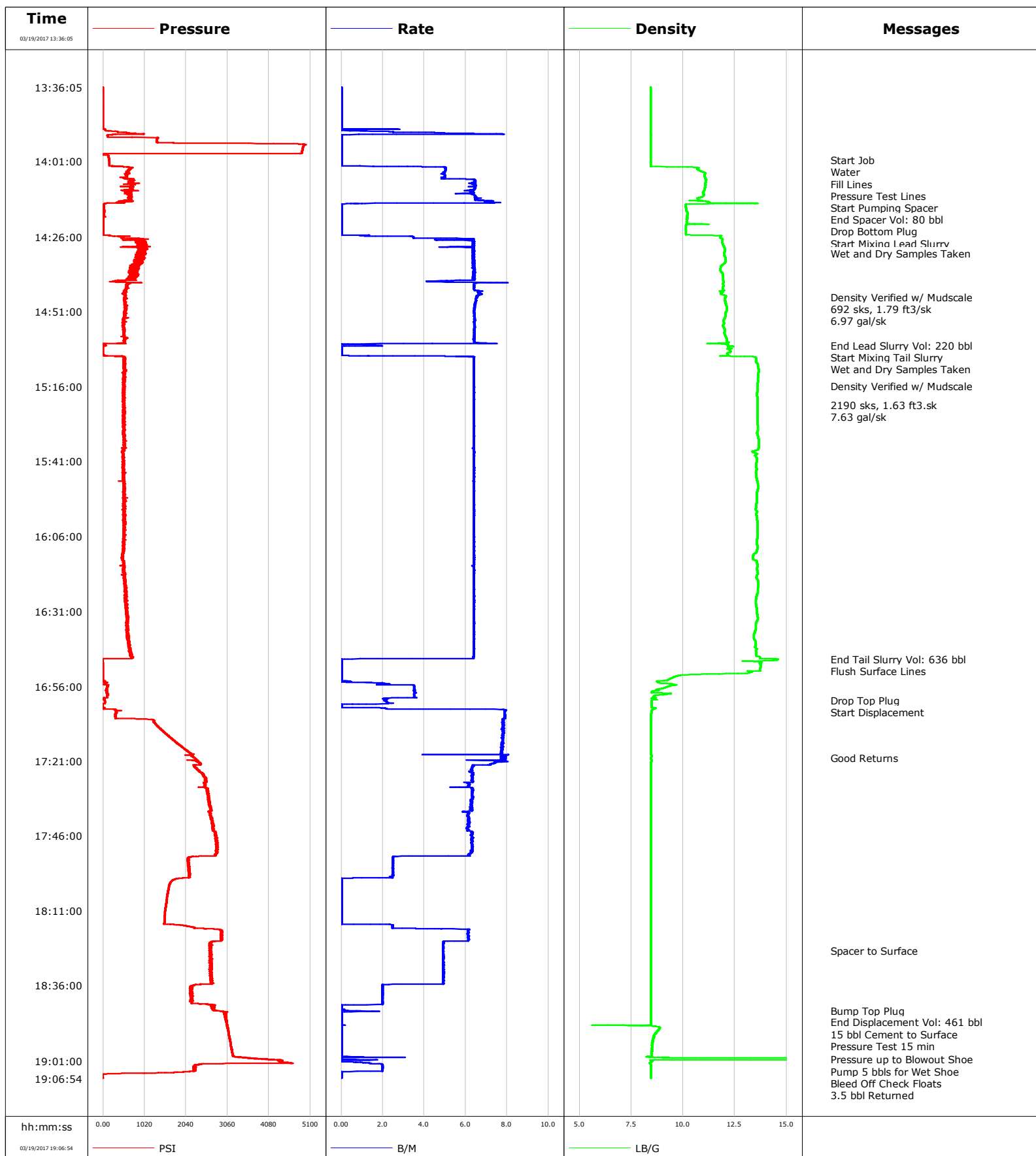


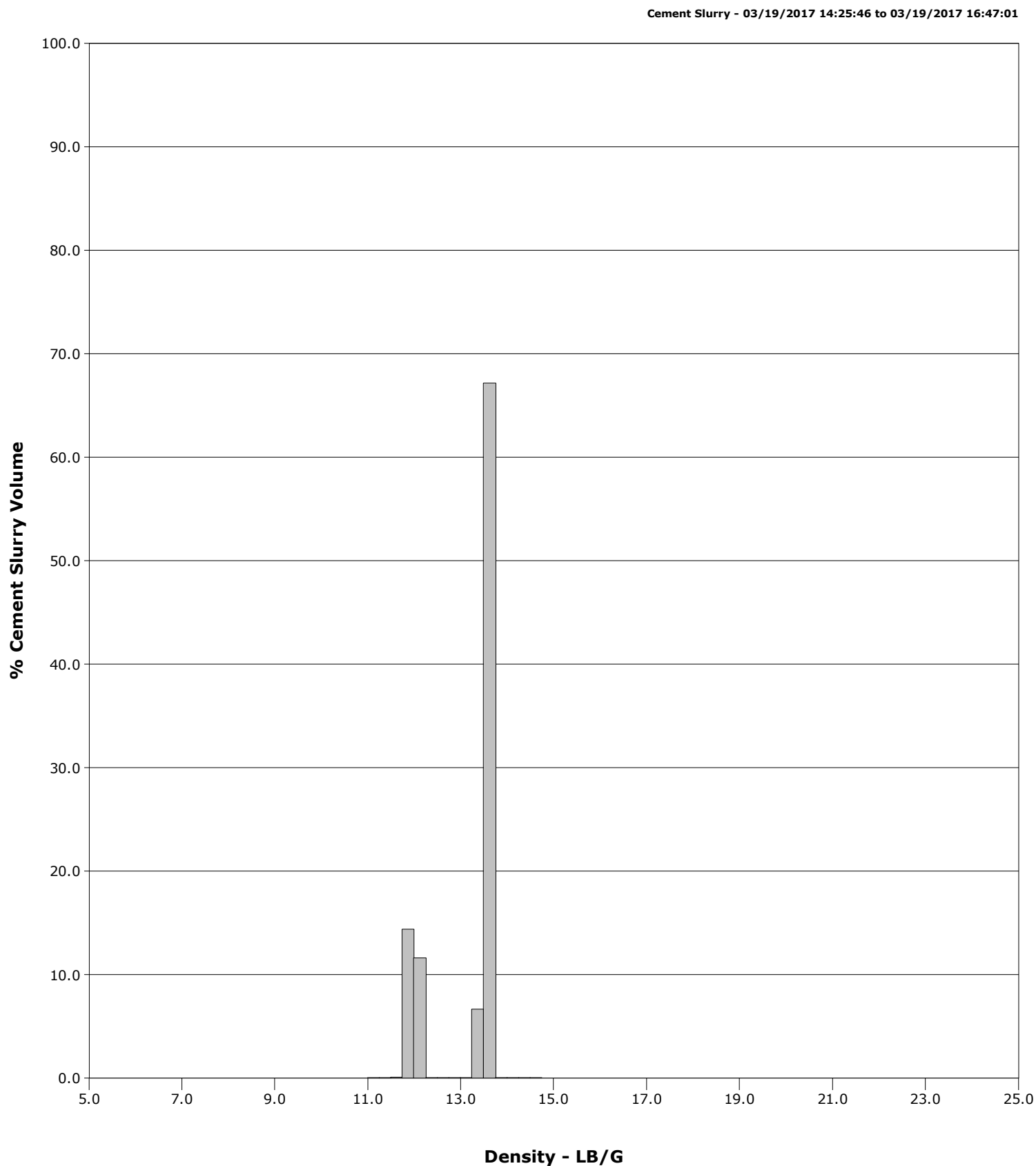
Well Keown State 19N2-34HZ
Field Wattenberg
Engineer Billy Barg
Country United States

Client ANADARKO PETROLEUM CORPORATION
SIR No. DPF0-00136
Job Type Production
Job Date 03-19-2017



Well Keown State 19N2-34HZ
Field Wattenberg
Engineer Billy Barg
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Client ANADARKO PETROLEUM CORPORATION
SIR No. DPF0-00136
Job Type Production
Job Date 03-19-2017



Cementing Service Report

				Customer ANADARKO PETROLEUM CORPORATION				Job Number DPF0-00136			
Well Keown State 19N2-34HZ 0631676686			Location (legal)			Schlumberger Location Cheyenne, WY			Job Start Mar/19/2017		
Field Wattenberg		Formation Name/Type		Deviation deg		Bit Size 8.5 in		Well MD 20870.0 ft		Well TVD 7191.1 ft	
County WELD		State/Province Colorado		BHP psi		BHST 225 degF		BHCT 225 degF		Pore Press. Gradient lb/gal	
Well Master 0631676686		API/UWI 05123429940000									
Rig Name Sidewinder #105		Drilled For Oil and Gas		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft	
										Grade	
										Thread	
Offshore Zone		Well Class New		Well Type Development		2346.0		9.6		36.0	
						20853.1		5.5		20.0	
										J-55	
										LTC	
										BTC	
Drilling Fluid Type OMB		Max. Density 9.70 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
										Weight, lb/ft	
										Grade	
										Thread	
Service Line Cementing		Job Type Production									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection 5.5" BTC		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
										No. of Shots	
										Total Interval ft	
										Diameter in	
						Treat Down		Displacement 461.0 bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. 868.0 bbl	
										Openhole Vol. 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 17554 psi				Shoe Type Float				Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 20853.1 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 Mar/19/2017 09:00		Arrived on Location Mar/19/2017 09:00		Leave Location Mar/19/2017 21:00		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 20798.7 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
03/19/2017	13:36:05	-6	0.0	8.44	0.0	Started Acquisition					
03/19/2017	13:37:45	-6	0.0	8.44	0.0						
03/19/2017	13:39:25	-6	0.0	8.44	0.0						
03/19/2017	13:41:05	-7	0.0	8.44	0.0						
03/19/2017	13:42:45	-7	0.0	8.44	0.0						
03/19/2017	13:44:25	-6	0.0	8.44	0.0						
03/19/2017	13:46:05	-6	0.0	8.44	0.0						
03/19/2017	13:47:45	-6	0.0	8.44	0.0						
03/19/2017	13:49:25	-7	0.0	8.44	0.0						
03/19/2017	13:51:05	360	2.5	8.42	0.7						
03/19/2017	13:52:45	110	0.0	8.44	5.1						
03/19/2017	13:54:25	1309	0.0	8.44	5.1						
03/19/2017	13:56:05	4918	0.0	8.44	5.1						
03/19/2017	13:57:45	4888	0.0	8.44	5.1						
03/19/2017	13:59:25	130	0.0	8.44	5.1						
03/19/2017	14:00:25	144	0.0	8.44	5.1	Start Job					
03/19/2017	14:00:32	146	0.0	8.44	5.1	Water					
03/19/2017	14:00:38	147	0.0	8.44	5.1	Fill Lines					
03/19/2017	14:00:41	147	0.0	8.44	5.1	Pressure Test Lines					
03/19/2017	14:01:05	149	0.0	8.44	5.1						
03/19/2017	14:01:11	149	0.0	8.44	5.1	Start Pumping Spacer					

Well			Field		Job Start	Customer	Job Number
Keown State 19N2-34HZ 0631676686			Wattenberg		Mar/19/2017	ANADARKO PETROLEUM CORPORATION	DPF0-00136
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
03/19/2017	14:04:25	622	5.0	10.96	14.3		
03/19/2017	14:06:05	572	5.0	11.05	22.6		
03/19/2017	14:07:45	732	6.4	11.10	32.3		
03/19/2017	14:09:25	689	6.4	11.06	43.0		
03/19/2017	14:11:05	700	6.3	10.99	53.6		
03/19/2017	14:12:45	650	6.5	10.91	64.2		
03/19/2017	14:14:25	484	7.2	11.20	75.3		
03/19/2017	14:14:47	498	7.0	11.72	77.9	End Spacer Vol: 80 bbl	
03/19/2017	14:14:48	536	5.9	12.04	78.1	Drop Bottom Plug	
03/19/2017	14:16:05	14	0.0	10.12	78.6		
03/19/2017	14:17:45	37	0.0	10.18	78.6		
03/19/2017	14:19:25	47	0.0	10.20	78.6		
03/19/2017	14:21:05	6	0.0	10.18	78.6		
03/19/2017	14:22:45	5	0.0	10.13	78.6		
03/19/2017	14:24:25	5	0.0	10.13	78.6		
03/19/2017	14:25:47	239	1.1	11.85	78.9	Start Mixing Lead Slurry	
03/19/2017	14:26:05	475	3.5	11.78	79.8		
03/19/2017	14:27:45	1036	6.4	11.87	88.5		
03/19/2017	14:29:25	617	5.1	11.97	99.0		
03/19/2017	14:31:05	1052	6.4	12.00	109.4		
03/19/2017	14:31:38	942	6.4	11.97	112.9	Wet and Dry Samples Taken	
03/19/2017	14:32:45	953	6.4	12.02	120.0		
03/19/2017	14:34:25	968	6.4	12.04	130.7		
03/19/2017	14:36:05	819	6.3	11.81	141.3		
03/19/2017	14:37:45	650	6.3	11.83	152.0		
03/19/2017	14:39:25	781	6.4	11.93	162.7		
03/19/2017	14:41:05	316	4.1	11.94	172.6		
03/19/2017	14:42:45	557	6.4	11.93	183.1		
03/19/2017	14:44:25	575	6.6	11.91	193.9		
03/19/2017	14:46:05	539	6.6	12.05	205.0		
03/19/2017	14:46:08	519	6.5	12.04	205.3	Density Verified w/ Mudscales	
03/19/2017	14:46:25	517	6.5	12.01	207.2	692 sks, 1.79 ft3/sk	
03/19/2017	14:46:37	510	6.5	12.01	208.5	6.97 gal/sk	
03/19/2017	14:47:45	541	6.5	12.03	215.8		
03/19/2017	14:49:25	564	6.4	12.10	226.6		
03/19/2017	14:51:05	548	6.4	12.07	237.3		
03/19/2017	14:52:45	524	6.4	12.03	248.0		
03/19/2017	14:54:25	482	6.4	11.95	258.7		
03/19/2017	14:56:05	480	6.4	11.94	269.4		
03/19/2017	14:57:45	517	6.4	11.99	280.1		
03/19/2017	14:59:25	518	6.4	12.06	290.8		
03/19/2017	15:01:05	536	6.4	12.16	301.5		
03/19/2017	15:02:23	63	1.9	12.17	306.4	End Lead Slurry Vol: 220 bbl	
03/19/2017	15:02:45	-7	0.0	12.20	306.7		
03/19/2017	15:04:25	-6	0.0	12.28	306.7		
03/19/2017	15:06:05	518	6.2	13.41	308.1		
03/19/2017	15:06:11	508	6.4	13.47	308.7	Start Mixing Tail Slurry	
03/19/2017	15:07:45	508	6.4	13.51	318.7		
03/19/2017	15:07:47	530	6.4	13.51	318.9	Wet and Dry Samples Taken	
03/19/2017	15:09:25	530	6.4	13.61	329.4		
03/19/2017	15:11:05	522	6.4	13.65	340.0		
03/19/2017	15:12:45	516	6.4	13.63	350.7		
03/19/2017	15:14:25	522	6.4	13.61	361.3		
03/19/2017	15:15:52	506	6.4	13.58	370.6	Density Verified w/ Mudscales	

Well			Field		Job Start	Customer	Job Number
Keown State 19N2-34HZ 0631676686			Wattenberg		Mar/19/2017	ANADARKO PETROLEUM CORPORATION	DPF0-00136
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
03/19/2017	15:17:45	515	6.4	13.57	382.7		
03/19/2017	15:19:25	496	6.4	13.57	393.3		
03/19/2017	15:21:05	514	6.4	13.57	404.0		
03/19/2017	15:22:10	500	6.4	13.58	410.9	2190 sks, 1.63 ft3.sk	
03/19/2017	15:22:19	492	6.4	13.58	411.9	7.63 gal/sk	
03/19/2017	15:22:45	502	6.4	13.58	414.6		
03/19/2017	15:24:25	508	6.4	13.58	425.3		
03/19/2017	15:26:05	482	6.4	13.58	436.0		
03/19/2017	15:27:45	504	6.4	13.57	446.6		
03/19/2017	15:29:25	501	6.4	13.59	457.3		
03/19/2017	15:31:05	520	6.4	13.57	468.0		
03/19/2017	15:32:45	530	6.4	13.61	478.6		
03/19/2017	15:34:25	524	6.4	13.64	489.3		
03/19/2017	15:36:05	504	6.4	13.65	500.0		
03/19/2017	15:37:45	475	6.4	13.33	510.6		
03/19/2017	15:39:25	469	6.4	13.51	521.3		
03/19/2017	15:41:05	522	6.4	13.54	531.9		
03/19/2017	15:42:45	490	6.4	13.51	542.6		
03/19/2017	15:44:25	517	6.4	13.52	553.3		
03/19/2017	15:46:05	494	6.4	13.53	564.0		
03/19/2017	15:47:45	505	6.4	13.58	574.6		
03/19/2017	15:49:25	546	6.4	13.62	585.3		
03/19/2017	15:51:05	513	6.4	13.57	595.9		
03/19/2017	15:52:45	548	6.4	13.56	606.6		
03/19/2017	15:54:25	507	6.4	13.55	617.3		
03/19/2017	15:56:05	535	6.4	13.53	628.0		
03/19/2017	15:57:45	509	6.4	13.56	638.6		
03/19/2017	15:59:25	524	6.4	13.55	649.3		
03/19/2017	16:01:05	537	6.4	13.57	660.0		
03/19/2017	16:02:45	526	6.4	13.58	670.6		
03/19/2017	16:04:25	514	6.4	13.57	681.3		
03/19/2017	16:06:05	527	6.4	13.58	691.9		
03/19/2017	16:07:45	510	6.4	13.55	702.6		
03/19/2017	16:09:25	516	6.4	13.57	713.3		
03/19/2017	16:11:05	492	6.4	13.55	723.9		
03/19/2017	16:12:45	485	6.4	13.36	734.6		
03/19/2017	16:14:25	499	6.4	13.55	745.3		
03/19/2017	16:16:05	506	6.4	13.57	755.9		
03/19/2017	16:17:45	511	6.4	13.58	766.6		
03/19/2017	16:19:25	525	6.4	13.55	777.3		
03/19/2017	16:21:05	528	6.4	13.62	787.9		
03/19/2017	16:22:45	560	6.4	13.62	798.6		
03/19/2017	16:24:25	558	6.4	13.60	809.2		
03/19/2017	16:26:05	549	6.4	13.54	819.9		
03/19/2017	16:27:45	541	6.4	13.51	830.6		
03/19/2017	16:29:25	555	6.4	13.53	841.2		
03/19/2017	16:31:05	590	6.4	13.55	851.9		
03/19/2017	16:32:45	613	6.4	13.58	862.6		
03/19/2017	16:34:25	602	6.4	13.55	873.2		
03/19/2017	16:36:05	592	6.4	13.51	883.9		
03/19/2017	16:37:45	578	6.4	13.47	894.6		
03/19/2017	16:39:25	620	6.4	13.42	905.2		
03/19/2017	16:41:05	624	6.4	13.49	915.9		
03/19/2017	16:42:45	635	6.4	13.48	926.5		

Well			Field		Job Start	Customer	Job Number
Keown State 19N2-34HZ 0631676686			Wattenberg		Mar/19/2017	ANADARKO PETROLEUM CORPORATION	DPF0-00136
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
03/19/2017	16:46:05	675	6.4	13.60	947.8		
03/19/2017	16:46:59	-23	0.0	14.33	952.9	End Tail Slurry Vol: 636 bbl	
03/19/2017	16:47:12	-17	0.0	14.55	952.9	Flush Surface Lines	
03/19/2017	16:47:45	-13	0.0	13.45	952.9		
03/19/2017	16:49:25	-9	0.0	13.74	952.9		
03/19/2017	16:51:05	-7	0.0	13.22	952.9		
03/19/2017	16:52:45	-6	0.0	9.63	952.9		
03/19/2017	16:54:25	39	0.4	8.73	953.0		
03/19/2017	16:56:05	106	3.5	9.29	956.6		
03/19/2017	16:57:45	86	3.5	8.52	962.4		
03/19/2017	16:59:25	98	3.5	8.57	968.3		
03/19/2017	17:00:46	35	2.1	8.48	971.9	Drop Top Plug	
03/19/2017	17:01:05	39	2.2	8.47	972.6		
03/19/2017	17:02:45	-13	0.0	8.47	974.7		
03/19/2017	17:04:25	324	7.9	8.48	981.3		
03/19/2017	17:06:05	291	7.9	8.47	994.5		
03/19/2017	17:07:45	1258	7.8	8.45	1007.5		
03/19/2017	17:09:25	1342	7.8	8.45	1020.5		
03/19/2017	17:11:05	1488	7.8	8.45	1033.5		
03/19/2017	17:12:45	1611	7.8	8.45	1046.5		
03/19/2017	17:14:25	1772	7.8	8.45	1059.5		
03/19/2017	17:16:05	1931	7.8	8.45	1072.5		
03/19/2017	17:17:45	2104	7.7	8.45	1085.4		
03/19/2017	17:19:25	2183	7.7	8.47	1098.3		
03/19/2017	17:19:51	2245	7.9	8.47	1101.7	Good Returns	
03/19/2017	17:21:05	2351	7.7	8.47	1111.2		
03/19/2017	17:22:45	2251	6.3	8.46	1123.1		
03/19/2017	17:24:25	2351	6.3	8.45	1133.6		
03/19/2017	17:26:05	2460	6.3	8.45	1144.1		
03/19/2017	17:27:45	2532	6.3	8.45	1154.6		
03/19/2017	17:29:25	2499	6.1	8.45	1164.9		
03/19/2017	17:31:05	2564	6.3	8.45	1175.3		
03/19/2017	17:32:45	2586	6.3	8.45	1185.8		
03/19/2017	17:34:25	2602	6.3	8.45	1196.3		
03/19/2017	17:36:05	2643	6.3	8.45	1206.8		
03/19/2017	17:37:45	2608	6.2	8.45	1217.3		
03/19/2017	17:39:25	2640	6.1	8.45	1227.4		
03/19/2017	17:41:05	2667	6.2	8.45	1237.6		
03/19/2017	17:42:45	2701	6.1	8.45	1247.8		
03/19/2017	17:44:25	2729	6.3	8.45	1258.0		
03/19/2017	17:46:05	2753	6.3	8.45	1268.5		
03/19/2017	17:47:45	2800	6.3	8.45	1279.0		
03/19/2017	17:49:25	2813	6.3	8.45	1289.5		
03/19/2017	17:51:05	2801	6.4	8.45	1300.1		
03/19/2017	17:52:45	2396	3.3	8.45	1310.2		
03/19/2017	17:54:25	2091	2.5	8.45	1314.4		
03/19/2017	17:56:05	2097	2.5	8.45	1318.6		
03/19/2017	17:57:45	2109	2.5	8.45	1322.7		
03/19/2017	17:59:25	2119	2.5	8.45	1326.9		
03/19/2017	18:01:05	1679	0.0	8.45	1328.3		
03/19/2017	18:02:45	1620	0.0	8.45	1328.3		
03/19/2017	18:04:25	1596	0.0	8.45	1328.3		
03/19/2017	18:06:05	1577	0.0	8.45	1328.3		
03/19/2017	18:07:45	1559	0.0	8.45	1328.3		

Well			Field		Job Start		Customer	Job Number
Keown State 19N2-34HZ 0631676686			Wattenberg		Mar/19/2017		ANADARKO PETROLEUM CORPORATION	DPF0-00136
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
03/19/2017	18:11:05	1525	0.0	8.46	1328.3			
03/19/2017	18:12:45	1513	0.0	8.45	1328.3			
03/19/2017	18:14:25	1503	0.0	8.46	1328.3			
03/19/2017	18:16:05	2085	2.5	8.45	1329.9			
03/19/2017	18:17:45	2898	6.1	8.45	1337.0			
03/19/2017	18:19:25	2926	6.1	8.45	1347.2			
03/19/2017	18:21:05	2784	5.1	8.45	1357.3			
03/19/2017	18:22:45	2636	4.9	8.45	1365.6			
03/19/2017	18:24:17	2627	4.9	8.45	1373.1	Spacer to Surface		
03/19/2017	18:24:25	2656	4.9	8.45	1373.8			
03/19/2017	18:26:05	2666	4.9	8.45	1382.0			
03/19/2017	18:27:45	2622	4.9	8.45	1390.2			
03/19/2017	18:29:25	2645	4.9	8.45	1398.4			
03/19/2017	18:31:05	2662	4.9	8.45	1406.6			
03/19/2017	18:32:45	2670	4.9	8.45	1414.8			
03/19/2017	18:34:25	2675	4.9	8.45	1423.0			
03/19/2017	18:36:05	2185	2.0	8.45	1429.5			
03/19/2017	18:37:45	2146	2.0	8.45	1432.8			
03/19/2017	18:39:25	2179	2.0	8.45	1436.1			
03/19/2017	18:41:05	2216	2.0	8.45	1439.4			
03/19/2017	18:42:45	2648	0.0	8.45	1441.9			
03/19/2017	18:44:17	2780	0.3	8.45	1441.9	Bump Top Plug		
03/19/2017	18:44:18	2780	0.4	8.45	1441.9	End Displacement Vol: 461 bbl		
03/19/2017	18:44:25	2863	0.8	8.45	1442.0			
03/19/2017	18:45:10	2969	0.0	8.45	1442.3	15 bbl Cement to Surface		
03/19/2017	18:46:05	3024	0.0	8.45	1442.3			
03/19/2017	18:47:45	3020	0.0	8.45	1442.3			
03/19/2017	18:48:17	3028	0.0	8.45	1442.3	Pressure Test 15 min		
03/19/2017	18:49:25	3048	0.0	8.53	1442.3			
03/19/2017	18:51:05	3079	0.0	8.78	1442.3			
03/19/2017	18:52:45	3097	0.0	8.60	1442.3			
03/19/2017	18:54:25	3122	0.0	8.52	1442.3			
03/19/2017	18:56:05	3144	0.0	8.51	1442.3			
03/19/2017	18:57:45	3165	0.0	8.48	1442.3			
03/19/2017	18:59:25	3190	0.0	8.49	1442.3			
03/19/2017	19:00:31	3995	0.0	25.00	1442.5	Pressure up to Blowout Shoe		
03/19/2017	19:01:05	4341	0.0	8.52	1442.8			
03/19/2017	19:02:11	2388	2.0	8.44	1443.8	Pump 5 bbls for Wet Shoe		
03/19/2017	19:02:45	2238	2.0	8.45	1445.0			
03/19/2017	19:04:25	2290	2.0	8.45	1448.3			
03/19/2017	19:06:05	-16	0.0	8.45	1448.6			
03/19/2017	19:06:16	-14	0.0	8.45	1448.6	Bleed Off Check Floats		
03/19/2017	19:06:22	-13	0.0	8.45	1448.6	3.5 bbl Returned		
03/19/2017	19:06:42	-12	0.0	8.45	1448.6	Floats Held		

Well Keown State 19N2-34HZ 0631676686	Field Wattenberg	Job Start Mar/19/2017	Customer ANADARKO PETROLEUM CORPORATION	Job Number DPF0-00136
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 5.8	N2	Mud	Maximum Rate 8.0		Total Slurry 855.0	Mud 0.0	Spacer 80.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 4989	Final -11	Average 1296	Bump Plug to 3000	Breakdown	Type		Volume bbl	Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 855.0 bbl		Displacement 461.0 bbl		Mix Water Temp 70 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 15.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Josh Johnson				Schlumberger Supervisor Billy Barg				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-