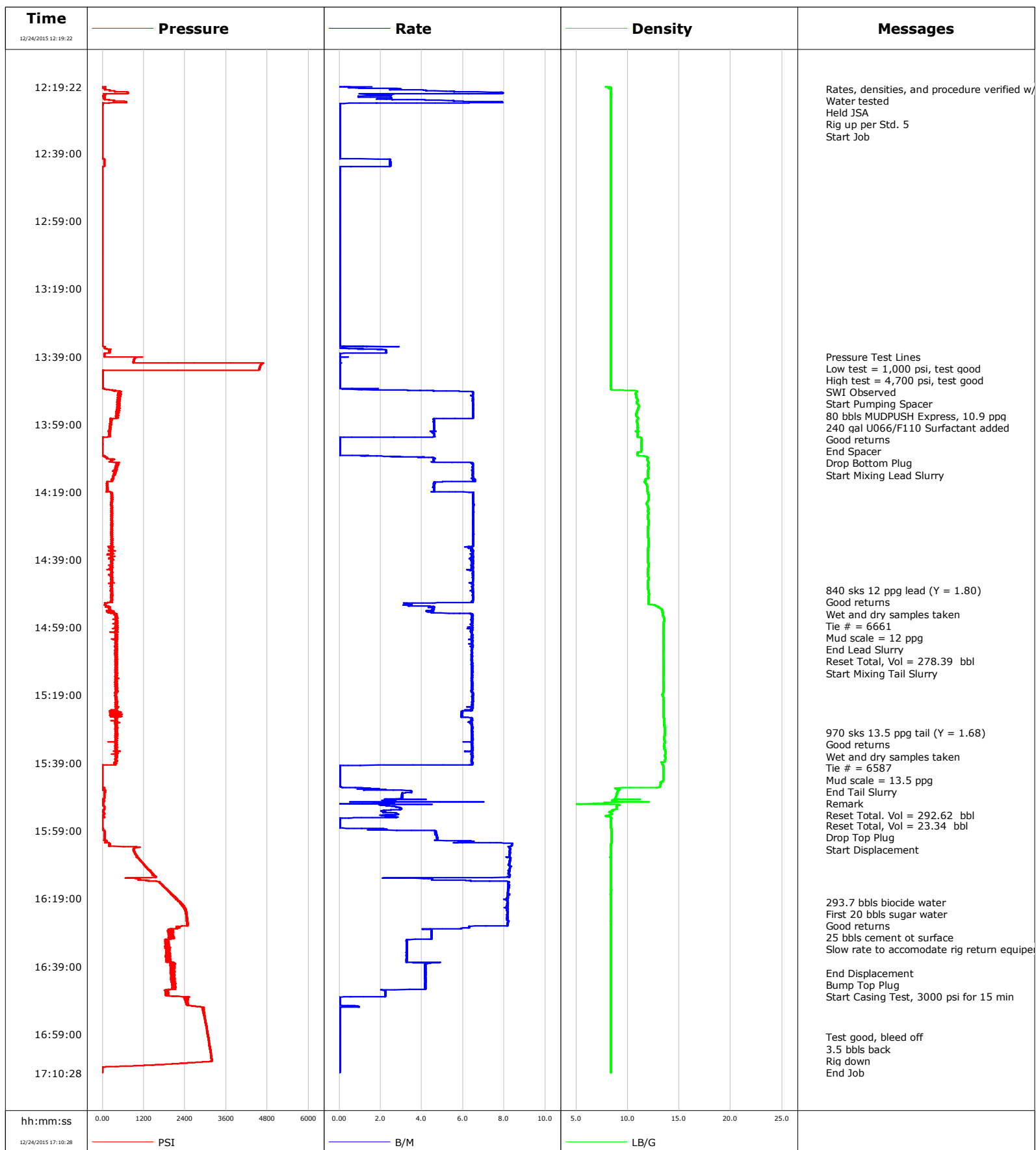


**Well** Alvin 27N-29HZ  
**Field** Wattenberg  
**Engineer** Langley/Leiker  
**Country** United States

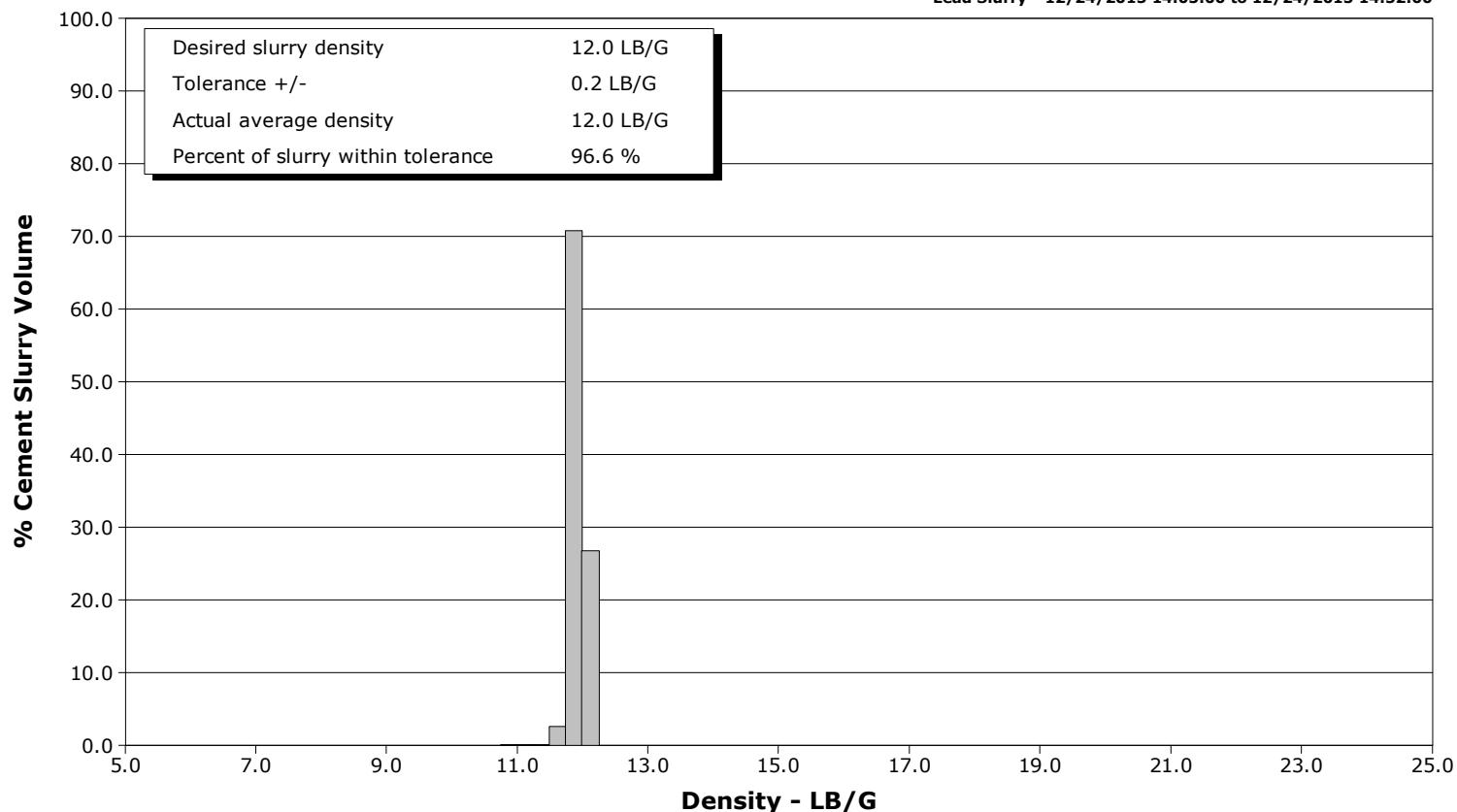
**Client** Anadarko  
**SIR No.** D5VO-00997  
**Job Type** 5.5" Monobore Production  
**Job Date** 12/24/2015



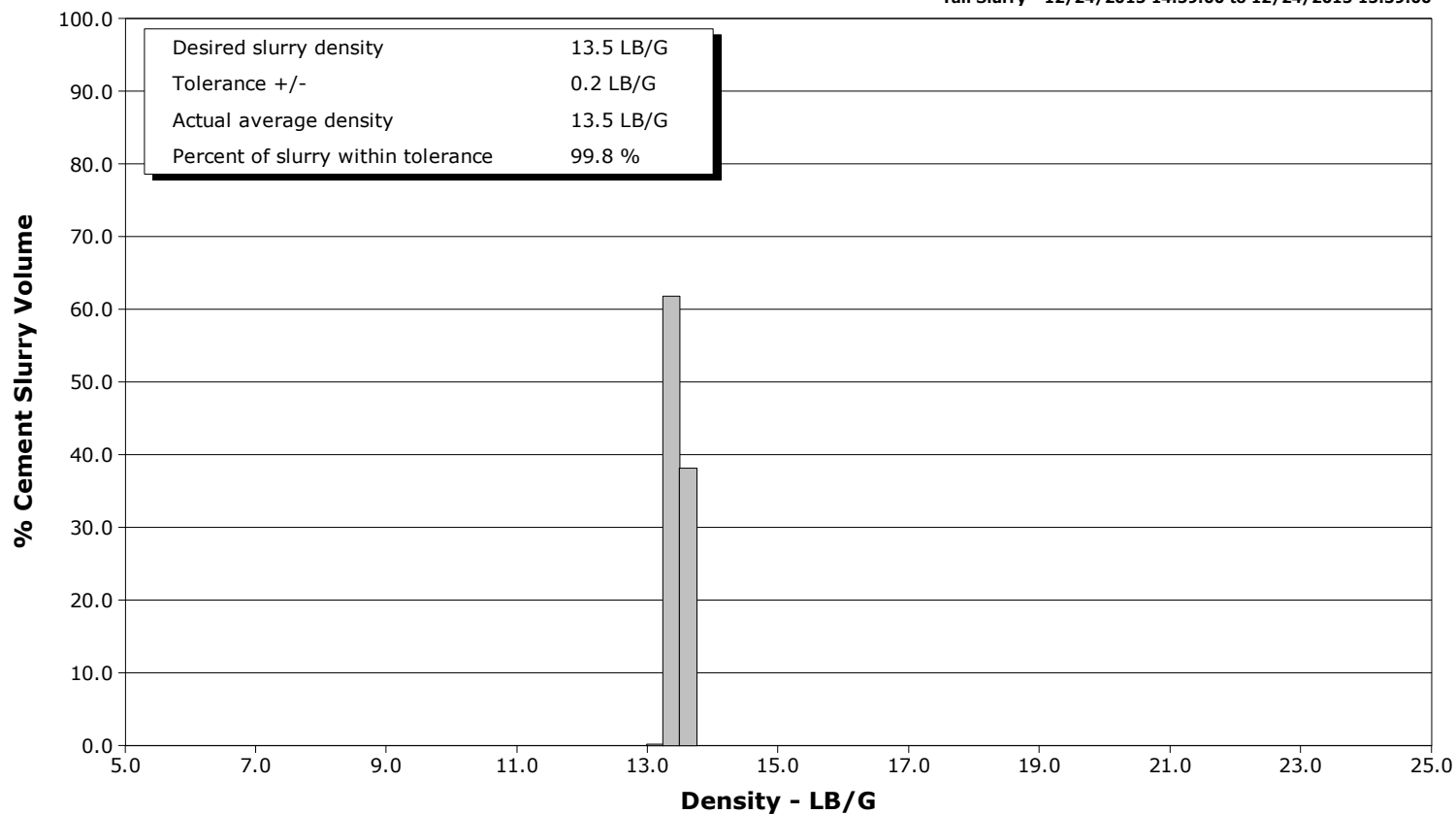
**Well** Alvin 27N-29HZ  
**Field** Wattenberg  
**Engineer** Langley/Leiker  
**Country** United States

**Client** Anadarko  
**SIR No.** D5VO-00997  
**Job Type** 5.5" Monobore Production  
**Job Date** 12/24/2015

**Lead Slurry - 12/24/2015 14:05:00 to 12/24/2015 14:52:00**



**Tail Slurry - 12/24/2015 14:59:00 to 12/24/2015 15:39:00**



# Cementing Service Report

					Customer Anadarko			Job Number D5VO-00997	
Well Alvin 27N-29HZ 27N-29HZ			Location (legal) Xtreme 24			Schlumberger Location Cheyenne		Job Start Dec/24/2015	
Field Wattenberg		Formation Name/Type Shale		Deviation deg		Bit Size 8.5 in		Well MD 12724.2 ft	
County Weld		State/Province Colorado		BHP psi		BHST 229 degF		BHCT 225 degF	
Well Master 0631660447		API/UWI 05123422070000						Pore Press. Gradient lb/gal	
Rig Name Xtreme 24		Drilled For Oil		Service Via Land		Casing/ Liner			
						Depth, ft		Size, in	
						Weight, lb/ft		Grade	
Offshore Zone		Well Class New		Well Type Development		12724.2		5.5	
						1876.0		9.6	
Drilling Fluid Type OBM		Max. Density 9.50 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe			
						T/D		Depth, ft	
						Size, in		Weight, lb/ft	
						Grade		Thread	
Service Line Cementing		Job Type 5.5" Monobore Production							
Max. Allowed Tub. Press 5000 psi		Max. Allowed Ann. Press 5000 psi		WH Connection Double		Perforations/Open Hole			
						Top, ft		Bottom, ft	
						shot/ft		No. of Shots	
								Total Interval	
						ft		ft	
						ft		ft	
						ft		ft	
						Treat Down Casing		Displacement 293.7 bbl	
						Packer Type		Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 295.8 bbl	
						Annular Vol. 533.0 bbl		Openhole Vol. 987.0 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 9105 psi						Shoe Type Float		Squeeze Type	
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 12724.2 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 12631.9 ft		Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message		
12/24/2015	12:19:22	-25	1.6	8.00	0.0	0	Remark		
12/24/2015	12:20:00	59	2.6	8.32	0.6	0	Rates, densities, and procedure verified w/ client		
12/24/2015	12:21:22	714	7.9	8.36	7.6	0			
12/24/2015	12:23:22	209	4.2	8.36	12.7	0			
12/24/2015	12:25:22	-1	0.0	8.36	18.5	0			
12/24/2015	12:27:22	-2	0.0	8.36	18.5	0			
12/24/2015	12:29:22	-2	0.0	8.36	18.5	0			
12/24/2015	12:31:22	-2	0.0	8.36	18.5	0			
12/24/2015	12:33:22	-2	0.0	8.36	18.5	0			
12/24/2015	12:35:22	-1	0.0	8.36	18.5	0			
12/24/2015	12:37:22	-1	0.0	8.36	18.5	0			
12/24/2015	12:39:22	-1	0.0	8.36	18.5	0			
12/24/2015	12:41:22	53	2.5	8.35	20.1	0			
12/24/2015	12:43:22	0	0.0	8.36	0.0	0			
12/24/2015	12:45:22	1	0.0	8.36	0.0	0			
12/24/2015	12:47:22	1	0.0	8.36	0.0	0			
12/24/2015	12:49:22	1	0.0	8.36	0.0	0			
12/24/2015	12:51:22	2	0.0	8.36	0.0	0			
12/24/2015	12:53:22	2	0.0	8.36	0.0	0			
12/24/2015	12:55:22	2	0.0	8.36	0.0	0			
12/24/2015	12:57:22	3	0.0	8.36	0.0	0			

Well			Field		Job Start		Customer		Job Number	
Alvin 27N-29HZ 27N-29HZ			Wattenberg		Dec/24/2015		Anadarko		D5VO-00997	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
12/24/2015	13:01:22	3	0.0	8.36	0.0	0				
12/24/2015	13:03:22	3	0.0	8.36	0.0	0				
12/24/2015	13:05:22	3	0.0	8.36	0.0	0				
12/24/2015	13:07:22	4	0.0	8.36	0.1	0				
12/24/2015	13:09:22	3	0.0	8.36	0.1	0				
12/24/2015	13:11:22	4	0.0	8.36	0.1	0				
12/24/2015	13:13:22	4	0.0	8.36	0.1	0				
12/24/2015	13:15:22	4	0.0	8.36	0.1	0				
12/24/2015	13:17:22	3	0.0	8.36	0.1	0				
12/24/2015	13:19:22	4	0.0	8.36	0.1	0				
12/24/2015	13:21:22	3	0.0	8.37	0.1	0				
12/24/2015	13:23:22	3	0.0	8.36	0.1	0				
12/24/2015	13:25:22	3	0.0	8.37	0.1	0				
12/24/2015	13:27:22	2	0.0	8.37	0.1	0				
12/24/2015	13:29:22	3	0.0	8.37	0.1	0				
12/24/2015	13:31:22	3	0.0	8.37	0.1	0				
12/24/2015	13:33:22	3	0.0	8.37	0.1	0				
12/24/2015	13:35:22	2	0.0	8.37	0.1	0				
12/24/2015	13:37:22	203	2.3	8.36	1.6	0				
12/24/2015	13:39:00	51	0.0	8.36	3.1	0	Pressure Test Lines			
12/24/2015	13:39:22	979	0.0	8.36	3.2	0				
12/24/2015	13:40:00	929	0.0	8.36	3.2	0	Low test = 1,000 psi, test good			
12/24/2015	13:41:22	4654	0.0	8.36	3.2	0				
12/24/2015	13:42:00	4620	0.0	8.36	3.2	0	High test = 4,700 psi, test good			
12/24/2015	13:43:22	11	0.0	8.36	3.2	0				
12/24/2015	13:44:00	4	0.0	8.36	3.2	0	SWI Observed			
12/24/2015	13:45:22	13	0.0	8.36	3.2	0				
12/24/2015	13:47:22	12	0.0	8.36	3.2	0				
12/24/2015	13:48:00	14	0.0	8.36	3.2	0	Start Pumping Spacer			
12/24/2015	13:49:22	488	6.4	10.89	5.5	0				
12/24/2015	13:50:00	451	6.5	10.77	9.6	0	80 bbls MUDPUSH Express, 10.9 ppg			
12/24/2015	13:51:22	441	6.5	10.88	18.5	0				
12/24/2015	13:53:22	484	6.5	11.05	31.4	0				
12/24/2015	13:55:22	439	6.5	10.88	44.4	0				
12/24/2015	13:57:22	276	4.7	11.00	57.3	0				
12/24/2015	13:59:00	235	4.6	10.97	64.8	0	End Spacer			
12/24/2015	13:59:22	259	4.6	10.97	66.5	0				
12/24/2015	14:00:00	220	4.6	10.98	69.4	0	Drop Bottom Plug			
12/24/2015	14:01:22	219	4.5	10.93	75.6	0				
12/24/2015	14:03:22	7	0.0	11.34	82.5	0				
12/24/2015	14:05:00	3	0.0	11.35	82.5	0	Start Mixing Lead Slurry			
12/24/2015	14:05:22	4	0.0	11.35	82.5	0				
12/24/2015	14:07:22	5	0.0	10.94	82.5	0				
12/24/2015	14:09:22	337	4.6	11.92	86.4	0				
12/24/2015	14:11:22	389	6.5	11.97	97.6	0				
12/24/2015	14:13:22	348	6.5	11.97	110.5	0				
12/24/2015	14:15:22	292	6.5	11.74	123.4	0				
12/24/2015	14:17:22	143	4.6	11.89	133.9	0				
12/24/2015	14:19:22	270	6.5	11.96	143.7	0				
12/24/2015	14:21:22	290	6.5	12.01	156.6	0				
12/24/2015	14:23:22	288	6.5	11.97	169.6	0				
12/24/2015	14:25:22	279	6.5	12.00	182.6	0				
12/24/2015	14:27:22	276	6.5	12.01	195.6	0				
12/24/2015	14:29:22	296	6.5	11.98	208.6	0				

Well			Field		Job Start		Customer	Job Number
Alvin 27N-29HZ 27N-29HZ			Wattenberg		Dec/24/2015		Anadarko	D5VO-00997
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
12/24/2015	14:33:22	276	6.5	12.03	234.6	0		
12/24/2015	14:35:22	303	6.3	11.99	247.5	0		
12/24/2015	14:37:22	282	6.4	11.95	260.4	0		
12/24/2015	14:39:22	264	6.5	11.97	273.3	0		
12/24/2015	14:41:22	274	6.4	11.99	286.2	0		
12/24/2015	14:43:22	264	6.5	11.94	299.1	0		
12/24/2015	14:45:22	270	6.5	11.97	312.0	0		
12/24/2015	14:47:22	285	6.5	11.97	325.0	0		
12/24/2015	14:48:00	283	6.5	12.00	329.0	0	840 sks 12 ppg lead (Y = 1.80)	
12/24/2015	14:49:00	298	6.5	12.04	335.5	0	Mud scale = 12 ppg	
12/24/2015	14:49:22	281	6.5	12.08	337.9	0		
12/24/2015	14:51:22	273	6.4	12.02	350.8	0		
12/24/2015	14:52:00	100	3.3	12.01	354.1	0	End Lead Slurry	
12/24/2015	14:53:22	203	4.6	13.17	359.5	0		
12/24/2015	14:53:40	233	4.6	13.29	360.8	0	Reset Total, Vol = 278.39 bbl	
12/24/2015	14:55:22	393	6.4	13.38	369.5	0		
12/24/2015	14:57:22	432	6.4	13.51	382.3	0		
12/24/2015	14:59:00	370	6.4	13.49	392.8	0	Start Mixing Tail Slurry	
12/24/2015	14:59:22	429	6.3	13.50	395.2	0		
12/24/2015	15:01:22	389	6.4	13.47	408.0	0		
12/24/2015	15:03:22	444	6.4	13.46	420.9	0		
12/24/2015	15:05:22	428	6.5	13.50	433.7	0		
12/24/2015	15:07:22	423	6.4	13.45	446.6	0		
12/24/2015	15:09:22	410	6.4	13.47	459.4	0		
12/24/2015	15:11:22	418	6.4	13.47	472.3	0		
12/24/2015	15:13:22	406	6.4	13.46	485.2	0		
12/24/2015	15:15:22	379	6.4	13.45	498.0	0		
12/24/2015	15:17:22	401	6.5	13.46	510.9	0		
12/24/2015	15:19:22	399	6.5	13.40	523.8	0		
12/24/2015	15:21:22	417	6.4	13.49	536.8	0		
12/24/2015	15:23:22	417	6.2	13.49	549.6	0		
12/24/2015	15:25:22	290	5.9	13.51	561.6	0		
12/24/2015	15:27:22	398	6.4	13.52	574.3	0		
12/24/2015	15:29:22	449	6.4	13.57	587.2	0		
12/24/2015	15:30:00	445	6.4	13.60	591.3	0	970 sks 13.5 ppg tail (Y = 1.68)	
12/24/2015	15:31:22	448	6.4	13.55	600.1	0		
12/24/2015	15:33:22	448	6.4	13.55	612.9	0		
12/24/2015	15:35:22	415	6.4	13.62	625.8	0		
12/24/2015	15:37:22	449	6.4	13.66	638.6	0		
12/24/2015	15:39:00	376	6.4	13.37	649.1	20	End Tail Slurry	
12/24/2015	15:39:22	420	6.4	13.37	651.5	50		
12/24/2015	15:41:00	19	0.0	13.44	653.5	0	Remark	
12/24/2015	15:41:22	18	0.0	13.44	653.5	0		
12/24/2015	15:43:22	18	0.0	13.43	653.5	0		
12/24/2015	15:44:48	18	0.0	13.23	653.5	0	Reset Total, Vol = 292.62 bbl	
12/24/2015	15:45:22	19	0.0	13.17	653.5	0		
12/24/2015	15:47:22	114	3.5	9.03	655.7	74		
12/24/2015	15:49:22	82	3.0	8.79	662.0	74		
12/24/2015	15:51:22	60	2.2	9.13	667.0	0		
12/24/2015	15:53:22	52	2.1	8.26	672.2	23		
12/24/2015	15:55:22	19	0.0	8.40	676.8	0		
12/24/2015	15:57:22	18	0.0	8.39	676.8	0		
12/24/2015	15:57:31	18	0.0	8.39	676.8	0	Reset Total, Vol = 23.34 bbl	
12/24/2015	15:59:00	96	4.6	8.41	678.5	0	Drop Top Plug	

Well			Field		Job Start		Customer		Job Number	
Alvin 27N-29HZ 27N-29HZ			Wattenberg		Dec/24/2015		Anadarko		D5VO-00997	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
12/24/2015	16:00:00	94	4.7	8.41	683.1	0	Start Displacement			
12/24/2015	16:01:22	90	4.7	8.41	689.6	0				
12/24/2015	16:03:22	229	8.4	8.38	702.6	0				
12/24/2015	16:05:22	982	8.3	8.38	719.2	0				
12/24/2015	16:07:22	1105	8.3	8.37	735.7	0				
12/24/2015	16:09:22	1284	8.3	8.37	752.2	0				
12/24/2015	16:11:22	1469	8.2	8.38	768.7	0				
12/24/2015	16:13:22	1101	4.5	8.38	782.8	0				
12/24/2015	16:15:22	1813	8.2	8.37	797.6	0				
12/24/2015	16:17:22	2008	8.2	8.36	814.0	0				
12/24/2015	16:19:22	2228	8.1	8.36	830.3	0				
12/24/2015	16:20:00	2315	8.2	8.36	835.5	0	293.7 bbls biocide water			
12/24/2015	16:21:22	2431	8.2	8.36	846.6	0				
12/24/2015	16:23:22	2484	8.2	8.36	862.9	0				
12/24/2015	16:25:00	2523	8.1	8.36	876.2	0	Slow rate to accomodate rig return equipment			
12/24/2015	16:25:22	2510	8.1	8.36	879.2	0				
12/24/2015	16:27:22	2213	6.3	8.36	895.1	0				
12/24/2015	16:29:22	2102	4.5	8.36	905.1	0				
12/24/2015	16:31:22	1969	3.3	8.35	913.7	0				
12/24/2015	16:33:22	1947	3.3	8.36	920.2	0				
12/24/2015	16:35:22	1969	3.3	8.35	926.7	0				
12/24/2015	16:37:22	1938	3.3	8.36	933.3	0				
12/24/2015	16:39:22	2048	4.2	8.36	941.2	0				
12/24/2015	16:41:00	2144	4.2	8.36	948.0	0	End Displacement			
12/24/2015	16:41:22	2119	4.2	8.36	949.5	0				
12/24/2015	16:42:00	2073	4.2	8.36	952.2	0	Bump Top Plug			
12/24/2015	16:43:22	2062	4.2	8.36	957.9	0				
12/24/2015	16:45:00	2143	4.2	8.36	964.7	0	Start Casing Test, 3000 psi for 15 min			
12/24/2015	16:45:22	2099	4.2	8.36	966.2	0				
12/24/2015	16:47:22	1962	2.2	8.35	971.8	0				
12/24/2015	16:49:22	2480	0.0	8.36	973.3	0				
12/24/2015	16:51:22	2977	0.0	8.36	973.7	0				
12/24/2015	16:53:22	3013	0.0	8.36	973.7	0				
12/24/2015	16:55:22	3055	0.0	8.36	973.7	0				
12/24/2015	16:57:22	3089	0.0	8.36	973.7	0				
12/24/2015	16:59:22	3125	0.0	8.36	973.7	0				
12/24/2015	17:00:00	3135	0.0	8.36	973.7	0	Test good, bleed off			
12/24/2015	17:01:22	3157	0.0	8.36	973.7	0				
12/24/2015	17:03:22	3187	0.0	8.36	973.7	0				
12/24/2015	17:05:22	3218	0.0	8.36	973.7	0				
12/24/2015	17:07:22	2839	0.0	8.36	973.7	0				

<b>Well</b> Alvin 27N-29HZ 27N-29HZ	<b>Field</b> Wattenberg	<b>Job Start</b> Dec/24/2015	<b>Customer</b> Anadarko	<b>Job Number</b> D5VO-00997
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry	N2		Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum	Final 0	Average	Bump Plug to 2200	Breakdown	Type		Volume bbl	Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 0.0 bbl		Displacement bbl		Mix Water Temp 60 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 25.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Dan Strawn				Schlumberger Supervisor Langley/Leiker				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-



Service Quality Evaluation

Client:	Anadarko
Field:	Wattenberg
Rig:	Xtreme 24
Well:	Alvin 27N-29HZ
Service Line:	Cementing
Job Type:	5.5" Monobore Production

Service Order #:	
Date:	Dec/24/2015
Operating Time (hh:mm):	00:00
Client Rep:	Dan Strawn
Schlumberger Engineer:	Langley/Leiker
Schlumberger FSM:	Dan Joelson

Main Objective: Cement 5.5" Monobore Production

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No		Result
1	HSE				
1a	Free of lost time injury and compliance with SLB and loc. spec. HSE practice	5	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	5
1b	Free of environmental spill or non-compliant discharge	5	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	5
1c	Wellsite left clean	4	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	4
Sub-total					100%

2	Design / Preparation				
2a	Program incl. job simulation (CemCADE) & pump schedule / tool hydraulic calcs	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
2b	Equipment maintenance schedule completed / Green tagged	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
2c	All materials and equipment required for job/contingency checked & on location	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
2d	Safety / pre-job meeting conducted with all involved present	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
Sub-total					100%

3	Execution				
3a	Lost time < 30 mins	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3b	Equipment pressure tested successfully	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3c	All key parameters monitored and recorded accurately (Pressure, Rate, Density)	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3d	Plugs / darts released and tested successfully	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3e	Density variation met expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3f	Personnel performed as per expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3g	Equipment performed as per expectations	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3h	Job pumped as per design	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
3i	Did job start on time	2	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	2
3j	Free of Operational failures (screen out, Cementing Example, etc.)	3	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	3
Sub-total					100%

4	Evaluation				
4a	Main job objective achieved with no consequential non-productive time	10	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	10
Sub-total					100%

Total 100%

Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)

Client:	Schlumberger:
Client Signature:	Schlumberger Signature: