



Daily Drilling Report

Geothermal Resource Group, Inc.

Well ID: Forge 56-32

Job ID: Original

Well Name: 56-32

Field: UTAHFORGE

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.	---
Vertical Depth (ft):	7615	Next Casing:	5.500 at 9,000	RKB Elevation (ft):	30.40	AFE (\$)	---
Proposed TD (ft):	9000	Last BOP Test:	12-Feb-21	Job Reference RKB (ft):	28.50	Actual (\$)	---
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	---	PALlets/Wrap - OTHER	2	---
soda ash - OTHER	1	---	walnut Pine - OTHER	5	---
xanthan gum - OTHER	4	---			



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Bit/BHA/Workstring Information

No	Run	Make	Model	Diam	Depth In	This Run		R.O.P.		WOB	RPM	Torque	Mud		Pump		J. Vel	P. Drp	HHP	JIF
						Dist	Hrs	Avg	Max				Wt	Flow	Press					
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					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		Drilling Exp.	Pore Press	Mud Dens.	Shale Dens.	ROP	
From	To	From	To	Avg	Max	at Depth	Connect. Trip					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
5	277	19.5	S-135	4.5IF					

Safety Information

Meetings/Drills	Time	Description
Safety	60	Connections in derrick.

First Aid Treatments: Medical Treatments: Lost Time Incidents: Days Since LTI:

BOP Test Crownamatic Check

Weather Information

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