

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22687

Exam Date: 9/27/2012

1. Current Owner: VICKI KNIGGE
32 CEDAR LN
GARDEN VALLEY ID 83622
(208)462-3568

And/Or

RICHARD KNIGGE
32 CEDAR LN
GARDEN VALLEY ID 83622
(208)462-3568

2. Accompanied by: Richard (Rick) Knigge
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. **SOURCE**

WARM SPRINGS CREEK

TRIBUTARY

MIDDLE FORK PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-3238, 65-12776, 65-13526
2. Other water rights with the same point of diversion: None

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

WARM SPRINGS CREEK

SW1/4NW1/4

Sec. 33, Twp 10N, Rge 04E, B.M.

BOISE County

Method of Determination: Arc Map (Aerial Photo)

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>	
10N	04E	33							.7										.7

Total Acres: 0.7

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</u> <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> <u>Size</u>
N/A	Unknown	1		Red Lion	(1")

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <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: No field measurement. Pitot tube would not fit into the pop-up sprinklers. Gauge pressure of 30 psi.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 1/15 + (2.31 \times 30) = 6.16/84.3 = 0.07 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.07 \text{ cfs} > 0.02 \text{ cfs } Q(\text{permit})$$

$$HP = 1$$

$$Z = 15' \text{ (Estimated)}$$

$$P = 30 \text{ psi (Gauge)}$$

Appears that the current pumping system can attain the permit diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.7 \times 2.5 = 1.8 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 246 \times 1.9835 = 9.8 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.8 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

Water is diverted from Warm Springs Creek through a short section of 1 ½" steel pipe with a screened intake. A 1-hp pump located atop the creek bank, pumps water to the right holder's irrigation system.

IRRIGATION SYSTEM:

Approximately 0.7 acres of lawn, landscaping, and gardens are irrigated by a pressurized irrigation system. The irrigation system is comprised of three (3) stations, each with five (5) pipelines and seven (7) heads per pipeline. The sprinkler heads are Nelson 6000 Series pop-up sprinklers. Based on a sprinkler system layout and operation sheet supplied by the right holder, each station discharges approximately 9 gpm, which complies with the permit diversion rate of 0.02 cfs. Lawn and landscaped areas are irrigated daily. Garden areas are irrigated twice a week.

OVERLAP ANALYSIS:**Place of Use:**

Water Right No. 65-12776 is a ground water right for the Castle Mountain Creek Subdivision. The water diverted is for domestic and irrigation uses for all the property owners in the development. The right holder uses the water supplied by the development for domestic use, but foregoes using the water supplied by the development for irrigation. The right holder irrigates with their private water diversion system as described in this permit.

Water Right No. 65-3238 is a surface water right diverting from Warm Springs Creek for domestic and irrigation use for all the property owners in the Castle Mountain Creek Subdivision.

Water Right Permit No. 65-13526 is a surface water right diverting water from Warm Springs Creek for domestic and irrigation use for all the property owners in the Castle Mountain Creek Subdivision.

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

CONDITION NO.1 (X60) – Place of use and point of diversion are located within Lot 12, Block 1, Castle Mountain Creek Subdivision No.5. The point of diversion is not located on the right holder's property. In 2003, the adjacent property in which Warm Springs Creek is located was owned by Boise Cascade. In 2003, the right holder obtained a waterline easement from Boise Cascade to divert water from Warm Springs Creek. The waterline easement allowed the right holder's to install a 1 ½" screened suction line in Warm Springs Creek for irrigation of their property.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	N/A
Beneficial Use Limit	0.02	&/or	N/A
System Measurement	0.07(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.02	&/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	03/15 to 10/31	0.020 CFS	1.8 AFA
	<u>Totals:</u>	0.020 CFS	1.8 AFA

2. Recommended Amendments

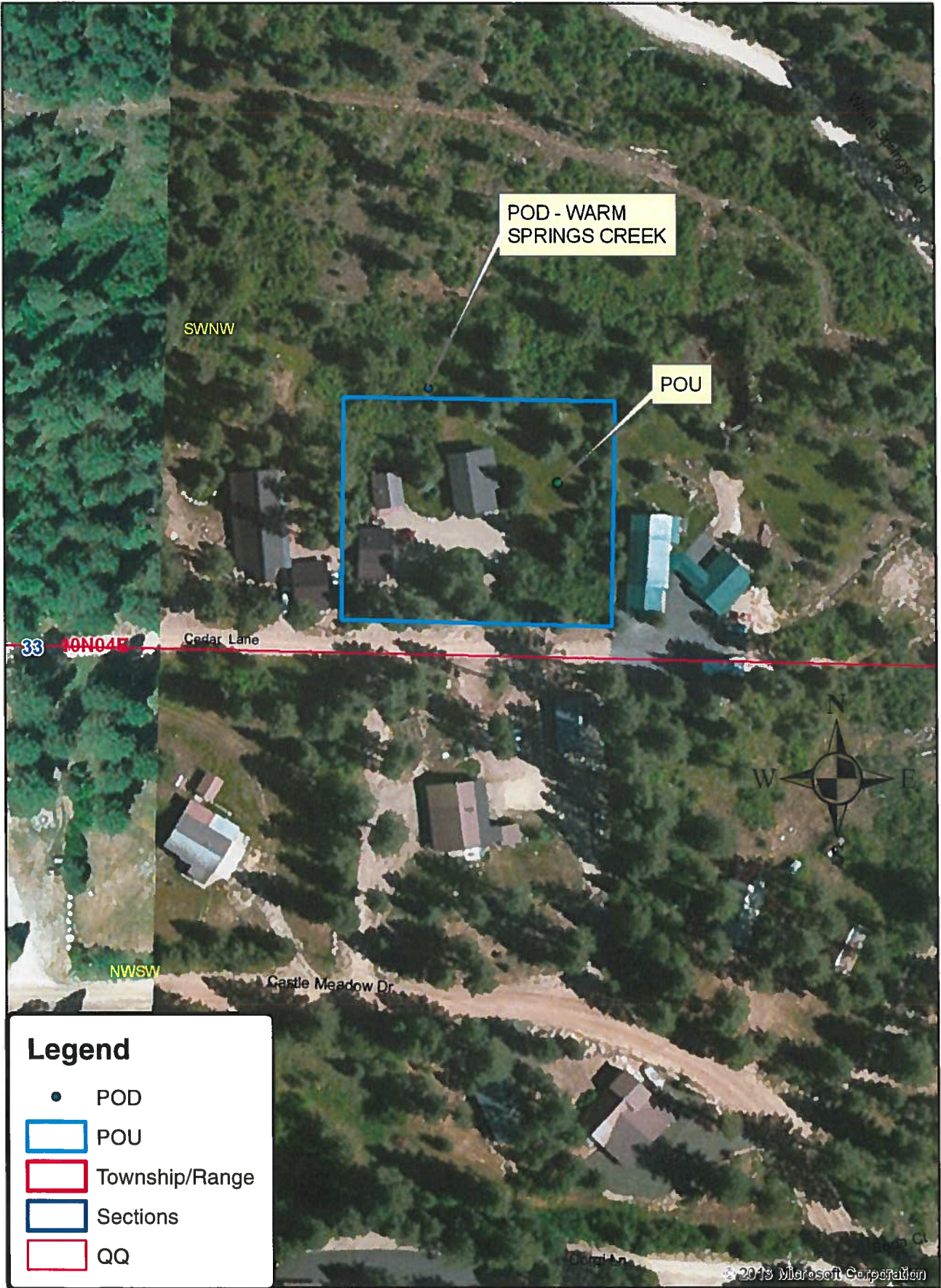
___Change P.D. as reflected above ___Add P.D. as reflected above X None

___Change P.U. as reflected above ___Add P.U. as reflected above ___Other

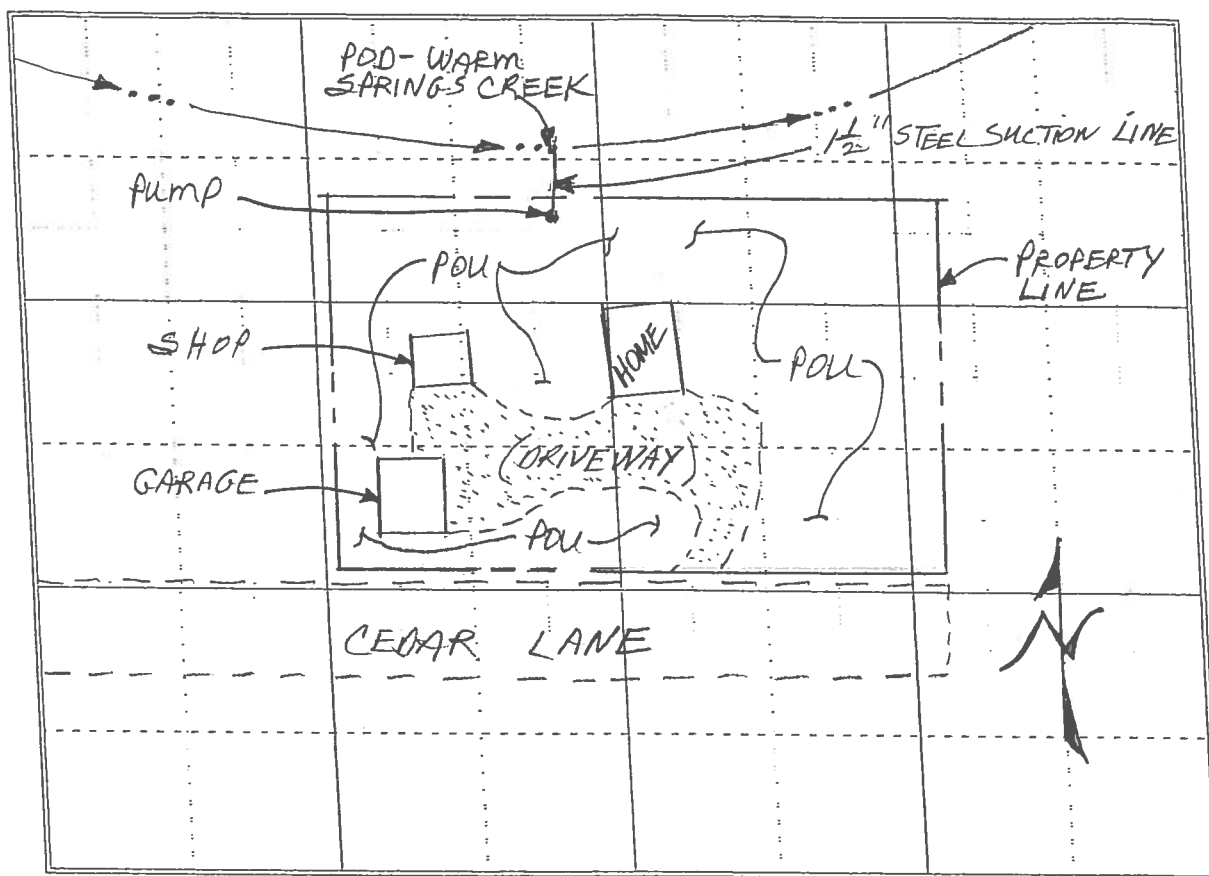
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 2/12/13

Reviewer _____ Date _____



- 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: 65-22687

Field Exam Date: 9-27-12

PLS: SW1/4, NW1/4 Section 33, T.10N, R.04E.

Field Examiner: RC



Point of Diversion: View southwesterly of a 1 1/2" steel pipe screened suction line in Warm Springs Creek. The right holder has constructed a small rock dam to create a pool for pumping.



View southwesterly of a 1-hp Red Lion pump and the 1 1/2" steel pipe suction line on top of the bank of Warm Springs Creek.



Place of Use: View northerly toward Warm Springs Creek of lawn and landscaping irrigated by the pressurized irrigation system.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

September 13, 2012

Richard & Vicki Knigge
32 Cedar Lane
Garden Valley, ID 83622

RE: Scheduling Field Exam for Water Right Permit No. 65-22687

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of September 24, 2012**. 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 0.02 cfs from Warm Springs Creek for irrigation of 0.7 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 September 21, 2012, to conduct the exam during the week of September 24, 2012.** 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.