

EP WELLS DAILY OPERATIONS REPORT

Report 8

07/08/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1404H
Wellbore	UNIVERSITY 19 PW UNIT 1404H
WBS No/API No	30265150 / 4230133215.00

Event Summary

Event Type	Drilling only	Event Start Date	06/16/2017	Days on Location	7.31
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/17/2017	Days Since Spud	5.98
Est. Days	22.00	Contractor	ENSIGN		
Work Unit	ENSIGN 775	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TRAMPUS STEWART	Measured Depth(ft)	10,248.00
Engineer	BRANDON FOOTE	TVD(ft)	10,236.97
Other Supervisor	TREVOR KELLEY	24 Hr Progress(ft)	952.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,800.10 / 2,772.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,893.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,236.00ft
Actual cost to date/AFE	662,674/2,770,860.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.24	LOT/FIT EMW(ppg)	
Daily Cost	66,293	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	06/19/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	09/29/2015	648	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	9 2 1500
Safety Comments:							
242 MAN HOURS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	07/05/2017	3	JSA's/Toolbox Talks	10
Last BOP function test	06/28/2017	10	Days Since Last Drill	8
Last BOP Test	07/19/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILL F/9296' T/10014'. POOH. C/O MOTOR & BIT. TIH. DRILL F/10014' T/10248'
Update Since Report Time
DRILL T/10606'
24 Hour Forecast
DRILL T/ KOP @ 11055'. POOH. P/U CURVE ASSY & TIH. DRILL CURVE.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	INT1	DRL		9,513.00	0		DRILL F/9296' T/9513' (217' @ 72.3 FPH) WOB:40-45K RPM: SURF 20 MOTOR 170 BIT 190 PSI & FLOW: SPP 2175 GPM 604 DIFF 400-600 STRING WT: P/U 315 S/O 265 ROT 285 TORQUE: ON BTM 11-12K OFF BTM 7K MW: 9.3 PPG MOTOR: .28 REVS/GAL GAS: BG 0 CG 0
3:00	6.50	INT1	DRL		10,014.00	0		DRILL F/9513' T/10014' (501' @ 77.1 FPH) WOB:40-45K RPM: SURF 65 MOTOR 186 BIT 251 PSI & FLOW: SPP 2850 GPM 665 DIFF 400-800 STRING WT: P/U 330 S/O 280 ROT 295 TORQUE: ON BTM 14-17K OFF BTM 12-13K MW: 9.3 PPG MOTOR: .28 REVS/GAL GAS: BG 0 CG 0
9:30	1.00	INT1	CBU		10,014.00	0		CIRC. FILL TRIP TANKS. PUMP SLUG.
10:30	4.00	INT1	TOH		10,014.00	0		POOH F/10014' T/127'
14:30	2.00	INT1	BHA		10,014.00	0		C/O BHA. L/D MTR & P/U NEW MTR. SCRIBE SAME. M/U BIT & NEW BHA. BIT GRADE: 4-8-BT-S-X-1-LT-PR
16:30	4.00	INT1	TIH		10,014.00	0		TIH T/8977'
20:30	0.50	INT1	TIH		10,014.00	0		INSTALL ROT HEAD
21:00	1.00	INT1	WTR		10,014.00	0		WASH F/9960' T/10014' W/ 750 GPM, 60 RPM, 15 WOB
22:00	2.00	INT1	DRL		10,248.00	0		DRILL F/10014' T/10248' (234' @ 117 FPH) WOB:40-45K RPM: SURF 60 MOTOR 199 BIT 259 PSI & FLOW: SPP 3206 GPM 710 DIFF 450-550 STRING WT: P/U 330 S/O 280 ROT 295 TORQUE: ON BTM 14-17K OFF BTM 10K MW: 9.3 PPG MOTOR: .28 REVS/GAL GAS: BG 1000 CG 4000
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
9,527.00	1.73	270.48	9,517.47	132.29	-186.26	-103.37	0.34	PTW MWD+HDGM_2016
9,705.00	2.36	268.09	9,695.35	132.20	-192.61	-102.33	0.36	PTW MWD+HDGM_2016
9,884.00	4.27	263.72	9,874.04	131.34	-202.92	-99.97	1.08	PTW MWD+HDGM_2016
10,064.00	4.68	269.33	10,053.50	130.52	-216.92	-97.09	0.33	PTW MWD+HDGM_2016
10,243.00	4.02	267.19	10,231.98	130.13	-230.49	-94.70	0.38	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc)
MD (ft)		TS/HGS/LGS (%)	Pf/Mf (cc)
Mud Density (ppg)		Sand (%)	Ca+ (ppm)
Vis (s/qt)			Cl- (ppm)
PV/YP (cp/lbf/100ft²)		MBT (lbm/bbl)	
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
		KCl (%)	R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

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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
2	8.750	BAKER HUGHES	T607FX			7164145	7x16	4,893.00	10,014.00	4-8-BT-S-X-1-LT-PR

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)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DP	288	9,077.42	5.000		4.276				RIG
(12 JTS) HWDP	12	360.68	6.500		3.250	4 1/2 IF			RIG
CROSSOVER SUB	1	2.34	6.700		2.810	4 1/2 IF			NESXO675548
(15 JTS) DRILL COLLARS	15	445.77	6.500		2.500	4 1/2 XH			RIG
SCREEN SUB	1	3.16	6.500		3.250	4 1/2 XH			DR27053
STABILIZER	1	5.91	8.500		2.870	4 1/2 XH			DR34214
NON-MAG SLICK COLLAR	1	30.79	6.750		2.870	4 1/2 XH			NESNM675637
STABILIZER	1	5.90	8.500		2.870	4 1/2 XH			DR34216
GAP SUB	1	3.59	6.625		2.870	4 1/2 XH			VG650134PTS
CENTRALIZER COLLAR	1	8.54	6.625		4.490	4 1/2 IF			VC650021
LANDING SUB	1	3.55	6.625		3.780	4 1/2 IF			VL650121
CROSSOVER SUB	1	1.56	6.500		2.750	4-1/2 XH			VX650075
NON-MAG PONY SLICK COLLAR	1	15.23	6.500		2.870	4 1/2 XH			PXGPC6501068
STABILIZER	1	5.92	8.500		2.870	4 1/2 XH			DR34217
CROSSOVER SUB	1	2.09	6.560		3.250	4 1/2 XH			DR26769
SCIENTIFIC MUD MOTOR, LOBES: 7/8, STG: 9.4, FIXED @	1	40.55	8.500			5-1/2 FH			SDI700043
BIT #2 RUN #1 BAKER T607FX, 7X16's, SN: 7164145	1	1.00	8.750	8.750					7164145

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
07/05/2017 21:00	07/08/2017 16:30	2	936.58		DRILL 8.75" INTERMEDIATE SECTION

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: 1908 GAL
FUEL DELIVERED: 7000 GAL