# DAILY DRILLING REPORT

RPT DATE: 11/15/2020
RPT NUM.: 27
RIG: Frontier Rig 16

## WELL/JOB INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| WELL NAME: | FORGE 16A [78]-32 | JOB: | Drilling 65° Tangent | RIG SUPERV: | Duane Winkler, Leroy Swearingen, Virgi |
| FIELD: | | LEASE: | | RIG PHONE: | 281-854-6858 |
| AFE #: | | API #: | | EMAIL: | |
| CONTRACTOR: | Frontier Drilling | ELEVATION: | 5415.1 | RKB: | |
| SPUD DATE: | 10/30/2020 | DFS: | 16 | DOL: | 26 |
| MD/TVD: | 5200 | 24 HR FTG: | 87 | HRS DRLG: | 2 |

PRESENT OPERATIONS: DRILLING AHEAD WITH BHA #9 AT 5200' MD, 5199' TVD. LAST SURVEY AT 5092', 1.56° INC, 108.18° AZI

ACTIVITY PLANNED: CONTINUE DRILLING PRODUCTION HOLE WITH BHA #9

## BOP

| LAST BOP TEST: | 11/14/20 | LAST BOP DRILL: | 11/6/20 | NEXT BOP TEST: | 11/3/20 |
|---|---|---|---|---|---|

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22:00 | 8.9 | 40.0 | 10.0 | 12.4 | 1 | 3 | 6 | 9 | 13 | 14 | 800 | | 1.00 | 2.40 | | | 3.10 | |

## DRILL BITS

| NO. | SIZE | MANUFACTURER | TYPE | SER NO. | JETS | TFA | RE-RUN | IN | OUT | FEET | HRS | WOB | RPM | ROP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 12.25 | SLB SMITH RR | Z713S | JD4755 | 4x20, 2x18, 1x16 | 1.940 | Y | 5,113 | 5,113 | | | | 0 | |
| 6 | 12.25 | SLB Smith | Z713S | JP4755 | 4x20, 2x18, 1x16 | 1.920 | N | 4,964 | 5,113 | 149 | 14.5 | 48 | 124 | 10.3 |

BIT NO.: INNER: OUTER: DULL: LOC: SEAL: GAUGE: OTHER: RP:

## 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 | 95 | 2800 | 400 | | 95 | 9.26 | 138.6 | 445 | 52.1 | |
| 3 | BOMCO | 1600 | 6.000 | 12.000 | 95 | 2800 | 400 | | 95 | 9.26 | 138.6 | 445 | 52.1 | |

## BHA

| # | COMPONENT | OD | ID | LENGTH | # | COMPONENT | OD | ID | LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Drill Bit-BIT | 8.75 | | 0.85 | 7 | Drill Collar-6 3/4" NMDC | 6.5 | | 30.35 |
| 2 | Steerable Assembly-VERTICAL SCOUT | 7.13 | | 19.6 | 8 | Drill Collar-DRILL COLLARS | 6.5 | 3 | 644.15 |
| 3 | Motor-SCOUT 7/8 3.0 FIXED | 6.5 | | 28.48 | 9 | Drill Pipe-5" HWDP | | | 276.35 |
| 4 | Shock Sub-6 1/2" NOV SHOCK SUB | 6.75 | 2.25 | 10.81 | | | | | |
| 5 | Stabilizer-6 3/4" NM STABILIZER | 6.75 | | 6.87 | | | | | |
| 6 | Sub-6 1/2" SCOUT UBHO | 6.5 | 2.75 | 3.11 | | | | | |

DESCRIPTION: 8 3/4" Directional BHA #9

LENGTH: 1,020.57 BHA WT. AIR: BHA WT. MUD: HRS. ON JARS:

ROT. WT.: P.U. WT.: S.O. WT.: TORQUE:

## SURVEY DATA

| MD | INCLINATION | AZIMUTH | TVD | N/S | E/W | V. SECTION | DLS |
|---|---|---|---|---|---|---|---|
| 4,637 | 1.45 | 334.41 | 4,636 | -2.3 | 10.4 | 10.7 | 1.2 |
| 4,732 | 1.23 | 267.79 | 4,731 | -1.3 | 8.9 | 8.9 | 1.6 |
| 4,826 | 1.14 | 219.54 | 4,825 | -2.0 | 7.3 | 7.6 | 1.0 |
| 4,920 | 1.27 | 159.42 | 4,919 | -3.7 | 7.1 | 7.8 | 1.3 |

(N/S and E/W are printed under the heading COORDINATES.)

## CONSUMABLES

| CONSUMABLE | DAILY RECEIVED (gal) | DAILY USED (gal) | DAILY ON HAND (gal) |
|---|---|---|---|
| Fuel | | 1,366 | 15,733 |
| Potable Water | | | 3,200 |

## TIME BREAKDOWN

| FROM | TO | HRS | PHASE | CODE | NPT | OPERATIONS |
|---|---|---|---|---|---|---|
| 06:00 | 11:00 | 5.0 | Production Drilling | Test B.O.P. | | PJSM, pre job safety meeting<br>Test BOPE 250 psi low 5000 psi high, test casing 1500 psi, test choke manifold 5000 psi |
| 11:00 | 11:30 | 0.5 | Production Drilling | Trips | | INSTALL WEAR BUSHING |
| 11:30 | 17:30 | 6.0 | Production Drilling | Other | | PJSM, pre job safety meeting<br>Pick up BHA # 8, 8 3/4" mill tooth bit<br>Trip in hole to 3,000', circulate two bottom up to cool off hole<br>Trip in hole to 4,800' start circulation<br>Precautionary trip in hole making connections for temperature control at the motor. Tag float collar<br>Drill out float collar, cement, float shoe<br>Circulate two bottoms up |
| 17:30 | 18:00 | 0.5 | Production Drilling | Trips | | PJSM, pre job safety meeting<br>Trip out of the hole to change out BHA. |
| 18:00 | 20:00 | 2.0 | Production Drilling | Trips | | PJSM, pre job safety meeting,<br>Trip out of hole. Lay down BHA #8 |
| 20:00 | 20:30 | 0.5 | Production Drilling | Other | | Break off saver sub on top drive and install corrosion ring. |
| 20:30 | 00:00 | 3.5 | Production Drilling | Dir Work | | Pick up BHA #9 consisting of Smith XS616, Vertical Scout RSS, 6 1/2" Scout 7/8 3.0 fixed motor<br>6 1/2" NOV shock sub, 6 3/4" Stabil Drill NM Stabilizer, 6 1/2" Scout UBHO<br>6 3/4" NMDC, 7 stands of 6 1/2" DC's and 3 stands of weight pipe. |
| 00:00 | 02:00 | 2.0 | Production Drilling | Trips | | Trip in hole with drill pipe to 3,000'. Circulate bottoms up to cool the hole.<br>Trip in hole with drill pipe to 4,930'. Start circulation. |
| 02:00 | 04:00 | 2.0 | Production Drilling | Other | | Ream float collar and shoe track. Drill out of shoe.<br>Drill 12' of new formation and perform FIT to 9.6 ppg EMW. |
| 04:00 | 06:00 | 2.0 | Production Drilling | Drilling | | Drill ahead from 5.113' to 5200' with BHA #9<br>38K WOB, 31 rpm rotary, 275 psi differential, 485 gpm.<br>Last survey at 5,092', 1.56° Inc., 108.18° AZI<br>Step test 5 minute increments<br>WOB FPH<br>35K 54.5<br>40K 55.2<br>45K 69.6<br>Present drilling WOB 40K , AVG ROP 33' |

TOTAL HRS **24.0**