

EP WELLS DAILY OPERATIONS REPORT

Report 25

06/12/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1503H
Wellbore	UNIVERSITY 19 PW UNIT 1503H
WBS No/API No	30265013 / 4230133170

Event Summary

Event Type	Completion only	Event Start Date	04/28/2017	Days on Location	24.00
Objective	Install Completion	Original Spud Date	01/29/2017		
Est. Days	25.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tina Grega / Casey Gregersen	Measured Depth(ft)	
Engineer	Justin Midgley	TVD(ft)	
Other Supervisor	Tommy Hurdle	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.85 / 2,736.20	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	3.30/13.75	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,082,487/4,184,415.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.50	LOT/FIT EMW(ppg)	
Daily Cost	156,783	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)	8
Safety Comments:							
Total Hours Worked - 1176							
Goal Zero Day 18							

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	23

Operations Summary

24 Hour Summary
Perf & Frac Stg 22, 23, Perf Stg 24
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 25

06/12/2017

Well UNIVERSITY 19 PW UNIT 1503H
Wellbore UNIVERSITY 19 PW UNIT 1503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	FRAC	OPO			0		Other Pad Ops
1:00	2.58	FRAC	FWL			0		Align valves and break circulation with pump down trucks. Shut in on the 2" and 3" manifold and test all pump down iron. Unable to get pressure test. Isolated various valves to determine where the bleed off was occurring. Greased several valves and resolved the leaks.
3:35	2.92	FRAC	FWL			0		Other Pad Ops
6:30	0.25	FRAC	FWL			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi. Open well with 2500 psi. RIH to 200' conduct checks 0630 - Held Pre-Tower Safety Meeting.
6:45	1.28	FRAC	WLT			0		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 frac plug. Tie into liner top @10950. Bring on pumps at 11420'. Pump down as follows: 3bpm @ 3650psi @11420 6bpm @ 4800psi @11450 9bpm @ 6000psi @11600 12bpm @ 6800psi @12000 Max Rate 12bpm w/ 6831psi Set plug @ 15722 ft Perforate as follows: 15698' - 15699' 15653' - 15654' 15609' - 15610' 15566' - 15567' Stabilized pressure after perf: 4796psi Pump down volume: 118bbl
8:02	1.55	FRAC	WLT			0		POOH. Shut in frac at 9:30, grease UVM under pressure.
9:35	0.12	FRAC	WLF			0		Bump up and SIW @ 3800. Bled off pressure and break lubricator. Lowered Perf guns out of lubricator and confirmed all shots fired. Drop ball, N/U nightcap and close crown valve. L/D perf guns and P/U next set of guns for next run. Move WL BOP's to next well. Greased UVM and Wing valve - grease time 10 min.
9:42	0.60	FRAC	FRT			0		Wait on wireline to finish up. Prime up pumps. Tested to 9800 psi. Test Good.
10:18	1.68	FRAC	FRT			0		Stage 22 Summary University 19 PW Unit 1503H Interval 15698 - 15699 Open Well Pressure 2,681 psi Max Treating Pressure 9,231 psi Max Slurry Rate 65.7 bpm Average Treating Pressure 8,691 psi Average Slurry Rate 60.7 bpm Breakdown Pressure 7,304 psi Breakdown Rate 9.9 bpm Breakdown Volume 17,808 gal Avg HHP 12,930 hp Final ISIP 5,118 psi Frac Gradient 0.876 psi/ft Pad Volume 20,496 gal Main Body Volume 194,208 gal Flush Volume 31,290 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 414,460 lbs Proppant in Formation 414,460 lbs Avg Proppant Concentration 2.99 lb/gal Max Proppant Concentration 4.00 lb/gal

EP WELLS DAILY OPERATIONS REPORT

Report 25

06/12/2017

Well UNIVERSITY 19 PW UNIT 1503H
Wellbore UNIVERSITY 19 PW UNIT 1503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Load to Recover 4,742 bbls Load to Recover w/o Acid 4,855 bbls 15% HCL Spearhead 210 gal Slickwater Fluid Pumped 4,539 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 118 bbls pump down rate 12.0 bpm Max pump down pressure 7,500 psi Fluid Temp 72.0 ?F Total Pump Time 1:41 hr:min Pumps Lost During Job 0 Treatment Start Time 10:18 0:00 0:00 Treatment End Time 11:59 0:00 0:00 Diverter Slurry bbls Ramp from 0.5-4.0 PPA. All proppant placed.
11:59	0.30	FRAC	FWL			0		Shut in well at 5118 psi and handover to WL.
12:17	1.10	FRAC	FWL			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 8kpsi. Open well with 4600 psi. RIH to 200' conduct checks
13:23	0.32	FRAC	WLT			0		Stage #23 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 @10950'. Bring on pumps at 11,200'. Pump down as follows: 3bpm @ 4300psi @11320 6bpm @ 4700psi @11500 9bpm @ 5100psi @11650 12bpm @ 5900psi @11800 Rate 12bpm w/ 6283psi Set plug @ 15544 ft Perforate as follows: 15523' - 15524' 15470' - 15471' 15429' - 15430' 15385' - 15386' Stabilized pressure after perf: 4530psi Pump down volume: 103bbl
13:42	1.22	FRAC	WLT			0		POOH. Shut in frac at 14:52, grease UVM and LMV under pressure.
14:55	0.33	FRAC	WLF			0		Bump up and SIW @ 5150psi. Bled off pressure and break lubricator. Lowered Perf guns out of lubricator and confirmed all shots fired. Drop ball, N/U nightcap and close crown valve. L/D perf guns and P/U next set of guns for next run. Move WL BOP's to next well.
15:15	1.53	FRAC	FRT			0		Pump maintenance. Prime up pumps. Tested to 9800 psi. Change out pump. Retest to 9800 psi
16:47	1.72	FRAC	FRT			1		****NPT Keane Frac **** Electronics in date van over heat shutting down frac ***End of NPT ***
18:30	0.88	FRAC	FRT			0		Stage 23 Summary University 19 PW Unit 1503H Interval 15386 - 15521 Open Well Pressure 3,731 psi Max Treating Pressure 9,216 psi Max Slurry Rate 65.5 bpm Average Treating Pressure 8,772 psi Average Slurry Rate 58.9 bpm Breakdown Pressure 6,868 psi Breakdown Rate 10.1 bpm Breakdown Volume 15,204 gal Avg HHP 12,664 hp Final ISIP 5,759 psi Frac Gradient 0.932 psi/ft

EP WELLS DAILY OPERATIONS REPORT

Report 25

06/12/2017

Well UNIVERSITY 19 PW UNIT 1503H
Wellbore UNIVERSITY 19 PW UNIT 1503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Pad Volume 20,118 gal Main Body Volume 190,302 gal Flush Volume 26,334 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 414,600 lbs Proppant in Formation 414,600 lbs Avg Proppant Concentration 3.05 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,634 bbls Load to Recover w/o Acid 4,622 bbls 15% HCL Spearhead 504 gal Slickwater Fluid Pumped 4,439 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 103 bbls pump down rate 12.0 bpm Max pump down pressure 6,283 psi Fluid Temp 72.0 ?F Total Pump Time 1:53 hr:min Pumps Lost During Job 0 Treatment Start Time 16:47 17:51 0:00 Treatment End Time 17:08 19:23 1:53 Diverter Slurry bbls Ramp from 0.5-4.0 PPA. All proppant placed. Due to datavan server crashing we accumulated 50 minutes NPT prior to seating ball. Resumed stage without further incident.
19:23	0.03	FRAC	FWL			0		SIW @ 4625 psi. Bleed off pressure and HO to WL
19:25	1.58	FRAC	NOA			1		***NPT HIGH WINDS***
21:00	0.50	FRAC	WLT			0		***END NPT*** PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi. Open well with 4000 psi. RIH to 200' conduct checks.
21:30	0.83	FRAC	WLT			0		"Stage #24 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 @10950. Bring on pumps at '. Pump down as follows: 3bpm @ 4200psi 6bpm @ 4500psi 9bpm @ 4900psi 12bpm w/ 5100psi Max Rate 12bpm w/ 5750psi Set plug @ 15366ft Perforate as follows: 15342' - 15343' 15297' - 15298' 15253' - 15254' 15208' - 15209' Stabilized pressure after perf: 3900psi Pump down volume: 96bbl"
22:20	0.67	FRAC	WLT			0		POOH to 200'
23:00	0.42	FRAC	WLT			0		Waiting at 200' for Frac to finsih ops.
23:25	0.42	FRAC	WLF			0		Bump up and SIW @ 3747. Bled off pressure and break lubricator. Lowered Perf guns out of lubricator and confirmed all shots fired. Drop ball, N/U nightcap and close crown valve. Move WL BOP's to next well. Break off lubricator. N/U nightcap to BOP's. L/D perf guns and lubricator to prepare for Re-heading. Greased UMW and LMV valve - grease time 10 min. HO to Frac
23:50	0.17	FRAC	GRS			0		Re-head WL. Conduct pump maintenance. Torque frac manifold. Grease frac manifold. Grease Crown and Hydraulic valve. Crane made repairs to wind meter. Moved unused Oil States accumulator

EP WELLS DAILY OPERATIONS REPORT

Report 25

06/12/2017

Well
WellboreUNIVERSITY 19 PW UNIT 1503H
UNIVERSITY 19 PW UNIT 1503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								for pickup.
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	2.53	FRAC	GRS			0	Re-head WL. Conduct pump maintenance. Torque frac manifold. Grease frac manifold. Grease Crown and Hydraulic valve. Crane made repairs to wind meter. Moved unused Oil States accumulator for pickup.
2:32	0.63	FRAC	WLF			0	Other pad ops.
3:10	0.25	FRAC	WLF			0	Prime. Pressure test to 9,500 psi.

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
06/12/2017 16:47	KEANE FRAC LP	Stimulation		FRT	EN	Stimulation Surface Equipment	1.72	1.72	1	OPEN
Description: ELECTRONICS IN DATA VAN OVERHEATING						Title: DATA VAN OVERHEATING				
06/12/2017 19:25	SHELL	Wait On Weather		NOA	N		1.58	1.58	1	OPEN
Description: HIGH WINDS						Title: WOW				
Total							3.30	3.30		