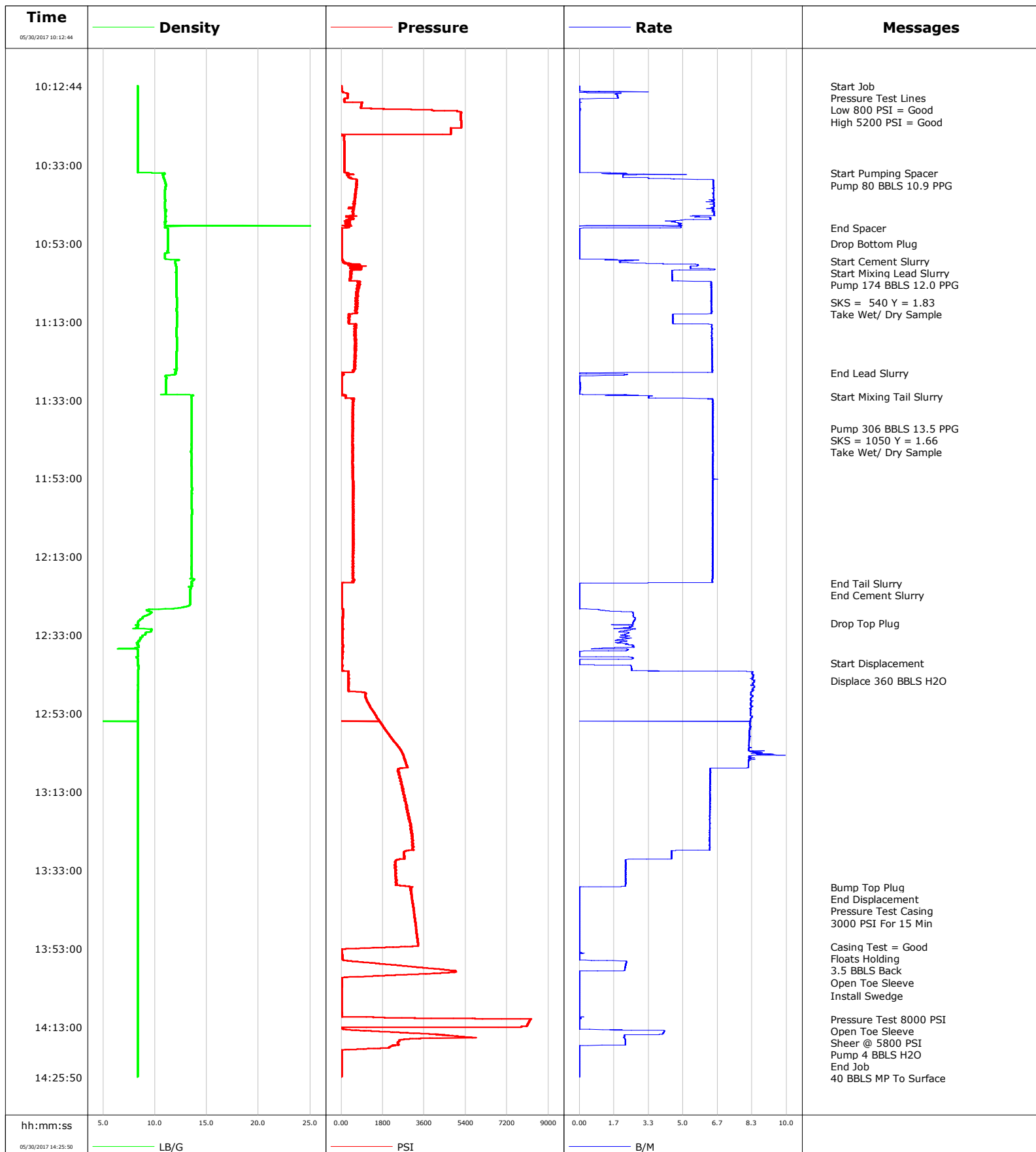


Well Butterball
Field Wattenberg
Engineer Conley Jensen/ Joe Sanchez
Country United States

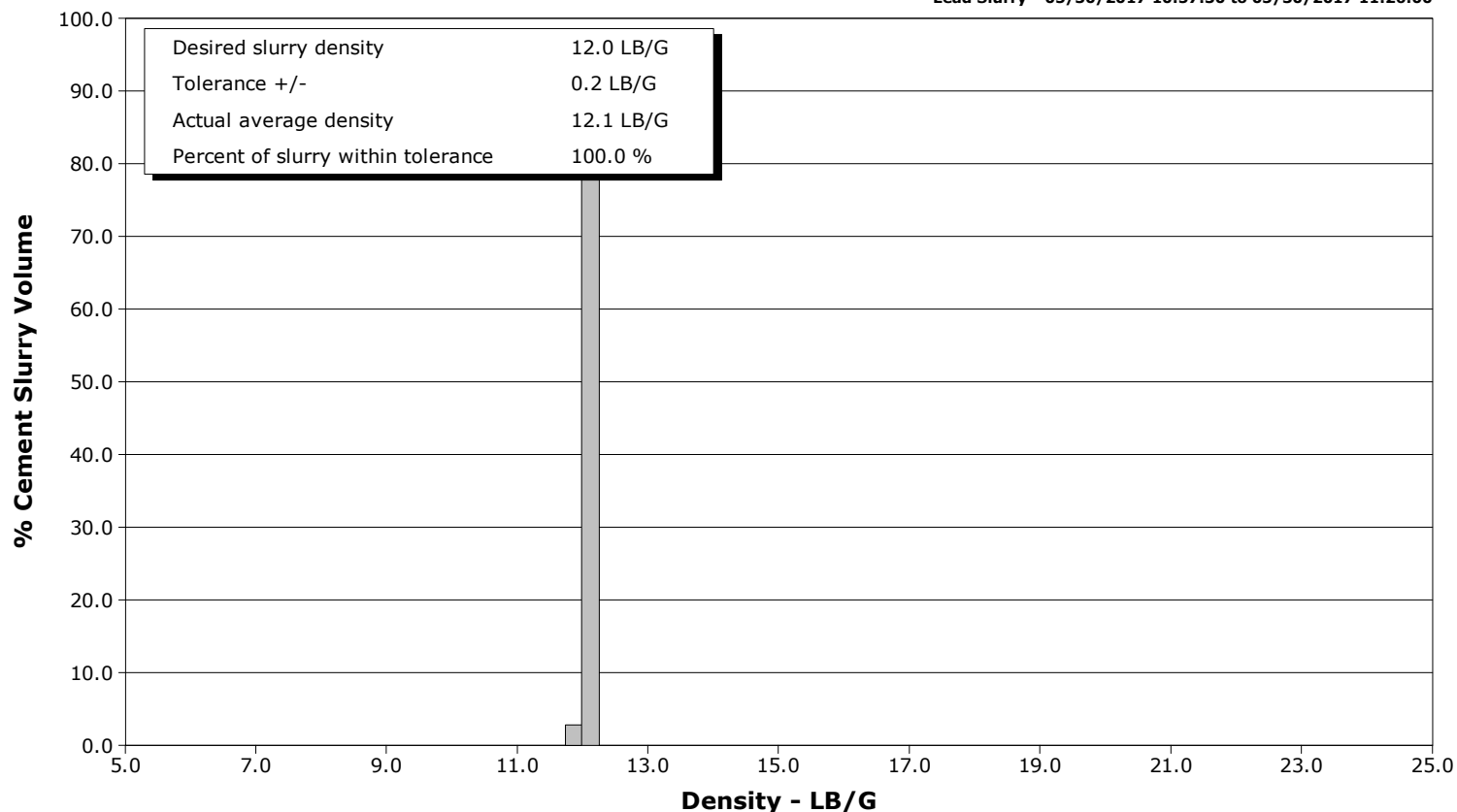
Client Anadarko
SIR No. 2488546
Job Type 5.5" Monobore
Job Date 05-30-2017



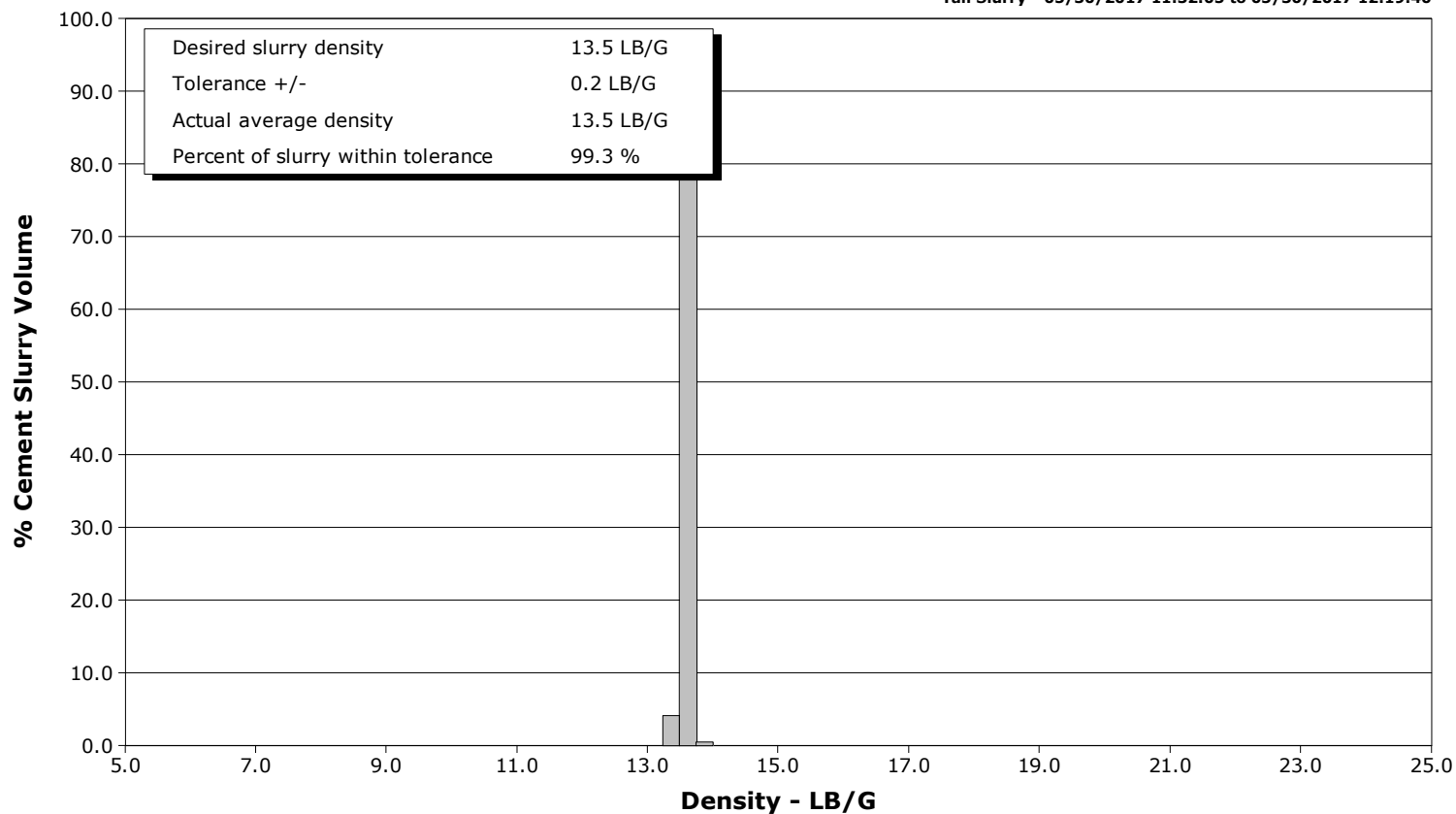
Well Butterball
Field Wattenberg
Engineer Conley Jensen/ Joe Sanchez
Country United States

Client Anadarko
SIR No. 2488546
Job Type 5.5" Monobore
Job Date 05-30-2017

Lead Slurry - 05/30/2017 10:57:30 to 05/30/2017 11:26:00



Tail Slurry - 05/30/2017 11:32:05 to 05/30/2017 12:19:40



Cementing Service Report

				Customer Anadarko				Job Number 2488546			
Well Butterball 24N2-34HZ			Location (legal)			Schlumberger Location CWY			Job Start May/30/2017		
Field Wattenberg		Formation Name/Type Shale		Deviation deg		Bit Size 7.9 in		Well MD 15492.0 ft		Well TVD 7224.0 ft	
County		State/Province Colorado		BHP psi		BHST 226 degF		BHCT 224 degF		Pore Press. Gradient lb/gal	
Well Master 0631714054		API/UWI 05123443170000									
Rig Name Precision 461		Drilled For Oil		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft	
										Grade	
										Thread	
Offshore Zone		Well Class New		Well Type Development		1853.0		9.6		36.0	
						15492.0		5.5		17.0	
										J55	
										P110	
										8RD	
										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" Monobore									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Double Cement head		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
										No. of Shots	
										Total Interval ft	
										Diameter in	
						Treat Down Casing		Displacement 360.0 bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 360.0 bbl		Annular Vol. 510.0 bbl	
										Openhole Vol. 901.0 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 15492.0 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 May/30/2017 07:30		Arrived on Location May/30/2017 07:30		Leave Location May/30/2017 16:00		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 15491.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
05/30/2017	10:12:44	1	0.0	8.33	0.0	Started Acquisition					
05/30/2017	10:14:00	2	0.0	8.33	0.0	Pressure Test Lines					
05/30/2017	10:14:14	50	1.9	8.33	0.1						
05/30/2017	10:15:44	266	1.8	8.33	2.5						
05/30/2017	10:16:00	171	1.6	8.32	3.0	Low 800 PSI = Good					
05/30/2017	10:17:14	890	0.0	8.33	3.1						
05/30/2017	10:18:44	1817	0.1	8.32	3.1						
05/30/2017	10:19:00	3952	0.0	8.33	3.1	High 5200 PSI = Good					
05/30/2017	10:20:14	5212	0.0	8.32	3.1						
05/30/2017	10:21:44	5214	0.0	8.33	3.1						
05/30/2017	10:23:14	5222	0.0	8.33	3.1						
05/30/2017	10:24:44	4763	0.0	8.33	3.1						
05/30/2017	10:26:14	128	0.0	8.33	3.1						
05/30/2017	10:27:44	136	0.0	8.33	3.1						
05/30/2017	10:29:14	142	0.0	8.33	3.1						
05/30/2017	10:30:44	144	0.0	8.33	3.2						
05/30/2017	10:32:14	145	0.0	8.32	3.2						
05/30/2017	10:33:44	146	0.0	8.32	3.2						
05/30/2017	10:35:00	254	1.7	10.72	0.1	Start Pumping Spacer					
05/30/2017	10:35:14	296	1.9	10.92	0.5						
05/30/2017	10:36:44	659	6.5	10.91	5.2						

Well			Field	Job Start		Customer	Job Number	
Butterball 24N2-34HZ			Wattenberg		May/30/2017		Anadarko	2488546
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
05/30/2017	10:38:14	647	6.5	11.03	14.9			
05/30/2017	10:39:44	605	6.5	10.97	24.6			
05/30/2017	10:41:14	589	6.5	10.96	34.3			
05/30/2017	10:42:44	580	6.5	10.95	43.9			
05/30/2017	10:44:14	559	6.5	10.97	53.6			
05/30/2017	10:45:44	502	6.5	11.02	63.3			
05/30/2017	10:47:14	233	4.5	11.01	72.2			
05/30/2017	10:48:44	312	4.9	10.96	78.8			
05/30/2017	10:49:00	376	4.7	10.96	80.1	End Spacer		
05/30/2017	10:50:14	7	0.0	11.25	80.4			
05/30/2017	10:51:44	7	0.0	11.24	0.0			
05/30/2017	10:53:01	7	0.0	11.24	0.0	Drop Bottom Plug		
05/30/2017	10:53:14	7	0.0	11.23	0.0			
05/30/2017	10:54:44	6	0.0	11.23	0.0			
05/30/2017	10:56:14	7	0.0	10.96	0.0			
05/30/2017	10:57:27	72	2.2	11.95	0.8	Start Cement Slurry		
05/30/2017	10:57:30	97	2.1	11.95	0.9	Start Mixing Lead Slurry		
05/30/2017	10:57:39	81	2.0	11.95	1.2	Pump 174 BBLs 12.0 PPG		
05/30/2017	10:57:44	106	2.0	11.95	1.4			
05/30/2017	10:59:14	725	5.4	12.06	8.2			
05/30/2017	11:00:44	413	4.5	12.06	15.8			
05/30/2017	11:02:14	378	4.5	12.05	22.6			
05/30/2017	11:03:44	725	6.4	12.05	31.3			
05/30/2017	11:05:14	746	6.4	12.04	40.8			
05/30/2017	11:06:44	674	6.4	12.08	50.4			
05/30/2017	11:08:01	596	6.4	12.12	58.5	SKS = 540 Y = 1.83		
05/30/2017	11:08:14	670	6.3	12.12	59.9			
05/30/2017	11:08:24	648	6.3	12.11	61.0	Take Wet/ Dry Sample		
05/30/2017	11:09:44	589	6.3	12.08	69.5			
05/30/2017	11:11:14	375	4.5	12.14	78.6			
05/30/2017	11:12:44	327	4.5	12.11	85.3			
05/30/2017	11:14:14	605	6.4	12.10	93.3			
05/30/2017	11:15:44	544	6.4	12.07	102.9			
05/30/2017	11:17:14	623	6.4	12.09	112.5			
05/30/2017	11:18:44	663	6.4	12.12	122.1			
05/30/2017	11:20:14	625	6.4	12.09	131.6			
05/30/2017	11:21:44	599	6.4	12.05	141.2			
05/30/2017	11:23:14	594	6.4	12.06	150.8			
05/30/2017	11:24:44	562	6.4	12.09	160.4			
05/30/2017	11:26:00	2	1.0	11.99	168.4	End Lead Slurry		
05/30/2017	11:26:14	4	0.0	12.00	168.5			
05/30/2017	11:27:44	4	0.0	11.07	169.4			
05/30/2017	11:29:14	5	0.0	11.07	0.0			
05/30/2017	11:30:44	6	0.0	11.06	0.1			
05/30/2017	11:32:05	182	3.3	13.48	1.4	Start Mixing Tail Slurry		
05/30/2017	11:32:14	194	3.3	13.49	1.9			
05/30/2017	11:33:44	546	6.4	13.53	10.5			
05/30/2017	11:35:14	532	6.4	13.54	20.1			
05/30/2017	11:36:44	507	6.4	13.53	29.8			
05/30/2017	11:38:14	496	6.4	13.53	39.5			
05/30/2017	11:39:44	510	6.4	13.55	49.1			
05/30/2017	11:40:09	504	6.4	13.55	51.8	Pump 306 BBLs 13.5 PPG		
05/30/2017	11:40:24	502	6.4	13.55	53.4	SKS = 1050 Y = 1.66		
05/30/2017	11:41:14	504	6.4	13.53	58.8			

Well			Field	Job Start		Customer	Job Number	
Butterball 24N2-34HZ			Wattenberg		May/30/2017		Anadarko	2488546
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
05/30/2017	11:44:09	488	6.4	13.52	77.5	Take Wet/ Dry Sample		
05/30/2017	11:44:14	496	6.4	13.52	78.1			
05/30/2017	11:45:44	524	6.4	13.51	87.7			
05/30/2017	11:47:14	522	6.4	13.54	97.4			
05/30/2017	11:48:44	496	6.4	13.47	107.0			
05/30/2017	11:50:14	508	6.4	13.53	116.7			
05/30/2017	11:51:44	515	6.4	13.55	126.4			
05/30/2017	11:53:14	517	6.5	13.55	136.0			
05/30/2017	11:54:44	494	6.4	13.56	145.7			
05/30/2017	11:56:14	490	6.4	13.56	155.3			
05/30/2017	11:57:44	527	6.4	13.56	165.0			
05/30/2017	11:59:14	480	6.4	13.54	174.6			
05/30/2017	12:00:44	494	6.4	13.56	184.3			
05/30/2017	12:02:14	510	6.4	13.56	193.9			
05/30/2017	12:03:44	497	6.4	13.55	203.5			
05/30/2017	12:05:14	493	6.4	13.53	213.2			
05/30/2017	12:06:44	494	6.4	13.53	222.8			
05/30/2017	12:08:14	490	6.4	13.54	232.5			
05/30/2017	12:09:44	507	6.4	13.55	242.1			
05/30/2017	12:11:14	521	6.4	13.54	251.7			
05/30/2017	12:12:44	503	6.4	13.52	261.4			
05/30/2017	12:14:14	475	6.4	13.53	271.0			
05/30/2017	12:15:44	484	6.4	13.52	280.6			
05/30/2017	12:17:14	494	6.4	13.52	290.3			
05/30/2017	12:18:44	536	6.4	13.79	299.9			
05/30/2017	12:19:40	22	3.3	13.50	305.8	End Tail Slurry		
05/30/2017	12:19:42	10	0.6	13.56	305.9	End Cement Slurry		
05/30/2017	12:20:14	13	0.0	13.52	306.0			
05/30/2017	12:21:44	16	0.0	13.41	306.0			
05/30/2017	12:23:14	15	0.0	13.39	306.0			
05/30/2017	12:24:44	17	0.0	13.40	306.0			
05/30/2017	12:26:14	17	0.0	11.84	306.0			
05/30/2017	12:27:44	72	2.6	9.41	308.6			
05/30/2017	12:29:14	65	2.7	8.52	312.5			
05/30/2017	12:30:00	65	2.6	8.34	314.5	Drop Top Plug		
05/30/2017	12:30:44	64	2.6	8.33	316.3			
05/30/2017	12:32:14	61	2.2	9.36	319.8			
05/30/2017	12:33:44	64	2.4	8.61	323.2			
05/30/2017	12:35:14	61	2.3	8.35	326.3			
05/30/2017	12:36:44	56	2.3	8.32	329.5			
05/30/2017	12:38:14	28	0.0	8.35	330.3			
05/30/2017	12:39:44	1	0.0	8.33	0.1			
05/30/2017	12:40:00	1	0.0	8.32	0.1	Start Displacement		
05/30/2017	12:41:14	20	2.5	8.41	1.4			
05/30/2017	12:42:44	294	8.3	8.37	8.2			
05/30/2017	12:44:14	300	8.3	8.36	20.7			
05/30/2017	12:44:45	308	8.4	8.37	25.0	Displace 360 BBLS H2O		
05/30/2017	12:45:44	304	8.3	8.31	33.3			
05/30/2017	12:47:14	315	8.4	8.35	45.9			
05/30/2017	12:48:44	1036	8.3	8.32	58.3			
05/30/2017	12:50:14	1154	8.3	8.35	70.7			
05/30/2017	12:51:44	1303	8.2	8.33	83.1			
05/30/2017	12:53:14	1468	8.2	8.33	95.5			
05/30/2017	12:54:44	1630	8.2	8.33	107.9			

Well			Field	Job Start		Customer		Job Number	
Butterball 24N2-34HZ			Wattenberg		May/30/2017		Anadarko		2488546
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
05/30/2017	12:57:44	1991	8.2	8.33	132.6				
05/30/2017	12:59:14	2190	8.2	8.33	144.9				
05/30/2017	13:00:44	2394	8.2	8.33	157.2				
05/30/2017	13:02:14	2585	8.2	8.33	169.4				
05/30/2017	13:03:44	2716	8.4	8.33	182.3				
05/30/2017	13:05:14	2796	8.2	8.33	194.6				
05/30/2017	13:06:44	2886	8.1	8.33	206.8				
05/30/2017	13:08:14	2494	6.3	8.33	216.7				
05/30/2017	13:09:44	2554	6.3	8.33	226.1				
05/30/2017	13:11:14	2622	6.3	8.33	235.6				
05/30/2017	13:12:44	2710	6.3	8.33	245.0				
05/30/2017	13:14:14	2735	6.3	8.33	254.5				
05/30/2017	13:15:44	2792	6.3	8.33	263.9				
05/30/2017	13:17:14	2883	6.3	8.33	273.3				
05/30/2017	13:18:44	2909	6.3	8.33	282.8				
05/30/2017	13:20:14	2961	6.3	8.33	292.2				
05/30/2017	13:21:44	3038	6.3	8.33	301.6				
05/30/2017	13:23:14	3081	6.3	8.33	311.0				
05/30/2017	13:24:44	3080	6.3	8.33	320.4				
05/30/2017	13:26:14	3103	6.3	8.33	329.8				
05/30/2017	13:27:44	3141	6.3	8.33	339.3				
05/30/2017	13:29:14	2764	4.4	8.33	346.4				
05/30/2017	13:30:44	2333	2.2	8.33	351.9				
05/30/2017	13:32:14	2335	2.2	8.33	355.3				
05/30/2017	13:33:44	2389	2.2	8.33	358.6				
05/30/2017	13:35:14	2399	2.2	8.33	361.9				
05/30/2017	13:36:44	2371	2.2	8.33	365.3				
05/30/2017	13:37:21	3003	0.0	8.33	366.4	Bump Top Plug			
05/30/2017	13:37:22	3029	0.0	8.33	366.4	End Displacement			
05/30/2017	13:37:26	3075	0.0	8.33	366.4	Pressure Test Casing			
05/30/2017	13:38:14	3039	0.0	8.33	366.4				
05/30/2017	13:39:44	3069	0.0	8.33	366.4				
05/30/2017	13:41:14	3110	0.0	8.33	366.4				
05/30/2017	13:42:44	3149	0.0	8.33	366.4				
05/30/2017	13:44:14	3184	0.0	8.33	366.4				
05/30/2017	13:45:44	3218	0.0	8.33	366.4				
05/30/2017	13:47:14	3250	0.0	8.33	366.4				
05/30/2017	13:48:44	3282	0.0	8.33	366.5				
05/30/2017	13:50:14	3313	0.0	8.33	366.5				
05/30/2017	13:51:44	3342	0.0	8.33	366.5				
05/30/2017	13:52:36	2691	0.0	8.33	366.5	Casing Test = Good			
05/30/2017	13:53:14	36	0.0	8.33	366.5	Floats Holding			
05/30/2017	13:54:44	42	0.0	8.33	366.5				
05/30/2017	13:56:14	421	2.2	8.33	366.8				
05/30/2017	13:57:44	3181	2.2	8.32	370.1				
05/30/2017	13:58:00	3708	2.2	8.32	370.7	Open Toe Sleeve			
05/30/2017	13:59:14	4592	0.0	8.33	372.3				
05/30/2017	14:00:44	35	0.0	8.33	372.3				
05/30/2017	14:02:14	26	0.0	8.33	372.3				
05/30/2017	14:03:44	11	0.0	8.33	372.3				
05/30/2017	14:05:00	11	0.0	8.33	372.3	Install Swedge			
05/30/2017	14:05:14	11	0.0	8.33	372.3				
05/30/2017	14:06:44	11	0.0	8.33	372.3				
05/30/2017	14:08:14	12	0.0	8.33	372.4				

Well			Field		Job Start		Customer		Job Number	
Butterball 24N2-34HZ			Wattenberg		May/30/2017		Anadarko		2488546	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
05/30/2017	14:11:00	7158	0.1	8.33	372.4	Pressure Test 8000 PSI				
05/30/2017	14:11:14	8228	0.0	8.33	372.4					
05/30/2017	14:12:44	8089	0.0	8.33	372.4					
05/30/2017	14:14:00	953	4.1	8.33	373.1	Open Toe Sleeve				
05/30/2017	14:14:14	1723	4.1	8.32	374.1					
05/30/2017	14:15:00	4305	3.8	8.31	377.2	Sheer @ 5800 PSI				
05/30/2017	14:15:44	5669	2.1	8.31	378.8					
05/30/2017	14:16:00	3438	2.2	8.31	0.2	Pump 4 BBLS H2O				
05/30/2017	14:17:14	2460	2.2	8.33	2.9					
05/30/2017	14:18:44	817	0.0	8.33	4.1					
05/30/2017	14:19:25	5	0.0	8.33	4.1	End Job				
05/30/2017	14:19:28	5	0.0	8.33	4.1	40 BBLS MP To Surface				
05/30/2017	14:20:14	6	0.0	8.33	4.1					
05/30/2017	14:21:44	6	0.0	8.33	4.1					
05/30/2017	14:23:14	7	0.0	8.33	4.1					

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 5.0	N2	Mud	Maximum Rate 9.9	Total Slurry 489.0	Mud 0.0	Spacer 80.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 8260	Final 6	Average 1196	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 489.0 bbl		Displacement 360.0 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 Jeremy Skates			Schlumberger Supervisor Conley Jensen/ Joe Sanchez			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	