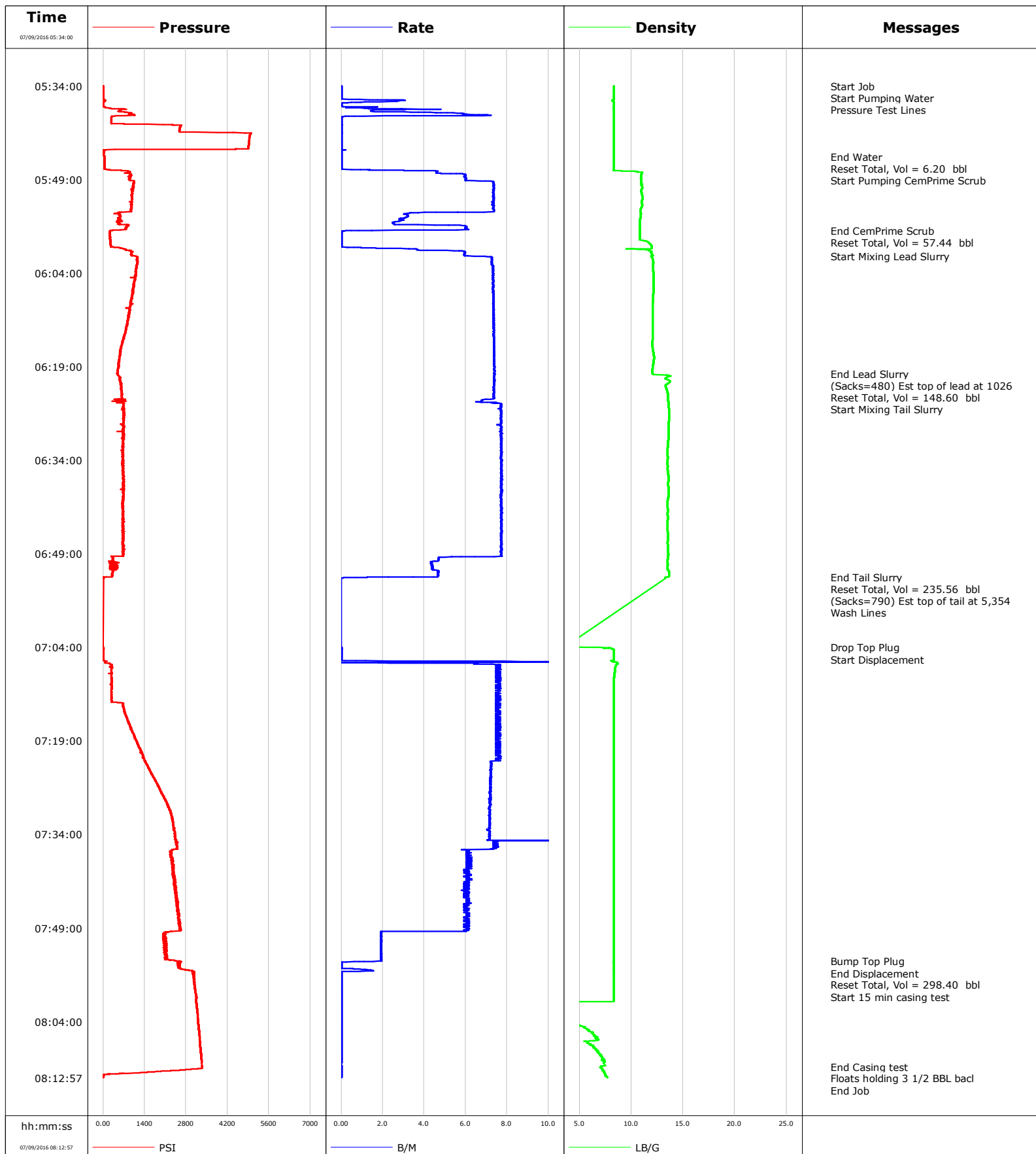


Well Land Fed35N-29HZ
Field Wattenberg
Engineer Anthony Fowler
Country United States

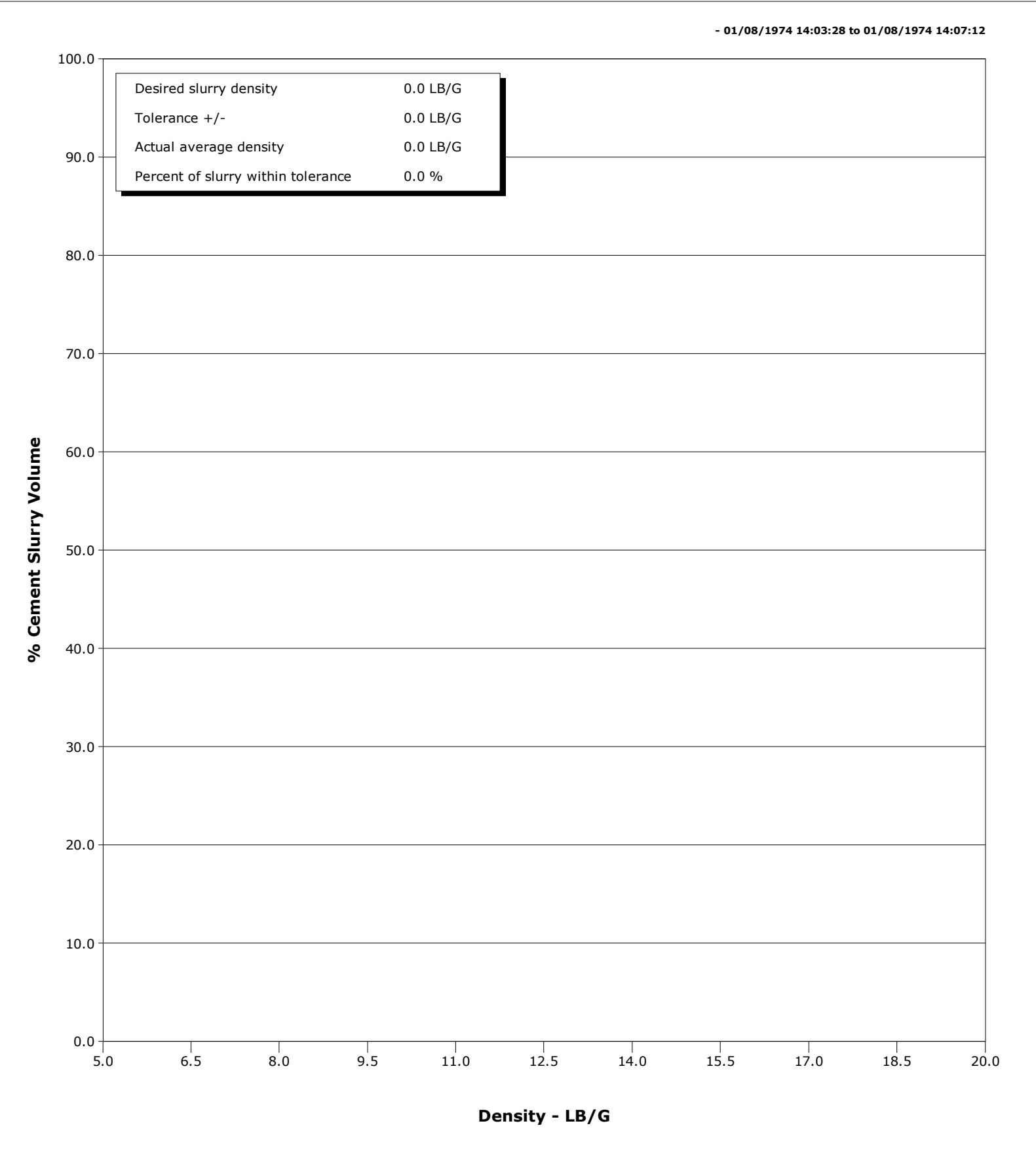
Client Anadarko
SIR No. D5VO-01387
Job Type 5 1/2 Casing
Job Date 07-09-2016





Cementing Qa/Qc Density Report

Well	Land Fed35N-29HZ	Client	Anadarko
Field	Wattenberg	SIR No.	D5VO-01387
Engineer	Anthony Fowler	Job Type	5 1/2 Casing
Country	United States	Job Date	07-09-2016



Cementing Service Report

				Customer Anadarko			Job Number D5VO-01387				
Well Land Fed35N-29HZ			Location (legal) P-461			Schlumberger Location			Job Start Jul/09/2016		
Field Wattenberg		Formation Name/Type Dirty-Sandstone		Deviation deg		Bit Size in		Well MD 12894.0 ft		Well TVD ft	
County Weld		State/Province Colorado		BHP psi		BHST degF		BHCT degF		Pore Press. Gradient lb/gal	
Well Master		API/UWI									
Rig Name P-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		12894.0		5.5		17.0	
						0.0		0.0		0.0	
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 1/2 Casing									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Double Cement head		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
						ft		ft			
						ft		ft			
						Treat Down Casing		Displacement 298.0 bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 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 12894.0 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 Jul/09/2016		Arrived on Location Jul/09/2016		Leave Location Jul/09/2016		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 12802.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
07/09/2016	05:34:00	5	0.0	8.31	0.0	Started Acquisition					
07/09/2016	05:34:03	5	0.0	8.31	0.0	Start Pumping Water					
07/09/2016	05:34:07	5	0.0	8.31	0.0	Pressure Test Lines					
07/09/2016	05:35:00	2	0.0	8.31	0.0						
07/09/2016	05:36:00	1	0.0	8.31	0.0						
07/09/2016	05:37:00	3	0.0	8.31	1.1						
07/09/2016	05:38:00	547	1.4	8.31	2.2						
07/09/2016	05:39:00	291	0.0	8.31	6.2						
07/09/2016	05:40:00	274	0.0	8.31	6.2						
07/09/2016	05:41:00	2581	0.0	8.31	6.2						
07/09/2016	05:42:00	4950	0.0	8.31	6.2						
07/09/2016	05:43:00	4920	0.0	8.31	6.2						
07/09/2016	05:44:00	4899	0.0	8.31	6.2						
07/09/2016	05:45:00	16	0.0	8.30	6.2						
07/09/2016	05:45:23	43	0.0	8.30	6.2	End Water					
07/09/2016	05:45:24	43	0.0	8.30	6.2	Reset Total, Vol = 6.20 bbl					
07/09/2016	05:45:37	43	0.0	8.30	6.2	Start Pumping CemPrime Scrub					
07/09/2016	05:46:00	39	0.0	8.30	6.2						
07/09/2016	05:47:00	45	0.0	8.30	6.2						
07/09/2016	05:48:00	819	4.6	11.01	8.3						
07/09/2016	05:49:00	900	6.0	10.94	14.2						

Well			Field	Job Start		Customer	Job Number	
Land Fed35N-29HZ			Wattenberg		Jul/09/2016		Anadarko	D5VO-01387
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
07/09/2016	05:51:00	988	7.3	10.97	28.5			
07/09/2016	05:52:00	980	7.4	11.10	35.9			
07/09/2016	05:53:00	937	7.3	11.04	43.2			
07/09/2016	05:54:00	938	7.4	10.87	50.5			
07/09/2016	05:55:00	600	3.2	10.91	54.9			
07/09/2016	05:56:00	526	2.5	10.81	57.8			
07/09/2016	05:57:00	769	6.1	10.81	62.7			
07/09/2016	05:57:10	305	1.5	10.81	63.6	End CemPrime Scrub		
07/09/2016	05:57:11	305	1.5	10.81	63.6	Reset Total, Vol = 57.44 bbl		
07/09/2016	05:58:00	229	0.0	10.81	63.7			
07/09/2016	05:59:00	243	0.0	11.57	63.7			
07/09/2016	06:00:00	626	1.6	11.96	63.8			
07/09/2016	06:01:00	943	5.9	12.00	68.6			
07/09/2016	06:01:17	1067	6.1	11.93	70.3	Start Mixing Lead Slurry		
07/09/2016	06:02:00	1156	7.3	12.10	75.4			
07/09/2016	06:03:00	1131	7.3	12.10	82.7			
07/09/2016	06:04:00	1105	7.3	12.14	90.0			
07/09/2016	06:05:00	1077	7.3	12.16	97.3			
07/09/2016	06:06:00	1023	7.3	12.14	104.6			
07/09/2016	06:07:00	1012	7.3	12.14	112.0			
07/09/2016	06:08:00	954	7.3	12.11	119.3			
07/09/2016	06:09:00	909	7.3	12.07	126.6			
07/09/2016	06:10:00	906	7.3	12.05	134.0			
07/09/2016	06:11:00	865	7.3	12.05	141.3			
07/09/2016	06:12:00	816	7.3	12.04	148.7			
07/09/2016	06:13:00	796	7.4	12.04	156.0			
07/09/2016	06:14:00	719	7.4	12.06	163.4			
07/09/2016	06:15:00	651	7.4	12.03	170.7			
07/09/2016	06:16:00	605	7.4	12.04	178.1			
07/09/2016	06:17:00	567	7.4	12.15	185.4			
07/09/2016	06:18:00	540	7.4	12.17	192.8			
07/09/2016	06:19:00	531	7.4	12.06	200.2			
07/09/2016	06:20:00	490	7.4	12.00	207.6			
07/09/2016	06:20:08	467	7.4	12.04	208.5	End Lead Slurry		
07/09/2016	06:20:37	552	7.4	13.61	212.1	Reset Total, Vol = 148.60 bbl		
07/09/2016	06:21:00	567	7.4	13.37	214.9			
07/09/2016	06:21:42	617	7.4	13.53	220.1	Start Mixing Tail Slurry		
07/09/2016	06:22:00	614	7.4	13.31	222.3			
07/09/2016	06:23:00	627	7.4	13.46	229.7			
07/09/2016	06:24:00	640	7.4	13.56	237.0			
07/09/2016	06:25:00	692	7.7	13.58	244.1			
07/09/2016	06:26:00	712	7.7	13.62	251.8			
07/09/2016	06:27:00	692	7.7	13.63	259.5			
07/09/2016	06:28:00	676	7.7	13.60	267.2			
07/09/2016	06:29:00	653	7.7	13.58	274.9			
07/09/2016	06:30:00	682	7.7	13.57	282.6			
07/09/2016	06:31:00	663	7.7	13.56	290.3			
07/09/2016	06:32:00	669	7.7	13.51	298.1			
07/09/2016	06:33:00	679	7.7	13.50	305.8			
07/09/2016	06:34:00	667	7.7	13.51	313.5			
07/09/2016	06:35:00	658	7.7	13.52	321.2			
07/09/2016	06:36:00	662	7.7	13.55	328.9			
07/09/2016	06:37:00	702	7.7	13.58	336.6			
07/09/2016	06:38:00	690	7.7	13.56	344.4			

Well			Field	Job Start		Customer		Job Number	
Land Fed35N-29HZ			Wattenberg		Jul/09/2016		Anadarko		D5VO-01387
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
07/09/2016	06:40:00	682	7.7	13.56	359.8				
07/09/2016	06:41:00	666	7.7	13.49	367.5				
07/09/2016	06:42:00	688	7.7	13.53	375.2				
07/09/2016	06:43:00	681	7.7	13.52	382.9				
07/09/2016	06:44:00	667	7.7	13.50	390.7				
07/09/2016	06:45:00	657	7.7	13.50	398.4				
07/09/2016	06:46:00	671	7.7	13.53	406.1				
07/09/2016	06:47:00	680	7.7	13.52	413.8				
07/09/2016	06:48:00	660	7.7	13.54	421.5				
07/09/2016	06:49:00	669	7.7	13.57	429.2				
07/09/2016	06:50:00	330	4.7	13.51	435.4				
07/09/2016	06:51:00	502	4.4	13.52	439.8				
07/09/2016	06:52:00	317	4.7	13.63	444.3				
07/09/2016	06:52:44	17	2.3	13.48	447.7	End Tail Slurry			
07/09/2016	06:52:45	27	1.3	13.37	447.8	Reset Total, Vol = 235.56 bbl			
07/09/2016	06:52:46	27	1.3	13.29	447.8	Wash Lines			
07/09/2016	07:03:57	11	0.0	5.49	465.9	Drop Top Plug			
07/09/2016	07:04:00	12	0.0	6.54	465.9				
07/09/2016	07:05:00	13	0.0	8.32	465.9				
07/09/2016	07:06:00	13	0.0	8.31	465.9				
07/09/2016	07:07:00	293	7.6	8.48	471.7				
07/09/2016	07:08:00	280	7.6	8.41	479.3				
07/09/2016	07:09:00	288	7.6	8.34	486.9				
07/09/2016	07:10:00	288	7.6	8.33	494.5				
07/09/2016	07:11:00	280	7.6	8.32	502.0				
07/09/2016	07:12:00	281	7.5	8.31	509.6				
07/09/2016	07:13:00	692	7.6	8.32	517.1				
07/09/2016	07:14:00	717	7.6	8.32	524.7				
07/09/2016	07:15:00	780	7.6	8.32	532.3				
07/09/2016	07:16:00	859	7.6	8.32	539.8				
07/09/2016	07:17:00	944	7.6	8.31	547.4				
07/09/2016	07:18:00	1035	7.5	8.31	555.0				
07/09/2016	07:19:00	1125	7.6	8.31	562.5				
07/09/2016	07:20:00	1218	7.6	8.31	570.1				
07/09/2016	07:21:00	1314	7.6	8.31	577.6				
07/09/2016	07:22:00	1381	7.6	8.31	585.2				
07/09/2016	07:23:00	1510	7.2	8.31	592.5				
07/09/2016	07:24:00	1608	7.2	8.31	599.7				
07/09/2016	07:25:00	1728	7.2	8.31	606.9				
07/09/2016	07:26:00	1830	7.2	8.31	614.1				
07/09/2016	07:27:00	1939	7.2	8.31	621.3				
07/09/2016	07:28:00	2054	7.2	8.31	628.5				
07/09/2016	07:29:00	2149	7.1	8.33	635.7				
07/09/2016	07:30:00	2234	7.2	8.31	642.8				
07/09/2016	07:31:00	2331	7.1	8.31	650.0				
07/09/2016	07:32:00	2353	7.2	8.31	657.1				
07/09/2016	07:33:00	2392	7.2	8.31	664.3				
07/09/2016	07:34:00	2432	7.1	8.31	671.4				
07/09/2016	07:35:00	2460	7.3	8.32	679.3				
07/09/2016	07:36:00	2508	7.5	8.32	686.8				
07/09/2016	07:37:00	2313	6.2	8.32	693.4				
07/09/2016	07:38:00	2313	6.2	8.32	699.5				
07/09/2016	07:39:00	2350	6.3	8.32	705.6				
07/09/2016	07:40:00	2400	6.2	8.32	711.7				

Well			Field		Job Start		Customer		Job Number	
Land Fed35N-29HZ			Wattenberg		Jul/09/2016		Anadarko		D5VO-01387	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
07/09/2016	07:42:00	2435	6.2	8.32	723.9					
07/09/2016	07:43:00	2425	5.9	8.32	729.9					
07/09/2016	07:44:00	2497	5.9	8.32	735.9					
07/09/2016	07:45:00	2528	6.2	8.32	742.0					
07/09/2016	07:46:00	2534	6.2	8.32	748.0					
07/09/2016	07:47:00	2571	6.2	8.32	754.0					
07/09/2016	07:48:00	2575	6.2	8.32	760.1					
07/09/2016	07:49:00	2573	6.0	8.32	766.1					
07/09/2016	07:50:00	2030	2.0	8.32	770.1					
07/09/2016	07:51:00	2065	1.9	8.32	772.0					
07/09/2016	07:52:00	2144	1.9	8.32	773.9					
07/09/2016	07:53:00	2149	2.0	8.31	775.8					
07/09/2016	07:54:00	2140	1.9	8.31	777.7					
07/09/2016	07:54:18	2530	1.8	8.31	778.3	Bump Top Plug				
07/09/2016	07:54:20	2560	1.5	8.32	778.3	End Displacement				
07/09/2016	07:54:22	2632	0.9	8.32	778.4	Reset Total, Vol = 298.40 bbl				
07/09/2016	07:55:00	2594	0.0	8.30	778.4					
07/09/2016	07:55:53	3059	1.2	8.30	778.9	Start 15 min casing test				
07/09/2016	07:56:00	3074	0.0	8.30	779.0					
07/09/2016	07:57:00	3085	0.0	8.30	779.0					
07/09/2016	07:58:00	3077	0.0	8.30	779.0					
07/09/2016	07:59:00	3105	0.0	8.30	779.0					
07/09/2016	08:00:00	3151	0.0	8.30	779.0					
07/09/2016	08:01:00	3149	0.0	0.01	779.0					
07/09/2016	08:02:00	3168	0.0	0.66	779.0					
07/09/2016	08:03:00	3188	0.0	3.54	779.0					
07/09/2016	08:04:00	3208	0.0	4.42	779.0					
07/09/2016	08:05:00	3227	0.0	5.61	779.0					
07/09/2016	08:06:00	3245	0.0	6.41	779.0					
07/09/2016	08:07:00	3264	0.0	6.60	779.0					
07/09/2016	08:08:00	3281	0.0	6.42	779.0					
07/09/2016	08:09:00	3299	0.0	6.86	779.0					
07/09/2016	08:10:00	3315	0.0	7.33	779.0					
07/09/2016	08:11:00	3333	0.0	7.54	779.0					
07/09/2016	08:11:10	3336	0.0	7.07	779.0	End Casing test				
07/09/2016	08:12:00	1735	0.0	7.36	779.0					
07/09/2016	08:12:36	17	0.0	7.58	779.0	Floats holding 3 1/2 BBL bacd				

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 6.4	N2	Mud 5.8	Maximum Rate 19.9	Total Slurry 383.0	Mud 0.0	Spacer 57.9	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5003	Final 14	Average 1288	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 382.0 bbl	Displacement 298.4 bbl	Mix Water Temp degF	Cement Circulated to Surface? <input type="checkbox"/>	Volume bbl		
					Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative			Schlumberger Supervisor Anthony Fowler			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	