

EP WELLS DAILY OPERATIONS REPORT

Report 16

08/19/2017

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	15.92
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/17/2017	Days Since Spud	13.58
Est. Days	22.00	Contractor	ENSIGN		
Work Unit	ENSIGN 775	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	STEVE SLOOP	Measured Depth(ft)	15,940.00
Engineer	BRANDON FOOTE	TVD(ft)	11,650.03
Other Supervisor	JOHNNIE BRASSELL	24 Hr Progress(ft)	1,077.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,800.10 / 2,772.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	10.50/43.75	Last Casing MD	7.000in@11,969.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@21,085.00ft
Actual cost to date/AFE	1,552,145/2,770,860.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.56	LOT/FIT EMW(ppg)	
Daily Cost	46,646	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	690	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	0 10 16 1500
Safety Comments:	STEP BACK 5X5, 7 STEPS REVEIW.						

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	08/15/2017	4	JSA's/Toolbox Talks	17
Last BOP function test	08/07/2017	12	Days Since Last Drill	2
Last BOP Test	08/28/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
P/U MOTOR & PONY SUB, FINISH DOWN LINK & UP LINK OF MWD, M/U MWD SCRIBE TOOLS, TIH T/ 1787', P/U AGITATOR CHECK PRESSURE DROP, TIH T/ 5268', P/U SHOCK SUB, TIH T/ 11008', INST ROT HEAD, TIH T/ 14157', WASH T/ 14863', C/BU DUE TO GAS, SLIDE & DRLG F/ 14863' T/ 15170', RIG SERVICE, DRLG & SLIDE F/ 15170' T/ 15940'
Update Since Report Time
DRLG @ 16397'
24 Hour Forecast
DRLG LATERAL SECTION AS PER PLAN EST TD +/- 21,085'

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	MNH1	BHA		14,863.00	1		NPT- P/U MOTOR & PONY SUB, FINISH DOWN LINK & UP LINK OF MWD, M/U MWD SCRIBE TOOLS
1:30	1.00	MNH1	TIH		14,863.00	1		NPT-TIH T/ 1787'
2:30	0.50	MNH1	TIH		14,863.00	1		NPT- P/U AGITATOR CHECK PRESSURE DROP BEFORE/AFTER 1800/2300PSI
3:00	1.00	MNH1	TIH		14,863.00	1		NPT- TIH T/ 5268'
4:00	0.50	MNH1	TIH		14,863.00	1		NPT- P/U SHOCK SUB
4:30	2.00	MNH1	TIH		14,863.00	1		NPT- TIH T/ 11008'
6:30	0.50	MNH1	TIH		14,863.00	1		NPT- INST ROT HEAD
7:00	1.50	MNH1	TIH		14,863.00	1		NPT- TIH T/ 14157'
8:30	1.00	MNH1	TIH		14,863.00	1		NPT- WASH T/ 14863'
9:30	1.00	MNH1	CDM		14,863.00	1		NPT- C/BU DUE TO GAS
10:30	2.00	MNH1	DRL		14,934.00	0		SLIDE DRILL F/14863' T/14934' (71' @ 35 FPH) WOB: 15K RPM: SURF 0 MOTOR 409 BIT 409 PSI & FLOW: SPP 5250 GPM 275 DIFF 300-500 STRING WT: P/U 210 S/O 170 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 4000
12:30	2.00	MNH1	DRL		15,091.00	0		ROTARY DRILL F/14934' T/15091' (157' @ 78 FPH) WOB: 10K RPM: SURF 90 MOTOR 447 BIT 537 PSI & FLOW: SPP 5800 GPM 300 DIFF 800 STRING WT: P/U 210 S/O 180 ROT 190 TORQUE: ON BTM 8-10K OFF BTM 4-5K MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000
14:30	1.00	MNH1	DRL		15,141.00	0		SLIDE DRILL F/15091' T/15141' (50' @ 50 FPH) WOB: 25K RPM: SURF 0 MOTOR 447 BIT 447 PSI & FLOW: SPP 5850 GPM 300 DIFF 300-500 STRING WT: P/U 210 S/O 180 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000
15:30	0.50	MNH1	DRL		15,170.00	0		ROTARY DRILL F/15141' T/15170' (29' @ 58 FPH) WOB: 15K RPM: SURF 90 MOTOR 447 BIT 537 PSI & FLOW: SPP 5800 GPM 300 DIFF 800 STRING WT: P/U 210 S/O 160 ROT 185 TORQUE: ON BTM 8-10K OFF BTM 4-5K MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000
16:00	0.50	MNH1	SVC		15,170.00	0		RIG SERVICE
16:30	0.50	MNH1	DRL		15,185.00	0		ROTARY DRILL F/15170' T/15185' (15' @ 30 FPH) WOB: 15K RPM: SURF 100 MOTOR 417 BIT 517 PSI & FLOW: SPP 5800 GPM 280 DIFF 800 STRING WT: P/U 210 S/O 160 ROT 185 TORQUE: ON BTM 8-10K OFF BTM 4-5K MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
17:00	1.50	MNH1	DRL		15,238.00	0		SLIDE DRILL F/15185' T/15238' (53' @ 35 FPH) WOB: 25K RPM: SURF 0 MOTOR 424 BIT 424 PSI & FLOW: SPP 5300 GPM 285 DIFF 300-500 STRING WT: P/U 210 S/O 160 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000
18:30	5.50	MNH1	DRL		15,940.00	0		ROTARY DRILL F/15238' T/15940' (702' @ 127 FPH) WOB: 15K RPM: SURF 100 MOTOR 417 BIT 517 PSI & FLOW: SPP 5800 GPM 280 DIFF 800 STRING WT: P/U 210 S/O 160 ROT 185 TORQUE: ON BTM 8-10K OFF BTM 4-5K MW: 13.4 PPG MOTOR: 1.49 REV/GAL GAS: BG 500 CG 3000
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
15,495.00	90.82	167.83	11,652.45	-3,744.96	1,024.18	3,882.29	2.59	PTW MWD+HDGM_2016
15,590.00	90.47	168.42	11,651.38	-3,837.92	1,043.73	3,977.17	0.72	PTW MWD+HDGM_2016
15,684.00	89.93	168.29	11,651.05	-3,929.98	1,062.70	4,071.03	0.59	PTW MWD+HDGM_2016
15,778.00	90.04	168.84	11,651.08	-4,022.11	1,081.34	4,164.88	0.60	PTW MWD+HDGM_2016
15,872.00	90.58	169.66	11,650.57	-4,114.46	1,098.87	4,258.65	1.04	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)		LCM (lbm/bbl)	XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		ECD (ppg)	ES (Volts)
API/HTHP WL (cc/30min)		H2S (gas unit)	R600/300 (°)
FC/HTHP FC (32nd")		KCl (%)	R200/100 (°)
WPS (ppm)			R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl) /0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl) /0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses 0.00/0.00
		End vol. (bbl) 0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel	-8,248.00	GAL	1,190.00

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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: 14840 GAL
FUEL USED (RIG): 1566 GAL
FUEL USED (PITS): 1190 GAL
FUEL DELIVERED: 0 GAL