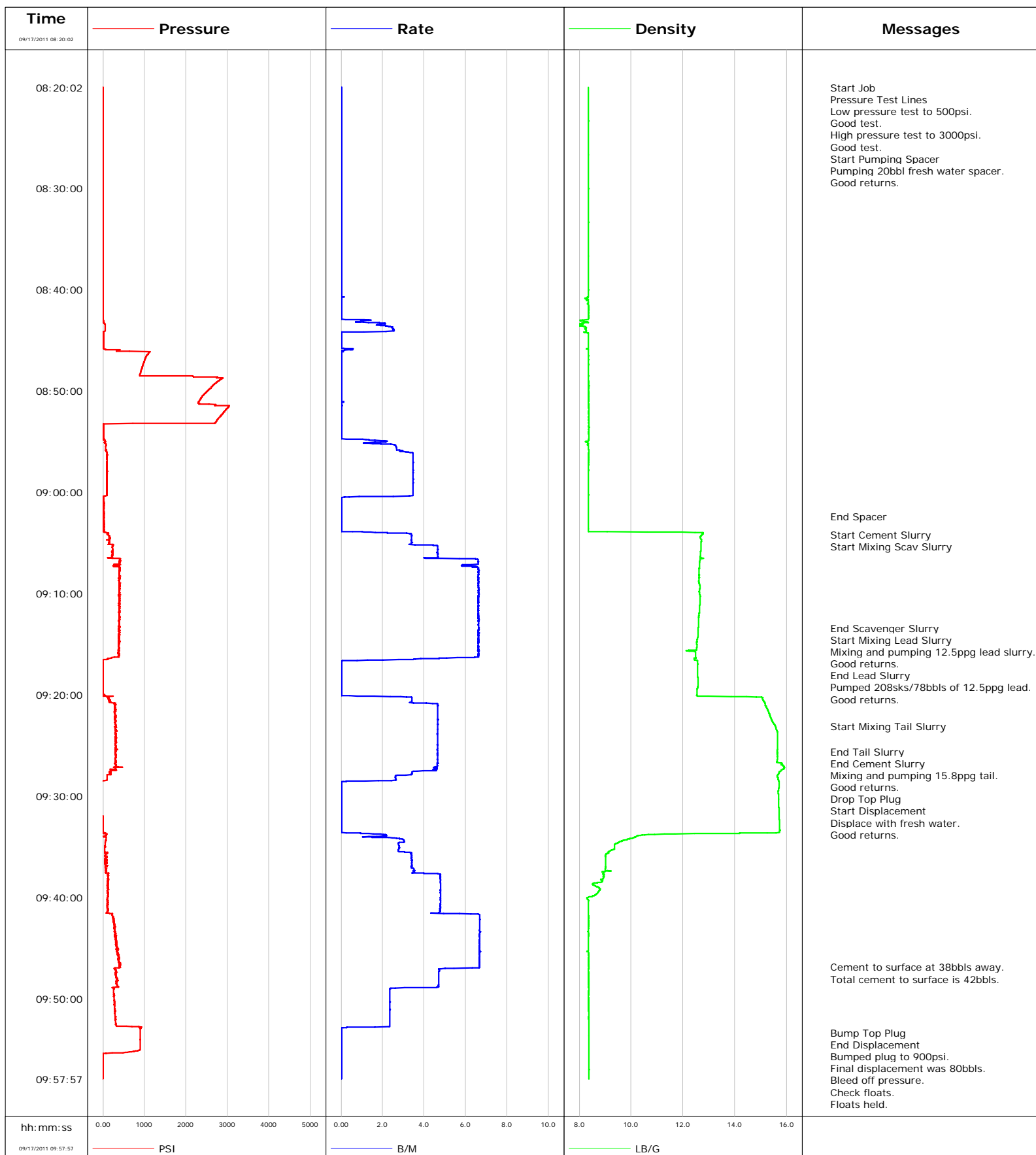


**Well** FEDERAL SMITH 30-2  
**Field** BATTLEMENT MESA  
**Engineer** Jeff Patterson  
**Country** United States

**Client** ENCANA  
**SIR No.** BQMF-00149  
**Job Type** 9 5/8" SURFACE  
**Job Date** 09-17-2011

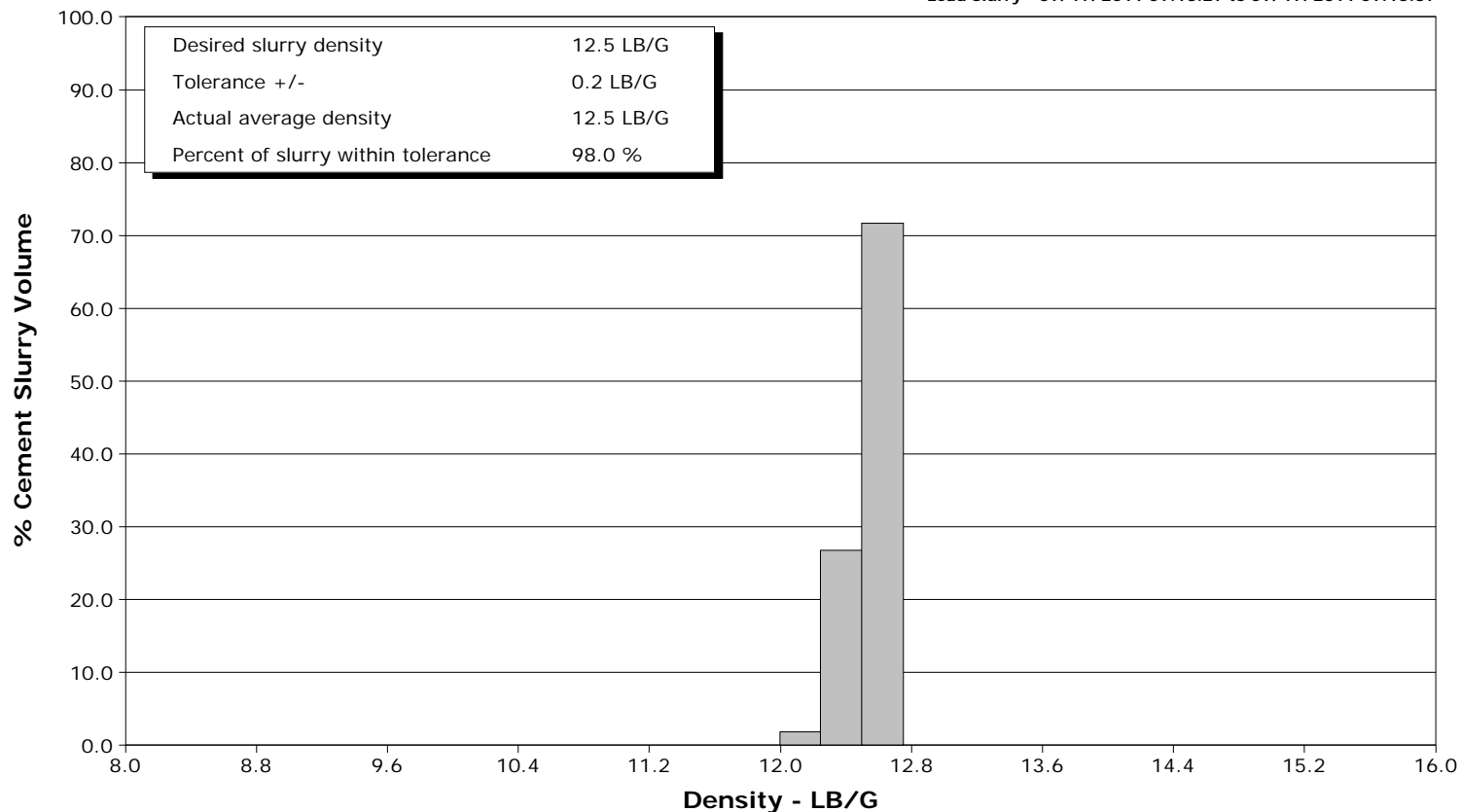


# Schlumberger Cementing Qa/Qc Density Report

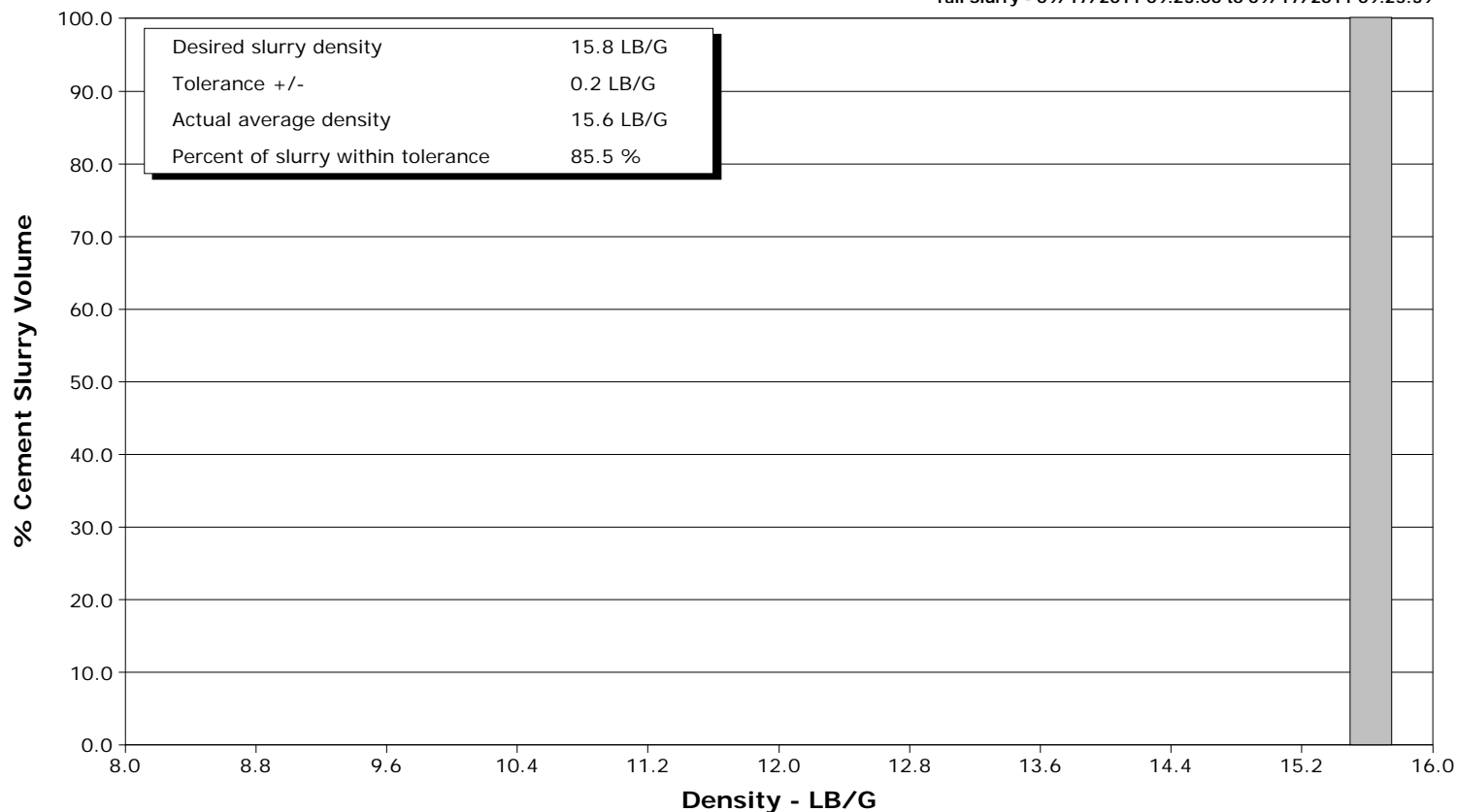
**Well** FEDERAL SMITH 30-2  
**Field** BATTLEMENT MESA  
**Engineer** Jeff Patterson  
**Country** United States

**Client** ENCANA  
**SIR No.** BQMF-00149  
**Job Type** 9 5/8" SURFACE  
**Job Date** 09-17-2011

Lead Slurry - 09/17/2011 09:13:27 to 09/17/2011 09:16:37



Tail Slurry - 09/17/2011 09:23:06 to 09/17/2011 09:25:39





Well FEDERAL SMITH 30-2 FEDERAL SMITH 30-2			Field BATTLEMENT MESA		Job Start Sep/17/2011		Customer ENCANA		Job Number BQMF-00149	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
09/17/2011	08:22:52	-1	0.0	8.36	0.0					
09/17/2011	08:23:22	-1	0.0	8.36	0.0					
09/17/2011	08:23:52	-1	0.0	8.36	0.0					
09/17/2011	08:24:22	-1	0.0	8.36	0.0					
09/17/2011	08:24:52	-1	0.0	8.36	0.0					
09/17/2011	08:25:22	-1	0.0	8.36	0.0					
09/17/2011	08:25:52	-1	0.0	8.36	0.0					
09/17/2011	08:26:22	-2	0.0	8.36	0.0					
09/17/2011	08:26:52	-1	0.0	8.36	0.0					
09/17/2011	08:27:22	-2	0.0	8.36	0.0					
09/17/2011	08:27:52	-2	0.0	8.36	0.0					
09/17/2011	08:28:22	-2	0.0	8.36	0.0					
09/17/2011	08:28:52	-1	0.0	8.36	0.0					
09/17/2011	08:29:22	-2	0.0	8.36	0.0					
09/17/2011	08:29:52	-2	0.0	8.36	0.0					
09/17/2011	08:30:22	-2	0.0	8.36	0.0					
09/17/2011	08:30:52	-1	0.0	8.36	0.0					
09/17/2011	08:31:22	-2	0.0	8.36	0.0					
09/17/2011	08:31:52	-2	0.0	8.36	0.0					
09/17/2011	08:32:22	-1	0.0	8.36	0.0					
09/17/2011	08:32:52	-1	0.0	8.36	0.0					
09/17/2011	08:33:22	-2	0.0	8.36	0.0					
09/17/2011	08:33:52	-1	0.0	8.36	0.0					
09/17/2011	08:34:22	-1	0.0	8.36	0.0					
09/17/2011	08:34:52	-2	0.0	8.36	0.0					
09/17/2011	08:35:22	-1	0.0	8.36	0.0					
09/17/2011	08:35:52	-1	0.0	8.36	0.0					
09/17/2011	08:36:22	-1	0.0	8.36	0.0					
09/17/2011	08:36:52	-1	0.0	8.36	0.0					
09/17/2011	08:37:22	-1	0.0	8.36	0.0					
09/17/2011	08:37:52	-1	0.0	8.36	0.0					
09/17/2011	08:38:22	-2	0.0	8.36	0.0					
09/17/2011	08:38:52	-1	0.0	8.36	0.0					
09/17/2011	08:39:22	-1	0.0	8.36	0.0					
09/17/2011	08:39:52	-1	0.0	8.36	0.0					
09/17/2011	08:40:22	-5	0.0	8.36	0.0					
09/17/2011	08:40:52	-5	0.0	8.21	0.0					
09/17/2011	08:41:22	-5	0.0	8.34	0.0					
09/17/2011	08:41:52	-4	0.0	8.36	0.0					
09/17/2011	08:42:22	-4	0.0	8.36	0.0					
09/17/2011	08:42:52	-5	0.0	8.36	0.0					
09/17/2011	08:43:22	32	2.1	8.15	0.5					
09/17/2011	08:43:52	56	2.5	8.23	1.6					
09/17/2011	08:44:22	9	0.0	8.36	2.4					
09/17/2011	08:44:52	6	0.0	8.36	2.4					
09/17/2011	08:45:22	6	0.0	8.36	2.4					
09/17/2011	08:45:52	18	0.6	8.28	2.4					
09/17/2011	08:46:22	1084	0.0	8.36	2.4					
09/17/2011	08:46:52	1017	0.0	8.36	2.4					
09/17/2011	08:47:22	972	0.0	8.36	2.4					
09/17/2011	08:47:52	932	0.0	8.36	2.4					
09/17/2011	08:48:22	894	0.0	8.36	2.4					
09/17/2011	08:48:52	2840	0.0	8.36	2.4					
09/17/2011	08:49:22	2690	0.0	8.36	2.4					

Well FEDERAL SMITH 30-2 FEDERAL SMITH 30-2			Field BATTLEMENT MESA	Job Start Sep/17/2011	Customer ENCANA	Job Number BQMF-00149
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
09/17/2011	08:50:22	2435	0.0	8.36	2.4	
09/17/2011	08:50:52	2345	0.0	8.36	2.4	
09/17/2011	08:51:22	2719	0.0	8.36	2.5	
09/17/2011	08:51:52	2968	0.0	8.36	2.5	
09/17/2011	08:52:22	2862	0.0	8.36	2.5	
09/17/2011	08:52:52	2762	0.0	8.36	2.5	
09/17/2011	08:53:22	7	0.0	8.36	2.5	
09/17/2011	08:53:52	8	0.0	8.36	2.5	
09/17/2011	08:54:22	8	0.0	8.36	2.5	
09/17/2011	08:54:52	18	1.3	8.36	2.5	
09/17/2011	08:55:22	73	2.6	8.31	3.5	
09/17/2011	08:55:52	85	2.8	8.36	4.8	
09/17/2011	08:56:22	96	3.5	8.36	6.4	
09/17/2011	08:56:52	96	3.5	8.36	8.1	
09/17/2011	08:57:22	92	3.5	8.36	9.9	
09/17/2011	08:57:52	98	3.5	8.36	11.6	
09/17/2011	08:58:22	94	3.5	8.36	13.3	
09/17/2011	08:58:52	102	3.5	8.36	15.1	
09/17/2011	08:59:22	92	3.5	8.36	16.8	
09/17/2011	08:59:52	94	3.5	8.36	18.5	
09/17/2011	09:00:22	99	3.5	8.36	20.3	
09/17/2011	09:00:52	13	0.0	8.36	20.6	
09/17/2011	09:01:22	14	0.0	8.36	20.6	
09/17/2011	09:01:52	11	0.0	8.36	20.6	
09/17/2011	09:02:22	11	0.0	8.36	20.6	
09/17/2011	09:02:24					End Spacer
09/17/2011	09:02:24	14	0.0	8.36	20.6	
09/17/2011	09:02:52	12	0.0	8.36	20.6	
09/17/2011	09:03:22	14	0.0	8.36	20.6	
09/17/2011	09:03:52	11	0.0	8.36	20.6	
09/17/2011	09:04:12					Start Cement Slurry
09/17/2011	09:04:12	106	3.4	12.75	21.3	
09/17/2011	09:04:13					Start Mixing Scav Slurry
09/17/2011	09:04:13	110	3.4	12.74	21.3	
09/17/2011	09:04:22	146	3.4	12.69	21.8	
09/17/2011	09:04:52	144	3.4	12.71	23.5	
09/17/2011	09:05:22	233	4.7	12.70	25.4	
09/17/2011	09:05:52	242	4.6	12.69	27.7	
09/17/2011	09:06:22	223	4.7	12.67	30.0	
09/17/2011	09:06:52	403	6.6	12.64	32.9	
09/17/2011	09:07:22	402	6.6	12.63	36.0	
09/17/2011	09:07:52	399	6.6	12.62	39.3	
09/17/2011	09:08:22	390	6.6	12.63	42.7	
09/17/2011	09:08:52	393	6.6	12.60	46.0	
09/17/2011	09:09:22	402	6.6	12.66	49.3	
09/17/2011	09:09:52	397	6.6	12.63	52.6	
09/17/2011	09:10:22	410	6.6	12.66	55.9	
09/17/2011	09:10:52	409	6.6	12.66	59.2	
09/17/2011	09:11:22	408	6.6	12.64	62.5	
09/17/2011	09:11:52	379	6.6	12.64	65.8	
09/17/2011	09:12:22	393	6.6	12.61	69.1	
09/17/2011	09:12:52	389	6.6	12.60	72.5	
09/17/2011	09:13:22	406	6.6	12.59	75.8	
09/17/2011	09:13:26					End Scavenger Slurry

Well FEDERAL SMITH 30-2 FEDERAL SMITH 30-2			Field BATTLEMENT MESA		Job Start Sep/17/2011		Customer ENCANA		Job Number BQMF-00149	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
09/17/2011	09:13:27					Start Mixing Lead Slurry				
09/17/2011	09:13:27	372	6.6	12.59	76.3					
09/17/2011	09:13:28					Mixing and pumping 12.5ppg lead slurry.				
09/17/2011	09:13:28					Good returns.				
09/17/2011	09:13:28	382	6.6	12.59	76.4					
09/17/2011	09:13:52	406	6.6	12.58	79.1					
09/17/2011	09:14:22	395	6.6	12.57	82.4					
09/17/2011	09:14:52	376	6.6	12.53	85.7					
09/17/2011	09:15:22	385	6.6	12.54	89.0					
09/17/2011	09:15:52	388	6.6	12.49	92.3					
09/17/2011	09:16:22	205	5.6	12.50	95.6					
09/17/2011	09:16:37					End Lead Slurry				
09/17/2011	09:16:37	-14	1.3	12.50	96.5					
09/17/2011	09:16:45					Pumped 208sks/78bbls of 12.5ppg lead.				
09/17/2011	09:16:45	-15	0.0	12.56	96.6					
09/17/2011	09:16:47					Good returns.				
09/17/2011	09:16:47	-16	0.0	12.56	96.6					
09/17/2011	09:16:52	-6	0.0	12.56	96.6					
09/17/2011	09:17:22	-9	0.0	12.56	96.6					
09/17/2011	09:17:52	-9	0.0	12.56	96.6					
09/17/2011	09:18:22	-10	0.0	12.57	96.6					
09/17/2011	09:18:52	-9	0.0	12.57	96.6					
09/17/2011	09:19:22	-8	0.0	12.57	96.6					
09/17/2011	09:19:52	-8	0.0	12.55	96.6					
09/17/2011	09:20:22	122	3.4	15.06	97.2					
09/17/2011	09:20:52	309	4.1	15.16	98.9					
09/17/2011	09:21:22	283	4.6	15.24	101.2					
09/17/2011	09:21:52	286	4.7	15.33	103.6					
09/17/2011	09:22:22	286	4.6	15.40	105.9					
09/17/2011	09:22:52	294	4.7	15.49	108.2					
09/17/2011	09:23:06					Start Mixing Tail Slurry				
09/17/2011	09:23:06	318	4.6	15.55	109.3					
09/17/2011	09:23:22	290	4.7	15.59	110.5					
09/17/2011	09:23:52	319	4.6	15.65	112.9					
09/17/2011	09:24:22	288	4.7	15.65	115.2					
09/17/2011	09:24:52	296	4.7	15.65	117.5					
09/17/2011	09:25:22	320	4.7	15.64	119.8					
09/17/2011	09:25:39					End Tail Slurry				
09/17/2011	09:25:39	311	4.7	15.64	121.2					
09/17/2011	09:25:40					End Cement Slurry				
09/17/2011	09:25:40	311	4.7	15.64	121.2					
09/17/2011	09:25:41					Mixing and pumping 15.8ppg tail.				
09/17/2011	09:25:41					Good returns.				
09/17/2011	09:25:41	315	4.7	15.64	121.3					
09/17/2011	09:25:43					Drop Top Plug				
09/17/2011	09:25:43	307	4.6	15.64	121.5					
09/17/2011	09:25:44					Start Displacement				
09/17/2011	09:25:44	305	4.7	15.64	121.6					
09/17/2011	09:25:45					Displace with fresh water.				
09/17/2011	09:25:45					Good returns.				
09/17/2011	09:25:45	293	4.7	15.64	121.6					
09/17/2011	09:25:52	295	4.6	15.64	122.2					
09/17/2011	09:26:22	294	4.6	15.64	124.5					
09/17/2011	09:26:52	287	4.6	15.79	126.8					

Well FEDERAL SMITH 30-2 FEDERAL SMITH 30-2			Field BATTLEMENT MESA		Job Start Sep/17/2011		Customer ENCANA		Job Number BQMF-00149	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
09/17/2011	09:27:52	158	3.4	15.67	131.0					
09/17/2011	09:28:22	102	2.6	15.67	132.4					
09/17/2011	09:28:52	-15	0.0	15.70	132.9					
09/17/2011	09:29:22	-13	0.0	15.69	132.9					
09/17/2011	09:29:52	-13	0.0	15.68	132.9					
09/17/2011	09:30:22	-12	0.0	15.68	132.9					
09/17/2011	09:30:52	-13	0.0	15.69	132.9					
09/17/2011	09:31:22	-13	0.0	15.70	132.9					
09/17/2011	09:31:52	-12	0.0	15.71	132.9					
09/17/2011	09:32:22	-10	0.0	15.71	132.9					
09/17/2011	09:32:52	-8	0.0	15.72	132.9					
09/17/2011	09:33:22	-7	0.0	15.73	132.9					
09/17/2011	09:33:52	76	2.2	10.53	133.2					
09/17/2011	09:34:22	72	3.0	9.81	134.3					
09/17/2011	09:34:52	48	2.8	9.37	135.7					
09/17/2011	09:35:22	45	2.8	9.25	137.1					
09/17/2011	09:35:52	48	3.4	9.03	138.7					
09/17/2011	09:36:22	106	3.4	9.02	140.4					
09/17/2011	09:36:52	51	3.4	9.02	142.1					
09/17/2011	09:37:22	69	3.5	9.00	143.8					
09/17/2011	09:37:52	133	4.8	8.95	145.8					
09/17/2011	09:38:22	121	4.8	8.88	148.2					
09/17/2011	09:38:52	103	4.8	8.60	150.6					
09/17/2011	09:39:22	118	4.8	8.77	153.0					
09/17/2011	09:39:52	124	4.8	8.55	155.4					
09/17/2011	09:40:22	121	4.8	8.35	157.8					
09/17/2011	09:40:52	106	4.8	8.36	160.2					
09/17/2011	09:41:22	120	4.8	8.36	162.6					
09/17/2011	09:41:52	232	6.7	8.36	165.4					
09/17/2011	09:42:22	246	6.7	8.36	168.7					
09/17/2011	09:42:52	275	6.7	8.36	172.1					
09/17/2011	09:43:22	274	6.7	8.36	175.4					
09/17/2011	09:43:52	285	6.7	8.36	178.7					
09/17/2011	09:44:22	314	6.7	8.36	182.1					
09/17/2011	09:44:52	332	6.7	8.36	185.4					
09/17/2011	09:45:22	326	6.7	8.30	188.7					
09/17/2011	09:45:52	370	6.7	8.36	192.1					
09/17/2011	09:46:22	373	6.7	8.36	195.4					
09/17/2011	09:46:52	395	6.7	8.36	198.7					
09/17/2011	09:46:55					Cement to surface at 38bbbls away.				
09/17/2011	09:46:55	409	6.7	8.36	199.1					
09/17/2011	09:46:57					Total cement to surface is 42bbbls.				
09/17/2011	09:46:57	427	6.7	8.36	199.3					
09/17/2011	09:47:22	323	4.7	8.36	201.4					
09/17/2011	09:47:52	322	4.7	8.36	203.8					
09/17/2011	09:48:22	324	4.7	8.36	206.1					
09/17/2011	09:48:52	367	4.7	8.36	208.5					
09/17/2011	09:49:22	255	2.4	8.36	209.9					
09/17/2011	09:49:52	270	2.4	8.36	211.0					
09/17/2011	09:50:22	286	2.3	8.36	212.2					
09/17/2011	09:50:52	282	2.4	8.36	213.4					
09/17/2011	09:51:22	292	2.3	8.36	214.6					
09/17/2011	09:51:52	308	2.4	8.36	215.7					
09/17/2011	09:52:22	303	2.3	8.36	216.9					

Well			Field		Job Start		Customer		Job Number	
FEDERAL SMITH 30-2 FEDERAL SMITH 30-2			BATTLEMENT MESA		Sep/17/2011		ENCANA		BQMF-00149	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
09/17/2011	09:53:22	900		0.0	8.36		218.0			
09/17/2011	09:53:24								Bump Top Plug	
09/17/2011	09:53:24	899		0.0	8.36		218.0			
09/17/2011	09:53:25								End Displacement	
09/17/2011	09:53:25	899		0.0	8.36		218.0			
09/17/2011	09:53:26								Bumped plug to 900psi.	
09/17/2011	09:53:26								Final displacement was 80bbls.	
09/17/2011	09:53:26								Bleed off pressure.	
09/17/2011	09:53:26	898		0.0	8.36		218.0			
09/17/2011	09:53:27								Check floats.	
09/17/2011	09:53:27								Floats held.	
09/17/2011	09:53:27								Got .25bbls back.	
09/17/2011	09:53:27								Good returns for entire job .	
09/17/2011	09:53:27	898		0.0	8.36		218.0			
09/17/2011	09:53:28								Total cement to surface is 42bbls.	
09/17/2011	09:53:28	899		0.0	8.36		218.0			
09/17/2011	09:53:52	899		0.0	8.36		218.0			
09/17/2011	09:54:22	900		0.0	8.36		218.0			
09/17/2011	09:54:52	900		0.0	8.36		218.0			
09/17/2011	09:55:22	482		0.0	8.36		218.0			
09/17/2011	09:55:52	-5		0.0	8.36		218.0			
09/17/2011	09:56:22	-4		0.0	8.37		218.0			
09/17/2011	09:56:46								End Job	
09/17/2011	09:56:46	-4		0.0	8.36		218.0			
09/17/2011	09:56:52	-4		0.0	8.37		218.0			
09/17/2011	09:57:22	-3		0.0	8.37		218.0			
09/17/2011	09:57:52	-3		0.0	8.37		218.0			

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 6.0	N2	Mud	Maximum Rate 8.0	Total Slurry 109.0	Mud	Spacer 20.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3000	Final 900	Average 150	Bump Plug to 900	Breakdown	Type	Volume	Density	
Avg. N2 Percent		Designed Slurry Volume 109.0 bbl		Displacement 80.5 bbl	Mix Water Temp 65 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 42.0 bbl	
						Washed Thru Perfs <input type="checkbox"/>	To	
Customer or Authorized Representative VLADAMIR			Schlumberger Supervisor Jeff Patterson			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	