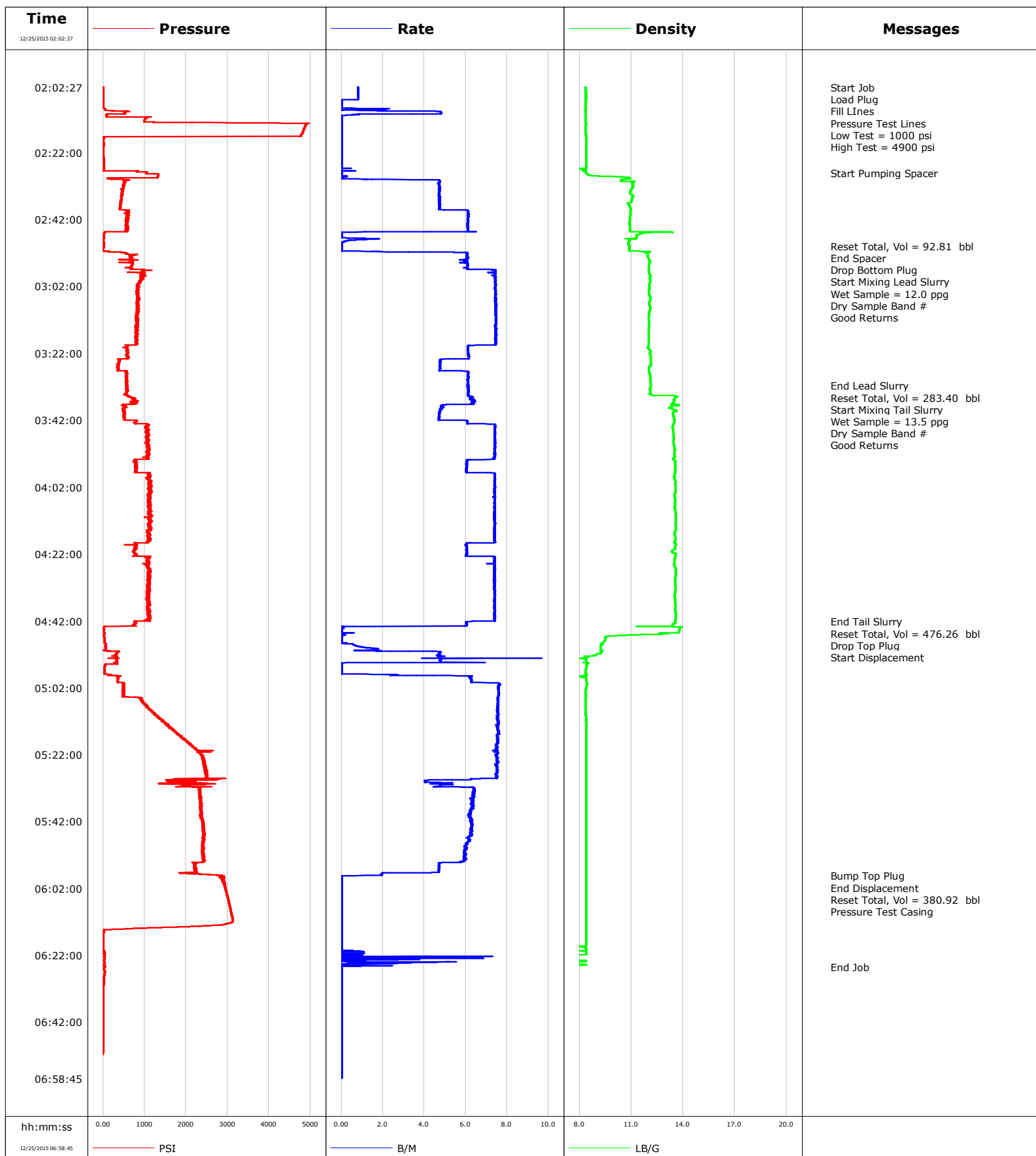


Well WILSON RANCH 31N-27HZ
Field Wattenberg
Engineer Charles Rogers // Benjamin Stanley
Country United States

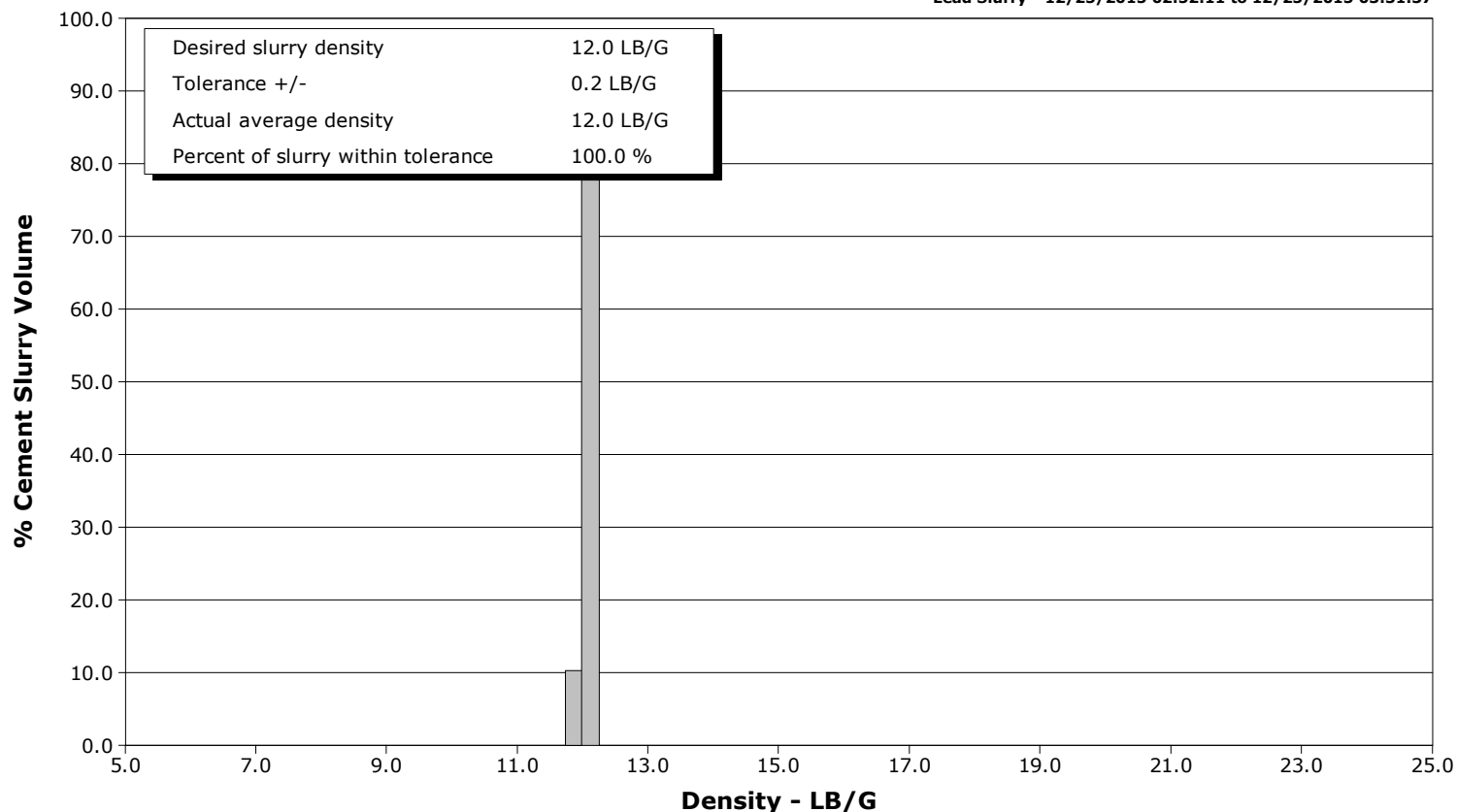
Client Anadarko
SIR No. D2IK-01576
Job Type 5 1/2 Production Casing
Job Date 12-24-2015



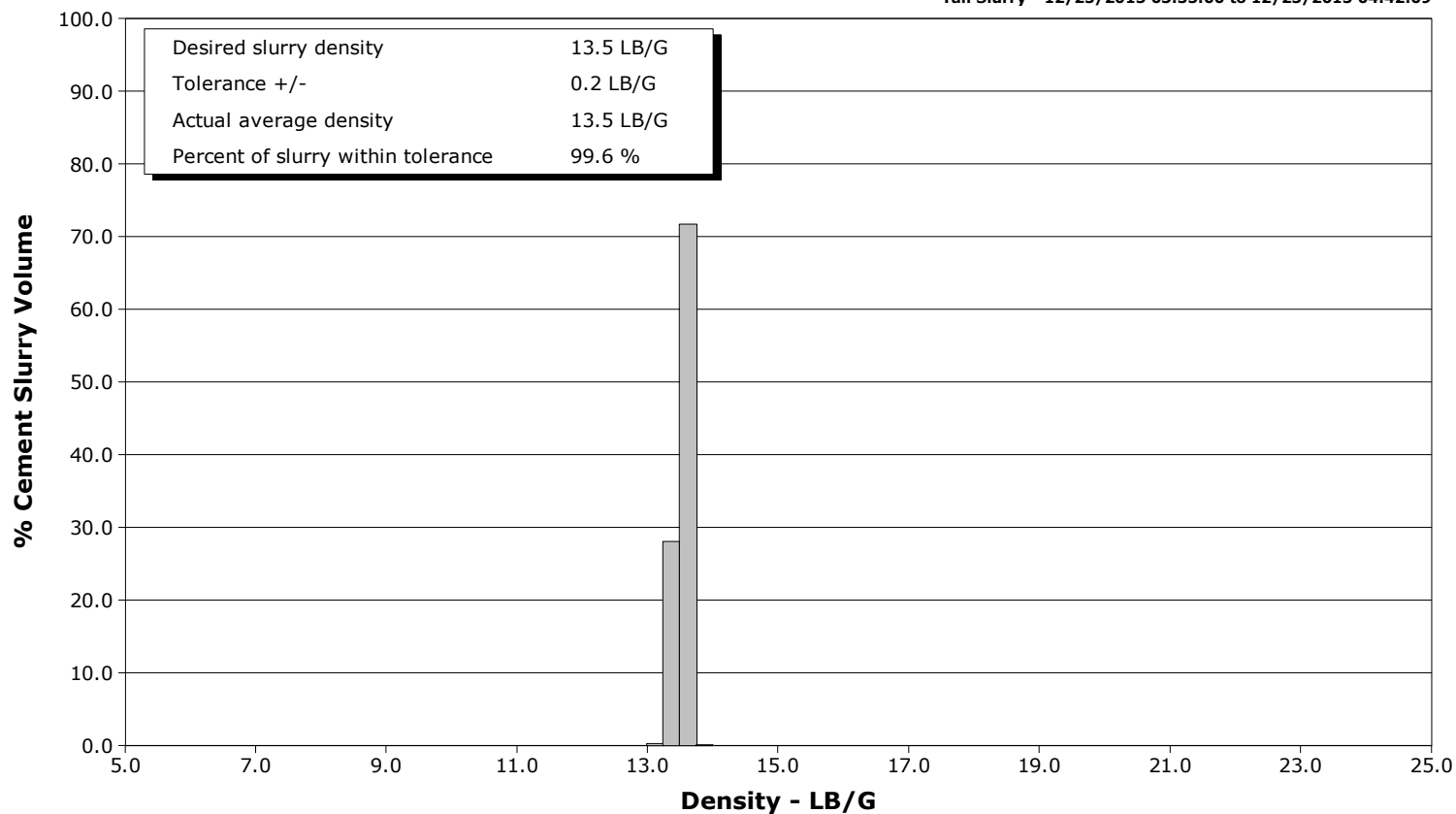
Well WILSON RANCH 31N-27HZ
Field Wattenberg
Engineer Charles Rogers // Benjamin Stanley
Country United States

Client Anadarko
SIR No. D2IK-01576
Job Type 5 1/2 Production Casing
Job Date 12-24-2015

Lead Slurry - 12/25/2015 02:52:11 to 12/25/2015 03:31:37



Tail Slurry - 12/25/2015 03:35:00 to 12/25/2015 04:42:09



Cementing Service Report

				Customer Anadarko			Job Number D2IK-01576			
Well WILSON RANCH 31N-27HZ 2097547			Location (legal) CYW			Schlumberger Location AIRDRIE WH			Job Start Dec/24/2015	
Field Wattenberg		Formation Name/Type Dirty-Sandstone		Deviation deg		Bit Size 8.5 in		Well MD ft		Well TVD ft
County Weld		State/Province Colorado		BHP psi		BHST 232 degF		BHCT 226 degF		Pore Press. Gradient lb/gal
Well Master 0631629519		API/UWI 05123412940000								
Rig Name P462	Drilled For Oil		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft
Offshore Zone		Well Class New		Well Type Development		16455.0		5.5		17.0
						0.0		0.0		0.0
Drilling Fluid Type Bentonite		Max. Density 9.60 lb/gal		Plastic Viscosity 19.000 cP		Tubing/Drill Pipe				
						T/D		Depth, ft		Size, in
Service Line Cementing		Job Type 5 1/2 Production 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
						Treat Down Casing		Displacement 381.0 bbl		Packer Type
						Tubing Vol. bbl		Casing Vol. 383.0 bbl		Annular Vol. 685.0 bbl
										Openhole Vol. 1081.0 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 11774 psi						Shoe Type Float		Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 16455.0 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/24/2015		Arrived on Location Dec/24/2015		Leave Location Dec/24/2015		Collar Type Float		Tail Pipe Depth ft		
						Collar Depth 16363.0 ft		Sqz. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/25/2015	02:02:27	3	0.8	8.37	0.0	Started Acquisition				
12/25/2015	02:02:29	3	0.8	8.37	0.0	Start Job				
12/25/2015	02:02:30	4	0.8	8.37	0.1	Load Plug				
12/25/2015	02:02:31	4	0.8	8.37	0.1	Fill LLines				
12/25/2015	02:02:35	3	0.8	8.37	0.1	Pressure Test Lines				
12/25/2015	02:02:36	3	0.8	8.37	0.1	Low Test = 1000 psi				
12/25/2015	02:02:37	3	0.8	8.37	0.1	High Test = 4900 psi				
12/25/2015	02:04:07	4	0.8	8.37	1.4					
12/25/2015	02:05:47	5	0.8	8.37	2.7					
12/25/2015	02:07:27	3	0.0	8.37	3.1					
12/25/2015	02:09:07	54	1.0	8.37	3.6					
12/25/2015	02:10:47	72	0.5	8.37	8.6					
12/25/2015	02:12:27	996	0.0	8.37	8.6					
12/25/2015	02:14:07	4872	0.0	8.37	8.6					
12/25/2015	02:15:47	4821	0.0	8.37	8.6					
12/25/2015	02:17:27	18	0.0	8.37	8.6					
12/25/2015	02:19:07	12	0.0	8.38	8.6					
12/25/2015	02:20:47	9	0.0	8.38	8.6					
12/25/2015	02:22:27	3	0.0	8.37	8.6					
12/25/2015	02:24:07	13	0.0	8.38	8.6					
12/25/2015	02:25:47	13	0.0	8.38	8.6					

Well WILSON RANCH 31N-27HZ 2097547			Field Wattenberg	Job Start Dec/24/2015	Customer Anadarko	Job Number D2IK-01576
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
12/25/2015	02:28:02	1044	0.0	8.37	8.6	Start Pumping Spacer
12/25/2015	02:29:07	1316	0.3	9.50	8.7	
12/25/2015	02:30:47	544	4.7	11.13	12.2	
12/25/2015	02:32:27	481	4.8	11.09	20.0	
12/25/2015	02:34:07	459	4.7	10.92	27.9	
12/25/2015	02:35:47	438	4.7	11.04	35.8	
12/25/2015	02:37:27	418	4.7	10.83	43.7	
12/25/2015	02:39:07	397	4.7	10.97	51.6	
12/25/2015	02:40:47	613	6.1	10.95	61.7	
12/25/2015	02:42:27	593	6.1	10.91	71.9	
12/25/2015	02:44:07	600	6.1	10.91	82.0	
12/25/2015	02:45:47	55	0.7	13.42	91.9	
12/25/2015	02:47:27	17	0.0	11.31	91.9	
12/25/2015	02:49:07	1	0.0	10.84	92.8	
12/25/2015	02:49:57	14	0.0	10.87	92.8	Reset Total, Vol = 92.81 bbl
12/25/2015	02:49:58	13	0.0	10.87	92.8	End Spacer
12/25/2015	02:49:59	13	0.0	10.87	92.8	Drop Bottom Plug
12/25/2015	02:50:47	-3	0.0	10.89	92.8	
12/25/2015	02:52:11	557	6.1	11.93	95.7	Start Mixing Lead Slurry
12/25/2015	02:52:15	564	6.1	11.94	96.1	Wet Sample = 12.0 ppg
12/25/2015	02:52:16	564	6.1	11.94	96.2	Good Returns
12/25/2015	02:52:27	796	6.1	11.96	97.3	
12/25/2015	02:54:07	405	6.0	12.04	107.5	
12/25/2015	02:55:47	695	6.1	12.04	117.5	
12/25/2015	02:57:27	952	7.4	12.00	128.3	
12/25/2015	02:59:07	984	7.5	12.10	140.7	
12/25/2015	03:00:47	910	7.4	12.08	153.0	
12/25/2015	03:02:27	843	7.4	12.05	165.4	
12/25/2015	03:04:07	841	7.4	12.03	177.8	
12/25/2015	03:05:47	835	7.5	12.10	190.2	
12/25/2015	03:07:27	827	7.4	12.04	202.6	
12/25/2015	03:09:07	806	7.5	12.07	215.0	
12/25/2015	03:10:47	798	7.4	12.02	227.4	
12/25/2015	03:12:27	804	7.5	12.03	239.9	
12/25/2015	03:14:07	829	7.4	12.02	252.3	
12/25/2015	03:15:47	782	7.5	12.01	264.7	
12/25/2015	03:17:27	799	7.5	12.00	277.1	
12/25/2015	03:19:07	828	7.5	12.01	289.5	
12/25/2015	03:20:47	599	6.1	12.04	300.4	
12/25/2015	03:22:27	587	6.1	12.09	310.6	
12/25/2015	03:24:07	406	4.8	12.13	320.3	
12/25/2015	03:25:47	384	4.8	12.09	328.2	
12/25/2015	03:27:27	552	6.1	12.03	336.4	
12/25/2015	03:29:07	567	6.1	12.09	346.6	
12/25/2015	03:30:47	576	6.1	12.11	356.7	
12/25/2015	03:31:37	568	6.1	12.11	361.8	End Lead Slurry
12/25/2015	03:32:27	576	6.1	12.09	366.9	
12/25/2015	03:33:58	552	6.1	12.08	376.2	Reset Total, Vol = 283.40 bbl
12/25/2015	03:34:07	536	6.1	12.07	377.1	
12/25/2015	03:35:00	609	6.3	13.66	382.5	Start Mixing Tail Slurry
12/25/2015	03:35:03	604	6.3	13.66	382.9	Wet Sample = 13.5 ppg
12/25/2015	03:35:05	641	6.3	13.65	383.1	Dry Sample Band #
12/25/2015	03:35:06	660	6.4	13.64	383.2	Good Returns
12/25/2015	03:35:47	783	6.2	13.48	387.5	

Well WILSON RANCH 31N-27HZ 2097547			Field Wattenberg		Job Start Dec/24/2015		Customer Anadarko		Job Number D2IK-01576	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
12/25/2015	03:39:07	494		4.7	13.58		405.9			
12/25/2015	03:40:47	518		4.7	13.43		413.8			
12/25/2015	03:42:27	782		6.1	13.50		422.2			
12/25/2015	03:44:07	1054		7.4	13.38		433.6			
12/25/2015	03:45:47	1079		7.4	13.44		446.0			
12/25/2015	03:47:27	1051		7.4	13.46		458.3			
12/25/2015	03:49:07	1078		7.4	13.44		470.7			
12/25/2015	03:50:47	1109		7.4	13.52		483.0			
12/25/2015	03:52:27	1071		7.4	13.49		495.3			
12/25/2015	03:54:07	813		6.1	13.52		507.2			
12/25/2015	03:55:47	778		6.0	13.54		517.3			
12/25/2015	03:57:27	775		6.0	13.53		527.4			
12/25/2015	03:59:07	1084		7.4	13.48		539.4			
12/25/2015	04:00:47	1124		7.4	13.54		551.7			
12/25/2015	04:02:27	1072		7.4	13.55		564.0			
12/25/2015	04:04:07	1082		7.4	13.51		576.3			
12/25/2015	04:05:47	1109		7.4	13.54		588.7			
12/25/2015	04:07:27	1139		7.4	13.52		601.0			
12/25/2015	04:09:07	1128		7.4	13.54		613.3			
12/25/2015	04:10:47	1169		7.4	13.58		625.6			
12/25/2015	04:12:27	1096		7.4	13.58		638.0			
12/25/2015	04:14:07	1114		7.4	13.57		650.3			
12/25/2015	04:15:47	1119		7.4	13.50		662.6			
12/25/2015	04:17:27	1092		7.4	13.56		674.9			
12/25/2015	04:19:07	815		6.0	13.58		686.6			
12/25/2015	04:20:47	776		6.0	13.45		696.7			
12/25/2015	04:22:27	786		6.1	13.56		706.8			
12/25/2015	04:24:07	1053		7.4	13.49		718.8			
12/25/2015	04:25:47	1058		7.4	13.53		731.1			
12/25/2015	04:27:27	1072		7.4	13.58		743.4			
12/25/2015	04:29:07	1087		7.4	13.54		755.7			
12/25/2015	04:30:47	1121		7.4	13.53		768.0			
12/25/2015	04:32:27	1075		7.4	13.55		780.3			
12/25/2015	04:34:07	1095		7.4	13.51		792.7			
12/25/2015	04:35:47	1105		7.4	13.53		805.0			
12/25/2015	04:37:27	1057		7.4	13.55		817.3			
12/25/2015	04:39:07	1082		7.4	13.55		829.6			
12/25/2015	04:40:47	1112		7.4	13.57		841.9			
12/25/2015	04:42:09	768		6.2	13.54		852.0		End Tail Slurry	
12/25/2015	04:42:14	777		6.0	13.54		852.5		Reset Total, Vol = 476.26 bbl	
12/25/2015	04:42:16	785		6.0	13.53		852.7		Drop Top Plug	
12/25/2015	04:42:17	806		6.0	13.54		852.8		Start Displacement	
12/25/2015	04:42:27	780		6.0	13.54		853.8			
12/25/2015	04:44:07	12		0.1	13.80		860.9			
12/25/2015	04:45:47	27		0.0	13.09		860.9			
12/25/2015	04:47:27	27		0.0	9.48		860.9			
12/25/2015	04:49:07	68		0.6	9.26		861.1			
12/25/2015	04:50:47	25		0.7	9.31		863.1			
12/25/2015	04:52:27	315		4.7	8.89		869.9			
12/25/2015	04:54:07	345		4.8	8.39		878.0			
12/25/2015	04:55:47	35		0.0	8.39		879.8			
12/25/2015	04:57:27	28		0.0	8.37		879.8			
12/25/2015	04:59:07	359		6.2	8.39		885.6			
12/25/2015	05:00:47	475		7.6	8.41		896.4			

Well WILSON RANCH 31N-27HZ 2097547			Field Wattenberg		Job Start Dec/24/2015		Customer Anadarko		Job Number D2IK-01576	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/25/2015	05:04:07	491	7.6	8.37	921.7					
12/25/2015	05:05:47	954	7.6	8.36	934.3					
12/25/2015	05:07:27	1089	7.5	8.37	946.9					
12/25/2015	05:09:07	1187	7.5	8.37	959.5					
12/25/2015	05:10:47	1335	7.5	8.38	972.1					
12/25/2015	05:12:27	1475	7.6	8.38	984.7					
12/25/2015	05:14:07	1637	7.6	8.39	997.3					
12/25/2015	05:15:47	1798	7.6	8.39	1009.9					
12/25/2015	05:17:27	1968	7.5	8.39	1022.4					
12/25/2015	05:19:07	2125	7.5	8.39	1035.0					
12/25/2015	05:20:47	2289	7.5	8.39	1047.5					
12/25/2015	05:22:27	2378	7.5	8.39	1060.0					
12/25/2015	05:24:07	2425	7.5	8.39	1072.5					
12/25/2015	05:25:47	2443	7.5	8.39	1085.0					
12/25/2015	05:27:27	2519	7.5	8.39	1097.5					
12/25/2015	05:29:07	2486	7.5	8.39	1110.0					
12/25/2015	05:30:47	1995	5.0	8.39	1118.1					
12/25/2015	05:32:27	2325	6.4	8.39	1127.5					
12/25/2015	05:34:07	2352	6.4	8.39	1138.1					
12/25/2015	05:35:47	2333	6.4	8.39	1148.7					
12/25/2015	05:37:27	2339	6.3	8.39	1159.3					
12/25/2015	05:39:07	2390	6.3	8.40	1169.7					
12/25/2015	05:40:47	2402	6.2	8.40	1180.1					
12/25/2015	05:42:27	2394	6.3	8.40	1190.5					
12/25/2015	05:44:07	2412	6.3	8.39	1201.0					
12/25/2015	05:45:47	2419	6.3	8.39	1211.4					
12/25/2015	05:47:27	2418	6.1	8.39	1221.8					
12/25/2015	05:49:07	2385	5.9	8.39	1231.9					
12/25/2015	05:50:47	2403	6.0	8.39	1241.9					
12/25/2015	05:52:27	2404	5.9	8.39	1251.8					
12/25/2015	05:54:07	2405	5.8	8.39	1261.7					
12/25/2015	05:55:47	2224	4.7	8.38	1269.7					
12/25/2015	05:57:27	1864	2.0	8.38	1277.1					
12/25/2015	05:58:11	2895	0.2	8.38	1278.4	Bump Top Plug				
12/25/2015	05:58:12	2926	0.1	8.38	1278.4	End Displacement				
12/25/2015	05:58:19	2930	0.0	8.38	1278.4	Reset Total, Vol = 380.92 bbl				
12/25/2015	05:59:07	2907	0.0	8.38	1278.4					
12/25/2015	06:00:47	2916	0.0	8.38	1278.4					
12/25/2015	06:02:27	2958	0.0	8.38	1278.4					
12/25/2015	06:04:07	2994	0.0	8.38	1278.4					
12/25/2015	06:05:47	3025	0.0	8.38	1278.4					
12/25/2015	06:07:27	3056	0.0	8.38	1278.4					
12/25/2015	06:09:07	3087	0.0	8.39	1278.4					
12/25/2015	06:10:47	3116	0.0	8.39	1278.4					
12/25/2015	06:12:27	3005	0.0	8.39	1278.4					
12/25/2015	06:14:07	464	0.0	8.39	1278.4					
12/25/2015	06:15:47	9	0.0	8.39	1278.4					
12/25/2015	06:17:27	9	0.0	8.39	1278.4					
12/25/2015	06:19:07	10	0.0	8.39	1278.4					
12/25/2015	06:20:47	34	1.1	8.38	1278.5					
12/25/2015	06:22:27	25	0.2	3.46	1279.6					
12/25/2015	06:24:07	27	4.1	2.54	1281.8					
12/25/2015	06:25:21	42	0.0	0.06	1282.7	End Job				
12/25/2015	06:25:47	17	0.0	0.01	1282.7					

Well WILSON RANCH 31N-27HZ 2097547			Field Wattenberg		Job Start Dec/24/2015	Customer Anadarko		Job Number D2IK-01576
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
12/25/2015	06:29:07	21	0.0	0.01	1282.7			
12/25/2015	06:30:47	12	0.0	0.01	1282.7			
12/25/2015	06:32:27	9	0.0	0.01	1282.7			
12/25/2015	06:34:07	9	0.0	0.01	1282.7			
12/25/2015	06:35:47	9	0.0	0.01	1282.7			
12/25/2015	06:37:27	8	0.0	0.01	1282.7			
12/25/2015	06:39:07	7	0.0	0.01	1282.7			
12/25/2015	06:40:47	8	0.0	0.01	1282.7			
12/25/2015	06:42:27	8	0.0	0.01	1282.7			
12/25/2015	06:44:07	8	0.0	0.01	1282.7			
12/25/2015	06:45:47	8	0.0	0.01	1282.7			
12/25/2015	06:47:27	8	0.0	0.01	1282.7			
12/25/2015	06:49:07	8	0.0	0.01	1282.7			
12/25/2015	06:50:47	8	0.0	0.01	1282.7			
12/25/2015	06:52:27	-41	0.0	0.01	1282.7			
12/25/2015	06:54:07	-43	0.0	0.01	1282.7			
12/25/2015	06:55:47	-43	0.0	0.01	1282.7			

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl							
Slurry 6.2	N2	Mud	Maximum Rate 9.7		Total Slurry 725.0	Mud 0.0	Spacer 92.8	N2				
Treating Pressure Summary, psi					Breakdown Fluid							
Maximum 4959	Final -43	Average 1034	Bump Plug to 2500	Breakdown	Type	Volume bbl	Density lb/gal					
Avg. N2 Percent %	Designed Slurry Volume 717.0 bbl	Displacement 380.8 bbl	Mix Water Temp 69 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 30.0 bbl						
				Washed Thru Perfs <input type="checkbox"/>		To ft						
Customer or Authorized Representative Rodney McPeters			Schlumberger Supervisor Charles Rogers // Benjamin Stanley			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>					
						-	-					