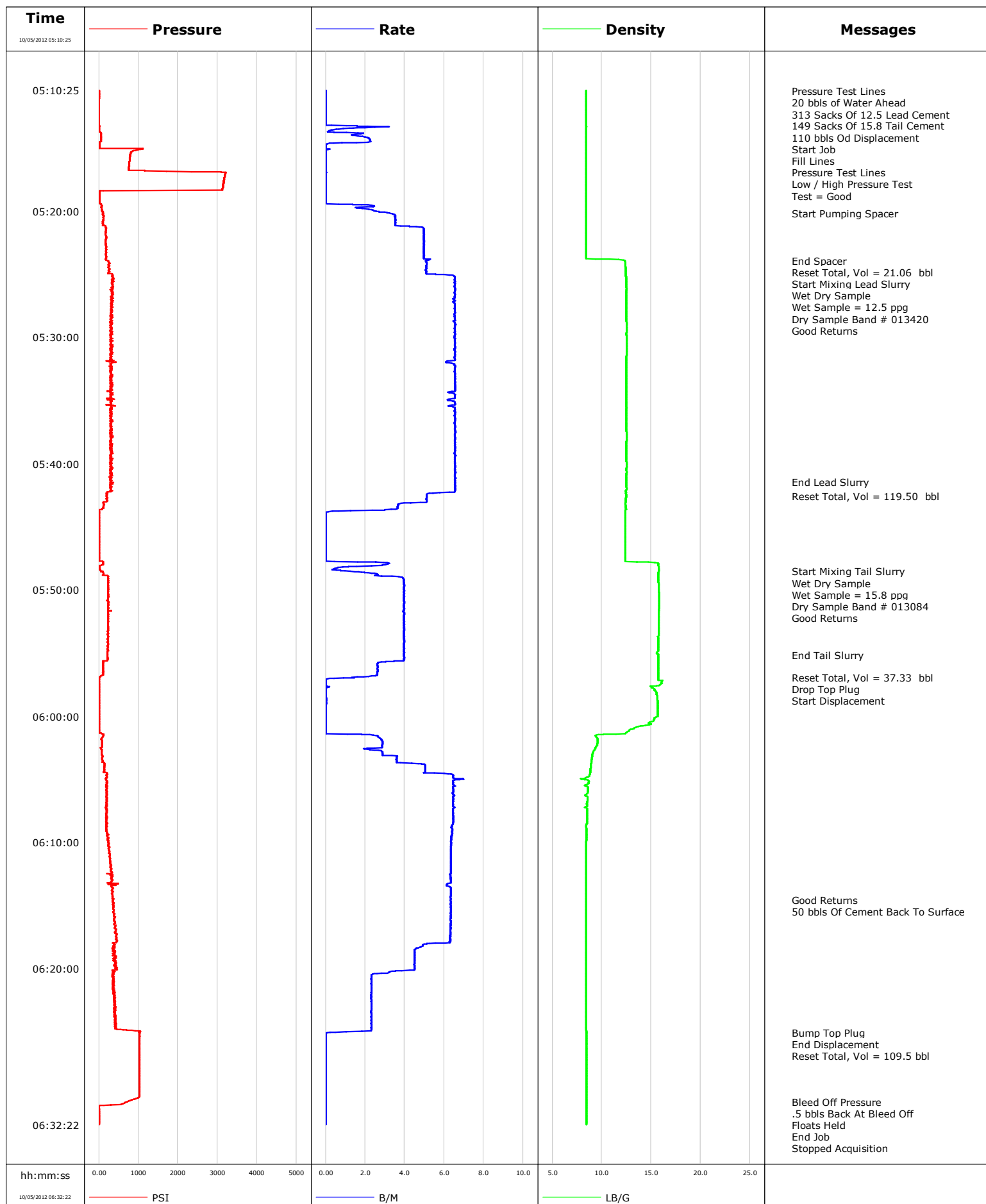


**Well** MCU 26-12C  
**Field** Mamm Creek  
**Engineer** ROGERS / HANSEN  
**Country** United States

**Client** Encana  
**SIR No.** C610-00692  
**Job Type** Surface  
**Job Date** 10-05-2012

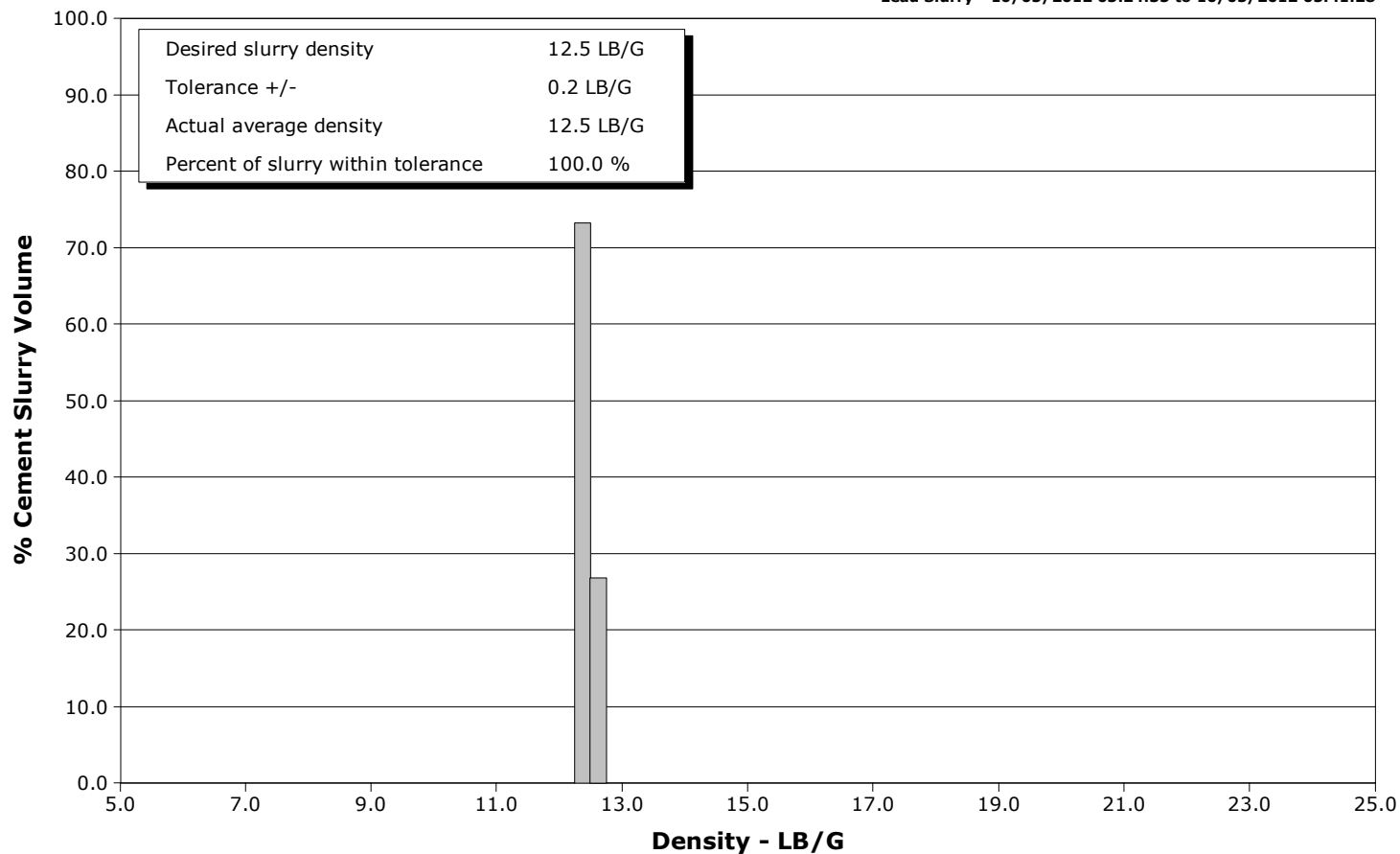


# Schlumberger Cementing Qa/Qc Density Report

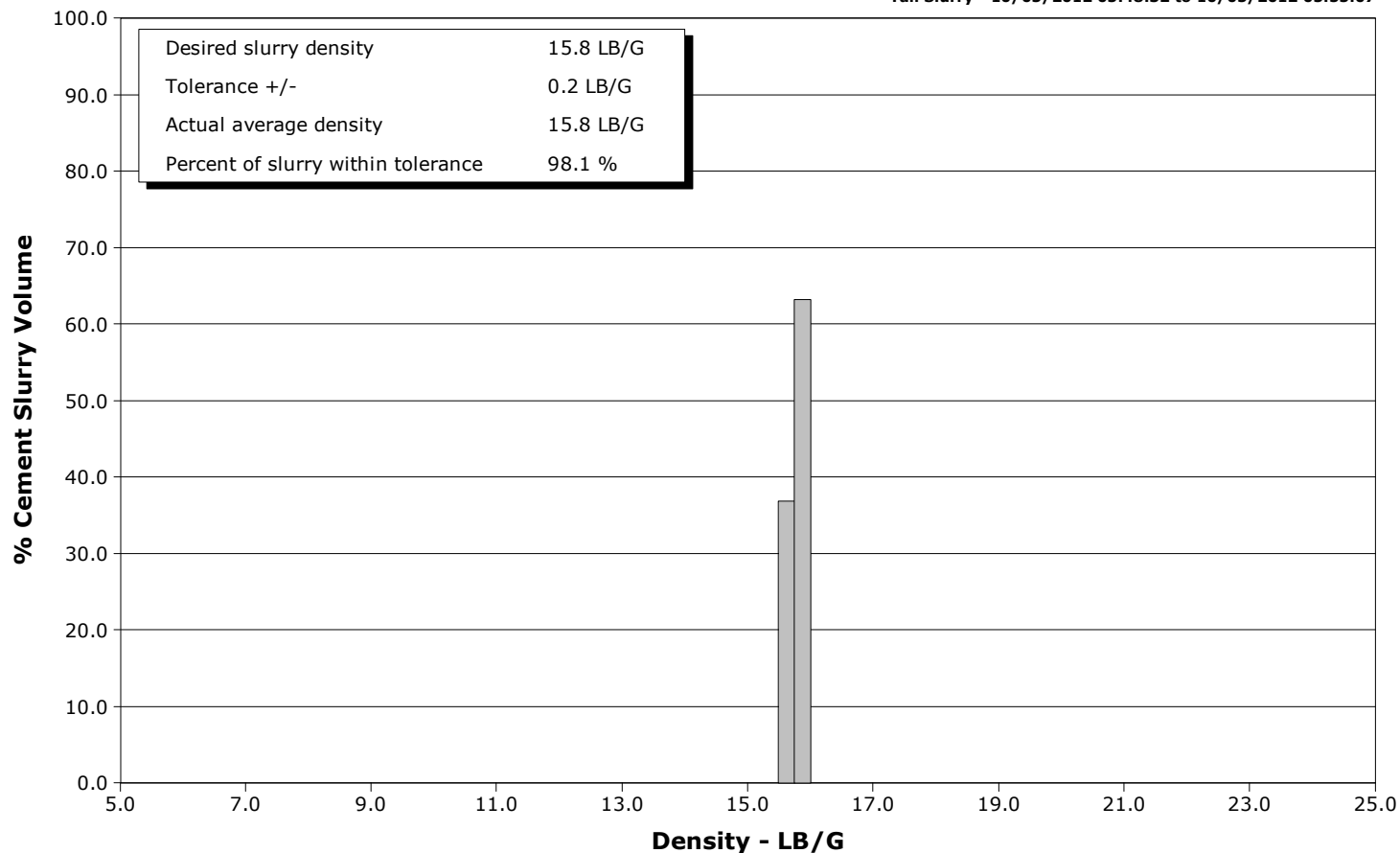
**Well** MCU 26-12C  
**Field** Mamm Creek  
**Engineer** ROGERS / HANSEN  
**Country** United States

**Client** Encana  
**SIR No.** C610-00692  
**Job Type** Surface  
**Job Date** 10-05-2012

**Lead Slurry - 10/05/2012 05:24:35 to 10/05/2012 05:41:28**



**Tail Slurry - 10/05/2012 05:48:32 to 10/05/2012 05:55:07**





# Cementing Service Report

				Customer Encana		Job Number C610-00692		
Well MCU 26-12C			Location (legal) 127W		Schlumberger Location		Job Start Oct/05/2012	
Field Mamm Creek		Formation Name/Type		Deviation	Bit Size	Well MD		Well TVD
County Garfield		State/Province Colorado		BHP	BHST	BHCT	Pore Press. Gradient	
Well Master 12166913		API/UWI 05045216060000						
Rig Name Nabors M-15	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	1465.0	9.630	36.0	J-55	8RD	
			0.0	0.000	0.0			
Drilling Fluid Type		Max. Density	Plastic Viscosity	Tubing/Drill Pipe				
				Depth,	Size,	Weight,	Grade	Thread
Service Line Cementing	Job Type Surface							
Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection Single Cement head	Perforations/Open Hole					
			Top,	Bottom,		No. of Shots	Total Interval	
Service Instructions							Diameter	
			Treat Down Casing	Displacement	Packer Type	Packer Depth		
			Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.		
Casing/Tubing Secured <input type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input type="checkbox"/>		Casing Tools		Squeeze Job		
Lift Pressure			Shoe Type Float			Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1465.0 ft		Tool Type		
No. Centralizers		Top Plugs	Bottom Plugs	Stage Tool Type		Tool Depth		
Cement Head Type			Stage Tool Depth		Tail Pipe Size			
Job Scheduled For Oct/05/2012		Arrived on Location Oct/05/2012	Leave Location Oct/05/2012	Collar Type Float		Tail Pipe Depth		
			Collar Depth		Sqz. Total Vol.			
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
10/05/2012	04:22:11					Started Acquisition		
10/05/2012	05:10:25	1	0.0	8.43	0.0			
10/05/2012	05:10:28					Pressure Test Lines		
10/05/2012	05:10:28					20 bbls of Water Ahead		
10/05/2012	05:10:28	1	0.0	8.43	0.0			
10/05/2012	05:10:29					313 Sacks Of 12.5 Lead Cement		
10/05/2012	05:10:29					149 Sacks Of 15.8 Tail Cement		
10/05/2012	05:10:29	1	0.0	8.43	0.0			
10/05/2012	05:10:53					110 bbls Od Displacement		
10/05/2012	05:10:53	1	0.0	8.43	0.0			
10/05/2012	05:11:04					Start Job		
10/05/2012	05:11:04	1	0.0	8.43	0.0			
10/05/2012	05:11:05					Fill Lines		
10/05/2012	05:11:05	1	0.0	8.43	0.0			
10/05/2012	05:11:06					Pressure Test Lines		
10/05/2012	05:11:06	0	0.0	8.43	0.0			
10/05/2012	05:11:09					Low / High Pressure Test		
10/05/2012	05:11:09					Test = Good		
10/05/2012	05:11:09	-1	0.0	8.43	0.0			
10/05/2012	05:12:11	-1	0.0	8.43	0.0			
10/05/2012	05:17:11	3184	0.0	8.42	2.2			

Well			Field		Job Start		Customer		Job Number	
MCU 26-12C			Mamm Creek		Oct/05/2012		Encana		C610-00692	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
10/05/2012	05:20:12	113	3.3	8.42	4.0					
10/05/2012	05:22:11	184	5.0	8.42	12.3					
10/05/2012	05:23:54					End Spacer				
10/05/2012	05:23:54	212	5.1	12.29	20.9					
10/05/2012	05:23:56					Reset Total, Vol = 21.06 bbl				
10/05/2012	05:23:56	233	5.1	12.34	21.1					
10/05/2012	05:24:35					Start Mixing Lead Slurry				
10/05/2012	05:24:35	264	5.1	12.42	24.4					
10/05/2012	05:24:37					Wet Dry Sample				
10/05/2012	05:24:37	270	5.1	12.42	24.5					
10/05/2012	05:24:38					Wet Sample = 12.5 ppg				
10/05/2012	05:24:38					Dry Sample Band # 013420				
10/05/2012	05:24:38	261	5.1	12.42	24.6					
10/05/2012	05:24:42					Good Returns				
10/05/2012	05:24:42	251	5.1	12.42	25.0					
10/05/2012	05:27:11	331	6.4	12.49	40.7					
10/05/2012	05:32:11	314	6.5	12.49	73.3					
10/05/2012	05:37:11	329	6.5	12.49	105.9					
10/05/2012	05:41:28					End Lead Slurry				
10/05/2012	05:41:28	286	6.6	12.49	133.9					
10/05/2012	05:42:11	293	6.5	12.43	138.6					
10/05/2012	05:42:32					Reset Total, Vol = 119.50 bbl				
10/05/2012	05:42:32	207	5.1	12.47	140.6					
10/05/2012	05:47:11	9	0.0	12.38	145.7					
10/05/2012	05:48:32					Start Mixing Tail Slurry				
10/05/2012	05:48:32	89	1.2	15.76	147.0					
10/05/2012	05:48:59					Wet Dry Sample				
10/05/2012	05:48:59	230	3.8	15.72	148.1					
10/05/2012	05:49:00					Wet Sample = 15.8 ppg				
10/05/2012	05:49:00					Dry Sample Band # 013084				
10/05/2012	05:49:00	236	3.9	15.72	148.2					
10/05/2012	05:49:03					Good Returns				
10/05/2012	05:49:03	228	3.9	15.72	148.4					
10/05/2012	05:52:11	224	3.9	15.78	160.8					
10/05/2012	05:55:07					End Tail Slurry				
10/05/2012	05:55:07	216	4.0	15.69	172.5					
10/05/2012	05:56:56					Reset Total, Vol = 37.33 bbl				
10/05/2012	05:56:56	9	1.3	15.69	177.9					
10/05/2012	05:56:58					Drop Top Plug				
10/05/2012	05:56:58	-6	1.4	15.69	177.9					
10/05/2012	05:56:59					Start Displacement				
10/05/2012	05:56:59	3	0.9	15.69	178.0					
10/05/2012	05:57:11	8	0.0	16.21	178.0					
10/05/2012	06:02:11	83	2.9	9.56	180.1					
10/05/2012	06:07:11	192	6.5	8.43	206.0					
10/05/2012	06:12:11	302	6.3	8.43	237.9					
10/05/2012	06:14:34					Good Returns				
10/05/2012	06:14:34	363	6.3	8.43	252.9					
10/05/2012	06:14:41					50 bbls Of Cement Back To Surface				
10/05/2012	06:14:41	353	6.3	8.43	253.7					
10/05/2012	06:17:11	407	6.3	8.43	269.5					
10/05/2012	06:22:11	369	2.3	8.43	289.4					
10/05/2012	06:25:02					Bump Top Plug				
10/05/2012	06:25:02	1008	0.5	8.43	295.9					

Well			Field		Job Start	Customer	Job Number
MCU 26-12C			Mamm Creek		Oct/05/2012	Encana	C610-00692
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
10/05/2012	06:25:04	1036	0.2	8.43	295.9		
10/05/2012	06:25:37					Reset Total, Vol = 109.5 bbl	
10/05/2012	06:25:37	1028	0.0	8.43	295.9		
10/05/2012	06:27:11	1028	0.0	8.43	295.9		
10/05/2012	06:30:32					Bleed Off Pressure	
10/05/2012	06:30:32	734	0.0	8.43	295.9		
10/05/2012	06:30:47					.5 bbls Back At Bleed Off	
10/05/2012	06:30:47	559	0.0	8.43	295.9		
10/05/2012	06:31:19					Floats Held	
10/05/2012	06:31:19	0	0.0	8.44	295.9		
10/05/2012	06:31:36					End Job	
10/05/2012	06:31:36	1	0.0	8.43	295.9		
10/05/2012	06:32:11	1	0.0	8.43	295.9		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.8	N2	Mud 0.0	Maximum Rate 7.0	Total Slurry 295.9	Mud 0.0	Spacer 20.8	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3212	Final 1	Average 347	Bump Plug to	Breakdown	Type	Volume	Density	
Avg. N2 Percent		Designed Slurry Volume	Displacement 109.5 bbl	Mix Water Temp	Cement Circulated to Surface?	Volume		
					Washed Thru Perfs	To		
Customer or Authorized Representative Rass Parras			Schlumberger Supervisor ROGERS / HANSEN			Circulation Lost	Job Completed	
						-	-	