

## **DAILY DRILLING REPORT**

RPT DATE: 11/05/2020 RPT NUM.: 17

RIG: Frontier Rig 16

RIG SUPERV: Leroy Swearingen , Bob Frank, Duane

RIG PHONE: 281-854-6858 RKR-DOL: 16 HRS DRLG: 12

FIELD: CONTRACTOR: Frontier Drilling SPUD DATE: 10/30/2020 MD/TVD: 2630

WELL NAME: FORGE 16A [78]-32

PRESENT OPERATIONS: Drilling ahead at 2,630' ACTIVITY PLANNED: Drill Intermediate 12 1/4" hole

LAST BOP TEST: 12/2/20 LAST BOP DRILL: NEXT BOP TEST: 11/3/20 CASING TYPE OD WEIGHT GRADE MD TVD 20.00 130 Conductor 130 Surface 13.38 1,629 1,629

LEASE:

FI EVATION: 5415 1

DFS: 6

24 HR FTG: 1001

JOB: Drilling 65° Tangen

MUD GELS (10s/10m/30m) HTHP 15:00 8.8 36.0 20.0 9.0 20 650 0.20 0.50 40 DRILL BITS MANUFACTURER TYPE SER NO JETS TFA RE-RUN OUT FEET WOB RPM ROP TKC 66 PDC 12.25 NOV E266453 6x18 1.490 1.644 2.630 986 13.0 14 83 75.8 1,644 12.25 **GF 15BODJPS TRI-CONE** RK6139 3x20 0.920 1,629 15 1.0 80 15.0 BIT NO INNFR OUTER DUIT: LOC SFAI: GAUGE OTHER RP

PUMPS PUMP MAKE MODEL BIT HHP PUMP HHP LINER STK PSI GPM EFF % AV DP AV DC ECD GPS вомсо 6.000 12.000 75 335 вомсо 1600 6.000 12.000 1700 # COMPONENT OD ID LENGTH COMPONENT OD ID LENGTH Drill Bit-12 .25" PDC Monel Collar-8" NMD0 12.25 8.13 2.75 29.52 Steerable Assembly-VERTICAL SCOUT 20.65 Sub-8" HANG OFF SUB 3.25 2.16 41.11 X-Over-6 5/8 REG X 6 5/8 REG PIN - PIN 2.75 Drill Collar-4 STDS 8" DO 2.88 366.49 Motor-7/8, 5.9 STG, 0.155 RPG ,STRAIGH X-Over-6 5/8 REG PIN X 4 1/2 IF BOX 8.13 10 2.75 2.8 Shock Sub-SHOCK SUB 8.38 13.52 Drill Pipe-5" HVY WT DP 276.35 Stabilizer-12 1/8" STABILIZER
DESCRIPTION: INTERMEDIATE 3 8.06 3.25 4.97 12 Drill Pipe-5" DP 4.28 1865.34

LENGTH: 2,630.00 BHA WT. AIR: BHA WT. MUD: HRS. ON JARS: TORQUE: ROT. WT.: P.U. WT.: S.O. WT.:

SURVEY DATA MD INCLINATION A7IMI ITH TVD N/S COORDINATES E/W V. SECTION DLS 2,181 0.92 263.40 2,181 0.9 2,276 203.46 2,276 0.9 2,371 0.70 134.02 2,371 -16.4 0.9 0.92 74.99 2,466 -16.6 0.9 CONSUMABLES

DAILY RECEIVED (gal) CONSUMABLE DAILY ON HAND (gal) DAILY USED (gal) Fuel 2,057 11,296 20,535

TIME BREAKDOV OPERATIONS FROM то 06:00 06:30 0.5 PJSM (pre job safety meeting) with FORGE DSM's and Frontier Drillin ntermediate Drilling Trips TOOH (trip out of hole) with BHA #2. Break off bit, lay down Scout RSS (rotary steerable). Pick up Conventional BHA #3 consisting of Smith RK6139 tricone bit, 9 5/8" Scout 7/8 5.9 stage fixed motor 06:30 08:30 2.0 stabilized to 12 1/8", 8" shock sub, 4 stands of 8" drill collars, 6 5/8" X 4 1/2" IF x-over, 3 stands HW drill pipe. TIH (trip in hole). Tag up on shoe track at 1,605'. ntermediate Drilling Trips 08:30 09:00 0.5 Drill cement in shoe track from 1,605' to 1,627'. Drill shoe from 1,627' to 1,629' Drill 15' of new formation to depth of 1,644'. ntermediate Drilling Drilling Intermediate Drilling Perform FIT at 1.644' MD to emw of 9.5 ppg 09:00 09:30 0.5 Other 09:30 11:00 1.5 TOOH with BHA #3, break off bit and lay down Intermediate Drilling Trips Make up BHA #4 consisting of NOV 12 1/4" TKC 66 PDC bit, 9 5/8" Vertical Scout RSS, 6 5/8" X 6 5/8" double pin 5.0 11:00 16:00 x-over, 9 5/8" Scout 7/8 5.9 stage fixed motor stabilized to 12 1/8", 8" shock sub, 12 1/8" steel stabilizer, 8" NMDC, 8" hang off sub, 4 stands 8" drill collars, 6 5/8" X 4 1/2" IF x-over, 3 stands HW drill pipe. Trip in hole to 1,644' MD. ntermediate Drilling 16:00 0.5 16:30 Nabors loading MSE programs onto RigWatch. Intermediate Drilling Other Perform 5 minute Step Test for WOB: 16:30 17:00 0.5 3K WOB, 66 fph, 40 psi diff, 660 gpm, 46 rpm 6K WOB, 69.6 fph, 80 psi diff, 660 gpm, 46 rpm 9K WOR 103 2 fph 130 psi diff 660 gpm 46 rpm 12K WOB, 157.8 fph, 205 psi diff, 660 gpm, 46 rpm 15K WOB. Bit balled. Stop step test. Intermediate Drilling Drilling 17:00 18:00 1.0 Cleaning bit, continue drilling from 2,030' to 2,100', 70fph. Intermediate Drilling Drilling PJSM (pre job safety meeting) with FORGE DSM's and Frontier Drilling. Drill from 2,100' - 2,575 Avg. 59.4 FPH 18:00 04:00 10.0 WOB: 8-14 K, ROT 40, TQ 1,700 - 2,200 ft lbs, SPP 1700 psi, DIFF 80 - 200 psi Bit balling, pump sweeps as needed ntermediate Drilling Drilling 04:00 06:00 2.0 Drill from 2 575' - 2 630' Avg 27 5 EPH WOB: 8-14 K, ROT 40 - 50, TQ 1,900 - 2,600 ft lbs, Occasional spikes - 4,000 ft-lbs, SPP 1700 - 1800 psi, DIFF 100 300 psi Adjusting drilling parameters to increase ROP yet maintain inclination <2\* Slight lithologic change at 2,575' less interstitial clays and occasional rock fragments coming to surface. Intermediate Drilling TOTAL HRS 24.0