



# Daily Drilling Report

# Geothermal Resource Group

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: 22

Report For 25-Feb-21

Operator:	University of Utah	Rig:	Frontier	Spud Date:		Daily Cost / Mud (\$):	---		
Measured Depth (ft):	8810	Last Casing:	9.625 at 3,494	Wellbore:	Original Wellbore	AFE No.	AFE (\$)	Actual (\$)	
Vertical Depth (ft):	8800	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:	457 / 24.0	Next BOP Test:		Working Interest:		Totals:	---	---	---
Average ROP (ft/hr):	19.04			LOT (lbs/gal):	16.00	Job/Well Cost (\$):	---		
Drilling Days (act./plan):	18/30	Flat Days (act./plan):	0/8	Total Days (act./plan):	18/38	Days On Location:	22		
Pers/Hrs: Operator:	2 / 24	Contractor:	14 / 168	Service:	12 / 144	Other:	0 / 0	Total:	28 / 336

**Safety Summary:** No incidents or events reported. Conducted Safety Meeting.

**Current Operations:** Pulling out of the well bore from 8900' for new BHA.

**Planned Operations:** Change bits and BHA and drill 8-3/4" hole to TD.

**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	2:00	2.00	8,404	DRILR	Rotate drilled 8-3/4" hole from 8353' to 8404'.	
2:00	4:30	2.50	8,434	DRILS	Slide drilled 8-3/4" hole from 8404' to 8434'.	
4:30	10:30	6.00	8,598	DRILR	Rotate drilled 8-3/4" hole from 8434' to 8598'.	
10:30	12:00	1.50	8,611	DRILS	Slide drilled 8-3/4" hole from 8598' to 8611'.	
12:00	12:30	0.50	8,627	DRILR	Rotate drilled 8-3/4" hole from 8611' to 8627'.	
12:30	14:00	1.50	8,642	DRILS	Slide drilled 8-3/4" hole from 8627' to 8642'.	
14:00	15:00	1.00	8,661	DRILR	Rotate drilled 8-3/4" hole from 8642' to 8661'.	
15:00	16:00	1.00	8,676	DRILS	Slide drilled 8-3/4" hole from 8661' to 8676'.	
16:00	17:00	1.00	8,693	DRILR	Rotate drilled 8-3/4" hole from 8676' to 8693'.	
17:00	18:30	1.50	8,708	DRILS	Slide drilled 8-3/4" hole from 8693' to 8708'.	
18:30	19:00	0.50	8,728	DRILR	Rotary drilled 8-3/4" hole from 8708' to 8728'.	
19:00	20:00	1.00	8,743	DRILS	Slide drilled 8-3/4" hole from 8728' to 8743'.	
20:00	20:30	0.50	8,758	DRILR	Rotary drilled 8-3/4" hole from 8743' to 8758'.	
20:30	21:30	1.00	8,773	DRILS	Slide drilled 8-3/4" hole from 8758' to 8773'.	
21:30	22:00	0.50	8,785	DRILR	Rotary drilled 8-3/4" hole from 8773' to 8785'.	
22:00	0:00	2.00	8,810	DRILS	Slide drilled 8-3/4" hole from 8785' to 8810'.	

### Management Summary

Rotary and slide drilled 8-3/4" hole from 8353' to 8810'.

### Comments

Fighting strong trend requiring slide drilling to keep angle down. Formation appears to be in transition from Granodiorite to Gneiss with with gneissic banding, rexin of quartz, significant biotite and alternating felds/quartz.

Drill rate dropped from 42'/hour to 4'/hour at bottom while rotating.

### 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
25-Feb-21 19:30 at Depth 8,737 ft Mud Pits																				
9.00	42	14	16	10.8	1	10.5	8	0	92	0.1		1200	1120		4	5	9	108	118	

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**Mud Consumables**

Item Description	Qty.	Cost	Item Description	Qty.	Cost
caustic - OTHER	2	---	lime - OTHER	1	---
PAllets/Wrap - OTHER	3	---	soda ash - OTHER	5	---
xanthan gum - OTHER	8	---			

**Bit/BHA/Workstring Information**

BHA - No. 14 - BIT, MMTR, OTHER, STAB, MONEL, 12 DC, 24 HWDP = 1227.95

**Miscellaneous Drilling Parameters**

Hook Loads (lbs): Off Bottom Rotate: 240 Pick Up: 310 Slack Off: 190 Drag Avg/Max: 40 / 70

**Slow Circulation Data:**

<b>Pump 1:</b>	20 spm	170 psi	40 spm	290 psi	60 spm	490 psi
<b>Pump 2:</b>	20 spm	160 psi	40 spm	300 psi	60 spm	520 psi

**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
8,520	8,610												
<b>Formation Name:</b>													
<b>Lithology:</b> 100% Granodiorite, (absent calcite, rare hematite & chlorite)													
8,610	8,840												
<b>Formation Name:</b>													
<b>Lithology:</b> 100% Granodiorite (rare-trace calcite, trace chlorite)													
8,840	8,870												
<b>Formation Name:</b>													
<b>Lithology:</b> 0-60 Granodiorite, (gneissic banding, granodiorite exhibiting minimal migmatitic texture in quartz)													
8,340	8,400									8.90			
<b>Formation Name:</b>													
<b>Lithology:</b> 40-90% Granodiorite, 0-20% Syenite, 0-40% Altered zone with rare to minor epidote.													
8,400	8,520												
<b>Formation Name:</b>													
<b>Lithology:</b> 100% Granodiorite with trace calcite, rare trace chlorite													

**Rig Information**

Equipment Problems:

Location Condition:

Transport:

**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	High temperature mud.
<b>First Aid Treatments:</b>	<b>Medical Treatments:</b>	<b>Lost Time Incidents:</b>
<input type="checkbox"/> BOP Test	<input type="checkbox"/> Crownamatic Check	<b>Days Since LTI:</b>

**Weather Information**

<b>Sky Condition:</b> Clear	<b>Visibility:</b> 10
<b>Air Temperature:</b> 19 degF	<b>Bar. Pressure:</b> 30.2
<b>Wind Speed/Dir:</b> 6 / E	<b>Wind Gusts:</b> 6