



# 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: 49 Report For 06:00 AM 04-Jun-23

Operator:	UNIVERSITY OF UTAH	Rig:	Frontier 16	Spud Date:	26-Apr-23	Daily Cost / Mud (\$):	---
Measured Depth (ft):	10007	Last Casing:	11.750 at 4,837	Wellbore:	Original Wellbore	AFE No.	AFE (\$) Actual (\$)
Vertical Depth (ft):	7958	Next Casing:	7.000 at 10,159	RKB Elevation (ft):	31	---	---
Proposed TD (ft):	10658	Last BOP Test:	27-May-23	Job Reference RKB (ft):	---	---	---
Hole Made (ft) / Hrs:	154 / 3.5	Next BOP Test:	19-Jun-23	Working Interest:	---	Totals:	---
Average ROP (ft/hr):	44.0					Well Cost (\$):	---

Days (actual / plan): Drilling 5.82 / 22, Flat 0 / 0, Complete 0 / 52, Total 5.82 / 74 DOL: 49

Pers/Hrs: Operator: 3 / 36 Contractor: 14 / 168 Service: 4 / 48 Other: 4 / 48 Total: 25 / 300

Safety Summary: No incidents or events reported. 49 days since LTI. Conducted Crown Check, Safety Meeting.

Current Operations: Drilling 9-1/2" hole at 10,007'.

Planned Operations: Drill 9-1/2" hole to 10,250'. Trip out of the hole with directional tools. Trip in the hole with 8-3/4" core assembly.

Toolpusher: Steve King, Jason Postma

Wellsite Supervisors: Leroy Swearingen, Randy Baldwin Tel No.:

## Operations Summary

From	To	Elapsed	End MD(ft)	Code	Operations Description	Non-Prod
6:00	6:30	0.50	9,853	REAM	Ream 8, 3/4" core section from 9,828' to 9,853'. ROP 1-75 fph, WOB 8K-11K, RPM 30, TORQ 22K, GPM 630, PSI 1525.	
6:30	7:00	0.50	9,863	DRIL	Drill 10' of new hole from 9,853' to 9,863'. ROP 25-95 fph, WOB 20K-30K, RPM 40, TORQ 22K, GPM 630, PSI 1525.	
7:00	7:30	0.50	9,863	CIRC	Circulate partial bottoms up and prepare to trip out of hole.	
7:30	16:00	8.50	9,863	TRPO	Trip out of hole from 9,863' to 59'. Lay down 19 joints of drill pipe and 2 joints of HWDP for hardbanding. Pick up new joints.	
16:00	17:00	1.00	9,863	BHAOP	Break out and lay down 9-1/2" insert bit, roller reamer, mud motor, roller reamer and float sub.	
17:00	19:00	2.00	9,863	BHAOP	Make up new 9-1/2" 6 blade PDC bit, bit #24 and BHA #27 consisting of: Mud motor, roller reamer, NM pony collar, NM drill collar, pulse sub, NM drill collar, Black Box, filter sub and float sub. BH 5342357. Test MWD.	
19:00	19:30	0.50	9,863	TRPI	Trip in hole from 142' to 1,169'.	
19:30	20:00	0.50	9,863	SERV	Rig service.	
20:00	21:00	1.00	9,863	TRPI	Trip in hole from 1,169' to 3,059'. Fill pipe.	
21:00	22:40	1.67	9,863	TRPI	Trip in hole from 3,059' to 6,009'.	
22:40	22:50	0.17	9,863	CIRC	Circulate and check tool temperature. Start temp 238 deg F. End 230 deg F.	
22:50	23:00	0.17	9,863	TRPI	Trip in hole from 6,009' to 6,579'.	
23:00	23:15	0.25	9,863	CIRC	Circulate and check tool temperature. Start temp 250 deg F. End 245 deg F.	
23:15	23:30	0.25	9,863	TRPI	Trip in hole from 6,579' to 7,054'.	
23:30	23:45	0.25	9,863	CIRC	Circulate and check tool temperature. Start temp 260 deg F. End 255 deg F.	
23:45	0:00	0.25	9,863	TRPI	Trip in hole from 7,054' to 7,530'.	
0:00	0:15	0.25	9,863	CIRC	Circulate and check tool temperature. Start temp 270 deg F. End 260 deg F.	
0:15	0:30	0.25	9,863	TRPI	Trip in hole from 7,530' to 8,005'.	
0:30	0:40	0.17	9,863	CIRC	Circulate and check tool temperature. Start temp 278 deg F. End 275 deg F.	
0:40	0:55	0.25	9,863	TRPI	Trip in hole from 8,005' to 8,575'.	
0:55	1:15	0.33	9,863	CIRC	Circulate and check tool temperature. Start temp 287 deg F. End 268 deg F.	
1:15	1:30	0.25	9,863	TRPI	Trip in hole from 8,575' to 9,051'.	
1:30	2:00	0.50	9,863	CIRC	Circulate and check tool temperature. Start temp 292 deg F. End 265 deg F.	
2:00	2:15	0.25	9,863	TRPI	Trip in hole from 9,051' to 9,526'.	
2:15	2:30	0.25	9,863	CIRC	Circulate and check tool temperature. Start temp 292 deg F. End 275 deg F.	
2:30	3:00	0.50	9,863	TRPI	Trip in hole from 9,526' to 9,863'.	
3:00	6:00	3.00	9,863	DRIL	Drill 9-1/2" hole from 9,863' to 10,007', rotating and sliding. WOB 50K to 55K, RPM 65 to 95, GPM, 650 to 700, Torque 22K to 28K, ROP 25 to 300.	

## Management Summary

Reamed 8, 3/4" core section to 9-1/2" from 9,800' to 9,853'. Drilled 10' of new hole to 9,863'. Tripped out of the hole. Laid down 9-1/2" bit and reaming assembly. Made up bit #24 and BHA #27 directional assembly. Test MWD. Tripped in the hole to 6,009'. Staged in hole from 6,009' to 9,863' cooling tools and recording torque and drag every 5 stands. Drilled 9-1/2" hole from 9,863' to 10,007', rotating and sliding. WOB 50K to 55K, RPM 65 to 95, GPM, 650 to 700, Torque 22K to 28K, ROP 25 to 300 fph.



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## Comments

Fuel on hand 13123 gals.  
Fuel used 1226 gals.  
Total NPT to date 96.25 HR.  
No H2S today.

## 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
04-Jun-23 03:00 at Depth 9,853 ft Mud Pits, Type: Low Solids Non-Dispersed																				
8.40	27	1	1	100	0.2	9	0.5	0.05	99			500	120							
03-Jun-23 12:00 at Depth 9,863 ft Mud Pits, Type: Low Solids Non-Dispersed																				
8.40	27	1	1	100	0.2	8.3	0.5	0.39	99.11			500	100							102

## Mud Consumables

Item Description	Qty.	Cost	Item Description	Qty.	Cost
Engineering - OTHER	2	---	HIB 19 - GALS	4	---
Lodging - OTHER	1	---			

## Bit/BHA/Workstring Information

No Run		Make	Model	Diam	Depth In	This Run Dist	R.O.P. Hrs	Avg	Max	WOB	RPM	Torque	Mud Wt	Pump Flow	Press	J. Vel	P. Drp	HHP	JIF	
23	1	SANJOAQ	XLS30DX	9.500	9853	35	2	17.5	95.0	20	35	22	8	630	1550	153	175	64	418	
Jets: 24 24 24					Out: 9863	Grade: Cutter:	1/3	Dull: FC / WT	Wear: G	Brgs: E	Gge: 1	Pull: BHA								
Comments: 1/16 under.																				
24	1	BAKER	D406VX	9.500	9863	10007	3	50.0	300.0	60	270	22	8	650	2400	170	217	82	480	
Jets: 14 14 14 13 13 13 13 13 13					Out:	Grade: Cutter:	/	Dull: /	Wear:	Brgs:	Gge:	Pull:								
BHA - No. 27 - BIT, MMTR, RR, PC, DCM, MWD, DCM, 3 OTHER, XO, 30 HWDP = 1060.91																				

## 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	
9,853	9,863	35.0	95.0	12	30	35	40	16	22	630	630	1,525
Annular Velocity: Drill Collars:				257.4		Drill Pipe:		257.4				
Comments: Ream 8-3/4" to 9.5" plus 10' of new hole.												
9,863	10,007	50.0	300.0	55	65	270	275	24	29	650	700	2,900
Annular Velocity: Drill Collars:				265.5		Drill Pipe:		265.5				
Comments: Rotate and sliding.												

## Miscellaneous Drilling Parameters

Hook Loads (lbs):	Off Bottom Rotate:	250	Pick Up:	380	Slack Off:	190	Drag Avg/Max:	75 / 180
Hours on BHA:	Since Inspection:	90.5	Total:	90.5	Jars:			
Hours on Casing/Liner:	Rotating:	95 / 0	Tripping:	126.25 / 0	<input checked="" type="checkbox"/> Wear Bushing Installed			

## Rig Information

Equipment Problems:  
Location Condition:  
Transport:

## Solids Control Information

Screen Sizes:	Top	Middle 1	Middle 2	Bottom	Equipment Usage (Hrs):					
Shaker No 1:	170	170	200	170	Desander:	0	Desilter:	0	Degasser:	0
Shaker No 2:	170	170	200	170	Centrifuge 1:	12 (Solids Removal)		Centrifuge 2:	12 (Solids Removal)	
Shaker No 3:	170	170	200	170						



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### Drill Pipe Inventory

DP Size	Joints	Weight	Grade	Thread	DP Size	Joints	Weight	Grade	Thread
5.5"	365	24.7	S-135	5.5FH	5.5	30	71.0	S-135	5.5FH
5.5	20	54.0	S-135	5.5FH					

### Safety Information

Meetings/Drills	Time	Description
Safety	30	Two Pre-tour safety meetings held daily with crew
<b>First Aid Treatments:</b>		<b>Medical Treatments:</b>
<input type="checkbox"/> BOP Test		<input checked="" type="checkbox"/> Crownamatic Check
		<b>Lost Time Incidents:</b>
		<b>Days Since LTI:</b> 49

### Weather Information

<b>Sky Condition:</b> Overcast	<b>Visibility:</b> 10
<b>Air Temperature:</b> 72 degF	<b>Bar. Pressure:</b> 1008
<b>Wind Speed/Dir:</b> 14 / SW	<b>Wind Gusts:</b>