

EP WELLS DAILY OPERATIONS REPORT

Report 7

05/24/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 H 0908H
Wellbore	UNIVERSITY 19 H 0908H
WBS No/API No	30257350 / 4230133234.00

Event Summary

Event Type	Drilling only	Event Start Date	05/08/2017	Days on Location	7.00
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	05/08/2017	Days Since Spud	5.77
Est. Days	22.00	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	DENNIS JOHNSON	Measured Depth(ft)	10,639.00
Engineer	YERMEK TYNYSHBAYEV	TVD(ft)	10,536.74
Other Supervisor	TANNER MANUEL / YU LIU	24 Hr Progress(ft)	1,470.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,792.80 / 2,766.80	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,020.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@
Actual cost to date/AFE	473,949/2,467,033.93	Current MW / BH EMW(ppg)	9.70/
Actual divided by AFE	0.19	LOT/FIT EMW(ppg)	
Daily Cost	65,062	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	224	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
MAN HOURS - 276 HRS							
NO HSE ISSUES							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test	05/21/2017	3	Days Since Last Drill	6
Last BOP Test	05/21/2017	3		
Next BOP Test	06/11/2017			

Operations Summary

24 Hour Summary
DRILL F/9169' T/10639', POOH DUE TO MOTOR FAILURE, L/D DIRECTIONAL BHA. PICK UP CURVE ASSEMBLY.
Update Since Report Time
FINISH MAKING UP CURVE ASSEMBLY, TIH TO SHOE, SLIP AND CUT DRILL LINE
24 Hour Forecast
TIH, INDUCE FLOW, DRILL TO KOP, DRILL CURVE SECTION.

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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		9,570.00	0		ROTATE DRILL F/ 9169' - T/ 9570' (401' @ 133.56 FT/HR) RPM SURFACE 20 MOTOR 145 BIT 165 WOB 40K SPP 3200 PSI GPM 586 TORQUE ON BTM 21 K TORQUE OFF BTM 13 K P/U 285 K S/O 140 K ROT 241 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 150 FLARE: NONE
3:00	2.00	INT1	DRL		9,837.00	0		ROTATE DRILL F/ 9570' - T/ 9837' (267' @ 133.5 FT/HR) RPM SURFACE 70 MOTOR 145 BIT 215 WOB 40K SPP 3200 PSI GPM 586 TORQUE ON BTM 21 K TORQUE OFF BTM 13 K P/U 295 K S/O 130 K ROT 260 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 150 FLARE: NONE
5:00	0.50	INT1	SVC		9,837.00	0		RIG SERVICE
5:30	0.50	INT1	DRL		9,936.00	0		ROTATE DRILL F/ 9837' - T/ 9936' (99' @ 198 FT/HR) RPM SURFACE 70 MOTOR 145 BIT 215 WOB 40K SPP 3200 PSI GPM 586 TORQUE ON BTM 21 K TORQUE OFF BTM 13 K P/U 295 K S/O 130 K ROT 260 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 150 FLARE: NONE
6:00	3.00	INT1	DRL		10,320.00	0		ROTATE DRILL F/ 9936' - T/ 10320' (384' @ 128 FT/HR) RPM SURFACE 70 MOTOR 145 BIT 215 WOB 40K SPP 3200 PSI GPM 586 TORQUE ON BTM 23.5 K TORQUE OFF BTM 7.5 K P/U 308 K S/O 221 K ROT 262 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 126 FLARE: NONE
9:00	2.00	INT1	DRL		10,372.00	0		SLIDE DRILL F/ 10320' - T/ 10372' (52' @ 26 FT/HR) RPM MOTOR 142 BIT 142 WOB 26K SPP 2650 PSI GPM 586 P/U 334 K S/O 220 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 89 FLARE: NONE
11:00	3.00	INT1	DRL		10,639.00	0		ROTATE DRILL F/ 10372' - T/ 10639' (267' @ 89 FT/HR) RPM SURFACE 70 MOTOR 142 BIT 212 WOB 40K SPP 3200 PSI GPM 586 TORQUE ON BTM 23.5 K TORQUE OFF BTM 9.4 K P/U 340 K S/O 219 K ROT 275 K MUD 9.7 PPG MOTOR REV: .242 BACKGROUND GAS: 38 B/U GAS: 89

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								FLARE: NONE
14:00	1.00	INT1	DRL		10,639.00	0		PRESSURE INCREASE, PREPARE TO POOH DUE TO MOTOR.
15:00	1.00	INT1	WCP		10,639.00	0		KILL WELL
16:00	2.00	INT1	DRL		10,639.00	0		POOH F/10639' T/6050'. FILL HOLE W/ CALCULATED VOLUME THROUGH KILL LINE.
18:00	3.00	INT1	DRL		10,639.00	0		POOH F/6050' T/BHA
21:00	1.00	INT1	DRL		10,639.00	0		L/D DIRECTIONAL BHA. BIT #3 RUN #1 8.75" NOV TK76 (7X11's) SN: E235449 BIT GRADE: 1-4-CT-S-X-1-BT-DMF. RUBBER FROM MOTOR IN BIT
22:00	2.00	INT1	DRL		10,639.00	0		CHANGE OUT DIRECTIONALS FOR CURVE ASSEMBLY
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,133.00	5.60	261.30	10,032.20	-233.73	984.12	-500.23	0.47	PTW MWD_2016
10,311.00	4.90	259.91	10,209.46	-236.37	968.05	-498.27	0.40	PTW MWD_2016
10,311.00	4.90	259.91	10,209.44	-231.34	964.31	-492.39	0.40	PTW MWD+HDGM_2016
10,489.00	3.56	285.10	10,386.98	-236.26	955.23	-494.57	1.27	PTW MWD_2016
10,489.00	3.56	285.10	10,386.97	-231.23	951.49	-488.69	1.27	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/92.00	pH/Pm (cc)	7.00/0.30
MD (ft)	10,356.00	TS/HGS/LGS (%)	3.30//	Pf/Mf (cc)	0.05/0.01
Mud Density (ppg)	9.70	Sand (%)	0.20	Ca+ (ppm)	
Vis (s/qt)	29.00			Cl- (ppm)	85,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.860	R600/300 (°)	
FC/HTHP FC (32nd")	4.0/	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
3	8.750	NATIONAL OILWE	TK76			E235449	7x11	8,197.00	10,639.00	1-4-CT-S-X-1-BT-DMF

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)
9,570.00	40.0/40.0	20	586.0	3,200.00	726.89	22.72	248.48	3.00	401.00	133.7	11.00	1,373.00	124.8
9,837.00	40.0/40.0	70	586.0	3,200.00	726.89	22.72	248.48	2.00	267.00	133.5	13.00	1,640.00	126.2
9,936.00	40.0/40.0	70	586.0	3,200.00	726.89	22.72	248.48	0.50	99.00	198.0	13.50	1,739.00	128.8
10,320.00	40.0/40.0	70	586.0	3,200.00	726.89	22.72	248.48	3.00	384.00	128.0	16.50	2,123.00	128.7
10,372.00	26.0/26.0	0	586.0	2,650.00	726.89	27.43	248.48	2.00	52.00	26.0	18.50	2,175.00	117.6
10,639.00	40.0/40.0	70	586.0	3,200.00	726.89	22.72	248.48	3.00	267.00	89.0	21.50	2,442.00	113.6

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	309	9,706.80	5.000		4.276	4 1/2 IF			RIG
HWDP	12	374.06	5.000		2.875	4 1/2 IF			RIG

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Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
X/O SUB	1	3.45	5.000			4 1/2 IF			RIG
DRILL COLLARS	15	443.71	6.500		2.875	4 1/2 XH			RIG
SCREEN SUB	1	2.63	6.250		3.250	4-1/2 XH			DR21586
STABILIZER	1	6.07	8.500		3.188	4 1/2 XH			DR30857
NMDC	1	28.64	6.280		2.880	4 1/2 XH			NESNM650235
STABILIZER	1	5.23	8.500		2.810	4 1/2 XH			DR28753
GAP SUB	1	3.56	6.600		4.500	4 1/2 IF			VG650082PTS
650 CENTRALIZER COLLAR VELOCITY	1	8.53	6.680			4 1/2 IF			VC650077
650 LANDING SUB VELOCITY	1	3.52	6.630			4 1/2 IF			VL650116
650 X/O SUB VELOCITY	1	1.56	6.500			4 1/2 XH			VX650010
NMPC	1	13.47	6.500		275.000	4 1/2 XH			NESPC650709
STABILIZER	1	4.55	8.500		2.880	4 1/2 XH			DR32107
MUD MOTOR 7/8 LOBE, STAGE 5.7. SET @ 1.50° SN:	1	32.10	7.470			4-1/2 XH			PHX-725001-PTS
BIT #3 RUN #1 8.75" NOV TK76 (7X11's) SN: E235449	1	1.12	8.750	8.750		4 1/2 REG			E235449

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
05/23/2017 01:00		05/24/2017 22:00		3	932.20		DRILL 8.75" INTERMEDIATE 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)
9,570.00	285.0	140.00	241.00	44.00	21,000.0	13,000.0	401.00
9,837.00	295.0	130.00	260.00	35.00	21,000.0	13,000.0	267.00
9,936.00	295.0	130.00	260.00	35.00	21,000.0	13,000.0	99.00
10,320.00	308.0	221.00	262.00	46.00	23,500.0	7,500.0	384.00
10,372.00	334.0	220.00	0.00	334.00	0.0	0.0	52.00
10,639.00	340.0	219.00	275.00	65.00	23,500.0	9,400.0	267.00

Remarks

DIESEL ON LOCATION: 16269 GAL
DIESEL DELIVERED: 7501 GAL
DIESEL USED: 1746 GAL
LNG USED: GAL