# DAILY DRILLING REPORT

UTAH FORGE — U.S. Department of Energy

RPT DATE: 11/29/2020
RPT NUM.: 41
RIG: Frontier Rig 16

## WELL/JOB INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| WELL NAME: | FORGE 16A [78]-32 | JOB: | Drilling 65° Tangent | RIG SUPERV: | Leroy S, Paul S, Bob F, Duane W |
| FIELD: | | LEASE: | | RIG PHONE: | 281-854-6858 |
| AFE #: | | API #: | | EMAIL: | |
| CONTRACTOR: | Frontier Drilling | ELEVATION: | 5415.1 | RKB: | |
| SPUD DATE: | 10/30/2020 | DFS: | 30 | DOL: | 40 |
| MD/TVD: | 7294 | 24 HR FTG: | 349 | HRS DRLG: | 14.5 |

PRESENT OPERATIONS: DRILLING AT 7,294'
ACTIVITY PLANNED: DRILL TANGENT, TOOH, RUN REAMING ASSEMBLY

## BOP

| LAST BOP TEST: | LAST BOP DRILL: | NEXT BOP TEST: |
|---|---|---|
| 11/14/20 | 11/29/20 | 12/14/20 |

## 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 | 5,110 | 5,109 |
| | | | | | |
| | | | | | |

## MUD

| TIME | MW | FV | WL | PH | CAKE | GELS (10s/10m/30m) | | | PV | YP | CL | K | Pf | Mf | Ca | OIL | LGS | HTHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19:00 | 9.1 | 47.0 | 9.0 | 10.5 | 1 | 5 | 12 | 24 | 20 | 10 | 1,400 | | 0.70 | 2.50 | 40 | | 4.20 | |

## DRILL BITS

| NO. | SIZE | MANUFACTURER | TYPE | SER NO. | JETS | TFA | RE-RUN | IN | OUT | FEET | HRS | WOB | RPM | ROP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 8.75 | NOV ReedHycalog | FTKC63-01 | A276121 | 3x14, 3x13 | 0.840 | N | 6,945 | 7,294 | 349 | 14.5 | 50 | 135 | 24.1 |
| 22 | 8.75 | Reed | PDC | | 3x13, 4x12 | 0.830 | N | 6,526 | 6,945 | 419 | 20.5 | 45 | 133 | 20.4 |

BIT NO. 22 INNER: 1 OUTER: 2 DULL: CT LOC: S SEAL: 1 GAUGE: 1 OTHER: RP: Low ROP

## 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 | 3380 | 275 | | 95 | 9.68 | 308 | 475 | 130.1 | |
| 3 | BOMCO | 1600 | 6.000 | 12.000 | 70 | 3250 | 275 | | 95 | 9.68 | 308 | 475 | 130.1 | |

## BHA

| # | COMPONENT | OD | ID | LENGTH | # | COMPONENT | OD | ID | LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Drill Bit-Reed Hycalog Bit | 8.75 | | 0.85 | 7 | Monel Collar-NMCD | 6.75 | 3.25 | 60.66 |
| 2 | Motor | 6.5 | 1.25 | 33.92 | 8 | Drill Collar | 6.5 | 3 | 183.22 |
| 3 | Sensor | 6.5 | 3.25 | 2.34 | 9 | Drill Pipe-HWDP | 5 | 3.25 | 1384.33 |
| 4 | Drill Collar-Pony Collar | 6.75 | 3.25 | 9.22 | | | | | |
| 5 | Monel Collar-NM UBHO | 6.5 | 2.75 | 3.08 | | | | | |
| 6 | MWD Tool | 6.75 | | 30.35 | | | | | |

DESCRIPTION: Curve Assembly 4 BHA 23

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LENGTH: | 1,707.97 | BHA WT. AIR: | 72,000 | BHA WT. MUD: | 62,000 | HRS. ON JARS: | |
| ROT. WT.: | 220,000 | P.U. WT.: | 280,000 | S.O. WT.: | 18,000 | TORQUE: | 7,600 |

## SURVEY DATA

| MD | INCLINATION | AZIMUTH | TVD | N/S | E/W | V. SECTION | DLS |
|---|---|---|---|---|---|---|---|
| 6,846 | 42.26 | 101.42 | 6,766 | -113.6 | 341.9 | 359.7 | 7.0 |
| 6,877 | 44.76 | 100.76 | 6,788 | -117.7 | 362.9 | 381.0 | 8.2 |
| 6,908 | 46.34 | 101.40 | 6,810 | -122.0 | 384.6 | 403.1 | 5.3 |
| 6,940 | 48.18 | 102.07 | 6,832 | -126.8 | 407.6 | 426.5 | 6.0 |

## CONSUMABLES

| CONSUMABLE | DAILY RECEIVED (gal) | DAILY USED (gal) | DAILY ON HAND (gal) |
|---|---|---|---|
| Fuel | 7,500 | 2,334 | 14,280 |
| Potable Water | | | 1,000 |

## TIME BREAKDOWN

| FROM | TO | HRS | PHASE | CODE | NPT | OPERATIONS |
|---|---|---|---|---|---|---|
| 06:00 | 06:30 | 0.5 | Production Drilling | Other | | Complete lay down BHA #22 |
| 06:30 | 08:30 | 2.0 | Production Drilling | Other | | Pick up BHA #23 to drill curve |
| 08:30 | 10:00 | 1.5 | Production Drilling | Trips | | Trip in hole with BHA # 23 to 3,000' |
| 10:00 | 10:30 | 0.5 | Production Drilling | Cond Mud & Circ | | Circulate for temperature at 3,000' |
| 10:30 | 12:00 | 1.5 | Production Drilling | Trips | | Trip in hole with BHA # 23 to 5,206' |
| 12:00 | 12:30 | 0.5 | Production Drilling | Cond Mud & Circ | | Circulate for temperature at 5,206' |
| 12:30 | 13:00 | 0.5 | Production Drilling | Trips | | Trip in hole to 6,720 hit ledge |
| 13:00 | 15:30 | 2.5 | Production Drilling | Trips | | Work ledges from 6,720' to 6,915' , circulate and rotate<br>Clean well bore, no issues |
| 15:30 | 06:00 | 14.5 | Production Drilling | Drilling | | PJSM, pre job safety meeting<br>Drill rotate, slide from 6,945' to 7294'. (349') 24.0 FPH, WOB 40-60, 50 rpm, 558 gpm.<br>Last Survey MD: 7,193' INC: 61.28° AZM: 105.27° TVD: 6,974.58' VS: 634.32' DLS: 4.26°<br>Curve projected landing @ 7,262' INC: 63.60° AZM: 103.00° TVD: 7,006.51' VS: 695.47' DLS: 4.45°<br>14 ' High and 8' Right<br>Mud Weight 9.1, viscosity 44 |

TOTAL HRS 24.0