

EP WELLS DAILY OPERATIONS REPORT

Report 23

10/08/2017

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	23.00
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/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,609,546/4,701,640.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.34	LOT/FIT EMW(ppg)	
Daily Cost	149,244	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	JSA's/Toolbox Talks Days Since Last Drill
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			22

Operations Summary

24 Hour Summary
FRAC STG 18,19 PERF STG 19
Update Since Report Time
24 Hour Forecast
CONTINUE FRAC OPERATIONS

EP WELLS DAILY OPERATIONS REPORT

Report 23

10/08/2017

Well UNIVERSITY 19 PW UNIT 1407H
Wellbore UNIVERSITY 19 PW UNIT 1407H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.42	FRAC	WLF			0		WAIT ON OTHER PAD OPERATIONS
3:25	0.08	FRAC	WLF			0		Handover from frac to WL.Pick up lubricator. Remove night cap. PU tools.Stab lubricator. Fill lubricator.PT lubricator to 8000psi.Open well with 4500psi.
3:30	2.40	FRAC	WLF			0		<p>Stage 18 Summary University 19 PW Unit 1407H Interval 17220 - 17354</p> <p>Open Well Pressure 7,455 psi Max Treating Pressure 9,656 psi Max Slurry Rate 55.9 bpm Average Treating Pressure 9,135 psi Average Slurry Rate 44.9 bpm Breakdown Pressure 7,455 psi Breakdown Rate 8.4 bpm Breakdown Volume 210 gal Avg HHP 10,053 hp Final ISIP 5,604 psi Frac Gradient 0.959 psi/ft Pad Volume 1,722 gal Main Body Volume 242,228 gal Flush Volume 27,720 gal 100 M AZ Sand Pumped #N/A lbs 100 M Brown Sand Pumped #N/A lbs 100 M Sand Pumped #N/A lbs Proppant in Formation #N/A lbs Avg Proppant Concentration 2.19 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,883 bbls Load to Recover w/o Acid 5,875 bbls 15% HCL Spearhead 350 gal Slickwater Fluid Pumped 5,679 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 116 bbls pump down rate 10.0 bpm Max pump down pressure 6,091 psi Fluid Temp 72.0 ?F Total Pump Time 2:24 hr:min Pumps Lost During Job 1 Treatment Start Time 3:30 0:00 0:00 Treatment End Time 5:54 0:00 2:24 Diverter Slurry bbls -Pumped sand in a 0.50 PPA -3.00 PPA ramp,3.00 PPA hold. During 3.0 PPA, the pressure spiked and we cut sand. We brought the sand back in at 0.50, 1.00, 2.00, 2.50 and 3.00 PPA steps. -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>
5:54	1.48	FRAC	WLF			0		Wait on other pad opertaions.
7:23	0.92	FRAC	WLF			0		<p>"Stage #19 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 @ 480psi11380 6bpm @ 480psi11600 9bpm @ 5000psi11730 10bpm @ 6100 psi 10bpm @ 6350psi Set plug @ 17200ft Perforate as follows: 17174' - 17175'</p>

EP WELLS DAILY OPERATIONS REPORT

Report 23

10/08/2017

Well UNIVERSITY 19 PW UNIT 1407H
Wellbore UNIVERSITY 19 PW UNIT 1407H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								17131' - 17132' 17086' - 17087 17042' - 17043' Stabilized pressure after perf: 5250psi Pump down volume: 106bbl" POOH
8:18	1.45	FRAC	WLF			0		shut in well and break lubricator
9:45	12.67	FRAC	WLF			0		HAND WELL OVER TO FRAC WL 200' WAIT ON SAND & FULLERS
22:25	0.25	FRAC	WLF			0		EQUALIZE PRESSURE
22:40	0.02	FRAC	WLF			0		OPEN WELL 4541 PSI
22:41	1.32	FRAC	FRT			0		Stage 19 Summary University 19 PW Unit 1407H Interval 17042 - 17176 Open Well Pressure 4,541 psi Max Treating Pressure 9,838 psi Max Slurry Rate 57.7 bpm Average Treating Pressure 9,304 psi Average Slurry Rate 48.1 bpm Breakdown Pressure 9,838 psi Breakdown Rate 9.2 bpm Breakdown Volume 336 gal Avg HHP 10,969 hp Final ISIP 5,413 psi Frac Gradient 0.941 psi/ft Pad Volume 1,386 gal Main Body Volume 179,984 gal Flush Volume 27,426 gal 100 M AZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 92,380 lbs 100 M Sand Pumped 332,460 lbs Proppant in Formation 424,840 lbs Avg Proppant Concentration 2.94 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,391 bbls Load to Recover w/o Acid 4,383 bbls 15% HCL Spearhead 350 gal Slickwater Fluid Pumped 4,197 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 106 bbls pump down rate 10.0 bpm Max pump down pressure 6,332 psi Fluid Temp 72.0 ?F Total Pump Time 1:42 hr:min Pumps Lost During Job 0 Treatment Start Time 22:41 0:00 0:00 Treatment End Time 0:23 0:00 1:42 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. Time for Prop on Perfs 21.0 minutes
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.38	FRAC	FRT			0	Stage 19 Summary University 19 PW Unit 1407H Interval 17042 - 17176

EP WELLS DAILY OPERATIONS REPORT

Report 23

10/08/2017

Well UNIVERSITY 19 PW UNIT 1407H
 Wellbore UNIVERSITY 19 PW UNIT 1407H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							FINISH FRAC
0:23	0.62	FRAC	FWL			0	23 Handover from frac to WL. 48 Pick up lubricator. Remove night cap. PU tools. 52 Stab lubricator. Fill lubricator. 52 PT lubricator to 8000psi 100 Open well with 4825psi.
1:00		FRAC	FWL			0	152 "Stage #20 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 @ 4800psi11535 6bpm @ 5000psi11650 9bpm @ 5300psi11700 bpm @ psi bpm @ psi 9bpm @ 6497psi Set plug @ 17022ft Perforate as follows: 16997' - 16998' 16953' - 16954' 16908' - 16909' 16864' - 16865' Stabilized pressure after perf: 5844psi Pump down volume: 111bbl" 157 POOH