

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33788
Exam Date: 09/22/2016

1. Current Owner:
JONICA WILLIS 1982 N MC DERMOTT KUNA ID 83634 (208) 869-1453
2. Accompanied by: KAY KURPJUWEIT
Phone No: (208) 922-4758
Address: 9261 N MC DERMOTT KUNA ID 83634
Relationship to Permit Holder: MOTHER

3. **SOURCE:**
GROUND WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use:
Large irrigation district water overlaps POU. User has shares, but no combined use limit is used for this scenario.
Condition WB7 is used to define total use.
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 NW¼SW¼ Sec. 16, Twp 02N, Rge 01W, B.M. ADA County

Method of Determination:

Field exam and PLS data was used to verify the WR permit legal descriptions.

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	01W	16										23.0							23.0
02N	01W	17													16.0				16.0

Total Acres: 39

Method of Determination:

Field exam and PLS data was used to verify the WR permit legal descriptions.

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
D0064630	Unknown	30	Unknown	Unknown	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
N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Measurements:

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Efficiency = 0.70

Depth to water = 200-290 ft.

psi = 10

hp = 30

See attached theoretical sheet.

Theoretical = 0.70 cfs

Permit	0.78 cfs
B.U. Standard Allowance	0.78 cfs
B. U. Proof Fee	\$100 → 0.21 – 1.00
Measurement or Theoretical Rate	0.70 cfs
License Recommendation	0.78 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$39 \text{ acres} \times 4.5 \text{ Field Head Gate Requirement} = 175.5 \text{ af/y}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$0.78 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 402.3 \text{ af/y}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

$$(V_{IR}) 175.5 \text{ af/y}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted on September 22, 2016 by agents Patrick Kelly and Aaron Skinner. They were accompanied by the property owner's mother, Kay Kurpuweit, at the well location.

Ownership of the WR permit and Taxlot data for irrigation is in the name of Jonica Willis. Of the permitted 39 acres, 23 acres is owned by Jonica located east of McDermott Road. The accompanying 16 acres is located west of McDermott Road and belong to her parents, Dale and Kay Kurpuweit. Dale recently passed away this summer (2016). In the future, ownership could be split and WR 63-33788 be separated accordingly.

Groundwater is received from the well that was drilled in September of 2013. Well driller's log for WR 63-33788 was

obtained and has a static water level of 72 feet and complete depth of 296 feet. At the time of the field exam, pump information was not present and could not be determined on the submersible unit. The owner later indicated a 30 hp motor was in place providing water to the irrigation system. During the exam, water was not being diverted from the well, but there was a little surface water in the open ditches. Jonica confirmed the groundwater and surface water system piggy back off each other. As a result, no flow measurements were completed.

Theoretical measurements were calculated for the irrigation system using the 30 hp pump as a standard for each scenario. The known static level for the well was recorded at 72 feet in the well log. Three pockets described in the well log were also used to establish estimated pumping elevations. The three scenarios estimated the pumping levels to be 200, 250, and 290 feet deep. Groundwater diverts into an open ditch on the southeast end of the 23 acre parcel and feeds about 1,300 feet of open ditch. Groundwater also is diverted via a butterfly valve to a collection well on the southwest corner of the 23 acre parcel. From the collection well, water runs across McDermott Road to the 16 acre parcel; eventually to another open ditch and above ground piping. It was assumed that minimal pressure is needed because water travels through an open discharge system. Theoretical calculations used 10 psi for each scenario. Attached are the three calculated rate of flows. The average rate of flow totaled 0.70 cfs. Theoretical flow values are within reason of the permitted 0.78 cfs, therefore, the permitted 0.78 cfs flow rate is recommended for licensing.

Overlap review indicated that there are no overlapping water rights associated to the POD for 65-33788. Large irrigation district water overlaps POU and user has shares. There are no combines use limits used for this scenario. Condition

Permitted conditions 1 (065, 4 (01M), 5 (WB7), and 6 (004) are recommended for licensing. Condition 2 (104) was changed to 105 and forwarded to licensing. Condition 3 (121) was changed to 103 and forwarded to licensing. Condition 7 (26A) was removed and not forwarded to licensing.

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	0.78 CFS	175.50 af/y
	<u>Totals:</u>	0.780 CFS	175.50 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 ☒ None

I. AUTHENTICATION

Field Examiner's Name _____ Date _____

Reviewer _____ Date _____

WR Permit 63-33788 Delivery System Diagram

Legend

- POD
- Open Ditch
- Buried Pipe
- 8" Above Ground Pipe
- 12" Above Ground Pipe
- Head Gate
- Collection Well
- Flow Direction

Dye Ln

N McDermott Rd

County Line Rd

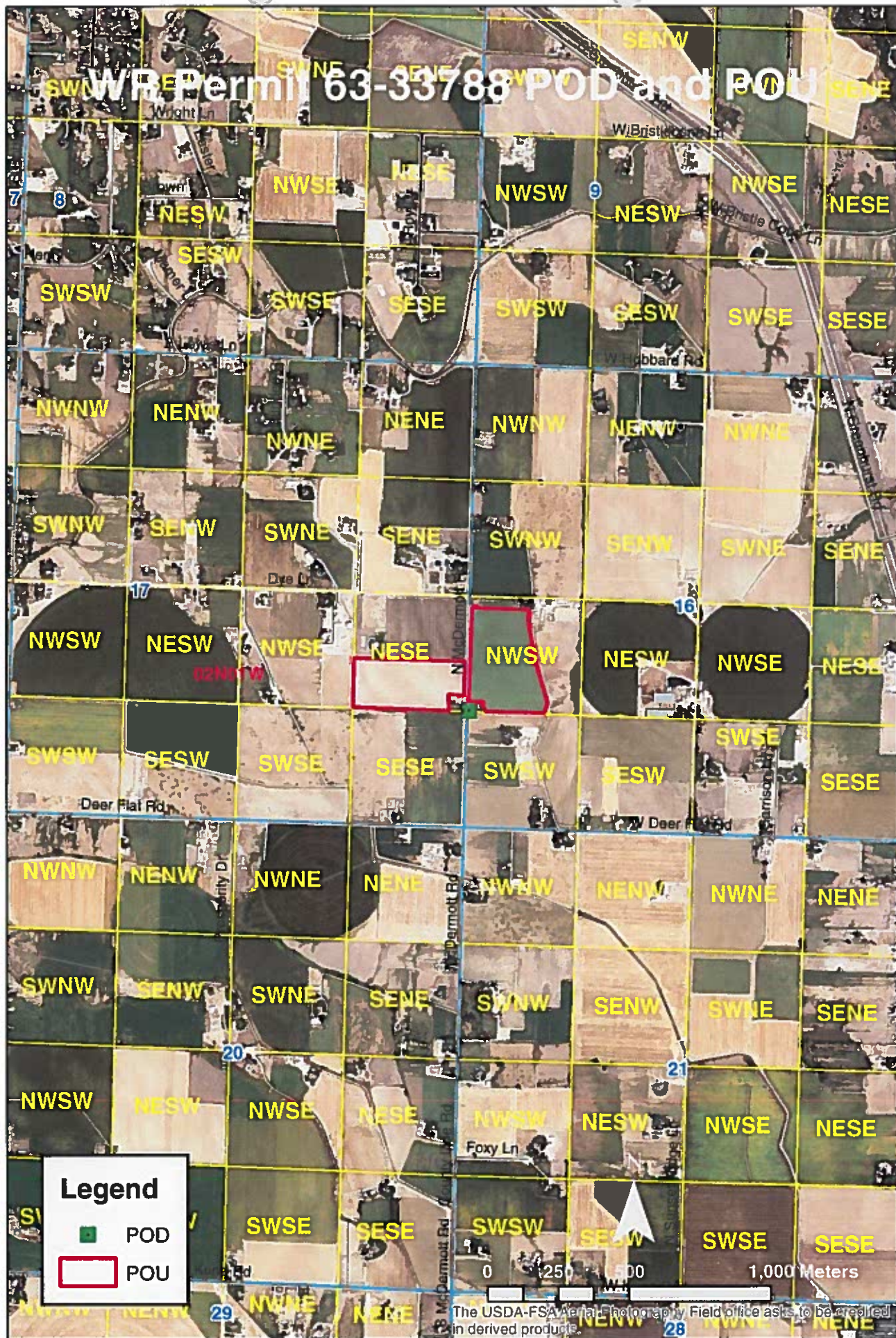
McDermott Rd

S McDermott Rd

N

0 250 500 1,000 Feet

WR Permit 63-33788 POD and POU



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33788
 Reviewer: Aaron Skinner
 Date of Review: 9/22/2016

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	30	30	30
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	200	250	290
DISCHARGE PRESSURE	10	10	10
RATE OF FLOW (cfs)	0.83	0.68	0.59 0.70

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

A 30 hp pump was observed on well tag D0064630. A range of static water levels is assumed given the well log. Well log shows a static level of 72 feet, a washed in screen from 266 - 296 feet, and a max depth of 296 feet. A minimal pressure of 10 psi is considered for an open discharge system. The average theoretical flow rate calculates to 0.70 cfs.

Overlap Analysis For WR Permit 63-33788 POD

Process	BasinSequence	Draft	Owner
Water Right	63-10417	N	ESHELMAN, CARL; ESHELMAN, TWILA O
Water Right	63-10449	N	YAMAMOTO, DUANE
Water Right	63-15878	N	CURTIS, RENA; CURTIS, RICHARD G
Water Right	63-16132	N	ROBERTSON, DOROTHY I; ROBERTSON, MELVIN M
Water Right	63-16307	N	MC BRIDE, JANE; MC BRIDE, JANE
Water Right	63-18058	N	WADE, REITH L
Water Right	63-18634	N	YAMAMOTO, DUANE; YAMAMOTO, RUDITH
Water Right	63-18637	N	YAMAMOTO, DUANE; YAMAMOTO, SHIZU
Water Right	63-18645	N	JARRETT, DOROTHY L
Water Right	63-22052	N	BAKER, EVELYN M
Water Right	63-22449	N	ESHELMAN, CARL F; ESHELMAN, TWILA A
Water Right	63-22451	N	ENNIS, KATHLEEN M; ENNIS, RICHARD M; PHILLIPS, JOHANNA J; PHILLIPS, TRAVIS L; REICH, D DARLENE; REICH, DONALD L; RIDDLEMOSER, JACK C; RIDDLEMOSER, JACQUELINE A
Water Right	63-22504	N	ELSNER, EARL; ELSNER, MARYGRACE; FARMER, CHARLES J; FARMER, NORMA L
Water Right	63-33788	Y	WILLIS, JONICA
Water Right	63-8894	N	WADE, REITH L

adjacent neighbor

Source	Use	NENE	NWNE	SWNE	SENE	NEHW	NWNW	SWNW	SEHW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
GROUND WATER	IRRIGATION			X											X		X
GROUND WATER	IRRIGATION				X												
GROUND WATER	IRRIGATION							X									
GROUND WATER	IRRIGATION										X						
GROUND WATER	IRRIGATION								X								
GROUND WATER	IRRIGATION		X												X		
GROUND WATER	IRRIGATION											X					
GROUND WATER	IRRIGATION												X				
GROUND WATER	IRRIGATION						X										
GROUND WATER	IRRIGATION									X							
GROUND WATER	IRRIGATION															X	
GROUND WATER	IRRIGATION																X
GROUND WATER	IRRIGATION										X						
GROUND WATER	IRRIGATION											X					

Overlap Analysis For WR Permit 63-33788 POU

Process	BasinSequence	Draft	Owner
Water Right	63-10417	N	ESHELMAN, CARL; ESHELMAN, TWILA O
Water Right	63-10449	N	YAMAMOTO, DUANE
Water Right	63-12970	N	CITY OF KUNA
Water Right	63-12394	N	CITY OF KUNA
Water Right	63-12552	N	CITY OF KUNA; UNITED WATER IDAHO INC
Water Right	63-136	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; H L RANDAL ET AL; PIONEER DITCH CO
Water Right	63-1378	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; PIONEER DITCH CO
Water Right	63-15878	N	CURTIS, RENA; CURTIS, RICHARD G
Water Right	63-16132	N	ROBERTSON, DOROTHY I; ROBERTSON, MELVIN M
Water Right	63-16307	N	MC BRIDE, JANE; MC BRIDE, JANE
Water Right	63-16307	N	MC BRIDE, JANE; MC BRIDE, JANE
Water Right	63-18058	N	WADE, REITH L
Water Right	63-18058	N	WADE, REITH L
Water Right	63-18634	N	YAMAMOTO, DUANE; YAMAMOTO, RUDITH
Water Right	63-18634	N	YAMAMOTO, DUANE; YAMAMOTO, RUDITH
Water Right	63-18637	N	YAMAMOTO, DUANE; YAMAMOTO, SHIZU
Water Right	63-18637	N	YAMAMOTO, DUANE; YAMAMOTO, SHIZU
Water Right	63-18645	N	JARRETT, DOROTHY L
Water Right	63-18645	N	JARRETT, DOROTHY L
Water Right	63-2004	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; NAMPA-MERIDIAN IRR DIST
Water Right	63-2106	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-22052	N	BAKER, EVELYN M
Water Right	63-22449	N	ESHELMAN, CARL F; ESHELMAN, TWILA A
Water Right	63-22449	N	ESHELMAN, CARL F; ESHELMAN, TWILA A
Water Right	63-22451	N	ENNIS, KATHLEEN M; ENNIS, RICHARD M; PHILLIPS, JOHANNA J; PHILLIPS, TRAVIS L; REICH, D DARLENE; REICH, DONALD L; RIDDLEMOSER, JACK C; RIDDLEMOSER, JACQUELINE A
Water Right	63-22504	N	ELSNER, EARL; ELSNER, MARYGRACE; FARMER, CHARLES J; FARMER, NORMA L
Water Right	63-2314	N	AMERICAN DITCH CO; BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; RANDALL ET AL
Water Right	63-2388A	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-2392F	N	BOISE PROJECT BOARD OF CONTROL
Water Right	63-251A	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-26671	N	BARKER ROSHOLT & SIMPSON LLP; BOISE KUNA IRRIGATION DISTRICT; FREDRICKS, RANDALL C
Water Right	63-301A	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-302A	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-31481	N	CITY OF KUNA
Water Right	63-3266	N	CITY OF KUNA
Water Right	63-33251	N	BOISE PROJECT BOARD OF CONTROL
Water Right	63-33253	N	BOISE PROJECT BOARD OF CONTROL
Water Right	63-33788	Y	WILLIS, JONICA
Water Right	63-372	N	BARKER ROSHOLT & SIMPSON LLP; BOISE KUNA IRRIGATION DISTRICT; FREDRICKS, RANDALL C; GIVENS, RAYMOND D; NEW YORK IRRIGATION DISTRICT
Water Right	63-373A	N	UNITED STATES OF AMERICA ACTING THROUGH
Water Right	63-4215	N	CITY OF KUNA
Water Right	63-8894	N	WADE, REITH L

Source	Use	NENE	NWNE	SWNE	SENE	NEHW	NWNW	SWNW	SEHW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
GROUND WATER	IRRIGATION									35					34		69	
GROUND WATER	IRRIGATION		32	37										28		30	135	
GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	DOMESTIC				X													
GROUND WATER	DOMESTIC							X										
GROUND WATER	STOCKWATER							X										
GROUND WATER	DOMESTIC										X							
GROUND WATER	STOCKWATER								X									
GROUND WATER	DOMESTIC		X															
GROUND WATER	STOCKWATER		X															
GROUND WATER	DOMESTIC												X					
GROUND WATER	STOCKWATER												X					
GROUND WATER	DOMESTIC													X				
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
FIVE MILE CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	DOMESTIC						X											
GROUND WATER	DOMESTIC									X								
GROUND WATER	STOCKWATER														X			
GROUND WATER	DOMESTIC															X		
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
WASTE WATER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
INDIAN CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
TEN MILE CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	IRRIGATION										23						23	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	MUNICIPAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GROUND WATER	IRRIGATION									39							39	

no overlap Sec. 16

63
Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0064630 ✓

Drilling Permit No 9137A-809330

Water right or injection well # _____

2. OWNER

Name Willis, Jonica

Address 1962 W. McDermott Rd.

City Kuna State ID Zip 83634

3. WELL LOCATION:

Twp 2 North ☒ or South ☐ Rge 1 East ☐ or West ☒

Sec 76 NW 1/4 NW 1/4 1/4 1/4 1/4
10 acres 40 acres 160 acres

Gov't Lot _____ County Ada

Lat 43° 30-398 (Deg. and Decimal minutes)

Long 116° 28-403 (Deg. and Decimal minutes)

Address of Well Site Same

City Kuna

(Give at least one of road or distance to road or landmark)

Lot _____ Blk _____ Sub Name _____

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 ft ³)	Placement method/procedure
Med Chips	0	80	55 bags	poured

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
8"	+2	258	.250	Steel	☒	☐	☐	☒

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 258'

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type Johnson

Method of installation Washed in

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
266'	296'	25		6"	S Steel	304

Length of Headpipe 23' Length of Tailpipe 6"

Packer ☒ Y ☐ N Type K-Packer 6" x 18"

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
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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) 72' Static water level (ft) 72'

Water temp (°F) 66 Bottom hole temp (°F) 66

Describe access port Sanitary Well Cap

Well test:

Test method:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
260'	350	180	☐	☐	☒	☐

Water Quality test or comments: Good, Slight sulphur

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
14	0	5	Top Soil		X
14	5	7	Hard Pan		X
14	7	12	Broken Lava		X
14	12	17	Brown Clay		X
12	17	52	Lava Rock		X
12	52	60	Broken Lava		X
12	60	75	Lava Rock	X	
12	75	80	Red Cinders	X	
8"	80	105	Sand & Gravel	X	
8	105	190	Sand	X	
8	190	193	Clay		X
8	193	210	Sand 100 gpm	X	
8	210	215	Clay		X
8	215	225	Heaving Sand	X	
8	225	227	Clay		X
8	227	255	Sand	X	
8	255	266	Brown Sticky Clay		X
8	266	278	Sand 200 gpm	X	
8	278	296	Coarse White Sand	X	

RECEIVED

OCT 23 2013

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable) 296'

Date Started 8/15/2013 Completed 9/23/2013

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 Drilling & Pump Co No 304

*Principal Driller Earl Skinner Date 10/21/2013

*Driller _____ Date _____

*Operator II Brad Skinner Date 10/21/2013

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required



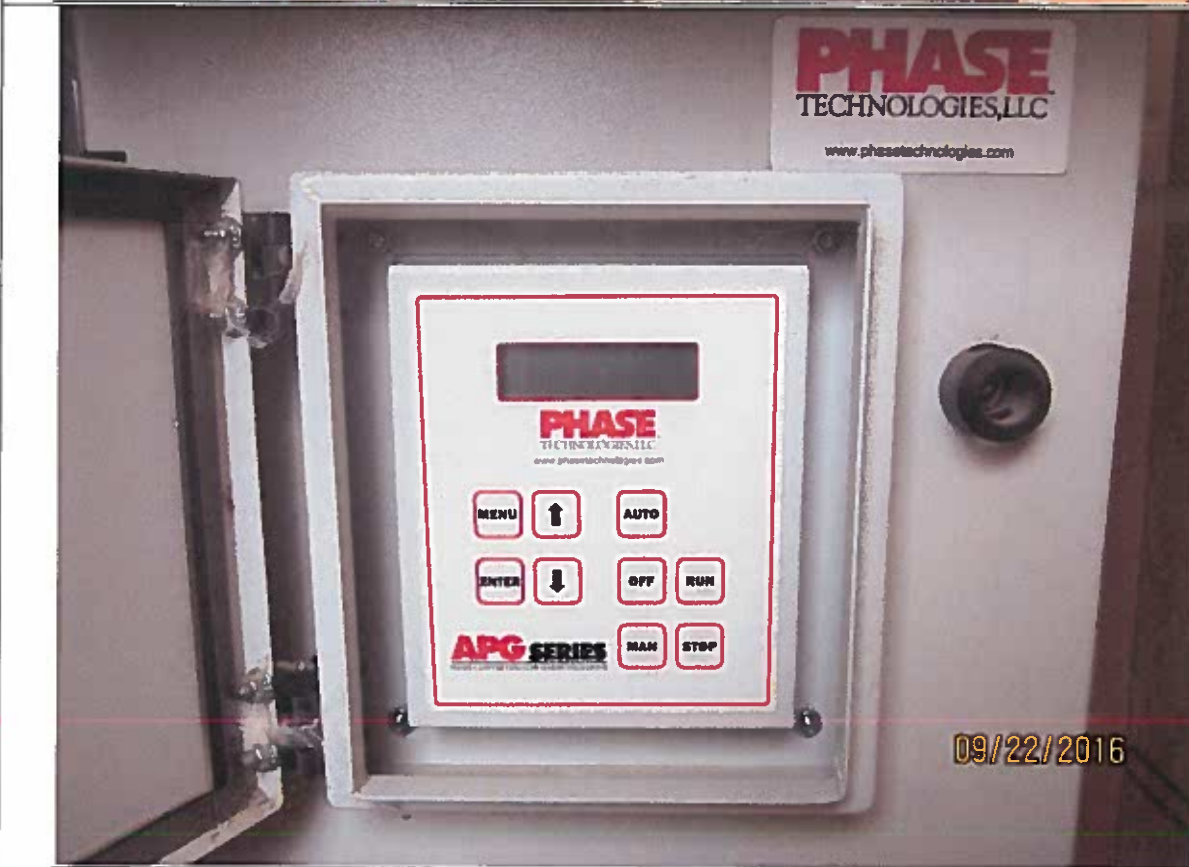
Well and pump house. The valve to the right of the pump house diverts water to the east end of the property through a 12" buried pipe.



Well log ID
D0064630



Inside the pump house



Well control panel. Notice there is no power to the well.



Southeast section of the beneficial use area looking north. Groundwater is released in to the ditch via the 8" pipe shown on the left. Surface water is sent to the ditch through the head gate on the right.



Facing north an open ditch runs along McDermott Road and feeds water to the northwest beneficial use area.



Above ground 8" PVC pipe for flood irrigation.



12" PVC reducing to 8" PVC. The 12" line runs along the bushes south of the house sitting on the west side of McDermott Road.