

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

A. GENERAL INFORMATIONPermit No: 95-17772Exam Date: 2/25/2022

1. Does this qualify for an in-office field exam (IDAPA 37.03.02.035.01.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: Kevin J. and Kelley R. Bales
 Owner of Record Correct? X Y N
 Address of Record Correct? Y N
 If No: Address

The Department's parcel data shows Kevin Bales as the owner of the property. The Benewah County records also show that Kevin Bales is the owner of the property. Therefore, I don't see any issues with the ownership of this property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: N/A
4. **SOURCE** **TRIBUTARY**
 Ground Water
 Method of Determination: GIS, Well Driller's Report, 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

Comments: The only water right shown in this area is statutory claim 95-4684. This claim describes a pond used for domestic, irrigation and stockwater purposes. The only pond, irrigation, and domestic home are on the property to the north of the permit holder's property. There did appear to be a barn or some sort of structure on the permit holder's property, but the permit holder's property is approximately 100 feet uphill from the pond area. It doesn't appear as though 95-4684 was originally for the permit holder's property due to the locations and elevations shown in aerial imagery. The Coeur d' Alene-Spokane River Basin Adjudication disallowed this claim, so it shouldn't be an issue.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: The only water right shown in this area is statutory claim 95-4684. This claim describes a pond used for domestic, irrigation and stockwater purposes. The only pond, irrigation, and domestic home are on the property to the north of the permit holder's property. There did appear to be a barn or some sort of structure on the permit holder's property, but the permit holder's property is approximately 100 feet uphill from the pond area. It doesn't appear as though 95-4684 was originally for the permit holder's property due to the locations and elevations shown in aerial imagery. The Coeur d' Alene-Spokane River Basin Adjudication disallowed this claim, so it shouldn't be an issue.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Well Tag # D0079182			NW	SW	11	46N	5W	B.M.	Benewah
								B.M.	
								B.M.	

Method of Determination: GIS, Well Driller's Report, and Tax Parcel Data.Change in POD? ☒ X ☐ N Amendment Required? ☒ X ☐ N**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	
46N	5W	11										D & S							
		Lot #																	
Total Acres =																			

Method of Determination: GIS and Tax Parcel DataChange 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 Pump	Unknown	1			

*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, but a theoretical calculation was performed with information supplied in the proof of beneficial use form.

E. FLOW CALCULATIONSX Additional Computation Sheets Attached

Measured Method:

The permit holder supplied information with the Statement of Completion for Submitting Proof of Beneficial Use (Proof) form that states that the pump used is a 1 hp pump that was placed at 210 feet in a 228 foot well. I compared this information to the Well Driller's Report, and it seems reasonable. Using this information and a standard pressure of 40 to 60 psi, I was able to calculate the flow rate from the well. I compared my calculations to Administrative Processing Memorandum #22, Administrative Processing Memorandum #3, and the permit below.

Theoretical Calculation = 0.02 cfs (see attached sheet)

Administrative Processing Memo #22 = 0.04 cfs for domestic use

Administrative Processing Memorandum #3 = 0.02 cfs for 10 head of cattle.

Permit allowed = 0.04 cfs for domestic and 0.02 cfs for stockwater with a total of 0.04 cfs.

I am recommending 0.02 cfs for domestic, 0.02 cfs for stockwater, and total diversion rate of 0.02 cfs, since the theoretical calculation shows the system installed cannot provide the 0.04 cfs authorized by the permit or allowed under Administrative Processing Memorandum #22.

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:

Administrative Processing Memorandum #22 provides guidance to allow 1.2 acre-feet for in-house use and yard irrigation. Administrative Processing Memorandum #3 authorizes 0.2 acre-feet of water for 10 head of range cattle. The applicant listed mixed stockwater for the type of livestock being water, so this volume should be adequate.

I am recommending that this permit be licensed for 1.2 acre-feet for domestic use and 0.2 acre-feet for stockwater for a total of 1.4 acre-feet.

G. PURPOSE OF USE

Irrigation Y N # Stock 10 head mixed stock Domestic # of Homes 1

Other: < >

Change in Purpose of Use? Y N

Method of Determination: Taxlot data and conversations with owner.

If Yes: From Use To Use Amount CFS AFA

H. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-house examination. This permit authorized a diversion from a well to a home and livestock. The applicant provided photos and information on the well with the Proof form. The aerial imagery confirms that they have built a home on the site. There are 2 outside frost free hydrants, for the livestock use. I am confident that they have provided adequate information to show that this water use has been developed as authorized by the permit.

The well pump that they installed in this system can only provide a diversion rate of 0.02 cfs, so they will be limited to the capacity of the well pump placed in the system.

They Proof form also stated that there was only one home. I contacted the permit holder, Mr. Bales, by telephone on February 25, 2022, to confirm that they were only going to have one home. The permit holder stated that they put the second domestic use on the form just in case, but didn't plan to build a second home anytime soon. I informed him that Proof was not due until 2024, so he has a chance to build the home in the next couple of years. He stated he didn't think they would build the second home anytime soon, and would probably just replace the water use to the existing home into the new home if they ever build the second home.

The proof form also didn't list any livestock. In by February 25, 2022, telephone conversation, the permit holder stated that they did have livestock and that was what the outside frost-free hydrants were for. The stockwater use will be recommended at licensing.

All the conditions on the permit no longer apply, since the second home was not developed. Conditions X01 and 187 will be added at licensing. No further conditions are needed. Condition 004 is not needed, since the entire ground water system is on the permit holder's property.

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 to 12/31	0.02 CFS	1.2 AFA
Stockwater	01/01 to 12/31	0.02 CFS	0.2 AFA
	<u>Totals:</u>	0.02 CFS	1.4 AFA

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: < >

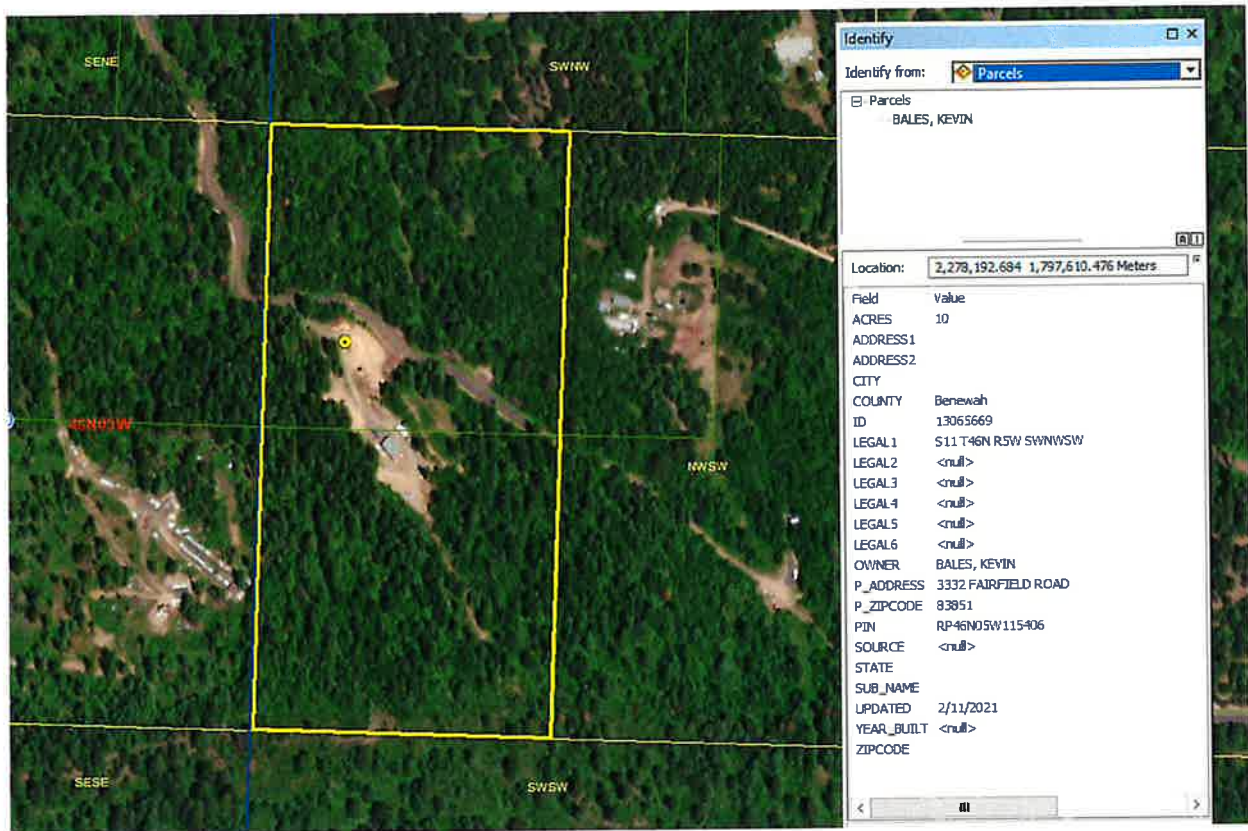
J. AUTHENTICATION – DANIEL A. NELSON – WATER RIGHT ANALYST 3

Field Examiner's Name  Date 2.25.22

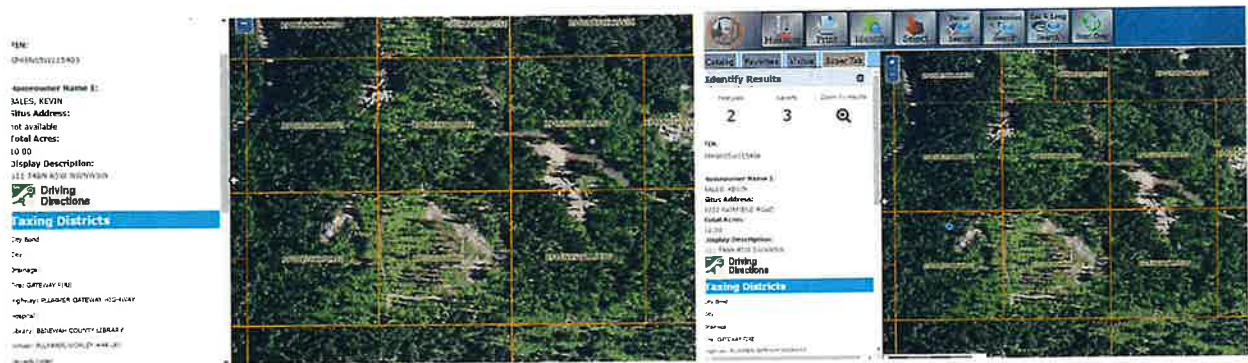
Reviewer _____ Date _____

Field Exam Map:

The yellow border shows the place of use and the yellow point shows the point of diversion. I am using the same place of use for both the domestic and stockwater uses. The green borders show the tax parcels for this property.



Benewah County Tax Maps



IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 79182

Drilling Permit No. 888084
Water right or injection well # _____

2. OWNER:

Name Kevin Bales
Address 3332 Fairfield Rd
City Plummer State ID Zip 83851

3. WELL LOCATION:

Twp. 46 North ☒ or South ☐ Rge. 5 East ☐ or West ☒
Sec. 11 1/4 NW 1/4 SW 1/4

Gov't Lot _____ County Benewah
Lat. 47 20.585N (Deg. and Decimal minutes)
Long. 116 56.228W (Deg. and Decimal minutes)
Address of Well Site 3332 Fairfield Rd

City Plummer
Lot _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite	0	38	950lbs	pour around pipe

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
6"	+2	-38	2.50	steel	☒	☐	☐	☒
4"	-18	-228	sch 40	pvc	☐	☒	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) -38ft georocfor shoe

9. PERFORATIONS/SCREENS:

Perforations ☒ Y ☐ N Method skill saw

Manufactured screen ☐ Y ☒ N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
-118	-218	1/4x8	150	4"	pvc	sch 40

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
none				

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 118 ft Static water level (ft) 69 ft
Water temp. (°F) cold Bottom hole temp. (°F) _____
Describe access port well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
15 gpm airlift from 228 ft		for 1.5 hrs

Test method:

Pump	Bailer	Air	Flowing artesian
☐	☐	☒	☐

Water quality test or comments: cold and clear/no odor

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
10"	0	12	shale-tan		X
	12	26	shale-w/clay		X
	26	65	shale-tan medium hard		X
6"	65	80	shale-grey medium hard		X
	80	108	shale-multi colored		X
	108	132	shale-grey 5 gpm at 118 ft	X	
	132	138	shale-broken 8 to 9 total at 132 ft	X	
	138	215	shale-hard		X
	215	219	shale-broken 15 gpm total at 215 ft	X	
	219	228	shale-hard		X

RECEIVED

DEC 13 2018

IDWR / NORTH

Completed Depth (Measurable): 228 ft

Date Started: 10-25-18 Date Completed: 10-25-18

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Interstate Drilling LLC Co. No. 689

*Principal Driller Ryan Suchacki Date 10-26-18

*Driller Ryan Suchacki Date 10-26-18

*Operator II _____ Date _____

Operator I Wesley Jordan / Austin Suchacki Date 10-26-18

* Signature of Principal Driller and rig operator are required.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-34951
 Reviewer: Dan Nelson
 Date of Review: 8/20/2021

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)
 RATE OF FLOW (gpm)

Scenario #1
1
0
200
40
0.021
9

Scenario #2
1
0
200
50
0.020
9

Scenario #3
1
0
200
60
0.018
8

AVERAGE FLOW
 0.020
 8.794

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 permit holder stated in the Proof of Beneficial Use statement that they installed a 1 Hp pump. The permit holder also stated that the pump was set at 210, and the well was drilled to a depth of 228 feet. The Well Driller's Report stated that they found water from 108 feet to 219 feet. The casing was screened from 118 feet to 218 feet, so the setting the pump at 210 feet is reasonable.

I estimated the pumping water lever using a standard of 10 feet above the pump or 200 feet. I used the standard pressure for a home of 40 to 60 psi. The average diversion rate would be approximately 0.02 cfs or 8.8 gpm. I am recommending a diversion rate of 0.02 cfs.