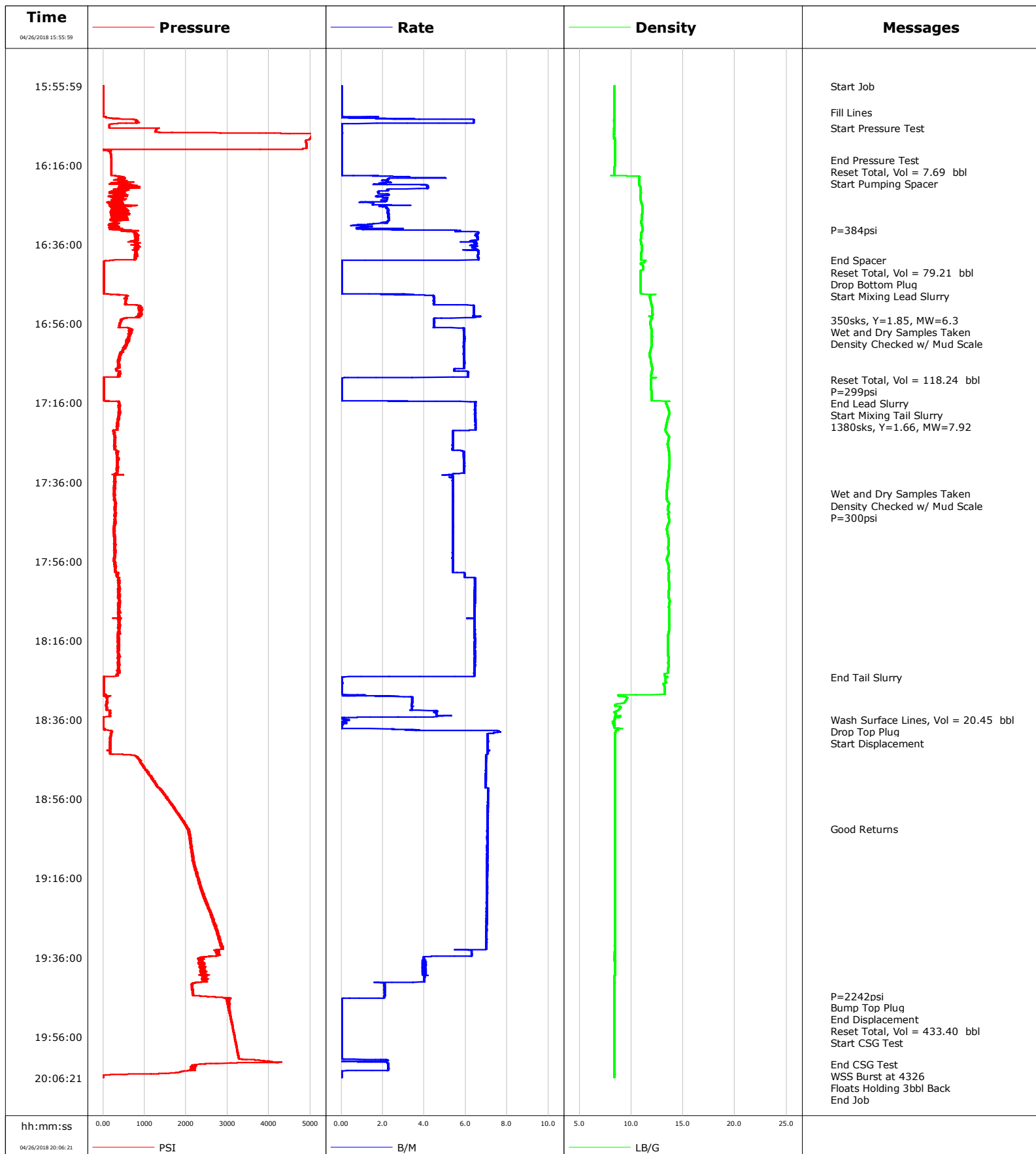


Well Verde 13-13HZ
Field Wattenberg
Engineer Caleb Baldwin
Country United States

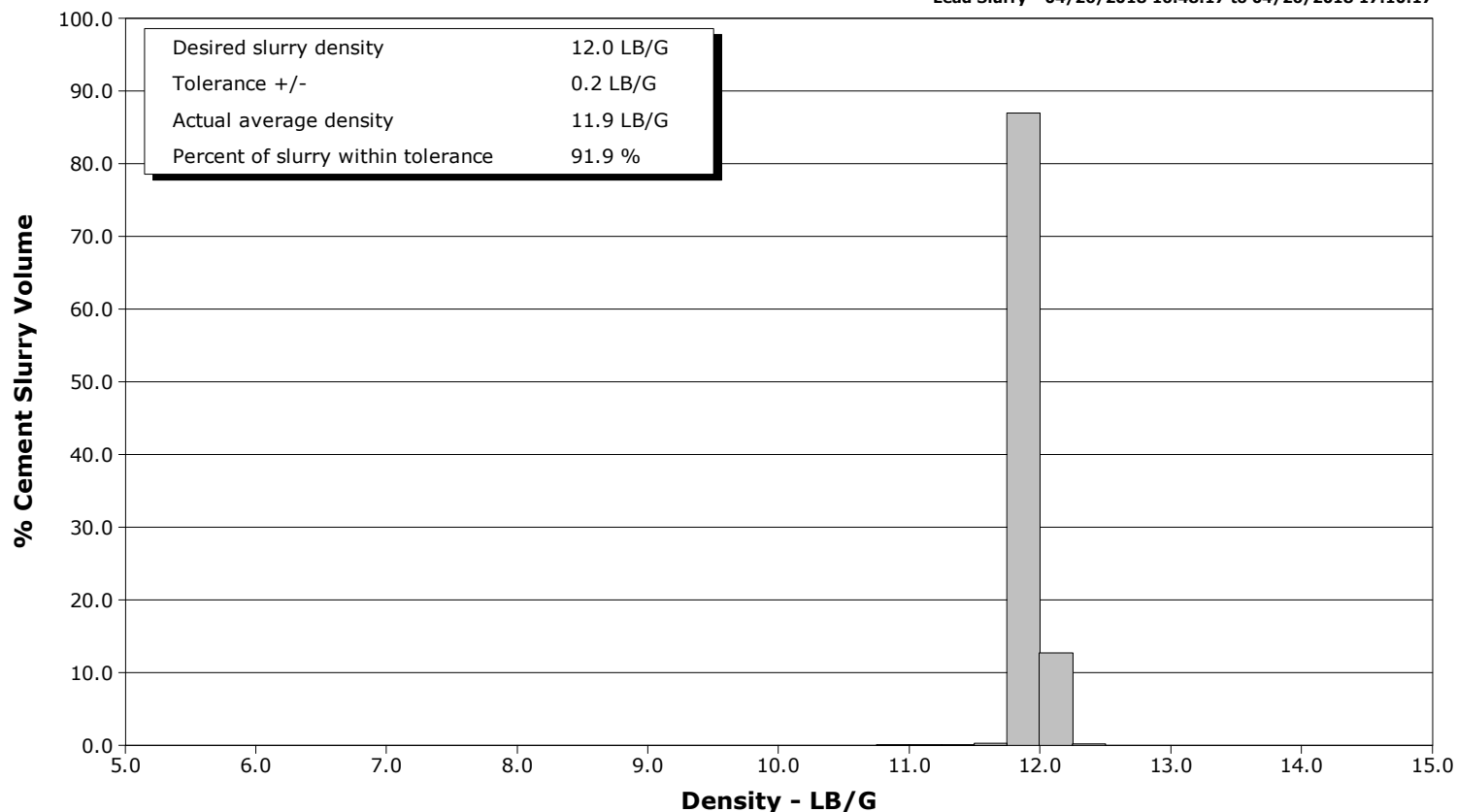
Client Andarko
SIR No. E0ZP-00127
Job Type 5.5' Primary
Job Date 04-26-2018



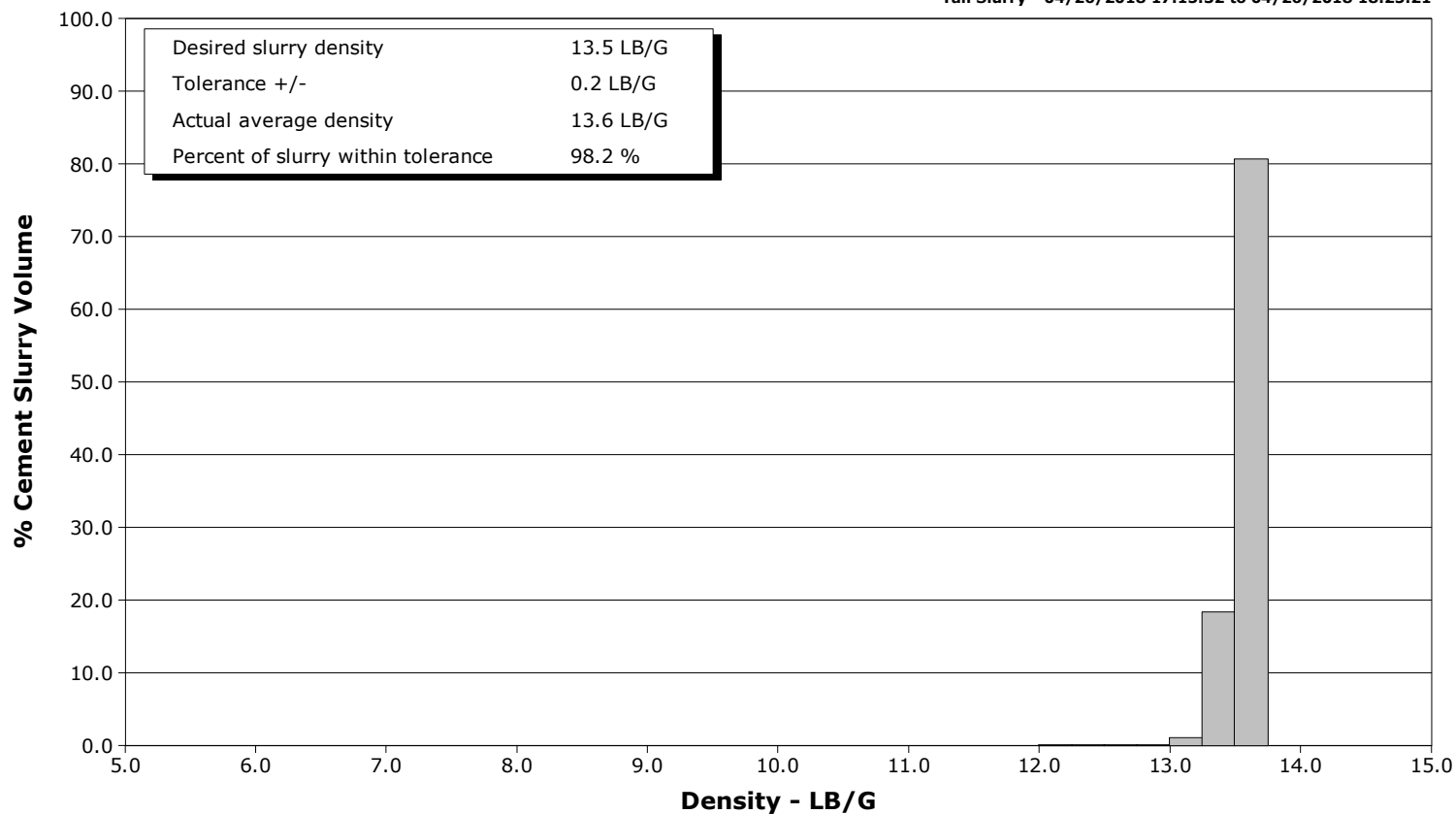
Well Verde 13-13HZ
Field Wattenberg
Engineer Caleb Baldwin
Country United States

Client Andarko
SIR No. E0ZP-00127
Job Type 5.5' Primary
Job Date 04-26-2018

Lead Slurry - 04/26/2018 16:48:17 to 04/26/2018 17:10:17



Tail Slurry - 04/26/2018 17:15:32 to 04/26/2018 18:25:21



Cementing Service Report

				Customer Andarko			Job Number EOZP-00127										
Well Verde 13-13HZ			Location (legal)			Schlumberger Location Cheyenne			Job Start Apr/26/2018								
Field Wattenberg		Formation Name/Type			Deviation deg		Bit Size in		Well MD 18659.0 ft		Well TVD 7291.0 ft						
County		State/Province Colorado			BHP psi		BHST 227 degF		BHCT 228 degF		Pore Press. Gradient lb/gal						
Well Master 0631751173		API/UWI															
Rig Name PD 564		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 Development		1872.0		9.6		36.0		j55		8rd			
						18659.0		5.5		17.0		p110		8rd			
Drilling Fluid Type		Max. Density 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' Primary															
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection		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 bbl		Packer Type		Packer Depth ft					
						Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. bbl		Openhole Vol. bbl					
Casing/Tubing Secured <input type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input 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 18659.0 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/26/2018 11:00		Arrived on Location Apr/26/2018 11:00		Leave Location Apr/26/2018		Collar Type				Tail Pipe Depth ft							
						Collar Depth ft				Sqz. Total Vol. bbl							
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message											
04/26/2018	15:55:59	2	0.0	8.35	0.0	Started Acquisition											
04/26/2018	15:56:01	2	0.0	8.35	0.0	Start Job											
04/26/2018	16:02:38	2	0.0	8.35	0.1	Fill Lines											
04/26/2018	16:06:39	880	0.1	8.35	7.7	Start Pressure Test											
04/26/2018	16:14:41	193	0.0	8.40	7.7	End Pressure Test											
04/26/2018	16:14:42	193	0.0	8.40	7.7	Reset Total, Vol = 7.69 bbl											
04/26/2018	16:18:44	293	1.5	9.56	0.1	Start Pumping Spacer											
04/26/2018	16:32:25	384	4.7	11.08	30.2	P=384psi											
04/26/2018	16:40:02	228	0.4	11.24	79.2	End Spacer											
04/26/2018	16:40:03	212	0.1	11.32	79.2	Reset Total, Vol = 79.21 bbl											
04/26/2018	16:40:14	34	0.0	11.27	0.0	Drop Bottom Plug											
04/26/2018	16:48:17	15	0.0	10.93	0.0	Start Mixing Lead Slurry											
04/26/2018	16:55:08	424	4.5	11.89	35.5	350sks, Y=1.85, MW=6.3											
04/26/2018	16:55:09	426	4.5	11.89	35.5	Wet and Dry Samples Taken											
04/26/2018	16:57:58	631	5.9	11.96	49.4	Density Checked w/ Mud Scale											
04/26/2018	17:10:05	13	0.0	11.92	118.3	Reset Total, Vol = 118.24 bbl											
04/26/2018	17:10:13	13	0.0	11.92	118.3	P=299psi											
04/26/2018	17:10:17	13	0.0	11.92	118.3	End Lead Slurry											
04/26/2018	17:15:32	105	2.5	12.09	118.4	Start Mixing Tail Slurry											
04/26/2018	17:15:56	393	6.5	13.35	120.5	1380sks, Y=1.66, MW=7.92											
04/26/2018	17:38:52	268	5.4	13.39	49.2	Wet and Dry Samples Taken											

Well			Field		Job Start		Customer		Job Number	
Verde 13-13HZ			Wattenberg		Apr/26/2018		Andarko		E0ZP-00127	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
04/26/2018	17:42:24	274	5.4	13.57	68.2	P=300psi				
04/26/2018	18:25:21	15	0.0	13.36	324.9	End Tail Slurry				
04/26/2018	18:35:54	2	0.3	8.39	20.5	Wash Surface Lines, Vol = 20.45 bbl				
04/26/2018	18:35:58	2	0.3	8.38	0.0	Drop Top Plug				
04/26/2018	18:37:29	4	0.0	8.41	0.0	Start Displacement				
04/26/2018	19:03:36	2072	7.0	8.40	176.7	Good Returns				
04/26/2018	19:45:49	2380	2.1	8.39	434.4	P=2242psi				
04/26/2018	19:48:34	3028	0.0	8.40	435.4	Bump Top Plug				
04/26/2018	19:48:36	3020	0.0	8.39	435.4	End Displacement				
04/26/2018	19:48:38	3014	0.0	8.39	435.4	Reset Total, Vol = 433.40 bbl				
04/26/2018	19:48:57	3038	0.0	8.39	0.0	Start CSG Test				
04/26/2018	20:02:56	2392	2.2	8.39	2.3	End CSG Test				
04/26/2018	20:03:03	2203	2.2	8.40	2.6	WSS Burst at 4326				
04/26/2018	20:05:54	-3	0.0	8.40	6.1	Floats Holding 3bbl Back				

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 4.8	N2	Mud	Maximum Rate 7.7		Total Slurry 6.1	Mud 0.0	Spacer 0.0	N2			
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 5169	Final 1	Average 1039	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal				
Avg. N2 Percent %		Designed Slurry Volume 0.0 bbl		Displacement 0.0 bbl		Mix Water Temp degF		Cement Circulated to Surface? <input type="checkbox"/>	Volume bbl		
								Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative				Schlumberger Supervisor Caleb Baldwin			Circulation Lost <input type="checkbox"/>	Job Completed <input type="checkbox"/>			
							-	-			