STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33942
Exam Date: 10/21/2020

1. Current Owner:
NORTH HILLS PARTNERSHIP 10446 W SHADYBROOK DR BOISE ID 83704

2. Accompanied by: Sue Roberts
Phone No: (208) 938-9551
Relationship to permit Holder: Maintenance worker for the mobile home park

3. **SOURCE:**
GROUND WATER – TRIBUTARY TO BOISE RIVER

Method of Determination: Site Visit

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Comments: There are overlaps of municipal use for City of Boise (mobile home park is not hooked up to the municipal water system) and there are numerous overlapping irrigation rights (e.g. canal companies).

2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SE¼ NW¼, Sec. 14, Twp 04N, Rge 01E, B.M. ADA County
GROUND WATER SE¼ NW¼, Sec. 14, Twp 04N, Rge 01E, B.M. ADA County

Method of Determination: GPS, site visit

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N	01E	14								X									

Method of Determination: Aerial imagery, site visit

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
__x__ 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
__x__ 1:24,000 or greater.

__x__ Aerial Photo Attached (required for irrigation of 10+ acres).

__x__ Photo of Diversion and System Attached

4.

Well #	Motor Make	HP	Motor Serial No.	Pump Make	Pump Serial No
D0071915	Franklin Electric	5	5870205503C	Franklin Electric	n/a
E0006897	Franklin Electric	2	N/A	Centripro	n/a

D. FLOW MEASUREMENTS

1. No measurement was taken.

E. FLOW CALCULATIONS

Measured Method: Theoretical

Pump horsepower: 5
Pumping level: 49.5 feet
Pressure: 54 psi (reading at time of visit)
Efficiency: 0.7

$$Q = \frac{8.8 * (\text{Efficiency}) * HP}{(\text{Pumping Level}) + 2.31 * (\text{Pressure})} = \frac{8.8 * (0.7) * (5)}{49.5 + (2.31) * 54} = \textbf{0.18 cfs} \text{ or } 79 \text{ gpm}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: n/a

2. Volume Calculations for Other Uses: 1.2 AF allowed per home for domestic use when irrigation is included
1.2 AF x 16 homes = **19.2 AF**

G. NARRATIVE/REMARKS/COMMENTS

Permit 63-33942 was applied for on May 2, 2014 by North Hills Partnership. The permit sought 0.25 cfs for domestic use for a mobile home park using two wells to divert the water. The permit was subsequently approved on August 11, 2014. The permittee had five years to develop the water right and they filed proof of beneficial use on August 1, 2019.

On October, 21, 2020 I performed a field examination of the permit in question. During that examination, two points of diversions (PODs) were found, however only one is operable at the time of the examination, and only one has ever been used at any one time. The main well (D0071915) was constructed in June 2016 and currently services the mobile home park. It is equipped with a 5 HP pump and it is hooked into the distribution line as shown in the attached system diagram map. The previous well (E0006897) was used prior to service the park and it was equipped with a 2 HP pump (pump has since been disconnected). The park switched to the current main well in January 2019 and E0006897 is available as a back-up water source if ever needed.

There was no adequate place to take a flow measurement during the field exam. Instead, a theoretical calculation (as shown in prior section) resulted in a system capacity of 0.18 cfs. **Therefore, I recommend licensing this permit for 0.18 cfs.**

There are 16 residences in the mobile home park, with 8 houses on each private street (Andy Lane and Roy Lane). Each house is hooked up to the distribution line as shown in the system diagram. There are two shut-off valves that can turn off the water to the Andy Lane houses. To shut off the water to Roy Lane, the pump must be turned off. The Andy Lane homes are on city sewer while the Roy Lane homes are hooked up to septic. As there are no in-ground sprinkler systems, residents irrigate their lawns from their same in-house water source, and all irrigation is performed using hoses. Per Administrative

Memo #22, the recommended volume for domestic use when irrigation is included is 1.2 AF per home. Therefore, I recommend an overall volume for the permit as **19.2 AF**.

Using aerial imagery, approximately 50,000 sq. feet of area was found to be irrigated, or approximately 3,125 sq. feet per mobile home. The permit indicated that domestic use was for approximately 5,000 sq. feet per home. Given that the irrigated area per each home is not consistent, and that the size of the mobile home could vary over time, it seems reasonable to allow 5,000 sq. feet of irrigation per mobile home at licensing.

A water bearing zone was included during advertisement and included as a comment on the proof report that the zone to be appropriated was from 50 to 150 feet. This condition did not end up on the permit, which I believe to have been in error since it is within the Basin 63 Ground Water Restricted Area. I recommend placing this condition on the license, with a modification to the water bearing zone to read 53 to 157 feet. Attached are the driller's reports from both PODs with water bearing zones highlighted. The old well is pulling water from 53 to 73 feet, which matches the water bearing zone as advertised. The new well is screened from 137 to 157 feet, in a water bearing zone that goes from 127 to 157 feet. This makes the new well 7 feet over the advertised water bearing zone. However, even if they had screened the well only to 150 feet, the well would still pull water from the entire 127 to 157 foot water bearing zone. I recommend to condition the license with a water bearing zone of 53 to 157 feet.

Because this right is located within the Basin 63 Ground Water Restricted Area and the ground water that is being diverted is less than 200 feet, the source is assumed is tributary to the Boise River. In this restricted area, processing cannot occur for applications seeking shallow (<200 feet) ground water, except for certain conditions. Per Administrative Processing Memo #59, this right could be processed as it falls under condition 3.C, which allows for "appropriation of ground water for multiple ownership subdivisions or mobile home parks in which each unit satisfies the definition for the exemption of requirement to file an application for permit as described in Idaho Code § 42-111." Additionally, this right is within the Boise Front Ground Water Management Area, so the license should be conditioned to not allow use of water greater than 85°F.

Have conditions of permit approval been met? __x__ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Volume
DOMESTIC	01/01 to 12/31	0.18 CFS	19.2 AF
	Totals:	0.18 CFS	19.2 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 __x__ None

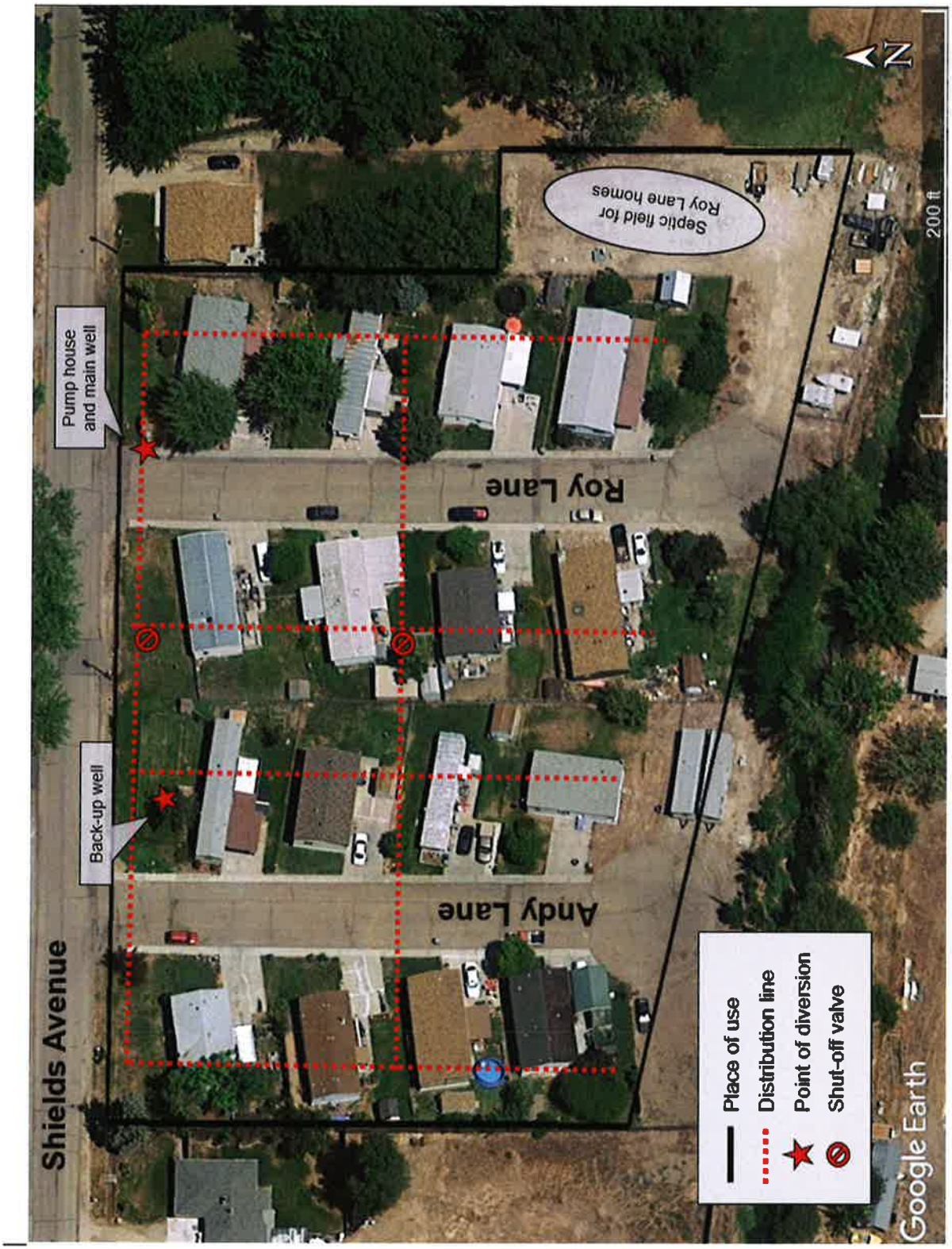
I. AUTHENTICATION

Amy Steimke - Hydrogeologist, Staff

Field Examiner's Name Amy Steimke Date 11/2/2020

Reviewer Angela M. Gunn Date 11/3/2020

System Diagram & Map




I get 48,906 square feet of irrigated land. Because this imagery is less than perfect, I've rounded my total to ~50,000 square feet.
Irrigated Land
Place of Use
The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

Photos

Place of Use: View looking down Roy Lane at some of the residences

Point of Diversion: Main well (D0071915) and well house

Point of Diversion: Back-up well (E0006897)

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USE TYPEWRITER OR BALL POINT PEN

RECEIVED
MAY 19 1976
Department of Water Resources

State of Idaho

WELL DRILLER'S REPORT

MAR 29 1976
Department of Water Resources

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name MR. LEON MYERS

Address 9833 ARNOLD Rd. Boise

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☒ Cable ☐ Rotory ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 73 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	6 inches	+1 feet	64 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name _____ Model No. _____

_____ diameter ___ Slot size ___ Set from _____ feet to _____ feet

_____ diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☒ No Size of gravel _____

Placed from _____ feet to _____ feet

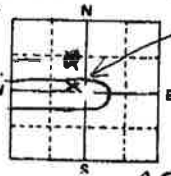
Surface seal depth 18 Material used in seal ☐ Cement grout ☐ Puddling clay ☒ Well cuttings

Sealing procedure used ☒ Slurry pit ☐ Temporary surface casing ☐ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

63



ARNOLD Rd.

Subdivision Name _____

Lot No. _____ Block No. _____

County ADA

SE ¼ NW ¼ Sec. 14 T. 4 N☒ R. 1 E☒

7. WATER LEVEL

Static water level 20 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☒ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped

041332

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6"	0	5	TOP SOIL		☒
	5	12	SAND		☒
	12	30	GRAVEL & SAND	☒	
	38	45	YELLOW SAND	☒	
	45	53	SANDY CLAY		☒
	53	61	Heaving SAND	☒	
	61	73	CLAY SOME SAND & IT STREAKS of WATER	☒	

10.

Work started 1/29/76 finished 2/2/76

11. DRILLERS CERTIFICATION

Firm Name WESLEY PHIPPS DRLG Firm No. 311

Address 2915 ONA, BOISE Date 3/15/76

Signed by (Firm Official) Wesley A. Phipps

and

(Operator) Wesley A. Phipps

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT