

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33319

Exam Date: 4/22/2013

1. Current Owner: ROY L REED
12349 GALLOWAY RD
MIDDLETON ID 83644
208-585-6229

And/Or

ROSIE REED
12349 GALLOWAY RD
MIDDLETON ID 83644
208-585-6229

2. Accompanied by: Roy Reed
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-11156
2. Other water rights with the same point of diversion: 63-33175, 63-26751, 63-11156

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

GROUND WATER

NW1/4NE1/4

Sec. 25, Twp 05N, Rge 03W, B.M.

CANYON County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.43°44.914', Longitude W.116°38.357'; Datum – NAD83.

2.

PLACE OF USE: IRRIGATION

Tw	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	03W	25		3.5															3.5

Total Acres: 3.5

Method of Determination: Arc Map (Aerial Photo)

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 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 Size</u>
Unknown	Franklin	3	Unknown	Franklin	Unknown

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

D. FLOW MEASUREMENTS

1.

<u>Measurement 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: No field measurement. Operating gauge pressure of 52 psi. Single station comprised of 12 Hunter sprinkler heads discharging at 3 gpm (36 gpm – 0.08 cfs).

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 3/60 + (2.31 \times 52) = 18.48/180.12 = 0.10 \text{ cfs}$$

$$Q(\text{sprinklers}) = 12 \text{ heads} \times 3 \text{ gpm} = 36 \text{ gpm} (0.08 \text{ cfs})$$

$$Q(\text{theoretical}) = 0.10 \text{ cfs} > 0.08 \text{ cfs } Q(\text{sprinklers}) > 0.06 \text{ cfs } Q(\text{permit})$$

$$Z = 60'$$

$$HP = 3$$

$$P = 52 \text{ psi (Gauge)}$$

Based on the flow calculations and the manufacturer's design discharge per sprinkler head, it appears that the current Pumping system can attain the permit diversion rate of 0.06 cfs. Recommend a diversion rate of 0.06 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.5 \times 4.5 = 15.8 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 260 \times 1.9835 = 30.9 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 15.8 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 3-hp submersible pump diverts water from a ground water well for irrigation of 3.5 acres of pasture land. The ground water well was drilled in 1966, but a well log could not be located. In June, 2001, SOS Well Drilling and Pump Company performed a flow test with a 2-hp pump. During the flow test, it was determined that the well is 120' deep, and has a static water level of 21'. The pump is set at a depth of 60'. The right holder replaced the 2-hp pump with a 3-hp pump in 2011.

IRRIGATION SYSTEM:

The entire pasture land, which comprises approximately 5.1 acres, is irrigated by a total of ten (10) stations. The 3.5 acres of pasture irrigated from this water right permit is comprised of seven (7) stations. Each station is comprised of twelve (12) Hunter pop-up rotary sprinklers. Each sprinkler is protected by a concrete ring set flush with the ground.

OVERLAP ANALYSIS:

Point of Diversion: Water Right Permit No. 63-33319, Water Right Permit No. 63-33175, and Water Rights 63-11156 and 63-26751, use the same point of diversion.

Place of Use: The irrigation place of use for Water Right Permit No. 63-33319 and Water Right 63-11156 overlap.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.06	&/or	N/A
Beneficial Use Limit	0.07	&/or	N/A
System Measurement	0.10 (theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.06	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.060 CFS	15.8 AFA
	<u>Totals:</u>	0.060 CFS	15.8 AFA

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 ___ Other

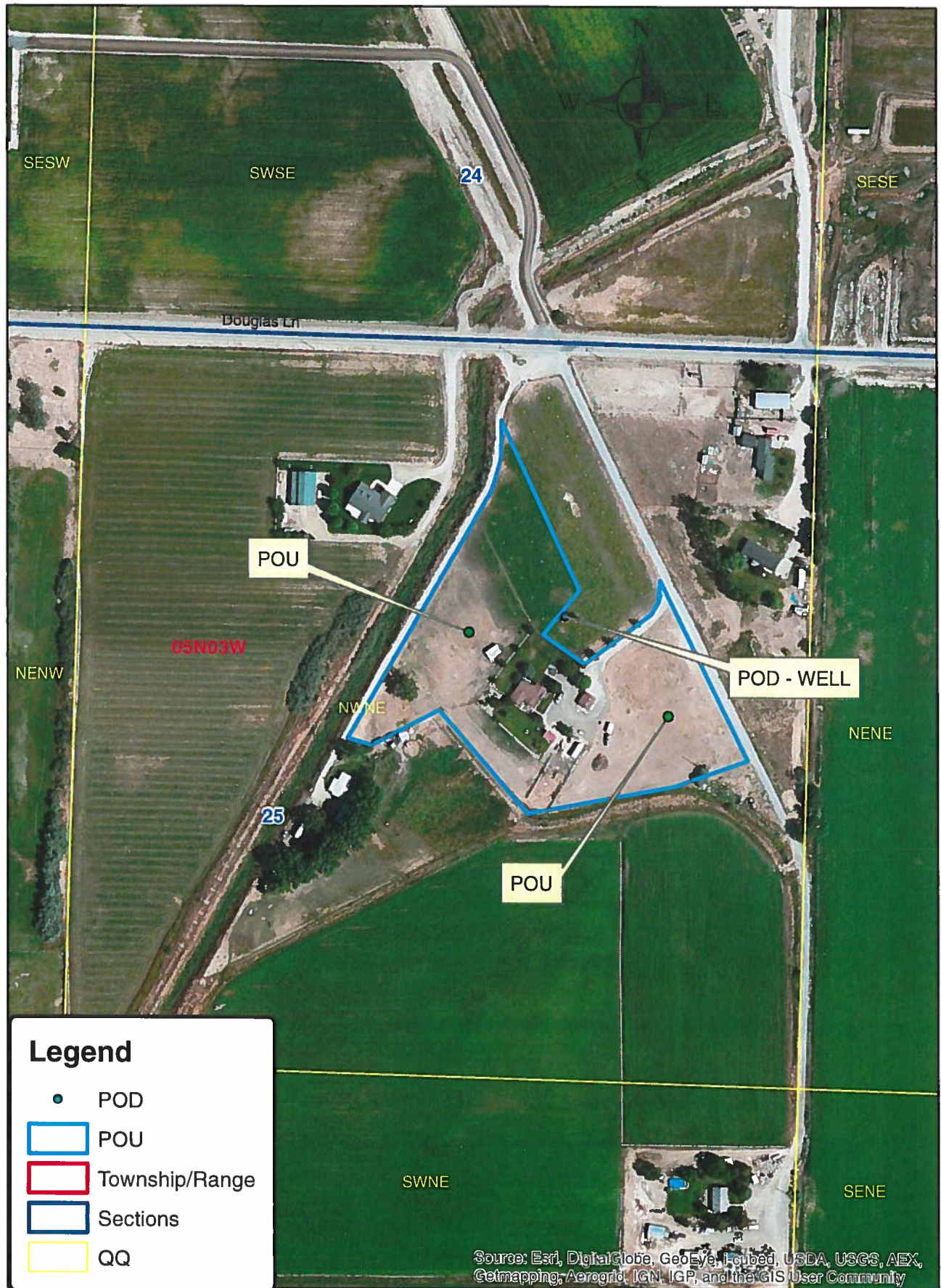
I. AUTHENTICATION

Field Examiner's Name *Rick Collingwood* Date 6/20/13

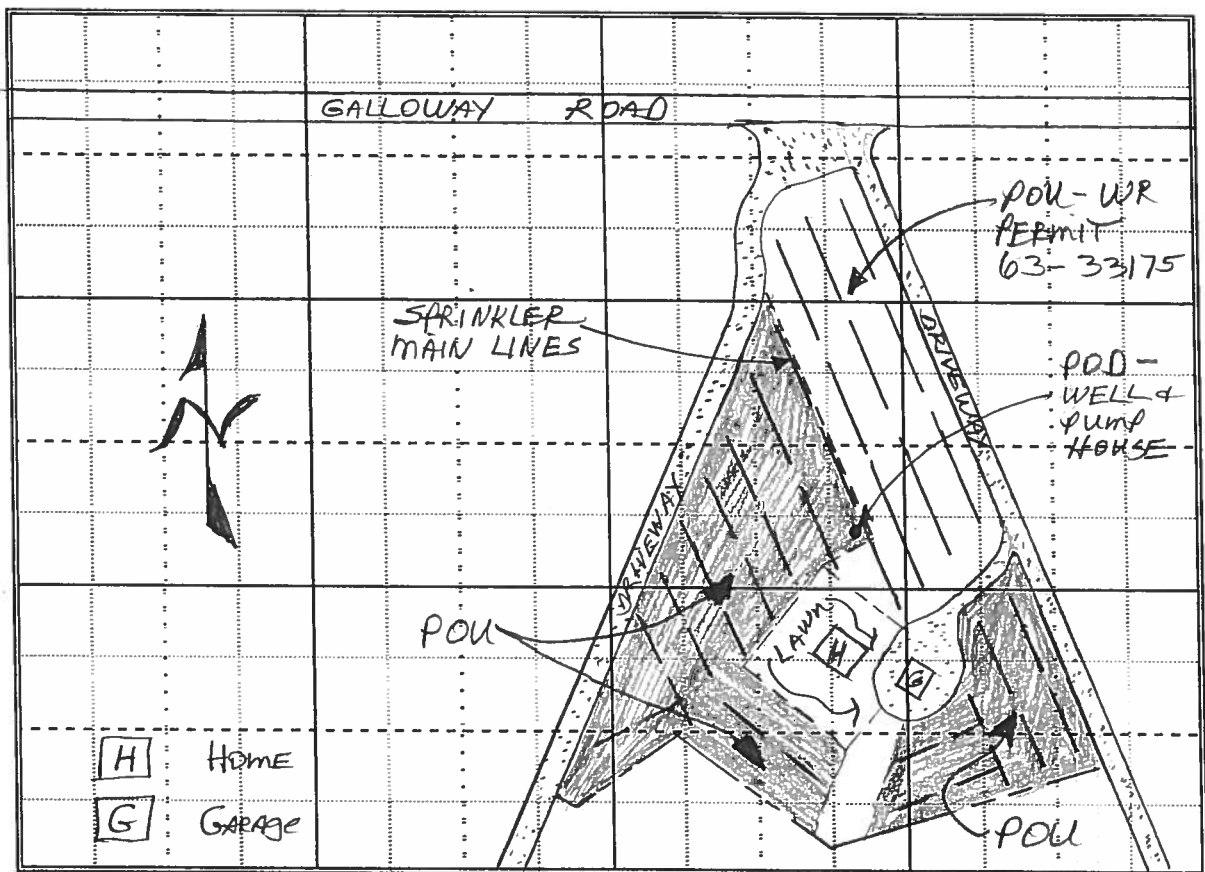
Reviewer _____ Date _____

63-33319

ESRI AERIAL PHOTO - 2012



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 63-33319
PLS: Nw1/4, NE1/4 Section 25, T.5N, R.03W.
Field Examiner: RC

Field Exam Date: 4-22-13



Point of Diversion: View northerly of the well pump house.



Point of Diversion: View inside pump house of well and discharge piping.



Place of Use: View southerly of a single station irrigating the northerly pasture. Three stations are used to irrigate the 1.6 acres of pasture located in the northeasterly portion of the right holder's property.



View of a typical Hunter pop-up rotary sprinkler within a concrete collar to protect from livestock damage.

MEMORANDUM

TO: Files 63-11156, 63-33175 & 63-33319

FROM: KAY WALKER



RE: License Review of Exams

Date: June 25, 2013

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In review of the field examinations of Permits 63-33175 and 63-33319 I had questions concerning the use of water under 63-11156. I searched our records under 63-33175 to find out why we only allowed 1.6 acres of irrigation within their 3.5 acre place of use. When the application was filed for 63-33175 the applicant had no knowledge of Rt. 63-11156. Since Rt. 63-11156 had 1.9 acres of irrigation decreed, IDWR only allowed an additional 1.6 acres under 63-33175 to bring the total up to 3.5 acres of irrigation. When Rick Collingwood conducted the examinations he found a total of 5.1 acres being irrigated. He thought that 63-11156 and 63-33175 covered the same 1.9 acres and recommended 3.5 under 63-33319. The irrigation is proposed to be covered as follows:

63-11156	1.9 acres	0.06 cfs (0.0316 cfs/ac)	8.6 acre feet (4.53 af/ac)
63-33175	1.6 acres	0.05 cfs (0.0313 cfs/ac)	7.2 acre feet (4.5 af/ac)
63-33319	1.6 acres	0.05 cfs (0.0313 cfs/ac)	7.2 acre feet (4.5 af/ac)
	5.1 acres		

I discussed this with Rick and he was agreeable to the changes proposed to his field exam recommendations.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 5, 2013

Roy L. & Rosie Reed
12349 Galloway Road
Middleton, ID 83644

RE: Scheduling Field Exam for Water Right Permit No. 63-33319

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of April 22, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.06 cfs of ground water for irrigation of 3.5 acres.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by April 19, 2013, to conduct the exam during the week of April 22, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

Rick Collingwood, P.E.
Water Resource Agent, Sr.