

EP WELLS DAILY OPERATIONS REPORT

Report 12

08/15/2017

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	11.92
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/17/2017	Days Since Spud	9.58
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)	11,978.00
Engineer	BRANDON FOOTE	TVD(ft)	11,615.02
Other Supervisor	TREVOR KELLEY	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,800.10 / 2,772.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,969.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,350.00ft
Actual cost to date/AFE	1,323,787/2,770,860.00	Current MW / BH EMW(ppg)	13.50/
Actual divided by AFE	0.48	LOT/FIT EMW(ppg)	
Daily Cost	46,072	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	686	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							
276 MAN HOURS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	08/15/2017	0	JSA's/Toolbox Talks	12
Last BOP function test	08/07/2017	8	Days Since Last Drill	
Last BOP Test	08/28/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
ACCEPT RIG @0330. N/U BOPS & PULL BPV. P/U BHA & TIH T/11484. SLIP & CUT DRILLLINE. TAG CMT @ 11767'. DRILL OUT SHOE TRACK.
Update Since Report Time
DRILL T/12184'
24 Hour Forecast
DRILL AHEAD IN LATERAL.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
3:30	2.50	MNH1	WLK		11,978.00	0		WALK RIG T/ UNIVERSITY 19 PW UNIT 1404H
6:00	2.00	MNH1	BOP		11,978.00	0		N/U BOP & TEST SEALS T/250 LOW - 10000 HIGH F/15 MINS WHILE R/U FLARE LINE & PANIC LINE
8:00	1.50	MNH1	BOP		11,978.00	0		INSTALL TURN BUCKLES, PULL BIT GUIDE, PULL BPV, INSTALL BIT GUIDE
9:30	1.00	MNH1	BOP		11,978.00	0		FUNCTION TEST BOPS WHILE L/O DIR BHA
10:30	2.00	MNH1	BHA		11,978.00	0		PJSM, P/U BHA.
12:30	5.00	MNH1	TIH		11,978.00	0		TIH F/103' T/11484'
17:30	0.50	MNH1	TIH		11,978.00	0		PJSM, HANG BLOCK ON BLOCK LOCKS, REMOVE WEIGHT SENSORS
18:00	1.00	MNH1	CUT		11,978.00	0		SLIP & CUT 12 WRAPS 90 FT OF DRILL LINE & RECALIBRATE BLOCKS
19:00	0.50	MNH1	SVC		11,978.00	0		GREASE & INSPECT TOP DRIVE
19:30	0.50	MNH1	TIH		11,978.00	0		INSTALL ROT HEAD & TIH F/11484' T/11767'
20:00	2.50	MNH1	DCM		11,978.00	0		ENCOUNTERED CMT @ 11767'. BEGIN REAMING WHILE DISPLACE W/ OBM T/11875'
22:30	1.50	MNH1	DCM		11,978.00	0		DRILL OUT FLOAT & SHOE TRACK WOB: 15K RPM: SURF 80 MOTOR 142 BIT 222 PSI & FLOW: SPP 5900 GPM 175 DIFF 300-450 STRING WT: P/U 230 S/O 180 ROT 200 TORQUE: ON BTM 5-7K OFF BTM 3-4K MW: 13.4 PPG MOTOR: .81 REV/GAL GAS: BG 500 CG 1000
Total	20.50							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,777.00	69.65	163.76	11,588.71	-249.01	-160.82	268.19	6.77	PTW MWD+HDGM+AXIAL_2016
11,866.00	81.04	160.76	11,610.30	-335.19	-129.43	349.43	13.15	PTW MWD+HDGM_2016
11,867.00	81.04	160.99	11,611.44	-331.83	-134.45	346.76	13.00	PTW MWD+HDGM+AXIAL_2016
11,931.00	90.14	161.20	11,616.36	-392.13	-113.79	403.79	14.22	PTW MWD+HDGM+AXIAL_2016
11,931.00	90.14	161.33	11,615.29	-396.42	-108.40	407.32	14.03	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	55.00/17.50	POM (cc)
MD (ft)	11,978.00	TS/HGS/LGS (%)	26.00/17.20/8.80	CaCl2 (%)
Mud Density (ppg)	13.50	Sand (%)	0.18	Caom/Clom (ppm)
Vis (s/qt)	71.00	Oil/Water Ratio (%)	75.90/24.10	ACT
PV/YP (cp/lbf/100ft²)	28.00/11.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)	13.000/16.000	ECD (ppg)		ES (Volts)
API/HTHP WL (cc/30min)	/8.0	H2S (gas unit)		R600/300 (°)
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)
WPS (ppm)	216,325			R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)		

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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	-142.00		142.00

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
5	6.125	BAKER HUGHES	TD405FX			7163435	1x15, 4x16	11,978.00		-----

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.
4" DP	213	6,703.43	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.14	5.000		2.750	XT-39			W1681970
(110 JTS) DRILL PIPE	110	3,469.93	5.000		3.250	XT-39			RIG
AGITATOR 1.4 PLATE & SHOCK SUB	1	22.24	5.000		2.750	XT-39			W1830287
(53 JTS) DRILL PIPE	53	1,667.63	5.000		3.250	XT-39			RIG
CROSSOVER SUB	1	1.95	5.000		2.750	XT-39			DR18060
FLOAT SUB	1	2.96	4.750		2.750	3-1/2 IF			NESFS475151
SCREEN SUB	1	3.98	4.875		2.750	3-1/2 IF			DR31955
NM SLICK COLLAR	1	29.12	4.500		2.560	3-1/2 IF			NESNM475445
GAP SUB	1	3.76	5.125			3-1/2 IF			VG4755094PTS
CENTRALIZER COLLAR	1	8.34	5.000			4.3 ACME			VC475012
LANDING SUB	1	3.43	5.125			4.3 ACME			VL475074
CROSSOVER	1	1.50	4.750		2.750	3-1/2 IF			VX475012
NM PONY SLICK COLLAR	1	11.01	4.630		2.750	3-1/2 IF			DR31741
STABILIZER	1	4.83	5.875		2.625	3-1/2 IF			DR27098
5" BICO MUD MOTOR, LOBES: 6/7, STG: 8, FIXED @ 1.83°.	1	31.75	5.875			3-1/2 IF			G254
BIT #5 RUN #1 BAKER TD405FX, 4X16's. 1X15's. SN: 7163435	1	1.00	6.125	6.125					7163435

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
08/15/2017 00:00		5	137.01		DRILL 6.125" PRODUCTION SECTION

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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: 16324 GAL
FUEL USED (RIG): 1484 GAL
FUEL USED (PITS): 142 GAL