

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-7571

Exam Date: 7/19/2012

1. Current Owner: MICHAEL GRAHAM And JULAINE D GRAHAM
24179 HWY 75
HC 67 BOX 2039
CHALLIS ID 83226-9701
(208) 879-6900
2. Accompanied by: Michael Graham

3. SOURCE

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: System is shared with and adjoins place of use for WR 72-19795
2. Other water rights with the same point of diversion: 72-19795

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L6 NE1/4SW1/4 Sec. 21, Twp 13N, Rge 19E, B.M.
CUSTER County

Method of Determination: GPS 44 26.485/114 13.431

2. PLACE OF USE:

2. <u>PLACE OF USE:</u>			IRRIGATION																Totals
Twp	Rge	Sec	NE				NW				SW				SE				
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
13N	19E	21								3.6				1.4					5.0
										L 3				L 6					

Total Acres: 5

Method of Determination: Field inspection with owner.

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

Well

Unknown submersible pump

D. FLOW MEASUREMENTS:
E. FLOW CALCULATIONS

Measured Method: Pitot tube to determine average pressure of sprinkler heads.

Using equation: $Q(\text{gpm}) = 30.0 \times D(\text{in})^2 \times P(\text{psi})^{0.5}$

Where:

D=9/64 in

D=9/64 in

D=9/64 in

P=30 psi

P=50 psi

P=50 psi

D(in)	P(psi)	# heads	Q(gpm)
9/64	30	10	32.5
9/64	22	4	11.1
9/64	33	6	20.4
Total(gpm) =			64

64gpm/448.83gpm/cfs = **0.14 cfs**

Allowed flow for irrigation based on 0.02 cfs/acre:

5 acres X 0.02 cfs/acre = **0.10 cfs**

Recommended flow = **0.10 cfs**

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5 \text{ acres} \times 3.5 \text{ afa/acre} = \mathbf{17.5 \text{ afa}}$

G. NARRATIVE/REMARKS/COMMENTS

Water right permit 72-7571 seeks to appropriate additional irrigated acres to existing water right 72-16795. The original water right on the property was 72-7112 for 10 acres of irrigation, in 2009 the right/property was split into WR 72-19794 (4.5 acres) and 72-19795 (5.5 acres). Water right permit 72-7571 was assigned to the new owner and has been developed to irrigate an additional 5 acres of the property. The well associated with the water right is used to irrigate a total of 10.5 acres and was measured to produce 0.14 cfs. There is also a domestic water right (72-10054) on the property that is from a separate well south of the home. It is recommended that this right be licensed for 5 acres of irrigation and a flow rate of 0.10 cfs. Additionally the following comment should be added to clarify the combined use and flow rate for the two irrigation rights on the property: *Rights 72-7571 and 72-16795 when combined shall not exceed a total diversion rate of 0.14 cfs, a total annual maximum diversion volume of 36.8 af at the field headgate, and the irrigation of 10.5 acres.*

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	04/01 to 10/31	0.100 CFS	17.50 AF
	<u>Totals:</u>	0.100 CFS	17.50 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

*see attached amendment signed by owners

I. AUTHENTICATION

Field Examiner's Name Matthew Erich Date 11/15/13
Reviewer [Signature] Date 11/18/13



Picture was taken standing by the irrigation well looking west toward the house.



Irrigation well



Irrigated pasture

State of Idaho
Department of Water Resources
Water Right License

72-7571

Water Service Area Boundary for Michael Graham



0 0.0325 0.065 0.13 Miles

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

