

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 25-7669

Exam Date: 6/4/2015

1. Current Owner: BLACKHAWK HOMEOWNERS ASSOC INC
8070 BLACKHAWK DR
IDAHO FALLS ID 83406

And

IRON RIM RANCH HOME OWNERS ASSN INC
9936 HENRY CREEK RD
IDAHO FALLS ID 83406

2. Accompanied by: Colvin Jergens

Phone No: (208) 390-7073

Address: 8070 Blackhawk Dr. Idaho Falls, ID 83406

Relationship to Permit Holder: President of Blackhawk and Iron Rim Ranch water committee.

3. SOURCE**TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 25-14395
2. Other water rights with the same point of diversion: 25-14274, 25-14395

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

GROUND WATER	NE1/4SE1/4	Sec. 11,	Twp 01N,	Rge 38E, B.M.
BONNEVILLE County				
GROUND WATER	NE1/4SE1/4	Sec. 11,	Twp 01N,	Rge 38E, B.M.
BONNEVILLE County				

Method of Determination: GPS and aerial photography

2.

PLACE OF USE: DOMESTIC

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	38E	11													X		X	X	
01N	38E	12									X	X							
01N	38E	13					X	X	X	X	X	X	X	X					
01N	38E	14																X	
01N	38E	23	X			X													
01N	38E	24					X	X	X	X	X	X							

Method of Determination: Aerial photography

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>
D0011352 (well 1)		250			
D0044154 (well 2)		250			

D. FLOW MEASUREMENTS

2. Measurements:

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method:

Water system includes three flow meters. The installed meters were used for the flow calculation. Records show that the instantaneous rate of diversion for this system is 1200 gallons per minute or 2.67 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses:

Domestic use:

In-house = 65 homes x 0.6 acre-feet = 39.0 acre-feet

Irrigation = 65 lots X 0.5 acre per lot X 2.3 acre-feet per acre (CIR, ET Idaho) = 74.8 acre-feet

Total volume = 113.8 acre-feet.

G. NARRATIVE/REMARKS/COMMENTS

Water delivery system consists of two wells equipped with 250 hp pumps, 12" mainline and a 560,000 gallon storage tank. This water delivery system supplies water to 139 lots. This right is for 65 of 139 lots within the Blackhawk and Iron Rim Ranch Subdivisions. Permit 25-14395 covers the in-house use for the remaining lots within the two subdivisions.

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>
DOMESTIC	1/01 to 12/31	1.050 CFS	113.8 AF
<u>Totals:</u>		1.050 CFS	113.8 AF

2. Recommended Amendments

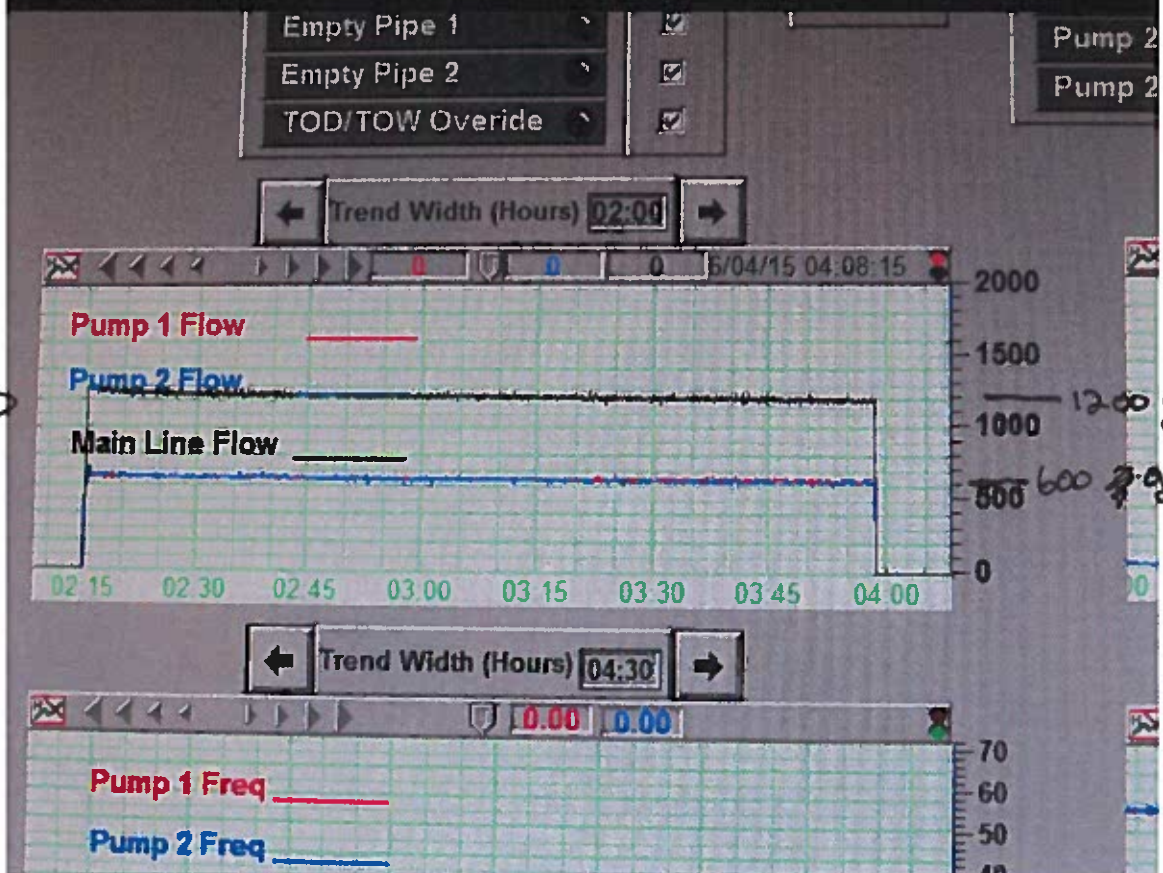
☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☒ Add P.U. as reflected above ☐ Other

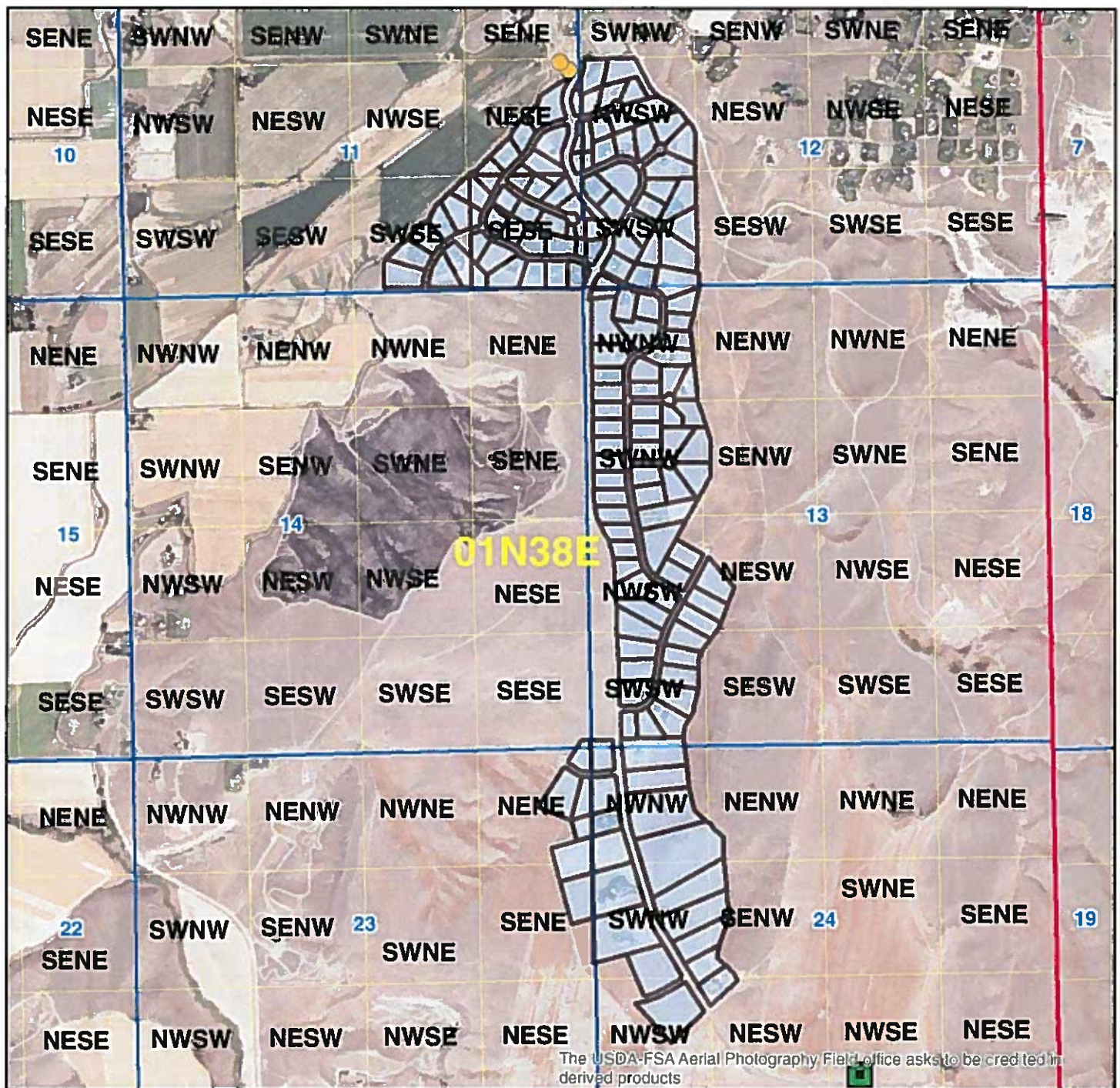
I. AUTHENTICATION

Field Examiner's Name Blake Jordan Date 6/8/2015

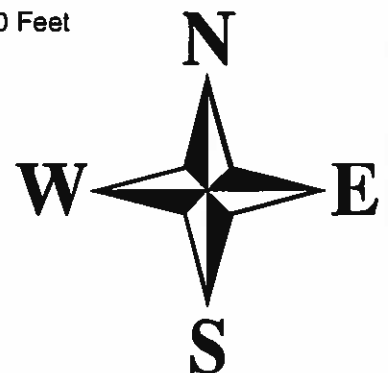
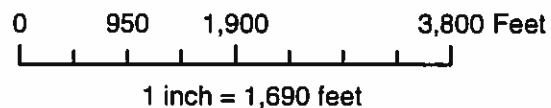
Reviewer James Cefalo Date 7/1/2015



25-7669



-  Points of Diversion
 Storage Tank
 Place_of_Use
 Township/Range
 Sections
 QQ



Well #1



Well #2



560,000 gallon storage tank

ET_{Idaho} 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison at kimberly dot uidaho dot edu Copyright 2012, University of Idaho.

Idaho Falls FAA Arpt (NWS -- 104457)

Statistics based on thirty year normal spans 1965 to 2001 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Grass - Turf (lawns) - Irrigated														
Precipitation Deficit (Click here for a graph)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b
Mean ^j	mm/day												mm	
Monthly ^c	-0.11	0.02	0.12	0.70	2.97	4.97	5.52	4.93	3.18	0.56	-0.36	-0.19	709	-19
15-Day Moving Average ^d	-0.10	0.00	0.09	0.61	2.97	4.99	5.46	4.83	3.22	0.52	-0.38	-0.17	2.3 Ave-Act / Ave	
7-Day Moving Average ^e	-0.10	0.01	0.11	0.62	2.95	4.95	5.50	4.93	3.20	0.52	-0.39	-0.17		
3-Day Moving Average ^f	-0.11	0.02	0.12	0.67	2.97	4.96	5.52	4.95	3.21	0.56	-0.37	-0.18		
Standard Deviation ^k	mm/day												mm	
Monthly ^c	0.35	0.09	0.24	0.86	2.07	1.14	1.77	1.71	1.45	1.14	0.36	0.35	105	17
15-Day Moving Average ^d	0.32	0.12	0.26	0.95	1.76	1.42	1.43	1.55	1.53	1.03	0.50	0.33		
7-Day Moving Average ^e	0.42	0.20	0.41	1.17	2.27	2.03	1.69	1.80	1.95	1.46	0.68	0.44		
3-Day Moving Average ^f	0.58	0.33	0.65	1.52	2.96	2.78	2.21	2.30	2.46	1.96	1.01	0.61		
20% Exceedance ^l	mm/day												mm	
Monthly ^c	0.02	0.10	0.21	0.94	4.50	6.00	6.31	5.63	4.38	1.48	-0.07	0.00	805	-5
15-Day Moving Average ^d	0.10	0.18	0.45	1.70	5.67	6.83	6.76	6.45	5.25	2.44	0.17	0.11		
7-Day Moving Average ^e	0.19	0.36	0.70	2.74	6.82	7.46	7.19	6.91	5.85	3.68	0.33	0.20		

3-Day Moving Average ^f	0.25	0.60	1.08	3.34	8.00	9.05	8.33	8.33	6.91	4.47	0.52	0.27			
80% Exceedance^m	mm/day												mm		
Monthly ^c	-0.25	-0.07	0.00	0.14	1.16	3.85	4.89	4.56	1.66	-0.12	-0.49	-0.45	598	-37	590
15-Day Moving Average ^d	-0.61	-0.21	-0.27	-0.30	-0.05	2.47	4.04	3.32	0.06	-0.82	-0.98	-0.88			
7-Day Moving Average ^e	-1.10	-0.50	-0.77	-0.94	-1.70	-0.13	1.68	2.05	-0.80	-2.15	-1.96	-1.41			
3-Day Moving Average ^f	-2.37	-1.00	-1.98	-2.68	-6.26	-5.38	-1.47	-1.45	-3.56	-5.58	-3.85	-3.06			
Ave Highest P_{def}	mm/day												--		
15-Day Moving Average ^g	0.07	0.12	0.38	1.17	4.24	6.04	6.19	5.57	4.11	1.45	0.08	0.05			
7-Day Moving Average ^h	0.14	0.30	0.62	1.83	5.61	6.93	6.67	6.43	4.98	2.34	0.23	0.14			
3-Day Moving Average ⁱ	0.21	0.42	0.92	2.52	7.07	8.26	7.78	7.55	5.90	2.99	0.37	0.21			
Ave Lowest P_{def}	mm/day												--		
15-Day Moving Average ^g	-0.25	-0.11	-0.15	0.13	1.70	3.81	4.82	3.86	2.17	-0.26	-0.70	-0.39			
7-Day Moving Average ^h	-0.52	-0.28	-0.49	-0.59	0.13	2.06	3.81	2.76	0.98	-1.15	-1.26	-0.75			
3-Day Moving Average ⁱ	-1.12	-0.68	-1.34	-1.88	-2.58	-1.08	1.42	0.52	-1.09	-2.98	-2.54	-1.49			
Special normal distribution parameters for monthly, seasonal, and annual intervals															
Skew ^m	-0.76	0.44	0.49	2.69	0.03	-0.27	-1.12	-0.95	-0.76	-0.03	-1.48	-0.32	0.04	-0.01	0.04
Kurtosis ^o	1.69	2.44	1.55	11.36	0.61	2.34	3.72	2.94	2.71	0.55	5.26	0.61	1.82	2.24	1.95

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.

^b Nongrowing Season: This is usually the time from a killing frost or harvest in the fall to the of green up in the spring. It is not applicable for entries without a growing season.

^c Mean of the average daily value for month

^d Mean of the fourteen 15-day period averages contained in the month

^e Mean of the twenty three 7-day period averages contained in the month

^f Mean of the twenty seven 3-day period averages contained in the month

^g Mean of the highest/lowest 15-day period average in month

^h Mean of the highest/lowest 7-day period average in month

ⁱ Mean of the highest/lowest 3-day period average in month

^j This value represents the *mean value* for the parameter for the month over the 'normal' period of record. Generally, the 'normal' period is the last thirty years with data.

^k This value represents the *standard deviation* for the parameter for the month over the 'normal' period.

^l This value represents the *value* for the parameter that has a 20% chance of being exceeded that month during any particular year. Conversely, there is an 80% chance that the parameter value will be less than the *value* shown.

^m This value represents the *value* for the parameter that has a 80% chance of being exceeded that month during any particular year. Conversely, there is an 20% chance that the parameter value will be less than the *value* shown.

ⁿ This value represents the *skewness (asymmetry) of the distribution of the parameter values* for the month (year) over the 'normal' period. A value near zero indicates that the distribution approximates a normal (Gaussian) and symmetrical distribution. A negative skew indicates that the parameter distribution has relatively few low values compared to high values. A positive skew indicates that the distribution has relatively few high values compared to the number of low values. A skew value near 1 indicates that the underlying distribution approximates a lognormal distribution.

^o This value represents the *kurtosis* of the parameter value distribution for the month (year) over the 'normal' period. Kurtosis is a measurement of the height to width ratio of the probability distribution, or the *peakedness (slenderness)*. A normal (Gaussian) distribution has a kurtosis of 3. A high kurtosis distribution has a sharper peak and longer tails, while a low kurtosis distribution has a more rounded peak and shorter tails.

This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

The citation for the evapotranspiration data used from this site should be: *Allen, Richard G. and Clarence W. Robison, 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008. Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.*

Questions regarding the data should be addressed to [Clarence W. Robison](#) or [Richard G. Allen](#), University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208)-423-6610

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with matplotlib, and kinterbasdb.

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

25

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

1. WELL TAG NO. D D0044154
 DRILLING PERMIT NO. 25-7669
 Water Right or Injection Well No. _____

2. OWNER:
 Name Blackhawk Ventures LLC Air
 Address 155 N. Woodruff
 City Takoma Falls State ID Zip 83404

3. LOCATION OF WELL by legal description:

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

Twp. 1 North ☒ or South ☐
 Rge. 38 East ☒ or West ☐
 Sec. 11 1/4 NE 1/4 SE 1/4
 Gov't Lot _____
 County Bonneville
 Lat: _____ Long: _____
 Address of Well Site South end of Crowley Rd.

(Give at least name of road - Distance to Point or Landmark)
 City Ammon
 Lt. _____ Blk. _____ Sub. Name Blackhawk

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
Overbore	0	95	4 yds	Cement
			3250	Bentonite

Was drive shoe used? ☒ N ☐ Shoe Depth(s) _____

Was drive shoe seal tested? ☒ N ☐ How? pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	118"	215	3.75	Steel	☒	☐	☒	☐
14"	197	320	.250	Steel	☐	☒	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☐ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method Factory Perforated pipe

Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
202	320	1/4	5040	14"	Steel	☐	☒

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

130 ft. below ground Artesian pressure _____ lb.

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

12. WELL TESTS:

☒ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
750			9 hrs
Pump 1247	86'	213'	30 hrs

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
22	0	3	soil		☒
22	3	95	sandy soil		☒
20	95	115	sand-gravel		☒
16	115	135	coarse gravel		☒
16	135	160	clay - riolite chips	☒	
16	160	180	riolite chips, Ash, sandy clay	☒	
16	180	200	Red Ash, gravel, riolite	☒	
16	200	215	Broken riolite, gravel, ash	☒	
16	215	238	riolite		☒
16	238	242	Broken riolite		☒
16	242	245	riolite		☒
16	245	255	riolite, red Ash	☒	
16	255	258	riolite		☒
16	258	264	Broken riolite	☒	
16	264	283	riolite	☒	
16	283	287	Black Basalt	☒	
16	287	295	Red Ash	☒	
16	295	303	Red c Grey Ash	☒	
16	303	310	" "	☒	
16	310	315	Grey Ash	☒	
16	315	320	Red c Grey Ash, little clay	☒	

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SEP 08 2006

Department of Water Resources
Eastern Region

Completed Depth 320' (Measurable)

Date: Started 7-7-06 Completed 7-20-06

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 Volunteer Well Drilling Firm No. 383

Principal Driller [Signature] Date 8-28-06

and Driller or Operator _____ Date _____

Operator I _____ Date _____

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

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 0011352
 DRILLING PERMIT NO. 25-99-E-0157.000
 Other IDWR No 25-67669

2. OWNER:
Name MORGAN CONSTRUCTION
Address P.O. Box 1604
City Idaho Falls State ID Zip 83403

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location 208-529-3312


 Twp 01 North ☒ or South ☐
 Rge 38 East ☒ or West ☐
 Sec 11 1/4 NE 1/4 SE 1/4
 Gov't Lot _____ County BENTONVILLE
 Lat: : : Long: : :

Address of Well Site _____
City Indian Falls

Lt _____ Blk _____ Sub _____ Name _____

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	
CEMENT	-7	2618	6 yds	PRESSURE ~~PER~~ (200)

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 261.8"
Was drive shoe seal tested? ☒ Y ☐ N How? RT

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12"	+ 2	26 1/8'	25's	STEEL	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. **PERFORATIONS/SCREENS**
 Perforations _____ Method _____
 Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Line
		1/2	12			☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
125 ft below ground Artesian pressure _____ lb.
 Depth flow encountered _____ ft. Describe access port or
 control devices: _____

11. WELL TESTS:

☒ Pump ☐ Baller ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
725	19.7'	144.75	6

Water Temp _____ Bottom hole temp _____

Water Quality test or comments: _____

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

[illegible]

Completed Depth 270 (Measurable)
Date: Started 09/22/99 Completed 10/03/99

13. DRILLER'S CERTIFICATION

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

Company Name Holtzman Drilling Inc Firm No. 383
Firm Official [Signature] Date 10/15/99
and
Driller or Operator [Signature] Date 12-10-99
(Sign once if Firm Official & Operator)