

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12549

Exam Date: 4/16/2013

1. Current Owner: WILLIS RANCH HOMEOWNERS ASSN
C/O DAVID BUSSELLE
15145 MACHEN PL
CALDWELL ID 83607
(208) 880-5870
2. Accompanied by: David Busselle
Phone No: Same
Address: Same
Relationship to Permit Holder:

- | 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
|------------------|------------------|
| 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 L1 SE1/4SE1/4 Sec. 33, Twp 05N, Rge 03W, B.M.
CANYON County

Method of Determination: Arc Map (Aerial Photo); GPS Latitude N.43°43.3421', Longitude W.116°41.707'; Datum-NAD83.

- 2.

PLACE OF USE: DOMESTIC

[illegible]

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
D0012401	_Franklin_	_2_	_Unknown_	_Jacuzzi_	_____ (2") _____
_____	_Franklin_	_2_	_Unknown_	_Jacuzzi_	_____ (2") _____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements: No field measurement. Three (3) pressure tanks maintain water pressure to four (4) homes. Gauge Pressure – 46 psi.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 4/147 + (2.31 \times 46) = 24.64/253.26 = 0.10 \text{ cfs}$$

$$Q(\text{Maximum Instantaneous Water Requirements for Domestic Use}) = 0.10 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.10 \text{ cfs} < 0.11 \text{ cfs } Q(\text{permit})$$

$$HP = 4 \text{ (Two Pumps)}$$

$$Z1 = 147'$$

$$Z2 = 137'$$

$$P = 46 \text{ psi (Gauge)}$$

Appears that the existing two-pump system cannot attain the permit diversion rate of 0.11 cfs. Likewise, with the reduced number of homes served by the system (4), the calculated diversion rate equals the maximum instantaneous water requirements for domestic use. Recommend a diversion rate of 0.10 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses: Domestic (Internal) – 4 Homes

$$V = 4 \text{ homes} \times 0.6 \text{ AFA} = 2.4 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A community ground water well, with two 2-hp submersible pumps, diverts water to four (4) residences within Phase 2 of the Willis Ranch Subdivision for domestic internal use. The two submersible pumps are set at depths of 137' and 147'. The pump installer could not explain why two pumps were installed to serve 4 residential lots.

The community well is located within Lot 4, Phase 2, of the Willis Ranch Subdivision. At the time of the application, six (6) homes were served by the community well system. However, two of the residences, Lot 3 and Lot 4, drilled private wells and are no longer served by the Willis Ranch Subdivision Phase 2 community well system.

The lawn, landscaping, and garden areas are irrigated by water supplied by the Black Canyon Irrigation District. A diversion structure near Old Highway 30 diverts water through a pipe, which runs parallel to Old Highway 30, to an irrigation pump station located at the northwest corner of Lot 2, Phase 2, of the Willis Ranch Subdivision.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.11	&/or	N/A
Beneficial Use Limit	0.11	&/or	N/A
System Measurement	0.10 (theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.10	&/or	N/A

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	1/01 to 12/31	0.100 CFS	2.4 AFA
<u>Totals:</u>		0.100 CFS	2.4 AFA

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

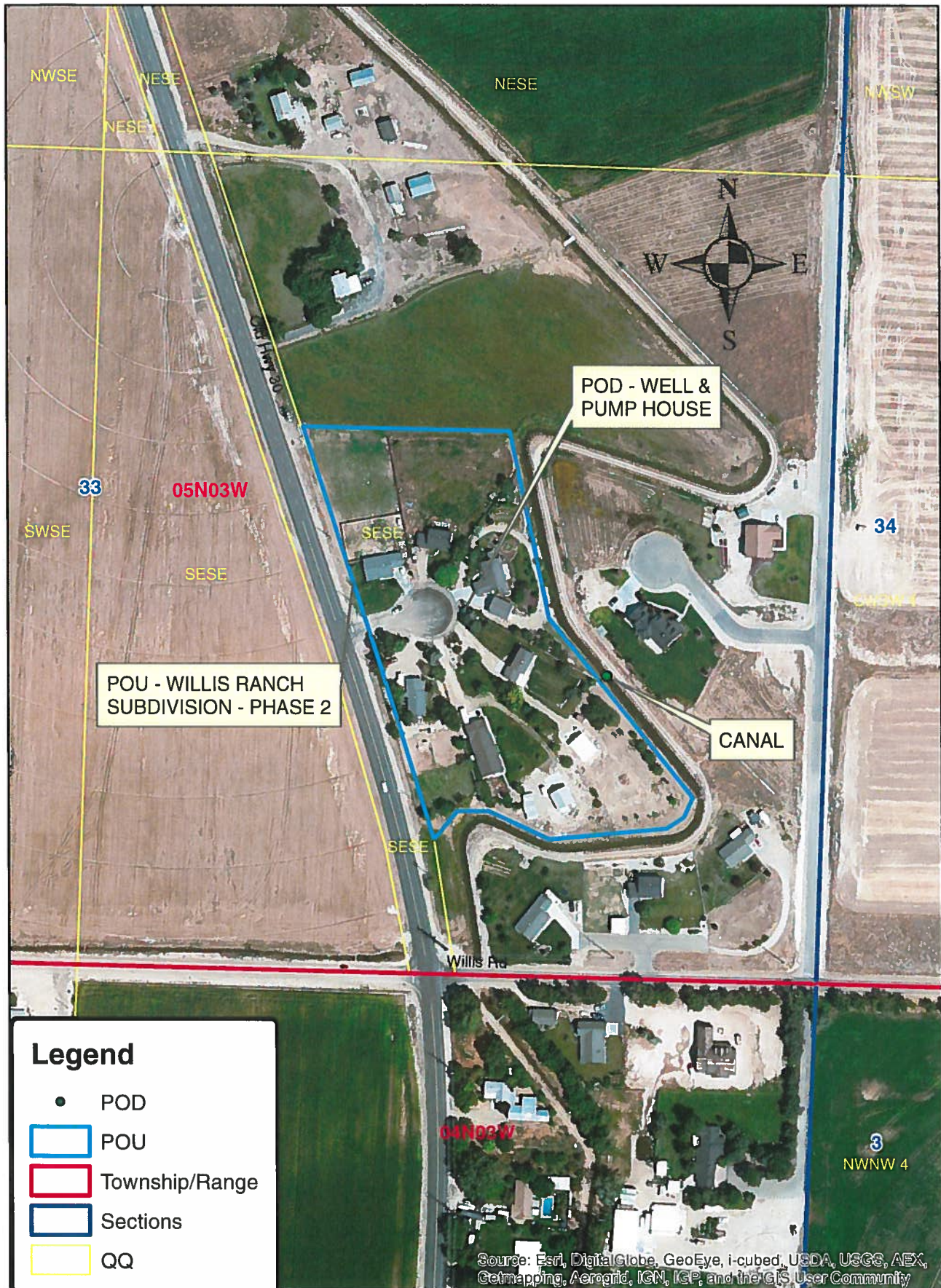
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 6/20/13

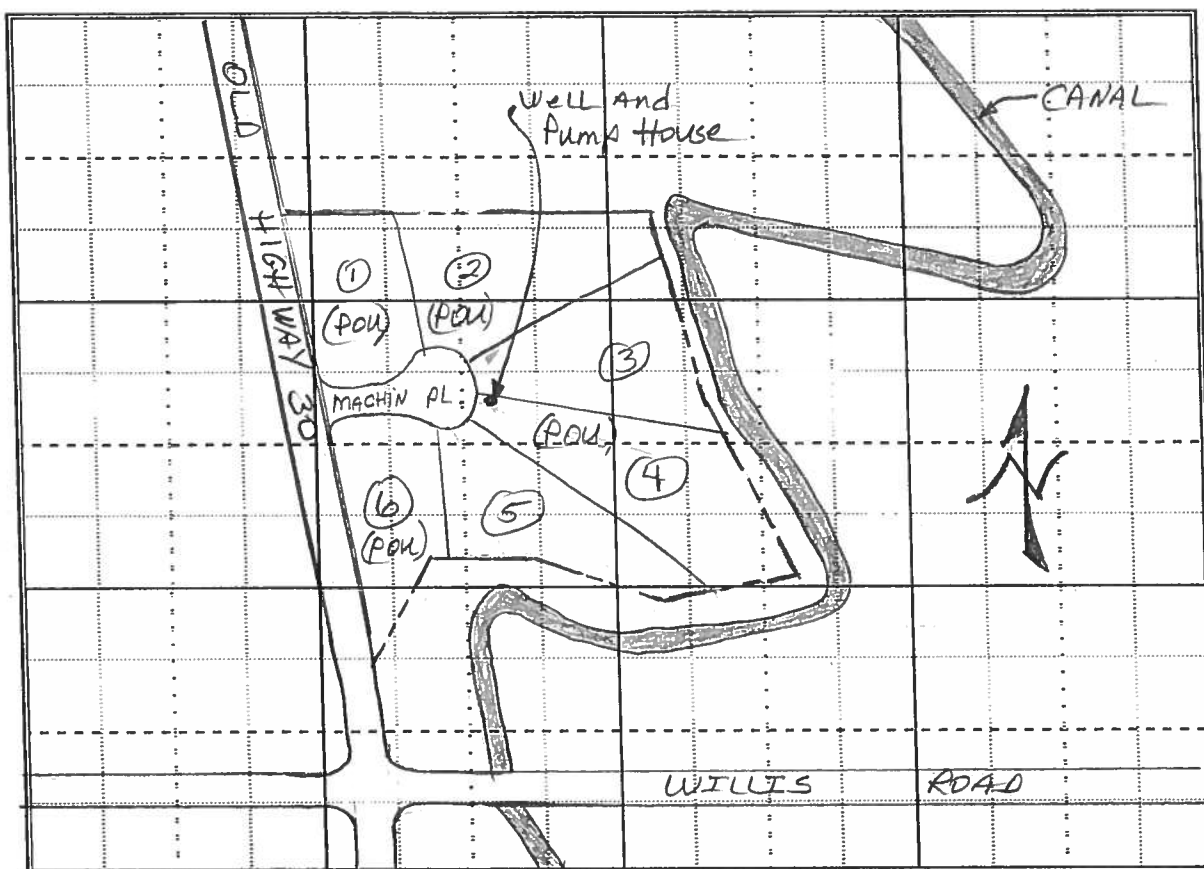
Reviewer _____ Date _____

63-12549 GOV'T. LOT 1

ESRI AERIAL PHOTO - 2012



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

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. D0012401DRILLING PERMIT NO. 63-99-W-0950-000

Other IDWR No. _____

2. OWNER:Name ADAIR HOMESAddress 1904 E CHICAGO STCity CALDWELL State ID Zip 83606**3. LOCATION OF WELL by legal description:**

Sketch map location must agree with written location.

	Twp. <u>5</u>	North ☒	or	South ☐
	Rge. <u>3</u>	East ☐	or	West ☒
	Sec. <u>33</u>	1/4 _____	SE 1/4 _____	SE 1/4 _____
	Gov't Lot _____	County <u>_____</u>		
Lat: _____		Long: _____		
Address of Well Site <u>15130 MACHEN PLACE</u>				

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

Lt. 2 Blk. 2 Sub. Name WILLIS RANCH SUB

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	18	300	POUR

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) _____Was drive shoe seal tested? ☒ Y ☐ N How? AIR**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8	+2	167	250	STEEL	☒	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS:

☐ Perforations ☐ Screens Method _____

Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

83 ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
80	10	155	3 HR

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment:)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	N
10	0	7	TOP SOIL/ HARD PAN		
10	7	17	SAND/ SOME CLAY		
10-8	17	35	SAND/ GRAVEL		
8	35	86	SAND / SOME GRAVEL		
	86	107	GRAVEL	X	
	107	128	SAND/ CLAY	X	
	128	136	SAND/ SHALE	X	
	136	155	SAND	X	
	155	163	SAND/ JOINT CLAY	X	
	163	171	HARD YELLOW CLAY		
	171	181	SAND/ SHALE	X	

RECEIVED

DEC 15 1999

WATER RESOURCES
WESTERN REGIONCompleted Depth 181 (Measurable)Date: Started 12/1/99 Completed 12/2/99**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 DAVIS WELL & PUMP Firm No 101Firm Official Chuck Davis Date 12/14/99and Driller or Operator _____ Date 12/14/99

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

FIELD EXAM PHOTOS

Water Right Permit: 63-12549

Field Exam Date: 4-16-13

PLS: SE1/4, SE1/4 Section 33, T.5N, R.03W.

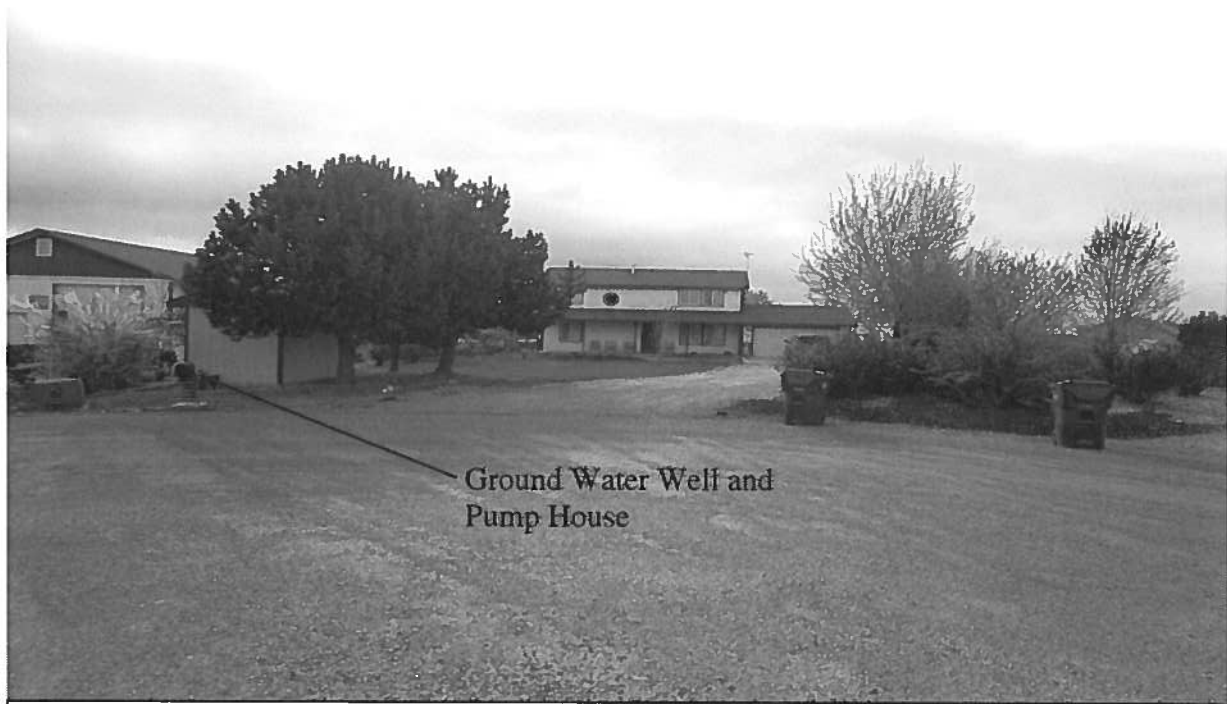
Field Examiner: RC



Point of Diversion: View easterly of the ground water well and pump house. The well and pump house are located within Lot 4, Phase 2, of the Willis Ranch Subdivision.



View inside pump house of the three (3) pressure tanks, pressure switches, and discharge piping. Two pressure switches exist due to the two (2) 2-hp submersible pumps in the 8" well.



Place of Use: View easterly of one of four homes served by the domestic ground water well. A separate pressurized irrigation system, with water supplied by the Black Canyon Irrigation District, is used to water the lawns, landscaping, and garden areas.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 2, 2013

Willis Ranch Homeowners Association
c/o Jon Dahle
15125 Machen Place
Caldwell, ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-12549

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of April 15, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of ground water for domestic use for 6 homes in Phase 2 of the Willis Ranch Subdivision.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by April 12, 2013, to conduct the exam during the week of April 15, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style with a large, loopsy 'R' and a long, sweeping underline.

Rick Collingwood, P.E.
Water Resource Agent, Sr.