EP WELLS DAILY OPERATIONS REPORT

Report 18 08/09/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1407H
Wellbore	UNIVERSITY 19 PW UNIT 1407H
WBS No/API No	30264950 / 4230133203

Event Summary

Event Type	Drilling only	Event Start Date	05/10/2017	Days on Location	17.38
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	05/11/2017	Days Since Spud	14.94
Est. Days	25.00	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	DENNIS JOHNSON	Measured Depth(ft)	14,220.00
Engineer	YERMEK TYNYSHBAYEV	TVD(ft)	11,715.37
Other Supervisor	TANNER MANUEL	24 Hr Progress(ft)	1,070.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,792.70 / 2,766.70	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	10.50/43.75	Last Casing MD	7.000in@12,087.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@
Actual cost to date/AFE	1,632,652/2,726,365.58	Current MW / BH EMW(ppg)	13.30/
Actual divided by AFE	0.60	LOT/FIT EMW(ppg)	
Daily Cost	61,187	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			PSI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	
FAC			**GOAL ZERO DAYS**	10/12/2016	301	Safety Card - Unsafe	
Last casing pressure test			**PS BARRIER EVENT**			SSE%	
			PS barrier bowtie review			Last casing pressure(psi)	

Safety Comments:

MAN HRS: 231

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test	05/14/2017	87	Days Since Last Drill	17
Last BOP Test	05/14/2017	87		
Next BOP Test	06/04/2017			

Operations Summary

24 Hour Summary

ROTATE DRILL F/ 13150' - T/ 14220'. CIRCULATE BOTTOMS UP & POOH DUE TO LOW ROP. L/D MOTOR, MWD, & BIT. P/U BHA.

Update Since Report Time

FINISH P/U BHA (NEW BIT, MOTOR, & MWD). TIH TO 7000'.

24 Hour Forecast

TIH TO SHOE. SLIP & CUT DRILL LINE. TIH TO BOTTOM & CONTINUE DRILLING LATERAL SECTION.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	MNH1	DRL		13,682.00	0		ROTATE DRILL F/13150' - T/13682' (532' @ 89 FT/HR) RPM SURFACE 75 MOTOR 231 BIT 306 WOB 25 K SPP 5750 PSI GPM 289 TORQUE ON BTM 10 K TORQUE OFF BTM 6 K P/U 220 K S/O 120 K ROT 160 K MUD 13.5 PPG MOTOR REV: .8 GAS: 1200 UNITS NO FLARE
6:00	7.50	MNH1	DRL		14,220.00	0		ROTATE DRILL F/13682' - T/14220' (538' @ 72 FT/HR) RPM SURFACE 75 MOTOR 231 BIT 306 WOB 25 K SPP 5750 PSI GPM 289 TORQUE ON BTM 10-12 K TORQUE OFF BTM 6 K P/U 220 K S/O 120 K ROT 160 K MUD 13.5 PPG MOTOR REV: .8 GAS: 1200 UNITS NO FLARE
13:30	1.50	MNH1	CDM		14,220.00	1		CIRCULATE BOTTOMS UP TO POOH DUE TO LOW ROP.
15:00	3.00	MNH1	TOH		14,220.00	1		PUMP SLUG. POOH F/ 14220' - T/ 7700'.
18:00	4.50	MNH1	TOH		14,220.00	1		POOH F/ 7700' - T/ BHA. L/D AGITATOR/SHOCK SUB COMBO.
22:30	1.00	MNH1	BHA		14,220.00	1		POOH WITH BHA. L/D MWD, MOTOR, & BIT. BIT #5 RUN #1 6.125" HALLIBURTON GT54D (5X16'S) SN: 12919095 (BIT GRADE: 6-4-BT-N-X-I-CT-PR DBR)
23:30	0.50	MNH1	BHA		14,220.00	1		P/U BHA. NEW BIT, MOTOR, & MWD.
Total	**24.00**							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
08/09/2017 13:30	HALLIBURTON ENERGY SERVICES INC	Drill Bits, Under-Reamers & SWRD	14,220.00	CDM	EN	Bits	0.00	0.00		OPEN

Description: TRIP OUT OF HOLE DUE TO LOW ROP

Title: TRIP OUT OF HOLE

Total 0.00 0.00

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
13,551.00	87.85	161.34	11,710.63	-1,379.79	1,036.86	1,615.23	2.48	PTW MWD_2016
13,631.00	90.95	163.97	11,711.47	-1,456.13	1,060.70	1,695.20	5.08	PTW MWD_2016
13,631.00	90.95	163.97	11,712.04	-1,455.54	1,061.66	1,694.90	5.08	PTW MWD+HDGM_2016
13,631.00	90.95	164.03	11,699.87	-1,460.76	1,060.62	1,699.62	5.15	PTW MWD+HDGM+AXIAL_2016
13,811.00	89.38	163.24	11,710.95	-1,628.80	1,111.51	1,875.19	0.96	PTW MWD_2016

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Wellbore UNIVERSITY 19 PW UNIT 1407H

Fluid Details

Mud type	Invermul	Oil/Water (%)	52.00/20.00	POM (cc)	
MD (ft)	14,018.00	TS/HGS/LGS (%)	25.70//	CaCl2 (%)	
Mud Density (ppg)	13.30	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	54.00	Oil/Water Ratio (%)	72.20/27.80	ACT	
PV/YP (cp/lbf/100ft²)	28.00/10.000			XS Lime(lbm/bbl)	4.01
Gels 10 s/m (lbf/100ft²)	8.000/14.000	LCM (lbm/bbl)		ES (Volts)	533.0
API/HTHP WL (cc/30min)	0.0/	ECD (ppg)	17.030	R600/300 (°)	
FC/HTHP FC (32nd")	0.0/4.0	H2S (gas unit)		R200/100 (°)	
WPS (ppm)	257,278	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
5	6.125	HALLIBURTON	GT54D			12919095	5x16	12,087.00	14,220.00	6-4-BT-N-X-I-CT-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)
13,682.00	25.0/25.0	75	289.0	5,750.00	106.14	1.85	17.89	6.00	532.00	88.7	21.50	1,595.00	74.2
14,220.00	25.0/25.0	75	289.0	5,750.00	106.14	1.85	17.89	7.50	538.00	71.7	29.00	2,133.00	73.6

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
4" DRILL PIPE	269	9,516.62	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.07	5.000		2.000	XT-39			W1836693-1
64 JTS 4" DP	64	2,872.72	4.000		3.340	XT-39			RIG
AGITATOR	1	22.10	5.000		2.000	XT-39			W1857319-1 /1583003-10
38 JTS 4" DP	38	1,702.77	4.000		3.340	XT-39			RIG
CROSSOVER	1	2.70	4.800		2.630	XT-39			DR28568
FLOAT SUB	1	1.58	4.625		2.688	3 1/2 IF			NESFS475241
FILTER SUB	1	2.88	4.688		2.250	3 1/2 IF			DR20599
NMDC	1	30.12	4.540		2.688	3 1/2 IF			NESNM475561
475 GAP SUB	1	3.78	5.100			3 1/2 IF			VG475082PTS
475 CENTRALIZER COLLAR ASSY	1	8.34	5.110			3 1/2 IF			VC475054
475 LANDING SUB	1	3.43	5.080			3 1/2 IF			VL475046
475 X/O SUB	1	1.38	4.760			3 1/2 IF			VX475014
NMPC	1	13.95	4.688		2.688	3 1/2 IF			NESPC4754036
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 6.4. SET @ 1.75°	1	25.60	5.020			3 1/2 IF			24XH-513028-PTS
BIT #5 RUN #1 6.125" HALLIBURTON GT54D (5X16'S)	1	0.96	6.125	6.125		3 1/2 REG			12919095

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
08/07/2017 16:30		08/09/2017 23:30		5	127.89		DRILL 6.125" PRODUCTION 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)**
13,682.00	220.0	120.00	160.00	60.00	10,000.0	6,000.0	532.00
14,220.00	220.0	120.00	160.00	60.00	12,000.0	6,000.0	538.00

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Wellbore UNIVERSITY 19 PW UNIT 1407H

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
6	6.125	BAKER HUGHES	TD405FX			5271645	5x16	14,220.00		- - - - - -

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" DRILL PIPE	303	9,516.07	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.07	5.000		2.000	XT-39			W1836693-1
64 JTS 4" DP	64	2,872.72	4.000		3.340	XT-39			RIG
AGITATOR	1	22.10	5.000		2.000	XT-39			W1857319-1 /1583003-10
38 JTS 4" DP	38	1,702.77	4.000		3.340	XT-39			RIG
CROSSOVER	1	2.70	4.800		2.630	XT-39			DR28568
FLOAT SUB	1	1.58	4.625		2.688	3 1/2 IF			NESFS475241
FILTER SUB	1	2.88	4.688		2.250	3 1/2 IF			DR20599
NMDC	1	30.12	4.540		2.688	3 1/2 IF			NESNM475561
475 GAP SUB	1	3.78	5.100			3 1/2 IF			VG475082PTS
475 CENTRALIZER COLLAR ASSY	1	8.35	5.110			3 1/2 IF			VC475031
475 LANDING SUB	1	3.42	5.080			3 1/2 IF			VL475079
475 X/O SUB	1	1.64	4.760			3 1/2 IF			VX475044
NMPC	1	13.95	4.688		2.688	3 1/2 IF			NESPC4754036
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 6.4. SET @ 1.75°	1	25.91	5.020			3 1/2 IF			24XH-513030-PTS
BIT #6 RUN #1 6.125" BAKER TD405FX (5X16'S) SN: 5271645	1	0.94	6.125	6.125		3 1/2 REG			5271645

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
08/09/2017 23:30		6	256.33		DRILL 6.125" PRODUCTION SECTION

Remarks

DIESEL ON LOCATION: 13954 GAL
DIESEL DELIVERED: 3512 GAL
DIESEL USED: 2929 GAL
LNG USED: 557.56 GAL