

EP WELLS DAILY OPERATIONS REPORT

Report 14

06/01/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H ST01
WBS No/API No	30265014 / 4230133171.01

Event Summary

Event Type	Completion only	Event Start Date	04/28/2017	Days on Location	13.00
Objective	Install Completion	Original Spud Date	02/02/2017		
Est. Days	25.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison / Scott Wallace	Measured Depth(ft)	
Engineer	Justin Midgley	TVD(ft)	
Other Supervisor	Tommy Hurdle	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	8.38/34.93	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	695,367/4,757,442.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.15	LOT/FIT EMW(ppg)	
Daily Cost	156,871	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)	6

Safety Comments:

Total People - 93
Total Hours Worked - 1132
Total Hours driven - 184

Gaol Zero Day 7

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	12

Operations Summary

24 Hour Summary
Frac Stg 5. Perf and Frac Stg 6. Attempted to perforate stg 7. Left fish in the hole
Update Since Report Time
24 Hour Forecast
Fish perf guns w/ CT.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.75	FRAC	NOA			1		***NPT Wait on weather. Lightning in the area.***
0:45	0.25	FRAC	WLF			0		***End NPT weather*** Other Pad Ops
1:00	0.58	FRAC	WLF			0		Re-Head WL. Grease Crown and Hyd on frac tree.
1:35	0.58	FRAC	WLF			0		Other Pad Ops
2:10	0.22	FRAC	FRP			0		Frac Pressure tested iron to 9500 psi. Test good.
2:23	2.17	FRAC	FRT			0		Stage 5 Summary University 19 PW Unit 1504H Interval 19630 - 19765 Open Well Pressure 4,200 psi Max Treating Pressure 9,429 psi Max Slurry Rate 52.6 bpm Average Treating Pressure 8,875 psi Average Slurry Rate 49.1 bpm Breakdown Pressure 5,144 psi Breakdown Rate 10.0 bpm Breakdown Volume 19,908 gal Avg HHP 10,680 hp Final ISIP 5,182 psi Frac Gradient 0.881 psi/ft Pad Volume 20,706 gal Main Body Volume 208,572 gal Flush Volume 32,970 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 411,100 lbs Proppant in Formation 411,100 lbs Avg Proppant Concentration 2.67 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,966 bbls Load to Recover w/o Acid 4,954 bbls 15% HCL Spearhead 504 gal Slickwater Fluid Pumped 4,914 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 228 bbls pump down rate 12.5 bpm Max pump down pressure 6,250 psi Fluid Temp 72.0 ?F Total Pump Time 2:09 hr:min Pumps Lost During Job 0 Treatment Start Time 2:24 0:00 0:00 Treatment End Time 4:33 0:00 0:00 Diverter Slurry bbls Ramp schedule from 0.5-3.0 PPA. All proppant placed. Had trouble with Frac Wellside Transducer during the stage reading erratically, but still had transducer for the specific well reading correctly. Issue was resolved during the stage.
4:33	0.03	FRAC	FWL			0		SIW @ 4900 psi. Bled of pressure. HO to WL
4:35	0.92	FRAC	NOA			1		***NPT Wait on weather. Lightning in the area***
5:30	0.58	FRAC	FWL			0		***End NPT Weather*** Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi. Open well with 4650 psi.
6:05	0.87	FRAC	WLT			0		"Stage #6 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 @10881. Bring on pumps at 11100'. Pump down as follows: 3bpm @ 4307psi @11100 6bpm @ 4694psi @11200 9bpm @ 5671psi @11300

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								12bpm w/ 5960psi @11400 Max Rate 12bpm w/ 6169psi Set plug @ 19610ft Perforate as follows: 19586' - 19587' 19541' - 19542' 19497' - 19498' 19452' - 19453' Stabilized pressure after perf: 4600psi Pump down volume: 215bbl" 18:30 - Held Pre-Tower Safety Meeting.
6:57	0.68	FRAC	WLT			0		POOH
7:38	1.05	FRAC	OPO			0		Wait at 200 ft for frac
8:41	0.17	FRAC	WLF			0		Shut in well with 4172 psi Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves. Handover from WL to frac.
8:51	3.75	FRAC	WLF			0		Waiting on other pad operations
12:36	4.33	FRAC				0		Stage 6 Summary University 19 PW Unit 1504H Interval 19452 - 19587 Open Well Pressure 3,948 psi Max Treating Pressure 9,348 psi Max Slurry Rate 56.0 bpm Average Treating Pressure 8,698 psi Average Slurry Rate 47.4 bpm Breakdown Pressure 5,550 psi Breakdown Rate 8.0 bpm Breakdown Volume 31,458 gal Avg HHP 10,105 hp Final ISIP 5,250 psi Frac Gradient 0.887 psi/ft Pad Volume 49,770 gal Main Body Volume 338,142 gal Flush Volume 30,786 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 412,640 lbs Proppant in Formation 412,640 lbs Avg Proppant Concentration 1.80 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 8,051 bbls Load to Recover w/o Acid 8,027 bbls 15% HCL Spearhead 1,008 gal Slickwater Fluid Pumped 7,987 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 215 bbls pump down rate 12.5 bpm Max pump down pressure 6,169 psi Fluid Temp 72.0 ?F Total Pump Time 3:49 hr:min Pumps Lost During Job 0 Treatment Start Time 12:36 13:28 0:00 Treatment End Time 13:15 16:38 0:00 Diverter Slurry bbls Ramp schedule from 0.5-3.0 PPA. All proppant placed. No indication of ball seat, 100 bbl over capacity was pumped and we shut down to drop another ball. Another 500 gallons of acid was run. After we resumed pumping, the 1st ball was seen at 111 bbl. During the 3.0 PPA stage, a 645 bbl sweep was pumped due to pressure.
16:56	0.35	FRAC	FWL			0		Handover from frac to wireline. Pick up lubricator. Remove night cap. PU tools. Stab lubricator. Fill lubricator.

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pressure test lubricator to 7500 psi Open well with 4736 psi. RIH.
17:17	1.05	FRAC	WLT			1		Attempted to Plug and Perf Stg 7 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 @ . Bring on pumps at 11250'. Pump down as follows: 3 bpm @ 4900 psi 6 bpm @ 5000 psi11350 9 bpm @ 5250 psi11500 12 bpm @ 5600 psi11650 Shut down at 19433' Pick up to Set plug @ 194323 ft. got weight back at 19,407 higher than plug setting depth. Pick up to 19,342'. bring on pumps to pump back down at mmax rate 3-12 bpm. pick up weight fell from 1600 lbs to 700 lbs. Shut down called shell engineer. discuss plan forward. Pump down volume: 210 bbl"
18:20	1.67	FRAC	OPO			1		Wait on completion of frac on the 1505H stage 6.
20:00	2.00	FRAC	WLT			1		Write JSA for POOH with WL. Discuss with Keane and Shell upper management. Safety meeting with crew
22:00	1.50	FRAC	WLT			1		POOH with 9/32" E-line while pumping@ 2bpm. Recovered all wire to surface. Shutdown pumps.
23:30	0.08	FRAC	WLF			1		SIW @ 4500 psi. Bled off pressure and secured well.
23:35	0.42	FRAC	WLF			1		Clean up wireline and respool.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
06/01/2017 04:35	SHELL	Wait On Weather		NOA	N		0.92	0.92	1	OPEN
Description: LIGHTNING IN THE AREA						Title: WOW				
06/01/2017 17:17	KEANE FRAC LP	Perforation		WLT	N		0.00	0.00		OPEN
Description: Shut down at 19433' Pick up to Set plug @ 194323 ft. got weight back at 19,407 higher than plug setting depth. Pick up to 19,342'. bring on pumps to pump back down at mmax rate 3-12 bpm. pick up weight fell from 1600 lbs to 700 lbs. Shut down called shell engineer. discuss plan forward.						Title: Plug not reaching correct depth				
Total							0.92	0.92		