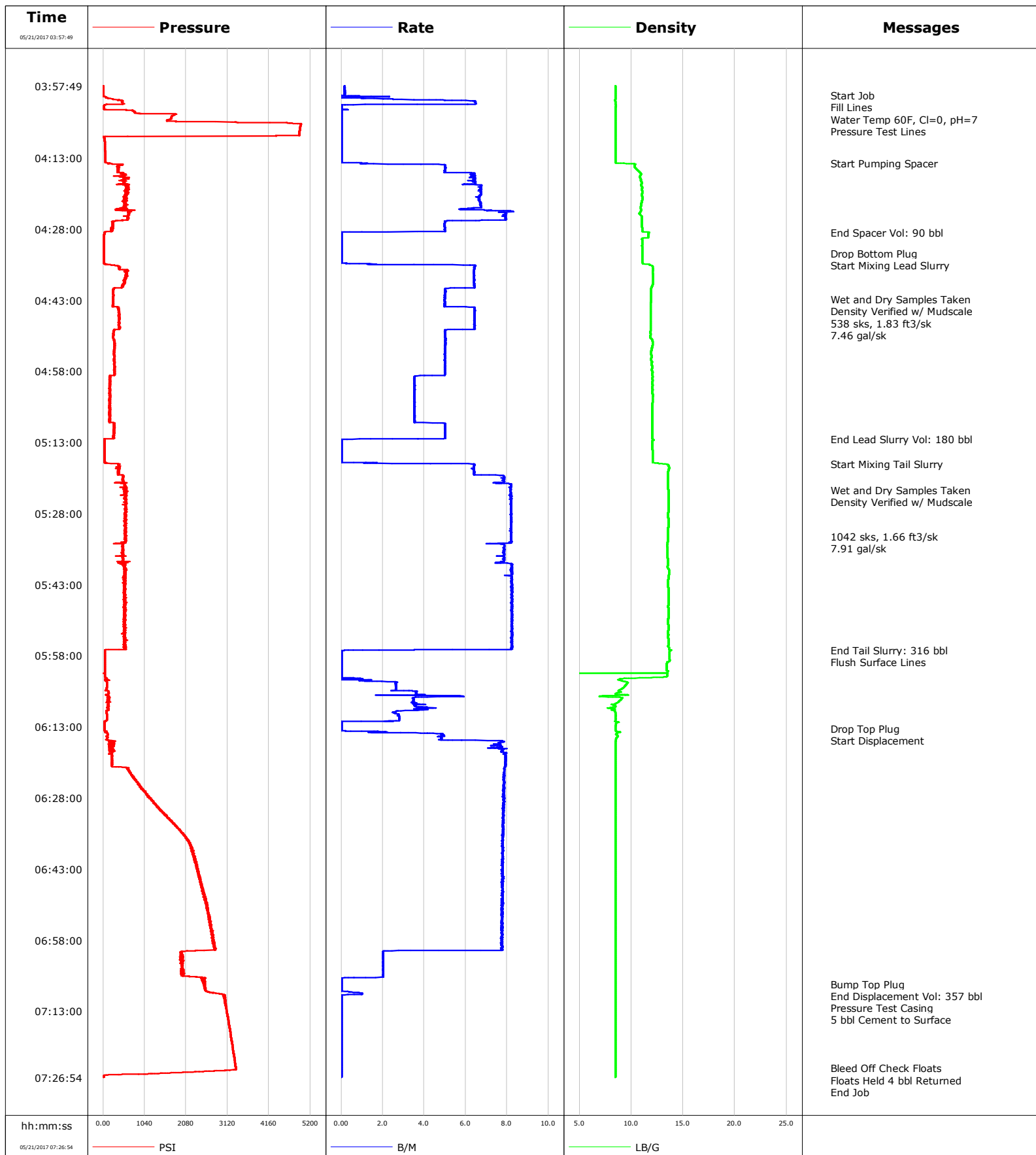


**Well** BUTTERBALL 40N-34HZ  
**Field** Wattenberg  
**Engineer** Billy Barg  
**Country** United States

**Client** ANADARKO PETROLEUM COMPANY  
**SIR No.** CSS9-00414  
**Job Type** 5.5" Production  
**Job Date** 05-21-2017



# Cementing Service Report

				<b>Customer</b> ANADARKO PETROLEUM COMPANY				<b>Job Number</b> CSS9-00414					
<b>Well</b> BUTTERBALL 40N-34HZ 0631713693			<b>Location (legal)</b>			<b>Schlumberger Location</b> Cheyenne, WY			<b>Job Start</b> May/21/2017				
<b>Field</b> Wattenberg		<b>Formation Name/Type</b>			<b>Deviation</b> 90 deg		<b>Bit Size</b> 7.9 in		<b>Well MD</b> 15425.0 ft		<b>Well TVD</b> 7216.0 ft		
<b>County</b> Weld		<b>State/Province</b> Colorado			<b>BHP</b> psi		<b>BHST</b> 226 degF		<b>BHCT</b> 230 degF		<b>Pore Press. Gradient</b> lb/gal		
<b>Well Master</b> 0631713693		<b>API/UWI</b> 05123443160000											
<b>Rig Name</b> PD 461		<b>Drilled For</b> Oil and Gas		<b>Service Via</b> Land		<b>Casing/ Liner</b>							
						<b>Depth, ft</b>		<b>Size, in</b>		<b>Weight, lb/ft</b>		<b>Grade</b>	
						1828.0		9.6		36.0		J-55	
<b>Offshore Zone</b>		<b>Well Class</b> New		<b>Well Type</b> Development		15414.9		5.5		17.0		HCP110	
<b>Drilling Fluid Type</b> OBM		<b>Max. Density</b> 9.30 lb/gal		<b>Plastic Viscosity</b> cP		<b>Tubing/Drill Pipe</b>							
						<b>T/D</b>		<b>Depth, ft</b>		<b>Size, in</b>		<b>Weight, lb/ft</b>	
<b>Service Line</b> Cementing		<b>Job Type</b> 5.5" Production											
<b>Max. Allowed Tub. Press</b> psi		<b>Max. Allowed Ann. Press</b> psi		<b>WH Connection</b> 5.5" LTC		<b>Perforations/Open Hole</b>							
						<b>Top, ft</b>		<b>Bottom, ft</b>		<b>shot/ft</b>		<b>No. of Shots</b>	
						ft		ft					
						ft		ft					
						ft		ft					
						<b>Treat Down</b> Casing		<b>Displacement</b> 357.0 bbl		<b>Packer Type</b>		<b>Packer Depth</b> ft	
						<b>Tubing Vol.</b> bbl		<b>Casing Vol.</b> bbl		<b>Annular Vol.</b> 507.0 bbl		<b>Openhole Vol.</b> bbl	
<b>Casing/Tubing Secured</b> <input checked="" type="checkbox"/>		<b>1 Hole Vol. Circulated prior to Cement</b> <input checked="" type="checkbox"/>				<b>Casing Tools</b>				<b>Squeeze Job</b>			
<b>Lift Pressure</b> 11030 psi						<b>Shoe Type</b> Float				<b>Squeeze Type</b>			
<b>Pipe Rotated</b> <input type="checkbox"/>		<b>Pipe Reciprocated</b> <input type="checkbox"/>				<b>Shoe Depth</b> 15414.9 ft				<b>Tool Type</b>			
<b>No. Centralizers</b>		<b>Top Plugs</b> 1		<b>Bottom Plugs</b> 1		<b>Stage Tool Type</b>				<b>Tool Depth</b> ft			
<b>Cement Head Type</b> Double						<b>Stage Tool Depth</b> ft				<b>Tail Pipe Size</b> in			
<b>Job Scheduled For</b> May/21/2017 00:00		<b>Arrived on Location</b> May/21/2017 00:00		<b>Leave Location</b> May/21/2017 08:30		<b>Collar Type</b> Float				<b>Tail Pipe Depth</b> ft			
						<b>Collar Depth</b> 15368.4 ft				<b>Sqz. Total Vol.</b> bbl			
<b>Date</b>	<b>Time 24-hr clock</b>	<b>Treating Pressure PSI</b>	<b>Flow Rate B/M</b>	<b>Density LB/G</b>	<b>Volume BBL</b>	<b>Message</b>							
05/21/2017	03:57:49	5	0.2	8.47	0.0	Started Acquisition							
05/21/2017	03:59:29	3	0.2	8.47	0.3								
05/21/2017	03:59:54	5	0.0	8.46	0.3	Start Job							
05/21/2017	04:00:01	9	0.2	8.46	0.4	Fill Lines							
05/21/2017	04:00:38	238	2.5	8.45	1.0	Water Temp 60F, Cl=0, pH=7							
05/21/2017	04:01:09	482	6.4	8.45	3.5								
05/21/2017	04:02:49	41	0.2	8.48	7.5								
05/21/2017	04:02:52	104	0.3	8.47	7.5	Pressure Test Lines							
05/21/2017	04:04:29	1713	0.0	8.46	7.5								
05/21/2017	04:06:09	4949	0.0	8.46	7.5								
05/21/2017	04:07:49	4922	0.0	8.46	7.5								
05/21/2017	04:09:29	37	0.0	8.45	7.5								
05/21/2017	04:11:09	48	0.0	8.45	0.0								
05/21/2017	04:12:49	55	0.0	8.45	0.0								
05/21/2017	04:14:09	169	1.2	8.99	0.1	Start Pumping Spacer							
05/21/2017	04:14:29	491	5.0	10.35	0.9								
05/21/2017	04:16:09	472	6.2	10.86	9.3								
05/21/2017	04:17:49	550	6.3	10.93	20.0								
05/21/2017	04:19:29	582	6.7	11.04	30.8								
05/21/2017	04:21:09	581	6.7	11.04	42.0								
05/21/2017	04:22:49	579	6.7	10.97	53.1								

Well			Field		Job Start		Customer		Job Number	
BUTTERBALL 40N-34HZ 0631713693			Wattenberg		May/21/2017		ANADARKO PETROLEUM COMPANY		CSS9-00414	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
05/21/2017	04:26:09	461	7.1	11.00	77.7					
05/21/2017	04:27:49	207	5.0	11.04	86.2					
05/21/2017	04:28:45	37	0.0	11.72	90.2	End Spacer Vol: 90 bbl				
05/21/2017	04:29:29	23	0.0	11.63	0.0					
05/21/2017	04:31:09	23	0.0	11.04	0.0					
05/21/2017	04:32:49	21	0.0	11.04	0.0					
05/21/2017	04:33:14	21	0.0	11.04	0.0	Drop Bottom Plug				
05/21/2017	04:34:29	20	0.0	11.04	0.0					
05/21/2017	04:35:36	205	5.9	11.78	0.6	Start Mixing Lead Slurry				
05/21/2017	04:36:09	389	6.4	12.07	4.1					
05/21/2017	04:37:49	590	6.4	12.09	14.7					
05/21/2017	04:39:29	528	6.4	12.11	25.4					
05/21/2017	04:41:09	251	5.0	11.89	35.2					
05/21/2017	04:42:49	255	5.0	11.92	43.5					
05/21/2017	04:42:50	262	5.0	11.92	43.6	Wet and Dry Samples Taken				
05/21/2017	04:43:01	257	5.0	11.91	44.5	Density Verified w/ Mudscale				
05/21/2017	04:44:29	377	6.3	11.86	51.9					
05/21/2017	04:44:36	371	6.4	11.86	52.6	538 sks, 1.83 ft3/sk				
05/21/2017	04:44:50	404	6.4	11.85	54.1	7.46 gal/sk				
05/21/2017	04:46:09	384	6.4	11.87	62.6					
05/21/2017	04:47:49	395	6.4	11.86	73.3					
05/21/2017	04:49:29	277	5.0	11.86	83.6					
05/21/2017	04:51:09	252	5.0	11.94	92.0					
05/21/2017	04:52:49	286	5.0	12.02	100.4					
05/21/2017	04:54:29	275	5.0	11.91	108.7					
05/21/2017	04:56:09	298	5.0	11.98	117.0					
05/21/2017	04:57:49	280	5.0	11.98	125.3					
05/21/2017	04:59:29	167	3.5	12.02	132.9					
05/21/2017	05:01:09	181	3.5	12.03	138.8					
05/21/2017	05:02:49	171	3.5	12.06	144.7					
05/21/2017	05:04:29	165	3.5	12.04	150.5					
05/21/2017	05:06:09	162	3.5	12.02	156.4					
05/21/2017	05:07:49	173	3.5	12.02	162.3					
05/21/2017	05:09:29	265	5.0	12.01	169.1					
05/21/2017	05:11:09	255	5.0	12.02	177.4					
05/21/2017	05:12:20	29	0.3	12.11	183.1	End Lead Slurry Vol: 180 bbl				
05/21/2017	05:12:49	27	0.0	12.01	183.1					
05/21/2017	05:14:29	28	0.0	12.03	183.1					
05/21/2017	05:16:09	28	0.0	12.05	183.1					
05/21/2017	05:17:37	426	6.4	13.42	1.2	Start Mixing Tail Slurry				
05/21/2017	05:17:49	405	6.4	13.57	2.5					
05/21/2017	05:19:29	375	6.4	13.56	13.1					
05/21/2017	05:21:09	496	7.8	13.56	25.6					
05/21/2017	05:22:49	537	8.2	13.56	38.9					
05/21/2017	05:23:03	588	8.2	13.57	40.8	Wet and Dry Samples Taken				
05/21/2017	05:23:23	594	8.2	13.58	43.6	Density Verified w/ Mudscale				
05/21/2017	05:24:29	560	8.1	13.57	52.5					
05/21/2017	05:26:09	556	8.2	13.59	66.2					
05/21/2017	05:27:49	558	8.2	13.56	79.9					
05/21/2017	05:29:29	544	8.2	13.57	93.5					
05/21/2017	05:31:09	556	8.2	13.56	107.2					
05/21/2017	05:32:49	565	8.2	13.55	120.8	1042 sks, 1.66 ft3/sk				
05/21/2017	05:32:59	560	8.2	13.54	122.2	7.91 gal/sk				
05/21/2017	05:34:29	500	7.8	13.48	134.3					

Well			Field		Job Start		Customer		Job Number	
BUTTERBALL 40N-34HZ 0631713693			Wattenberg		May/21/2017		ANADARKO PETROLEUM COMPANY		CSS9-00414	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
05/21/2017	05:37:49	491	7.9	13.53	160.5					
05/21/2017	05:39:29	529	8.2	13.53	173.9					
05/21/2017	05:41:09	548	8.2	13.60	187.5					
05/21/2017	05:42:49	512	8.2	13.55	201.2					
05/21/2017	05:44:29	543	8.2	13.59	214.9					
05/21/2017	05:46:09	564	8.2	13.60	228.6					
05/21/2017	05:47:49	580	8.2	13.56	242.4					
05/21/2017	05:49:29	543	8.2	13.60	256.1					
05/21/2017	05:51:09	529	8.2	13.56	269.8					
05/21/2017	05:52:49	533	8.2	13.56	283.5					
05/21/2017	05:54:29	576	8.2	13.59	297.2					
05/21/2017	05:56:09	505	8.3	13.59	310.9					
05/21/2017	05:56:48	49	1.0	13.83	316.0	End Tail Slurry: 316 bbl				
05/21/2017	05:57:49	42	0.0	13.67	316.0					
05/21/2017	05:57:55	43	0.0	13.67	316.0	Flush Surface Lines				
05/21/2017	05:59:29	47	0.0	13.44	316.0					
05/21/2017	06:01:09	45	0.0	13.51	316.0					
05/21/2017	06:02:49	88	1.0	9.19	316.1					
05/21/2017	06:04:29	90	2.6	9.35	319.4					
05/21/2017	06:06:09	127	3.6	8.56	324.6					
05/21/2017	06:07:49	107	3.5	8.73	331.1					
05/21/2017	06:09:29	125	3.7	8.22	337.3					
05/21/2017	06:11:09	88	2.8	8.49	341.9					
05/21/2017	06:12:49	32	0.0	8.49	343.9					
05/21/2017	06:13:26	31	0.0	8.49	343.9	Drop Top Plug				
05/21/2017	06:14:04	75	2.2	8.92	344.1	Start Displacement				
05/21/2017	06:14:29	114	4.8	8.59	345.4					
05/21/2017	06:16:09	224	7.8	8.48	354.4					
05/21/2017	06:17:49	285	7.8	8.47	367.1					
05/21/2017	06:19:29	218	7.9	8.46	380.2					
05/21/2017	06:21:09	219	7.9	8.47	393.4					
05/21/2017	06:22:49	686	7.8	8.46	406.5					
05/21/2017	06:24:29	832	7.9	8.46	419.6					
05/21/2017	06:26:09	946	7.8	8.46	432.7					
05/21/2017	06:27:49	1148	7.8	8.46	445.7					
05/21/2017	06:29:29	1341	7.8	8.46	458.8					
05/21/2017	06:31:09	1493	7.8	8.46	471.8					
05/21/2017	06:32:49	1709	7.8	8.46	484.8					
05/21/2017	06:34:29	1889	7.8	8.46	497.8					
05/21/2017	06:36:09	2058	7.8	8.46	510.8					
05/21/2017	06:37:49	2180	7.8	8.46	523.8					
05/21/2017	06:39:29	2252	7.8	8.46	536.7					
05/21/2017	06:41:09	2315	7.8	8.46	549.7					
05/21/2017	06:42:49	2360	7.8	8.46	562.7					
05/21/2017	06:44:29	2411	7.8	8.46	575.6					
05/21/2017	06:46:09	2485	7.7	8.46	588.6					
05/21/2017	06:47:49	2516	7.8	8.46	601.5					
05/21/2017	06:49:29	2562	7.8	8.46	614.5					
05/21/2017	06:51:09	2636	7.8	8.46	627.4					
05/21/2017	06:52:49	2653	7.8	8.46	640.3					
05/21/2017	06:54:29	2684	7.8	8.46	653.3					
05/21/2017	06:56:09	2743	7.8	8.46	666.2					
05/21/2017	06:57:49	2750	7.8	8.46	679.1					
05/21/2017	06:59:29	2786	7.8	8.46	692.0					

Well BUTTERBALL 40N-34HZ 0631713693			Field Wattenberg		Job Start May/21/2017	Customer ANADARKO PETROLEUM COMPANY		Job Number CSS9-00414
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
05/21/2017	07:02:49	1960	2.0	8.46	702.6			
05/21/2017	07:04:29	1996	2.0	8.46	706.0			
05/21/2017	07:06:09	2535	0.0	8.46	708.8			
05/21/2017	07:07:13	2560	0.0	8.46	708.8	Bump Top Plug		
05/21/2017	07:07:14	2555	0.0	8.46	708.8	End Displacement Vol: 357 bbl		
05/21/2017	07:07:33	2561	0.0	8.46	708.8	Pressure Test Casing		
05/21/2017	07:07:49	2537	0.0	8.46	708.8			
05/21/2017	07:08:07	2545	0.0	8.46	708.8	5 bbl Cement to Surface		
05/21/2017	07:09:29	3057	0.2	8.46	709.3			
05/21/2017	07:11:09	3054	0.0	8.46	709.3			
05/21/2017	07:12:49	3100	0.0	8.46	709.3			
05/21/2017	07:14:29	3130	0.0	8.46	709.3			
05/21/2017	07:16:09	3165	0.0	8.46	709.3			
05/21/2017	07:17:49	3196	0.0	8.46	709.3			
05/21/2017	07:19:29	3227	0.0	8.46	709.3			
05/21/2017	07:21:09	3258	0.0	8.46	709.3			
05/21/2017	07:22:49	3289	0.0	8.46	709.3			
05/21/2017	07:24:29	3319	0.0	8.46	709.3			
05/21/2017	07:25:01	3328	0.0	8.46	709.3	Bleed Off Check Floats		
05/21/2017	07:26:09	1199	0.0	8.46	709.3			
05/21/2017	07:26:42	20	0.0	8.46	709.3	Floats Held 4 bbl Returned		

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl							
Slurry 6.3	N2	Mud	Maximum Rate 8.3	Total Slurry 496.0	Mud 0.0	Spacer 90.0	N2					
Treating Pressure Summary, psi					Breakdown Fluid							
Maximum 4976	Final 20	Average 1018	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal					
Avg. N2 Percent %	Designed Slurry Volume 483.0 bbl	Displacement 357.0 bbl	Mix Water Temp 55 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 5.0 bbl						
				Washed Thru Perfs <input type="checkbox"/>		To ft						
Customer or Authorized Representative Jeremy Skates			Schlumberger Supervisor Billy Barg			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>					
						-	-					