RPT DATE: 11/26/2020
RPT NUM.: 38
RIG: Frontier Rig 16

UTAH FORGE U.S. Department of Energy

# DAILY DRILLING REPORT

## WELL/JOB INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| WELL NAME: | FORGE 16A [78]-32 | JOB: | Drilling 65° Tangent | RIG SUPERV: | Duane W, Leroy S, Paul S, Bob F |
| FIELD: | | LEASE: | | RIG PHONE: | 281-854-6858 |
| AFE #: | | API #: | | EMAIL: | |
| CONTRACTOR: | Frontier Drilling | ELEVATION: | 5415.1 | RKB: | |
| SPUD DATE: | 10/30/2020 | DFS: | 27 | DOL: | 37 |
| MD/TVD: | 6507 | 24 HR FTG: | 147 | HRS DRLG: | |

PRESENT OPERATIONS: PIPE FREE, TRIP OUT OF HOLE FOR BHA INSPECTION

ACTIVITY PLANNED: INSPECT BHA, TRIP IN HOLE DRILL CURVE

## BOP

| LAST BOP TEST: | 12/14/20 | LAST BOP DRILL: | 11/6/20 | NEXT BOP TEST: | 11/14/20 |
|---|---|---|---|---|---|

## CASING

| CASING TYPE | OD | WEIGHT | GRADE | MD | TVD |
|---|---|---|---|---|---|
| Conductor | 20.00 | 54 | A53B | 130 | 130 |
| Surface | 13.38 | 68 | L-80 | 1,629 | 1,629 |
| Intermediate | 9.63 | 40 | HCL-80 | 5,113 | 5,112 |
| | | | | | |
| | | | | | |

## MUD

| TIME | MW | FV | WL | PH | CAKE | GELS (10s/10m/30m) | | | PV | YP | CL | K | Pf | Mf | Ca | OIL | LGS | HTHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13:20 | 8.9 | 47.0 | 11.0 | 10.5 | | 3 | 4 | 7 | 23 | 12 | 1,500 | | 0.70 | 2.60 | 40 | | | |

## DRILL BITS

| NO. | SIZE | MANUFACTURER | TYPE | SER NO. | JETS | TFA | RE-RUN | IN | OUT | FEET | HRS | WOB | RPM | ROP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | | Reed | SKC6 - 01 | A232400 | 3x14, 3x13 | 0.840 | N | 6,360 | 6,507 | 147 | 4.5 | 35 | 125 | 32.7 |
| 20 | 8.75 | Ulterra SPL 616 | PDC | 54131 | 3x12, 5x11 | 0.795 | Y | 6,360 | 6,360 | | 1.0 | | | |

BIT NO. 16 INNER: 2 OUTER: 1 DULL: CT LOC: N SEAL: GAUGE: I OTHER: RP: TD

## PUMPS

| PUMP | MAKE | MODEL | LINER | STK | SPM | PSI | GPM | GPS | EFF % | ECD | AV DP | AV DC | BIT HHP | PUMP HHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | BOMCO | 1600 | 6.000 | 12.000 | 70 | 3000 | 275 | | 95 | 9.48 | 308 | 475 | 128.6 | |
| 3 | BOMCO | 1600 | 6.000 | 12.000 | 70 | 3000 | 275 | | 95 | 9.48 | 308 | 445 | 128.6 | |

## BHA

| # | COMPONENT | OD | ID | LENGTH | # | COMPONENT | OD | ID | LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Drill Bit-Reed SKC613M-01C | 8.75 | | 1 | 7 | Monel Collar-NMDC with MWD | 6.75 | 3.25 | 30.35 |
| 2 | Motor-6.5'' 7/8 , 5.7, 0.242 RPG 1.50,* Fi | 6.5 | | 33.01 | 8 | Monel Collar-NMDC (2 joints) | 6.75 | 3.25 | 60.66 |
| 3 | Sub-6 1/2 Scout String Sub with PUK sens | 6.5 | 3.25 | 2.34 | 9 | Drill Collar-2 Stds DC | 6.5 | 3 | 183.22 |
| 4 | Stabilizer-6 3/4 x 8 5/8'' NM Stab | 6.88 | 3 | 6.87 | 10 | Drill Pipe-15 Stds HW WT DP | 5 | | 1384.33 |
| 5 | Drill Collar-NM PONY Collar | 6.75 | 3 | 9.22 | | | | | |
| 6 | MWD Tool-UBHO | 6.5 | 2.75 | 3.08 | | | | | |

DESCRIPTION: Curve 1 BHA 21

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LENGTH: | 1,714.08 | BHA WT. AIR: | 72 | BHA WT. MUD: | 62 | HRS. ON JARS: | |
| ROT. WT.: | 230 | P.U. WT.: | 270 | S.O. WT.: | 190 | TORQUE: | 5,615 |

## SURVEY DATA

| MD | INCLINATION | AZIMUTH | TVD | N/S | COORDINATES E/W | V. SECTION | DLS |
|---|---|---|---|---|---|---|---|
| 6,276 | 18.17 | 106.17 | 6,264 | -20.8 | 101.5 | 103.4 | 0.8 |
| 6,308 | 17.88 | 108.24 | 6,295 | -23.7 | 110.9 | 113.3 | 2.2 |
| 6,340 | 17.32 | 110.89 | 6,325 | -26.9 | 120.1 | 122.9 | 3.1 |
| 6,371 | 17.28 | 111.50 | 6,355 | -30.2 | 128.6 | 132.1 | 0.6 |

## CONSUMABLES

| CONSUMABLE | DAILY RECEIVED (gal) | DAILY USED (gal) | DAILY ON HAND (gal) |
|---|---|---|---|
| Fuel | 6,000 | | 16,889 |
| Potable Water | | | 1,000 |

## TIME BREAKDOWN

| FROM | TO | HRS | PHASE | CODE | NPT | OPERATIONS |
|---|---|---|---|---|---|---|
| 06:00 | 11:00 | 5.0 | Production Drilling | Wire Line Logs | | PJSM, pre job safety meeting.<br>Rig up Schlumberger run the UBI log from 5.200 to surface.<br>Rig down logging tools. |
| 11:00 | 12:00 | 1.0 | Production Drilling | Other | | Tie up service loop on top drive for tripping in strong winds. |
| 12:00 | 13:30 | 1.5 | Production Drilling | Trips | | Trip in hole with slick assembly , BHA #20 to 5,200' to circulate for temperature.<br>Temperatures on surface Max 118° |
| 13:30 | 15:30 | 2.0 | Production Drilling | Cut off Drill Line | | Cut and Slip drilling line |
| 15:30 | 18:00 | 2.5 | Production Drilling | Trips | | Mix and pump dry job. pump dry pill, Trip out of hole with BHA #20.<br>Break off bit |
| 18:00 | 20:00 | 2.0 | Production Drilling | Trips | | Pick up Curve assembly 2, BHA 21, Reed Hycalog SKC613M-01C<br>Trip in hole to 5,200' |
| 20:00 | 20:30 | 0.5 | Production Drilling | Cond Mud & Circ | | At 5,200' circulate for temperature<br>Circulate Bottoms up max recorded Surface Mud Temperature 122* |
| 20:30 | 23:30 | 3.0 | Production Drilling | | | Trip in hole to 6,360' , no issues |
| 23:30 | 04:00 | 4.5 | Production Drilling | Trips | | Drill From 6,360' to 6,507', (147') Total , 32.6' feet per hour.<br>WOB 20 TO 35k, Rotary 50, Torque 6,500, SPP 3200 -3400 GPM 560, DIFF 200 - 300psi<br>During the slide lost tool face and became assembly became stuck |
| 04:00 | 06:00 | 2.0 | Production Drilling | Cond Mud & Circ | | Work pipe, circulate lube sweep, work tool back in position<br>Pipe free |
| | TOTAL HRS | 24.0 | | | | |