

EP WELLS DAILY OPERATIONS REPORT

Report 25

10/10/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1407H
Wellbore	UNIVERSITY 19 PW UNIT 1407H
WBS No/API No	30266571 / 4230133203

Event Summary

Event Type	Completion only	Event Start Date	09/03/2017	Days on Location	25.00
Objective	Install Completion	Original Spud Date	05/11/2017		
Est. Days	31.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tina	Measured Depth(ft)	
Engineer	Alex Villegas	TVD(ft)	
Other Supervisor	Morgan, Brett.O	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,792.70 / 2,766.70	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	14.07/58.61	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,796,729/4,701,640.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.38	LOT/FIT EMW(ppg)	
Daily Cost	89,008	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			TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Days Since Last Drill	24

Operations Summary

24 Hour Summary
FRAC STG 21 PERF STG 22
Update Since Report Time
24 Hour Forecast
CONTINUE FRAC OPERATIONS

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	14.07	FRAC	WLF			1		***NPT KEANE FRAC DATA VAN HAS NO GENERATOR
14:04	1.68	FRAC	FRT			0		<p>Stage 21 Summary University 19 PW Unit 1407H Interval 16686 - 16820</p> <p>Open Well Pressure 4,319 psi Max Treating Pressure 9,446 psi Max Slurry Rate 59.6 bpm Average Treating Pressure 9,054 psi Average Slurry Rate 48.5 bpm Breakdown Pressure 7,753 psi Breakdown Rate 8.0 bpm Breakdown Volume 84 gal Avg HHP 10,763 hp Final ISIP 5,506 psi Frac Gradient 0.950 psi/ft Pad Volume 840 gal Main Body Volume 175,812 gal Flush Volume 27,342 gal 100 MAZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 137,800 lbs 100 M Sand Pumped 282,960 lbs Proppant in Formation 420,760 lbs Avg Proppant Concentration 2.99 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,283 bbls Load to Recover w/o Acid 4,275 bbls 15% HCL Spearhead 336 gal Slickwater Fluid Pumped 4,098 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 97 bbls pump down rate 10.0 bpm Max pump down pressure 6,058 psi Fluid Temp 72.0 ?F Total Pump Time 1:41 hr:min Pumps Lost During Job 0 Treatment Start Time 14:04 0:00 0:00 Treatment End Time 15:45 0:00 1:41 Diverter Slurry bbls -Pumped sand in a 0.50 PPA -3.00 PPA ramp,3.00 PPA hold,3.50 and 4.00 PPA step. -Two 20# gel sweeps 40 bbls each were pumped prior to flush. - Pumped one 350 gal shot of acid. - Ran a ball in place plug.</p>
15:45	3.02	FRAC	WLT			0		<p>"Stage #22 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 @11122". Pump down as follows: 3bpm @ 4600psi11380 6bpm @ 4900psi11600 9bpm @ 5900psi11730 10bpm @ 6450 psi 10bpm @ 6500psi Set plug @ 16666ft Perforate as follows: 16641' - 16642' 16597' - 16598' 16552' - 16553 16508' - 16509' Stabilized pressure after perf: 5300psi Pump down volume: 90bbl" POOH</p>
18:46	0.18	FRAC	WLF			0		1846 Shut in well with 4700psi. Bleed off.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								1853 Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves.
								1857 Handover from WL to frac.
18:57	4.82	FRAC	WLF			0		WAIT ON OTHER PAD OPERATIONS
23:46	0.23	FRAC	FRT			0		START FRAC STAGE 22
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	1.48	FRAC	FRT			0	<p>Stage 22 Summary University 19 PW Unit 1407H</p> <p>Interval 16508 - 16642</p> <p>Open Well Pressure 5,099 psi</p> <p>Max Treating Pressure 9,707 psi</p> <p>Max Slurry Rate 57.2 bpm</p> <p>Average Treating Pressure 9,120 psi</p> <p>Average Slurry Rate 46.5 bpm</p> <p>Breakdown Pressure 7,145 psi</p> <p>Breakdown Rate 8.7 bpm</p> <p>Breakdown Volume 210 gal</p> <p>Avg HHP 10,394 hp</p> <p>Final ISIP 5,341 psi</p> <p>Frac Gradient 0.935 psi/ft</p> <p>Pad Volume 1,512 gal</p> <p>Main Body Volume 173,096 gal</p> <p>Flush Volume 27,090 gal</p> <p>100 MAZ Sand Pumped 46,180 lbs</p> <p>100 M Brown Sand Pumped 0 lbs</p> <p>100 M Sand Pumped 367,160 lbs</p> <p>Proppant in Formation 413,340 lbs</p> <p>Avg Proppant Concentration 2.98 lb/gal</p> <p>Max Proppant Concentration 4.00 lb/gal</p> <p>Load to Recover 4,224 bbls</p> <p>Load to Recover w/o Acid 4,216 bbls</p> <p>15% HCL Spearhead 350 gal</p> <p>Slickwater Fluid Pumped 4,033 bbls</p> <p>20# Linear Fluid Pumped 80 bbls</p> <p>20# Crosslink Fluid Pumped 0 bbls</p> <p>Pump down volume 103 bbls</p> <p>pump down rate 10.0 bpm</p> <p>Max pump down pressure 6,375 psi</p> <p>Fluid Temp 72.0 ?F</p> <p>Total Pump Time 1:42 hr:min</p> <p>Pumps Lost During Job 0</p> <p>Treatment Start Time 23:46 0:00 0:00</p> <p>Treatment End Time 1:28 0:00 1:42</p> <p>Diverter Slurry bbls</p> <p>-Pumped sand in a 0.50 PPA -3.00 PPA ramp,3.00 PPA hold,3.50 and 4.00 PPA step.</p> <p>-Two 20# gel sweeps 40 bbls each were pumped prior to flush.</p> <p>- Pumped one 350 gal shot of acid.</p> <p>- Ran a ball in place plug.</p> <p>Time for Prop on Perfs 20.0 minutes</p>
1:29	2.07	FRAC	FWL			0	<p>232 Handover from frac to WL.</p> <p>252 Pick up lubricator. Remove night cap. PU tools.</p> <p>245 Stab lubricator. Fill lubricator.</p> <p>305 PT lubricator to 8000psi</p> <p>333 Open well with 4600psi.</p>
3:33		FRAC	WLT			0	<p>428 "Stage #23 Plug and Perf</p> <p>RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Downhole Technology Boss Hog composite</p>

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06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							ball-drop frac plug. Tie into liner top @11016". Pump down as follows: 3bpm @ 4600psi11500 6bpm @ 4900psi11600 9bpm @ 5200psi11800 bpm @ psi bpm @ psi 9bpm @ 6613psi Set plug @ 16488ft Perforate as follows: 16463' - 16464' 16419' - 16420' 16374' - 16375' 16330' - 16331' Stabilized pressure after perf: 5470psi Pump down volume: 97bbl" 433 POOH