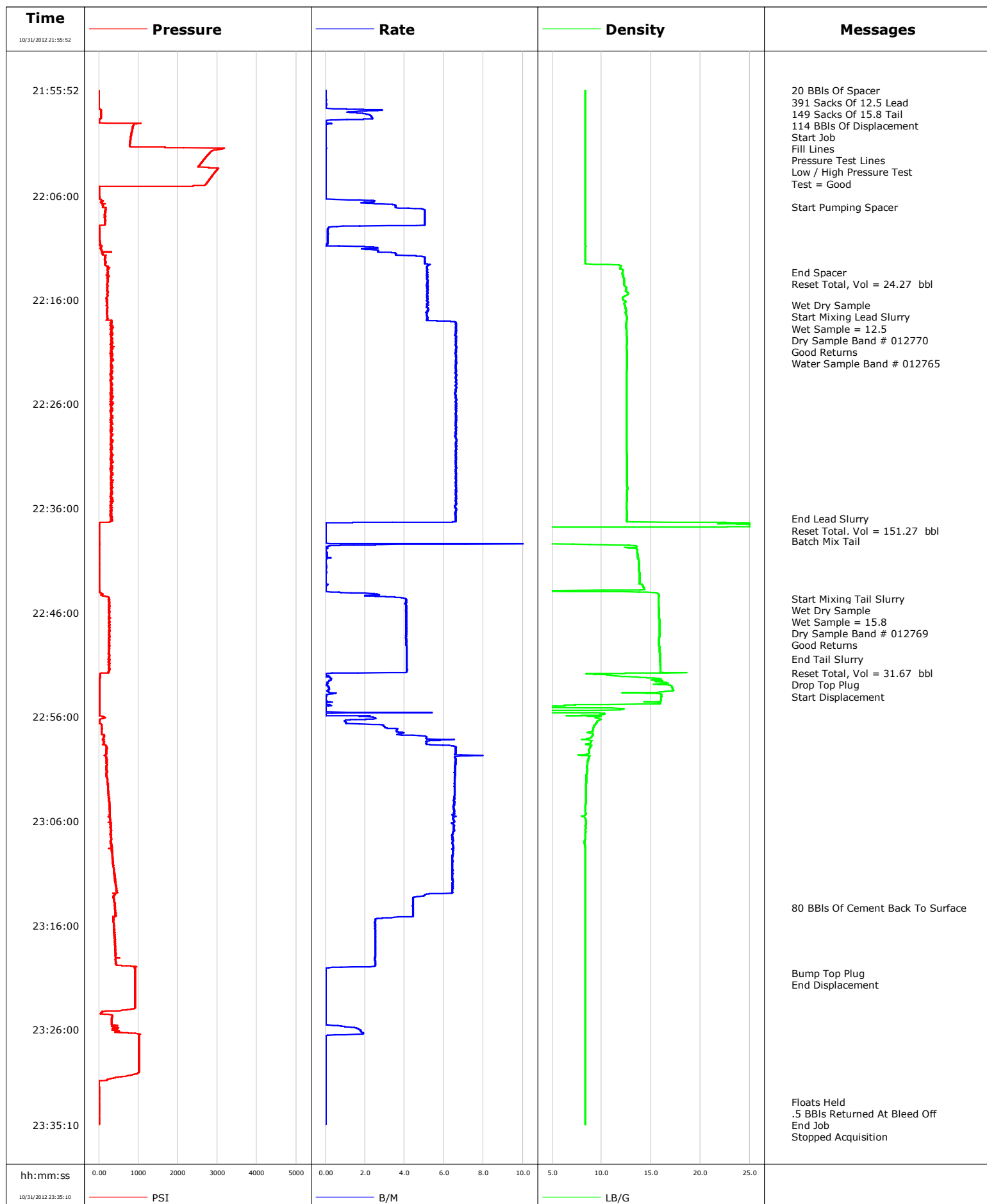


**Well** BF 24-10E  
**Field** Mamm Creek  
**Engineer** ROGERS / HANSEN  
**Country** United States

**Client** Encana  
**SIR No.** C610-00867  
**Job Type** Surface  
**Job Date** 10-31-2012

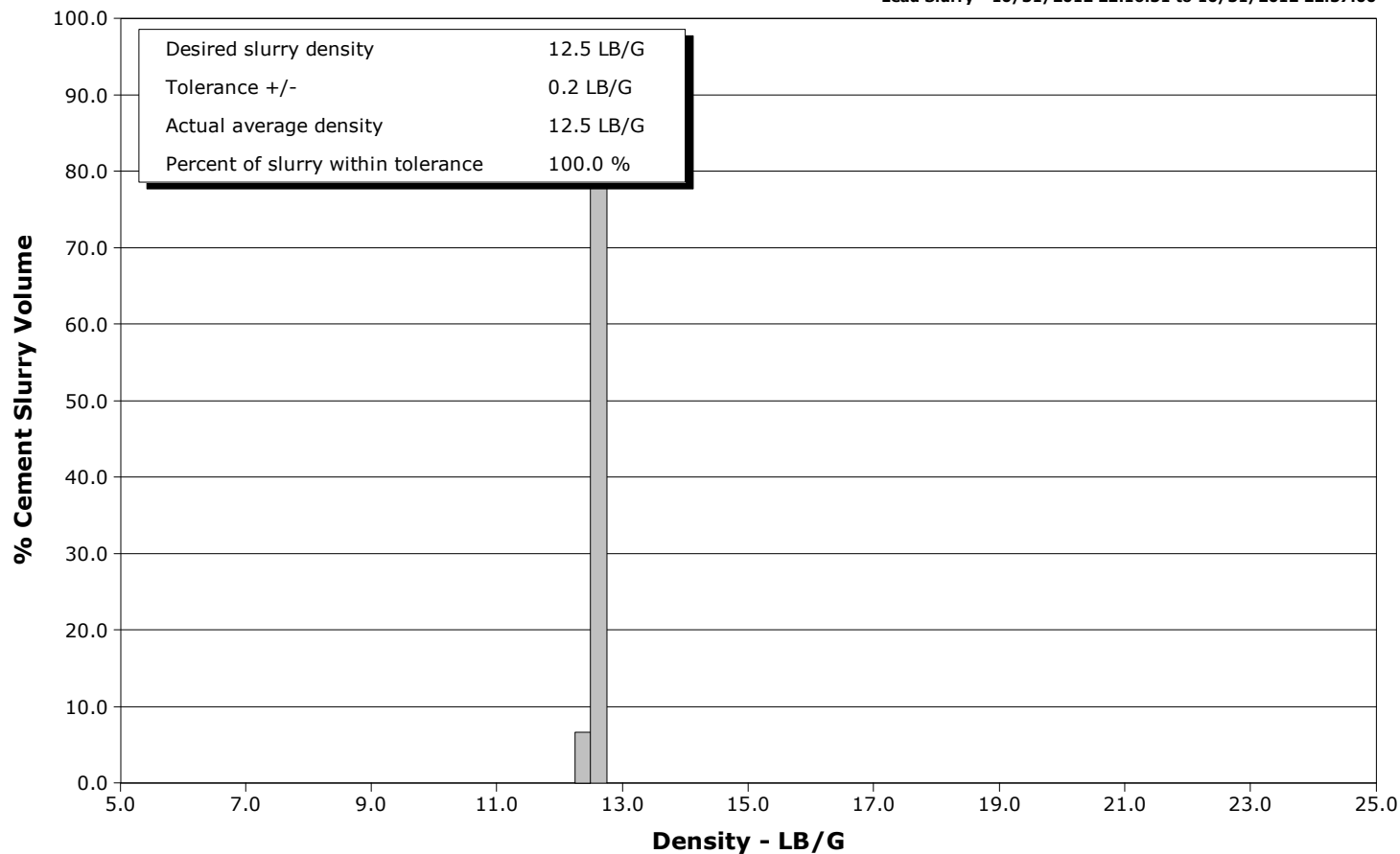


# Schlumberger Cementing Qa/Qc Density Report

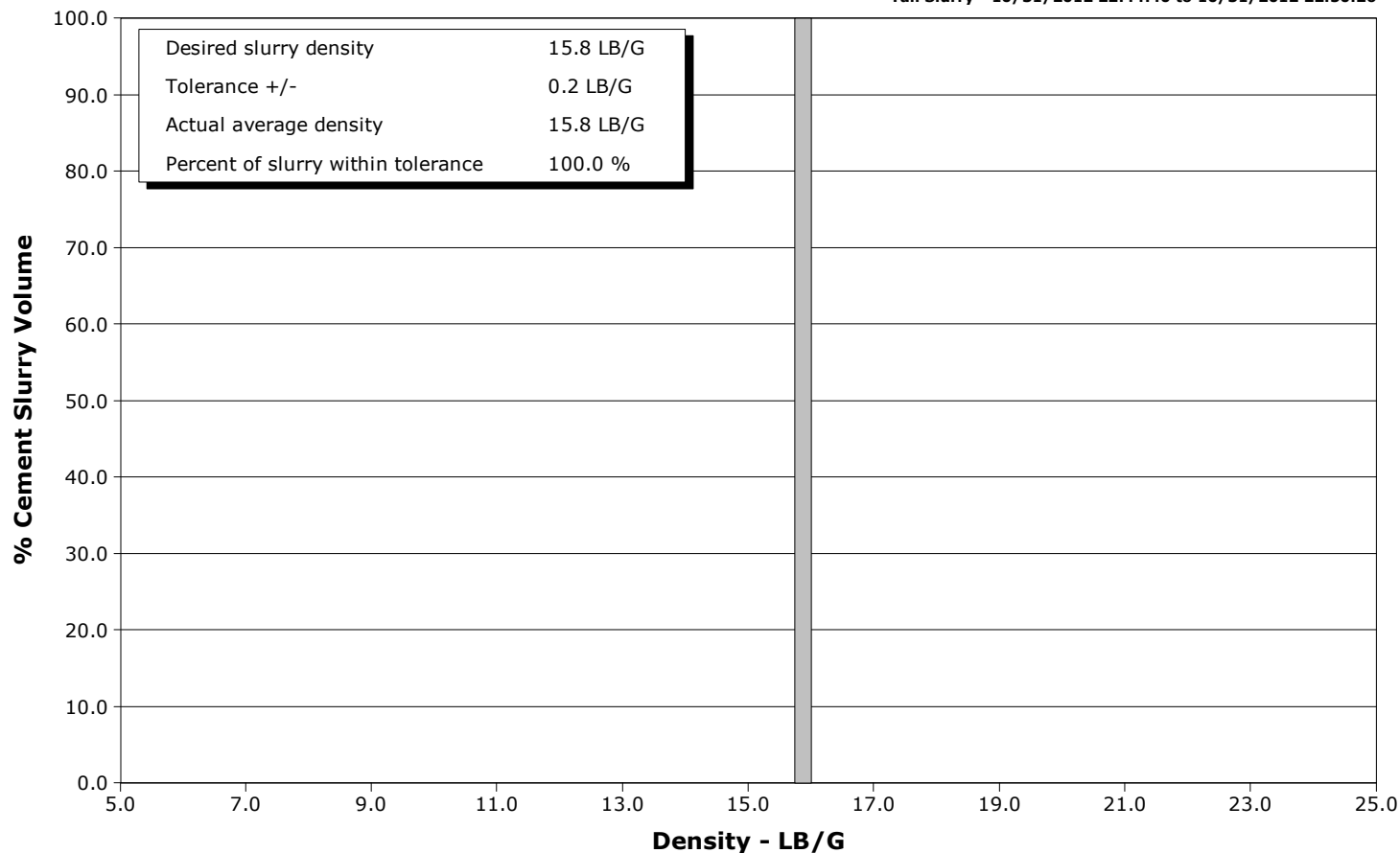
**Well** BF 24-10E  
**Field** Mamm Creek  
**Engineer** ROGERS / HANSEN  
**Country** United States

**Client** Encana  
**SIR No.** C610-00867  
**Job Type** Surface  
**Job Date** 10-31-2012

**Lead Slurry - 10/31/2012 22:16:31 to 10/31/2012 22:37:00**



**Tail Slurry - 10/31/2012 22:44:40 to 10/31/2012 22:50:26**





# Cementing Service Report

				Customer Encana		Job Number C610-00867		
Well BF 24-10E 0			Location (legal) F-25		Schlumberger Location Grand Junction, CO.		Job Start Oct/31/2012	
Field Mamm Creek		Formation Name/Type Dirty-Sandstone		Deviation	Bit Size	Well MD		Well TVD
County Garfield		State/Province Colorado		BHP	BHST	BHCT	Pore Press. Gradient	
Well Master 12167027		API/UWI 05045208760000						
Rig Name Patterson 308	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	1521.0	9.630	36.0	J55	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	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 1521.0 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/31/2012		Arrived on Location Oct/31/2012	Leave Location Oct/31/2012	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		
10/31/2012	21:09:21					Started Acquisition		
10/31/2012	21:55:52	-1	0.0	8.37	0.0			
10/31/2012	21:55:53					20 BBIs Of Spacer		
10/31/2012	21:55:53					391 Sacks Of 12.5 Lead		
10/31/2012	21:55:53	-1	0.0	8.37	0.0			
10/31/2012	21:55:54					149 Sacks Of 15.8 Tail		
10/31/2012	21:55:54					114 BBIs Of Displacement		
10/31/2012	21:55:54	-1	0.0	8.37	0.0			
10/31/2012	21:56:05					Start Job		
10/31/2012	21:56:05	-1	0.0	8.37	0.0			
10/31/2012	21:56:08					Fill Lines		
10/31/2012	21:56:08	-1	0.0	8.37	0.0			
10/31/2012	21:56:12					Pressure Test Lines		
10/31/2012	21:56:12	-1	0.0	8.37	0.0			
10/31/2012	21:56:16					Low / High Pressure Test		
10/31/2012	21:56:16	-1	0.0	8.37	0.0			
10/31/2012	21:56:17					Test = Good		
10/31/2012	21:56:17	-1	0.0	8.37	0.0			
10/31/2012	21:59:21	861	0.0	8.37	2.2			
10/31/2012	22:04:21	2814	0.0	8.37	2.2			
10/31/2012	22:07:04					Start Pumping Spacer		

Well			Field		Job Start		Customer		Job Number	
BF 24-10E 0			Mamm Creek		Oct/31/2012		Encana		C610-00867	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
10/31/2012	22:09:21	18	0.1	8.37	13.1					
10/31/2012	22:13:21					End Spacer				
10/31/2012	22:13:21	230	5.2	12.13	23.9					
10/31/2012	22:13:25					Reset Total, Vol = 24.27 bbl				
10/31/2012	22:13:25	219	5.2	12.10	24.3					
10/31/2012	22:14:21	213	5.2	12.27	29.1					
10/31/2012	22:16:31					Wet Dry Sample				
10/31/2012	22:16:31					Start Mixing Lead Slurry				
10/31/2012	22:16:31	215	5.2	12.36	40.3					
10/31/2012	22:16:33					Wet Sample = 12.5				
10/31/2012	22:16:33	195	5.1	12.38	40.4					
10/31/2012	22:16:34					Dry Sample Band # 012770				
10/31/2012	22:16:34	211	5.1	12.38	40.5					
10/31/2012	22:18:48					Good Returns				
10/31/2012	22:18:48	318	6.6	12.50	53.1					
10/31/2012	22:19:21	347	6.6	12.55	56.8					
10/31/2012	22:20:26					Water Sample Band # 012765				
10/31/2012	22:20:26	314	6.6	12.55	63.9					
10/31/2012	22:24:21	305	6.6	12.54	89.7					
10/31/2012	22:29:21	316	6.6	12.54	122.7					
10/31/2012	22:34:21	332	6.6	12.57	155.7					
10/31/2012	22:37:00					End Lead Slurry				
10/31/2012	22:37:00	331	6.6	12.55	173.2					
10/31/2012	22:38:08					Reset Total, Vol = 151.27 bbl				
10/31/2012	22:38:08	7	0.0	0.31	175.5					
10/31/2012	22:39:07					Batch Mix Tail				
10/31/2012	22:39:07	11	0.0	0.30	175.5					
10/31/2012	22:39:21	12	0.0	0.30	175.5					
10/31/2012	22:44:21	58	2.5	15.82	177.1					
10/31/2012	22:44:40					Start Mixing Tail Slurry				
10/31/2012	22:44:40	259	4.0	15.77	178.0					
10/31/2012	22:44:45					Wet Dry Sample				
10/31/2012	22:44:45	260	4.1	15.77	178.4					
10/31/2012	22:44:47					Wet Sample = 15.8				
10/31/2012	22:44:47	267	4.1	15.77	178.5					
10/31/2012	22:44:48					Dry Sample Band # 012769				
10/31/2012	22:44:48	267	4.1	15.77	178.6					
10/31/2012	22:44:49					Good Returns				
10/31/2012	22:44:49	242	4.1	15.77	178.7					
10/31/2012	22:49:21	270	4.1	15.88	197.2					
10/31/2012	22:50:26					End Tail Slurry				
10/31/2012	22:50:26	273	4.1	15.91	201.6					
10/31/2012	22:51:49					Reset Total, Vol = 31.67 bbl				
10/31/2012	22:51:49	239	0.3	16.59	207.2					
10/31/2012	22:51:56					Drop Top Plug				
10/31/2012	22:51:56	32	0.0	9.19	207.2					
10/31/2012	22:51:57					Start Displacement				
10/31/2012	22:51:57	31	0.0	9.19	207.2					
10/31/2012	22:54:21	19	0.0	16.02	207.5					
10/31/2012	22:59:21	189	6.6	8.73	221.7					
10/31/2012	23:04:21	266	6.5	8.39	254.5					
10/31/2012	23:09:21	338	6.4	8.37	286.9					
10/31/2012	23:14:21	412	4.4	8.37	316.4					
10/31/2012	23:14:22					80 BBIs Of Cement Back To Surface				

Well			Field		Job Start	Customer	Job Number
BF 24-10E 0			Mamm Creek		Oct/31/2012	Encana	C610-00867
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
10/31/2012	23:19:21	426	2.5	8.37	330.7		
10/31/2012	23:20:38					Bump Top Plug	
10/31/2012	23:20:38	911	0.0	8.38	332.5		
10/31/2012	23:20:39					End Displacement	
10/31/2012	23:20:39	911	0.0	8.38	332.5		
10/31/2012	23:24:21	87	0.0	8.38	332.5		
10/31/2012	23:29:21	1008	0.0	8.38	333.9		
10/31/2012	23:32:57					Floats Held	
10/31/2012	23:32:57					.5 BBLs Returned At Bleed Off	
10/31/2012	23:32:57	1	0.0	8.38	333.9		
10/31/2012	23:34:07					End Job	
10/31/2012	23:34:07	1	0.0	8.38	333.9		
10/31/2012	23:34:21	1	0.0	8.38	333.9		

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 4.6	N2	Mud 0.0	Maximum Rate 10.8		Total Slurry 333.9	Mud 0.0	Spacer 20.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 3181	Final 1	Average 399	Bump Plug to	Breakdown	Type		Volume	Density	
Avg. N2 Percent		Designed Slurry Volume		Displacement 114.0 bbl		Mix Water Temp		Cement Circulated to Surface? <input type="checkbox"/>	Volume
								Washed Thru Perfs <input type="checkbox"/>	To
Customer or Authorized Representative Erasmio Parras				Schlumberger Supervisor ROGERS / HANSEN			Circulation Lost <input type="checkbox"/>	Job Completed <input type="checkbox"/>	
									-