

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22885

Exam Date: 6/19/2013

1. Current Owner: EUGENE M. SHEPHERD
PO BOX 398
HORSESHOE BEND ID 83629
(208)584-9038

Current Owner: JONI D SHEPHERD
PO BOX 398
HORSESHOE BEND ID 83629
(208)584-9038

2. Accompanied by: Mike Shepherd
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE

GROUND WATER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-2590C, 65-11272C
2. Other water rights with the same point of diversion: None

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

GROUND WATER

L1 SW1/4SE1/4

Sec. 24, Twp 07N, Rge 01E, B.M.

GEM County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.43°55.477', Longitude W.116°16.746'; Datum – NAD83.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<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>	
07N	01E	24															0.6	3.4	4.0
																	L1	L1	

Total Acres: 4

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Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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>
D0038912	_Franklin_	_2_	_Unknown_	_Grundfos_	_2" _
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

*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. Sprinkler nozzle size of 3/8" was too large to obtain a system operating pressure measurement with a Pitot Tube.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 2/85 + (2.31 \times 40) = 12.32/177.40 = 0.07 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.07 \text{ cfs} < 0.11 \text{ cfs } Q(\text{permit})$$

$$HP = 2$$

$$Z = 85' \text{ (Estimated)}$$

$$P = 40 \text{ psi (Assumed)}$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.11 cfs.

Recommend the theoretical pumping capacity of 0.07 cfs.

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F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.0 \times 4.5 = 18.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.07 \times 260 \times 1.9835 = 36.1 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 18.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A**G. NARRATIVE/REMARKS/COMMENTS****WATER SUPPLY SYSTEM:**

A 2-hp submersible pump diverts water from a ground water well to irrigate approximately 4.0 acres of pasture.

IRRIGATION SYSTEM:

Ground water is discharged through 2" and 1" galvanized steel irrigation main lines. The irrigation main lines are comprised of six (6) risers for hose connections. The main portion of the pasture is bisected by the 2" steel irrigation main line. A 2" hose is connected to a riser to operate two 'Big Gun' type sprinklers with 3/8" nozzles. The risers are spaced at approximately 100' intervals.

The 1" steel irrigation main line supplies water to a small portion of the pasture located at the southwest corner of the right holder's property. A hose is attached to a riser to sprinkler irrigate this small pasture area.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-22885.

Place of Use: Water Right Permit No. 65-22885 and Water Rights 65-2590C and 65-11272C have an overlapping Place of use. However, surface Water Rights 65-2590C and 65-11272C are not being used to irrigate the right holder's pasture area. Instead, these surface water rights from the Payette River are being used to mitigate for the shallow diversion of ground water under Water Right Permit No. 65-22885.

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

CONDITION NO.9 (01H) – Prior to diversion of water under this right, the right holder shall install a lockable device. The power/junction box mounted on a wood panel near the well has a hasp for locking with a padlock. Right holder has complied with Condition No.9.

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RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.11	&/or	N/A
Beneficial Use Limit	0.11	&/or	N/A
System Measurement	0.07 (theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.07	&/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	0.07 CFS	18.0 AFA
<u>Totals:</u>		0.07 CFS	18.0 AFA

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 Rick Cunningham Date 11/5/13

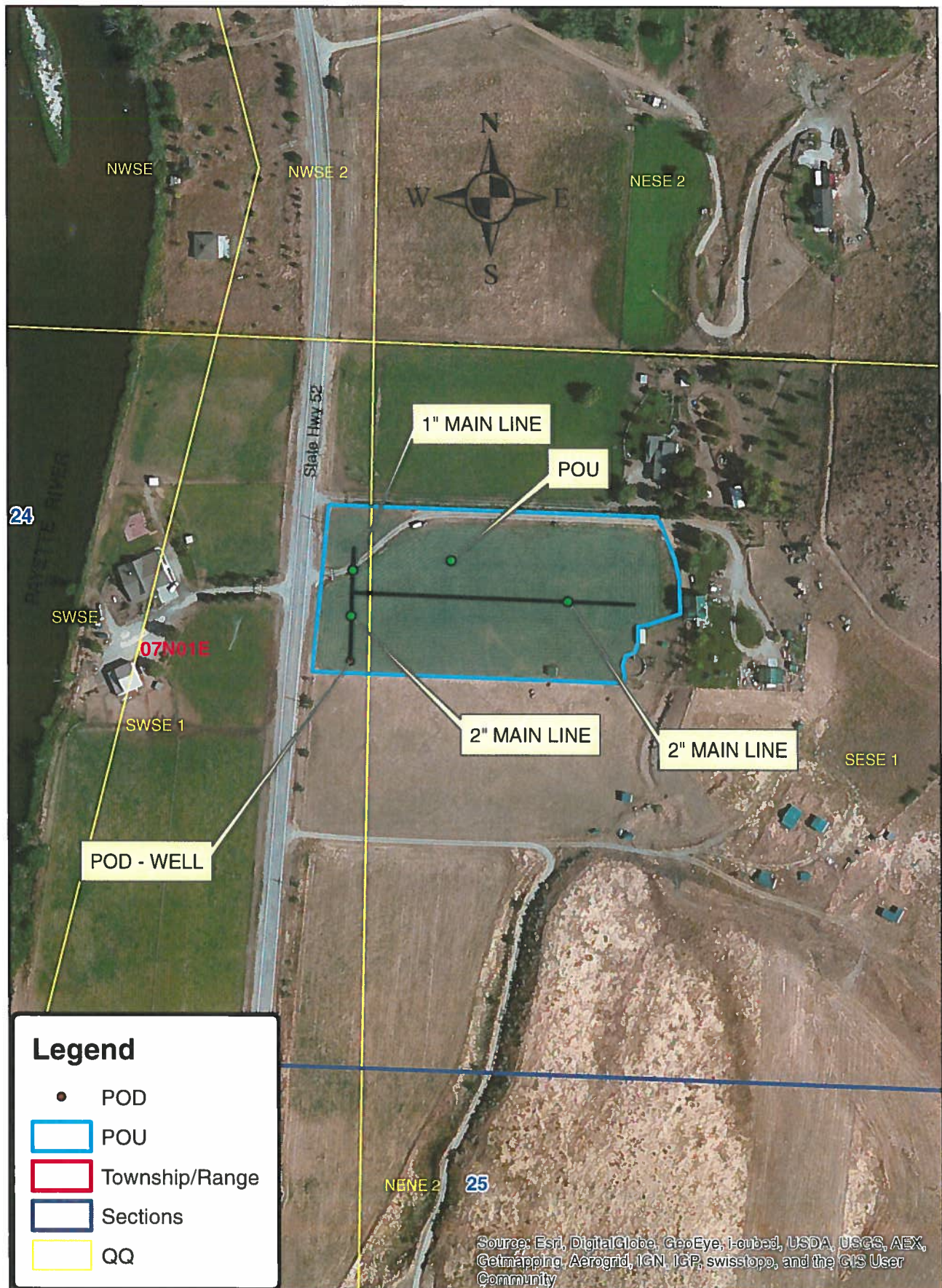
Reviewer _____ Date _____

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65-22885
GOV'T. LOT 1

ESRI AERIAL PHOTO - 2012

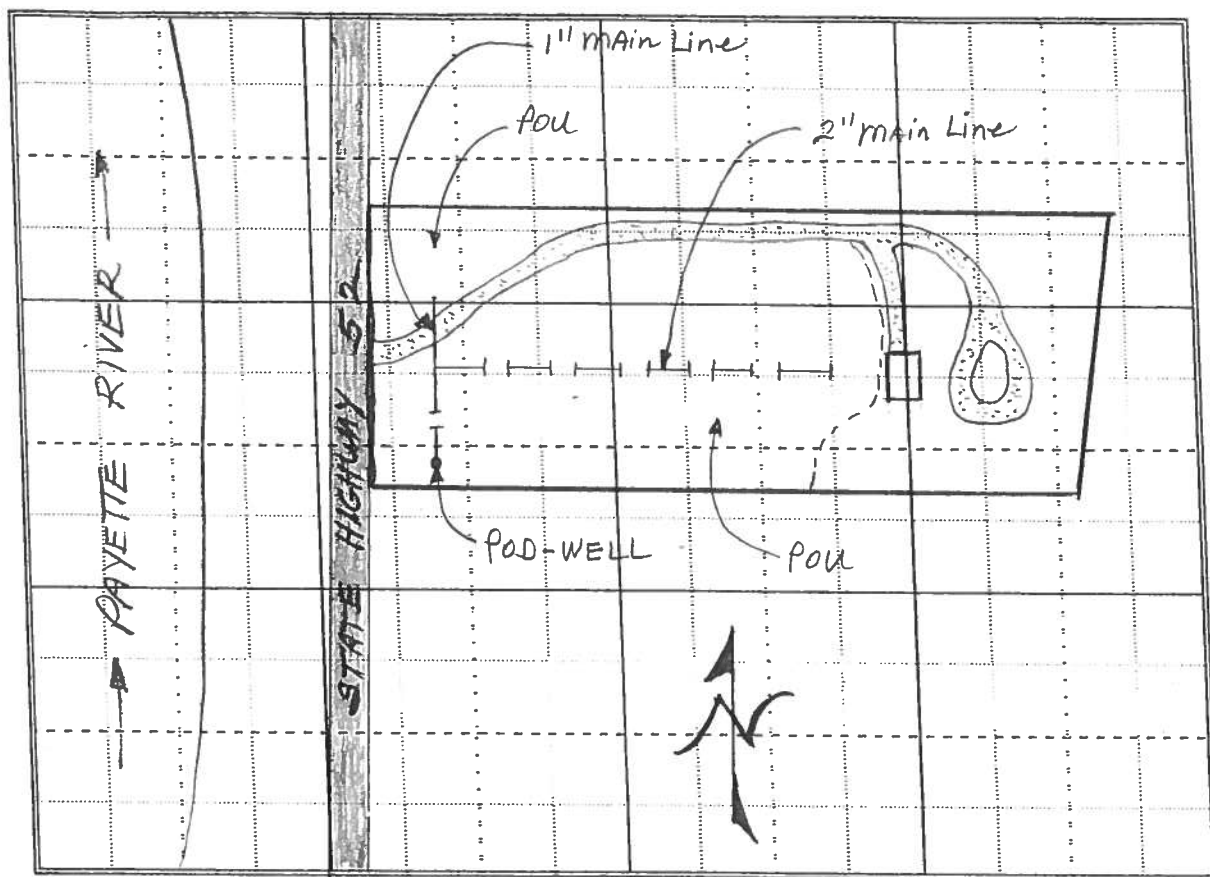


0 80 160 320 480 640
Feet

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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

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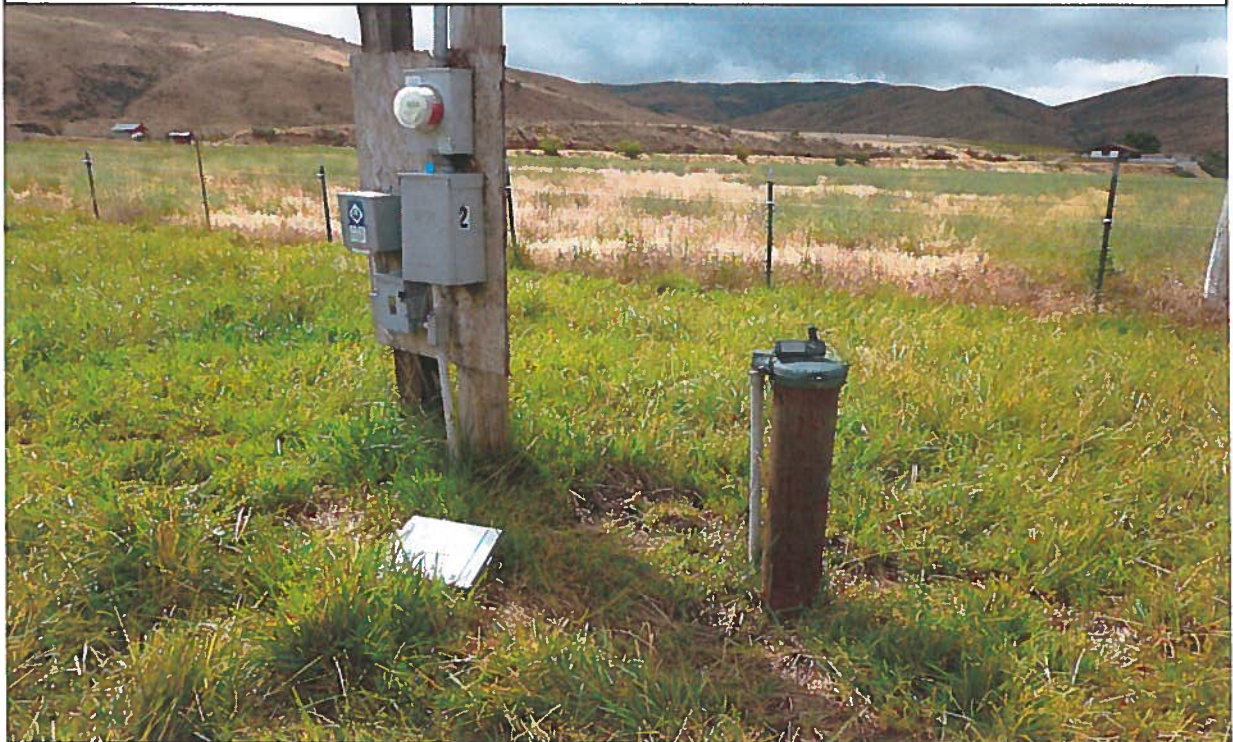
FIELD EXAM PHOTOS

Water Right Permit: 65-22885

Field Exam Date: 6-19-13

PLS: SE1/4, SE1/4 Section 24, T.07N, R.01E.

Field Examiner: RC



Point of Diversion: View southeasterly of the ground water irrigation well and control and power boxes. The well is located near the southeast corner of the right holder's property.



Place of Use: View easterly of the pasture being irrigated by a 'Big Gun' sprinkler. Hoses are attached to the risers on the 2" main line to allow the right holder to relocate the sprinklers.

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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

June 6, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

Eugene M. & Joni D. Shepherd
P.O. Box 398
Horseshoe Bend, ID 83629

RE: Scheduling Field Exam for Water Right Permit No. 65-22885

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of June 17, 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 0.11 cfs of ground water for irrigation of 6 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 June 14, 2013, to conduct the exam during the week of June 17, 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.

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