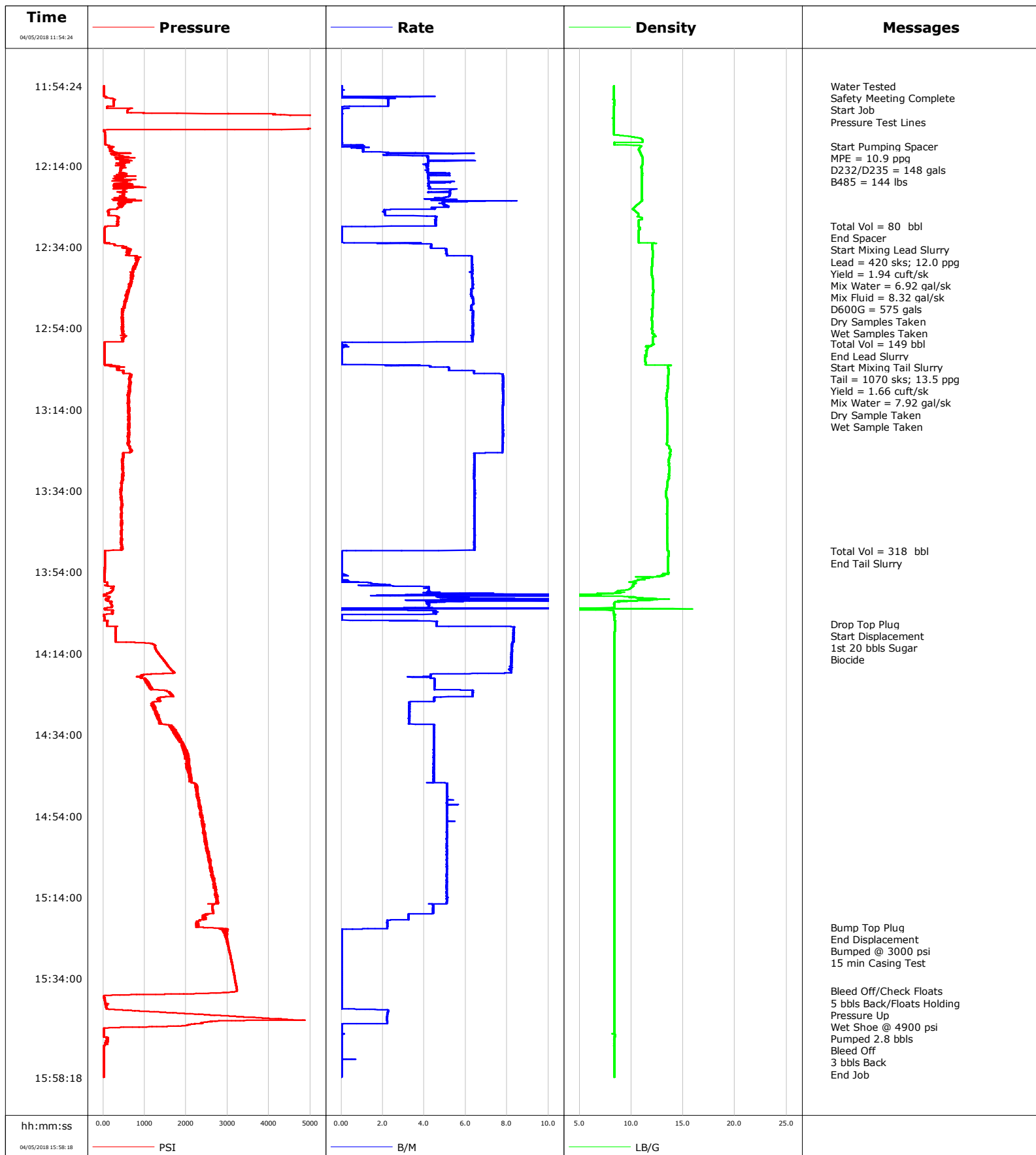


Well Hammer 3-1HZ
Field Wattenberg
Engineer Michael Lopez
Country United States

Client ANADARKO PETROLEUM
SIR No. E0PW-00110
Job Type 5.5 Production
Job Date 04-05-2018



Cementing Service Report

				Customer ANADARKO PETROLEUM			Job Number EOPW-00110								
Well Hammer 3-1HZ 0631728836			Location (legal)			Schlumberger Location CWY			Job Start Apr/05/2018						
Field Wattenberg		Formation Name/Type			Deviation deg		Bit Size 7.9 in		Well MD 16796.0 ft		Well TVD ft				
County		State/Province Colorado			BHP psi		BHST 225 degF		BHCT 225 degF		Pore Press. Gradient lb/gal				
Well Master 0631728836		API/UWI 05123451180000													
Rig Name Precision 461		Drilled For Oil & Gas		Service Via Land		Casing/ Liner									
						Depth, ft		Size, in		Weight, lb/ft		Grade	Thread		
Offshore Zone		Well Class New		Well Type Exploration		1862.0		9.6		36.0		J-55	N/A		
						16789.0		5.5		17.0		P-110	8RD		
Drilling Fluid Type OBM		Max. Density 9.70 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe									
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade	Thread
Service Line Cementing		Job Type 5.5 Production													
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection 5.5 8RND		Perforations/Open Hole									
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft	
						ft		ft							
						ft		ft						Diameter in	
						ft		ft							
						Treat Down Casing		Displacement 389.0 bbl		Packer Type		Packer Depth ft			
						Tubing Vol. bbl		Casing Vol. 389.0 bbl		Annular Vol. 550.0 bbl		Openhole Vol. 461.0 bbl			
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>				Casing Tools				Squeeze Job					
Lift Pressure psi						Shoe Type Float				Squeeze Type					
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 16789.0 ft				Tool Type					
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type				Tool Depth ft					
Cement Head Type Double						Stage Tool Depth ft				Tail Pipe Size in					
Job Scheduled For Apr/05/2018 06:00		Arrived on Location Apr/05/2018 06:00		Leave Location Apr/05/2018 17:00		Collar Type Float				Tail Pipe Depth ft					
						Collar Depth 16782.0 ft				Sqz. Total Vol. bbl					
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message									
04/05/2018	11:54:24	15	0.0	8.34	0.0	Started Acquisition									
04/05/2018	11:54:26	16	0.0	8.34	0.0	Water Tested									
04/05/2018	11:54:27	15	0.0	8.34	0.0	Safety Meeting Complete									
04/05/2018	11:54:30	15	0.0	8.33	0.0	Start Job									
04/05/2018	11:54:32	13	0.0	8.34	0.0	Pressure Test Lines									
04/05/2018	12:09:10	148	1.1	10.94	5.4	Start Pumping Spacer									
04/05/2018	12:09:12	155	1.1	10.95	5.4	MPE = 10.9 ppg									
04/05/2018	12:09:13	150	1.1	10.95	5.5	D232/D235 = 148 gals									
04/05/2018	12:09:15	173	1.1	10.95	5.5	B485 = 144 lbs									
04/05/2018	12:28:57	110	2.4	10.71	85.3	Total Vol = 80 bbl									
04/05/2018	12:29:00	82	1.2	10.71	85.4	End Spacer									
04/05/2018	12:33:26	271	4.3	12.01	86.8	Start Mixing Lead Slurry									
04/05/2018	12:33:29	280	4.3	12.01	87.1	Lead = 420 sks; 12.0 ppg									
04/05/2018	12:33:30	288	4.3	12.01	87.1	Yield = 1.94 cuft/sk									
04/05/2018	12:33:32	282	4.4	12.01	87.3	Mix Water = 6.92 gal/sk									
04/05/2018	12:33:33	270	4.4	12.01	87.4	Mix Fluid = 8.32 gal/sk									
04/05/2018	12:33:34	263	4.4	12.01	87.4	Dry Samples Taken									
04/05/2018	12:33:36	276	4.3	12.01	87.6	Wet Samples Taken									
04/05/2018	12:57:52	27	0.0	12.13	234.4	Total Vol = 149 bbl									
04/05/2018	12:57:53	28	0.0	12.16	234.4	End Lead Slurry									
04/05/2018	13:03:35	362	5.1	13.56	236.6	Start Mixing Tail Slurry									

Well			Field		Job Start		Customer		Job Number	
Hammer 3-1HZ 0631728836			Wattenberg		Apr/05/2018		ANADARKO PETROLEUM		E0PW-00110	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
04/05/2018	13:03:38	322	5.2	13.56	236.9	Yield = 1.66 cuft/sk				
04/05/2018	13:03:39	406	5.2	13.56	237.0	Mix Water = 7.92 gal/sk				
04/05/2018	13:03:41	355	5.2	13.55	237.2	Dry Sample Taken				
04/05/2018	13:03:44	344	5.2	13.55	237.4	Wet Sample Taken				
04/05/2018	13:48:53	41	0.0	13.57	552.2	Total Vol = 318 bbl				
04/05/2018	13:49:03	39	0.0	13.57	552.2	End Tail Slurry				
04/05/2018	14:06:44	100	4.6	8.42	592.6	Drop Top Plug				
04/05/2018	14:06:45	103	4.6	8.42	592.7	Start Displacement				
04/05/2018	14:09:10	300	8.3	8.39	610.5	1st 20 bbls Sugar				
04/05/2018	14:09:11	300	8.3	8.39	610.6	Biocide				
04/05/2018	15:21:23	2243	2.2	8.38	978.8	Bump Top Plug				
04/05/2018	15:21:24	2409	2.2	8.38	978.8	End Displacement				
04/05/2018	15:21:47	2991	1.0	8.38	979.6	Bumped @ 3000 psi				
04/05/2018	15:21:48	2948	1.0	8.38	979.6	15 min Casing Test				
04/05/2018	15:37:07	3222	0.0	8.38	979.7	Bleed Off/Check Floats				
04/05/2018	15:38:41	38	0.0	8.38	979.7	5 bbls Back/Floats Holding				
04/05/2018	15:42:02	972	2.2	8.38	980.7	Pressure Up				
04/05/2018	15:44:56	2354	2.2	8.38	987.2	Wet Shoe @ 4900 psi				
04/05/2018	15:44:57	2349	2.2	8.38	987.2	Pumped 2.8 bbls				
04/05/2018	15:45:31	2010	0.0	8.38	987.5	Bleed Off				
04/05/2018	15:46:29	19	0.0	8.38	987.5	3 bbls Back				

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.9	N2	Mud	Maximum Rate 25.0		Total Slurry 458.0	Mud 0.0	Spacer 80.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5519	Final 18	Average 1131	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 458.0 bbl		Displacement 389.0 bbl	Mix Water Temp 65 degF	Cement Circulated to Surface? <input type="checkbox"/>	Volume bbl	
						Washed Thru Perfs <input type="checkbox"/>	To ft	
Customer or Authorized Representative Will Turner			Schlumberger Supervisor Michael Lopez			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	