

MAR 16 1998

DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 1/4 1/4
Lat: : : Long: : :

Department of Water Resources
Southern Region
Use Typewriter or Ballpoint Pen

1. DRILLING PERMIT NO. 47-97-S-0117-000
Other IDWR No. 00002080

2. OWNER:

Name KASTER, EDITH & RICHARD
Address 1224-C E 3675 S
City BUHL State ID Zip 83316

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
W
E
S

X			

Twp. 9 North ☐ or South ☒
Rge. 14 East ☒ or West ☐
Sec. 4 1/4 NW 1/4 NW 1/4
Gov't Lot _____ County TWIN FALLS
Lat: : : Long: : :

Address of Well Site _____

City _____

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

Lt. 3 Blk. 2 Sub. Name OREGON TRAIL SUBD.

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 Sacks or Pounds	METHOD
Material	From	To		
CEMENT	-5	14	75 SACKS	PRESSURE GROUT
CEMENT	0	304	190 SACK	PRESSURE GROUT

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
10.75	-5	139	.250	STEEL	☐ X	☐	☐ X	☐
6.625	+1	304	.250	STEEL	☐ X	☐	☐ X	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☐ Screens Screen Type _____

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

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

_____ ft. below ground Artesian pressure 36 lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailer ☐ Air ☒ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
25			

Water Temp. 104 Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
12	250	3	SANDY TOPSOIL		X
	3	51	SAND		X
	51	54	SAND & GRAVEL		X
	54	65	SAND		X
	65	69	BOULDERS		X
	69	85	SAND		X
	85	87	SAND & GRAVEL		X
	87	102	SAND		X
	102	112	SAND & GRAVEL		X
	112	117	BOULDERS		X
	117	120	GRAVEL		X
	120	140	GREY BASALT SHALE		X
10	140	167	GREY BASALT SHALE		X
	167	170	BROWN GREY BASALT		X
	170	177	GREY BASALT SHALE		X
	177	208	HARD GREY BASALT		X
	208	210	SOFTER		X
	210	215	GREY SHALE		X
	215	240	GREY BLACK BASALT		X
	240	247	SOFTER BLACK BASALT		X
	247	278	BLACK BASALT		X
	278	282	SOFT BLACK BASALT		X
	282	309	HARD BROWN AND GRAY RHYOLITE		X
6	309	323	HARD BROWN AND GRAY RHYOLITE		X
	323	324	FRACTURED		X
	324	348	HARD BROWN AND GRAY RHYOLITE		X
	348	366	HARD BROWN AND GRAY RHYOLITE		X
	366	369	FRACTURED GREY CLAY		X
	369	420	HARD BROWN AND GRAY RHYOLITE		X
	420	423	SOFT SOFT CLAY		X
	423	438	BROWN AND GRAY RHYOLITE		X
	438	439	SOFT		X
			TO BE CONTINUED ON NEXT PAGE		

Completed Depth 479' (Measurable)
Date: Started 01/08/98 Completed 02/17/98

13. DRILLER'S CERTIFICATION

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

Firm Name WALKER WATER SYSTEMS INC. Firm No. 15

Firm Official [Signature] Date 03/12/98

Supervisor or Operator _____ Date 03/12/98

Printed 05/19/2004
Drilling Permit No. 719762
Well Tag No. D0002080
Well ID # 308883
Water Right No.
Receipt # S020408
Approved Date 09/23/1997
Extension Date: 11/19/1997 to 01/31/1998

**STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
DRILLING PERMIT**

Relationship: Owner/Operator
Name: RICHARD H KASTER
Address: 1539 E 4230
BUHL ID 83316

Phone: (208)543-2036

Relationship: Owner/Operator
Name: EDITH KASTER
Address: 1539 E 4230 N
BUHL ID 83316

Phone: (208)543-2036

Proposed Well Location: Township 09S, Range 14E, Section 4, NW, NW
COUNTY TWIN FALLS Lot 02 Block 02 Sub Name OREGON TRAIL

Street Address of Well Site:
ID

Proposed Use of Well: Heating

Well Construction Information:

- A. New Well
- B. Proposed Surface Diameter: 6 Inches. Proposed Depth 600 Feet.
- C. Anticipated Bottom Hole Temperature:

Construction Start Date: Oct 27 1997

Anticipated Well Drilling Company: WALKER WATER SYSTEMS INC (No. 15)

Applicant's Signature: _____ Date _____

Title: _____

Well ID # 308883

Well Tag No. D0002080

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This permit is Approved on Tuesday, September 23, 1997.

1. The owner, operator or contractor will notify the Department of Water Resources at the time drilling commences on this well, if that date is not the same as specified on this permit. Also notification will be made to the Department 12 hours prior to the anticipated time of placement of casing and seal within this well so a Department representative may be on site.
2. The Driller shall have the means to measure Bottom Hole Temperature (B.H.T.) on site at all times during drilling. B.H.T. measurements shall commence at the time the first aquitard is penetrated with measurements recorded and retained on the construction log. Measurements shall be taken at twenty foot intervals or at lithologic changes, whichever is more frequent, once B.H.T. reaches 75 degrees F. (23.9 oC), with all measurements recorded on the log. Prior to the temperature reaching 75 oF., a measurement will be taken before the commencement of drilling after a several hour down time, (ie mornings etc.) A minimum time interval of 1 hour will be allowed for the B.H.T. to stabilize between the cessation of drilling/tripping and making a measurement.
3. The surface casing or conductor pipe shall be flanged and ready to accept a gate valve which shall be installed when drilling commences below the depth the surface casing has been set. The gate valve shall remain on the well until completion or until another casing is grouted into the well at which time a B.O.P. or gate valve of the proper size and rating shall be installed on the new casing.
4. A caliper log may be run for determining the volume of cement to be placed with an additional 25 percent on site ready for mixing. If a caliper log is not run, an additional 100% of the calculated volume of cement shall be on site ready for placement. The 25 percent additional is a minimum and is based upon well bore conditions and is not applicable if lost circulation zones occur within the section being cemented.
5. To enhance bore hole conditions and to create a superior cement sheath around the casing, the following shall be implemented. Prior to cementing, drilling fluid properties shall be enhanced for removal of wall cake and to facilitate displacement by the cement, taking into account bore hole stability (preflushing). Pipe movement, either rotation or reciprocation during cement pumping should be undertaken. High cement pumping rates positively influence mud displacement, along with the use of centralizers or mud cake scratchers. Pressure within the casing shall be closely monitored during cement placement and WOC time to reduce casing expansion and creation of a micro annulus between casing and cement sheath.
6. Centralizers shall be located no more than 60' apart the entire length of all strings of casing placed in the well, excepting those <60' in length.
7. Drilling fluid containment on the site and noise suppression will be provided by the driller.
8. The screened, perforated, filterpacked or otherwise open and commingled strata shall not exceed 25% of the total well depth as measured from the bottom of the open interval to the top of the open interval(s). If, however, through geophysical logging of the well (or other means), it can be demonstrated the aquifers to be produced from are under similar hydraulic head, temperature and quality and are not subject to waste or contamination this may be waived and a greater open (screened or filterpacked section) may be approved.
9. All casing shall be sealed its entire length with cement or a cement grout mixture. The seal material shall be placed from the bottom up through the casing or tubing or by use of a tremie pipe. If there is no return of cement or cement grout at the surface after circulating all of the cement mixture on site, the department will determine whether

remedial work should be done to ensure no migration of fluids around the well bore at any depth.

10. If a neat cement grout is to be utilized as a seal material, additives such as the following shall be used to reduce dehydration and shrinkage. Mix water quantity shall strictly follow manufacturer's specifications paying close attention to cement grind and water ratios, (generally between 5 and 6 gallons per sack) eliminating free water. Water quality of the mix water shall meet drinking water standards.

11. A silica flour/200 mesh silica sand or microsilica can be utilized in a ratio of 30-50% to reduce permeability and increase stability and electrical resistance of the cement grout.

12. This drilling permit is valid for two (2) months from the approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.

13. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare which may be required prior to construction of this well. The local Health Department should be contacted for septic tank/drainfield locations. Domestic wells must not be drilled closer than 100' from any drainfield and 50' from any septic tank. Public Water Supply wells must not be drilled closer than 100' from any drainfield or septic tank.

14. The well shall be constructed by a driller currently licensed in the state of Idaho who must maintain a copy of the drilling permit at the drilling site.

15. Approval of this drilling permit does not authorize trespass on the land of another party.

16. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.

17. This drilling permit does not represent a right to divert and use the water of the State of Idaho.

18. If a bottom hole temperature of 85 Degrees F (29.44 oC) or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.

19. Idaho Code, S 55-2201 - 55-2210 requires the applicant and/or his contractors to contact "Digline" (DigLine is a one-call center for utility notification) not less than 2 working days prior to the start of any excavation for this project. The "Dig Line " Number for your area is &DIG-LINE-NUMBER

Signature of Authorized Dept Representative

Title