

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-07572
Exam Date: 11/8/2018

1. Current Owner:

FOOTHILL DEVELOPMENT
9337 S 1300 E
SANDY UT 84094
(801) 572-1661

2. Accompanied by: Corey Skinner, IDWR; Phone conversations with Ron Bloxham, representative of owners of property, DD & K, LLC.

Phone No: Ron Bloxham – 208-833-4276

Address:

Relationship to Permit Holder: Contact person of DD & K, LLC in Challis.

3. **SOURCE:**
GROUND WATER**TRIBUTARY:****B. OVERLAP REVIEW**

1. Other water rights with the same place of use: 72-51D – surface water irrigation right for lawn and landscaping.
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 SW¼SE¼ Sec. 28, Twp 14N, Rge 19E, B.M. CUSTER County

GROUND WATER SW¼SE¼ Sec. 28, Twp 14N, Rge 19E, B.M. CUSTER County

Method of Determination: ArcMap aerial imagery and site visit.

2.

PLACE OF USE: COOLING

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14N	19E	28															X		

PLACE OF USE: HEATING

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14N	19E	28															X		

Method of Determination: ArcMap aerial imagery and site visit.

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	Description	Pump Make	Drilling Tag Number
Well #1			Well in lawn closer to building		D0008368
Well #2			Well on south end of parking lot		D0008369

*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

2. Measurements: No measurement required per Beneficial Use Exam rules due to permit flow rate 0.24 cfs or less.

E. FLOW

Additional Computation Sheets Attached

CALCULATIONS

Measured Method: NA

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA

 $V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \text{NA}$ $V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \text{NA}$ $V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \text{NA}$

2. Volume Calculations for Other Uses: Representative for owner of property estimated use for heating from October through April (212 days) at 12 hours/day, so $212 \text{ days} \times 12 \text{ hours} = 2544 \text{ hours}/24 \text{ hours per day} = 106 \text{ days} \times 0.12 \text{ cfs} \times 1.9835 \text{ AF/day} = \mathbf{25.2 \text{ AF}}$.

Cooling use was estimated to run from May through September (153 days) at 8 hours/day, so $153 \times 8 = 1224 \text{ hours}/24 \text{ hours per day} = 51 \text{ days} \times 0.12 \text{ cfs} \times 1.9835 \text{ AF/day} = \mathbf{12.1 \text{ AF}}$.

Total volume = 37.3 AF

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 72-7572 was conducted on November 8, 2018 with IDWR Southern Region Manager Corey Skinner in attendance. Two wells on the property are used to divert ground water to the closed loop heat pump system which provides heating and cooling to the U. S. Forest Service ranger station in Challis, with the water then returned to the subsurface via a shallow injection pit located behind the facility. The property has changed ownership since the permit was approved, and the new owners have not filed a change of ownership with IDWR, so I had to track them down through information on the parcel layer on ArcMap. The new owner is DD & K, LLC of Ogden, Utah. The listed member of the LLC is Douglas Sears of Ogden, to whom I wrote a letter of inquiry. Mr. Sears then contacted me by phone and urged me to contact Ron Bloxham of Challis for the licensing process. I spoke by phone with Mr. Bloxham on November 16, 2018 about the system. He indicated that no records of actual use existed, but he estimated that heating use of the water usually occurred from October through April, about 12 hours/day. His estimate of cooling use was for the months of May through September, at about 8 hours/day.

When I spoke to Mr. Sears, I noted that a change of ownership would be needed, and asked if he could contact the previous owner to initiate an Assignment of Permit. He said that it would be unlikely that he could make contact with the previous owners, so I suggested that we license the permit, then DD & K, LLC could file a change of ownership by supplying a conveyance document, and the \$25.00 fee. DD & K, LLC has been listed as 'Present Owner' in the IDWR database to allow for commencement of the process.

Additionally, the permit lists only one point of diversion, but it is clear from the application for permit, which reads in part, "Two 6" X 100' wells delivering to heat pump"; and the map attached to the application for permit, which shows two wells very close to the locations where they actually are, that the intention was to include two points of diversion on the permit. It appears that the omission of one well from the permit was an oversight by IDWR, so I will include both PODs in the SWSE of Section 28, as was clearly intended.

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>
COOLING	01/01 to 12/31	0.12 CFS	12.1 AF
HEATING	01/01 to 12/31	0.12 CFS	25.2 AF
	<u>Totals:</u>	0.120 CFS	37.30 AF

2. Recommended Amendments

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

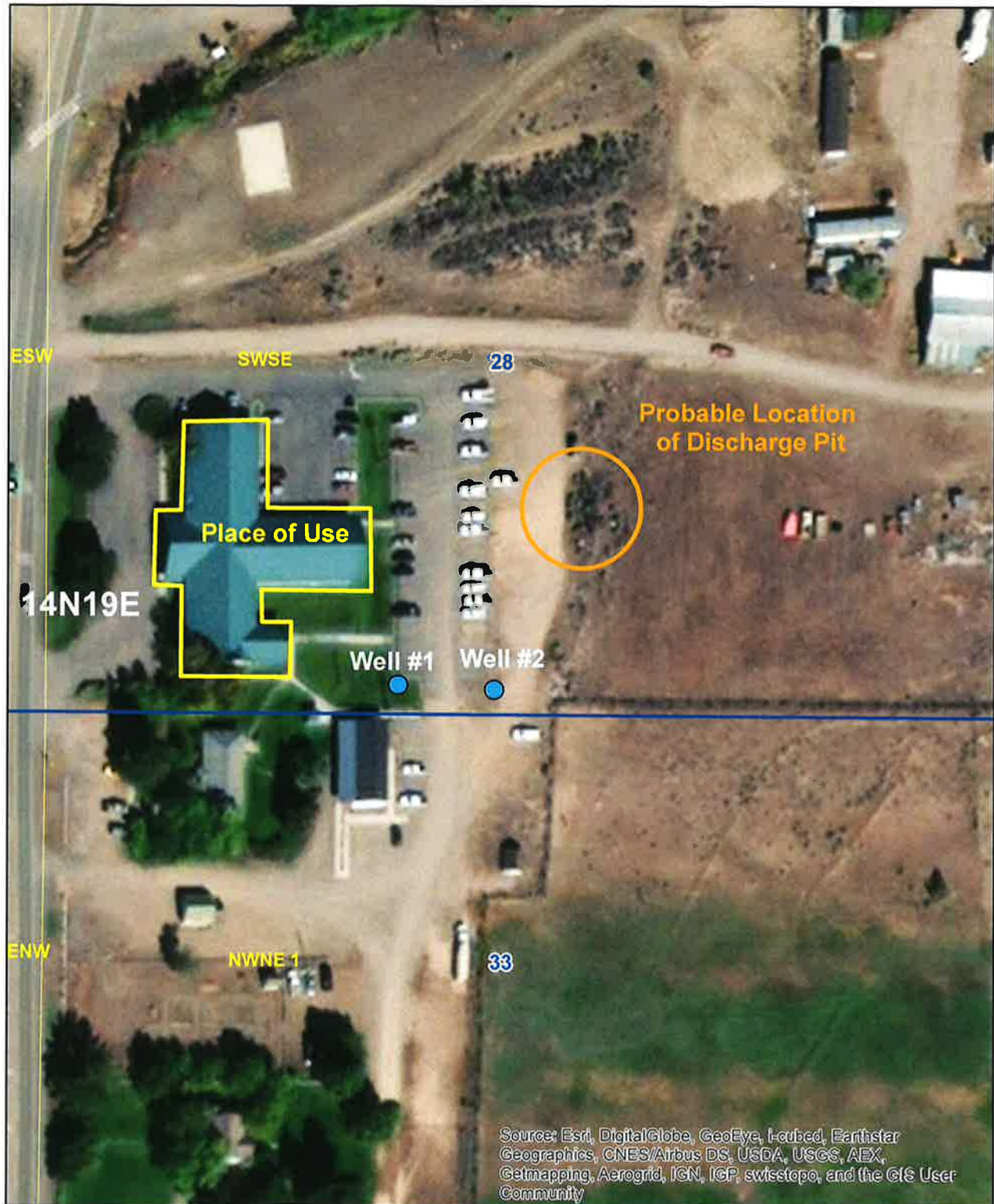
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

Field Examiner's Name Q R B Date 12-17-18

Reviewer _____ Date _____

System Diagram of right 72-7572



Legend

- Township/Range
- Sections
- QQ

0 0.01 0.02 0.04 Miles





Well nearest building – Tag #D0008368

Well in southeast corner of parking lot - Tag #D0008369





Return line from heat pump system to subsurface discharge pit

Plumbing for heating/cooling system inside building





Front view of Forest Service building

View of the back of the building, with the parking lot well in foreground, and the well nearest the building at arrow



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: _____

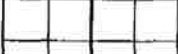
1. WELL TAG NO. D 000 8369
 DRILLING PERMIT NO. 12-91-S-0016-000
 Other IDWR No. 72-07-573

2. OWNER:

Name Foot Hill Development
Address 9337 S. 1300 E
City Sandy State UT Zip 84094

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.


 Twp. 14 N North ☒ or South ☐
 Rge. 19 East ☒ or West ☐
 Sec. 28 SW 1/4 SW 1/4 SE 1/4
 Gov't Lot _____
 County Custer 10 acres 10 acres 150 acres
 Lat. : : Long. : :
 Address of Well Site SAME
 Forest Service City CHALLIS
(Give at least name of road - Distance to Road or Landmark)

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	
Bentonite	0	20	200	Over Box

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 70
Was drive shoe seal tested? ☐ Y ☐ N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
60	+1	70	250	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Method AIR Perforator
Screen Type

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
42	68	1/4x1	200		Steel	☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

26 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or
control devices: TOP OF WELL

11. WELL TESTS:

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
25	60	65	5 DAYS

Water Temp. 56 Bottom hole temp. 56

Water Quality test or comments: Good

Bottom hole temp. 56

Depth first Water Encounter 41

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 GUTHRIE DRILLING Firm No. 226

Firm Official J. H. Muth 10-5-99
and

Driller or Operator _____ Date _____

(Sign once if Firm Official & Operator)

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: _____
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

1. WELL TAG NO. D 000 8368
DRILLING PERMIT NO. 72-99-S-0017 000
Other IDWR No. 72-07-578

2. OWNER:
Name Foothill Dev.
Address 9337 S. 1300 E
City SANDY State UT Zip 84094

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
W E S
Twp. 14N North ☒ or South ☐
Rge. 19E East ☒ or West ☐
Sec. 20 SW 1/4 SW 1/4 SE 1/4
Gov't Lot _____ County CUSTER
Lat: _____ Long: _____

Address of Well Site Behind Forest Service
(Give at least name of road + Distance to Road or Landmark) City CHALLIS

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	
<u>Bentonite</u>	<u>0</u>	<u>20</u>	<u>200</u>	<u>Over Bore</u>

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>6</u>	<u>+1</u>	<u>203</u>	<u>2.50</u>	<u>Steel</u>	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations Method Air Perforator
Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>42</u>	<u>200</u>	<u>1/100</u>	<u>1000</u>	<u>1/4"</u>	<u>Steel</u>	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

22 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: TOP OF WELL

058980
11. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
<u>12</u>	<u>100</u>	<u>108</u>	<u>5 DAYS</u>

Water Temp. 56 Bottom hole temp. 56
Water Quality test or comments: Good

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

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
	<u>0</u>	<u>6</u>	<u>PEA GRAVEL - Fill</u>		☒
	<u>6</u>	<u>42</u>	<u>BROWN SILT + Boulders</u>		☒
	<u>42</u>	<u>46</u>	<u>LARGE ROCK + GRAVEL</u>		☒
	<u>46</u>	<u>54</u>	<u>LARGE ROCK + Brown clay</u>		☒
	<u>54</u>	<u>66</u>	<u>LARGE ROCK + GRAVEL</u>		☒
	<u>66</u>	<u>104</u>	<u>Cemented GRAVEL seepage</u>		☒
	<u>104</u>	<u>126</u>	<u>BROWN CLAY + Boulders</u>		☒
	<u>126</u>	<u>203</u>	<u>Cemented GRAVEL + seepage</u>		☒

RECEIVED

OCT 06 1999

Department of Water Resources
Southern Region

RECEIVED

OCT 19 1999

MICROFILMED Department of Water Resources

NOV 30 1999

Completed Depth 203 (Measurable)
Date: Started 8-25-99 Completed 9-8-99

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 GUTHRIE DRILLING Firm No. 226

Firm Official G. J. Guthrie Date 10-5-99

Driller or Operator _____ Date _____

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

No. W 28163		Due no later than Jan 31, 2018 Annual Report Form		2. Registered Agent and Address (NO PO BOX)	
Return to: SECRETARY OF STATE 700 WEST JEFFERSON PO BOX 83720 BOISE, ID 83720-0080 NO FILING FEE IF RECEIVED BY DUE DATE		1. Mailing Address: Correct in this box if needed. DD&K, LLC DOUGLAS E. SEARS 2914 POLK AVE OGDEN UT 84403		BARBARA BROWNING 738 PAINTBRUSH LN HULEM MEADOWS KETCHUM ID 83340	
				3. New Registered Agent Signature:*	
4. Limited Liability Companies: Enter Names and Addresses of at least one Member or Manager.					
Office Held	Name	Street or PO Address	City	State	Country Postal Code
MEMBER	DOUGLAS E SEARS	2914 POLK AVE	OGDEN	UT	84403
5. Organized Under the Laws of: UT W 28163		6. Annual Report must be signed.* Signature: Douglas E. Sears Name (type or print): Douglas E. Sears			
Processed 11/28/2017		Date: 11/28/2017 Title: Secretary			
* Electronically provided signatures are accepted as original signatures.					