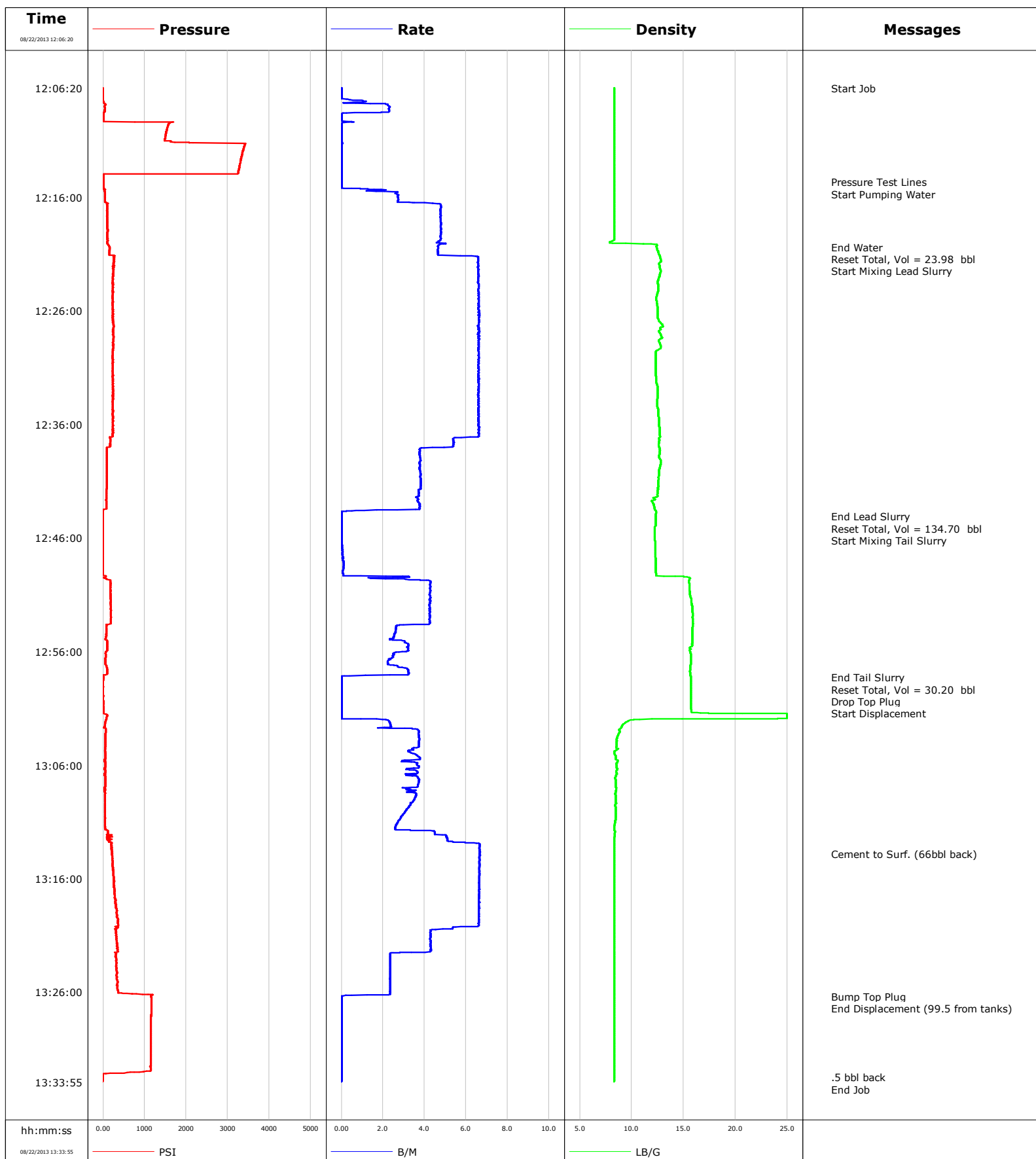


Well HMU 6-15A
Field Mamm Creek
Engineer
Country United States

Client Encana
SIR No. CFAO-00870
Job Type Surface
Job Date 08-22-2013

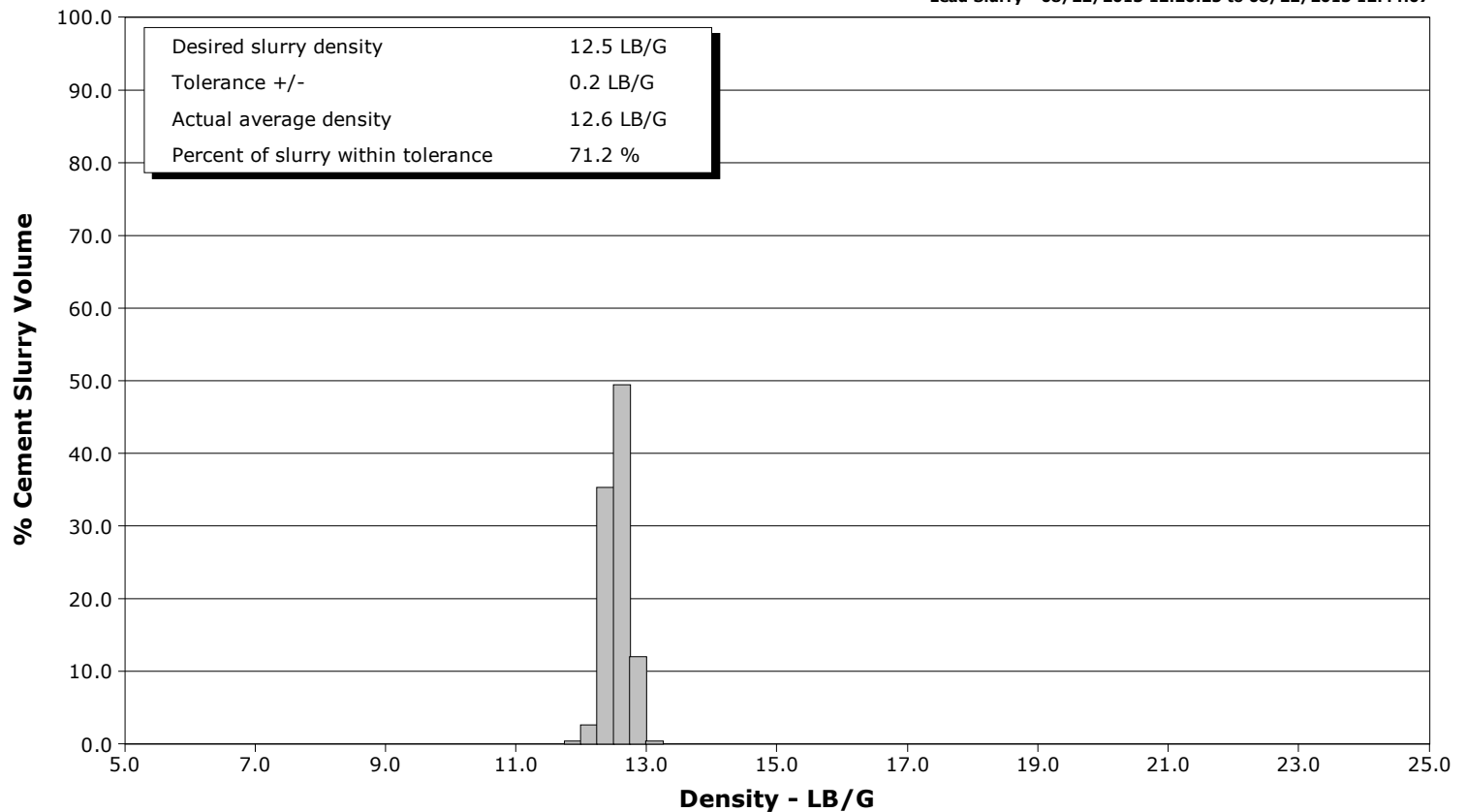


Schlumberger Cementing Qa/Qc Density Report

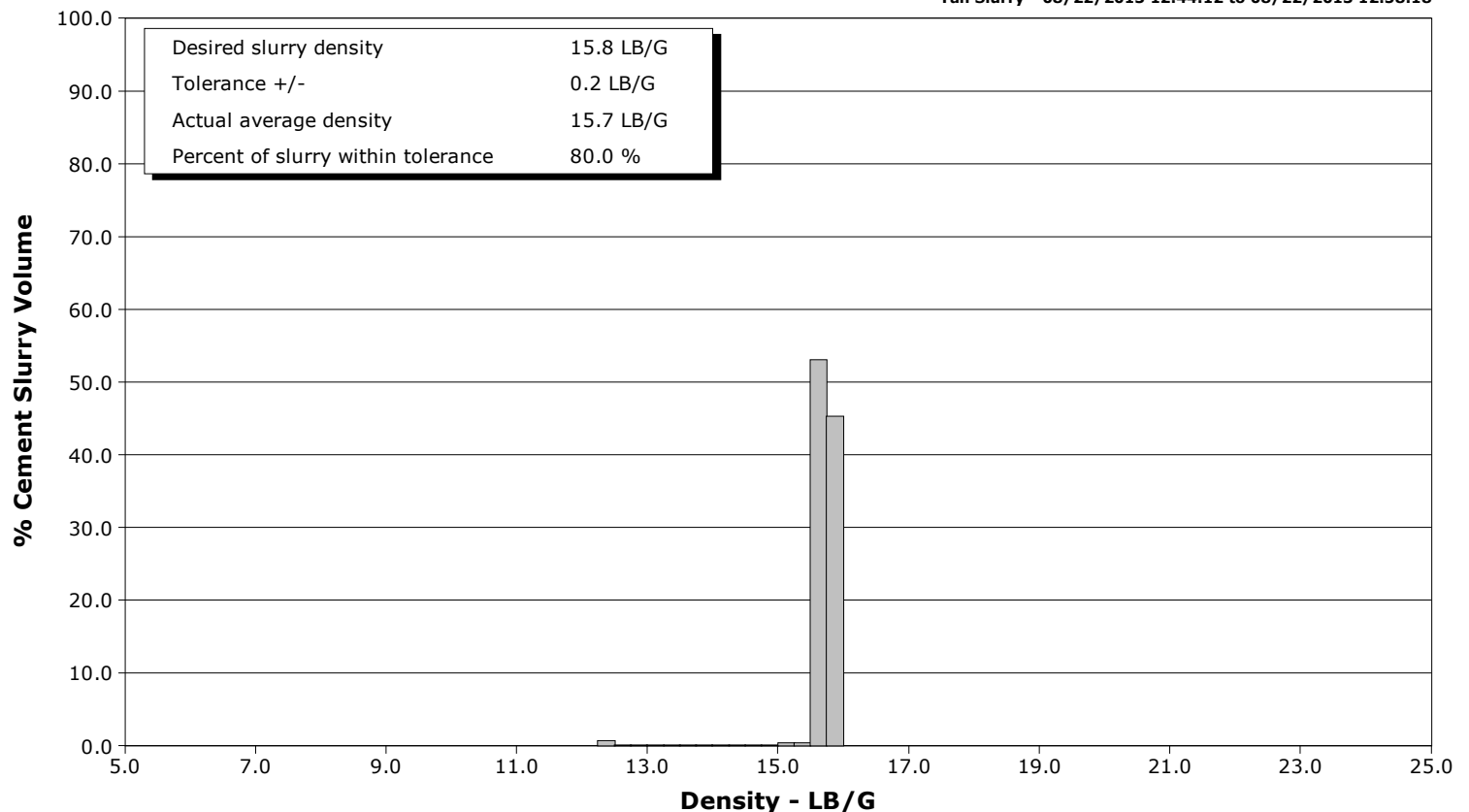
Well HMU 6-15A
Field Mamm Creek
Engineer
Country United States

Client Encana
SIR No. CFAO-00870
Job Type Surface
Job Date 08-22-2013

Lead Slurry - 08/22/2013 12:20:25 to 08/22/2013 12:44:07



Tail Slurry - 08/22/2013 12:44:12 to 08/22/2013 12:58:18





Cementing Service Report

					Customer Encana		Job Number CFAO-00870			
Well HMU 6-15A			Location (legal)		Schlumberger Location			Job Start Aug/22/2013		
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		API/UWI								
Rig Name	Drilled For Gas	Service Via Land	Casing/Liner							
			Depth, ft	Size, in	Weight, lb/ft	Grade		Thread		
Offshore Zone	Well Class New	Well Type Exploration	1357.0	9.630	36.0	K55		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	Perforations/Open Hole							
			Top,	Bottom,			No. of Shots		Total Interval	
Service Instructions									Diameter	
			Treat Down Casing	Displacement 101.0 bbl		Packer Type		Packer Depth		
Tubing Vol.	Casing Vol.		Annular Vol.		Openhole Vol.					
Casing/Tubing Secured	<input checked="" type="checkbox"/>	1 Hole Vol. Circulated prior to Cement	<input checked="" type="checkbox"/>	Casing Tools			Squeeze Job			
Lift Pressure	350 psi			Shoe Type		Guide		Squeeze Type		
Pipe Rotated	<input type="checkbox"/>	Pipe Reciprocated	<input type="checkbox"/>	Shoe Depth		1357.0 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 Aug/22/2013	Arrived on Location Aug/22/2013		Leave Location Aug/22/2013	Collar Type			Float		Tail Pipe Depth	
				Collar Depth			1312.0 ft		Sqz. Total Vol.	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message			
08/22/2013	12:06:20	-7	0.0	8.32	0.0	0.0				
08/22/2013	12:06:21						Start Job			
08/22/2013	12:06:21	-8	0.0	8.32	0.0	0.0				
08/22/2013	12:08:50	9	0.0	8.32	2.1	2.1				
08/22/2013	12:11:20	3416	0.0	8.32	2.2	2.2				
08/22/2013	12:13:50	3252	0.0	8.32	2.2	2.2				
08/22/2013	12:14:40						Pressure Test Lines			
08/22/2013	12:14:40	9	0.0	8.32	2.2	2.2				
08/22/2013	12:14:43						Start Pumping Water			
08/22/2013	12:14:43	8	0.0	8.32	2.2	2.2				
08/22/2013	12:16:20	47	2.7	8.31	4.9	4.9				
08/22/2013	12:18:50	108	4.8	8.31	16.5	16.5				
08/22/2013	12:20:22						End Water			
08/22/2013	12:20:22	158	4.6	12.39	23.8	23.8				
08/22/2013	12:20:24						Reset Total, Vol = 23.98 bbl			
08/22/2013	12:20:24	153	4.6	12.41	24.0	24.0				
08/22/2013	12:20:25						Start Mixing Lead Slurry			
08/22/2013	12:20:25	153	4.6	12.42	24.1	0.1				
08/22/2013	12:21:20	272	6.6	12.74	28.7	4.7				
08/22/2013	12:23:50	233	6.6	12.56	45.2	21.2				
08/22/2013	12:26:20	240	6.6	12.48	61.7	37.7				

Well			Field		Job Start	Customer	Job Number
HMU 6-15A			Mamm Creek		Aug/22/2013	Encana	CFAO-00870
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
08/22/2013	12:31:20	235	6.6	12.32	94.7	70.7	
08/22/2013	12:33:50	233	6.6	12.47	111.2	87.3	
08/22/2013	12:36:20	229	6.6	12.69	127.7	103.8	
08/22/2013	12:38:50	90	3.8	12.66	140.9	116.9	
08/22/2013	12:41:20	84	3.8	12.57	150.4	126.4	
08/22/2013	12:43:50	-4	0.0	12.34	158.7	134.7	
08/22/2013	12:44:07						End Lead Slurry
08/22/2013	12:44:07	-3	0.0	12.31	158.7	134.7	
08/22/2013	12:44:10						Reset Total, Vol = 134.70 bbl
08/22/2013	12:44:10	-3	0.0	12.30	158.7	134.7	
08/22/2013	12:44:12						Start Mixing Tail Slurry
08/22/2013	12:44:12	-3	0.0	12.30	158.7	0.0	
08/22/2013	12:46:20	-2	0.0	12.24	158.7	0.0	
08/22/2013	12:48:50	-1	0.1	12.33	158.8	0.2	
08/22/2013	12:51:20	179	4.3	15.72	166.8	8.1	
08/22/2013	12:53:50	82	2.6	15.86	177.1	18.4	
08/22/2013	12:56:20	60	2.5	15.68	184.1	25.4	
08/22/2013	12:58:18						End Tail Slurry
08/22/2013	12:58:18	1	0.0	15.70	188.9	30.2	
08/22/2013	12:58:19						Reset Total, Vol = 30.20 bbl
08/22/2013	12:58:19	1	0.0	15.70	188.9	30.2	
08/22/2013	12:58:21						Drop Top Plug
08/22/2013	12:58:21						Start Displacement
08/22/2013	12:58:21	1	0.0	15.70	188.9	0.0	
08/22/2013	12:58:50	-1	0.0	15.69	188.9	0.0	
08/22/2013	13:01:20	5	0.0	15.76	188.9	0.0	
08/22/2013	13:03:50	54	3.7	8.57	194.7	5.8	
08/22/2013	13:06:20	27	3.1	8.63	203.6	14.7	
08/22/2013	13:08:50	47	3.6	8.45	212.5	23.6	
08/22/2013	13:11:20	47	2.6	8.33	220.2	31.3	
08/22/2013	13:13:49						Cement to Surf. (66bbl back)
08/22/2013	13:13:49	215	6.7	8.31	233.1	44.2	
08/22/2013	13:13:50	205	6.7	8.31	233.2	44.3	
08/22/2013	13:16:20	258	6.6	8.31	249.8	60.9	
08/22/2013	13:18:50	334	6.6	8.31	266.3	77.5	
08/22/2013	13:21:20	327	4.2	8.31	280.6	91.7	
08/22/2013	13:23:50	316	2.4	8.31	288.8	99.9	
08/22/2013	13:26:20	1177	0.1	8.32	294.5	105.6	
08/22/2013	13:26:23						Bump Top Plug
08/22/2013	13:26:23	1165	0.0	8.32	294.5	105.6	
08/22/2013	13:26:24						End Displacement (99.5 from tanks)
08/22/2013	13:26:24	1155	0.0	8.32	294.5	105.6	
08/22/2013	13:28:50	1154	0.0	8.32	294.5	105.6	
08/22/2013	13:31:20	1151	0.0	8.32	294.5	105.6	
08/22/2013	13:33:31						.5 bbl back
08/22/2013	13:33:31	-8	0.0	8.32	294.6	105.7	
08/22/2013	13:33:50						End Job

Well	HMU 6-15A	Field	Mamm Creek	Job Start	Aug/22/2013	Customer	Encana	Job Number	CFAO-00870
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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 1155	Breakdown	Type	Volume		Density	
Avg. N2 Percent	Designed Slurry Volume 160.0 bbl		Displacement	Mix Water Temp 70 degF	Cement Circulated to Surface?	<input checked="" type="checkbox"/>	Volume	66.0 bbl	
Customer or Authorized Representative Tony Ketterling			Schlumberger Supervisor			Washed Thru Perfs	<input type="checkbox"/>	To	
						Circulation Lost	<input type="checkbox"/>	Job Completed	<input checked="" type="checkbox"/>
						-		-	