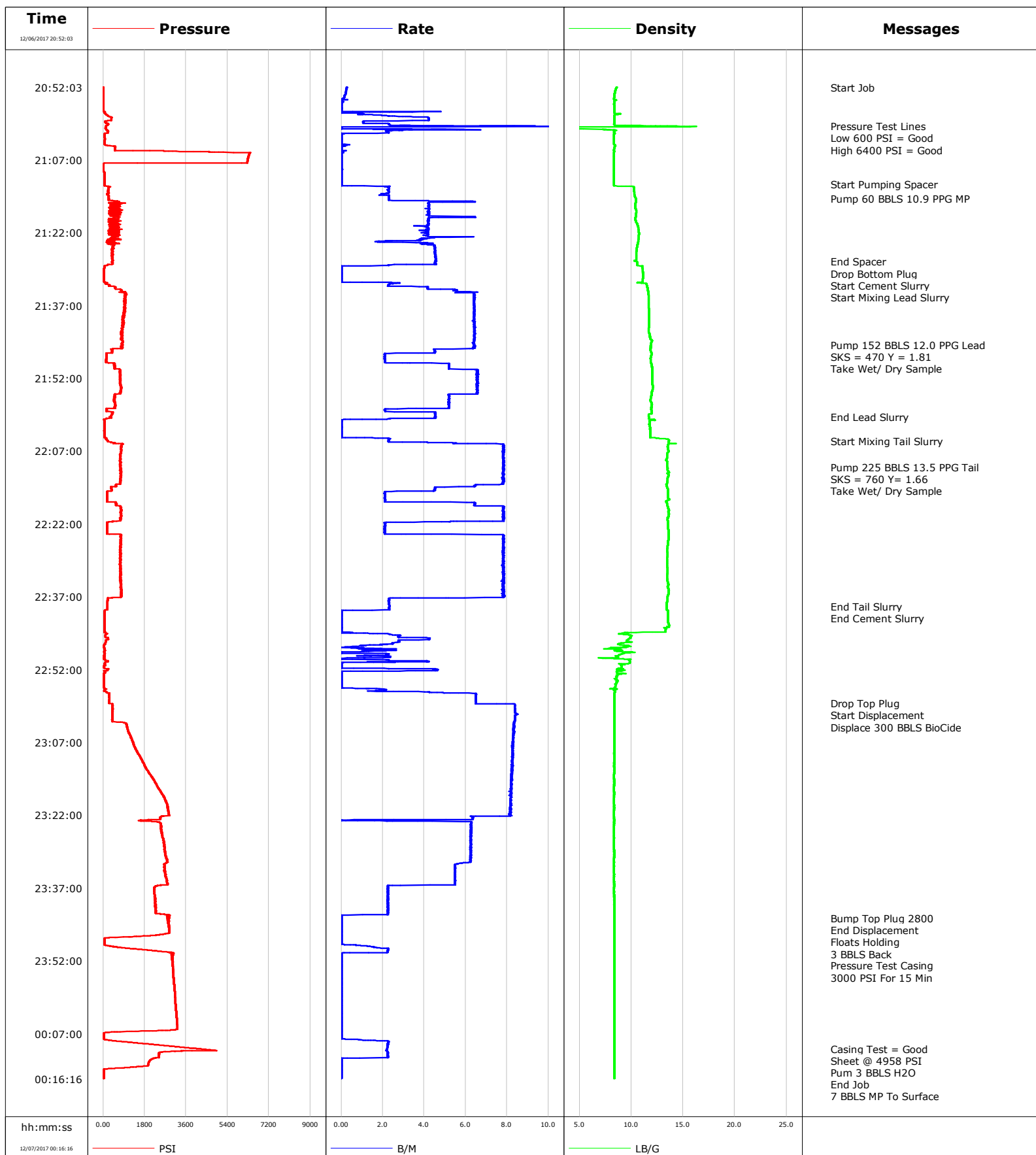


Well Burough 28N-17HZ
Field Wattenberg
Engineer Conley Jensen/ Chad Perry
Country United States

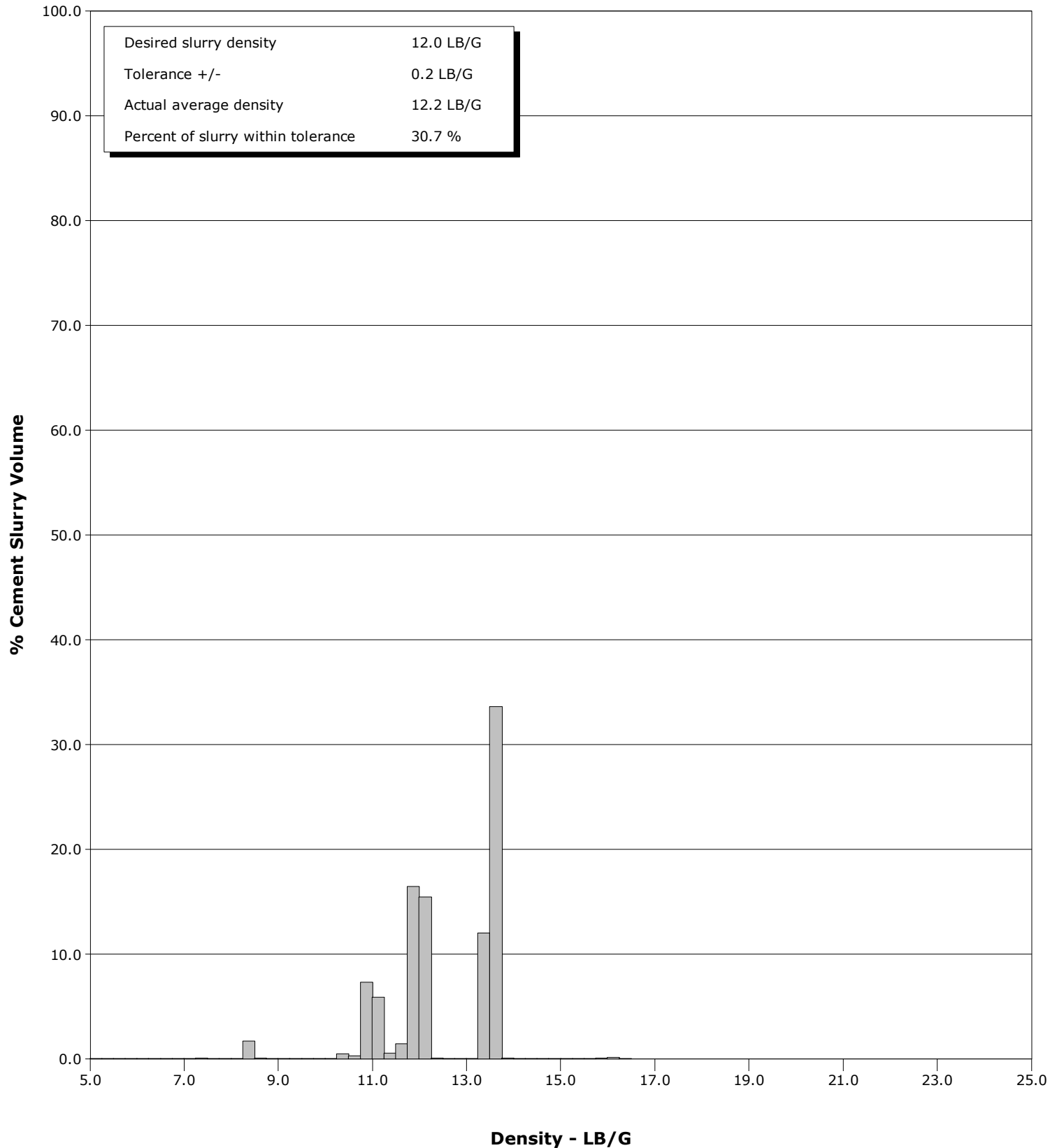
Client Anadarko
SIR No. 26052821
Job Type 5.5" Monobore
Job Date 12-06-2017



Well Burough
Field Wattenberg
Engineer Conley Jensen/ Chad Perry
Country United States

Client Anadarko
SIR No. 26052821
Job Type 5.5" Monobore
Job Date 12-06-2017

Cement Slurry - 12/06/2017 20:52:03 to 12/06/2017 22:59:16



Cementing Service Report

				Customer Anadarko			Job Number 26052821				
Well Borough 28N-17HZ			Location (legal)			Schlumberger Location CWY			Job Start Dec/06/2017		
Field Wattenberg		Formation Name/Type Shale		Deviation deg		Bit Size 7.9 in		Well MD 12916.0 ft		Well TVD 7338.0 ft	
County		State/Province Colorado		BHP psi		BHST 229 degF		BHCT 209 degF		Pore Press. Gradient lb/gal	
Well Master 0631732459		API/UWI 05123452290000									
Rig Name Precision 564	Drilled For Oil		Service Via Land		Casing/Liner						
						Depth, ft		Size, in		Weight, lb/ft	
Offshore Zone		Well Class New		Well Type Development		1859.0		9.6		36.0	
						12916.0		5.5		17.0	
Drilling Fluid Type		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
Service Line Cementing		Job Type 5.5" Monobore									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
						ft		ft			
						ft		ft			
						Treat Down Casing		Displacement 300.0 bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 300.0 bbl		Annular Vol. 430.0 bbl	
										Openhole Vol. 762.0 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 12916.0 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 Dec/06/2017 18:30		Arrived on Location Dec/06/2017 18:00		Leave Location Dec/07/2017 02:00		Collar Type Float			Tail Pipe Depth ft		
						Collar Depth 12908.0 ft			Sqz. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
12/06/2017	20:52:03	6	0.3	8.61	0.4	Started Acquisition					
12/06/2017	20:52:08	5	0.3	8.59	0.5	Start Job					
12/06/2017	20:53:33	7	0.2	8.38	0.8						
12/06/2017	20:56:33	6	0.0	8.35	0.0						
12/06/2017	20:58:03	232	2.6	8.35	1.4						
12/06/2017	20:59:33	206	2.1	8.35	5.9						
12/06/2017	21:00:00	154	5.4	11.38	6.9	Pressure Test Lines					
12/06/2017	21:01:03	202	2.3	8.34	10.8						
12/06/2017	21:02:33	65	0.0	8.35	12.0						
12/06/2017	21:04:03	187	0.1	8.41	0.0						
12/06/2017	21:05:00	507	0.0	8.34	0.0	High 6400 PSI = Good					
12/06/2017	21:05:33	6385	0.1	8.35	0.1						
12/06/2017	21:07:03	6273	0.0	8.35	0.1						
12/06/2017	21:08:33	15	0.0	8.35	0.1						
12/06/2017	21:10:03	44	0.0	8.35	0.1						
12/06/2017	21:11:33	52	0.0	8.35	0.1						
12/06/2017	21:12:00	54	0.0	8.34	0.1	Start Pumping Spacer					
12/06/2017	21:13:03	223	2.3	10.24	1.5						
12/06/2017	21:14:33	231	2.3	10.34	4.9						
12/06/2017	21:15:00	240	2.3	10.42	5.9	Pump 60 BBLS 10.9 PPG MP					
12/06/2017	21:16:03	539	4.2	10.39	10.0						

Well			Field		Job Start		Customer		Job Number	
Burough 28N-17HZ			Wattenberg		Dec/06/2017		Anadarko		26052821	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/06/2017	21:19:03	439	4.2	10.40	23.3					
12/06/2017	21:20:33	452	4.2	10.61	29.6					
12/06/2017	21:22:03	241	4.1	10.74	35.8					
12/06/2017	21:23:33	191	3.9	10.68	42.1					
12/06/2017	21:25:03	443	4.5	10.55	47.7					
12/06/2017	21:26:33	453	4.5	10.46	54.5					
12/06/2017	21:28:00	402	4.6	10.54	61.1	End Spacer				
12/06/2017	21:28:03	389	4.5	10.57	61.3					
12/06/2017	21:29:00	56	0.0	11.02	64.4	Drop Bottom Plug				
12/06/2017	21:29:33	41	0.0	11.10	64.4					
12/06/2017	21:31:03	36	0.0	11.13	64.4					
12/06/2017	21:32:00	36	0.0	11.08	64.4	Start Cement Slurry				
12/06/2017	21:32:33	104	2.5	11.46	65.1					
12/06/2017	21:34:03	824	5.5	11.61	70.8					
12/06/2017	21:35:33	915	6.4	11.67	80.2					
12/06/2017	21:37:03	950	6.4	11.68	89.8					
12/06/2017	21:38:33	915	6.4	11.74	99.5					
12/06/2017	21:40:03	873	6.4	11.73	109.1					
12/06/2017	21:41:33	842	6.5	11.70	118.7					
12/06/2017	21:43:03	830	6.4	11.77	128.3					
12/06/2017	21:44:33	843	6.4	11.95	137.9					
12/06/2017	21:45:03	845	6.4	11.90	141.2	Pump 152 BBLs 12.0 PPG Lead				
12/06/2017	21:45:52	774	6.4	11.89	146.4	SKS = 470 Y = 1.81				
12/06/2017	21:46:01	394	4.6	11.87	147.3	Take Wet/ Dry Sample				
12/06/2017	21:46:03	335	4.5	11.87	147.4					
12/06/2017	21:47:33	143	2.1	11.89	152.5					
12/06/2017	21:49:03	498	5.2	11.94	156.2					
12/06/2017	21:50:33	723	6.6	12.01	164.5					
12/06/2017	21:52:03	724	6.6	11.99	174.4					
12/06/2017	21:53:33	753	6.6	12.06	184.2					
12/06/2017	21:55:03	749	6.6	11.95	194.1					
12/06/2017	21:56:33	470	5.2	11.82	202.2					
12/06/2017	21:58:03	540	5.2	11.93	209.9					
12/06/2017	21:59:33	378	4.5	11.69	215.3					
12/06/2017	22:00:00	337	4.5	11.70	217.4	End Lead Slurry				
12/06/2017	22:01:03	44	0.0	11.76	219.1					
12/06/2017	22:02:33	44	0.0	11.81	219.1					
12/06/2017	22:04:03	45	0.0	11.83	219.1					
12/06/2017	22:05:00	207	2.3	13.60	220.7	Start Mixing Tail Slurry				
12/06/2017	22:05:33	858	7.8	13.59	223.2					
12/06/2017	22:07:03	800	7.8	13.59	234.9					
12/06/2017	22:08:33	777	7.8	13.43	246.6					
12/06/2017	22:10:03	770	7.8	13.45	258.4					
12/06/2017	22:10:15	743	7.8	13.46	260.0	Pump 225 BBLs 13.5 PPG Tail				
12/06/2017	22:10:27	754	7.8	13.49	261.5	SKS = 760 Y= 1.66				
12/06/2017	22:10:42	778	7.8	13.50	263.5	Take Wet/ Dry Sample				
12/06/2017	22:11:33	789	7.8	13.48	270.1					
12/06/2017	22:13:03	744	7.8	13.48	281.8					
12/06/2017	22:14:33	354	4.6	13.45	292.4					
12/06/2017	22:16:03	169	2.1	13.56	297.3					
12/06/2017	22:17:33	562	6.1	13.37	300.6					
12/06/2017	22:19:03	784	7.8	13.60	311.3					
12/06/2017	22:20:33	779	7.8	13.58	323.0					
12/06/2017	22:22:03	191	2.1	13.53	332.0					

Well			Field	Job Start		Customer	Job Number	
Burough 28N-17HZ			Wattenberg		Dec/06/2017		Anadarko	26052821
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
12/06/2017	22:25:03	756	7.8	13.59	343.4			
12/06/2017	22:26:33	772	7.8	13.51	355.1			
12/06/2017	22:28:03	749	7.8	13.48	366.9			
12/06/2017	22:29:33	728	7.8	13.46	378.6			
12/06/2017	22:31:03	749	7.8	13.48	390.3			
12/06/2017	22:32:33	732	7.8	13.44	402.0			
12/06/2017	22:34:03	771	7.8	13.53	413.8			
12/06/2017	22:35:33	807	7.8	13.59	425.5			
12/06/2017	22:37:03	759	7.8	13.50	437.2			
12/06/2017	22:38:33	187	2.3	13.41	441.7			
12/06/2017	22:39:00	186	2.3	13.41	442.8	End Tail Slurry		
12/06/2017	22:40:03	64	0.0	13.55	444.6			
12/06/2017	22:41:33	61	0.0	13.56	444.6			
12/06/2017	22:43:03	62	0.0	13.66	444.6			
12/06/2017	22:44:33	127	1.3	9.16	444.7			
12/06/2017	22:46:03	114	2.8	9.55	449.3			
12/06/2017	22:47:33	43	0.5	8.92	452.0			
12/06/2017	22:49:03	62	2.2	8.79	454.0			
12/06/2017	22:50:33	97	0.1	9.86	456.7			
12/06/2017	22:52:03	215	4.7	8.63	457.9			
12/06/2017	22:53:33	40	0.0	8.60	459.0			
12/06/2017	22:55:03	40	0.0	8.51	459.0			
12/06/2017	22:56:33	131	2.8	8.40	460.3			
12/06/2017	22:58:03	272	6.5	8.38	469.4			
12/06/2017	22:59:00	255	6.5	8.36	475.6	Drop Top Plug		
12/06/2017	22:59:33	405	8.4	8.36	480.1			
12/06/2017	23:00:08	405	8.4	8.36	485.0	Displace 300 BBLS BioCide		
12/06/2017	23:01:03	402	8.4	8.36	492.6			
12/06/2017	23:02:33	393	8.4	8.36	505.2			
12/06/2017	23:04:03	1049	8.3	8.35	517.7			
12/06/2017	23:05:33	1181	8.3	8.35	530.2			
12/06/2017	23:07:03	1299	8.3	8.35	542.6			
12/06/2017	23:08:33	1437	8.3	8.35	555.0			
12/06/2017	23:10:03	1609	8.3	8.35	567.4			
12/06/2017	23:11:33	1776	8.2	8.35	579.8			
12/06/2017	23:13:03	1950	8.2	8.35	592.2			
12/06/2017	23:14:33	2182	8.2	8.35	604.5			
12/06/2017	23:16:03	2354	8.2	8.35	616.8			
12/06/2017	23:17:33	2557	8.2	8.35	629.1			
12/06/2017	23:19:03	2718	8.2	8.35	641.4			
12/06/2017	23:20:33	2815	8.2	8.35	653.6			
12/06/2017	23:22:03	2873	8.2	8.35	665.8			
12/06/2017	23:23:33	2473	6.3	8.35	673.9			
12/06/2017	23:25:03	2521	6.3	8.35	683.3			
12/06/2017	23:26:33	2576	6.3	8.35	692.6			
12/06/2017	23:28:03	2655	6.3	8.35	702.0			
12/06/2017	23:29:33	2680	6.2	8.35	711.4			
12/06/2017	23:31:03	2790	6.2	8.35	720.7			
12/06/2017	23:32:33	2669	5.5	8.35	729.6			
12/06/2017	23:34:03	2676	5.5	8.35	737.8			
12/06/2017	23:37:03	2208	2.3	8.35	752.2			
12/06/2017	23:38:33	2256	2.2	8.35	755.6			
12/06/2017	23:40:03	2267	2.3	8.35	759.0			
12/06/2017	23:41:33	2283	2.2	8.35	762.3			

Well			Field		Job Start		Customer		Job Number	
Burough 28N-17HZ			Wattenberg		Dec/06/2017		Anadarko		26052821	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/06/2017	23:43:10	2787	0.0	8.35	764.6	Bump Top Plug 2800				
12/06/2017	23:44:33	2844	0.0	8.36	764.6					
12/06/2017	23:46:03	2872	0.0	8.36	764.6					
12/06/2017	23:47:33	47	0.0	8.36	764.6					
12/06/2017	23:47:35	47	0.0	8.36	764.6	Floats Holding				
12/06/2017	23:49:03	467	1.4	8.36	764.9					
12/06/2017	23:50:31	2998	0.0	8.36	767.6	Pressure Test Casing				
12/06/2017	23:50:33	3064	0.0	8.36	767.6	3000 PSI For 15 Min				
12/06/2017	23:52:03	3011	0.0	8.36	767.6					
12/06/2017	23:53:33	3024	0.0	8.36	767.6					
12/06/2017	23:55:03	3052	0.0	8.36	767.6					
12/06/2017	23:56:33	3073	0.0	8.36	767.6					
12/06/2017	23:58:03	3099	0.0	8.36	767.6					
12/06/2017	23:59:33	3123	0.0	8.36	767.6					
12/07/2017	00:01:03	3145	0.0	8.36	767.6					
12/07/2017	00:02:33	3168	0.0	8.36	767.6					
12/07/2017	00:04:03	3192	0.0	8.36	767.6					
12/07/2017	00:05:33	3215	0.0	8.36	767.6					
12/07/2017	00:07:03	36	0.0	8.36	767.6					
12/07/2017	00:08:33	646	2.3	8.36	768.2					
12/07/2017	00:10:03	4027	2.2	8.36	771.5					
12/07/2017	00:10:06	4126	2.2	8.36	771.6	Casing Test = Good				
12/07/2017	00:10:46	2558	2.2	8.35	773.1	Sheet @ 4958 PSI				
12/07/2017	00:10:56	2434	2.2	8.36	773.5	Pum 3 BBLS H2O				
12/07/2017	00:11:33	2406	2.2	8.36	774.9					
12/07/2017	00:13:03	1972	0.0	8.36	775.9					
12/07/2017	00:14:33	33	0.0	8.36	775.9					
12/07/2017	00:15:53	34	0.0	8.36	775.9	End Job				
12/07/2017	00:15:54	34	0.0	8.36	775.9	7 BBLS MP To Surface				

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 5.1	N2	Mud	Maximum Rate 24.6		Total Slurry 376.0	Mud 0.0	Spacer 60.0	N2			
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 6385	Final 34	Average 1149	Bump Plug to 2800	Breakdown	Type	Volume bbl		Density lb/gal			
Avg. N2 Percent %	Designed Slurry Volume 376.0 bbl		Displacement 300.0 bbl	Mix Water Temp 55 degF	Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl				
					Washed Thru Perfs <input type="checkbox"/>		To ft				
Customer or Authorized Representative Joe Wallen			Schlumberger Supervisor Conley Jensen/ Chad Perry			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>				
						-	-				