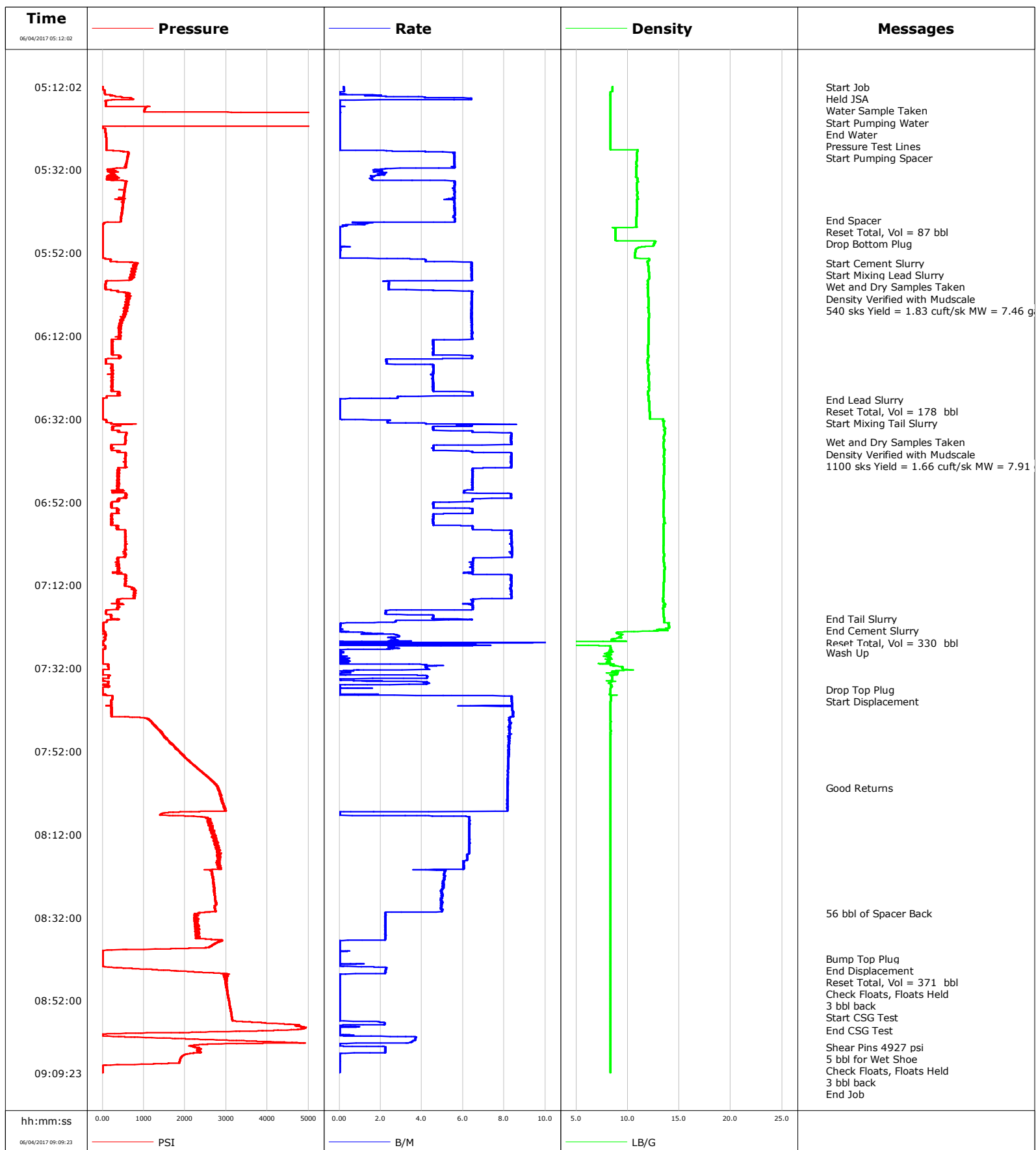


Well Butterball 22N-34HZ
Field Waattenberg
Engineer Ryan Call
Country United States

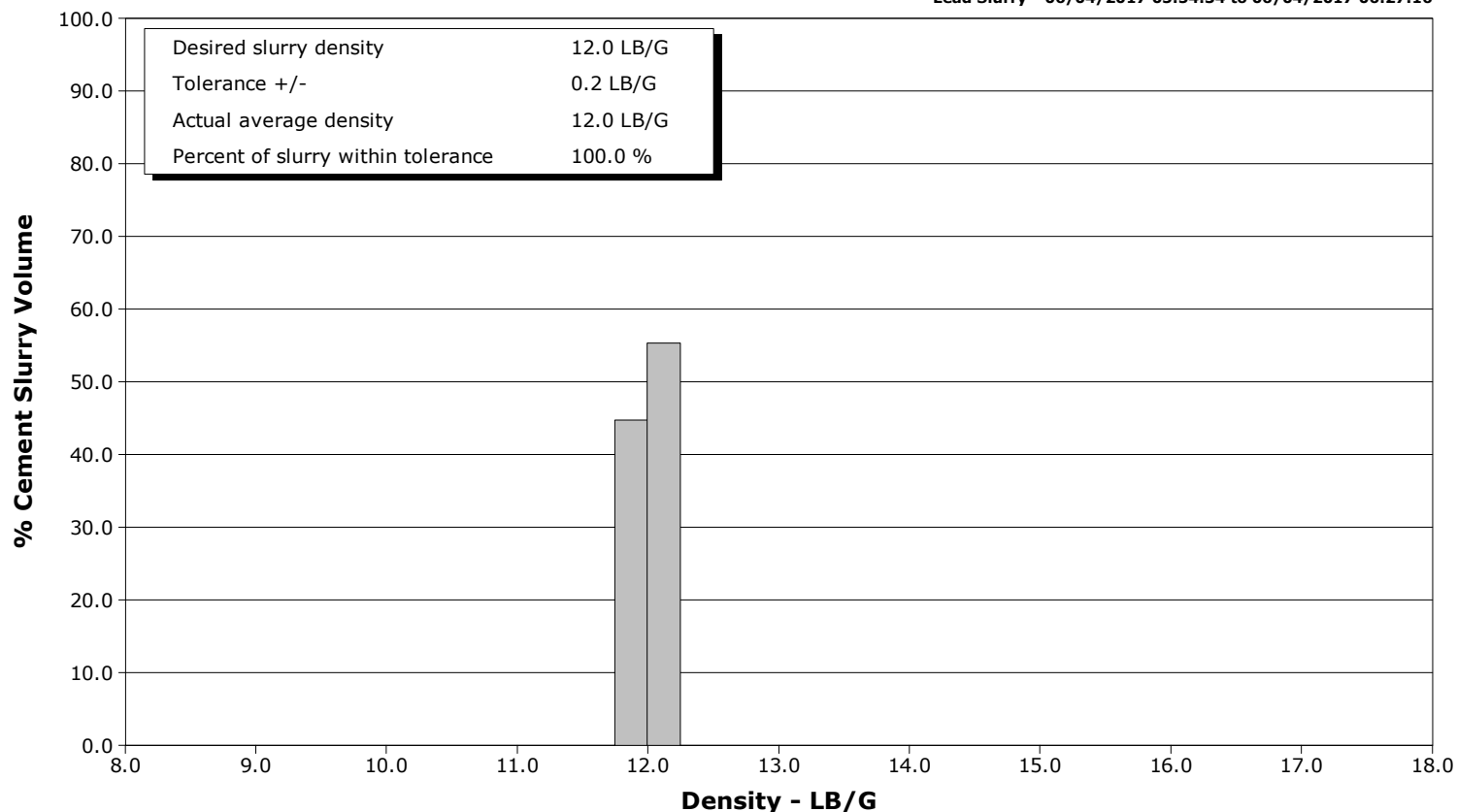
Client Anadarko
SIR No. D8WD-00222
Job Type 5.5" Production
Job Date 06-04-2017



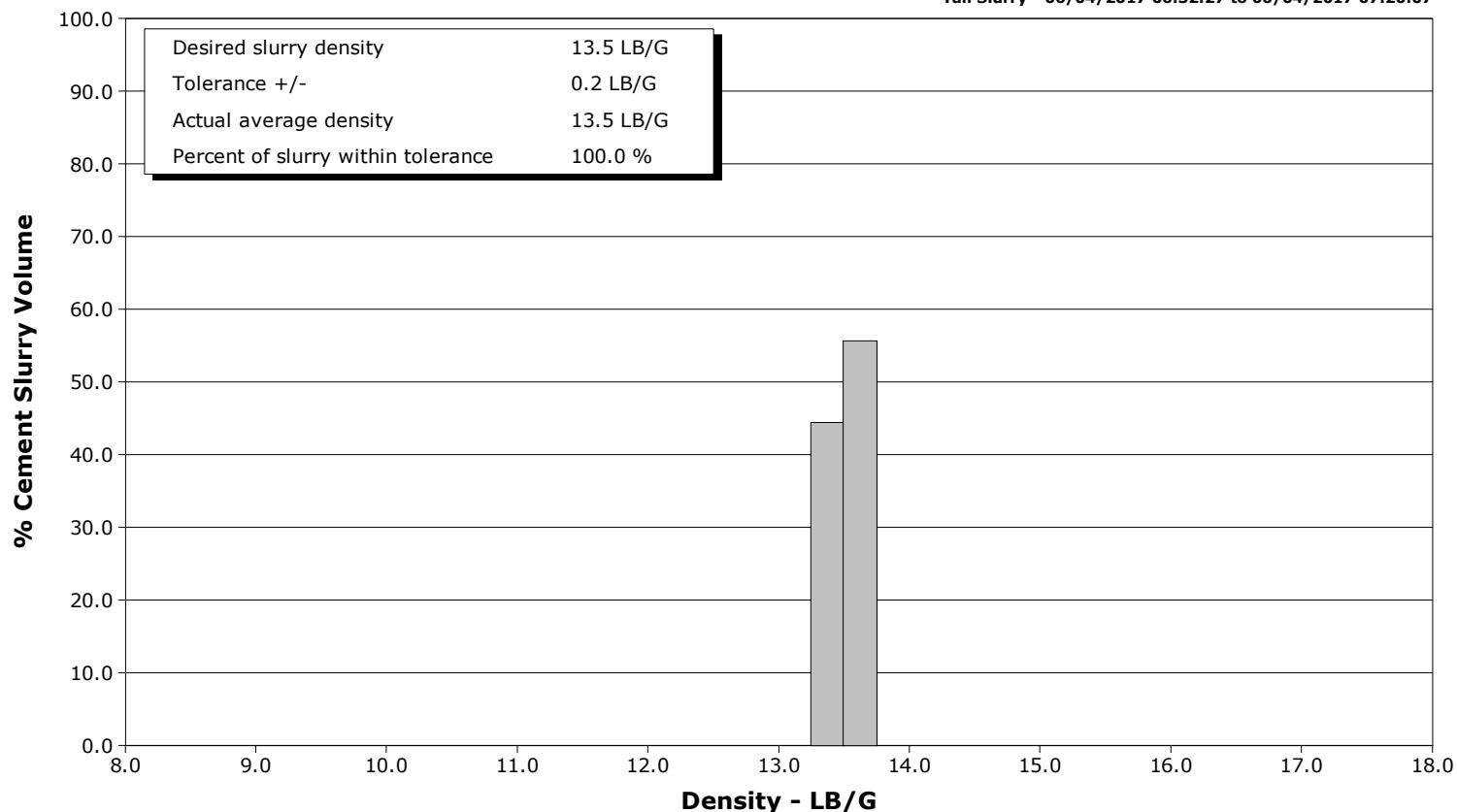
Well Butterball 22N-34HZ
Field Waattenberg
Engineer Ryan Call
Country United States

Client Anadarko
SIR No. D8WD-00222
Job Type 5.5" Production
Job Date 06-04-2017

Lead Slurry - 06/04/2017 05:54:34 to 06/04/2017 06:27:16



Tail Slurry - 06/04/2017 06:32:27 to 06/04/2017 07:20:07



Cementing Service Report

				Customer Anadarko			Job Number D8WD-00222				
Well Butterball 22N-34HZ			Location (legal) Precision 564			Schlumberger Location cWY			Job Start Jun/04/2017		
Field Waattenberg		Formation Name/Type		Deviation deg		Bit Size 7.9 in		Well MD 16009.0 ft		Well TVD 7334.0 ft	
County Weld		State/Province CO		BHP psi		BHST 229 degF		BHCT 228 degF		Pore Press. Gradient lb/gal	
Well Master 0631714486		API/UWI									
Rig Name Precision 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		1859.0		9.6		36.0	
						16009.0		5.5		17.0	
										J-55	
										8 RD	
Drilling Fluid Type OBM		Max. Density 9.50 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" Double Plug		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
						ft		ft		No. of Shots	
						ft		ft		Total Interval ft	
						ft		ft		Diameter in	
						Treat Down		Displacement 371.0 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 2300 psi						Shoe Type Float				Squeeze Type	
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 16009.0 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 Jun/04/2017 02:30		Arrived on Location Jun/04/2017 02:30		Leave Location Jun/04/2017 09:00		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 16005.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
06/04/2017	05:12:02	1	0.2	8.50	0.0	Started Acquisition					
06/04/2017	05:12:03	1	0.2	8.50	0.0	Start Job					
06/04/2017	05:12:07	1	0.2	8.50	0.0	Held JSA					
06/04/2017	05:12:16	1	0.2	8.50	0.1	Start Pumping Water					
06/04/2017	05:14:02	203	1.6	8.27	0.3						
06/04/2017	05:15:13	239	2.0	8.33	5.3	End Water					
06/04/2017	05:16:02	73	0.0	8.33	5.3						
06/04/2017	05:17:16	1033	0.0	8.33	5.4	Pressure Test Lines					
06/04/2017	05:18:02	1011	0.0	8.33	5.4						
06/04/2017	05:20:02	5103	0.0	8.33	5.4						
06/04/2017	05:22:02	3	0.0	8.33	5.4						
06/04/2017	05:24:02	82	0.0	8.33	5.4						
06/04/2017	05:26:02	92	0.0	8.33	5.4						
06/04/2017	05:27:26	253	2.3	10.95	5.6	Start Pumping Spacer					
06/04/2017	05:28:02	630	5.6	10.88	8.2						
06/04/2017	05:30:02	587	5.6	10.85	19.3						
06/04/2017	05:32:02	120	1.7	10.80	29.2						
06/04/2017	05:34:02	181	1.5	10.91	33.0						
06/04/2017	05:36:02	546	5.6	10.87	41.9						
06/04/2017	05:38:02	517	5.6	10.92	53.0						
06/04/2017	05:40:02	506	5.6	10.90	64.1						

Well Butterball 22N-34HZ			Field Waattenberg		Job Start Jun/04/2017	Customer Anadarko	Job Number D8WD-00222
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
06/04/2017	05:44:02	449	5.6	10.82	86.5		
06/04/2017	05:44:13	447	5.6	10.82	87.5	End Spacer	
06/04/2017	05:44:15	445	5.6	10.82	87.7	Reset Total, Vol = 87 bbl	
06/04/2017	05:44:39	143	5.1	10.82	89.9	Drop Bottom Plug	
06/04/2017	05:46:02	7	0.0	8.66	90.9		
06/04/2017	05:48:02	7	0.0	8.80	90.9		
06/04/2017	05:50:02	9	0.0	12.51	90.9		
06/04/2017	05:52:02	10	0.0	10.73	91.0		
06/04/2017	05:54:02	196	4.2	11.93	93.7		
06/04/2017	05:54:31	857	6.4	11.95	96.4	Start Cement Slurry	
06/04/2017	05:54:34	800	6.4	11.96	96.7	Start Mixing Lead Slurry	
06/04/2017	05:56:02	711	6.4	12.01	106.2		
06/04/2017	05:58:02	743	6.4	12.09	119.0		
06/04/2017	05:59:34	72	2.4	11.94	125.5	Wet and Dry Samples Taken	
06/04/2017	05:59:35	72	2.4	11.94	125.6	Density Verified with Mudscales	
06/04/2017	06:00:02	70	2.4	11.97	126.6		
06/04/2017	06:02:02	587	6.4	11.97	135.4		
06/04/2017	06:04:02	584	6.4	12.00	148.2		
06/04/2017	06:06:02	522	6.4	12.02	161.1		
06/04/2017	06:08:02	465	6.4	12.01	173.9		
06/04/2017	06:10:02	400	6.4	12.01	186.7		
06/04/2017	06:12:02	420	6.4	12.02	199.6		
06/04/2017	06:14:02	229	4.6	11.99	210.4		
06/04/2017	06:16:02	221	4.6	11.97	219.5		
06/04/2017	06:18:02	75	2.3	11.94	229.0		
06/04/2017	06:20:02	226	4.6	11.98	236.3		
06/04/2017	06:22:02	255	4.5	12.01	245.4		
06/04/2017	06:24:02	211	4.6	12.04	254.5		
06/04/2017	06:26:02	407	6.5	11.98	264.7		
06/04/2017	06:27:16	6	0.0	12.00	269.4	End Lead Slurry	
06/04/2017	06:27:18	6	0.0	12.00	269.4	Reset Total, Vol = 178 bbl	
06/04/2017	06:28:02	7	0.0	12.11	269.4		
06/04/2017	06:30:02	6	0.0	12.13	269.4		
06/04/2017	06:32:02	13	0.0	12.14	269.4		
06/04/2017	06:32:27	92	2.4	13.42	270.0	Start Mixing Tail Slurry	
06/04/2017	06:34:02	237	4.5	13.56	277.1		
06/04/2017	06:36:02	565	8.3	13.54	289.8		
06/04/2017	06:37:36	550	8.3	13.50	302.9	Wet and Dry Samples Taken	
06/04/2017	06:37:37	552	8.3	13.50	303.0	1100 sks Yield = 1.66 cuft/sk MW = 7.91 gal/sk	
06/04/2017	06:38:02	538	8.3	13.46	306.5		
06/04/2017	06:40:02	368	6.5	13.55	317.2		
06/04/2017	06:42:02	556	8.3	13.53	333.7		
06/04/2017	06:44:02	389	6.5	13.53	350.0		
06/04/2017	06:46:02	392	6.4	13.50	362.9		
06/04/2017	06:48:02	366	6.4	13.45	375.8		
06/04/2017	06:50:02	579	8.3	13.55	388.7		
06/04/2017	06:52:02	236	4.9	13.51	403.6		
06/04/2017	06:54:02	342	6.5	13.50	413.7		
06/04/2017	06:56:02	223	4.5	13.55	424.3		
06/04/2017	06:58:02	360	6.5	13.46	434.1		
06/04/2017	07:00:02	549	8.4	13.51	449.5		
06/04/2017	07:02:02	560	8.4	13.49	466.2		
06/04/2017	07:04:02	546	8.3	13.46	482.9		
06/04/2017	07:06:02	384	6.5	13.48	498.4		

Well			Field	Job Start		Customer	Job Number
Butterball 22N-34HZ			Waattenberg	Jun/04/2017		Anadarko	D8WD-00222
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
06/04/2017	07:10:02	570	8.3	13.54	525.3		
06/04/2017	07:12:02	544	8.3	13.49	541.9		
06/04/2017	07:14:02	797	8.3	13.46	558.6		
06/04/2017	07:16:02	375	6.5	13.44	573.9		
06/04/2017	07:18:02	86	2.8	13.44	586.5		
06/04/2017	07:20:02	225	4.5	13.52	593.1		
06/04/2017	07:20:07	221	4.5	13.52	593.5	End Tail Slurry	
06/04/2017	07:20:09	299	4.6	13.52	593.7	End Cement Slurry	
06/04/2017	07:20:10	386	5.1	13.52	593.8	Reset Total, Vol = 330 bbl	
06/04/2017	07:22:02	13	0.0	13.99	597.1		
06/04/2017	07:24:02	73	2.8	9.39	598.5		
06/04/2017	07:26:02	11	0.0	3.85	604.1		
06/04/2017	07:28:02	7	0.0	8.58	607.8		
06/04/2017	07:28:09	7	0.0	8.21	607.8	Wash Up	
06/04/2017	07:30:02	7	0.1	8.20	608.0		
06/04/2017	07:32:02	149	4.3	9.52	612.5		
06/04/2017	07:34:02	154	4.3	8.46	615.9		
06/04/2017	07:36:02	5	0.3	8.43	621.4		
06/04/2017	07:37:14	4	0.0	8.34	621.5	Drop Top Plug	
06/04/2017	07:38:02	11	0.0	8.34	621.5		
06/04/2017	07:38:50	249	8.4	8.37	623.8	Start Displacement	
06/04/2017	07:40:02	217	8.4	8.33	633.9		
06/04/2017	07:42:02	224	8.4	8.33	650.3		
06/04/2017	07:44:02	1052	8.3	8.33	667.1		
06/04/2017	07:46:02	1291	8.3	8.33	683.7		
06/04/2017	07:48:02	1467	8.3	8.33	700.2		
06/04/2017	07:50:02	1652	8.2	8.33	716.6		
06/04/2017	07:52:02	1860	8.2	8.33	733.0		
06/04/2017	07:54:02	2067	8.2	8.33	749.5		
06/04/2017	07:56:02	2294	8.2	8.33	765.8		
06/04/2017	07:58:02	2553	8.2	8.32	782.2		
06/04/2017	08:00:02	2735	8.2	8.33	798.5		
06/04/2017	08:00:55	2810	8.1	8.33	805.7	Good Returns	
06/04/2017	08:02:02	2850	8.2	8.33	814.8		
06/04/2017	08:04:02	2898	8.2	8.33	831.1		
06/04/2017	08:06:02	2974	8.1	8.33	847.4		
06/04/2017	08:08:02	2539	6.3	8.33	854.5		
06/04/2017	08:10:02	2634	6.3	8.33	867.1		
06/04/2017	08:12:02	2701	6.3	8.33	879.7		
06/04/2017	08:14:02	2783	6.3	8.33	892.3		
06/04/2017	08:16:02	2768	6.3	8.33	904.9		
06/04/2017	08:18:02	2846	6.2	8.33	917.3		
06/04/2017	08:20:02	2812	6.0	8.33	929.4		
06/04/2017	08:22:02	2677	5.1	8.33	939.9		
06/04/2017	08:24:02	2703	5.1	8.33	950.0		
06/04/2017	08:26:02	2704	5.0	8.33	960.0		
06/04/2017	08:28:02	2745	5.0	8.33	969.9		
06/04/2017	08:30:02	2720	5.0	8.33	979.8		
06/04/2017	08:30:56	2333	2.2	8.32	983.7	56 bbl of Spacer Back	
06/04/2017	08:32:02	2222	2.2	8.32	986.1		
06/04/2017	08:34:02	2343	2.2	8.32	990.6		
06/04/2017	08:36:02	2333	2.2	8.32	995.1		
06/04/2017	08:38:02	2774	0.0	8.33	998.3		
06/04/2017	08:40:02	5	0.2	8.33	998.3		

Well Butterball 22N-34HZ			Field Waattenberg		Job Start Jun/04/2017	Customer Anadarko		Job Number D8WD-00222
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
06/04/2017	08:41:52	4	0.0	8.33	998.4	Reset Total, Vol = 371 bbl		
06/04/2017	08:42:02	5	0.0	8.33	998.4			
06/04/2017	08:42:25	4	0.0	8.33	998.4	Check Floats, Floats Held		
06/04/2017	08:42:26	4	0.0	8.33	998.4	3 bbl back		
06/04/2017	08:44:02	221	2.3	8.33	998.9			
06/04/2017	08:45:00	2070	2.2	8.32	1001.1	Start CSG Test		
06/04/2017	08:46:02	3015	0.0	8.32	1002.3			
06/04/2017	08:48:02	3016	0.0	8.32	1002.4			
06/04/2017	08:50:02	3034	0.0	8.32	1002.4			
06/04/2017	08:52:02	3065	0.0	8.32	1002.4			
06/04/2017	08:54:02	3100	0.0	8.33	1002.4			
06/04/2017	08:56:02	3136	0.0	8.33	1002.4			
06/04/2017	08:58:02	4668	0.0	8.32	1004.3			
06/04/2017	08:59:05	4476	0.0	8.32	1004.5	End CSG Test		
06/04/2017	09:00:02	83	0.0	8.32	1004.5			
06/04/2017	09:02:02	4409	3.5	8.31	1009.8			
06/04/2017	09:03:09	2199	2.2	8.32	1010.8	Shear Pins 4927 psi		
06/04/2017	09:03:10	2199	2.2	8.32	1010.9	5 bbl for Wet Shoe		
06/04/2017	09:06:02	1885	0.0	8.32	1014.1			
06/04/2017	09:07:15	1233	0.0	8.32	1014.2	Check Floats, Floats Held		
06/04/2017	09:07:16	1233	0.0	8.32	1014.2	3 bbl back		
06/04/2017	09:08:02	2	0.0	8.32	1014.2	End Job		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl							
Slurry 4.8	N2	Mud	Maximum Rate 25.0	Total Slurry 500.0	Mud 0.0	Spacer 87.4	N2					
Treating Pressure Summary, psi					Breakdown Fluid							
Maximum 5191	Final 3	Average 1110	Bump Plug to 2900	Breakdown	Type	Volume bbl	Density lb/gal					
Avg. N2 Percent %	Designed Slurry Volume 500.0 bbl	Displacement 371.0 bbl	Mix Water Temp 67 degF	Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl						
				Washed Thru Perfs <input type="checkbox"/>		To ft						
Customer or Authorized Representative			Schlumberger Supervisor Ryan Call			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>					
						-	-					