

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12115

Exam Date: 11/8/2012

1. Current Owner: WARD STABLES
C/O CONLEY WARD
5208 HOODOO LN
KUNA ID 83634
(208)385-9564
2. Accompanied by: Gail Ward
Phone No: Same
Address: Same
Relationship to Permit Holder: water user - homeowner 5208 Hoodoo Ln

3. SOURCE TRIBUTARY
GROUND WATER N/A

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-11523
2. Other water rights with the same point of diversion: 63-11523

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

GROUND WATER NE1/4SW1/4 Sec. 16, Twp 02N, Rge 01E, B.M.
ADA County

Method of Determination: GPS Location N43° 30.444' W116° 20.904' Garmin model GPSmap 76 Datum NAD 83

2. PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01E	16									1.0								1.0

Total Acres: 1.0

Method of Determination: Bing (2011) Aerial Photography w/ field verification.

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. Well or Diversion

ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
No metal tag -	Sta-Rite	5	1L90R	Sta-Rite	1A91Y – 1.5" discharge
WC Well ID - 304847					

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

D. FLOW MEASUREMENTS1. **Measurement**

<u>Equipment</u>	<u>Type</u>	<u>Make/Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
No physical measurement @ exam	N/A	N/A	N/A	N/A	N/A

See Flow Calculations Section below for Theoretical HP Equation Estimation.

2. Measurements: Pressure Gage Reading = 54 PSI
Piping from well not suitable (buried) for polysonic measurement.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: Theoretical HP Equation:

$$HP = 5$$

$$PSI = 54 \text{ (pressure gage reading @ exam)}$$

$$Z = 137 \text{ ft [pump @ 147 ft – est. 10 ft above pump for small (<10 hp) system]}$$

$$Q = (8.8 \times 0.7 \times HP) / [Z + (2.31 \times PSI)] = (8.8 \times 0.7 \times 5) / [137 + (2.31 \times 60)] = \mathbf{0.12 \text{ cfs}} \text{ est. capacity of pumping system}$$

Theoretical HP Equation est. capacity of pumping system = **0.12 cfs**

Permitted Rate = **0.03 cfs**

Beneficial Use Limit = **0.03 cfs** (irrigation 1.0 ac @ 0.03 cfs/ac)

Proof of Beneficial Use fee paid = \$50.00 = up to **0.20 cfs**

Recommend Beneficial Use Limit Rate = 0.03 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \text{ ac} \times 4.5 \text{ afa/ac} = 4.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 15.5 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 4.5 \text{ afa} < 15.5 \text{ afa} = \mathbf{\text{Recommend 4.5 afa}}$$

2. Volume Calculations for Other Uses: N/A – no other uses permitted

G. NARRATIVE/REMARKS/COMMENTS**SYSTEM DESCRIPTION:**

System consists of a well with a 1.5" discharge line piped to pump house/shed with two pressure tanks from which three 1" lines piped to three different lots for internal and external uses associated with three homes. Internal use for all three homes and external/yard irrigation for one home (lot 3) from this system authorized via overlapping water right 63-11523. This right (63-12115) authorizes external/yard irrigation for the remaining two homes (lot 2 and lot 4). One home (lot 2) has a buried lawn sprinkler system of four stations each with three oscillating sprinkler heads. The other home (lot 4) owner uses a traditional hose with portable lawn sprinkler for yard irrigation. Well has dedicated Idaho Power Meter No. 76 800 459.

OVERLAP AND SYSTEM CAPACITY ESTIMATIONS:

PD and PU overlapping right 63-11523 was licensed for 0.08 cfs based on theoretical system capacity estimation and the beneficial use limit of domestic use for three homes. The pumping level from the well log (~ 230 ft) and a pressure estimation (60 psi) were used for the previous theoretical calculation. The theoretical calculation of this report is based on more definitive information regarding pumping level and pressure not previously available (see attached info sheet "Can-Ada Drilling 922-1165" provided by owner for this exam). Based on this estimation, it appears the system is capable of producing enough rate and volume for both right 63-11523 (0.08 cfs/2.4 afa) and right 63-12115 (0.03 cfs/4.5 afa), therefore no combined limit condition(s) applicable.

The lot owners (Wards') also have authorization to surface water shares from Boise-Kuna Irrigation District. However, there is no distribution system in place for use of these shares for yard irrigation. All of the Wards' surface water shares are used on other property they own directly east of the homes. Both right 63-11523 and this right 63-12115 were

G. NARRATIVE/REMARKS/COMMENTS CONTINUED

developed as primary rights.

COMPLIANCE WITH PERMIT CONDITIONS AND SUGGESTED LICENSE CONDITIONS:

To the best of my knowledge, owner has complied with all permit conditions. License should include condition(s) identifying overlap of this right with right 63-11523 (PD and PU). Also, condition noting this right does not grant access across the property of another may be added considering the right is in the name of a business entity (Ward Stables) and Ada Co. taxlot data indicates the lots are owned by individual Wards (who are members of Ward Stables).

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

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	0.03 CFS	4.5 AF
	<u>Totals:</u>	0.03 CFS	4.5 AF

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 Angela M. Gium Date 11/9/2012

Reviewer _____ Date _____

Can-Ada Drilling 922-1165
1991 Scott Fenwick PMA, Builder

Motor: Stayrite
Model: M4JØ25-20
Serial: 1L90R

Pump: 5 HP
40 gal./min
Model: L4ØP4JS-26
Serial: 1A91Y

Depth: 147 feet
1½" galvanized pipe

2010 63-12115 2 ~~7~~ yards

1991 63-11523 3 homes
1 yard

State of Idaho
Department of Water Resources
Beneficial Use Field Exam System Diagram & Map
63-12115

R01E

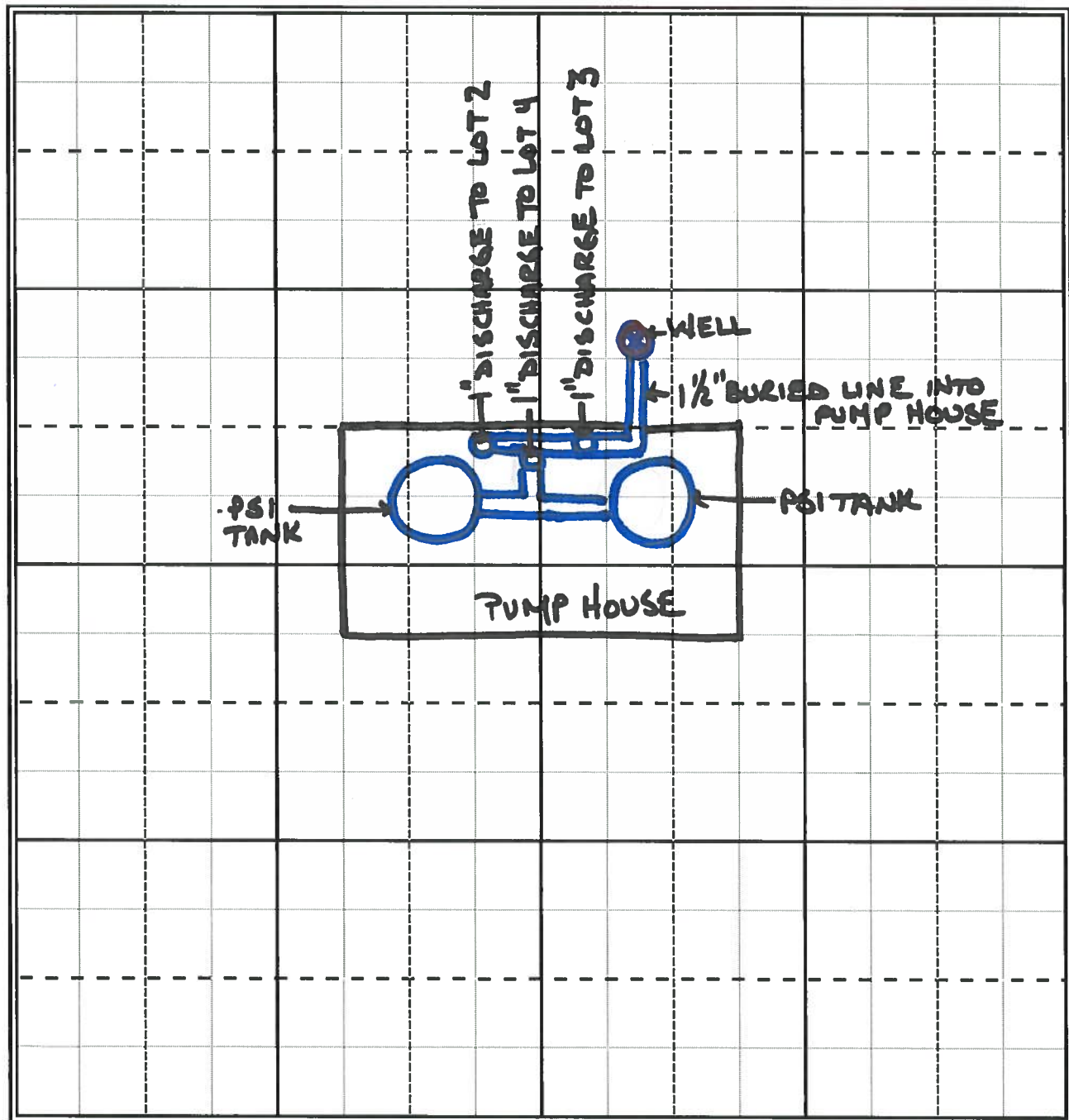


0 0.0225 0.045 0.09 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters
-  Taxlots



63-12115 Beneficial Use Field Report Diversion System Diagram



Not to Scale

336-6683

1. WELL OWNER

Name FINWICK, SCOTT
STEWART LN. & HUBBARD RD.
Address KUNA, ID 83634
Owner's Permit No. 63-91-2-038

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
250 inches	8 inches	1 foot	235 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 ☐ Gun
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 _____
Type _____ 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 12 Material used in seal: ☐ Cement grout
☐ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing
☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld
☐ Cemented between strata
Describe access port _____
SANITARY WELL CAP

6. LOCATION OF WELL

Sketch map location must agree with written location.

N

W

E

S

Subdivision Name

Lot No. _____ Block No. 16

County ADA

NE 1/4 SW 1/4 Sec. 16, T. 2 N. R. 1 E. W. 1

7. WATER LEVEL

Static water level 118 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 13 OF, Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
<u>120</u>	<u>229</u>	<u>4</u>

9. LITHOLOGIC LOG

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
9"	0	2	Top Soil	No	No
9"	2	18	Solid Lava Rock	No	No
5"	18	80	Solid Lava Rock	No	No
6"	80	120	Cemented Gravel	No	No
6"	120	160	Sandstone	No	No
6"	160	210	Heaving Sand	Yes	No
6"	210	215	Clay	No	No
6"	215	218	Sand	No	No
6"	218	220	Clay	No	No
6"	220	230	Heaving Sand	Yes	No
6"	230	235	Clay	No	No
6"	235	236	Sand	Yes	No
6"	236	236	SAND	Yes	No

RECEIVED

JUN 21 1991

Department of Water Resources

Western Regional Office

10.

Work started 3/22/91 finished 3/28/91
3/22/91 3/28/91

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name Can-Ada Well Drilling Co. No. 304
Address 4250 Murphy Road Date 6/1/91
Kuna, Idaho
Signed by (Firm Official) Earl Skinner
and [Signature]
(Operator)

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

63-12115 Beneficial Use Field Report Photos



63-12115 Exam 11/8/2012: P/D well with pump house/shed in background facing southwest.



63-12115 Exam 11/8/2012: Portion of P/U (Lot 2) from outside pump house/shed facing west.

63-12115 Beneficial Use Field Report Photos Continued



63-12115 Exam 11/8/2012: Portion of P/U (Lot 4) from outside pump house/shed facing east/southeast.