

**EP WELLS DAILY OPERATIONS REPORT**

Report 17

10/01/2017

Company PERMIAN  
 Well Type Development  
 Well UNIVERSITY 19 H 0908H  
 Wellbore UNIVERSITY 19 H 0908H  
 WBS No/API No 30266564 / 4230133234.00

**Event Summary**

Event Type	Completion only	Event Start Date	09/03/2017	Days on Location	17.00
Objective	Install Completion	Original Spud Date	05/08/2017		
Est. Days	31.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

**Well Status**

Supervisor	T GREGA	Measured Depth(ft)	
Engineer	Alex Villegas	TVD(ft)	
Other Supervisor	STEELE,MORGAN BRETT	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,792.80 / 2,766.80	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	475,290/4,135,334.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.11	LOT/FIT EMW(ppg)	
Daily Cost	149,734	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			16

**Operations Summary**

<b>24 Hour Summary</b>
PERF STG 4, 5 FRAC STG 4,5
Update Since Report Time
<b>24 Hour Forecast</b>
CONTINUE FRAC OPERATIONS

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.00	FRAC	FWL			0		WAIT ON OTHER PAD OPERATIONS
3:00	0.50	FRAC	FWL			0		300 Handover from frac to WL. 315 Pick up lubricator. Remove night cap. PU tools. 318 Stab lubricator. Fill lubricator. 327 PT lubricator to 8000psi 330 Open well with 4350psi.
3:30	1.22	FRAC	WLT			0		436 "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 ball-drop frac plug. Tie into liner top @11016'. Pump down as follows: 3bpm @ 4500psi11745 6bpm @ 4600psi11828 9bpm @ 5000psi11950 10bpm @ 5200psi12389 bpm @ psi 10.2bpm @ 5736psi  Set plug @ 18552ft Perforate as follows: 18526' - 18527' 18482' - 18483' 18442' - 18443' 18395' - 18396' Stabilized pressure after perf: 4526psi Pump down volume: 150bbl" 443 POOH
4:43	3.62	FRAC	WLF			0		805 Shut in well with 4400psi. Bleed off. 815 Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves. 820 Handover from WL to frac.
8:20	0.75	FRAC	WLF			0		WAIT ON OTHER PAD OPERATIONS
9:05	2.08	FRAC	FRT			0		Stage 4 Summary University 19 H 0908H Interval 18395 - 18527 Open Well Pressure 4,267 psi Max Treating Pressure 9,287 psi Max Slurry Rate 59.9 bpm Average Treating Pressure 8,881 psi Average Slurry Rate 52.0 bpm Breakdown Pressure 5,407 psi Breakdown Rate 5.1 bpm Breakdown Volume 420 gal Avg HHP 11,319 hp Final ISIP 5,358 psi Frac Gradient 0.897 psi/ft Pad Volume 18,522 gal Main Body Volume 211,554 gal Flush Volume 28,350 gal 100 MAZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 419,580 lbs 100 M Sand Pumped 0 lbs Proppant in Formation 419,580 lbs Avg Proppant Concentration 2.69 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 5,187 bbls Load to Recover w/o Acid 5,163 bbls 15% HCL Spearhead 1,008 gal Slickwater Fluid Pumped 4,933 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 150 bbls pump down rate 10.2 bpm Max pump down pressure 5,736 psi Fluid Temp 72.0 ?F Total Pump Time 2:05 hr:min

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pumps Lost During Job 0 Treatment Start Time 9:05 0:00 0:00 Treatment End Time 11:10 0:00 2:05 Diverter Slurry bbls  -Pumped sand in a 0.50 PPA -2.50 PPA ramp, 2.50 PPA, 3.00 PPA, and 3.50 PPA steps. -Two 20# gel sweeps 40 bbls each were pumped prior to flush. - Pumped two 500gal shot of acid with a 30 bbl spacer.  Time for Prop on Perfs 44.0 minutes
11:10	5.42	FRAC	FWL			0		WAIT ON OTHER PAD OPERATIONS
16:35	0.85	FRAC	FWL			0		1635 Handover from frac to WL. 1715 Pick up lubricator. Remove night cap. PU tools. 1722 Stab lubricator. Fill lubricator. 1723 PT lubricator to 8000psi 1725 Open well with 4300psi.
17:26	1.40	FRAC	WLT			0		1838 "Stage #5 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 @11016". Pump down as follows: 3bpm @ 4400psi11650 6bpm @ 4600psi11800 9bpm @ 5000psi11900 11bpm @ 5400psi12200 bpm @ psi 11.3bpm @ 6129psi  Set plug @ 18375ft Perforate as follows: 18351' - 18352' 18307' - 18308' 18263' - 18264' 18219' - 18220' Stabilized pressure after perf: 5680psi Pump down volume: 145bbl" 1850 POOH
18:50	1.43	FRAC	WLF			0		2003 Shut in well with 4350psi. Bleed off. 2010 Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves. 2016 Handover from WL to frac.
20:16	2.47	FRAC	FRT			0		Stage 5 Summary University 19 H 0908H Interval 18219 - 18352 Open Well Pressure 4,251 psi Max Treating Pressure 9,600 psi Max Slurry Rate 59.6 bpm Average Treating Pressure 8,731 psi Average Slurry Rate 47.7 bpm Breakdown Pressure 9,171 psi Breakdown Rate 9.0 bpm Breakdown Volume 420 gal Avg HHP 10,208 hp Final ISIP 5,175 psi Frac Gradient 0.881 psi/ft Pad Volume 3,780 gal Main Body Volume 203,070 gal Flush Volume 28,266 gal 100 MAZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 375,000 lbs 100 M Sand Pumped 47,780 lbs Proppant in Formation 422,780 lbs Avg Proppant Concentration 2.59 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,980 bbls Load to Recover w/o Acid 4,968 bbls

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								15% HCL Spearhead 504 gal Slickwater Fluid Pumped 4,743 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 145 bbls pump down rate 11.3 bpm Max pump down pressure 6,129 psi Fluid Temp 72.0 ?F Total Pump Time 1:57 hr:min Pumps Lost During Job 0 Treatment Start Time 20:47 0:00 0:00 Treatment End Time 22:44 0:00 1:57 Diverter Slurry bbls  -Pumped sand in a 0.50 PPA -2.50 PPA ramp, 2.50 PPA, 3.00 PPA, 3.50 PPA steps. -Two 20# gel sweeps 40 bbls each were pumped prior to flush. - Pumped one 500gal shot of acid. - Ran a ball in place plug.  Time for Prop on Perfs 35.5 minutes
22:44	1.27	FRAC	FWL			0		WAIT ON OTHER PAD OPERATIONS
<b>Total</b>	<b>24.00</b>							

**06.00 Update**

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	FWL			0	WAIT ON OTHER PAD OPERATIONS