

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
BENEFICIAL USE FIELD REPORT

### A. GENERAL INFORMATION

Permit No: 94-7852

Exam Date: 8/5/2015

1. Current Owner: FRED C SMITH  
27706 S LATOUR CREEK RD  
CATALDO ID 83810  
(406) 459-0262

And

SHARON L SMITH  
27706 S LATOUR CREEK RD  
CATALDO ID 83810  
(406) 459-0262

2. Accompanied by: Applicants gave permission to do drive by

- | 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
|------------------|------------------|
| GROUND WATER     |                  |

## B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

### C. DIVERSION AND DELIVERY SYSTEM

**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW1/4NE1/4 Sec. 27, Twp 48N, Rge 01W, B.M. KOOTENAI County

**Method of Determination:** GPS and maps. POD location at 47° 28.981, 116° 26.715 (A0015491)

2.

**PLACE OF USE:** COMMERCIAL

[illegible]

Method of Determination: GPS and maps.

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.

| <u>Well or Diversion</u><br><u>ID No.*</u> | <u>Motor Make</u> | <u>Hp</u> | <u>Motor Serial No.</u> | <u>Pump Make</u> | <u>Pump Serial No. or Discharge</u><br><u>Size</u> |
|--------------------------------------------|-------------------|-----------|-------------------------|------------------|----------------------------------------------------|
| D0059277                                   | FRANKLIN          | 1.5       |                         |                  |                                                    |

\*Code to correspond with No. on map and aerial photo

**D. FLOW MEASUREMENTS**

1.

| <u>Measurement</u><br><u>Equipment</u> | <u>Type</u> | <u>Make</u> | <u>Model No.</u> | <u>Serial No.</u> | <u>Size</u> | <u>Calib. Date</u> |
|----------------------------------------|-------------|-------------|------------------|-------------------|-------------|--------------------|
|----------------------------------------|-------------|-------------|------------------|-------------------|-------------|--------------------|

N/A

2. Measurements:

**E. FLOW CALCULATIONS**☐ Additional Computation Sheets Attached

Measured Method: UNABLE TO PERFORM FLOW MEASUREMENT. MEASUREMENT OF DIVERSION RATE COVERED UNDER IDAPA RULES 37.03.02.035.01.r. THEORETICAL PUMPING EQUATION ESTIMATES FLOW AT 20 GPM OR ~~0.04~~ CFS. 0.05 cfs

It was estimated the lift from the well to the ground surface is approx. 130' along with a system pressure estimated at 40 psi.

$$Q = \frac{(hp)(8.8)(\text{eff.})}{H} = \frac{(1.5)(8.8)(80\%)}{130 + (40 \times 2.3087)} = \frac{10.56}{222.35} = 0.047$$

**F. VOLUME CALCULATIONS**

## 1. Volume Calculations for Irrigation:

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

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

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

## 2. Volume Calculations for Other Uses: 2 ACRES OF IRRIGATION X 3 AF = 6 AF

**CAMPGROUND USES**

9 CAMP SITES WITH WATER HOOK UPS

25 GPD X 9 CAMP SITES = 225 GPD

225 GPD X 182 DAYS OF OPERATION = 40,950 GPY

1 COMMON BATH HOUSE

300 GPD X 182 DAYS OF OPERATION = 54,600 GPY

54,600 + 40,950 = 95,550 GPY / 325,850 GAL/AF = 0.3 AF

IRRIGATION 6 AF + CAMPGROUND OPERATIONS 0.3 AF = 6.3 AF

**G. NARRATIVE/REMARKS/COMMENTS**

FIELD EXAM SHOWED WELL WITH 1.5 HP PUMP. THEORETICAL PUMPING EQUATION ESTIMATES FLOW AT 20 GPM OR 0.04 CFS. LICENSE IS FOR COMMERCIAL USE AND WILL GIVEN FO 9 CAMP SITES AND BATH HOUSE. MEASUREMENT OF DIVERSION RATE COVERED UNDER IDAPA RULES 37.03.02.035.01.r. THERE IS ALSO 2 ACRES OF IRRIGATION OCCURING WILL WILL GIVEN ANNUAL VOLUME. LICENSE WILL BE ISSUED FOR 0.04 CFS WITH AN ANNUAL VOLUME OF 6.3 AF.

Have conditions of permit approval been met? ☒ Yes ☐ No**H. RECOMMENDATIONS**

## 1. Recommended Amounts

| BENEFICIAL USE | PERIOD OF USE  | DIVERSION RATE                | ANNUAL VOLUME |
|----------------|----------------|-------------------------------|---------------|
| COMMERCIAL     | 01/01 to 12/31 | <del>0.040</del> CFS 0.05 cfs | 6.30 AF       |
| <b>Totals:</b> |                | <del>0.040</del> CFS 0.05 cfs | 6.30 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 ☐ Other
**I. AUTHENTICATION**

Field Examiner's Name Austin E. Ford Date 12-11-2015  
 Reviewer Beth E. Franklin Date 12/15/2015

# THEORETICAL PUMPING EQUATION FOR WATER RIGHT 94-7852

| PUMP EQUATIONS WATER RIGHT |                                           |           |                    |                         |                      |                        |
|----------------------------|-------------------------------------------|-----------|--------------------|-------------------------|----------------------|------------------------|
| No.                        |                                           |           | 94-7852            |                         |                      |                        |
|                            |                                           | HP        | H in feet          | Efficiency as a decimal | Pumping lift in feet | System pressure in PSI |
| Q =                        | $\frac{HP \cdot 8.8 \cdot \text{Eff}}{H}$ | 1.5       | $\frac{237.51}{7}$ | 0.8                     | 145                  | 40                     |
| Q =                        |                                           | 0.045 cfs | 20.0 gpm           |                         |                      |                        |

State of Idaho  
Department of Water Resources  
**Water Right License**  
94-7852

01W

48N



0 0.035 0.07 0.14 Miles

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

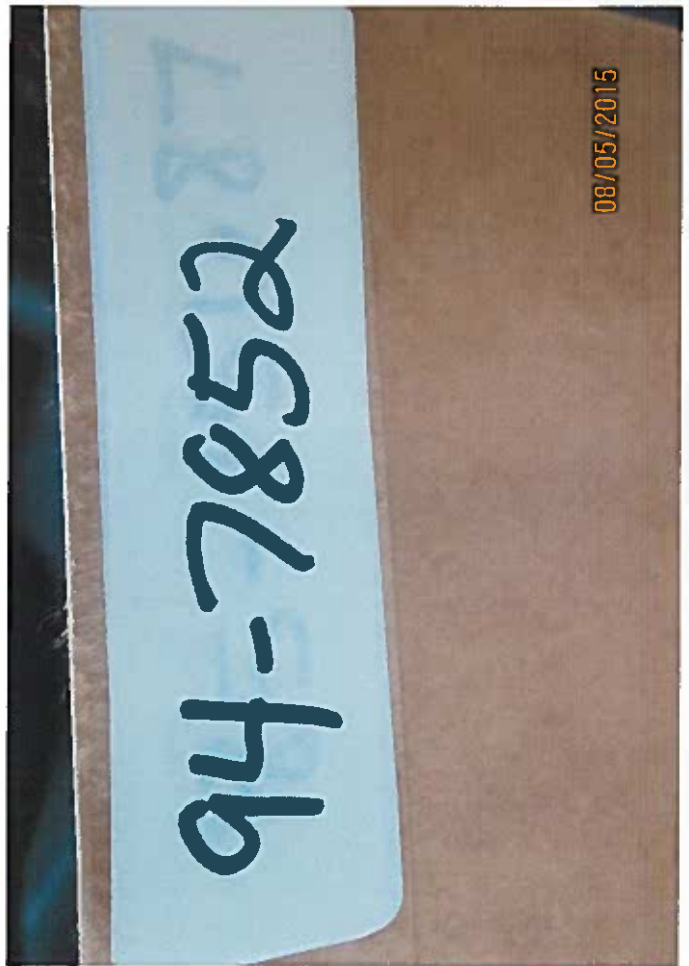




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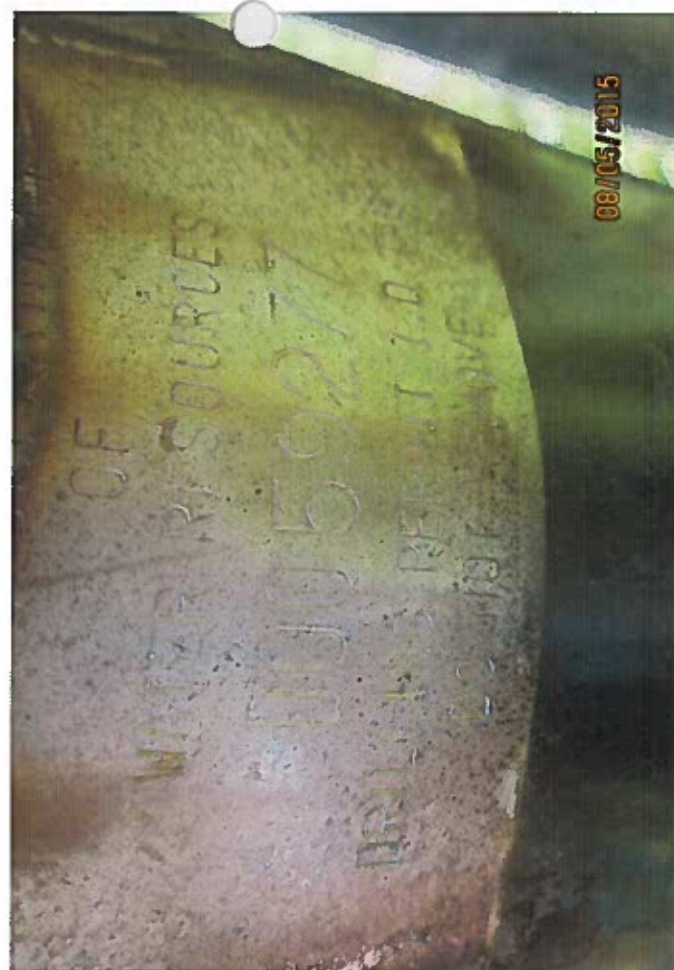


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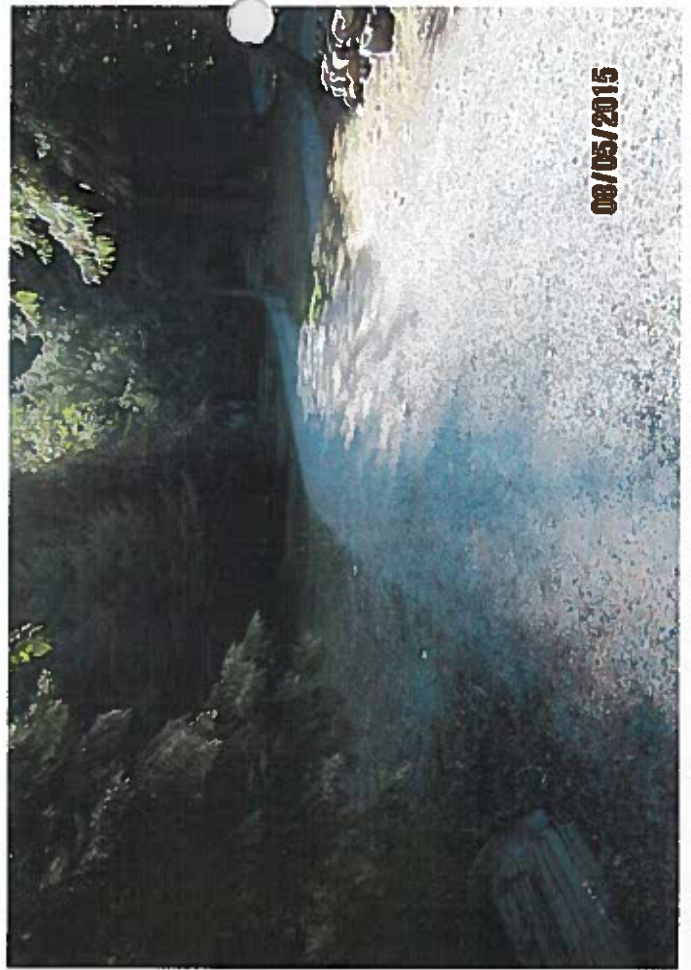
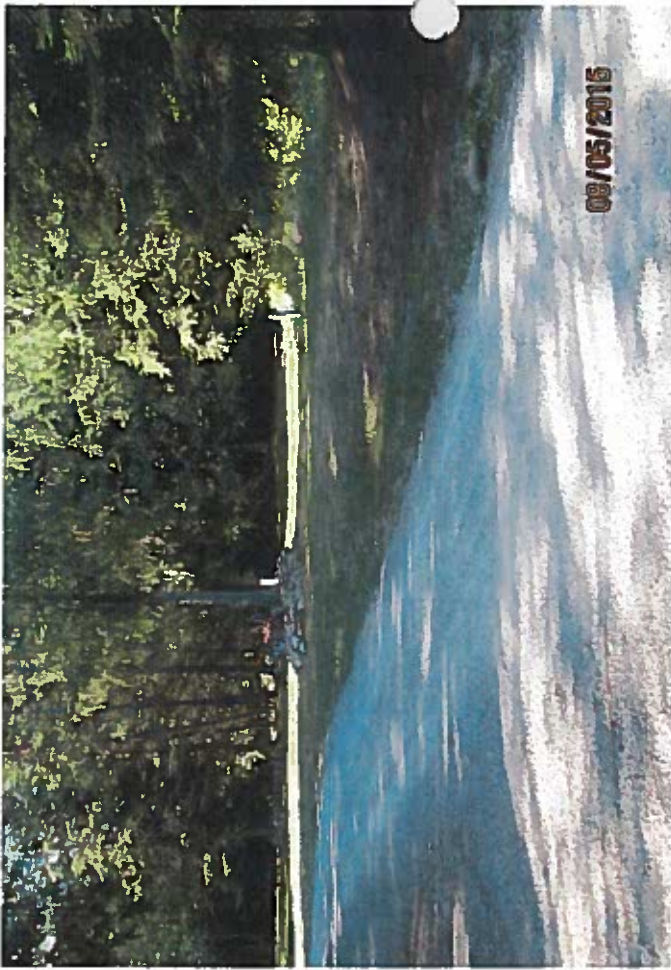
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