

**Daily Drilling Report**

Well ID: Forge 56-32

Field: UTAHFORGE

Job ID: Original

**Geothermal Resource Group, Inc.**

Well Name: 56-32

Sect: 32 Town: 26S Rng: 9W County: Beaver State: UT

Report No: 18

Report For 21-Feb-21

Operator:		University of Utah		Rig:		Frontier		Spud Date:		Daily Cost / Mud (\$):			---		
Measured Depth (ft):		7620		Last Casing:		9.625 at 3,494		Wellbore:		Original Wellbore		AFE No.		AFE (\$)      Actual (\$)	
Vertical Depth (ft):		7615		Next Casing:		5.500 at 9,000		RKB Elevation (ft):		30.40		---		---	
Proposed TD (ft):		9000		Last BOP Test:		12-Feb-21		Job Reference RKB (ft):		28.50		---		---	
Hole Made (ft) / Hrs:		413 / 12.0		Next BOP Test:				Working Interest:				Totals:		---	
Average ROP (ft/hr):		34.42						LOT (lbs/gal):		16.00		Job/Well Cost (\$):		---	
Drilling Days (act./plan):		14/30		Flat Days (act./plan):		0/8		Total Days (act./plan):		14/38		Days On Location:		18	
Pers/Hrs:		Operator: 2 / 24		Contractor:		14 / 168		Service:		11 / 132		Other:		0 / 0      Total: 27 / 324	

**Safety Summary:** No incidents or events reported. Conducted Safety Meeting.**Current Operations:** Pulling out of the hole.**Planned Operations:** Pull out of the well bore and lay down Eaver 8-3/4" reamers. Run in the hole with Mud Hammer and drill 8-3/4" hole.**Toolpusher:** David Seddell, Vince Shaffer**Wellsite Supervisors:** Virgil Welch, Paul Stroud

Tel No.: 7132807438

**Operations Summary**

From	To	Elapsed	End MD(ft)	Code	Operations Description	Non-Prod
0:00	5:00	5.00	7,207	10-6-2	Made up Bit #11 and new BHA. Ran in the hole to 7,141'.	
5:00	5:30	0.50	7,207	3-3	Washed and reamed 8-3/4" hole from 7,141' to 7,208'.	
5:30	7:30	2.00	7,434	3-2-2	Rotary drilled 8-3/4" hole from 7,208' to 7,434'.	
7:30	8:30	1.00	7,460	3-2-3	Slide drilled 8-3/4" hole from 7,434' to 7,460'.	
8:30	11:00	2.50	7,620	3-2-2	Rotary drilled 8-3/4" hole from 7,560' to 7,620'.	
11:00	12:00	1.00	7,620	3-5-1	Circulated well bore clean.	
12:00	15:30	3.50	7,620	3-6-2	Pulled out of the well bore laying down bit and BHA.	
15:30	18:00	2.50	7,620	3-34-3	Made up mud hammer and BHA.	
18:00	18:30	0.50	7,620	3-6-1	Ran in the hole with BHA.	
18:30	21:30	3.00	7,620	3-34-4	Fill pipe and test hammer, pulled out to trouble shoot Mud Hammer, changed out jet and mud orifice.	
21:30	0:00	2.50	7,620	3-6-1	Ran in the hole with mud hammer	

**Management Summary**

Made up BHA #11 and ran in the well bore. Washed 8-3/4" hole from 7,141' to 7,208' and drilled 8-3/4" hole from 7,208' to 7,620'. Circulated well bore clean and pulled out of the hole laying down bit and BHA.

**Comments**

While running in the hole the drill string with mud motor and two full gauge roller reamer, BHA was stuck at 5,778'. The bottom 8-3/4" reamer was stuck 14' above the mud hammer. Worked string with torque and pull. Spotted Torquease around tool and worked pipe free.

**Casing/Tubular Information**

Type	Size (ins)	Top MD (ft)	Top TVD (ft)	Bottom MD (ft)	Bottom TVD (ft)	Hole Section	OH Diam. (ins)	Nom. Wgt. (lbs)	Nominal Grade	LOT (lbs/gal)
FULL	20.000	30	30	129	129	COND				
FULL	13.375	0	0	382	382	SURF	17.500	55	J-55	16.30
FULL	9.625	0	0	3,494	3,488	INT1	12.250	36	J-55	16.00

**Mud Information**

										%					Gels			Temp		Mud
Dens.	Vis	PV	YP	Filt.	Cake	pH/ES	Solids	Oil	Water	Sand	LGS	Cl	Ca	CaCl	10s	10m	30m	In	Out	Loss
21-Feb-21 19:00 at Depth 7,620 ft Mud Pits																				
8.80	46	12	19	10.2	1	10.5	7	0	93	0.25		1100	1080		5	8	12	106	111	

**Mud Consumables**

Item Description	Qty.	Cost	Item Description	Qty.	Cost
Barite - OTHER	80	---	Ben-EX - OTHER	3	---
lime - OTHER	3	---	mica - OTHER	14	---
micro c - OTHER	25	---	PAallets/Wrap - OTHER	2	---
soda ash - OTHER	1	---	walnut Pine - OTHER	5	---
xanthan gum - OTHER	4	---			



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## Bit/BHA/Workstring Information

					Depth	This Run		R.O.P.					Mud		Pump							
No	Run	Make	Model	Diam	In	Dist	Hrs	Avg	Max	WOB	RPM	Torque	Wt	Flow	Press	J. Vel	P. Drp	HHP	JIF			
11	1	REED	TKC63	8.750	7207	413	4.96	83.3	307.0	40	40	6	9	670	3100	222	383	150	669			
Jets: 14 14 14					13 13 13		Out: 7620		Grade: Cutter:		1 / 1		Dull: NO / NO		Wear: A		Brgs: X		Gge: 1		Pull: TD	
12	1		Hammer I	8.750	7620																	
Jets:					Out:		Grade: Cutter:		/		Dull:		/		Wear:		Brgs:		Gge:		Pull:	
BHA - No. 12 - BIT, 3 OTHER, RR, OTHER, MWD, RR, 12 DC, 24 HWDP, OTHER = 1182.64																						

## Drilling Parameters

Depth (ft)		ROP (ft/hr)		WOB (lbs)		RPM		Torque (ft lbs)		Flow (gals/min)		Pressure (psi)
From	To	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	
7,141	7,460	90.0	140.0	45	45	200	200			670	700	3,300
Annular Velocity:		Drill Collars:		478.6	Drill Pipe:		318.5					

## Miscellaneous Drilling Parameters

Hook Loads (lbs):		Off Bottom Rotate:		210	Pick Up:		220	Slack Off:		280	Drag Avg/Max:		10 / 10
Slow Circulation Data:													
Pump 1:		20 spm	170 psi	40 spm	290 psi	60 spm	490 psi						
Pump 2:		20 spm	160 psi	40 spm	300 psi	60 spm	520 psi						

## Survey Information

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Closure	Vertical Section	Coordinates		
							N-S	E-W	D.L.S.
MWD	6,902.0	2.28	226.0	6,897.8	44.6	16.8	N 16.8	W 41.3	0.822
MWD	6,998.0	2.12	223.1	6,993.7	46.1	14.2	N 14.2	W 43.9	0.202
MWD	7,093.0	1.58	233.5	7,088.6	47.7	12.1	N 12.1	W 46.1	0.667

## Mud Log Information

Depth (ft)		TVD (ft)		Gas (Units)		Gas Connect.	Trip	Drilling Exp.	Pore Press	Mud Dens.	Shale Dens.	ROP	
From	To	From	To	Avg	Max							Shale	Sand
7,200	7,330	7,325	7,325										
Formation Name:													
Lithology: 100% Granodiorite (													
7,330	7,390	7,325	7,385										
Formation Name:													
Lithology: 100% Granodiorite													
7,390	7,440	7,385	7,435										
Formation Name:													
Lithology: 100% Granodiorite													
7,440	7,560	7,435	7,555										
Formation Name:													
Lithology: 100% Granodiorite													
7,560	7,580	7,555	7,575										
Formation Name:													
Lithology: 100% Granodiorite													
7,580	7,620	7,575	7,615										
Formation Name:													
Lithology: 100% Altered Zone (pervasive chlorite, calcite veining, hematite & epidote													

## Rig Information

Equipment Problems:

Location Condition:

Transport:



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### Solids Control Information

Screen Sizes: Top Bottom

Shaker No 1: 170

Shaker No 2: 170

Shaker No 3: 140

### Drill Pipe Inventory

DP Size	Joints	Weight	Grade	Thread	DP Size	Joints	Weight	Grade	Thread
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5	277	19.5	S-135	4.5IF					
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### Safety Information

Meetings/Drills	Time	Description
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Safety	60	Connections in derrick.
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First Aid Treatments: Medical Treatments: Lost Time Incidents: Days Since LTI:

☐ BOP Test ☐ Crownamatic Check

### Weather Information

Sky Condition:	Clear	Visibility:	10
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Air Temperature:	19 degF	Bar. Pressure:	30.51
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Wind Speed/Dir:	8 / ENE	Wind Gusts:	8
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