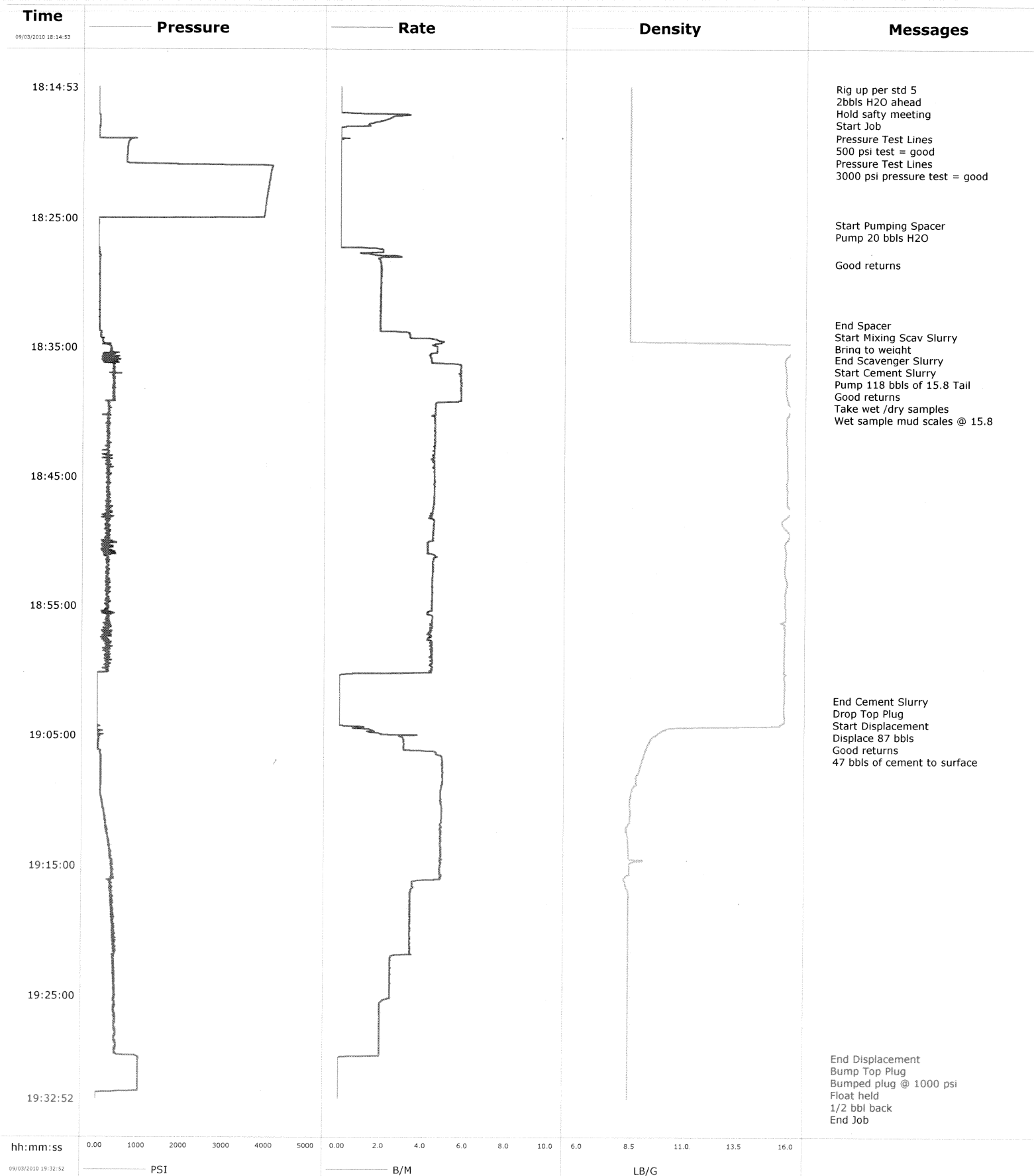


**Well** Twin Creek 12-1C1  
**Field** Mamm Creek  
**Engineer** Matt Fair  
**Country** United States

**Client** Encana  
**SIR No.**  
**Job Type** 9 5/8 Surface  
**Job Date** 09-03-2010

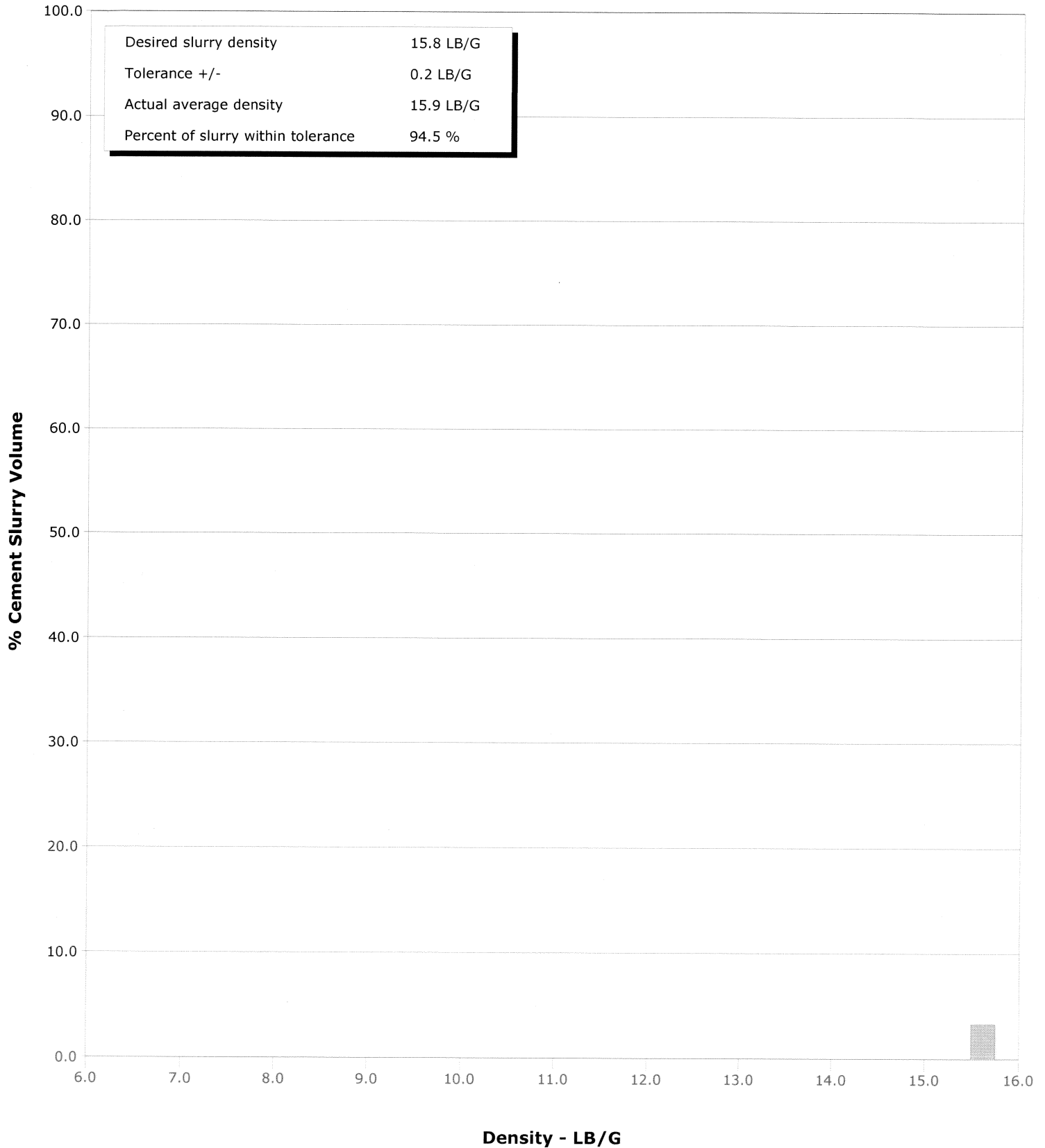


# Schlumberger Cementing Qa/Qc Density Report

**Well** Twin Creek 12-1C1  
**Field** Mamm Creek  
**Engineer** Matt Fair  
**Country** United States

**Client** Encana  
**SIR No.**  
**Job Type** 9 5/8 Surface  
**Job Date** 09-03-2010

Cement Slurry - 09/03/2010 18:36:00 to 09/03/2010 19:02:15





# Cementing Service Report

				Customer Encana		Job Number B21J-00222									
Well Twin Creek 12-1C1			Location (legal)		Schlumberger Location		Job Start Sep/03/2010								
Field Mamm Creek		Formation Name/Type Shale		Deviation		Bit Size 12.3 in		Well MD 1173.0 ft		Well TVD 1173.0 ft					
County Garfield		State/Province Colorado		BHP		BHST 94 degF		BHCT 81 degF		Pore Press. Gradient					
Well Master 0631186437		API/UWI													
Rig Name Nabors M15		Drilled For Gas		Service Via Land		Casing/Liner									
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Offshore Zone		Well Class New		Well Type Development		40.0		16.000		65.0		K55		8RD	
						1173.0		9.630		36.0		K55		8RD	
Drilling Fluid Type Bentonite		Max. Density 9.20 lb/gal		Plastic Viscosity		Tubing/Drill Pipe									
						Depth,		Size,		Weight,		Grade		Thread	
Service Line Cementing		Job Type 9 5/8 Surface													
Max. Allowed Tub. Press 3520 psi		Max. Allowed Ann. Press 2030 psi		WH Connection 9 5/8		Perforations/Open Hole									
						Top,		Bottom,				No. of Shots		Total Interval	
														Diameter	
						Treat Down Casing		Displacement 87.0 bbl		Packer Type		Packer Depth			
						Tubing Vol.		Casing Vol. 91.0 bbl		Annular Vol. 69.0 bbl		Openhole Vol. 163.0 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 580 psi						Shoe Type Float		Squeeze Type							
Pipe Rotated		<input type="checkbox"/>		Pipe Reciprocated		<input type="checkbox"/>		Shoe Depth 1173.0 ft		Tool Type					
No. Centralizers 14		Top Plugs 1		Bottom Plugs 0		Stage Tool Type		Tool Depth							
Cement Head Type Single						Stage Tool Depth		Tail Pipe Size							
Job Scheduled For Sep/03/2010 13:30		Arrived on Location Sep/03/2010 13:30		Leave Location Sep/03/2010		Collar Type Guide		Tail Pipe Depth							
						Collar Depth 1128.0 ft		Sqz. Total Vol.							
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message									
09/03/2010	16:48:41					Started Acquisition									
09/03/2010	18:14:53	-0	0.0	8.36	0.0										
09/03/2010	18:14:57					Rig up per std 5									
09/03/2010	18:14:57					2bbls H2O ahead									
09/03/2010	18:14:57					Hold safty meeting									
09/03/2010	18:14:57	0	0.0	8.36	0.0										
09/03/2010	18:15:01					Start Job									
09/03/2010	18:15:01	1	0.0	8.36	0.0										
09/03/2010	18:15:21	1	0.0	8.36	0.0										
09/03/2010	18:17:01	26	3.2	8.36	0.2										
09/03/2010	18:18:41	20	0.0	8.37	2.1										
09/03/2010	18:18:44					Pressure Test Lines									
09/03/2010	18:18:44	20	0.0	8.37	2.1										
09/03/2010	18:18:47					500 psi test = good									
09/03/2010	18:18:47	20	0.0	8.37	2.1										
09/03/2010	18:20:21	689	0.0	8.37	2.1										
09/03/2010	18:20:39					Pressure Test Lines									
09/03/2010	18:20:39	687	0.0	8.37	2.1										
09/03/2010	18:20:41					3000 psi pressure test = good									
09/03/2010	18:20:41	687	0.0	8.37	2.1										
09/03/2010	18:22:01	4058	0.0	8.37	2.1										

Well			Field	Job Start		Customer	Job Number
Twin Creek 12-1C1			Mamm Creek	Sep/03/2010		Encana	B21J-00222
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
09/03/2010	18:25:21	11	0.0	8.37	2.1		
09/03/2010	18:25:26					Start Pumping Spacer	
09/03/2010	18:25:26	12	0.0	8.37	2.1		
09/03/2010	18:25:29					Pump 20 bbls H2O	
09/03/2010	18:25:29	12	0.0	8.37	2.1		
09/03/2010	18:27:01	11	0.0	8.37	2.1		
09/03/2010	18:28:29					Good returns	
09/03/2010	18:28:29	39	1.9	8.36	4.4		
09/03/2010	18:28:41	40	2.0	8.37	4.8		
09/03/2010	18:30:21	42	1.9	8.36	8.0		
09/03/2010	18:32:01	37	2.0	8.37	11.3		
09/03/2010	18:33:10					End Spacer	
09/03/2010	18:33:10	39	1.9	8.37	13.5		
09/03/2010	18:33:11					Start Mixing Scav Slurry	
09/03/2010	18:33:11	36	1.9	8.37	13.6		
09/03/2010	18:33:41	42	1.9	8.37	14.5		
09/03/2010	18:34:26					Bring to weight	
09/03/2010	18:34:26	118	4.6	8.37	17.0		
09/03/2010	18:35:21	340	4.6	16.07	21.3		
09/03/2010	18:35:54					End Scavenger Slurry	
09/03/2010	18:35:54	117	4.4	15.80	23.7		
09/03/2010	18:36:00					Start Cement Slurry	
09/03/2010	18:36:00	443	4.4	15.77	24.1		
09/03/2010	18:36:15					Pump 118 bbls of 15.8 Tail	
09/03/2010	18:36:15	145	4.5	15.77	25.2		
09/03/2010	18:36:16					Good returns	
09/03/2010	18:36:16	416	5.1	15.78	25.3		
09/03/2010	18:36:17					Take wet /dry samples	
09/03/2010	18:36:17	405	5.5	15.78	25.4		
09/03/2010	18:37:01	277	5.7	15.83	29.6		
09/03/2010	18:37:41					Wet sample mud scales @ 15.8	
09/03/2010	18:37:41	380	5.8	15.85	33.5		
09/03/2010	18:38:41	379	5.8	15.85	39.2		
09/03/2010	18:40:21	268	4.5	15.91	47.5		
09/03/2010	18:42:01	246	4.6	15.86	55.1		
09/03/2010	18:43:41	222	4.4	15.90	62.7		
09/03/2010	18:45:21	239	4.5	15.89	70.2		
09/03/2010	18:47:01	219	4.5	15.89	77.8		
09/03/2010	18:48:41	223	4.5	15.65	85.2		
09/03/2010	18:50:21	108	4.2	15.80	92.6		
09/03/2010	18:52:01	247	4.5	15.81	99.9		
09/03/2010	18:53:41	259	4.4	15.86	107.3		
09/03/2010	18:55:21	185	4.4	15.84	114.7		
09/03/2010	18:57:01	233	4.4	15.81	122.0		
09/03/2010	18:58:41	271	4.4	15.78	129.3		
09/03/2010	19:00:21	4	0.1	15.85	136.1		
09/03/2010	19:02:01	6	0.0	15.80	136.1		
09/03/2010	19:02:15					End Cement Slurry	
09/03/2010	19:02:15	7	0.0	15.80	136.1		
09/03/2010	19:02:18					Drop Top Plug	
09/03/2010	19:02:18	6	0.0	15.81	136.1		
09/03/2010	19:02:19					Start Displacement	
09/03/2010	19:02:19	6	0.0	15.81	136.1		
09/03/2010	19:02:23					Displace 87 bbls	

Well			Field	Job Start		Customer	Job Number
Twin Creek 12-1C1			Mamm Creek	Sep/03/2010		Encana	B2IJ-00222
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
09/03/2010	19:02:23	6	0.0	15.81	136.1		
09/03/2010	19:02:24					47 bbls of cement to surface	
09/03/2010	19:02:24	7	0.0	15.81	136.1		
09/03/2010	19:03:41	4	0.0	15.79	136.1		
09/03/2010	19:05:21	57	3.1	9.39	138.3		
09/03/2010	19:07:01	111	5.0	8.99	144.8		
09/03/2010	19:08:41	112	4.9	8.72	153.1		
09/03/2010	19:10:21	148	4.9	8.41	161.2		
09/03/2010	19:12:01	227	4.9	8.27	169.4		
09/03/2010	19:13:41	314	4.9	8.36	177.5		
09/03/2010	19:15:21	360	4.8	8.38	185.6		
09/03/2010	19:17:01	346	3.5	8.33	192.6		
09/03/2010	19:18:41	405	3.4	8.37	198.3		
09/03/2010	19:20:21	422	3.4	8.37	204.0		
09/03/2010	19:22:01	437	2.5	8.37	209.6		
09/03/2010	19:23:41	420	2.5	8.37	213.7		
09/03/2010	19:25:21	432	2.2	8.38	217.9		
09/03/2010	19:27:01	442	2.0	8.37	221.2		
09/03/2010	19:28:41	494	2.0	8.37	224.6		
09/03/2010	19:29:41					End Displacement	
09/03/2010	19:29:41					Bump Top Plug	
09/03/2010	19:29:41	1017	0.3	8.37	226.5		
09/03/2010	19:29:43					Bumped plug @ 1000 psi	
09/03/2010	19:29:43					Float held	
09/03/2010	19:29:43					1/2 bbl back	
09/03/2010	19:29:43	1020	0.1	8.37	226.5		
09/03/2010	19:30:21	1017	0.0	8.38	226.5		
09/03/2010	19:32:01	1019	0.0	8.38	226.5		
09/03/2010	19:32:49					End Job	
09/03/2010	19:32:49	5	0.0	8.38	226.5		

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected,			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2	
Treating Pressure Summary,					Breakdown Fluid			
Maximum	Final	Average	Bump Plug to 1100	Breakdown	Type	Volume	Density	
Avg. N2 Percent	Designed Slurry Volume 118.0 bbl		Displacement	Mix Water Temp 71 degF	Cement Circulated to Surface?	<input checked="" type="checkbox"/>	Volume	
					Washed Thru Perfs	<input type="checkbox"/>	To	
Customer or Authorized Representative Tim Phillips			Schlumberger Supervisor Matt Fair			Circulation Lost	<input type="checkbox"/> Job Completed <input checked="" type="checkbox"/>	
					-		-	

Schlumberger

Service Quality Evaluation

Client:	Encana	Service Order #:	
Field:	Mamm Creek	Date:	Sep/03/2010
Rig:	Nabors M15	Operating Time:	0.0
Well:	Twin Creek 12-1C1	Client Rep:	Encana
Service Line:	Cementing	Schlumberger Engineer:	Matt Fair
Job Type:	9 5/8 Surface	Schlumberger FSM:	

Main Objective:

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	Free of RIRs	5	yes	<input checked="" type="checkbox"/>	no	<input type="checkbox"/>	5
1d	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 succesfully	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 succesfully	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 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: