

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

A. GENERAL INFORMATIONPermit No: 23-11466

Exam Date: 8/8/2017

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: Bruce or Vera Anderson
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

Tax lot data shows Bruce R. Anderson as the owner of the property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C0

4. **SOURCE** TRIBUTARY

Ground water

Method of Determination: Well Driller's Report, GIS, and Tax Parcel Data

Change in Source: Y X N

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There is no direct overlap for this parcel. There are water rights to the north and east for 7N Ranch and Newby. There is also a BLM stockwater right to the southwest, but none of these rights are direct overlapping water rights.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: According to the placement of the point of diversion in the application for permit, there are no overlapping water rights for this property, however, the coordinates placed in the well driller's report places the point of diversion very close to the point of diversion for 23-11371. I feel the well driller's report coordinates were incorrectly recorded, so I am discounting the well driller's report. Please see the narrative for more information on the well location. The BLM right 1-10343 has a point of diversion south of the permit, but it is from the Snake River and shouldn't be an issue.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Well	6		NW	SW	31	4N	41E	B.M.	JEFFERSON
								B.M.	
								B.M.	

Method of Determination: GIS, Tax Parcel, and Application for Permit map. See narrative for more information.

Change in POD? X N Amendment Required? X N 2. **PLACE OF USE:** 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	
4N	41E	31							D			D							
		Lot #							2			6							
Total Acres =																			

Method of Determination: GIS and Tax Parcel Data. The home and the tax parcel straddles the 40 acre tract line, so both legal descriptions are needed. There is only one home.

Change in POU? X N Amendment Required? X N

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

Indicate weir size/pipe as applicable.

 X 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
Well	Unknown	1.5			

*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
NONE						

2. Measurements: No measurement is required for an in-house exam.

E. FLOW CALCULATIONS X Additional Computation Sheets

Attached

Measured Method:

The application for permit describes the pump being used on this system as a 1.5 Hp pump. I used a theoretical analysis to determine if this size pump could supply enough water, and it can supply more than enough water for this permit. I also compared the rate to Processing Administrative Memorandum #22 to determine what was allowable for this use.

Theoretical = 0.06 cfs

Administrative Memo #22 = 0.04

Permit allowed = 0.04 cfs

I am recommending a diversion rate of 0.04 cfs as recommended in Administrative Memo #22 and the permit.

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:

This permit has a condition limiting the use to 13,000 gallons per day. This condition is in place because the permit is within the borders of the Eastern Snake Plain Ground Water Management Area (order signed November 2, 2016). A management plan has not been developed yet for the Eastern Snake Plain Ground Water Management Area, so Processing Administrative Memorandum #47 directs staff to limit all permits to definition of domestic uses found in Idaho Code § 42-111. Therefore, no volume will be recommended for this permit, but the 13,000 gallon per day condition will be carried forward to licensing.

G. PURPOSE OF USEIrrigation Y N # Stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y N Method of Determination: Tax data, GIS, and Well Driller's Report.If Yes: From Use To Use Amount CFS AFA **H. NARRATIVE/REMARKS/COMMENTS**

This permit qualifies for an in-house exam. This permit diverts water from a well to a home with yard irrigation. The home and yard are clearly visible in aerial photography. According to the tax parcel data, the home was built in 2009, which coincides with the 2009 aerial photography. The lawn was in place by 2011, per the 2011 aerial imagery.

The application for permit puts the well just southeast of the home within the same tax parcel as the home. The well driller's report provided coordinates that places the well about 100 yards southeast of the permit holder's placement of the well on the application for permit, and on a completely different tax parcel. The parcel where the well driller's report marks the point of diversion is on a parcel that has a well that was drilled in 1988. The well driller's report also lists this well in the incorrect county, and doesn't appear to have been completed properly. Therefore, I am concerned that the well driller's report is not accurate. I am recommending that the point of diversion be placed at the location marked on the application for permit map. The home was built prior to the filing of the application for permit, so with the questionable location of the point of diversion in the well driller's report, I believe the well location marked on the application for permit map is correct.

Conditions 1 (N13), 2 (187), and 3 (X01) should be carried forward to licensing. Condition 4 (046) will be removed at licensing. No additional conditions will be needed for this right.

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>
Domestic	01/01 to 12/31	0.04 CFS	
<u>Totals:</u>		0.04 CFS	

PLEASE NOTE: This permit is within the Eastern Snake River Ground Water Management Area, so a 13,000 gallon per day limitation is needed for this permit. No volume will be allocated.

2. Recommended Amendments

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

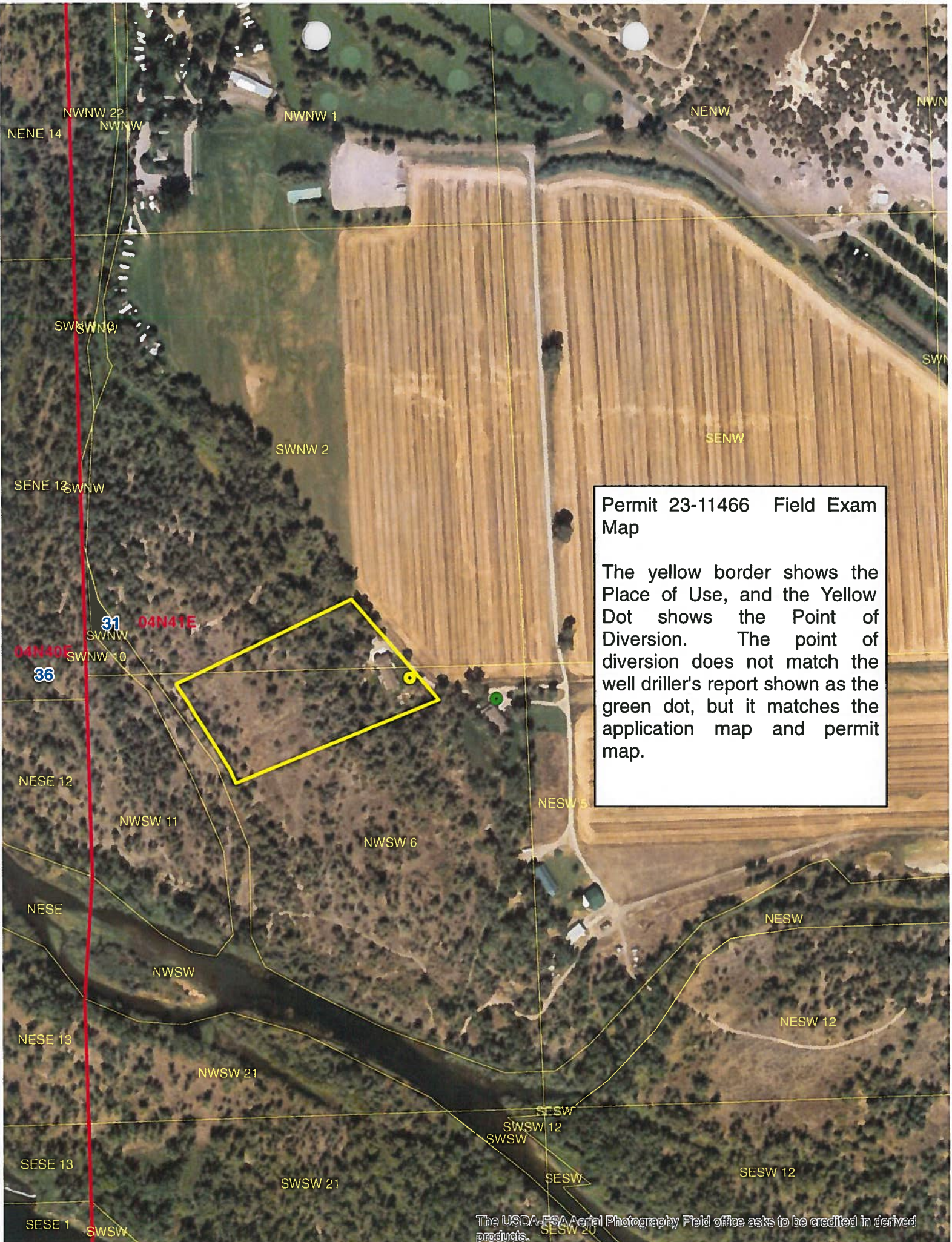
 Change P.U. as reflected above Add P.U. as reflected above None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – Analyst 3

Field Examiner's Name  Date 8-8-17

Reviewer _____ Date _____



Permit 23-11466 Field Exam Map

The yellow border shows the Place of Use, and the Yellow Dot shows the Point of Diversion. The point of diversion does not match the well driller's report shown as the green dot, but it matches the application map and permit map.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 23-11466
 Reviewer: Dan Nelson
 Date of Review: 8/8/2017

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario 1
1.5
0
35
40
0.07
33

Scenario 2
1.5
0
35
50
0.06
28

Scenario 2
1.5
0
35
60
0.05
24

Average
 0.06
 30.05

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:

I used the well driller's report to determine the pumping level. I used the standard of 10 feet below static level for smaller pumps to determine the pumping water level. According to the well driller's report, the well is only 42 feet deep, so this seems reasonable. I used the standard house pressures to determine the psi rating. Using these assumptions, the well should produce more than enough water to meet the 0.04 cfs allowable for the permit.

Department of Water Resources
Eastern Region