DAILY DRILLING REPORT

UTAH FORGE U.S. Department of Energy

RPT DATE: 12/04/2020
RPT NUM.: 46
RIG: Frontier Rig 16

WELL/JOB INFORMATION

WELL NAME:	FORGE 16A [78]-32	JOB:	Drilling 65° Tangent	RIG SUPERV:	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:	35	DOL:	45
MD/TVD:	7390	24 HR FTG:		HRS DRLG:	0.5

PRESENT OPERATIONS: TRIPPING IN HOLE WITH DIRECTIONAL BHA # 30
ACTIVITY PLANNED: CONTINUE TRIPPING IN HOLE WITH BHA # 30 AND DRILL TANGENT

BOP

LAST BOP TEST:	11/14/20	LAST BOP DRILL:	11/29/20	NEXT BOP TEST:	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
7:00	9.0	41.0	9.0	10.5	1	8	17	28	23	9	1,500		0.90	2.00	40		3.70	

DRILL BITS

NO.	SIZE	MANUFACTURER	TYPE	SER NO.	JETS	TFA	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
29	8.75	REED	TKC63	A255857	3x14, 3x13	0.840	N	7,390	7,390					
28	8.75	REED	PDC	A276121	3x14, 3x13	0.840	Y	7,390	7,390					

BIT NO. 23 INNER: 0 OUTER: 1 DULL: WC LOC: S SEAL: GAUGE: Y OTHER: DULL CUT 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	3380	275		95	9.72	308	475	130.1	
3	BOMCO	1600	6.000	12.000	70	3250	275		95	9.72	308	475	130.1	

BHA

#	COMPONENT	OD	ID	LENGTH	#	COMPONENT	OD	ID	LENGTH
1	Drill Bit-Reed Hycalog TKC63 PDC3x13-3	8.75		0.85	7	Monel Collar-6 3/4'' NMDC with MWD	6.75	3.25	30.35
2	Motor-6 1/2'' Motor 7/8 5.7, Fixed1.25,	6.5	1.25	34.24	8	Monel Collar-6 3/4'' NMDC (2 joints)	6.75	3.25	60.66
3	Sub-6 1/2 Scout String Sub withPUK sen:	6.5	3.25	2.34	9	Drill Pipe-5'' HWDP (15 stands)	5	3	1384.33
4	Reamer-6 5/8 x 8 1/2'' Roller Reame	8.5	2.25	6.63					
5	Monel Collar-6 3/4 NM Pony Collar	6.75	3.25	9.22					
6	Monel Collar-6 1/2'' NM UBHO	6.5	2.75	3.08					

DESCRIPTION: BHA 30 Tangent

LENGTH: 1,531.70 BHA WT. AIR: 78,800 BHA WT. MUD: 61,700 HRS. ON JARS:
ROT. WT.: 212,000 P.U. WT.: 214,000 S.O. WT.: 210,000 TORQUE: 3,500

SURVEY DATA

MD	INCLINATION	AZIMUTH	TVD	N/S COORDINATES	E/W	V. SECTION	DLS
7,340	66.82	101.29	7,032	-190.1	748.1	771.8	1.7
7,350	66.89	101.29	7,036	-191.9	757.2	781.0	0.7
7,360	67.06	101.35	7,039	-193.7	766.2	790.2	1.8
7,366	67.12	101.22	7,042	-194.8	771.5	795.7	2.3

CONSUMABLES

CONSUMABLE	DAILY RECEIVED (gal)	DAILY USED (gal)	DAILY ON HAND (gal)
Fuel	7,548	1,750	11,056
Potable Water			900

TIME BREAKDOWN

FROM	TO	HRS	PHASE	CODE	NPT	OPERATIONS
06:00	12:00	6.0	Production Drilling	Other		Proceed with Extended Leak off Test Packer at 7,325' Reach maximum allowable surface pressure The decision was to trip out of hole
12:00	14:00	2.0	Production Drilling	Trips		Trip out o hole to 5800'
14:00	15:00	1.0	Production Drilling	Cond Mud & Circ		Connect pump line to drill pipe Pump truck pressured on and tool shifted Circulate for temperature while making dry pill, pump dry pill
15:00	18:30	3.5	Production Drilling	Trips		Trip out of hole lay down packer BHA # 28
18:30	19:30	1.0	Production Drilling	Trips		Lay down packer no indication of external failure Lost two packer elements Break down sections of packer Lower port did not open
19:30	23:30	4.0	Production Drilling	Trips		Pick up BHA # 29, to drill out lost packer elements Trip in hole to 7,108 MD Establish circulation Rotate and circulate to bottom 7,389'
23:30	00:00	0.5	Production Drilling	Drilling		Drill from 7,389' to 7,390' Drilling on packer element
00:00	01:00	1.0	Production Drilling	Cond Mud & Circ		Circulate all packer elements out of the hole Confirm well bore clean Make up dry pill, pump dry pill
01:00	04:00	3.0	Production Drilling	Trips		Trip out of hole with Clean Out BHA 29.
04:00	06:00	2.0	Production Drilling	Trips		Pick up directional tangent BHA # 30 Trip in hole
	TOTAL HRS	24.0				