

**EP WELLS DAILY OPERATIONS REPORT**

Report 16

05/02/2017

Company PERMIAN  
 Well Type Development  
 Well UNIVERSITY 19 PW UNIT 1507H  
 Wellbore UNIVERSITY 19 PW UNIT 1507H  
 WBS No/API No 30265017 / 4230133144.00

**Event Summary**

Event Type	Completion only	Event Start Date	04/15/2017	Days on Location	16.00
Objective	Install Completion	Original Spud Date	01/22/2017		
Est. Days	21.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

**Well Status**

Supervisor	W. Garver/ E. Huls	Measured Depth(ft)	
Engineer	ALEJANDRO VILEGAS	TVD(ft)	
Other Supervisor	T. Hurdle	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,769.50 / 2,743.50	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	6.50/27.08	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	668,354/5,609,575.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.12	LOT/FIT EMW(ppg)	
Daily Cost	24,011	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 <b>GOAL ZERO DAYS</b> <b>PS BARRIER EVENT</b> <b>PS barrier bowtie review</b>			TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	10
Safety Comments:							
Total Employees - 88							
Total Man Hours - 1097							
Total Driving Hours - 96							

**HSE Drills**

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test				15

**Operations Summary**

24 Hour Summary
Perf Stg 4
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.75	FRAC	WLT			1		Continue R/U flowback iron and restraints. Pressure test manifold and checked for leaks before R/U the down joints. Pressure tested 1506H and 1508H to 500 low and 9500 high for 10 minutes.
3:45	2.00	FRAC	WLT			1		Continue R/U down joints from frac manifold to frac trees. Setup restraints on same. Keane spotted and R/U WL truck and equipment.
5:45	0.75	FRAC	WLT			1		Aligned valves and primed frac fleet. Pressure tested all lines, manifold and frac trees to 9500 high - Test Good.
6:30	0.50	FRAC	WLT			0		Held Pre-tower Safety Meeting.
7:00	11.20	FRAC	WLT			0		Wait on other ops.
18:12	0.80	FRAC	WLT			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi. Open well with 3850 psi.  Meanwhile, Held Pre-Tower Safety meeting. Discussed UnCAAP for frac and WL tasks, 12 Q, LSR's and work scope.
19:00	2.83	FRAC	WLT			0		"Stage #4 Plug and Perf RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Downhole Technology Boss Hog composite frac plug. Tie into liner top @10911. Bring on pumps at 11250'. Pump down as follows: 3bpm @ 3900psi @11250 6bpm @ 4000psi @11350 9bpm @ 4200psi @11450 12bpm w/ 4800psi @11550 14bpm w/ 5500psi @11650 14bpm w/ 5750psi  Set plug @ 21627ft Perforate as follows: 21605' - 21606' 21561' - 21562' 21520' - 21521' Made 3' down correction 21476' - 21477' Made 3' down correction Stabilized pressure after perf: 4600psi Pump down volume: 292bbbl" POOH
21:50	0.42	FRAC	WLF			0		Bump up and SIW @ 3980. Bled off pressure and break lubricator. Lowered Perf guns out of lubricator and confirmed all shots fired. Drop ball, N/U nightcap and close crown valve. Move WL BOP's to next well. L/D perf guns. Greased Crown and Hyd valve - grease time 10 min.
22:15	1.25	FRAC	OPO			0		Changed out 3" low torque valve on 3 inch iron. Pressure tested low 500 psi - 5 min and high 9500 psi - 10 minutes. Test good.
23:30	0.50	FRAC	FRT			0		Start Stg 4 Frac
<b>Total</b>	<b>24.00</b>							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	1.50	FRAC	FRT			0	Stage 4 Summary University 19 PW Unit 1507H Interval 21473 - 21602 Open Well Pressure 3,920 psi Max Treating Pressure 9,357 psi Max Slurry Rate 56.0 bpm Average Treating Pressure 8,944 psi Average Slurry Rate 52.4 bpm Breakdown Pressure 6,838 psi Breakdown Rate 9.6 bpm Breakdown Volume 21,378 gal Avg HHP 11,487 hp Final ISIP 5,180 psi

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06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							Frac Gradient 0.880 psi/ft Pad Volume 20,202 gal Main Body Volume 222,386 gal Flush Volume 34,230 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 406,000 lbs Proppant in Formation 406,000 lbs Avg Proppant Concentration 2.63 lb/gal Max Proppant Concentration 4.02 lb/gal Load to Recover 5,295 bbls Load to Recover w/o Acid 5,283 bbls 15% HCL Spearhead 500 gal Slickwater Fluid Pumped 4,911 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 292 bbls pump down rate 14.0 bpm Max pump down pressure 6,745 psi Fluid Temp 72.0 ?F Total Pump Time 2:04 hr:min Pumps Lost During Job 0 Treatment Start Time 23:23 0:00 0:00 Treatment End Time 1:27 0:00 0:00 Diverter Slurry bbls All sand placed. Pumped 500 gals of 15% HCL, Pumped sand in Ramp from 0.5 PPA - 2.5 PPA, 2.5 PPA, 3.0 PPA, 3.5.PPA and 4.0 PPA.
1:30	3.50	FRAC	OPO			0	WL and Frac Ops on the 1506H and 1508H
5:00		FRAC	OPO			0	Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 9500 kpsi. Open well with 4200 psi.