

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 97-7976

Exam Date: 06/14/2022

1. Current Owner:
ELKINS REEDER TERRACE UTILITY ASSN 5622 W GRAY HERON LN SPOKANE WA 99208
2. Accompanied by: Phil Konyonenbelt
Phone No: 509-991-7445
Address: Same as above
Relationship to permit Holder: Permit holder's representative.

3. **SOURCE:**
GROUND WATER

Method of Determination: ArcMap and DRG.

B. OVERLAP REVIEW

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

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

GROUND WATER NE¼ SE¼, Sec. 19, Twp 61N, Rge 04W, B.M. BONNER County

Method of Determination: GPS; POD located at -116°54.004, 48°37.318; well D-Tag D0059503

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
61N	04W	19													X	X		X L6	

Method of Determination: Beneficial use field examination & ArcMap aerial imagery.

3.
 - ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
 - ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
 - ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
 - ☒ 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
D0059503	Centripro	3	Model CB30412MC	Goulds	Unknown

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: I was unable to perform flow measurements due to inadequate pipe requirements. Main service line from well to vaulted conveyance components are smaller than 2 inches in diameter and influenced by two pressure tanks. The diverting works incorporates a 3 HP Goulds pump with matched CentriPro motor. A theoretic pump equation derived a flow rate of 43 gpm or 0.10 cfs considering department rounding standards.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Theoretic Pump Equation = 3 hp pump installed at depth of 105 with operating pressure of 50 PSI derives a flow rate of 43.0 gpm or **0.10 cfs** considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses: Domestic annual volume & maximum diversion volume for 4ea homes with ½ acre per home = 4 x 1.2 af = **4.8 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/14/2022 with the applicant's representative, Phil Konyonenbelt – President of Elkins Reeder Terrace Utility Assn., showed a groundwater well providing water for domestic uses. At the POD, the 6-inch cased well D0059503, has a 3 hp Goulds pump with matched CentriPro pump motor installed and buried water main line routing direct to a small vaulted concrete pump station. I took photographs within the pump station that includes the main service line and two pressure tanks that distribute water to four (4) service connections.

I was unable to perform a flow measurement due to inadequate pipe requirements and a theoretic pump equation was developed during licensing review that derived a flow rate of 0.10 cfs from the 3 hp pump/motor at a depth of 105 ft, with the water system operating at 50 PSI. **0.10 cfs** is the permit approved diversion rate and is recommended for licensing purposes.

During the exam the water system was discussed and walked with Mr. Konyonenbelt & consists of a main water line to four dedicated lateral water service pipes with shutoff valve for four parcels. Only one lot had been developed with a residence on it at the time of exam, and the remaining three are being recommended for domestic use based on dedicated stub-ins found within each of three remaining parcels. I used field maps to trace out the approximate water line pathway and photographs were taken of each stub-in and one residence. The annual volume & maximum diversion volume recommended for licensing equals 3 stub-ins + 1 home = 4 homes x 1.2 af = **4.8 af**. During licensing review ArcMap aerial imagery was used to assign the domestic POU, which includes the entirety of the four parcels with water system established to provide water for. Due to stub-ins, I've identified the entire parcel for each home as it is not known where the "up to" ½ acre per home shall occur on the property.

I removed condition 046 from the permit during licensing review. I replaced condition 070 with a text version of 187 annotating that the irrigation occurring under this domestic use shall not exceed ½ acre per home, which is more appropriate than the condition as permit approved based on the stub-in concept. All other conditions on the permit shall be carried forward to licensing. There are no overlap concerns related to licensing this water right.

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

H. RECOMMENDATIONS

1. Recommended Amounts

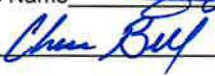
<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
DOMESTIC	01/01 to 12/31	0.10 CFS	4.8 AF
<u>Totals:</u>		0.10 CFS	4.8 AF

2. Recommended Amendments

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

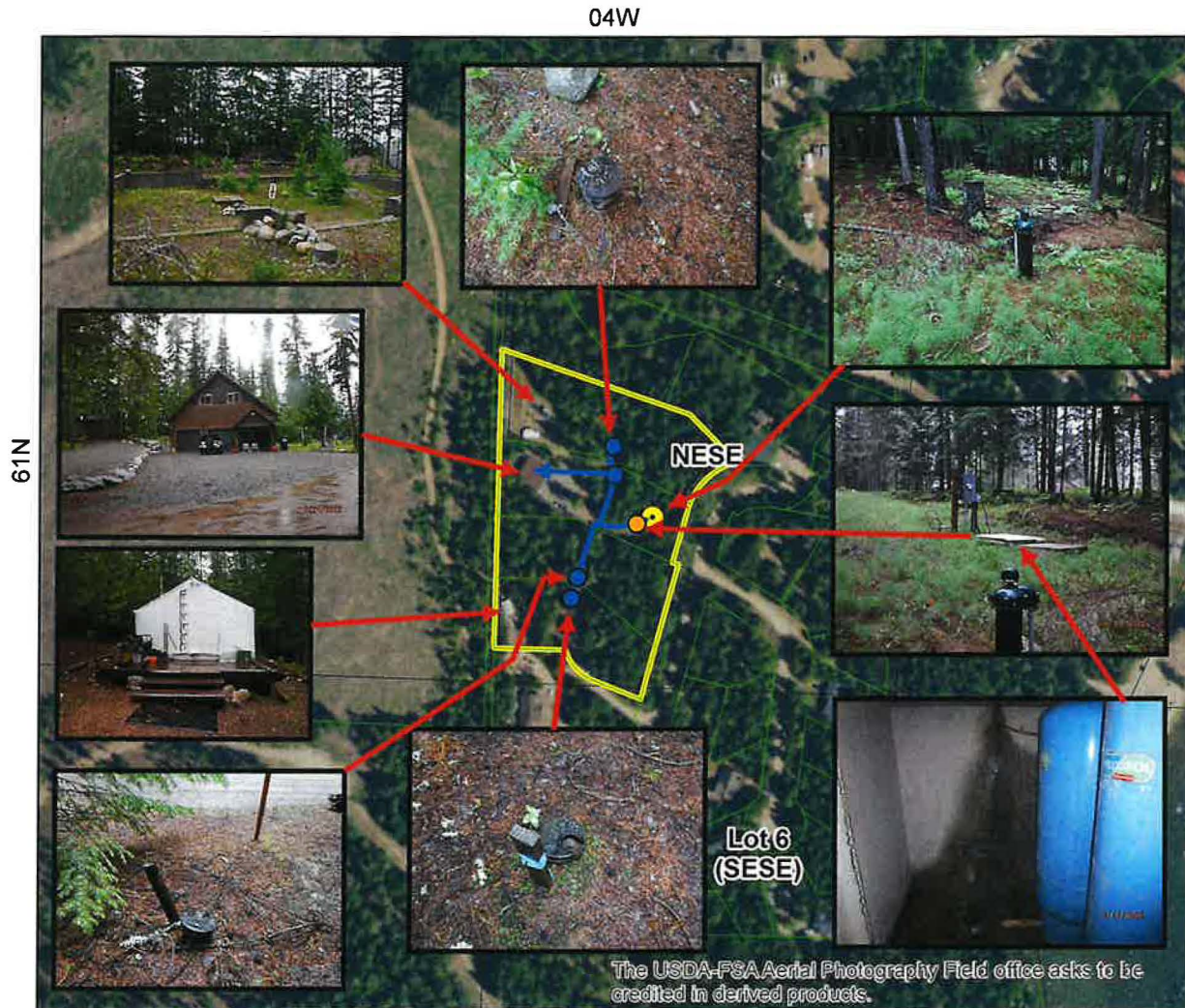
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Luke Bates -

Field Examiner's Name  Date 12/7/2023
Reviewer  Date 04/18/2024

State of Idaho
Department of Water Resources
Attachment to Field Exam
97-7976

This map depicts the DOMESTIC system diagram.



0 0.035 0.07 0.14 Miles

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



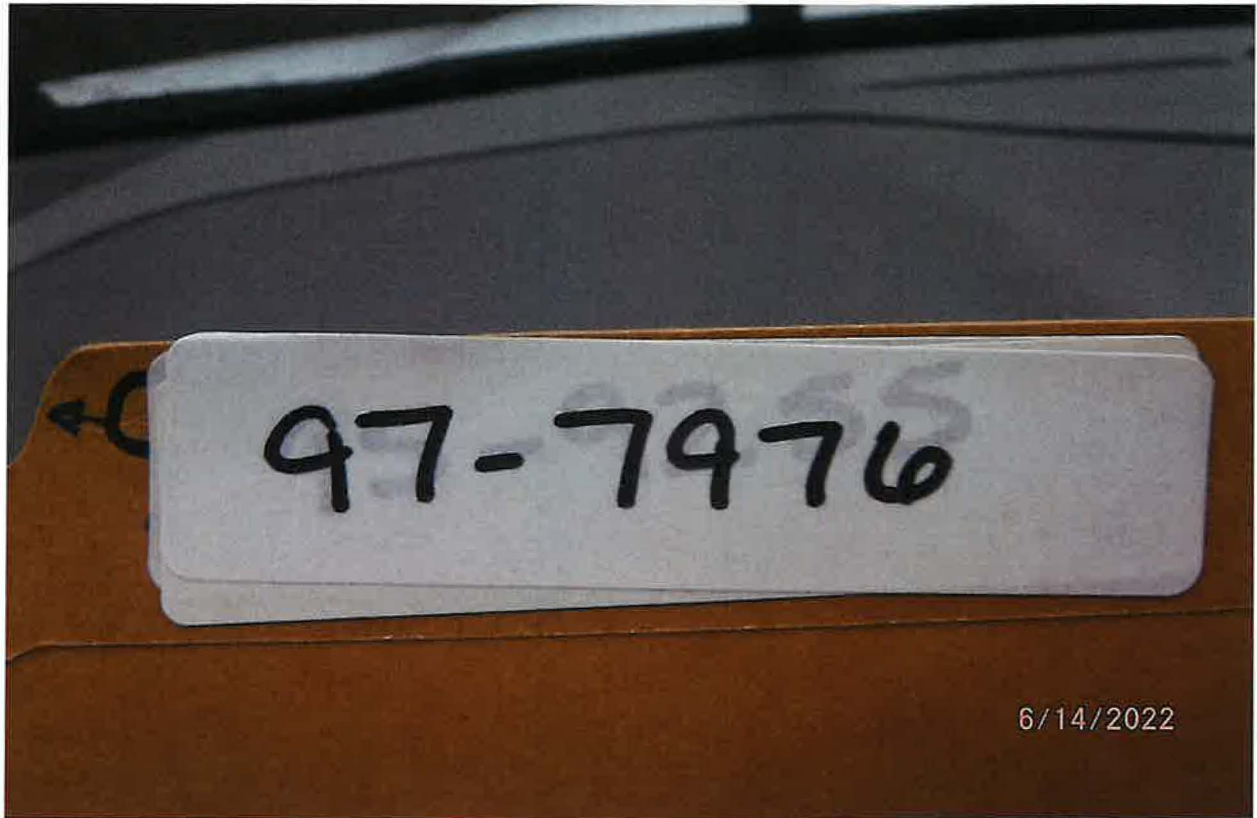
THEORETICAL PUMPING EQUATION(S) FOR WR# 97-7976

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to lift 105 ft, and running at 50 psi.

PUMP EQUATIONS

WATER RIGHT No. 97-7976

D0059503	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q = $HP \cdot 8.8 \cdot \text{Eff} / H$	3	220.6463	0.8	105	50
Q = 0.096 cfs 43.0 gpm					



BENEFICIAL USE FIELD EXAMINATION DATE 6/14/2022



POD – GROUNDWATER WELL



WELL D-TAG D0059503



VAULTED WATER CONVEYANCE SYSTEM



3 HP CENTRIPRO PUMP MOTOR INSTALLED IN WELL





MAIN SERVICE PIPE FROM WELL TO VAULTED PUMP STATION



50 PSI OPERATING PRESSURE



PRESSURE TANKS 2EA INCLUDED IN CONVEYANCE SYSTEM



DOMESTIC POU – STUB-IN – LOT 3 PHASE II REPLAT, ELKINS REEDER ACRES PHASE 2 SUB. –
RP054070010030A



DOMESTIC POU – STUB-IN – LOT 4 PHASE II REPLAT, ELKINS REEDER ACRES PHASE 2 SUB. –
RP054070010040A



DOMESTIC POU – LOT 5 PHASE II REPLAT, ELKINS REEDER ACRES PHASE 2 SUB. – RP054070010050A



DOMESTIC POU – STUB-IN – LOT 6 PHASE II REPLAT, ELKINS REEDER ACRES PHASE 2 SUB. –
RP054070010060A

