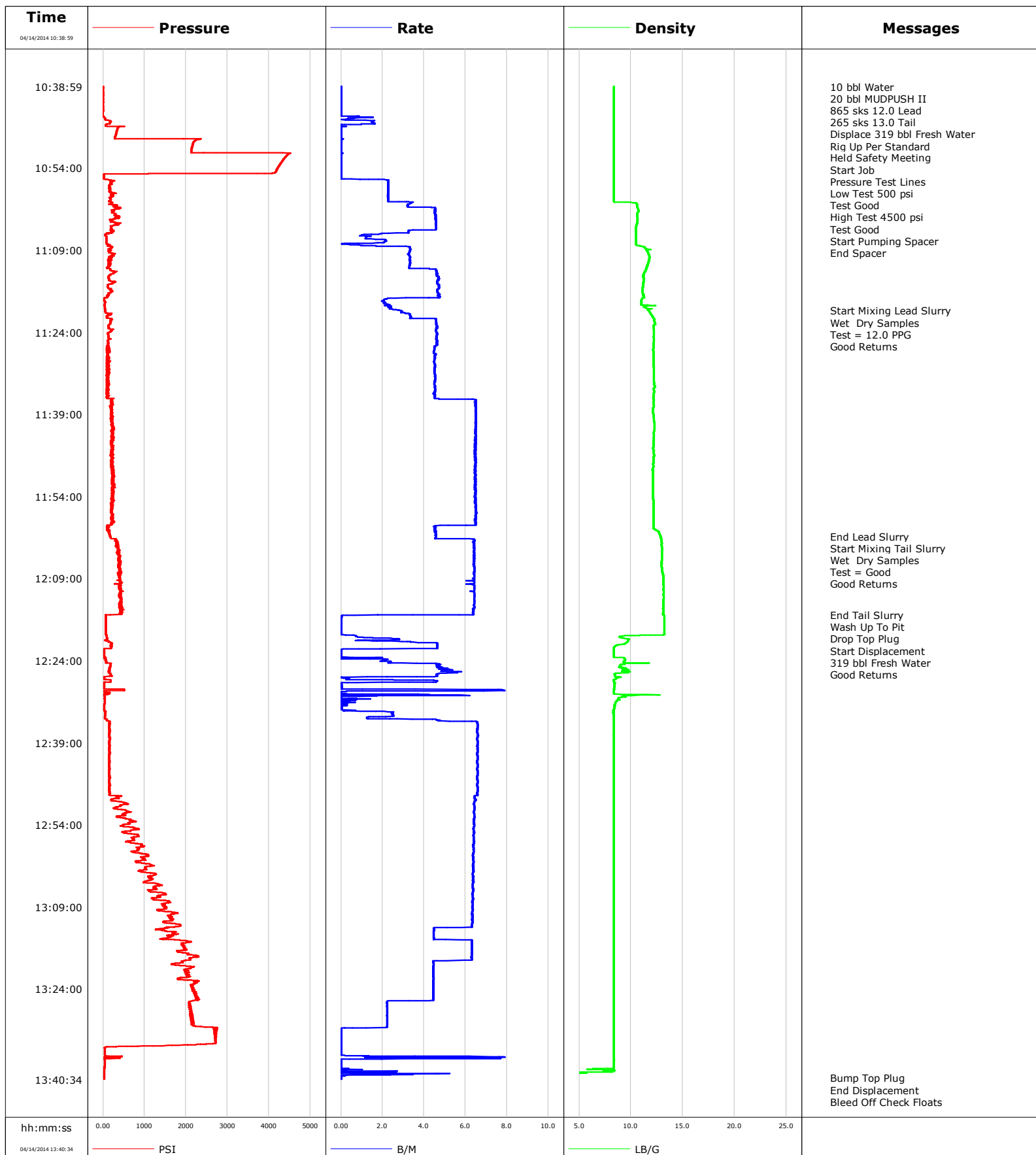


Well Arikaree Creek SWD #1
Field Arikaree Creek
Engineer Jordan Moreland/ Conley Jensen
Country United States

Client Nighthawk Production
SIR No. C567-00672
Job Type 7" Production
Job Date 04-14-2014

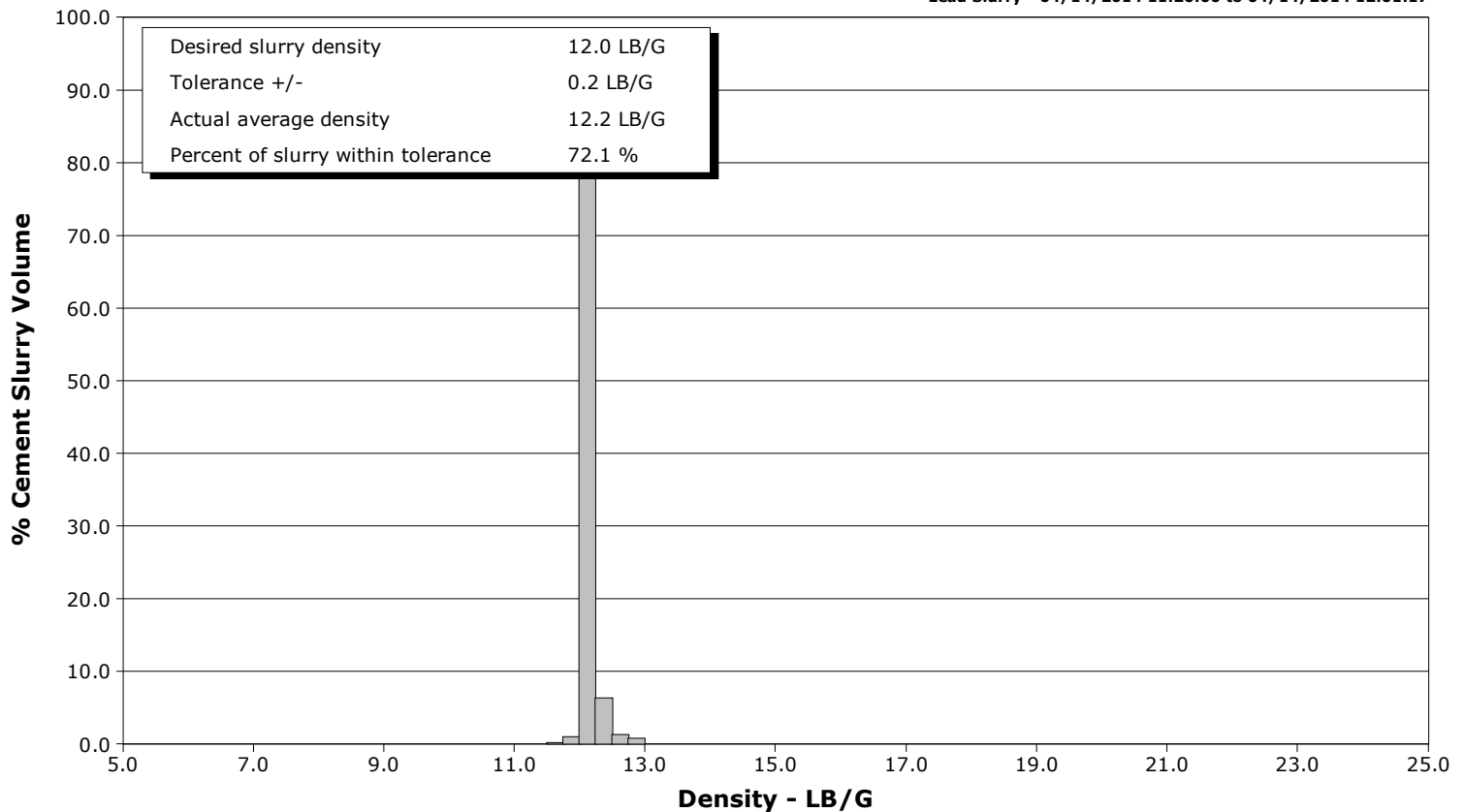


Schlumberger Cementing Qa/Qc Density Report

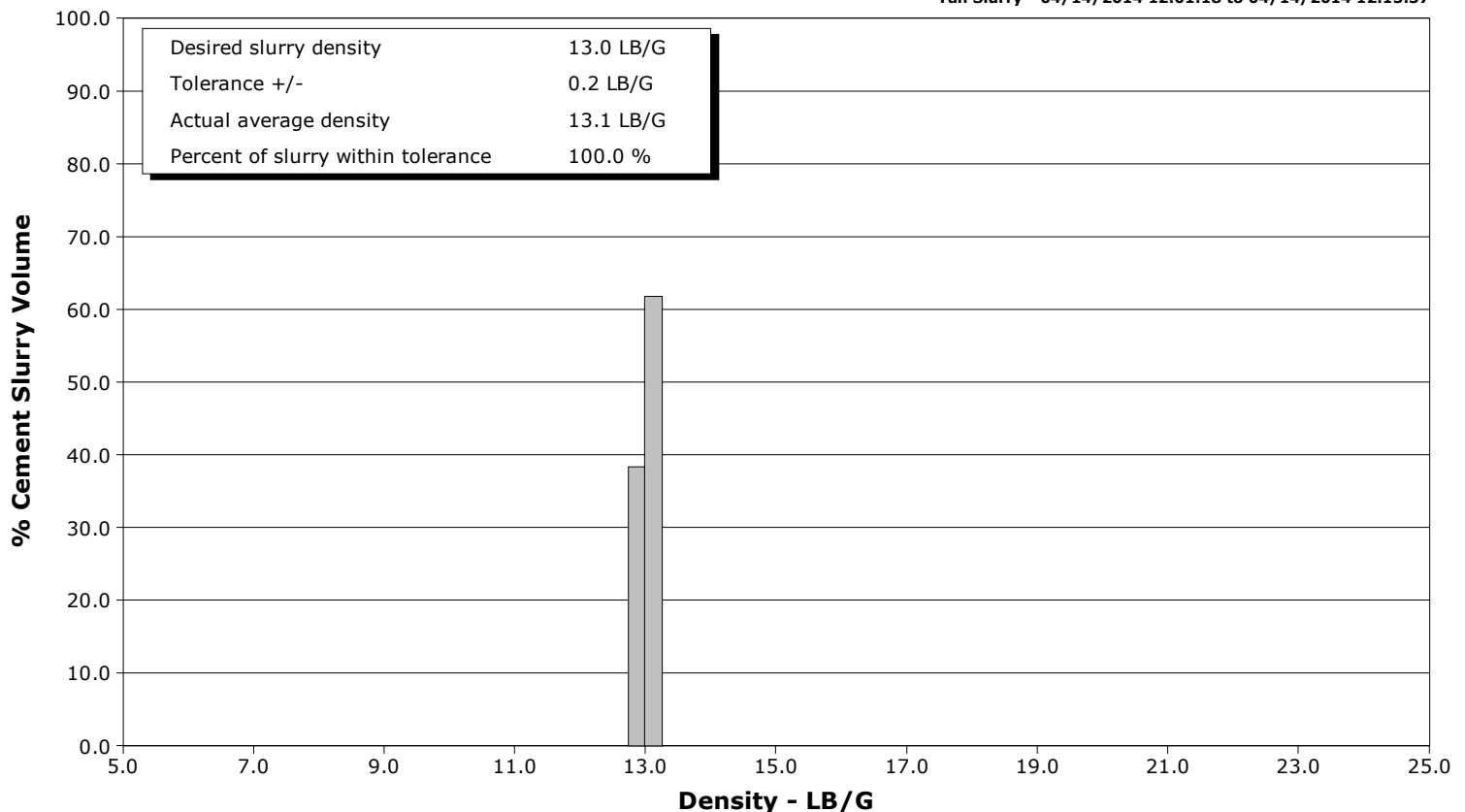
Well Arikaree Creek SWD #1
Field Arikaree Creek
Engineer Jordan Moreland/ Conley Jensen
Country United States

Client Nighthawk Production
SIR No. C567-00672
Job Type 7" Production
Job Date 04-14-2014

Lead Slurry - 04/14/2014 11:20:00 to 04/14/2014 12:01:17



Tail Slurry - 04/14/2014 12:01:18 to 04/14/2014 12:15:37



Cementing Service Report

				Customer Nighthawk Production			Job Number C567-00672				
Well Arikaree Creek SWD #1			Location (legal)			Schlumberger Location CWY			Job Start Apr/14/2014		
Field Arikaree Creek		Formation Name/Type		Deviation		Bit Size 8.8 in		Well MD		Well TVD	
County Lincoln		State/Province Colorado		BHP		BHST 188 degF		BHCT 156 degF		Pore Press. Gradient	
Well Master 0631490218		API/UWI									
Rig Name Xtreme 11		Drilled For Gas		Service Via Land		Casing/Liner					
						Depth, ft		Size, in		Weight, lb/ft	
Offshore Zone		Well Class New		Well Type Development		374.0		9.630		36.0	
						8421.0		7.000		26.0	
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe					
						Depth,		Size,		Weight,	
Service Line Cementing		Job Type 7" Production									
Max. Allowed Tub. Press 4500 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole					
						Top,		Bottom,		No. of Shots	
										Total Interval	
										Diameter	
						Treat Down Casing		Displacement 319.0 bbl		Packer Type	
						Tubing Vol.		Casing Vol. 322.0 bbl		Annular Vol. 227.0 bbl	
										Openhole Vol. 550.0 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 5689 psi				Shoe Type Float				Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input checked="" type="checkbox"/>		Shoe Depth 8421.0 ft				Tool Type			
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth	
Cement Head Type Single				Stage Tool Depth				Tail Pipe Size			
Job Scheduled For Apr/14/2014		Arrived on Location Apr/14/2014		Leave Location Apr/14/2014		Collar Type Float				Tail Pipe Depth	
						Collar Depth 8327.0 ft				Sqz. Total Vol.	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
04/14/2014	09:32:38					Started Acquisition					
04/14/2014	10:38:59	-0	0.0	8.36	0.0						
04/14/2014	10:39:01					10 bbl Water					
04/14/2014	10:39:01					20 bbl MUDPUSH II					
04/14/2014	10:39:01					865 sks 12.0 Lead					
04/14/2014	10:39:01					265 sks 13.0 Tail					
04/14/2014	10:39:01					Displace 319 bbl Fresh Water					
04/14/2014	10:39:01					Rig Up Per Standard					
04/14/2014	10:39:01					Held Safety Meeting					
04/14/2014	10:39:01	0	0.0	8.36	0.0						
04/14/2014	10:39:03					Start Job					
04/14/2014	10:39:03	-0	0.0	8.36	0.0						
04/14/2014	10:39:04					Pressure Test Lines					
04/14/2014	10:39:04	-0	0.0	8.36	0.0						
04/14/2014	10:39:06					Low Test 500 psi					
04/14/2014	10:39:06					Test Good					
04/14/2014	10:39:06					High Test 4500 psi					
04/14/2014	10:39:06					Test Good					
04/14/2014	10:39:06	-0	0.0	8.36	0.0						
04/14/2014	10:40:38	-0	0.0	8.36	0.0						
04/14/2014	10:42:38	-0	0.0	8.36	0.0						

Well			Field		Job Start		Customer		Job Number	
Arikaree Creek SWD #1			Arikaree Creek		Apr/14/2014		Nighthawk Production		C567-00672	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
04/14/2014	10:46:38	358	0.0	8.35	1.7					
04/14/2014	10:48:38	1949	0.0	8.35	1.7					
04/14/2014	10:50:38	2134	0.0	8.35	1.7					
04/14/2014	10:52:38	4327	0.0	8.35	1.7					
04/14/2014	10:54:38	4159	0.0	8.36	1.7					
04/14/2014	10:56:38	209	2.3	8.35	3.1					
04/14/2014	10:58:38	219	2.3	8.35	7.6					
04/14/2014	11:00:38	227	3.2	10.57	12.7					
04/14/2014	11:02:38	335	4.6	10.59	21.1					
04/14/2014	11:04:38	189	4.6	10.51	30.3					
04/14/2014	11:04:50					Start Pumping Spacer				
04/14/2014	11:04:50	196	4.6	10.51	31.2					
04/14/2014	11:06:38	78	1.2	10.51	36.2					
04/14/2014	11:08:38	211	3.3	11.39	39.8					
04/14/2014	11:08:54					End Spacer				
04/14/2014	11:08:54	180	3.3	11.73	40.7					
04/14/2014	11:10:38	171	3.3	11.75	46.4					
04/14/2014	11:12:38	177	4.6	11.41	53.4					
04/14/2014	11:14:38	191	4.7	11.20	62.7					
04/14/2014	11:16:38	187	4.7	11.12	72.0					
04/14/2014	11:18:38	45	2.1	11.02	79.0					
04/14/2014	11:20:00					Start Mixing Lead Slurry				
04/14/2014	11:20:00					Wet Dry Samples				
04/14/2014	11:20:00					Test = 12.0 PPG				
04/14/2014	11:20:00					Good Returns				
04/14/2014	11:20:00	51	2.8	11.71	82.2					
04/14/2014	11:20:38	197	3.3	11.91	84.1					
04/14/2014	11:22:38	132	4.6	12.26	92.2					
04/14/2014	11:24:38	136	4.6	12.19	101.5					
04/14/2014	11:26:38	123	4.5	12.15	110.7					
04/14/2014	11:28:38	103	4.5	12.17	119.7					
04/14/2014	11:30:38	158	4.5	12.21	128.7					
04/14/2014	11:32:38	96	4.5	12.21	137.7					
04/14/2014	11:34:38	90	4.5	12.23	146.8					
04/14/2014	11:36:38	217	6.5	12.18	156.7					
04/14/2014	11:38:38	235	6.5	12.14	169.7					
04/14/2014	11:40:38	203	6.5	12.24	182.7					
04/14/2014	11:42:38	228	6.5	12.20	195.6					
04/14/2014	11:44:38	201	6.5	12.18	208.6					
04/14/2014	11:46:38	211	6.5	12.25	221.5					
04/14/2014	11:48:38	242	6.5	12.14	234.5					
04/14/2014	11:50:38	206	6.5	12.10	247.4					
04/14/2014	11:52:38	243	6.5	12.11	260.4					
04/14/2014	11:54:38	261	6.5	12.14	273.3					
04/14/2014	11:56:38	193	6.5	12.18	286.3					
04/14/2014	11:58:38	229	6.5	12.15	299.3					
04/14/2014	12:00:38	158	4.6	12.70	309.6					
04/14/2014	12:01:17					End Lead Slurry				
04/14/2014	12:01:17	179	4.6	12.86	312.6					
04/14/2014	12:01:18					Start Mixing Tail Slurry				
04/14/2014	12:01:18	179	4.6	12.86	312.7					
04/14/2014	12:01:20					Wet Dry Samples				
04/14/2014	12:01:20					Test = Good				
04/14/2014	12:01:20	172	4.6	12.85	312.8					

Well			Field		Job Start		Customer		Job Number	
Arikaree Creek SWD #1			Arikaree Creek		Apr/14/2014		Nighthawk Production		C567-00672	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
04/14/2014	12:01:21	178	4.6	12.85	312.9					
04/14/2014	12:02:38	326	6.4	12.95	320.4					
04/14/2014	12:04:38	400	6.4	12.99	333.2					
04/14/2014	12:06:38	359	6.4	12.94	346.1					
04/14/2014	12:08:38	396	6.4	13.12	358.9					
04/14/2014	12:10:38	420	6.4	13.16	371.7					
04/14/2014	12:12:38	433	6.4	13.16	384.5					
04/14/2014	12:14:38	494	6.4	13.10	397.4					
04/14/2014	12:15:37					End Tail Slurry				
04/14/2014	12:15:37	177	6.4	13.09	403.6					
04/14/2014	12:15:40					Wash Up To Pit				
04/14/2014	12:15:40	68	3.5	13.15	403.9					
04/14/2014	12:15:42					Drop Top Plug				
04/14/2014	12:15:42					Start Displacement				
04/14/2014	12:15:42	67	1.8	13.21	404.0					
04/14/2014	12:16:00					319 bbl Fresh Water				
04/14/2014	12:16:00					Good Returns				
04/14/2014	12:16:00	68	0.0	13.23	404.0					
04/14/2014	12:16:38	69	0.0	13.23	404.0					
04/14/2014	12:18:38	71	0.0	13.23	404.1					
04/14/2014	12:20:38	153	3.4	9.65	406.3					
04/14/2014	12:22:38	34	0.0	8.37	411.9					
04/14/2014	12:24:38	180	4.7	9.42	414.5					
04/14/2014	12:26:38	184	4.6	8.43	424.3					
04/14/2014	12:28:38	34	0.0	8.39	428.1					
04/14/2014	12:30:38	37	0.0	9.50	431.6					
04/14/2014	12:32:38	35	0.0	8.39	431.9					
04/14/2014	12:34:38	52	1.3	8.34	434.8					
04/14/2014	12:36:38	152	6.6	8.35	446.9					
04/14/2014	12:38:38	164	6.6	8.34	460.1					
04/14/2014	12:40:38	144	6.6	8.34	473.2					
04/14/2014	12:42:38	151	6.6	8.34	486.4					
04/14/2014	12:44:38	138	6.6	8.34	499.5					
04/14/2014	12:46:38	162	6.6	8.34	512.7					
04/14/2014	12:48:38	161	6.6	8.34	525.8					
04/14/2014	12:50:38	411	6.4	8.34	538.7					
04/14/2014	12:52:38	342	6.4	8.34	551.5					
04/14/2014	12:54:38	774	6.4	8.34	564.4					
04/14/2014	12:56:38	743	6.4	8.34	577.1					
04/14/2014	12:58:38	832	6.4	8.34	589.9					
04/14/2014	13:00:38	840	6.4	8.34	602.7					
04/14/2014	13:02:38	911	6.4	8.34	615.4					
04/14/2014	13:04:38	1031	6.4	8.34	628.2					
04/14/2014	13:06:38	1506	6.3	8.34	640.9					
04/14/2014	13:08:38	1483	6.3	8.34	653.6					
04/14/2014	13:10:38	1559	6.3	8.34	666.3					
04/14/2014	13:12:38	1801	6.3	8.34	678.9					
04/14/2014	13:14:38	1621	4.5	8.34	688.2					
04/14/2014	13:16:38	1962	6.3	8.34	700.0					
04/14/2014	13:18:38	2104	6.3	8.34	712.6					
04/14/2014	13:20:38	1962	4.4	8.34	722.0					
04/14/2014	13:22:38	2237	4.4	8.34	730.9					
04/14/2014	13:24:38	2228	4.4	8.34	739.7					
04/14/2014	13:26:38	2068	2.2	8.34	747.7					

Well			Field		Job Start	Customer	Job Number
Arikaree Creek SWD #1			Arikaree Creek		Apr/14/2014	Nighthawk Production	C567-00672
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
04/14/2014	13:30:38	2143	2.2	8.34	756.5		
04/14/2014	13:32:38	2693	0.0	8.34	757.7		
04/14/2014	13:34:38	259	0.0	8.34	757.7		
04/14/2014	13:36:38	142	1.9	8.34	759.5		
04/14/2014	13:38:38	35	0.0	8.34	760.9		
04/14/2014	13:40:21					Bump Top Plug	
04/14/2014	13:40:21	34	0.0	0.04	762.0		
04/14/2014	13:40:22					End Displacement	
04/14/2014	13:40:22	34	0.0	0.04	762.0		
04/14/2014	13:40:24					Bleed Off Check Floats	
04/14/2014	13:40:24					Floats Held	
04/14/2014	13:40:24					3 bbl Back	
04/14/2014	13:40:24					74 bbl Cement To Surface	
04/14/2014	13:40:24					Rig Down	
04/14/2014	13:40:24	34	0.0	0.04	762.0		
04/14/2014	13:40:25					End Job	
04/14/2014	13:40:25	34	0.0	0.04	762.0		

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected,			
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2
Treating Pressure Summary,					Breakdown Fluid			
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume		Density
Avg. N2 Percent		Designed Slurry Volume		Displacement	Mix Water Temp 52 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume
						Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative			Schlumberger Supervisor			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
Jim Weir			Jordan Moreland/ Conley Jensen			-		-