

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33206

Exam Date: 6/25/20

Current Owner:

JOE JENKINS 9105 ROCKSTONE CT KUNA ID 83634

KIMBERLY NEAL JENKINS 9105 ROCKSTONE CT KUNA ID 83634

SOURCE:

GROUND WATER

Method of Determination: Permit application, ArcMap, aerial imagery, and USGS topography.**B. OVERLAP REVIEW**1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
City of Kuna	Groundwater	Municipal	License

Comments: Overlap review found municipal water rights throughout the same qq as the Jenkins property.2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: No POD overlap.**C. DIVERSION AND DELIVERY SYSTEM**1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE¼ NE¼, Sec. 26, Twp 02N, Rge 01E, B.M. ADA County

Method of Determination:

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	01E	26				2.5													2.5

Total Acres: 2.5

Method of Determination:

3.

X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.N/A Aerial Photo Attached (required for irrigation of 10+ acres).N/A Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Hp	Pump Make
825940	5	Goulds Pump

D. FLOW MEASUREMENTS

Measurements: In office exam so flow measurements not applicable.

Theoretical Flow Calculation:

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

Booster Horsepower	5
Pumping Level	315
Discharge Pressure	40
Rate of Flow (cfs)	0.08 cfs

Irrigation Permit:	0.09 cfs
Theoretical Rate	0.08 cfs
B.U. Standard Allowance:	0.03 cfs x 2.5 ac = 0.08 cfs
B.U. Proof Fee:	\$50 → 0.00 cfs to 0.20 cfs

License Recommendation	0.08 cfs
-------------------------------	-----------------

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (2.5 \text{ ac}) \times (4.5 \text{ afa}) = 11.3 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.08 \text{ cfs}) \times (260) \times 1.9835 = 41.3 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 11.3 \text{ af}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam was completed by agent Kate Huelse on June 25, 2020 by Kate Huelse and was accompanied by permit holder Joe Jenkins.

The permit was assigned to Joe Jenkins and Kimberly Neal- Jenkins on January 20, 2010. The proof of beneficial use was submitted March 6, 2020 by Kimberly Neal Jenkins and Joe Jenkins. Current Ada county taxlot data represents Kimberly Neal Jenkins as the owner of the land pertinent to the place of use and point of diversion.

Ground water comes from a well drilled in 2004. The well log gives both the legal description and the GPS coordinates in Degrees-Minutes- Seconds. Both of these methods place the well in Section 26, Township 02 North, Range 01 East, SE 1/4, NE 1/4. Overlap review found no additional water rights on the Jenkins property for the POU or POD

The permit authorizes 3 acres for irrigation, ArcMap tools and aerial imagery were used to verify the area of irrigated lands based on where the permit holder demonstrated as the POU during the field exam. The POD GPS coordinates are N 43 28.956 W 116 17.753, Mr. Jenkins confirmed that he is diverting water using a 5 hp pump, he claims that he typically runs about 10 sprinkler heads at a time with his system.

Mr. Jenkins confirmed that the property had been hydroseeded last year, however the grass did not take and he will be hydroseeding again this summer. Mr. Jenkins demonstrated his irrigation system and the POU during the field exam. There are 105 sprinkler heads serving 2.5 acres and a drip irrigation line for trees along driveway. Beneficial use of the 2.5 acres was achieved as there were clearly stock observed and irrigated pasture grass.

The original permit allowed for the irrigation of 3 acres and a maximum diversion rate of 0.09 cfs, however it was observed that the permit holder had only developed 2.5 acres for irrigation use.. The system diverts water using a 5 hp pump to irrigate trees along property line and lawn as well as pasture grass on 2.5 acres to serve livestock. The pump test recorded on well log suggests the system is capable of 55 gpm. Using the operating specs for the K2 sprinkler head, a horsepower of 5, and a discharge pressure ranging from 40-50 a theoretical flow rate of 0.08 cfs was calculated.

I am recommending a licensed flow rate of 0.08 cfs based on the standard diversion rate of 0.03 cfs per acre. The rate of 0.08 cfs is capable of providing sufficient water for the permit holders system and needs.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Volume</u>
IRRIGATION	03/01 to 11/15	0.08 CFS	11.3 AF

Totals: 0.08 CFS 11.3 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 Kate Hulse - Water Resource Agent

Field Examiner's Name Kate Hulse Date 7/2/20

Reviewer _____ Date _____

Beneficial Use Exam Map

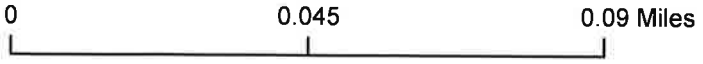
2



Legend

Township/Range

Parcels



line
Drip
heads



Photo of the Northwest corner of the property.



Photo of the western portion of the property.



Photo of the Southwest portion of the property.



Photo of the Southeast portion of the property.



Photo of sprinkler head.



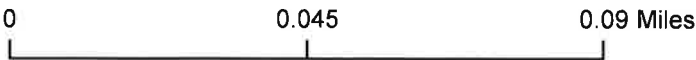
Photo of sprinkler system running.

System Diagram



Legend

- Parcels
- Township/Range



THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33206
 Reviewer: Kate Huelse
 Date of Review: 6/26/2020

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	5	5	5
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	315	315	315
DISCHARGE PRESSURE	30	40	50
RATE OF FLOW (cfs)	0.08	0.08	0.07 0.08

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:

Pump depth is uncertain however from the well log it can be assumed that the pump sits at about 315 feet. A range of 35 to 40 psi with a 5 hp pump and a pumping level of 315 fet was used to obtain a theoretical average flow of 0.08 cfs.

K2PRO

Setting Instructions

NOTE: The K2Pro is factory preset with a 90° arc setting, and includes a pre-installed #2.5 nozzle.

CHANGING A NOZZLE

1. REMOVING THE NOZZLE RETENTION SCREW

Use your K-Key (A) or a small flat blade screwdriver to remove the nozzle retention screw (B) by turning counter-clockwise to remove and clockwise to re-install.

2. PULL UP THE RISER

Insert the K-Key (A) in the keyhole (F) on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole (F) when you pull it up. Firmly pull up the entire spring-loaded riser (L) to access the nozzle socket (H). Hold the riser assembly up with one hand.

3. REMOVING THE NOZZLE

With the nozzle retention screw (B) removed, insert the K-Key (A) into the slot directly under the nozzle prongs (G) at the top of the nozzle. Now, turn the key 1/4 turn to "hook" the nozzle and pull the nozzle out.

4. INSTALLING A NOZZLE

Press the desired nozzle into the nozzle socket (H). Make sure the nozzle number is visible and the nozzle prongs (G) are up. Then, re-install the nozzle retention screw (B). **NOTE:** The nozzle retention screw (B) is also a break-up screw should you wish to reduce the spray distance but NOT the flow.

SETTING ARC ADJUSTMENT

1. FINDING THE LEFT START POSITION

Place your finger on the top center of the nozzle turret (K). Rotate the turret to the right until it stops and then back to the left until it stops. Notice the position of the nozzle arrow (C). This is the "Left Start" position (M). The sprinkler will begin spraying from this position and rotate clockwise until it reaches the right Adjustable Stop (N).

2. CHANGING THE LEFT START POSITION

Insert the K-Key (A) in the keyhole (F) on the top of the nozzle turret (K) and turn the key 1/4 turn to insure that the key does not slip out of the keyhole (F) when you pull it up. Being careful not to allow the nozzle turret (K) to turn, firmly pull up the entire spring-loaded riser. Hold the lower riser (L) assembly up with one hand. Now turn only the lower riser (L) clockwise or counter-clockwise until the nozzle arrow (C) is pointing where you want the sprinkler to begin spraying.

3. CHANGING THE RIGHT STOP POSITION

Insert the K-Key (A) or a small flat blade screwdriver into the arc set adjustment (O). Turn clockwise to increase the arc or counter-clockwise to decrease the arc. **NOTE:** The arc set arrow (E) in the center of the nozzle turret (K) rotates to show the current setting. When set at 360°, the K2PRO will rotate continuously in a clockwise direction.

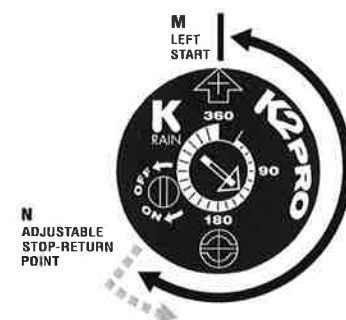
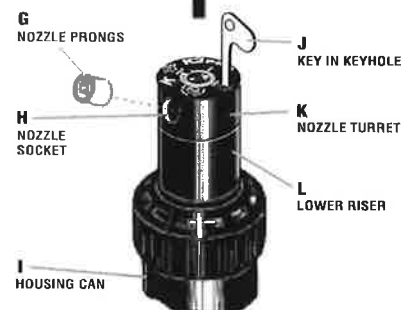
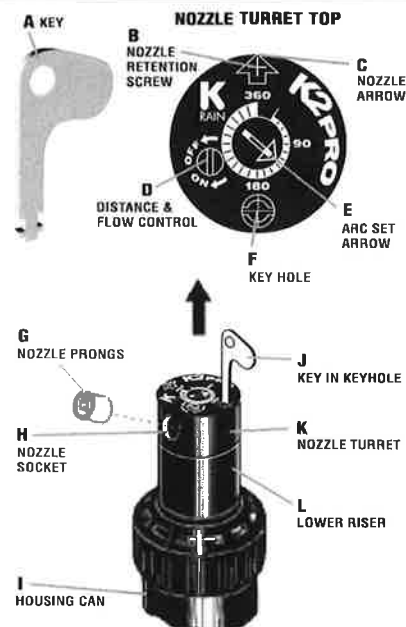
4. OPERATING THE DISTANCE & FLOW CONTROL

To adjust water flow & distance insert your K-Key (A) into the Distance & Flow Control (D) and turn counter-clockwise. During zone operation the Riser (L) will remain up.

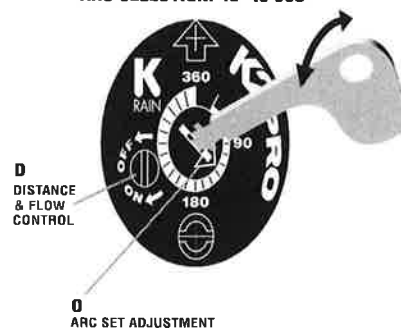
PERFORMANCE DATA

STANDARD NOZZLES				LOW ANGLE NOZZLES			
NOZZLES	PRESSURE PSI	RADIUS FT.	FLOW GPM	NOZZLES	PRESSURE PSI	RADIUS FT.	FLOW GPM
#0.5	30	30"	0.45	#3	30	35'	3.4
	40	29"	0.5		40	36'	3.8
	50	26"	0.6		50	38'	4.2
	60	26"	0.7		60	39'	4.8
#0.75	30	32"	0.7	#4	30	42'	4.1
	40	32"	0.8		40	44'	4.6
	50	33"	0.9		50	45'	5.1
	60	33"	1.0		60	46'	5.7
#1	30	30"	1.1	#6	40	46'	5.8
	40	32"	1.3		50	48'	6.4
	50	33"	1.5		60	49'	7.0
	60	33"	1.6		70	49'	7.5
#2	30	38"	2.3	#8	40	42'	7.5
	40	38"	2.5		50	45'	8.2
	50	40"	2.7		60	48"	9.0
	60	42"	3.0		70	48"	9.5
#2.5 PRE-INSTALLED	30	35"	2.5	#6	40	30"	6.0
	40	36"	2.8		50	34"	7.0
	50	37"	3.2		60	37"	7.8
	60	38"	3.6		70	38"	8.2

*Data represents test results in zero wind. Adjust for local conditions.
Radius may be reduced with the nozzle retention screw.



ARC SELECTION: 40° to 360°



K-RAIN MANUFACTURING CORP.
1640 Australian Avenue
Riviera Beach, FL 33404 USA
PH: 1-561-844-1002 / 1-800-735-7246
FAX: 1-561-842-9493
www.krain.com

© K-RAIN Manufacturing Corp.
Part Number: 11005115 Rev. 10

MENU

Map



Climate Engine

Colors ▾

Map ▾

Layers ▾

Masking ▾

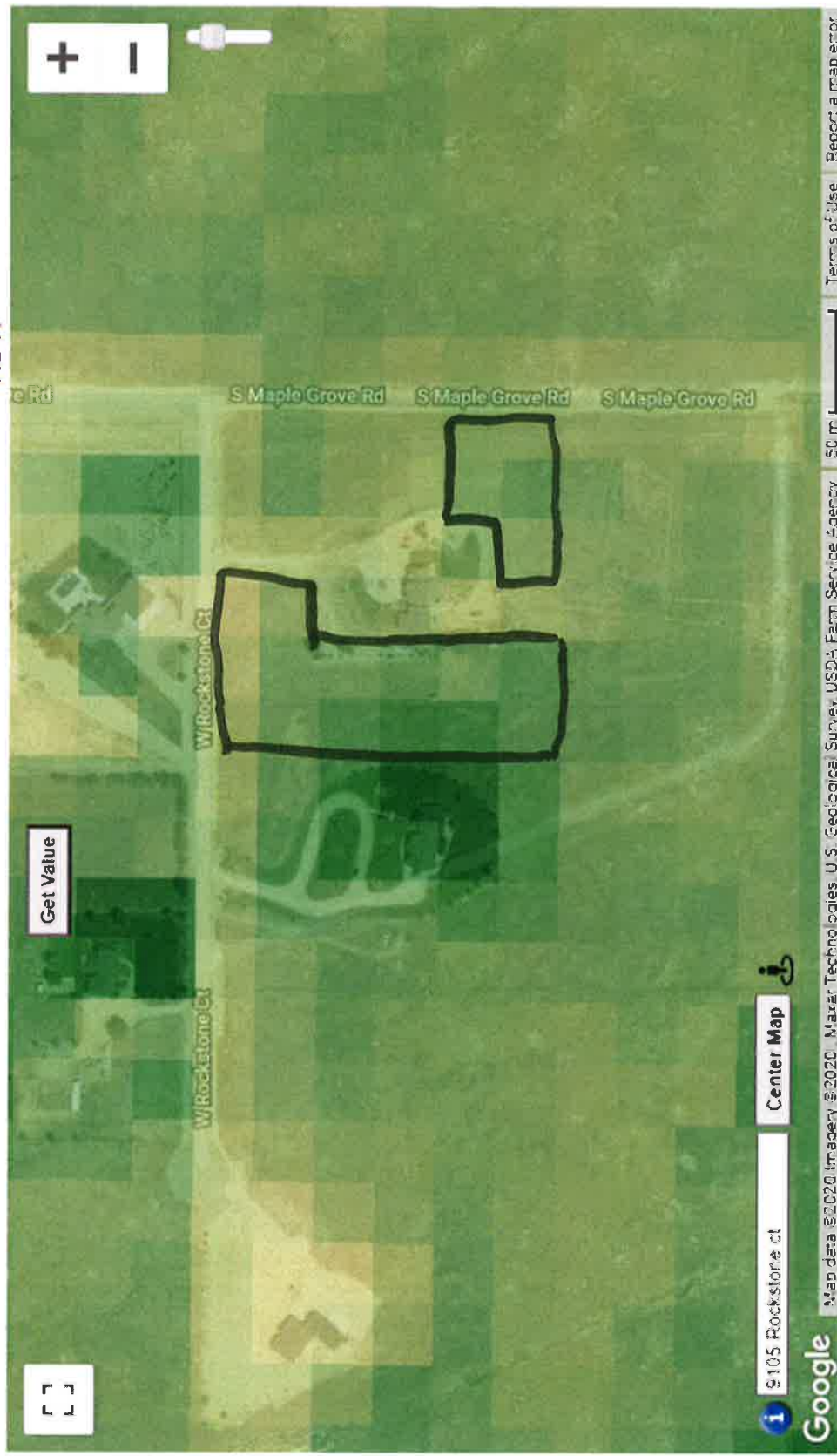
Download ▾

Link

Reset

NDVI (Landsat 4/5/7/8 SR)

2019-05-20 to 2020-05-19, Maximum



BasinSequence	Owner	Source	POD	POU	Use	NENE	NWNE	SWNE	SENE	NENW
63-10821	DESERT VIEW ESTATES	WAT GROUND WATER	POU	MUNICIPAL						
63-11499	HARRINGTON, DANIEL P;	ML GROUND WATER	POU	IRRIGATION						
63-11970	CITY OF KUNA	GROUND WATER	POU	MUNICIPAL	X		X		X	
63-12055	UNITED WATER IDAHO INC	BOISE RIVER	POU	MUNICIPAL						
63-12394	CITY OF KUNA	GROUND WATER	POU	MUNICIPAL	X		X		X	
63-12552	CITY OF KUNA;	UNITED WAT GROUND WATER	POU	MUNICIPAL	X		X		X	
63-17290	ENLOE JR, LEWIS H;	ENLOE, I GROUND WATER	POU	DOMESTIC						
63-31481	CITY OF KUNA	GROUND WATER	POU	MUNICIPAL	X		X		X	
63-31753	BLACKMAN, JOHN R;	BLACKI GROUND WATER	POU	DOMESTIC						
63-31753	BLACKMAN, JOHN R;	BLACKI GROUND WATER	POU	IRRIGATION						
63-3221	ANDERSON ENTERPRISES;	AI GROUND WATER	POU	IRRIGATION						
63-3266	CITY OF KUNA	GROUND WATER	POU	MUNICIPAL	X		X		X	
63-33200	HARR, JEFFREY;	HARR, SARA GROUND WATER	POU	DOMESTIC						
63-33200	HARR, JEFFREY;	HARR, SARA GROUND WATER	POU	IRRIGATION						
63-33206	JENKINS, JOE;	NEAL JENKINS GROUND WATER	POU	IRRIGATION						3
63-33896	ANDERSON ENTERPRISES;	AI GROUND WATER	POU	IRRIGATION				3		
63-7072	HANSGEORG BORBONUS	LA GROUND WATER	POU	IRRIGATION						
63-7510	HUNTER, DALE E;	HUNTER, I GROUND WATER	POU	DOMESTIC					X	
63-7510	HUNTER, DALE E;	HUNTER, I GROUND WATER	POU	IRRIGATION						3
63-7510	HUNTER, DALE E;	HUNTER, I GROUND WATER	POU	STOCKWATER					X	
63-7786	POSEY, STEVE;	THOMAS, CIN GROUND WATER	POU	DOMESTIC						
63-7786	POSEY, STEVE;	THOMAS, CIN GROUND WATER	POU	IRRIGATION						
63-8198	LOUX, HARVEY W;	LOUX, LEI GROUND WATER	POU	IRRIGATION						
63-8215	CITY OF KUNA	GROUND WATER	POU	MUNICIPAL	X		X		X	X

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

835352
Office Use Only
Well ID No. 396568
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 _____ 1/4 _____ 1/4 _____
Lat: _____ Long: _____

1. WELL TAG NO. D 0039536
DRILLING PERMIT NO. _____
Water Right or Injection Well No. _____

2. OWNER:
Name Joe Jenkins
Address 9105 Rock Stone
City Kuna State Id Zip 83634

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 2 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 26 1/4 NE 1/4 SE 1/4
Gov't Lot _____ County Ada

Lat: _____ Long: _____
Address of Well Site 9105 Rock Stone Ct
City Kuna
Lt. 9 Blk. 1 Sub. Name Rockstone Est.
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 Material	From	To	Weight / Volume	Seal Placement Method
Same as Original on D0031990				

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
Added to Original - new								
6"	12	387	250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 10' Length of Tailpipe _____
Packer ☒ Y ☐ N Type K. Packer

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____
Screen Type & Method of Installation Johnson washdown

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
387	397	.010		5"	SS	<input type="checkbox"/>	<input type="checkbox"/>

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

220 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: Original well cap

12. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
30			1 hour

Water Temp. 78° Bottom hole temp. _____
Water Quality test or comments: Iron 6.0 PH 6.0
Grains 1.0 Depth first Water Encounter 380'

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
			extended from original			
6	380	397	sand & gravel	X		
RECEIVED						
AUG 22 2005						
WATER RESOURCES WESTERN REGION						
Completed Depth <u>397'</u> (Measurable)						
Date: Started <u>08/15/05</u> Completed <u>08/16/05</u>						

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 ABC Well Drilling Firm No. 621
Principal Driller Guy Raye Date 08/17/05
and Andy Payne
Driller or Operator II Date 08/17/05
Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only		
Well ID No.	825940	
Inspected by		
Twp	Rge	Sec
1/4	1/4	1/4
Lat:	Long:	

1. WELL TAG NO. D 0031990
DRILLING PERMIT NO. _____
Water Right or Injection Well No. _____

2. OWNER:
Name Joe Jenkins
Address 4441 Meriwether Dr
City Boise State Id Zip 83705

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 2 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 26 1/4 NE 1/4 SE 1/4
Gov't Lot _____
County Ada
Lat: _____ Long: _____
Address of Well Site 9105 Rock Stone

City Kuna
Lt. 9 Blk. 1 Sub. Name Rock Stone Estates

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 Material	From	To	Weight / Volume	Seal Placement Method
Bentonite	0	80	1850#	overbore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 318'Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+2	318	250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☐ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method of Installation No screen - open hole

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

210 ft. below ground Artesian pressure _____ lb.

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

well cap

12. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
55			1 hour

Water Temp. 80° Bottom hole temp. _____Water Quality test or comments: Iron 6.0 PH 7.0Grains 3 Depth first Water Encounter 380'

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	2	top soil		
"	2	4	hard pan		
"	4	7	clay		
"	7	31	lava		
"	31	37	red cinders		
"	37	80	lava		
6	80	85	clay		
"	85	275	gravel & sand		
"	275	280	clay		
"	280	310	sand & clay	X	
"	310	327	sand & gravel	X	
"	327	380	sand w/ some gravel	X	

RECEIVED

NOV 22 2004

WATER RESOURCES
WESTERN REGIONCompleted Depth 380' (Measurable)Date: Started 11.14.04 Completed 11.16.04

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 ABC Well Drilling Firm No. 621Principal Driller Andy Payne Date 11.18.04and Driller or Operator II AMIR PAINE Date 11.18.04

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES