs for stockwater use and

0.01cfs for wildlife. This is based on the information provided in the water right file, this qualifies for an in office field exam.

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

I. 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 11/15	0.01 CFS	4.8 AF
Stockwater	01/01 to 12/31	0.01 CFS	0.3 AF
Wildlife	01/01 to 12/31	0.01 CFS	0.3 AF
<u>Totals:</u>		0.01 CFS	4.8 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

Other: < >

J. AUTHENTICATION

Field Examiner's Name Clay Webb Date 11/28/2014

Reviewer _____ Date _____

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 83-11982
 Reviewer: Clay Webster
 Date of Review: 11/24/2014

P/D No.:	Senerio 1	Senerio 2	Senerio 3	
PUMP HORSEPOWER	0.5	0.5	0.5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	74	84	94	
DISCHARGE PRESSURE	50	50	50	
RATE OF FLOW (cfs)	0.02	0.02	0.01	AVE
(gpm)	7.3	6.9	6.6	0.02
				6.94

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:

The preliminary order issuing the permit stated that the applicant installed a 1/2 horse pump and that the applicant can divert 0.01 cfs . The well Driller's Report indicated that during the pumping test a yeild of 4.7 gallons per minute was acheived.