

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-10819

Exam Date: 06/04/2020

1. Current Owner:
RYAN J MAY 6569 E OHIO MATCH RD HAYDEN ID 83835-7828 AND
TARA MAY 6569 E OHIO MATCH RD HAYDEN ID 83835-7828
2. Accompanied by: Ryan May
Phone No: 1-509-979-0326
Address: Same as above
Relationship to permit Holder: Current 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: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments:

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 SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER NE¼ NW¼, Sec. 21, Twp 52N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. POD located at -116°42.927, 47°50.561, permit No. 95-77-N-91

PLACE OF USE: STOCKWATER

[illegible]

PLACE OF USE: DOMESTIC

[illegible]

Method of Determination: Field exam and Arcmap

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

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

X

Photo of Diversion and System Attached

X

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
WELL - NO TAG	UNKNOWN	1HP			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform flow measurement due to piping from well going direct to pressure tank via sub-surface installation of water system.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: See attached Theoretic Pumping Equation worksheet. Theoretic pumping equation calculated 7.4 gpm, with a pump depth of 335 feet operating at 40 psi. Resulting diversion rate = **0.02 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses:

$$\text{STOCKWATER component} = 4 \text{ goats} \times 2 \text{ gal per day} \times 365 \text{ day per year} = 2,920 \text{ gal}$$

$$= 1 \text{ horse} \times 12 \text{ gal per day} \times 365 \text{ day per year} = 4,380 \text{ gal}$$

Stockwater Annual Volume = (2,920 gal + 4,380 gal) / 325,850 gal/af = 0.02 af, rounded up to **0.1 af** to comply with department significant figures for volume in accordance with admin memo, application process memo No.6.

$$\text{DOMESTIC COMPONENT} = 0.6 \text{ af (1 home)} + 0.6 \text{ af (up to } \frac{1}{2} \text{ acre irrigation)} = \mathbf{1.2 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/4/2020 with applicant, Ryan May, showed a well providing water for stockwater and domestic uses. Water was diverted from the well for use at a one home, with up to ½ acre irrigation, and to water 4 goats and 1 horse. Water was piped underground to pressure tank in house, resulting in no access for flow measurements. Theoretic pumping equation derived 0.02 cfs from the applicant's 1 hp pump; applicant is limited in diversion rate by his pump performance, and the department standard for domestic of 0.04 is not applied to license. Therefore, the theoretical pump equation value will be used to license this water right for a diversion rate of **0.02 cfs**.

At time of exam, stockwater was being used for 4goats, and 1 horse, by stock tanks filled by frost free hydrant and hose. The stockwater component annual volume was calculated as:

= 4 goats x 2 gal per day x 365 day per year = 2,920 gal
= 1 horse x 12 gal per day x 365 day per year = 4,380 gal

Stockwater Annual Volume = (2,920 gal + 4,380 gal) / 325,850 gal/af = 0.02 af, rounded up to **0.1 af** to comply with department significant figures for volume in accordance with admin memo, application process memo No.6.

During field exam, irrigated area was identified and trace out using arcmap equaling 0.1 acres. As such, the irrigation component on permit was removed, and domestic with ½ acre of irrigation was applied in place of separate irrigation/domestic components. The domestic component annual volume equals 0.6 af (1 home) + 0.6 af (up to ½ acre irrigation) = **1.2 af**. The overall license maximum diversion volume equals stockwater annual volume + domestic annual volume, which equals 0.1 af + 1.2 af = **1.3 af**, which will be applied to license.

Conditions 046, 26A, R66, and 132 were removed from license. Condition X01 was added to describe domestic use for 1 home. Condition 187 was added to describe irrigation up to 1/2 acre associated with domestic use. All other conditions remain on license. There are no overlap concerns for 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>
STOCKWATER	01/01 to 12/31	0.02 CFS	0.1 AF
DOMESTIC	01/01 to 12/31	0.02 CFS	1.2 AF
Totals:		0.02 CFS	1.3 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 X None

I. AUTHENTICATION

Luke Bates - Water Resource Agent

Field Examiner's Name [Signature] Date 6/11/2024

Reviewer Adm. F. Hall Date 6/16/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-10819

DOMESTIC system diagram.

03W



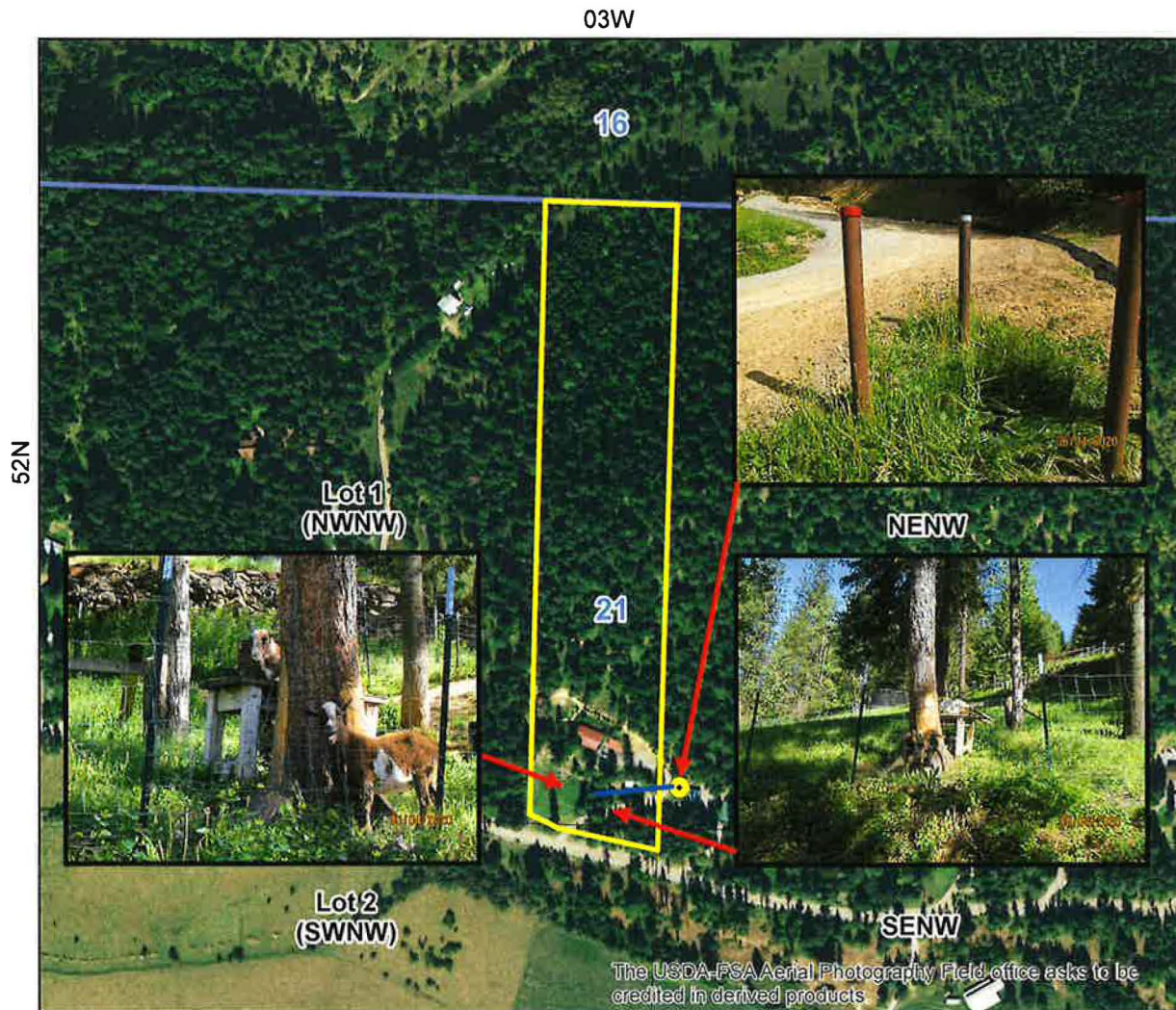
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



State of Idaho
Department of Water Resources
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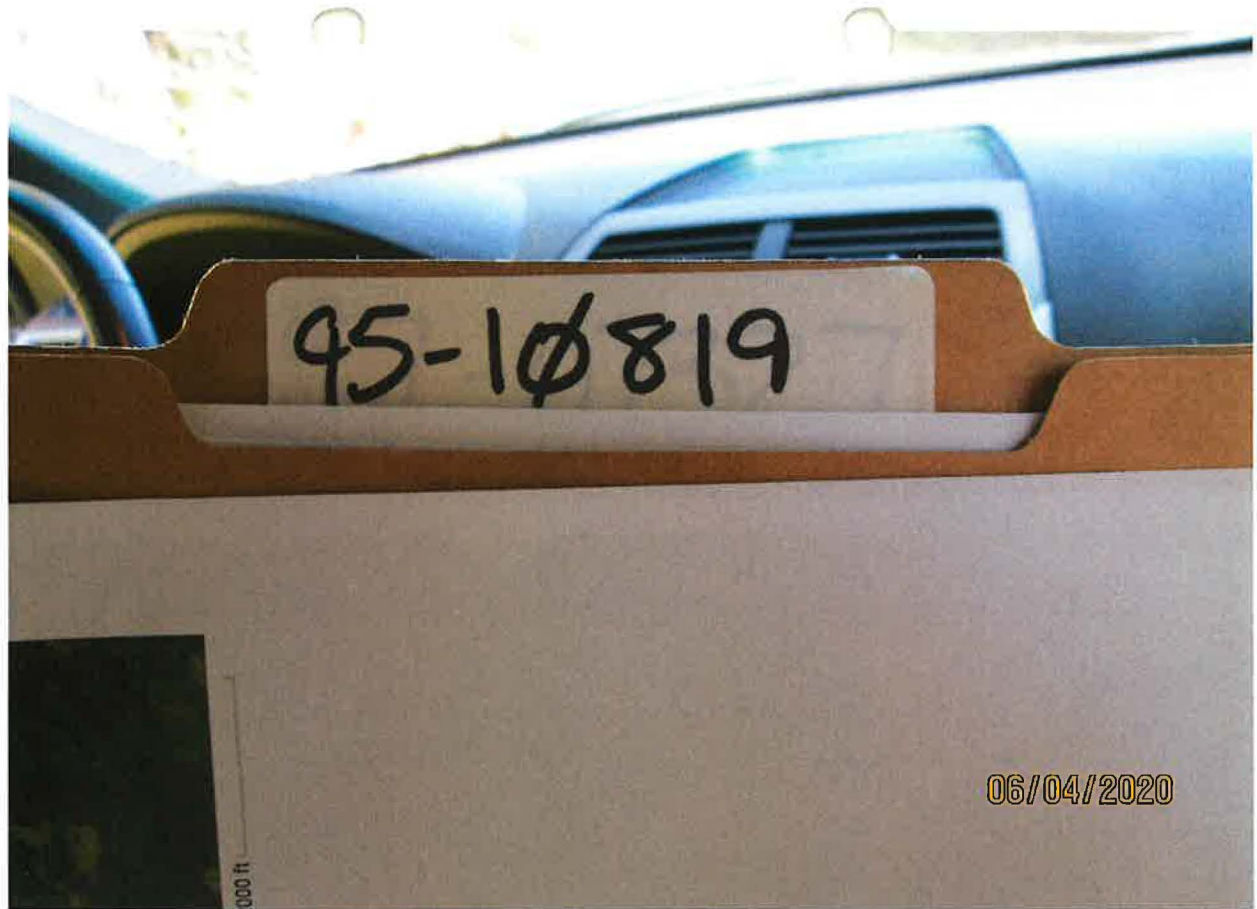
STOCKWATER system diagram.



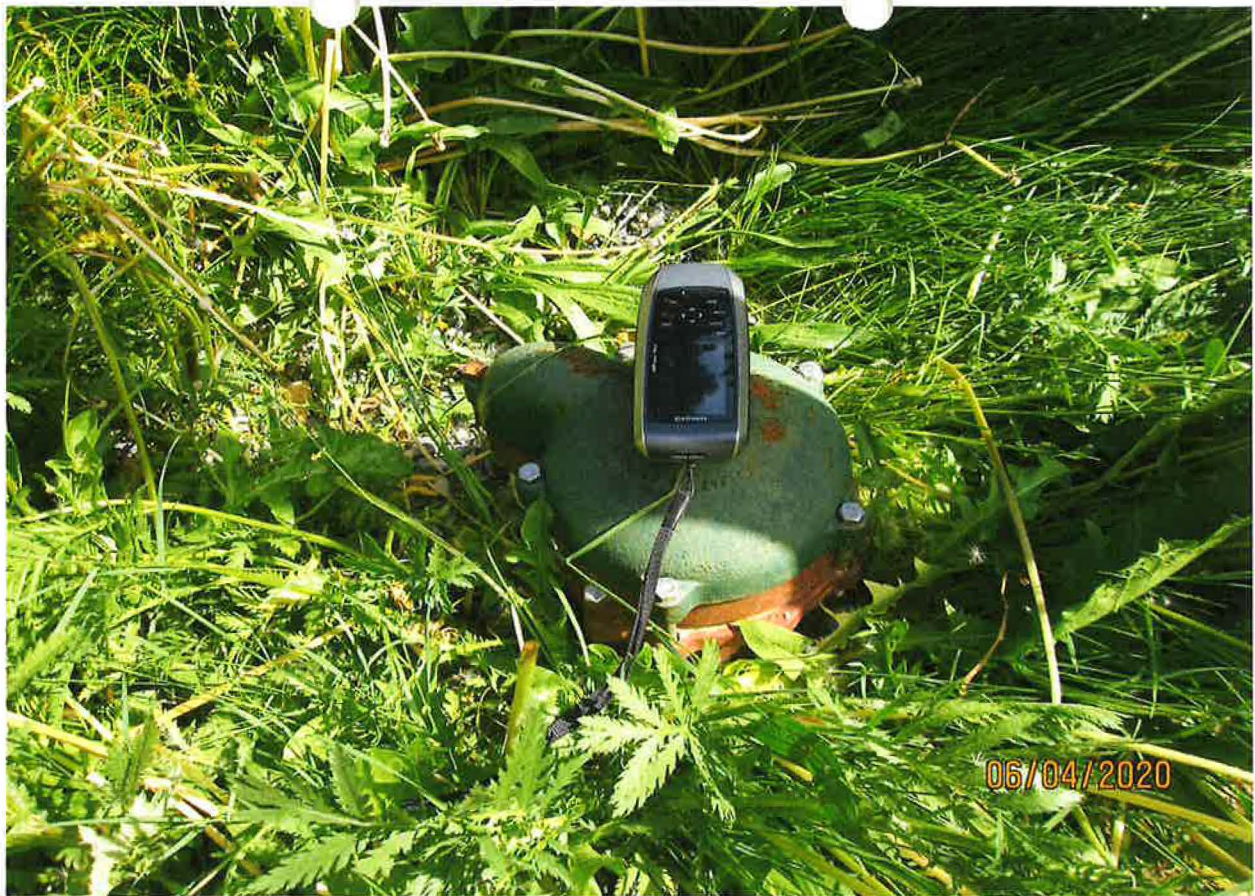
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.045 0.09 0.18 Miles





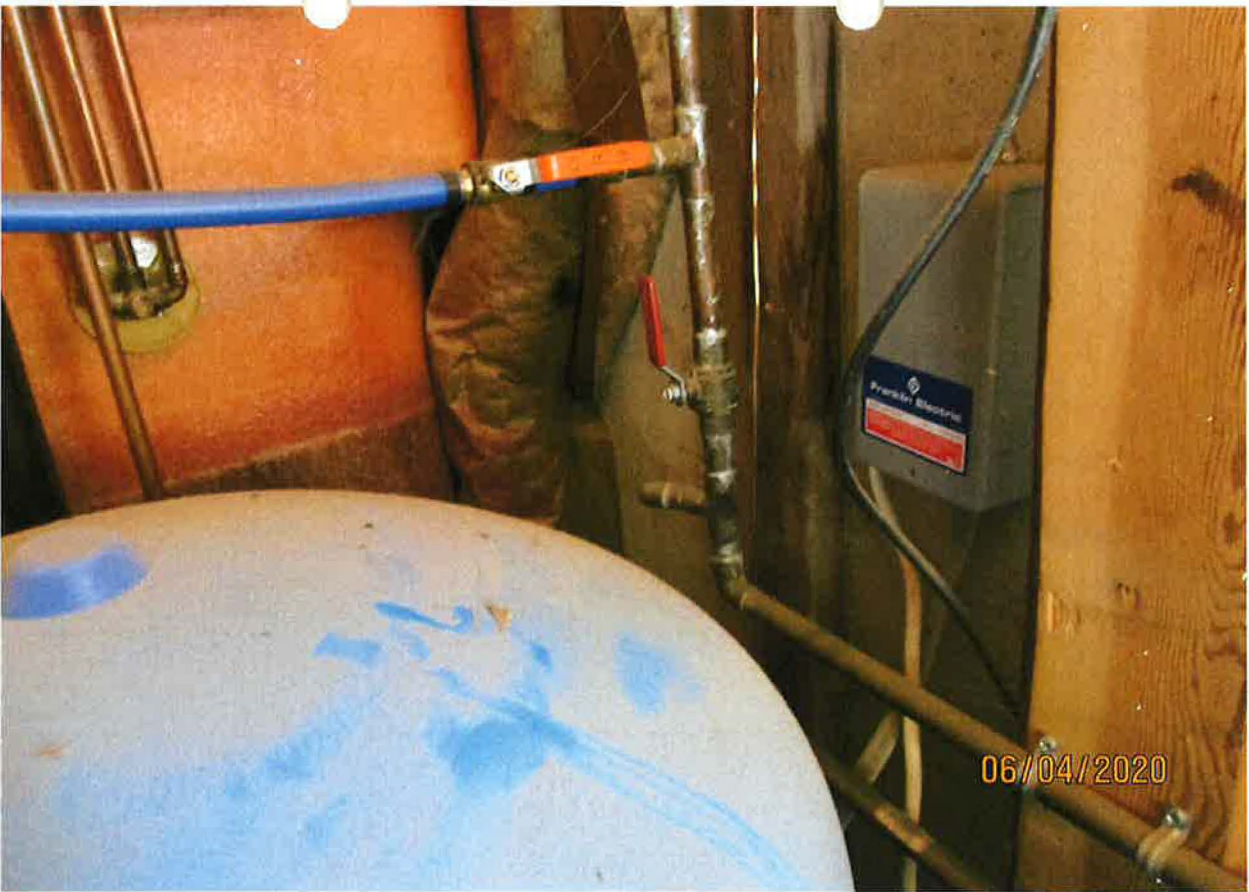
POD – WELL (NO D TAG) PERMIT NO 95-77-N-91



POD – WELL (NO D TAG) PERMIT NO 95-77-N-91



WATER SYSTEM PRESSURE TANK AND WATER FILTRATION TANKS



1 HP PUMP



DOMESTIC POU



DOMESTIC POU WITH UP TO ½ ACRE IRRIGATION





DOMESTIC POU WITH UP TO ¼ ACRE IRRIGATION





STOCKWATER POU

