

EP WELLS DAILY OPERATIONS REPORT

Report 10

07/16/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 D 0904H
Wellbore	UNIVERSITY 19 D 0904H
WBS No/API No	30265147 / 4230133226.00

Event Summary

Event Type	Drilling only	Event Start Date	06/19/2017	Days on Location	7.94
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/19/2017	Days Since Spud	7.56
Est. Days	21.00	Contractor	ENSIGN		
Work Unit	ENSIGN 775	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TRAMPUS STEWART	Measured Depth(ft)	11,940.00
Engineer	BRANDON FOOTE	TVD(ft)	11,610.34
Other Supervisor	TREVOR KELLEY	24 Hr Progress(ft)	383.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,799.10 / 2,771.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,879.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,236.00ft
Actual cost to date/AFE	731,481/2,503,951.00	Current MW / BH EMW(ppg)	9.60/
Actual divided by AFE	0.29	LOT/FIT EMW(ppg)	
Daily Cost	50,529	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	06/23/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	09/29/2015	656	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							
320 MAN HOURS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	07/11/2017	5	JSA's/Toolbox Talks	9
Last BOP function test	06/28/2017	18	Days Since Last Drill	
Last BOP Test	07/19/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILL CURVE T/11940'. CIRC. POOH WORKING THRU TIGHT SPOTS. L/D BHA & R/U CSG CREW. RUN 7" CSG T/8410'
Update Since Report Time
RUN 7" CSG T/11940'.
24 Hour Forecast
CIRC 1 CSG VOL. R/U BAKER & CMT 7" CSG. INSTALL PACKOFF & BPV. N/D BOPS. WALK T/ UNIVERSITY 19 PW UNIT 1403 H

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	SVC		11,557.00	0		LUBRICATE RIG
0:30	4.50	INT1	DRL		11,940.00	0		DRILL 8 3/4" CURVE SLIDE PARAMETERS: WOB: 15-25K PRESSURE & FLOW: 2650 PSI @ 585 GPM RPM: SURFACE 0 MOTOR 291 BIT 291 MW: 9.5 PPG MOTOR: 0.497 RPG GAS: BG 2000 CG 4000 ROTATE PARAMETERS WOB: 15-25K PRESSURE & FLOW: 2650 PSI @ 585 GPM RPM: SURFACE 20 MOTOR 291 BIT 311 TORQUE: ON BOT 14-15K OFF BOT 11K STRING WEIGHT: P/U 330 S/O 260 ROT 300 MW: 9.5 PPG MOTOR: 0.497 GAS: BG 2000 CG 4000 ROTATE F/ 11557' T/11647' (90' @ 180 FPH) SLIDE T/ 11736' (89' @ 89 FPH) ROTATE T/ 11766' (30' @ 60 FPH) SLIDE T/ 11825' (59' @ 118 FPH) ROTATE T/ 11855' (30' @ 60 FPH) SLIDE T/ 11931' (76' @ 76 FPH) ROTATE T/ 11940'
5:00	2.50	INT1	CBU		11,940.00	0		CIRC 3 SWEEPS AROUND UNTIL SHAKERS CLEAN WHILE ROT @ 20 RPM & RECIPROCATATE PIPE
7:30	0.50	INT1	CDM		11,940.00	0		CHECK FLOW. PUMP SLUG
8:00	4.50	INT1	TOH		11,940.00	0		POOH F/11940' T/1817'
12:30	0.50	INT1	TOH		11,940.00	0		WORK THROUGH TIGHT SPOTS @ 11800', 11715' & 11641'
13:00	0.50	INT1	TOH		11,940.00	0		REMOVE ROT HEAD & INSTALL TRIP NIPPLE
13:00	0.50	INT1	TOH		11,940.00	0		POOH F/1817' T/93'
13:30	1.00	INT1	TOH		11,940.00	0		L/D BHA & B/O BIT.
14:30	0.50	INT1	TOH		11,940.00	0		BIT GRADE BHA #4: 1-2-CT-S-X-I-WT-TD
14:30	0.50	INT1	TOH		11,940.00	0		PULL WEAR BUSHING
15:00	0.50	INT1	SVC		11,940.00	0		CLEAN & CLEAR RIG FLOOR
15:30	0.50	INT1	RIC		11,940.00	0		PJSM W/ EXPRESS CSG CREW & R/U.
16:00	8.00	INT1	RIC		11,940.00	0		PJSM W/ EXPRESS RUN 7" P-110 29# LTC & BLUE CSG T/8410'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,062.00	0.33	304.55	11,017.42	-752.40	-211.18	-665.33	1.00	PTW MWD+HDGM_2016
11,151.00	9.22	6.12	11,106.03	-745.15	-210.63	-658.51	10.19	PTW MWD+HDGM_2016
11,241.00	20.85	356.80	11,192.81	-721.91	-210.75	-636.13	13.16	PTW MWD+HDGM_2016
11,330.00	29.73	351.89	11,273.21	-684.17	-214.76	-598.74	10.24	PTW MWD+HDGM_2016
11,419.00	37.58	352.00	11,347.24	-635.37	-221.66	-549.93	8.82	PTW MWD+HDGM_2016

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Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/91.50	pH/Pm (cc)	10.00/0.50
MD (ft)	11,940.00	TS/HGS/LGS (%)	3.90/0.10/3.80	Pf/Mf (cc)	0.20/0.40
Mud Density (ppg)	9.60	Sand (%)	0.20	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	84,000
PV/YP (cp/lbf/100ft ²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lb/100ft ²)	1.000/2.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	0.000	R600/300 (°)	
FC/HTHP FC (32nd")	3.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	8.750	BAKER HUGHES	TD406FX			7163427	3x18, 3x16	11,060.00	11,940.00	1-2-CT-S-X-I-WT-TD

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,940.00	15.0/25.0	20	585.0	2,650.00	169.88	6.41	57.97	4.50	383.00	85.1	12.00	880.00	73.3

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DP	321	10,122.30	5.000		4.276				RIG
HWDP	1	30.29	6.500		3.250	4-1/2 IF			
SHOCK SUB & AGITATOR TOOL	1	23.73	6.870			4 1/2 IF			AGAR0675-0199
(11 JTS) HWDP	11	330.39	6.500		3.250	4-1/2 IF			RIG
(30 JTS) DP	30	1,339.76	5.000		2.750	4-1/2 IF			RIG
CROSSOVER SUB	1	2.34	6.700		2.810	4-1/2 IF			NESXO675548
FLOAT SUB	1	2.50	6.750		2.870	4-1/2 XH			NESFS675486
FILTER SUB	1	3.50	6.500		3.250	4-1/2 XH			DR30026
NON-MAG FLEX COLLAR	1	29.67	6.500		2.750	4-1/2 XH			PXGFC6501113
GAP SUB	1	3.58	6.630		4.250	4-1/2 XH			VG650133PTS
CENTRALIZER COLLAR	1	8.53	6.630		3.780	4-1/2 IF			VC650262
LANDING SUB	1	3.55	6.625		3.780	4-1/2 IF			VL650121
CROSSOVER	1	1.66	6.500		2.750	4-1/2 XH			VX650047
SLICK PONY COLLAR	1	9.47	6.500		2.870	4-1/2 XH			DR22324
PHOENIX MUD MOTOR, 4/5 LOBES. 7.0 STG. FIXED @ 2.38°.	1	27.73	7.125			4-1/2 XH			24XH-165111-PTS
BIT #4 RUN #1 BAKER TD406FX, SN: 7163427.3x16's. 3x18's	1	1.00	8.750	8.750					7163427

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
07/15/2017 09:00		07/16/2017 13:30		4	447.65		DRILL 8.75" INTERMEDIATE CURVE SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
11,940.00	330.0	260.00	300.00	30.00	15,000.0	11,000.0	383.00

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PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		GARDENER-DENVER / PZ-11-1600	11.00						
2		GARDENER-DENVER / PZ-11-1600	11.00						

Remarks

FUEL ON LOCATION: 16748 GAL
FUEL USED: 1484 GAL