

**EP WELLS DAILY OPERATIONS REPORT**

Report 26

11/03/2017

Company PERMIAN  
 Well Type Development  
 Well UNIVERSITY 19 PW UNIT 1406H  
 Wellbore UNIVERSITY 19 PW UNIT 1406H  
 WBS No/API No 30266570 / 4230133213.00

**Event Summary**

Event Type	Completion only	Event Start Date	09/03/2017	Days on Location	26.00
Objective	Install Completion	Original Spud Date	04/30/2017		
Est. Days	31.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

**Well Status**

Supervisor	Hank Persaud/Brett Oldekamp	Measured Depth(ft)	
Engineer	Alex Villegas	TVD(ft)	
Other Supervisor	Tina Grega / Andrew Veroba	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,793.00 / 2,767.00	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,806,921/4,377,702.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.64	LOT/FIT EMW(ppg)	
Daily Cost	90,105	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)
Safety Comments:						

**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			25

**Operations Summary**

<b>24 Hour Summary</b>
Frac stages: 35 Perf stages: 35,36
<b>Update Since Report Time</b>
Waiting on other pad operations
<b>24 Hour Forecast</b>
Contine frac operations

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	FRAC	WLT			0		Pressure test complete. Test good .
0:30	0.50	FRAC	WLT			0		Open well and pump 11bbl/min for 65 bbls to prove injectivity before wireline run.
1:00	0.75	FRAC	WLT			0		Wait on pad operations
1:45	1.25	FRAC	WLT			0		Pick up lubricator and BOP. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi 5 min low and 10 min high. Open well with 4630 psi. RIH to 200' conduct checks.
3:00	1.25	FRAC	WLT			0		Stage 35 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 ball-drop frac plug. Tie into liner top @ 11069'. Pump down as follows: 3bpm @ 3900 psi, 11550' 6bpm @ 4000 psi, 11630' 9bpm @ 5200 psi, 11710' Max pressure 6700 psi  Set plug @ 13,542ft Perforate as follows: 13,518' – 13,519' 13,474' – 13,475' 13,430' – 13,431' 13,386' – 13,387' Stabilized pressure after perf: 5460psi Pump down volume: 36bbl" POOH and wait on frac.
4:15	0.25	FRAC	WLT			0		Bump up and SIW @ 4700 psi. Bled off pressure and break lubricator/BOP's. Lowered Perf guns out of lubricator and confirmed all shots fired. N/U nightcap and close crown valve. L/D perf guns and P/U next set of guns for next run. Greased UMV and wing valve - grease time 10 min. HO to Frac
4:30	0.85	FRAC	WLF			0		Repair pumps, prime and pressure test to 9500 psi - Test Good. Bleed down to equalize. Open well.
5:21	1.40	FRAC	FRT			0		Stage 35 Summary University 19 PW Unit 1406H Interval 13386 - 13519 Open Well Pressure 4,704 psi Max Treating Pressure 9,346 psi Max Slurry Rate 60.4 bpm Average Treating Pressure 8,743 psi Average Slurry Rate 50.3 bpm Breakdown Pressure 7,895 psi Breakdown Rate 10.8 bpm Breakdown Volume 168 gal Avg HHP 10,779 hp Final ISIP 5,734 psi Frac Gradient 0.923 psi/ft Pad Volume 1,134 gal Main Body Volume 152,292 gal Flush Volume 25,200 gal 100 MAZ Sand Pumped 134,300 lbs 100 M Brown Sand Pumped 149,820 lbs 100 M Sand Pumped 136,920 lbs Proppant in Formation 421,040 lbs Avg Proppant Concentration 3.52 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 3,662 bbls Load to Recover w/o Acid 3,662 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 3,546 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 36 bbls pump down rate 9.0 bpm

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Max pump down pressure 6,700 psi Fluid Temp 72.0 ?F Total Pump Time 1:25 hr:min Pumps Lost During Job 1 Treatment Start Time 5:20 0:00 0:00 Treatment End Time 6:45 0:00 1:25 Diverter Slurry bbls - Proppant was pumped as a ramp from 0.50 PPA to 4.0 PPA, followed by a 4.0 PPA hold. - Ran two 40 bbl shots of gel with a 20 bbl spacer. - Did not run 15% HCl this stage - Ran ball in place plug.  Time for Prop on Perfs 17.0 minutes Time between Stages (TBF) 1:03 Hours/min
6:45	0.25	FRAC	FWL			0		SIW @ 5375psi. Bleed off pressure HO to WL. Held Pause to discuss AAR on frac stage.
7:00	0.40	FRAC	FWL			0		0700 Handover from frac to wireline. Pick up lubricator. Remove night cap. PU tools. 0717 Stab lubricator. Fill lubricator. 0722 Pressure test lubricator to 8000 psi 0724 Open well with 4850 psi. RIH.
7:24	0.93	FRAC	WLT			0		Stage #36 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 @ 11069. Bring on pumps at 11550'. Pump down as follows: 3 bpm @ 4500 psi 6 bpm @ 4800 psi 11650 10 bpm @ 5000 psi 11700 Max: 10 bpm. Max: 5986 psi  Set plug @ 13366 ft Perforate as follows: 13035' - 13036' 12991' - 12992' 12947' - 12948' 12903' - 12904' Stabilized pressure after perforating: 5296 psi Pump down volume: 33 bbl
8:20	1.20	FRAC	WLF			0		0820 POOH 0924 Shut in well with 4500 psi. Bleed off. 0928 Break lubricator. All shots fired. MU night cap. LD tools and lub. Secure crown and wing valves. 0932 Handover from WL to frac.
9:32	14.47	FRAC	WLF			0		Waiting on other pad ops.
<b>Total</b>	<b>24.00</b>							