

## WELL/JOB INFORMATION

WELL NAME: **FORGE 16A [78]-32**  
FIELD:  
AFE #:  
CONTRACTOR: **Frontier Drilling**  
SPUD DATE: **10/30/2020**  
MD: **10490**  
PRESENT OPERATIONS: **TRIP IN HOLE WITH DIRECTIONAL BHA #42**  
ACTIVITY PLANNED: **FINISH TRIP IN HOLE. DRILL TO TD**

JOB: Drilling 65° Tangent  
LEASE:  
API #:  
ELEVATION: 5415.1  
DFS: 49  
24 HR FTG: 529

RIG SUPERV: Duane W, Leroy S, Bob F  
RIG PHONE: 281-854-6858  
EMAIL:  
RKB:  
DOL: 59  
HRS DRLG: 12

## BOP

LAST BOP TEST:	12/16/20	LAST BOP DRILL:	12/16/20	NEXT BOP TEST:	1/15/21
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## 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
17:00	9.0	41.0	11.0	11.0	1	5	10	13	14	14	1.400			2.00	3.80	40			3.70

## DRILL BITS

NO.	SIZE	MANUFACTURER	TYPE	SER NO.	JETS	TFA	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
38	8.75	Reed	PDC	A271437	3x14, 3x13	0.840	N	10,490						
37	8.75	REED	PDC	A271436	3x14, 3x13	0.840	N	9,748	10,490	742	17.0	40	182	43.6

BIT NO: 34      INNER: 2      OUTER: 7      DULL: WT      LOC: S      SEAL:      GAUGE: 1      OTHER:      RP: ROP

## PUMPS

PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
1	BOMCO	1600	6.000	12.000					95					
2	BOMCO	1600	6.000	12.000	79	4250	315	5.25	95	9.68	308	475	130.1	

## BHA

#	COMPONENT	OD	ID	LENGTH	#	COMPONENT	OD	ID	LENGTH
1	Drill Bit-Reed Hycalog PDC, 3x13-3x14's	8.75		0.85	7	Monel Collar-6 3/4" NMDC with crowsfoot	6.75	3.25	28.73
2	Motor-6 1/2" Motor 7/8 5.7, Fixed 1.25, 6	6.75	1.25	34.02	8	Monel Collar-6 3/4" NMDC	6.63	3.25	30.46
3	Sensor-6 1/2" Scout Sub-PUK Sensor	6.5	3.25	2.61	9	Drill Pipe-5" HWDP (3 stands)	5	3	279.3
4	Monel Collar-6 3/4" NM Pony Collar	6.75		8.98	10	Drill Pipe-5" Drill Pipe (23 stands)	5	3.25	2185.39
5	MWD Tool-6 1/2" NM UBHO	6.5	2.81	3.13	11	Jar-6 1/2" Vibe Scout	6.5	2.88	27.72
6	Monel Collar-6 3/4" NMDC with MWD	6.63	3.25	28.77	12	Drill Pipe-5" Drill Pipe (13 stands)	5	3.25	1226.43

DESCRIPTION: TANGENT BHA # 42

LENGTH: 4,973.57

ROT. WT.: 215,000

BHA WT. AIR: 84,800

P.U. WT.: 380,000

BHA WT. MUD: 72,000

S.O. WT.: 15,000

HRS. ON JARS:

TORQUE: 13,000

## SURVEY DATA

MD	INCLINATION	AZIMUTH	TVD	N/S	COORDINATES	E/W	V. SECTION	DLS
10,124	65.17	106.84	8,226	-850.9		3,164.9	3,277.3	1.6
10,220	64.32	108.36	8,267	-877.2		3,247.6	3,364.0	1.7
10,316	63.32	108.30	8,310	-904.3		3,329.4	3,450.0	1.0
10,411	64.68	105.97	8,351	-929.4		3,411.0	3,535.3	2.6

## CONSUMABLES

CONSUMABLE	DAILY RECEIVED (gal)	DAILY USED (gal)	DAILY ON HAND (gal)
Fuel		3,261	7,170
Potable Water			900

## TIME BREAKDOWN

FROM	TO	HRS	PHASE	CODE	NPT	OPERATIONS
06:00	09:00	3.0	Production Drilling	Drilling		Drill rotate and slide from 9,961' to 10,097', (136') 45.3 FPH, 40K WOB, 55 RPM, 645 GPM
09:00	09:30	0.5	Production Drilling	Rig Service		Service rig. Repair gasket in mud line to pumps
09:30	18:30	9.0				Drill rotate and slide from 10,097' to 10,490', (393') 43.7 FPH, 40K WOB, 55 RPM, 645 GPM Rotate: 316' (5.8hrs). AVG ROP 54.5 FPH. Slide: 77', (2.61 hrs). AVG ROP 29.6 FPH. Repairs, connections and position tool face (0.6 hrs) Pressured up, rubber coming across shaker SURVEY MD: 10411' INC: 64.68" AZM: 105.97° TVD: 8351.45' VS: 3535.30' DLS: 2.63 4' Below and 16.0' Right
18:30	19:00	0.5	Production Drilling	Cond Mud & Circ		Build Dry pill, Set up to Trip out of hole
19:00	00:30	5.5	Production Drilling	Trips		Trip out of hole with BHA #41.
00:30	01:30	1.0	Production Drilling	Dir Work		Lay down VibraScout (stator failure). Break out bit, lay down motor, BHA #41
01:30	02:00	0.5	Production Drilling	Dir Work		Make up Directional BHA #42.
02:00	03:30	1.5	Production Drilling	Trips		Trip in hole to 5,256' picking up VibraScout
03:30	06:00	2.5	Production Drilling	Cut off Drill Line		Slip and cut drill line. Circulate for temperature while slip and cut.
	TOTAL HRS	24.0				