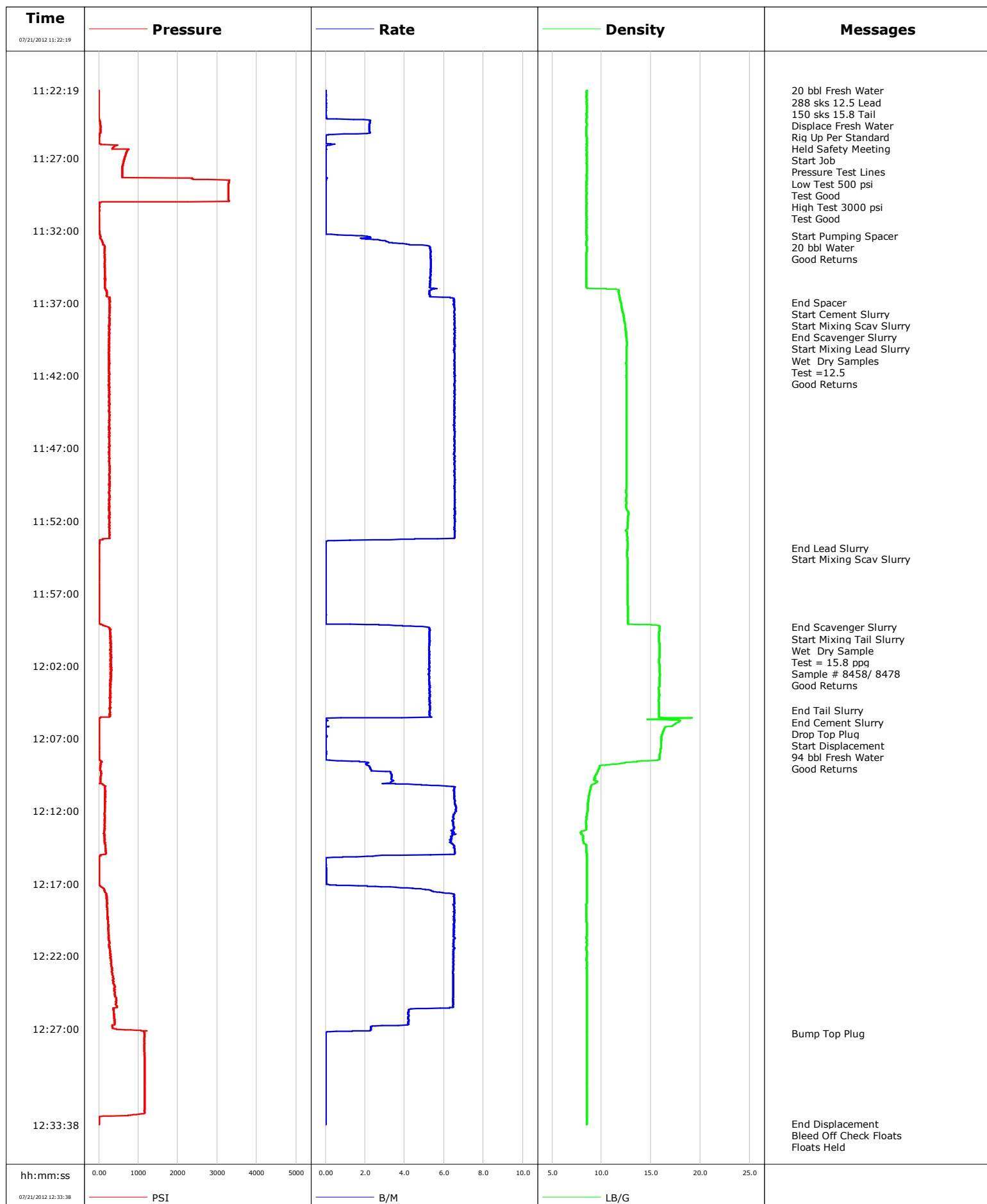


Well 16-12C
Field Mamm Creek
Engineer Jordan Moreland
Country United States

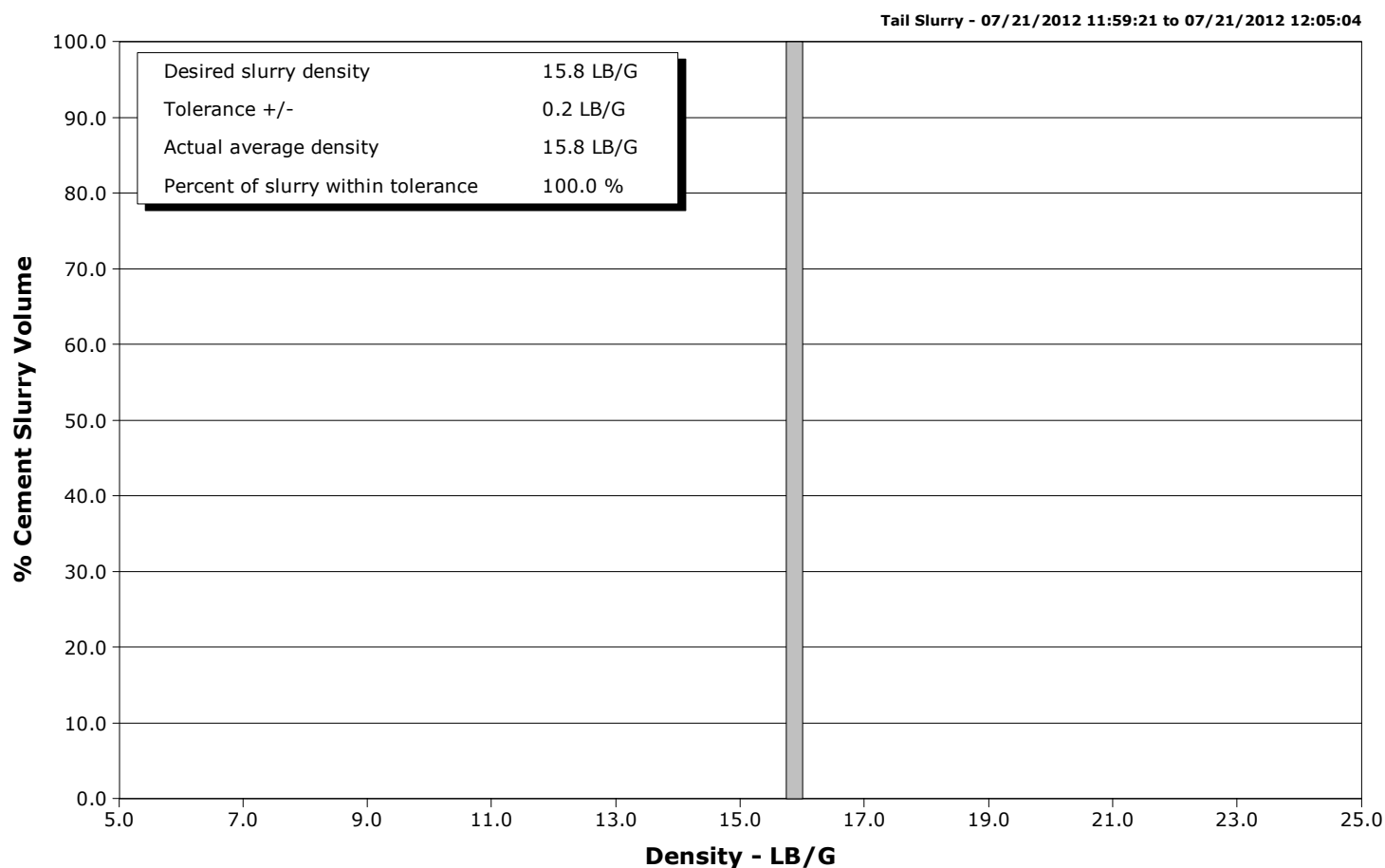
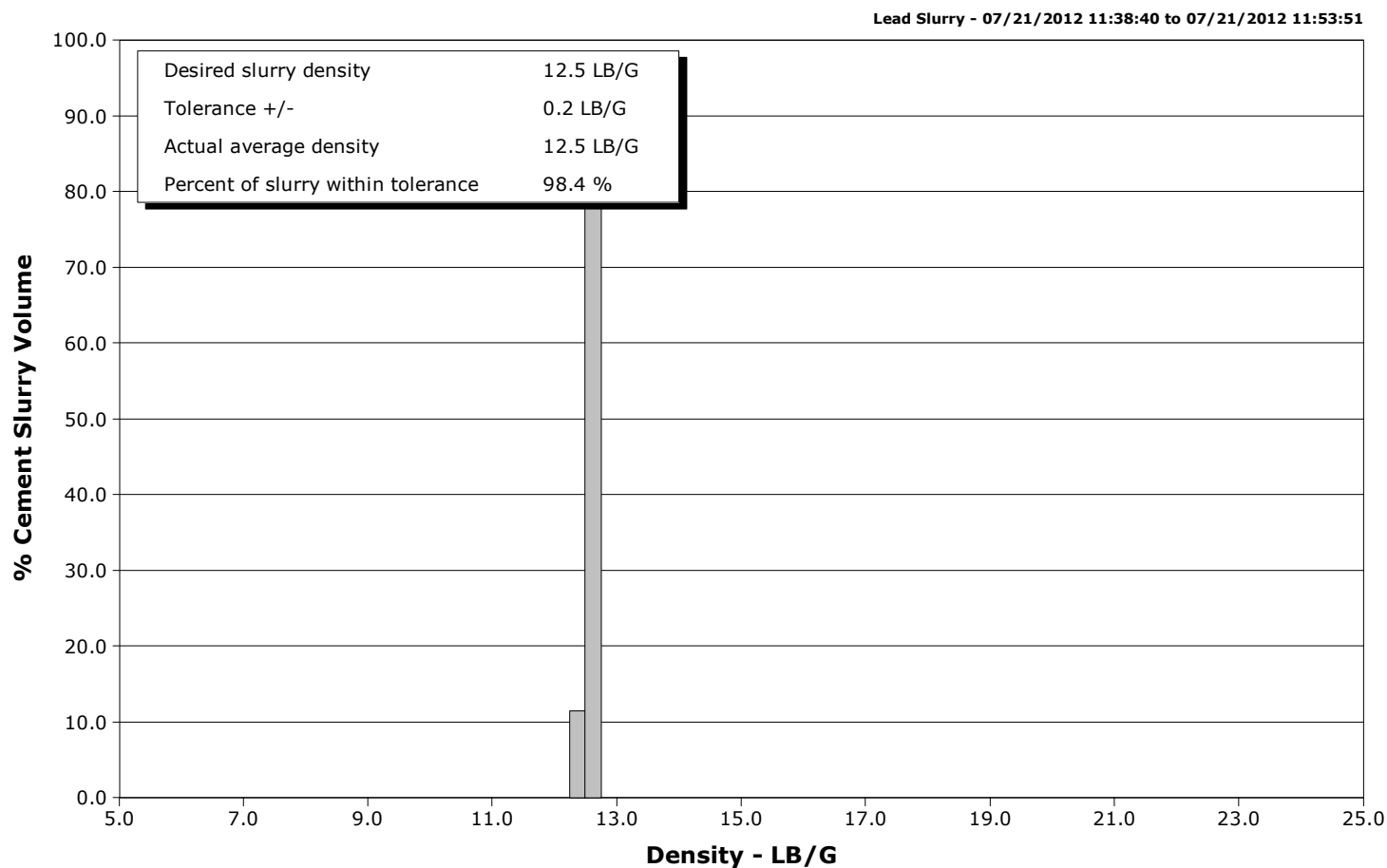
Client Encana
SIR No.
Job Type 9 5/8 Surface
Job Date 07-21-2012



Schlumberger Cementing Qa/Qc Density Report

Well 16-12C
Field Mamm Creek
Engineer Jordan Moreland
Country United States

Client Encana
SIR No.
Job Type 9 5/8 Surface
Job Date 07-21-2012





Cementing Service Report

				Customer Encana			Job Number C459-00070								
Well 16-12C			Location (legal)			Schlumberger Location GCO			Job Start Jul/21/2012						
Field Mamm Creek		Formation Name/Type			Deviation		Bit Size 12.3 in		Well MD		Well TVD				
County Garfield		State/Province Colorado			BHP		BHST 96 degF		BHCT 82 degF		Pore Press. Gradient				
Well Master 0631279569		API/UWI													
Rig Name Patterson 308		Drilled For Gas		Service Via Land		Casing/Liner									
Offshore Zone		Well Class New		Well Type Development		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
						40.0		16.000		65.0		K55		8RD	
						1259.0		9.630		36.0		K55		8RD	
Drilling Fluid Type			Max. Density		Plastic Viscosity		Tubing/Drill Pipe								
Service Line Cementing			Job Type 9 5/8 Surface			Depth,		Size,		Weight,		Grade		Thread	
Max. Allowed Tub. Press 3000 psi			Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole								
Service Instructions Rate And Density Checked 20 bbl Fresh Water 288 sks 12.5 Lead 150 sks 15.8 Tail Displace Fresh Water											No. of Shots		Total Interval		
											Diameter				
			Treat Down Casing		Displacement 94.0 bbl		Packer Type		Packer Depth						
			Tubing Vol.		Casing Vol. 95.0 bbl		Annular Vol. 73.0 bbl		Openhole Vol. 174.0 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 623 psi				Shoe Type Guide				Squeeze Type							
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1259.0 ft				Tool Type							
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth					
Cement Head Type Single				Stage Tool Depth				Tail Pipe Size							
Job Scheduled For Jul/21/2012		Arrived on Location Jul/21/2012		Leave Location Jul/21/2012		Collar Type Float				Tail Pipe Depth					
						Collar Depth 1213.0 ft				Sqz. Total Vol.					
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message									
07/21/2012	10:57:56					Started Acquisition									
07/21/2012	11:22:19	-0	0.0	8.48	0.0										
07/21/2012	11:22:21					20 bbl Fresh Water									
07/21/2012	11:22:21					288 sks 12.5 Lead									
07/21/2012	11:22:21					150 sks 15.8 Tail									
07/21/2012	11:22:21					Displace Fresh Water									
07/21/2012	11:22:21					Rig Up Per Standard									
07/21/2012	11:22:21	-1	0.0	8.48	0.0										
07/21/2012	11:22:22					Held Safety Meeting									
07/21/2012	11:22:22	-1	0.0	8.48	0.0										
07/21/2012	11:22:24					Start Job									
07/21/2012	11:22:24	-1	0.0	8.48	0.0										
07/21/2012	11:22:26					Pressure Test Lines									
07/21/2012	11:22:26	0	0.0	8.48	0.0										
07/21/2012	11:22:28					Low Test 500 psi									
07/21/2012	11:22:28					Test Good									
07/21/2012	11:22:28					High Test 3000 psi									
07/21/2012	11:22:28					Test Good									
07/21/2012	11:22:28	0	0.0	8.48	0.0										
07/21/2012	11:23:56	-4	0.0	8.48	0.0										
07/21/2012	11:25:56	11	0.0	8.48	2.3										

Well			Field		Job Start		Customer		Job Number	
16-12C			Mamm Creek		Jul/21/2012		Encana		C459-00070	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
07/21/2012	11:29:56	3285	0.0	8.48	2.4					
07/21/2012	11:31:56	11	0.0	8.48	2.5					
07/21/2012	11:32:22					Start Pumping Spacer				
07/21/2012	11:32:22	39	1.8	8.48	2.6					
07/21/2012	11:32:23					20 bbl Water				
07/21/2012	11:32:23					Good Returns				
07/21/2012	11:32:23	37	2.1	8.48	2.6					
07/21/2012	11:33:56	148	5.3	8.48	9.3					
07/21/2012	11:35:56	151	5.3	8.48	20.0					
07/21/2012	11:36:56					End Spacer				
07/21/2012	11:36:56	282	6.5	11.95	25.7					
07/21/2012	11:37:00					Start Cement Slurry				
07/21/2012	11:37:00	267	6.5	11.97	26.1					
07/21/2012	11:37:01					Start Mixing Scav Slurry				
07/21/2012	11:37:01	278	6.5	11.98	26.2					
07/21/2012	11:37:56	277	6.5	12.24	32.2					
07/21/2012	11:38:40					End Scavenger Slurry				
07/21/2012	11:38:40					Start Mixing Lead Slurry				
07/21/2012	11:38:40	279	6.5	12.40	37.0					
07/21/2012	11:38:41					Wet Dry Samples				
07/21/2012	11:38:41					Test =12.5				
07/21/2012	11:38:41					Good Returns				
07/21/2012	11:38:41	260	6.5	12.40	37.1					
07/21/2012	11:39:56	245	6.5	12.56	45.2					
07/21/2012	11:41:56	261	6.5	12.50	58.3					
07/21/2012	11:43:56	276	6.5	12.51	71.3					
07/21/2012	11:45:56	271	6.5	12.52	84.4					
07/21/2012	11:47:56	249	6.5	12.51	97.4					
07/21/2012	11:49:56	274	6.5	12.50	110.5					
07/21/2012	11:51:56	276	6.5	12.67	123.6					
07/21/2012	11:53:51					End Lead Slurry				
07/21/2012	11:53:51	9	0.0	12.60	132.5					
07/21/2012	11:53:56					Start Mixing Scav Slurry				
07/21/2012	11:53:56	8	0.0	12.60	132.5					
07/21/2012	11:55:56	7	0.0	12.62	132.5					
07/21/2012	11:57:56	8	0.0	12.66	132.5					
07/21/2012	11:59:19					End Scavenger Slurry				
07/21/2012	11:59:19	224	5.1	15.86	133.1					
07/21/2012	11:59:21					Start Mixing Tail Slurry				
07/21/2012	11:59:21	256	5.2	15.86	133.3					
07/21/2012	11:59:23					Wet Dry Sample				
07/21/2012	11:59:23					Test = 15.8 ppg				
07/21/2012	11:59:23					Sample # 8458/ 8478				
07/21/2012	11:59:23					Good Returns				
07/21/2012	11:59:23	272	5.3	15.85	133.5					
07/21/2012	11:59:56	283	5.2	15.83	136.4					
07/21/2012	12:01:56	308	5.2	15.85	146.9					
07/21/2012	12:03:56	279	5.3	15.83	157.4					
07/21/2012	12:05:04					End Tail Slurry				
07/21/2012	12:05:04	281	5.3	15.81	163.4					
07/21/2012	12:05:05					End Cement Slurry				
07/21/2012	12:05:05	284	5.3	15.81	163.4					
07/21/2012	12:05:07					Drop Top Plug				
07/21/2012	12:05:07	280	5.3	15.81	163.6					

Well			Field		Job Start	Customer	Job Number
16-12C			Mamm Creek		Jul/21/2012	Encana	C459-00070
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
07/21/2012	12:05:08	276	5.3	15.81	163.7		
07/21/2012	12:05:10					94 bbl Fresh Water	
07/21/2012	12:05:10	276	5.3	15.81	163.9		
07/21/2012	12:05:11					Good Returns	
07/21/2012	12:05:11	276	5.3	15.81	164.0		
07/21/2012	12:05:56	9	0.0	17.60	166.0		
07/21/2012	12:07:56	4	0.0	15.96	166.1		
07/21/2012	12:09:56	50	3.4	9.32	169.8		
07/21/2012	12:11:56	149	6.6	8.61	182.0		
07/21/2012	12:13:56	138	6.4	8.12	194.9		
07/21/2012	12:15:56	7	0.0	8.49	202.5		
07/21/2012	12:17:56	196	6.5	8.48	206.6		
07/21/2012	12:19:56	239	6.5	8.48	219.6		
07/21/2012	12:21:56	292	6.5	8.48	232.5		
07/21/2012	12:23:56	381	6.5	8.48	245.5		
07/21/2012	12:25:56	379	4.2	8.48	257.7		
07/21/2012	12:27:21					Bump Top Plug	
07/21/2012	12:27:21	1146	0.0	8.48	262.2		
07/21/2012	12:27:56	1151	0.0	8.48	262.2		
07/21/2012	12:29:56	1154	0.0	8.48	262.2		
07/21/2012	12:31:56	1157	0.0	8.49	262.3		
07/21/2012	12:33:32					End Displacement	
07/21/2012	12:33:32	1	0.0	8.49	262.3		
07/21/2012	12:33:33					Bleed Off Check Floats	
07/21/2012	12:33:33					Floats Held	
07/21/2012	12:33:33					1/2 bbl Back	
07/21/2012	12:33:33					54 bbl Cement To surface	
07/21/2012	12:33:33					Rig Down	
07/21/2012	12:33:33	1	0.0	8.49	262.3		
07/21/2012	12:33:36					End Job	
07/21/2012	12:33:36	0	0.0	8.48	262.3		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 4.1	N2	Mud 0.0	Maximum Rate 6.6		Total Slurry 262.3	Mud 0.0	Spacer 25.6	N2			
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 3300	Final 1	Average 352	Bump Plug to 1200	Breakdown	Type		Volume		Density		
Avg. N2 Percent		Designed Slurry Volume		Displacement 98.6 bbl	Mix Water Temp 73 degF	Cement Circulated to Surface?		<input checked="" type="checkbox"/>	Volume		
						Washed Thru Perfs		<input type="checkbox"/>	To		
Customer or Authorized Representative Marco Silva				Schlumberger Supervisor Jordan Moreland			Circulation Lost		<input type="checkbox"/>	Job Completed	<input checked="" type="checkbox"/>
							-		-		



Service Order #:	
Date:	Jul/21/2012
Operating Time:	0.0
Client Rep:	Encana
Schlumberger Engineer:	Jordan Moreland
Schlumberger FSM:	

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

4	Evaluation					
4a	Main job objective achieved with no consequential non-productive time	10	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	0	
					Sub-total	0%

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

Client:	Schlumberger:
Client Signature:	Schlumberger Signature: