

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33239

Exam Date: 9/13/2012

1. Current Owner: SEVEN NEIGHBORS
9252 HWY 20-26
CALDWELL ID 83605
(208)880-9257
2. Accompanied by: Lori Sanderson
Phone No:
Address:
Relationship to Permit Holder: Manager of Seven Neighbors

3. **SOURCE** **TRIBUTARY**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: none
2. Other water rights with the same point of diversion: none

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

GROUND WATER

NW1/4NW1/4

Sec. 35, Twp 04N, Rge 02W, B.M.

CANYON County

Method of Determination: Garmin GPS 43.64658, -116.55184

2.

PLACE OF USE: IRRIGATION

Twprge Sec	NE				NW				SW				SE				Totals
04N02W 35	<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>	1.0
						1.0											1.0

Total Acres: 1

Method of Determination:

3. aerial 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 --all unknown --

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

D. FLOW MEASUREMENTS

1.

Measurement**Equipment****Type****Make****Model No.****Serial No.****Size****Calib. Date**

2. Measurements: none taken

E. FLOW CALCULATIONS Additional Computation Sheets Attached

Measured Method:

1] 0.03 cfs/acre x 1 acre irrigation found = 0.03 cfs

2] Theoretical calculation using the Kevin Marshall well information. Well is approx 240 west of the POD. SWL = 10', drawdown = 170', z = 180', assume 1.5 hp pump, 40 psi [IDWR standard for domestic], and 70% efficiency.

$$\frac{8.8 \times 1.5 \times 0.7}{180 + [2.31 \times 340]} = \frac{9.24}{272.4} = 0.339 = 0.034 \text{ cfs}$$

0.0339

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1 \times 4.5 = 4.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 360 \times 1.9835 = 15.47$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 4.5 \text{ afa}$$

2. Volume Calculations for Other Uses: not applicable

G. NARRATIVE/REMARKS/COMMENTS

The correct fee was timely paid. I was accompanied on the field exam by Lori Sanderson, Manager of the Seven Neighbors LLC, applicant, and a resident in the Settlers Cove Subdivision. The permit was issued for 4.5 acres irrigation of the 7 lots in the subdivision from a well. Pioneer provides surface water to the east lots; however, the surface water cannot be delivered to the west portion of the subdivision.

The property was formerly part of a farm. The well was used on the farm and is located next to an old garage. Mrs. Sanderson said that, according to information obtained when development began, the well was drilled about 1963, is 187 feet deep and pumps about 150 gpm. Mrs. Sanderson does not know the horsepower of the submersible pump and does not know who installed it. The pump was in place when the applicants bought the property. There is no well log on file in the IDWR records for the well.

The well in Lot 1 does not irrigate the residential lots. The homeowners have installed individual wells for domestic use. The well only irrigates common areas in Lot 1 in the area of the old garage, and the landscaping strips on both sides of E. Homestead Lane. Currently, a hand held hose is used to irrigate, although the electrical box and wiring is in place to connect to a sprinkler system. There is a drainage pond required by the City in the center of Lot 1, so the pond area is not irrigated.

No irrigation was evident on the day of the exam and the grass was dead on Lot 1. Mrs. Sanderson said she had just returned from several weeks out of town and a resident was supposed to water, but did not. She said the lot had been planted in red fescue and watered the past year. The lot was not weedy. It was clear that the dead grasses were not weeds, but fescue.

The City of Caldwell required 2 landscaped strips on either side of E. Homestead. These are planted in trees and have been watered with the hose. A total of about .8 acre is being watered. I recommend licensing the right for 1 acre.

I calculated a theoretical flow using the Kevin Marshall well log information. The Marshall well is about 240 feet west of the POD. I made the assumptions that the pump was 1.5 hp, pressure was 40 psi [IDWR standard for domestic] and $z = \text{the 10 feet [the static water level]} + 170 \text{ feet [the drawdown]} = 180 \text{ feet}$. The result was 0.34 cfs which is very close to the IDWR standard of 0.03 cfs for small acreages of less than 5 acres. Hence, I recommend for licensing the quantity of 0.03 cfs and an annual volume of 4.5 afa, which is the lesser of the V_{ir} and V_{id} calculations.

0.034

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

H. RECOMMENDATIONS

- 1) Permit amount 0.14 cfs
2) Beneficial use limit 0.03 cfs
3) System measurement 0.03 cfs
4) Proof fee amount 0.20 cfs

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	0.030 CFS	4.50AF
	<u>Totals:</u>	0.030 CFS	4.50 AF

2. Recommended Amendments

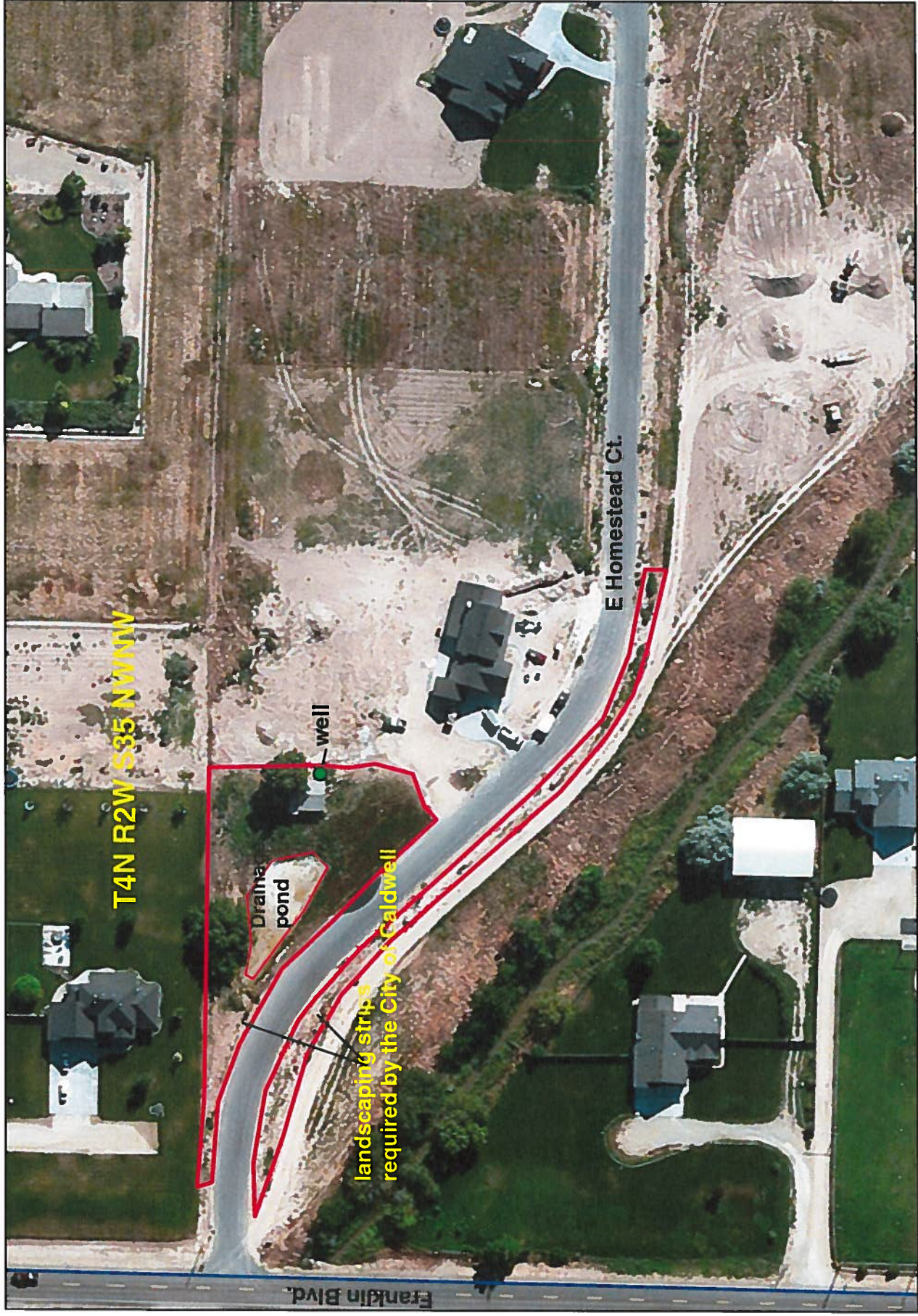
 Change P.D. as reflected above Add P.D. as reflected above X None

 Change P.U. as reflected above Add P.U. as reflected above Other

I. AUTHENTICATION

Field Examiner's Name Wicki Mello Date 10-19-12

Reviewer _____ Date _____



63-33239 -- 2011 Bing photography. Place of use shown outlined in orange.

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Form 238-7
6/07

well used to calculate theoretical 861412

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

1. WELL TAG NO. D D00060026

Drilling Permit No. _____

Water right or injection well # _____

2. OWNERName Marshall, KevinAddress 7916 Homestead Ct.City Nampa State Id Zip 83687**3. WELL LOCATION:**Twp. 4 North ☒ or South ☐ Rge. 2 East ☐ or West ☒Sec. 35 SW 1/4 NW 1/4 NW 1/4
10 acres 40 acres 160 acresGov't Lot _____ County CanyonLat. 43° 38:764 (Deg. and Decimal minutes)Long. 116° 33:076 (Deg. and Decimal minutes)Address of Well Site 7916 Homestead Ct.City Nampa

(Give at least name of road + Distance to Road or Landmark)

Lot. 2 Blk. 1 Sub. Name Settlers Cove**4. USE:**☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other _____**5. TYPE OF WORK** check all that apply (Replacement etc.)☒ New Well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____**6. DRILL METHOD:**☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____**7. SEALING PROCEDURES**

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Med Chips	6	44	1400lbs	Poured

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
6"	1.5	199	250	Steel	☒	☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 200'**9. PERFORATIONS/SCREENS:**Perforations ☐ Y ☒ N Method _____Manufactured screen ☐ Y ☒ N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____**10. FILTER PACK:**

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:Depth first water encountered (ft) 7' Static water level (ft) 10'Water temp. (°F) 57 Bottom hole temp. (°F) 57Describe access port Sanitary Well Cap**Well test:****Test method:**

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
<u>170</u>	<u>200</u>	<u>75</u>	☐	☐	☒	☐
<u>15</u>	<u>50</u>	<u>30</u>				

Water Quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	N
12"	0	2	Top Soil		X
12"	2	4	Hard Pan		X
12"	4	7	Brown Clay		X
10"	7	37	Gravel	X	
10"	37	44	Brown Clay		X
6"	44	119	Brown Clay		X
6"	119	125	Sand	X	
6"	125	138	Brown Clay		X
6"	138	180	Heaving Sand	X	
6"	180	185	Brown Clay		X
6"	185	197	Sand	X	
6"	197	201	Sticky Brown Clay		X
6"	201	202	Sand	X	

RECEIVED

JUL 25 2011

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable) _____

202'Date: Started 7/5/2011Completed 7/14/2011**14. DRILLER'S CERTIFICATION**

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Can-Ada Well & Pump Co. No. 304*Principal Driller Earl Skinner *Earl Skinner* Date 7/22/2011

*Driller _____ Date _____

*Operator II Brad Skinner *Brad Skinner* Date 7/22/2011

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

63-33239 -- Field Exam photographs



Well which is the POD, power box installed solely to operate the well pump and motor, and hose used for irrigation.



The old garage associated with the farm that was on the site prior to development of the subdivision. The well is a few feet on the right of the garage. Part of the place of use is seen and does not appear irrigated, however, it has been planted with red fescue and irrigated this season.

63-33239 -- Field Exam photographs



Place of use in lot 1, looking west of the garage. The light colored area in the right and center of the photo is the drainage pond required by the other agencies and is not irrigated.



Looking southwest across Homestead Lane to the trees in the landscape strip required by the City of Nampa. Trees are watered with well water.