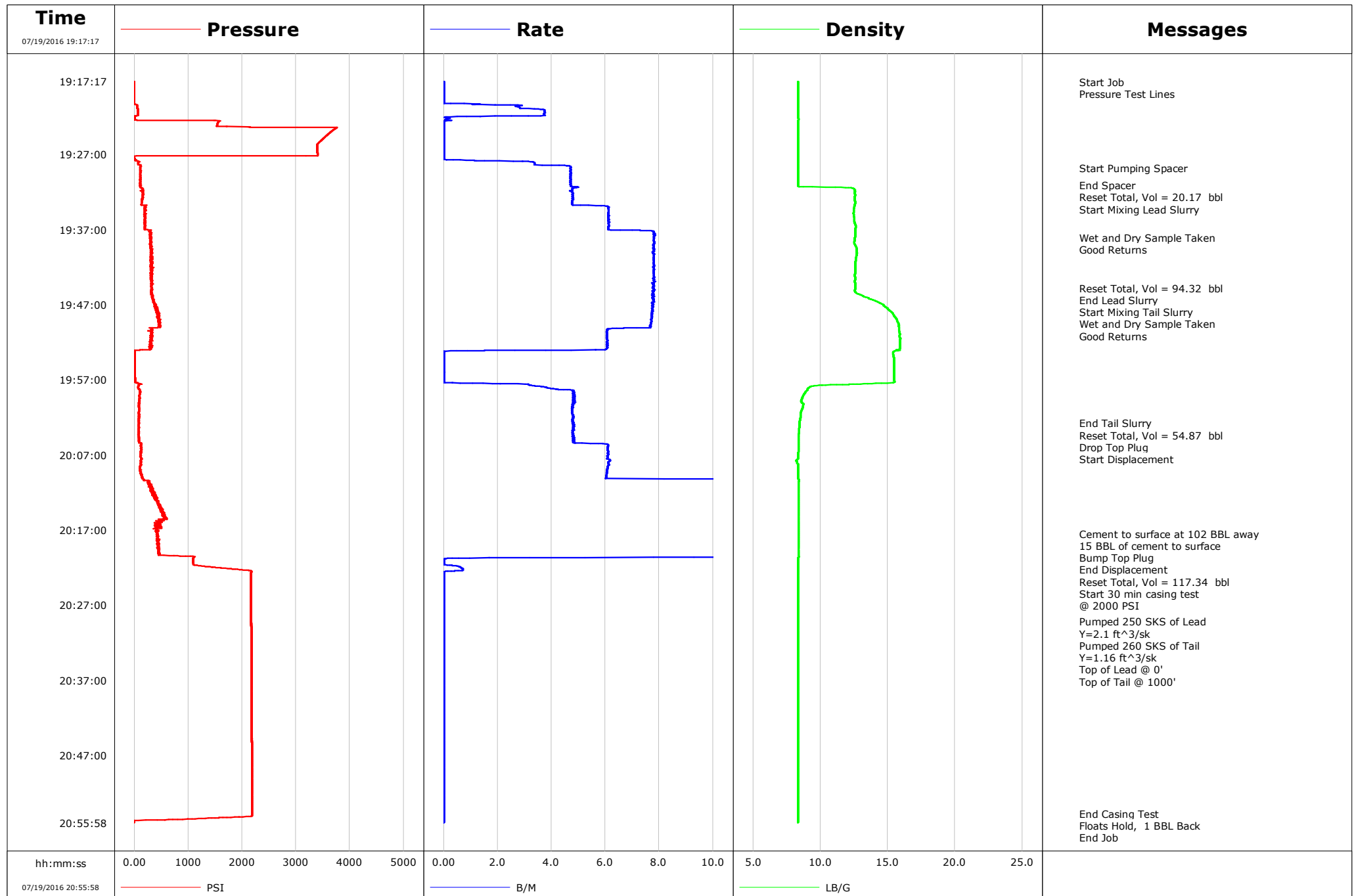


**Well** Land 37N-32HZ  
**Field** Wattenberg  
**Engineer** Glenn Mendez  
**Country** United States

**Client** Anadarko  
**SIR No.** D5VO-01397  
**Job Type** Surface  
**Job Date** 07-19-2016



# Cementing Service Report

				Customer Anadarko				Job Number D5VO-01397			
Well Land 37N-32HZ			Location (legal) 2173			Schlumberger Location Jeff Eulberg			Job Start Jul/19/2016		
Field Wattenberg		Formation Name/Type Shale		Deviation 0 deg		Bit Size 13.5 in		Well MD 1556.0 ft		Well TVD 1556.0 ft	
County Weld		State/Province Colorado		BHP psi		BHST 89 degF		BHCT 79 degF		Pore Press. Gradient lb/gal	
Well Master		API/UWI									
Rig Name Precision 461		Drilled For Oil & Gas		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft	
Offshore Zone		Well Class New		Well Type Development		1556.0		9.6		36.0	
						0.0		0.0		0.0	
Drilling Fluid Type LT OBM		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
Service Line Cementing		Job Type Surface									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
						ft		ft		Total Interval ft	
						ft		ft		Diameter in	
						ft		ft			
						Treat Down Casing		Displacement 117.0 bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 120.4 bbl		Annular Vol. 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 psi				Shoe Type Float				Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1556.0 ft				Tool Type			
No. Centralizers		Top Plugs 1		Bottom Plugs 0		Stage Tool Type				Tool Depth ft	
Cement Head Type Single				Stage Tool Depth ft				Tail Pipe Size in			
Job Scheduled For Jul/19/2016		Arrived on Location Jul/19/2016		Leave Location Jul/19/2016		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 1513.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
07/19/2016	19:17:17	-2	0.0	8.35	0.0	Started Acquisition					
07/19/2016	19:17:21	-2	0.0	8.35	0.0	Start Job					
07/19/2016	19:17:24	-4	0.0	8.35	0.0	Pressure Test Lines					
07/19/2016	19:17:47	-4	0.0	8.35	0.0						
07/19/2016	19:18:17	-4	0.0	8.35	0.0						
07/19/2016	19:18:47	-4	0.0	8.36	0.0						
07/19/2016	19:19:17	-4	0.0	8.34	0.0						
07/19/2016	19:19:47	-5	0.0	8.34	0.0						
07/19/2016	19:20:17	2	0.9	8.33	0.0						
07/19/2016	19:20:47	48	2.4	8.33	1.1						
07/19/2016	19:21:17	64	3.8	8.33	2.8						
07/19/2016	19:21:47	68	3.8	8.33	4.6						
07/19/2016	19:22:17	4	0.0	8.37	5.0						
07/19/2016	19:22:47	1551	0.0	8.34	5.1						
07/19/2016	19:23:17	1707	0.0	8.34	5.1						
07/19/2016	19:23:47	3688	0.0	8.34	5.1						
07/19/2016	19:24:17	3604	0.0	8.34	5.1						
07/19/2016	19:24:47	3523	0.0	8.34	5.1						
07/19/2016	19:25:17	3446	0.0	8.34	5.1						
07/19/2016	19:25:47	3391	0.0	8.34	5.1						
07/19/2016	19:26:17	3394	0.0	8.34	5.1						

Well			Field	Job Start		Customer	Job Number
Land 37N-32HZ			Wattenberg	Jul/19/2016		Anadarko	D5VO-01397
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
07/19/2016	19:27:17	-3	0.0	8.34	5.1		
07/19/2016	19:27:47	11	1.2	8.34	5.1		
07/19/2016	19:28:17	72	3.4	8.34	6.6		
07/19/2016	19:28:47	114	4.7	8.35	8.8		
07/19/2016	19:28:51	107	5.0	8.35	9.1	Start Pumping Spacer	
07/19/2016	19:29:17	128	4.8	8.35	11.2		
07/19/2016	19:29:47	104	4.7	8.35	13.6		
07/19/2016	19:30:17	103	4.8	8.35	16.0		
07/19/2016	19:30:47	111	4.8	8.35	18.4		
07/19/2016	19:31:06	102	4.7	8.35	19.9	End Spacer	
07/19/2016	19:31:09	110	4.8	8.35	20.2	Reset Total, Vol = 20.17 bbl	
07/19/2016	19:31:13	111	4.7	8.35	20.5	Start Mixing Lead Slurry	
07/19/2016	19:31:17	102	4.7	8.35	20.8		
07/19/2016	19:31:47	157	4.8	12.57	23.2		
07/19/2016	19:32:17	156	4.7	12.56	25.6		
07/19/2016	19:32:47	159	4.8	12.54	28.0		
07/19/2016	19:33:17	135	4.7	12.58	30.4		
07/19/2016	19:33:47	146	6.2	12.55	32.9		
07/19/2016	19:34:17	191	6.3	12.48	36.0		
07/19/2016	19:34:47	194	6.2	12.46	39.1		
07/19/2016	19:35:17	219	6.3	12.49	42.2		
07/19/2016	19:35:47	193	6.2	12.51	45.3		
07/19/2016	19:36:17	193	6.2	12.57	48.3		
07/19/2016	19:36:47	190	6.0	12.61	51.4		
07/19/2016	19:37:17	284	7.9	12.58	54.9		
07/19/2016	19:37:47	307	8.0	12.58	58.9		
07/19/2016	19:38:06	315	8.0	12.56	61.4	Wet and Dry Sample Taken	
07/19/2016	19:38:07	288	8.0	12.56	61.5	Good Returns	
07/19/2016	19:38:17	288	7.9	12.55	62.9		
07/19/2016	19:38:47	320	7.9	12.52	66.8		
07/19/2016	19:39:17	329	7.9	12.64	70.8		
07/19/2016	19:39:47	296	8.0	12.70	74.7		
07/19/2016	19:40:17	309	7.9	12.71	78.7		
07/19/2016	19:40:47	312	7.9	12.64	82.7		
07/19/2016	19:41:17	305	7.8	12.60	86.6		
07/19/2016	19:41:47	316	8.0	12.57	90.6		
07/19/2016	19:42:17	309	7.9	12.59	94.6		
07/19/2016	19:42:47	311	7.9	12.57	98.5		
07/19/2016	19:43:17	308	7.9	12.57	102.5		
07/19/2016	19:43:47	334	7.9	12.56	106.4		
07/19/2016	19:44:17	312	7.9	12.58	110.4		
07/19/2016	19:44:47	328	7.9	12.58	114.4		
07/19/2016	19:44:48	331	7.9	12.58	114.5	Reset Total, Vol = 94.32 bbl	
07/19/2016	19:44:51	320	7.9	12.57	114.9	End Lead Slurry	
07/19/2016	19:44:52	340	7.9	12.57	115.0	Start Mixing Tail Slurry	
07/19/2016	19:45:17	314	7.9	12.57	118.3		
07/19/2016	19:45:47	324	7.9	13.07	122.3		
07/19/2016	19:46:17	345	7.9	13.73	126.2		
07/19/2016	19:46:47	358	8.0	14.41	130.2		
07/19/2016	19:47:17	389	7.9	14.81	134.2		
07/19/2016	19:47:47	393	7.9	15.11	138.1		
07/19/2016	19:48:17	458	7.9	15.39	142.1		
07/19/2016	19:48:29	434	7.9	15.46	143.6	Wet and Dry Sample Taken	
07/19/2016	19:48:30	461	7.9	15.47	143.8	Good Returns	

Well			Field	Job Start		Customer		Job Number	
Land 37N-32HZ			Wattenberg		Jul/19/2016		Anadarko		D5VO-01397
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
07/19/2016	19:49:17	479	7.9	15.72	150.0				
07/19/2016	19:49:47	466	8.0	15.82	153.9				
07/19/2016	19:50:17	312	6.2	15.83	157.6				
07/19/2016	19:50:47	309	6.2	15.88	160.7				
07/19/2016	19:51:17	346	6.0	15.88	163.7				
07/19/2016	19:51:47	302	6.2	15.91	166.8				
07/19/2016	19:52:17	283	6.2	15.92	169.9				
07/19/2016	19:52:47	320	6.0	15.91	173.0				
07/19/2016	19:53:17	8	0.0	15.45	174.7				
07/19/2016	19:53:47	5	0.0	15.41	174.7				
07/19/2016	19:54:17	4	0.0	15.45	174.7				
07/19/2016	19:54:47	4	0.0	15.46	174.7				
07/19/2016	19:55:17	4	0.0	15.47	174.7				
07/19/2016	19:55:47	3	0.0	15.47	174.7				
07/19/2016	19:56:17	3	0.0	15.47	174.7				
07/19/2016	19:56:47	15	0.0	15.48	174.7				
07/19/2016	19:57:17	17	0.0	15.48	174.7				
07/19/2016	19:57:47	76	3.3	9.63	175.8				
07/19/2016	19:58:17	99	4.7	9.05	177.5				
07/19/2016	19:58:47	96	4.7	8.86	179.9				
07/19/2016	19:59:17	95	4.8	8.68	182.3				
07/19/2016	19:59:47	94	4.7	8.58	184.7				
07/19/2016	20:00:17	85	4.7	8.73	187.1				
07/19/2016	20:00:47	88	4.8	8.67	189.5				
07/19/2016	20:01:17	82	4.7	8.56	191.9				
07/19/2016	20:01:47	86	4.8	8.53	194.3				
07/19/2016	20:02:17	81	4.7	8.50	196.7				
07/19/2016	20:02:47	86	4.7	8.46	199.1	End Tail Slurry			
07/19/2016	20:02:50	74	4.7	8.46	199.4	Reset Total, Vol = 54.87 bbl			
07/19/2016	20:02:54	80	4.7	8.46	199.7	Drop Top Plug			
07/19/2016	20:02:56	85	4.8	8.46	199.8	Start Displacement			
07/19/2016	20:03:17	86	4.8	8.46	201.5				
07/19/2016	20:03:47	82	4.7	8.42	203.9				
07/19/2016	20:04:17	77	4.7	8.39	206.3				
07/19/2016	20:04:47	76	4.8	8.38	208.7				
07/19/2016	20:05:17	90	4.7	8.38	211.1				
07/19/2016	20:05:47	121	6.2	8.38	214.0				
07/19/2016	20:06:17	129	6.0	8.37	217.1				
07/19/2016	20:06:47	131	6.0	8.35	220.2				
07/19/2016	20:07:17	113	6.3	8.35	223.3				
07/19/2016	20:07:47	119	6.2	8.21	226.3				
07/19/2016	20:08:17	127	6.2	8.34	229.4				
07/19/2016	20:08:47	103	6.0	8.35	232.5				
07/19/2016	20:09:17	113	6.2	8.35	235.6				
07/19/2016	20:09:47	132	6.2	8.35	238.7				
07/19/2016	20:10:17	169	6.3	8.42	241.8				
07/19/2016	20:10:47	277	7.9	8.38	245.5				
07/19/2016	20:11:17	278	7.9	8.38	249.4				
07/19/2016	20:11:47	295	7.9	8.37	253.4				
07/19/2016	20:12:17	388	8.0	8.38	257.3				
07/19/2016	20:12:47	364	7.8	8.38	261.3				
07/19/2016	20:13:17	449	7.8	8.38	265.2				
07/19/2016	20:13:47	450	7.9	8.38	269.2				
07/19/2016	20:14:17	476	8.0	8.38	273.1				

Well			Field	Job Start		Customer	Job Number
Land 37N-32HZ			Wattenberg	Jul/19/2016		Anadarko	D5VO-01397
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
07/19/2016	20:15:47	498	6.3	8.38	284.6		
07/19/2016	20:16:17	486	3.3	8.38	286.7		
07/19/2016	20:16:47	461	3.3	8.38	288.4		
07/19/2016	20:17:17	404	1.9	8.39	289.4		
07/19/2016	20:17:31	415	1.9	8.39	289.8	Cement to surface at 102 BBL away	
07/19/2016	20:17:32	429	1.9	8.39	289.9	15 BBL of cement to surface	
07/19/2016	20:17:47	422	1.9	8.39	290.3		
07/19/2016	20:18:17	431	1.9	8.39	291.3		
07/19/2016	20:18:47	429	1.9	8.39	292.3		
07/19/2016	20:19:17	458	1.9	8.39	293.2		
07/19/2016	20:19:47	449	1.9	8.39	294.2		
07/19/2016	20:20:17	469	2.0	8.39	295.1		
07/19/2016	20:20:40	1106	0.0	8.35	295.7	Bump Top Plug	
07/19/2016	20:20:47	1088	0.0	8.34	295.7	End Displacement	
07/19/2016	20:20:51	1092	0.0	8.34	295.7	Reset Total, Vol = 117.34 bbl	
07/19/2016	20:20:56	1092	0.0	8.34	295.7	Start 30 min casing test	
07/19/2016	20:20:57	1091	0.0	8.34	295.7	@ 2000 PSI	
07/19/2016	20:21:17	1090	0.0	8.34	295.7		
07/19/2016	20:21:47	1227	0.5	8.34	295.7		
07/19/2016	20:22:17	1948	0.7	8.34	296.1		
07/19/2016	20:22:47	2167	0.0	8.34	296.2		
07/19/2016	20:23:17	2164	0.0	8.34	296.2		
07/19/2016	20:23:47	2165	0.0	8.34	296.2		
07/19/2016	20:24:17	2165	0.0	8.34	296.2		
07/19/2016	20:24:47	2165	0.0	8.34	296.2		
07/19/2016	20:25:17	2165	0.0	8.34	296.2		
07/19/2016	20:25:47	2166	0.0	8.34	296.2		
07/19/2016	20:26:17	2166	0.0	8.34	296.2		
07/19/2016	20:26:47	2166	0.0	8.34	296.2		
07/19/2016	20:27:17	2166	0.0	8.34	296.2		
07/19/2016	20:27:47	2167	0.0	8.34	296.2		
07/19/2016	20:28:17	2167	0.0	8.34	296.2		
07/19/2016	20:28:47	2167	0.0	8.34	296.2		
07/19/2016	20:29:11	2168	0.0	8.34	296.2	Pumped 250 SKS of Lead	
07/19/2016	20:29:12	2168	0.0	8.34	296.2	Pumped 260 SKS of Tail	
07/19/2016	20:29:17	2168	0.0	8.34	296.2		
07/19/2016	20:29:47	2168	0.0	8.34	296.2		
07/19/2016	20:30:17	2168	0.0	8.34	296.2		
07/19/2016	20:30:23	2169	0.0	8.34	296.2	Top of Lead @ 0'	
07/19/2016	20:30:47	2169	0.0	8.34	296.2		
07/19/2016	20:31:17	2169	0.0	8.34	296.2		
07/19/2016	20:31:47	2170	0.0	8.34	296.2		
07/19/2016	20:32:17	2170	0.0	8.34	296.2		
07/19/2016	20:32:47	2170	0.0	8.34	296.2		
07/19/2016	20:33:17	2171	0.0	8.34	296.2		
07/19/2016	20:33:47	2171	0.0	8.34	296.2		
07/19/2016	20:34:17	2172	0.0	8.34	296.2		
07/19/2016	20:34:47	2172	0.0	8.34	296.2		
07/19/2016	20:35:17	2172	0.0	8.34	296.2		
07/19/2016	20:35:47	2172	0.0	8.34	296.2		
07/19/2016	20:36:17	2172	0.0	8.34	296.2		
07/19/2016	20:36:47	2173	0.0	8.34	296.2		
07/19/2016	20:37:17	2173	0.0	8.34	296.2		
07/19/2016	20:37:47	2173	0.0	8.34	296.2		

Well			Field		Job Start	Customer		Job Number
Land 37N-32HZ			Wattenberg		Jul/19/2016	Anadarko		D5VO-01397
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
07/19/2016	20:38:47	2174	0.0	8.34	296.2			
07/19/2016	20:39:17	2174	0.0	8.34	296.2			
07/19/2016	20:39:47	2174	0.0	8.34	296.2			
07/19/2016	20:40:17	2174	0.0	8.34	296.2			
07/19/2016	20:40:47	2174	0.0	8.34	296.2			
07/19/2016	20:41:17	2175	0.0	8.34	296.2			
07/19/2016	20:41:47	2175	0.0	8.34	296.2			
07/19/2016	20:42:17	2175	0.0	8.34	296.2			
07/19/2016	20:42:47	2175	0.0	8.34	296.2			
07/19/2016	20:43:17	2176	0.0	8.34	296.2			
07/19/2016	20:43:47	2176	0.0	8.34	296.2			
07/19/2016	20:44:17	2177	0.0	8.34	296.2			
07/19/2016	20:44:47	2177	0.0	8.34	296.2			
07/19/2016	20:45:17	2178	0.0	8.34	296.2			
07/19/2016	20:45:47	2178	0.0	8.34	296.2			
07/19/2016	20:46:17	2178	0.0	8.34	296.2			
07/19/2016	20:46:47	2179	0.0	8.33	296.2			
07/19/2016	20:47:17	2179	0.0	8.33	296.2			
07/19/2016	20:47:47	2180	0.0	8.33	296.2			
07/19/2016	20:48:17	2180	0.0	8.33	296.2			
07/19/2016	20:48:47	2180	0.0	8.34	296.2			
07/19/2016	20:49:17	2181	0.0	8.34	296.2			
07/19/2016	20:49:47	2181	0.0	8.34	296.2			
07/19/2016	20:50:17	2181	0.0	8.34	296.2			
07/19/2016	20:50:47	2182	0.0	8.34	296.2			
07/19/2016	20:51:17	2182	0.0	8.33	296.2			
07/19/2016	20:51:47	2182	0.0	8.34	296.2			
07/19/2016	20:52:17	2182	0.0	8.34	296.2			
07/19/2016	20:52:47	2183	0.0	8.33	296.2			
07/19/2016	20:53:17	2183	0.0	8.33	296.2			
07/19/2016	20:53:47	2184	0.0	8.33	296.2			
07/19/2016	20:54:17	2184	0.0	8.33	296.2			
07/19/2016	20:54:46	2184	0.0	8.34	296.2	End Casing Test		
07/19/2016	20:54:47	2185	0.0	8.33	296.2			
07/19/2016	20:54:48	2184	0.0	8.33	296.2	Floats Hold, 1 BBL Back		
07/19/2016	20:55:17	1644	0.0	8.33	296.2			
07/19/2016	20:55:47	-7	0.0	8.33	296.2			

## Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 5.7	N2	Mud	Maximum Rate 8.0	Total Slurry 296.2	Mud 0.0	Spacer 19.9	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3759	Final -6	Average 1069	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 0.0 bbl	Displacement 96.1 bbl	Mix Water Temp 75 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume bbl		
					Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative James Gober			Schlumberger Supervisor Glenn Mendez			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-		