

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 91-7751

Exam Date: 08/30/2019

1. Current Owner:

BILL EICHELBERG 10100 RAILROAD GRADE RD ST. MARIES ID 83861

LORNA EICHELBERG 10100 RAILROAD GRADE RD ST. MARIES ID 83861

2. Accompanied by: Bill Eichelberg

Phone No: (208) 245-6737

Address: Same as above

Relationship to permit Holder: Permit holder.

3. **SOURCE:**

GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use:

YES Overlap

Water Right No.	Source	Purpose of Use	Basis
91-7203	ST JOE RIVER	IRRIGATION	LICENSE
91-7622	GROUND WATER	DOMESTIC	DECREE

Comments: 91-7203 is an irrigation water right from the St. Joe River. 91-7622 is for domestic use from a separate well than this water right.

2. Other water rights with the same point-of-diversion:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

GROUND WATER L8 (NW¼ SE¼), Sec. 20, Twp 46N, Rge 01E, B.M. BENEWAH County

Method of Determination: Maps and GPS. POD located at -116° 21.497, 47° 18.945.

PLACE OF USE: COMMERCIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	01E	20													X L8	X L8	X L12	X L11	

PLACE OF USE: FIRE PROTECTION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
46N	01E	20													X L8	X L8	X L12	X L11	

Method of Determination: Arcmap and tax lot data.

3.

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

X 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.

X

X Aerial Photo Attached (required for irrigation of 10+ acres).

X 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
91-96-N-9	Unknown	1			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: Unable to perform flow measurement due to piping from well going directly into pressure tank.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at 0.04 cfs. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

$$29 \text{ RVs} \times 25 \text{ GPD} \times 167 \text{ days} = 121,075 \text{ GPY} / 325,850 = 0.4 \text{ AF}$$

There is no annual volume given for fire protection.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed with the applicant, Bill Eichelberg, showed a well being used for commercial and fire protection purposes. The well, 91-96-N-9, had a 1 HP pump which diverted water into a pressure tank. I was unable to perform a flow measurement because water was diverted directly into pressure tank with no proper place to perform measurement. Theoretical pumping equation was used to estimate a flow rate of 0.04 cfs. The pump was estimated to be 105 feet down and the system running at 40 psi (equation attached). The diversion rate for commercial and fire protection use will be licensed for 0.04 cfs.

The commercial use was for an RV park. The RV park had 29 hook ups for RVs without sewer. The applicant stated he had regular customers and all lots were full during the summer season. The applicant said his general season of use was from 01 May – 15 October which is equal to 167 days of operation yearly. The standard volume for a RV without sewer is equal to 25 gallons per day. The annual volume when incorporating those factors is equal to 0.4 AF (see volume equation above). There are 29 frost free hydrants around the RV Park, which would aid in fire protection in the event of a fire. There will be no total annual volume on the license because fire protection has no volume. The limiting volume for commercial will be 0.4 AF.

Conditions 26A, 046, and 106 were removed from the license. All other conditions will remain on the license. There are two other water rights in the place of use (91-7622 and 91-7203). 91-7622 uses water for domestic purposes from a different well for the applicant's home. 91-7203 uses water for irrigation purposes from the St Joe River. There is no irrigation authorized under this water right, and thus no overlap concern.

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>
COMMERCIAL	01/01 to 12/31	0.04 CFS	0.4 AF
FIRE PROTECTION	01/01 to 12/31	0.04 CFS	

Totals: 0.04 CFS

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

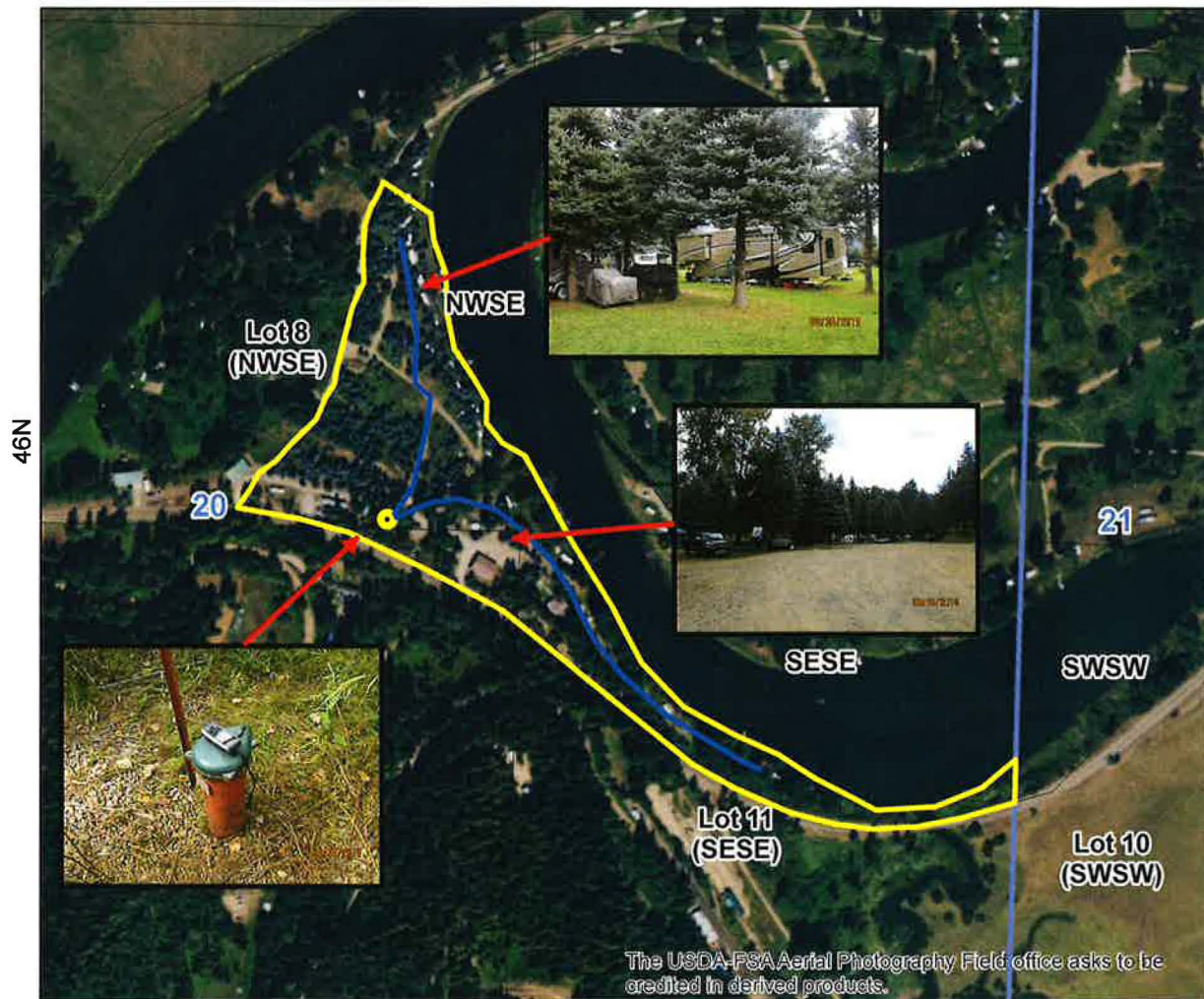
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Ashley Fink Date 3/20/2020
 Reviewer L. Bates Date 3/19/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
91-7751

COMMERCIAL and FIRE PROTECTION system diagram

01E



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

0 0.05 0.1 0.2 Miles





POD well 91-96-N-9



DEQ Identification tag



1 HP pump in well. Theoretical pumping equation estimates the flow rate at 0.04 cfs.



Water is diverted to pressure tank. Unable to perform flow measurement due to inadequate space.



Commercial and fire protection place of use.



Commercial and fire protection place of use.





Commercial and fire protection place of use.





Commercial and fire protection place of use.

