

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-31191

Exam Date: 6/18/2013

1. Current Owner: EDWARD C KERSHNER
1911 N 31ST ST
BOISE ID 83703
2083850353
2. Accompanied by: MIKE KERSHNER
Phone No: (208) 318-6684
Address: 3523 E LINDEN ST #217 CALDWELL ID 83605
Relationship to Permit Holder: Brother / Co-Executor of Edward Kershner's estate
3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Boise-Kuna Irrigation Dist. – surface water
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 SW1/4NE1/4 Sec. 5, Twp 01N, Rge 01W, B.M.
ADA County

Method of Determination: GPS Location N43° 27.294' W116° 28.815' 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	
01N	01W	5				13											15		28

Total Acres: 28

Method of Determination: 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
D0015973	Pentek submersible	5	unknown	Sta-Rite submersible	unknown

*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: Supplemental irrigation well not operating at time of exam.
Piping from well not suitable (buried) for polysonic measurement.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: Theoretical HP Equation:

$$HP = 5$$

$$PSI = 10 \text{ (est. open discharge irrigation system)}$$

$$Z = 155 \text{ ft [static water level @ 145 ft – est. 10 ft below static water level for small (<10 hp) system]}$$

$$Q = (8.8 \times 0.7 \times HP) / [Z + (2.31 \times PSI)] = (8.8 \times 0.7 \times 5) / [155 + (2.31 \times 10)] = 0.17 \text{ cfs est. capacity of pumping system}$$

Theoretical HP Equation est. capacity of pumping system = **0.17 cfs**Permitted Rate = **0.69 cfs**Beneficial Use Limit = **0.56 cfs** (irrigation 28 ac @ 0.02 cfs/ac)Proof of Beneficial Use fee paid = \$100.00 = up to **1.00 cfs****Recommend Theoretical HP Equation Est. Capacity Rate = 0.17 cfs****F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 28 \text{ ac} \times 4.5 \text{ afa/ac} = 126.0 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.17 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 87.7 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 126.0 \text{ afa} > 87.7 \text{ afa} = \text{Recommend } 87.7 \text{ afa}$$

Do not need to limit number of acres authorized based on system capacity/volume limitations, because this right is a supplemental irrigation right.

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

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

System consists of a 10" dia 314 ft deep well with 4" line discharges to ditch flows into 12" gated pipe for supplemental gravity irrigation. The well has two submersible pumps and motors, one 5 hp for the supplemental irrigation system and one 2 hp for domestic system use in mobile home.

OVERLAP:

Surface water from Boise Kuna Irrigation District serves as primary source of water for irrigation of POU. The well also serves un-recorded domestic use for mobile home on the same property. There are no other overlapping rights associated with the POU or POD.

COMPLIANCE WITH PERMIT CONDITIONS:

Permit conditioned that the right does not grant any right-of-way or easement across the land of another. The right holder is the owner of the POD and POU property. The well is being used as a supplemental well. To the best of my knowledge, owner has complied with all other permit conditions.

Have conditions of permit approval been met? X 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	0.17 CFS	87.7 AF
<u>Totals:</u>		0.17 CFS	87.7 AF

2. Recommended Amendments

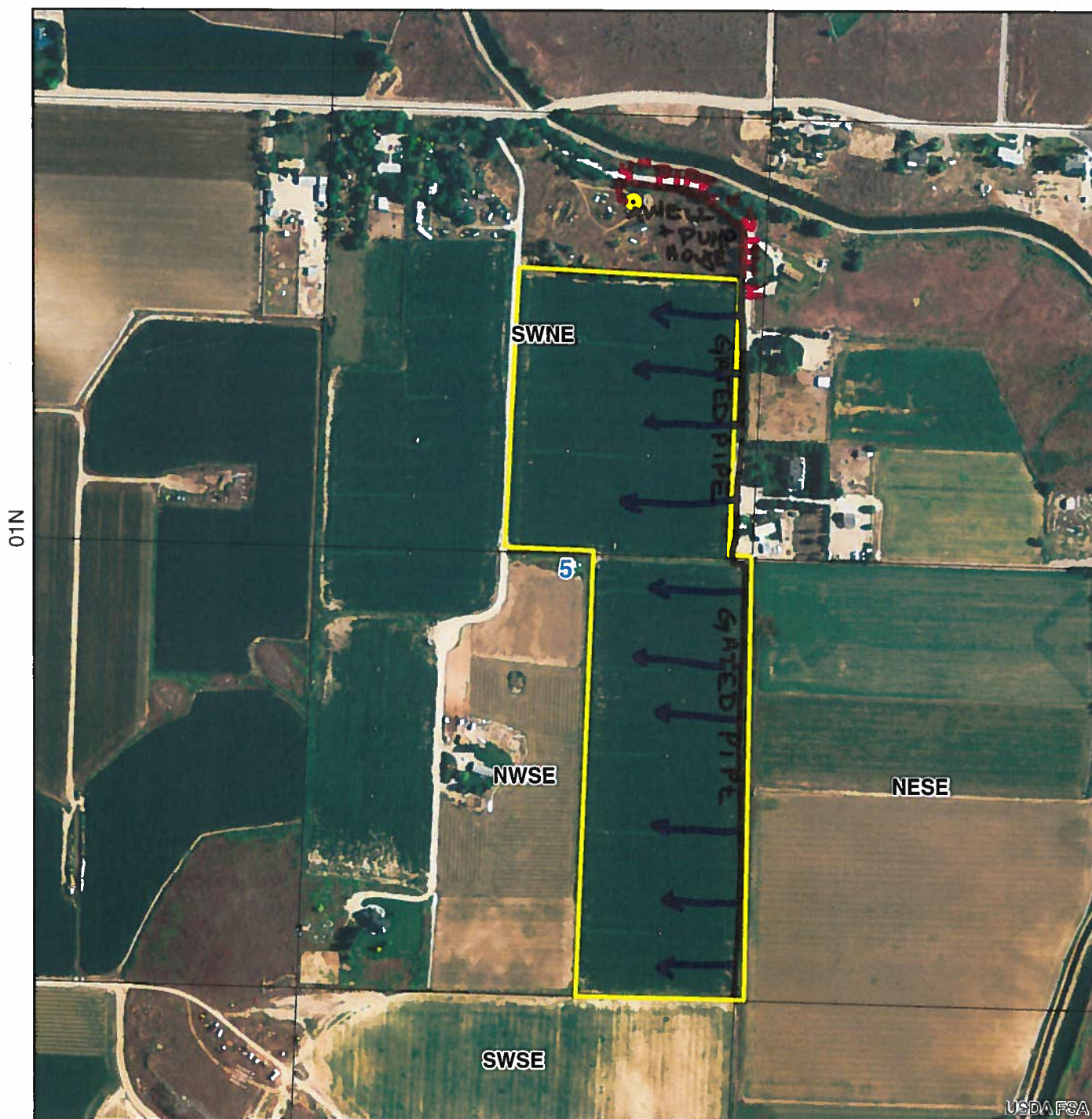
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Angela M. Quinn Date 6/19/2013
Reviewer _____ Date _____

63-31191 Beneficial Use Field Report System Diagram & Map

01W



0 0.05 0.1 0.2 Miles

2011 Aerial Photo

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



IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
_____ 1/4 _____ 1/4 _____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0015973
 DRILLING PERMIT NO. _____
 Other IDWR No. _____

2. OWNER: Edward Kershner
Name _____
Address 1911 W 31st _____
City Boise State Id Zip 83703

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
 W E S
 Twp. 1 North ☒ or South ☐
 Rge. 1 East ☐ or West ☒
 Sec. 5 SW ^{1/4} NE ^{1/4} SE ^{1/4} SW ^{1/4}
 Gov't Lot _____ County Oda ^{10 acres} ^{40 acres} ^{160 acres}
 Lat: _____ Long: _____
 Address of Well Site next to Canal
 City Kuna
 Murphy Rd
 (Give at least name of road & distance to road or landmark)

LI.	Blk.	Sub.	Name
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4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER		PACK		AMOUNT	METHOD
Material	From	To	Sacks or Pounds		
Bentonite	0	20	1500 ~~lb~~	overboard	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 227'
Was drive shoe seal tested? ☐ Y ☐ N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10"	+2	227	250	Steel	☒	☐	☒	☐
8"	214	234		Pvc	☐	☒	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method PVC
Screens _____ Screen Type PVC

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
234	314	.020		8"	PVC	☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

145 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or
control devices: well Seal

11. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
200-300			4 hours

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments:

Depth first Water Encounter 217'

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

[illegible]

13. DRILLER'S CERTIFICATION

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

Company Name Edman Firm 916 0457

Firm Official Alice C. Johnson Date 9-28-01

Driller or Operator Dave H. Misco Date 9-28-01

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

63-31191 Beneficial Use Field Report Photos



63-31191 Exam 6/18/2013: POD and pump house with mobile home in background facing south.



63-31191 Exam 6/18/2013: Portion of POU with gated pipe in foreground, pump house (red building) and mobile home (hidden by trees) in background, facing north/northwest.