

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33000

Exam Date: 12/14/20

1. Current Owner:
STEVE POSEY 13400 S FIVE MILE RD KUNA ID 83634-2669 AND
CHERYL POSEY 13400 S FIVE MILE RD KUNA ID 83634-2669
3. **SOURCE:**
GROUND WATER

Method of Determination: Permit application, ArcMap, aerial imagery, and USGS topography.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: No POU overlap.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: No POD overlap.

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

GROUND WATER SW¼ NW¼, Sec. 26, Twp 02N, Rge 01E, B.M. ADA County

Method of Determination: Permit application, ArcMap, and GPS coordinates submitted by permit holder.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01E	26							5.0										5.0

Total Acres: 5.0

Method of Determination: Permit application, ArcMap, aerial imagery, and USGS topography.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01E	26							5.0										5.0

Total Acres: 5.0

Method of Determination: Permit application, ArcMap, and GPS coordinates submitted by permit holder

3.

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

X Indicate weir size/pipe as applicable.

X 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

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
409984	Franklin	7.5		Franklin	4 Inch

D. FLOW MEASUREMENTS

No measurements taken, in office exam.

E. FLOW CALCULATIONS X Additional Computation Sheets AttachedTheoretical Flow Calculation:

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Horsepower 7.5
Pumping Level 350
Discharge Pressure 30-50
Rate of Flow (cfs) 0.14 cfs

Irrigation Permit: 0.10 cfs
Theoretical Rate 0.14 cfs
B.U. Standard Allowance: 0.03 cfs x 4.2 ac= 0.13 cfs
B.U. Proof Fee: \$50 → 0.01 cfs to 0.20 cfs

License Recommendation 0.10 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.2 \text{ Acres} \times 4.5 \text{ AF} = 18.9 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .10 \text{ CFS} \times 260 \text{ days} \times 1.9835 = 51.57 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 22.5 \text{ AF}$$

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted in office on November 29, 2020 by Kate Hulse.

The permit was originally assigned to IMT Real Estate Investments LLC on March 24, 2008, it was re-assigned to Steve and Cheryl Posey on February 10, 2015, on March 25, 2015 the permit was again re-assigned to Steven Posey and Cheryl Posey and Northwest Farm Credit Services, FCL and in December 2018 it was assigned to Steven and Cheryl Posey. The permit was then amended to subdivide the POU into 3 five acre lots and split and assigned 0.10 CFS for 5 acres of irrigation to Wendy Heiss June 28, 2019 and 0.10 CFS for 5 acres of irrigation to WJW & Gwen Family Trust 2016 in May 13, 2020. Leaving 63-33000 assigned to Steve and Cheryl Posey with .10 CFS for 5 acres of irrigation. The proof of beneficial use was submitted on August 13, 2020 by Steve Posey. Current Ada county taxlot data represent Steve Posey as the current owner of the land pertinent to the place of use and point of diversion.

The permit authorized 5.0 acres for irrigation, Mr. Posey submitted photographs of the place of use on October 19, 2020. It is evident that 5 acres of irrigation have been developed as the photographs show alfalfa present. Mr. Posey submitted the GPS coordinates of the point of diversion at 43 28' 58" N 116 18' 34" W as well as the drilling permit number for the well, placing it in Section 26, Township 02 North, Range 01 East, SW 1/4, NW 1/4. IDWRs well location records for the given drilling permit number does not match Mr. Posey's location, Mr. Posey brought a photograph of the well with the corresponding well ID on his property. IDWR will accept this as evidence Mr. Posey's well is on his property. A drive by field exam was conducted on December 11th to ensure property was developed as photographed. It was clear the POU was used to grow alfalfa. The western edge of the property had not yet been irrigated and the foundation for a house on the southern edge of the property was identified. The POU has been updated to reflect only the land that had been irrigated.

A copy of an invoice from Bergess Pump and Supply provide evidence that a 7.5 hp pump with a 3 PH motor with a 45 gpm pump end on a drive controller was installed on July 29th, 2020 and a new controller was installed August 21, 2020. The system diverts to a sprinkler system that consists of a 3 inch mainline which connects to 11 risers that are 40 feet apart he then ties in 5 hand-lines containing 7 heads with 1/4 inch nozzles to irrigate 4.2 acres of Alfalfa. Mr. Posey runs 2 handlines at one time at 40 psi for 12 hours.

A theoretical average flow rate of 0.14 cfs was calculated based on a 7.5 hp pump set at 350 feet in the well with a range of discharge pressures from 30 to 50 psi. Based on the theoretical rate determined to be 0.14 cfs the system will be capable of providing sufficient water for the users needs. I am recommending a licensed flow rate of 0.10 cfs based on the limit of the permit. The rate of 0.10 cfs is capable of providing sufficient water for the permit holders system and needs. Mr. Posey may apply for an additional rate if he believes he is diverting at 0.14 cfs.

Have conditions of permit approval been met? X 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>
IRRIGATION	03/01 to 11/15	0.10 CFS	18.9 AF
<u>Totals:</u>		0.10 CFS	18.9 AF

2. Recommended Amendments

 Change P.D. as reflected above Add P.D. as reflected above x None

 Change P.U. as reflected above Add P.U. as reflected above x None

I. AUTHENTICATION

Kate Hulse - Water Resource Agent

Field Examiner's Name Kate Hulse Date 12/10/20

Reviewer Patricia Kelly Date 12-21-2020



Place of Use, 4.2 acres of alfalfa.



Foundation for house, southern edge of place of use.

Posey System Diagram



- POU
- Handlines
- Nozzles
- Mainline
- Risers
- POD

0 0.025 0.05 Miles

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33000
 Reviewer: Kate Huelse
 Date of Review: 10/27/2020

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	7.5	7.5	7.5
BOOSTER HORSEPOWER	3	3	3
PUMPING LEVEL	350	350	350
DISCHARGE PRESSURE	30	40	50
RATE OF FLOW (cfs)	0.15	0.15	0.14 0.15

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:

A range of small hp pumps were assumed given this is for domestic use and the requested diversion rate is relatively small. Lift was measured using the DRG map. Topography from the home to shore waters measure close to 25 feet. A range of discharge pressures were used under what we would expect to see from in home domestic tanks (40-60 psi). Theoretical average flow rate is 0.05 cfs.

**Burgess Pump & Supply, LLC**706 East Main Street
Middleton, ID 83644

PH: (208) 585-6202

EMAIL: service@burgesspump.com • WEB: www.burgesspump.com**INVOICE****13190**

7/29/2020

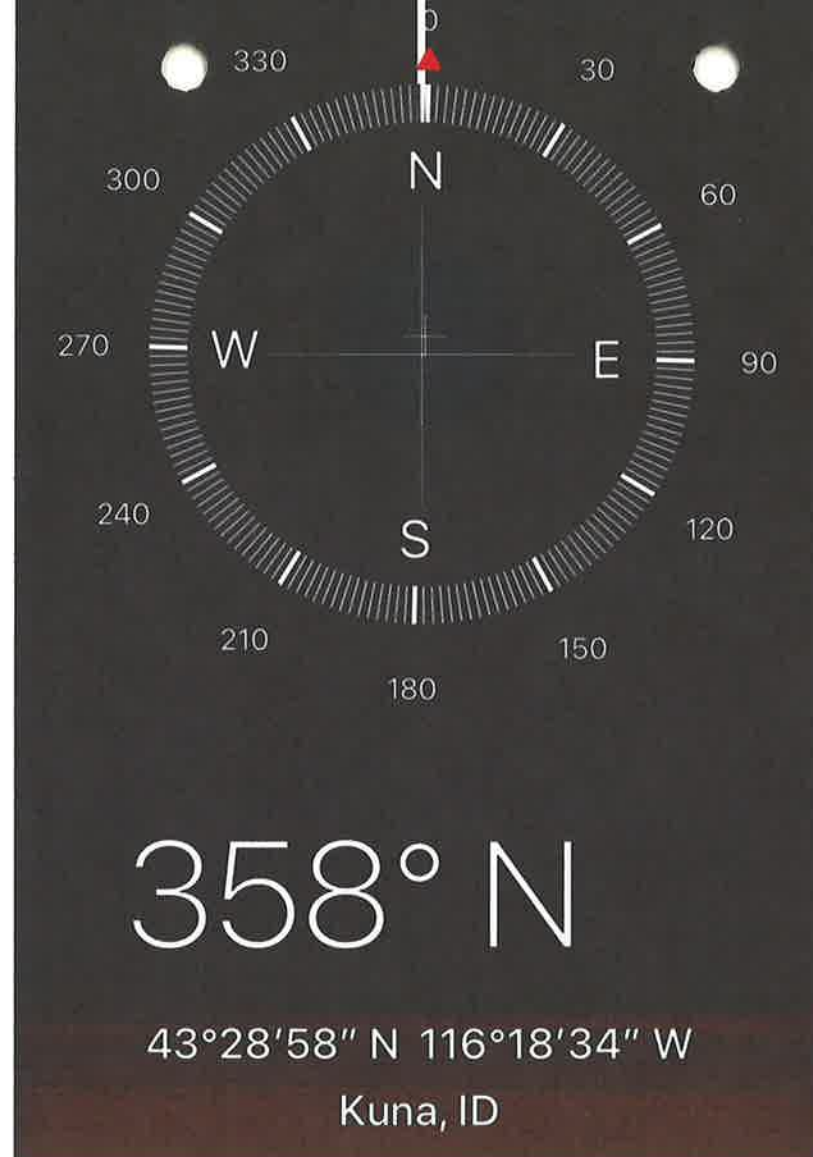
BILL TO Mr. Steve Posey
13400 S. Five Mile Rd.
Kuna, ID 83634**SHIP TO** New Location
Kuna IDPAID 8/21/20
USB -

BURGESS WO#	TECH	CUSTOMER PO#	TERMS	PROJECT	
16850	LW	EST# 9182	DUE ON RECEIPT...	IRRIGATION SYSTEM	
QTY	DESCRIPTION			RATE	AMOUNT
	4" 7-1/2 HP 3PH Motor w/ 45 gpm pump end on a Drive Controller; 2" Drop pipe, cable, pitless adapter, & plumbing down the well; pressure tank, pressure gauge, pressure relief valve, sprinkler tie-in, misc plumbing, electrical & supplies, permits & labor.			16,835.60	16,835.60
1	Less Sales Tax			-853.90	-853.90
1	Apply Pre-Paid Customer Deposit			-7,000.00	-7,000.00
New controller installed 8/21/20					
PAID Kim 8/21/20 2:53pm					
RECEIVED OCT 22 2020 WATER RESOURCES WESTERN REGION					

ALL INVOICES ARE DUE PER TERMS ABOVE. PAST DUE INVOICES ARE
SUBJECT TO FINANCE CHARGES OF 1.5% PER MONTH AND LIEN
FEES.PLEASE MAKE CHECKS PAYABLE TO:
"BURGESS PUMP AND SUPPLY"

706 E. MAIN STREET • MIDDLETON, ID 83644

**TOTAL** \$8,981.70
BALANCE \$8,981.70**Burgess Pump & Supply Appreciates Your Business !!**



10-19-2020



OCTOBER 2020

