

**Daily Drilling Report**

Well ID: FORGE 16B(78)-32

Field: FORGE

**University of Utah**

Well Name: FORGE 16B(78)-32

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

**Report No: 37****Report For 06:00 AM 23-May-23**

Operator:	UNIVERSITY OF UTAH	Rig:	Frontier 16	Spud Date:	26-Apr-23	Daily Cost / Mud (\$):			---
Measured Depth (ft):	8360	Last Casing:	11.750 at 4,837	Wellbore:	Original Wellbore	AFE No.	AFE (\$)	Actual (\$)	
Vertical Depth (ft):	7189	Next Casing:		RKB Elevation (ft):	31	---	---	---	
Proposed TD (ft):		Last BOP Test:	29-Apr-23	Job Reference RKB (ft):		---	---	---	
Hole Made (ft) / Hrs:	275 / 6.0	Next BOP Test:	28-May-23	Working Interest:		Totals:	---	---	
Average ROP (ft/hr):	45.83					Well Cost (\$):	---		
Days (actual / plan):	Drilling 4.8 / 0,	Flat 0 / 0,	Complete 0 / 0,	Total 4.8 / 0				DOL:	37
Pers/Hrs:	Operator: 3 / 36	Contractor:	14 / 168	Service:	6 / 72	Other:	3 / 36	Total:	26 / 312
Safety Summary: No incidents or events reported. 37 days since LTI. Conducted Crown Check, Safety Meeting.									
Current Operations: Drilling 9 1/2" hole section at 8,360'.									
Planned Operations: Drill 9 1/2" hole section to 8,585'. Circulate hole clean, trip out of the hole from 8,585' to surface, handle BHA, rig up SLB, log well.									
Toolpusher: Shawn Seddell, Clay									
Wellsite Supervisors: Leroy Swearingen, Brian Gresham						Tel No.:			

**Operations Summary**

From	To	Elapsed	End MD(ft)	Code	Operations Description	Non-Prod
6:00	11:30	5.50	8,085	TRPI	Rebuild roller reamer in BHA. Change pulsar speed from 300ms to 760ms. Pick up 6 stands S-135 insulated drill pipe and rack in derrick.	
11:30	13:00	1.50	8,085	TRPI	Pick up 10 stands S-135 insulated drill pipe and rack in derrick.	
13:00	15:00	2.00	8,085	BHAOP	Make up BHA #17 with new 7.15 mud motor, 1° fixed. Surface test MWD. Good test. Make up TKC 83 bit w/ dart sensor #2232.	
15:00	15:45	0.75	8,085	TRPI	Trip in hole from 129' to 1,979' with collars and HWDP.	
15:45	16:30	0.75	8,085	TRPI	Change out saver sub on top drive for insulated drill pipe.	
16:30	18:00	1.50	8,085	TRPI	Trip in stands out of the derrick from 1,979' to 3,000' with insulated drill pipe, 81 joints of S-135 on bottom of string, remaining joints to surface V-150.	
18:00	23:30	5.50	8,085	TRPI	Pick up singles of insulated drill pipe from 3,000' to 8,085', 81 joints of S-135 on bottom of string, remaining joints to surface V-150. Stage in from 6,000' to 8,085' in 500' increments. High temperature observed was 325° at 8,085'.	
23:30	2:00	2.50	8,257	DRIL	Drilling 9 1/2" hole from 8,085' to 8,257'. 60-95 rpm step test, 50-70 wob step test. 225-325 fph, 18K-25.2K torque, 600-700 gpm. Running one mud cooler. Beginning temp 163° on MWD tool. Pump 80 bbls fresh water sweep at 8,175'. Slide from 8,085' to 8,089'. Slide from 8,107' to 8,113'. Slide from 8,197' to 8,212'.	
2:00	2:30	0.50	8,257	OPEN	Reboot Pason system due to MSE not working while sliding.	
2:30	6:00	3.50	8,360	DRIL	Drilling 9 1/2" hole from 8,257' to 8,360'. 60-95 rpm step test, 50-70 wob step test. 225-325 fph, 18K-25.2K torque, 600-700 gpm. Turned on second mud cooler at 8,346'. Beginning temp 163° on MWD tool. Slide from 8,256' to 8,281'. Slide from 8,288' to 8,296'. Slide from 8,316 to 8,330'.	

**Management Summary**

Rebuilt roller reamer in BHA. Changed pulsar speed from 300ms to 760ms. Picked up 16 stands S-135 insulated drill pipe and rack in derrick. Make up BHA #17 with new 7.15 mud motor, fixed at 1°. Surface test MWD. Good test. Tripped in the hole from 129' to 1,979' with collars and HWDP. Changed out saver sub on top drive for insulated drill pipe. Tripped in stands out of the derrick from 1,979' to 3,000' with insulated drill pipe. Picked up singles of insulated drill pipe from 3,000' to 6,000'. Staged in from 6,000' to 8,085' in 500' increments. Highest temperature observed was 325° at 8,085'. Drilled 9 1/2" hole from 8,085' to 8,257'. Rebooted Pason system due to MSE not working while sliding. Drilled 9 1/2" hole from 8,257' to 8,360'.

**Comments**

Fuel on hand 20,368 gals.  
 Fuel used 997 gals.  
 Fuel delivered 7,500 gals.  
 Total NPT to date 92.75 HR.  
 No H2S today.



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## 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	16.000	4		1,136	1,135	SURF	22.000	84	OTHER	
FULL	11.750	-3	3	4,837	4,837	INT1	14.750	65	OTHER	

## 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	
22-May-23 14:30 at Depth 8,085 ft Mud Pits, Type: Low Solids Non-Dispersed																					
8.40	27					8.5	0.5		99.5			600									

## Mud Consumables

Item Description	Qty.	Cost	Item Description	Qty.	Cost
Corrosion rings - OTHER	2	---	DC-310/CI-100 - OTHER	10	---
Engineering - OTHER	2	---	Lodging - OTHER	1	---

## 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		
16	1 NOV	TCK 83	9.500	7584	501	11.5						8	600	1250	160	190	67	413		
Jets: 14 14 14 14 14 14 14 14				Out: 8085		Grade: Cutter:		1 / 3		Dull: WT / CT		Wear: S		Brgs: X		Gge: 1		Pull: BHA		
Comments: This bit had test cutters on it.																				
17	1 NOV	TKC 83	9.500	8085	275	6	45.8	275.0	70	85	25	8	700	1450	187	259	106	562		
Jets: 14 14 14 14 14 14 14 14				Out:		Grade: Cutter:		/		Dull: /		Wear:		Brgs:		Gge:		Pull:		
Comments: Insulated drill pipe																				
BHA - No. 18 - BIT, MMTR, RR, PC, DCM, MWD, 2 PC, 3 OTHER, 9 DC, XO, 30 HWDP = 1323.71																				

## Drilling Parameters

Depth (ft)		ROP (ft/hr)		WOB (lbs)		RPM		Torque (ft lbs)		Flow (gals/min)		Pressure	
From	To	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	(psi)	
8,085	8,360	40.0	280.0	70	70	85	100	24	26	600	700	1,850	
Annular Velocity: Drill Collars:				391.4	Drill Pipe: 286.0								

## Miscellaneous Drilling Parameters

Hook Loads (lbs):	Off Bottom Rotate:	320	Pick Up:	345	Slack Off:	310	Drag Avg/Max:	10 / 15
Hours on BHA:	Since Inspection:	31.5	Total:	31.5	Jars:	0		
Hours on Casing/Liner:	Rotating:	34 / 20	Tripping:	20 / 8	<input checked="" type="checkbox"/> Wear Bushing Installed			

## Rig Information

Equipment Problems:	None.
Location Condition:	Good.
Transport:	

## Solids Control Information

Screen Sizes:	Top	Middle 1	Middle 2	Bottom	Equipment Usage (Hrs):			
Shaker No 1:	170	170	170	170	Desander:	0	Desilter:	0
Shaker No 2:	170	170	170	170	Centrifuge 1:	12 (Solids Removal)	Centrifuge 2:	12 (Solids Removal)
Shaker No 3:	170	170	170	170				

## Drill Pipe Inventory

DP Size	Joints	Weight	Grade	Thread	DP Size	Joints	Weight	Grade	Thread
5.5	81	21.9	S-135	OTHER	5.5	250	24.7	V-150	OTHER

## Safety Information

Meetings/Drills		Time	Description					
Safety	30	Two Pre-tour safety meetings held daily with crews.						
First Aid Treatments:		0	Medical Treatments:	0	Lost Time Incidents:	0	Days Since LTI:	37
Accident Description:		None to report.						
<input type="checkbox"/> BOP Test	<input checked="" type="checkbox"/> Crownamatic Check							



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### Weather Information

Sky Condition:	Mostly clear	Visibility:	10	
Air Temperature:	75 degF	Bar. Pressure:	1010	
Wind Speed/Dir:	12 / S	Wind Gusts:	3	