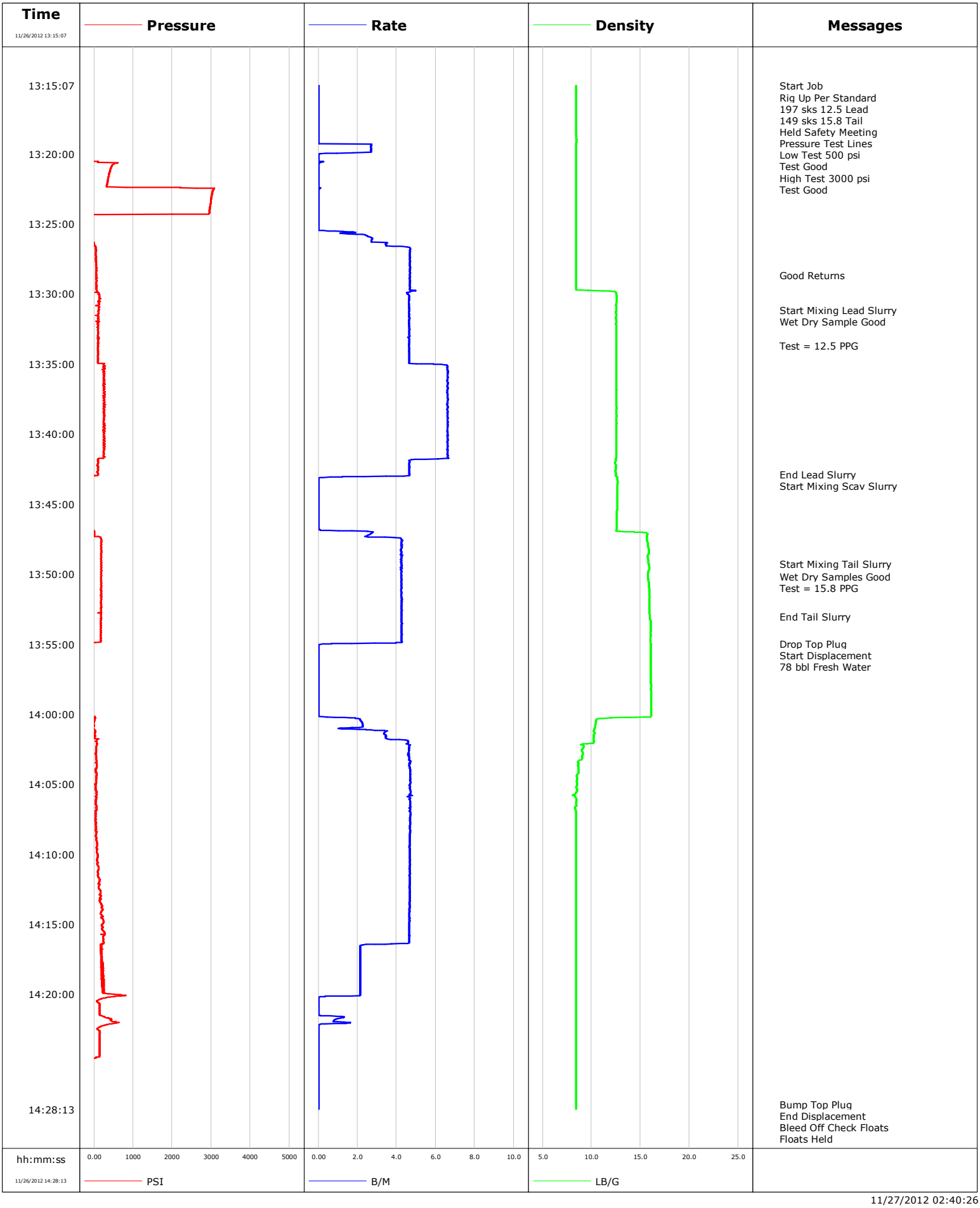
Schlumberger Cementing Job Report

CemCAT v1.3

Well	Shideler FEE 6-3D	**Client**	Encana
Field	Mamm Creek	**SIR No.**	
Engineer	Jordan Moreland	**Job Type**	9 5/8 Surface
Country	United States	**Job Date**	11-27-2012



Cementing Service Report

Customer	Job Number
Encana	CE6H-00013

Well	Location (legal)	Schlumberger Location	Job Start
Shideler FEE 6-3D	O31E	GCO	Nov/27/2012

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Mamm Creek	Shale		12.3 in	1039.0 ft	1039.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado		100 degF	85 degF	

Well Master	API/UWI
0631419467	05045217430000

Rig Name	Drilled For	Service Via
Patterson 303	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity

Service Line	Job Type
Cementing	9 5/8 Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
3000 psi		Single Cement head

Service Instructions

Rate And Density Checked
20 bbl Water
197 sks 12.5 Lead
149 sks 15.8 Tail
Displace Fresh Water

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
40.0	16.000	65.0		
1039.0	9.630	36.0		

Tubing/Drill Pipe

Depth,	Size,	Weight,	Grade	Thread

Perforations/Open Hole

Top,	Bottom,		No. of Shots	Total Interval
				Diameter

Treat Down	Displacement	Packer Type	Packer Depth
Casing	78.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	79.0 bbl	61.0 bbl	145.0 bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement	Casing Tools	Squeeze Job
X	X		

Lift Pressure	Pipe Rotated	Pipe Reciprocated	Shoe Type	Shoe Depth	Squeeze Type	Tool Type
514 psi	☐	☐	Guide	1039.0 ft		

No. Centralizers	Top Plugs	Bottom Plugs	Stage Tool Type	Tool Depth
	1			

Cement Head Type	Stage Tool Depth	Tail Pipe Size
Single		

Job Scheduled For	Arrived on Location	Leave Location	Collar Type	Collar Depth	Tail Pipe Depth	Sqz. Total Vol.
Nov/27/2012	Nov/27/2012	Nov/27/2012	Float	1003.0 ft		

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
11/26/2012	12:49:17					Started Acquisition
11/26/2012	13:15:07	-103	0.0	8.43	0.0	
11/26/2012	13:15:08					Start Job
11/26/2012	13:15:08	-103	0.0	8.43	0.0	
11/26/2012	13:15:13					Rig Up Per Standard
11/26/2012	13:15:13	-103	0.0	8.42	0.0	
11/26/2012	13:15:14					197 sks 12.5 Lead
11/26/2012	13:15:14					149 sks 15.8 Tail
11/26/2012	13:15:14					Held Safety Meeting
11/26/2012	13:15:14	-104	0.0	8.43	0.0	
11/26/2012	13:15:17	-103	0.0	8.43	0.0	
11/26/2012	13:15:21					Pressure Test Lines
11/26/2012	13:15:21	-104	0.0	8.43	0.0	
11/26/2012	13:15:23					Low Test 500 psi
11/26/2012	13:15:23					Test Good
11/26/2012	13:15:23					High Test 3000 psi
11/26/2012	13:15:23					Test Good
11/26/2012	13:15:23	-104	0.0	8.43	0.0	
11/26/2012	13:17:17	-106	0.0	8.43	0.0	
11/26/2012	13:19:17	-35	0.0	8.43	0.0	
11/26/2012	13:21:17	401	0.0	8.43	1.8	

Well	Field	Job Start	Customer	Job Number
Shideler FEE 6-3D	Mamm Creek	Nov/27/2012	Encana	CE6H-00013

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
11/26/2012	13:25:17	-93	0.0	8.43	1.8	
11/26/2012	13:27:17	46	4.7	8.43	7.8	
11/26/2012	13:28:40					Good Returns
11/26/2012	13:28:40	64	4.7	8.43	14.3	
11/26/2012	13:29:17	62	4.7	8.42	17.2	
11/26/2012	13:31:10					Start Mixing Lead Slurry
11/26/2012	13:31:10	122	4.6	12.51	26.0	
11/26/2012	13:31:16					Wet Dry Sample Good
11/26/2012	13:31:16	113	4.6	12.50	26.4	
11/26/2012	13:31:17	106	4.6	12.50	26.5	
11/26/2012	13:33:17	101	4.7	12.50	35.8	
11/26/2012	13:33:42					Test = 12.5 PPG
11/26/2012	13:33:42	93	4.6	12.50	37.7	
11/26/2012	13:35:17	233	6.6	12.51	45.6	
11/26/2012	13:37:17	252	6.6	12.54	58.8	
11/26/2012	13:39:17	260	6.6	12.54	72.0	
11/26/2012	13:41:17	247	6.6	12.51	85.2	
11/26/2012	13:42:52					End Lead Slurry
11/26/2012	13:42:52	104	4.7	12.48	93.7	
11/26/2012	13:42:54					Start Mixing Scav Slurry
11/26/2012	13:42:54	102	4.7	12.49	93.8	
11/26/2012	13:43:17	-80	0.0	12.65	94.5	
11/26/2012	13:45:17	-72	0.0	12.61	94.5	
11/26/2012	13:47:17	3	2.5	15.67	95.5	
11/26/2012	13:49:17	179	4.3	15.83	103.8	
11/26/2012	13:49:18					Start Mixing Tail Slurry
11/26/2012	13:49:18	182	4.2	15.83	103.9	
11/26/2012	13:50:11					Wet Dry Samples Good
11/26/2012	13:50:11	177	4.2	15.76	107.6	
11/26/2012	13:50:42					Test = 15.8 PPG
11/26/2012	13:50:42	193	4.3	15.84	109.8	
11/26/2012	13:51:17	181	4.3	15.89	112.3	
11/26/2012	13:53:02					End Tail Slurry
11/26/2012	13:53:02	183	4.3	15.94	119.8	
11/26/2012	13:53:17	181	4.3	16.00	120.8	
11/26/2012	13:54:58					Drop Top Plug
11/26/2012	13:54:58	-80	1.7	16.06	128.0	
11/26/2012	13:54:59					Start Displacement
11/26/2012	13:54:59	-80	0.7	16.06	128.0	
11/26/2012	13:55:00					78 bbl Fresh Water
11/26/2012	13:55:00	-80	0.7	16.08	128.0	
11/26/2012	13:55:17	-79	0.0	16.07	128.0	
11/26/2012	13:57:17	-65	0.0	16.07	128.0	
11/26/2012	13:59:17	-47	0.0	16.10	128.0	
11/26/2012	14:01:17	29	3.4	10.25	130.4	
11/26/2012	14:03:17	60	4.6	8.86	139.0	
11/26/2012	14:05:17	45	4.7	8.46	148.3	
11/26/2012	14:07:17	37	4.7	8.43	157.7	
11/26/2012	14:09:17	81	4.7	8.42	167.1	
11/26/2012	14:11:17	89	4.7	8.42	176.4	
11/26/2012	14:13:17	159	4.7	8.42	185.7	
11/26/2012	14:15:17	207	4.7	8.42	195.1	
11/26/2012	14:17:17	208	2.1	8.42	202.2	
11/26/2012	14:19:17	261	2.1	8.42	206.5	

Well	Field	Job Start	Customer	Job Number
Shideler FEE 6-3D	Mamm Creek	Nov/27/2012	Encana	CE6H-00013

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
11/26/2012	14:23:17	145	0.0	8.43	209.1	
11/26/2012	14:25:17	-85	0.0	8.43	209.1	
11/26/2012	14:27:17	-86	0.0	8.43	209.1	
11/26/2012	14:27:52					Bump Top Plug
11/26/2012	14:27:52	-85	0.0	8.43	209.1	
11/26/2012	14:27:54					End Displacement
11/26/2012	14:27:54	-85	0.0	8.43	209.1	
11/26/2012	14:27:59					Bleed Off Check Floats
11/26/2012	14:27:59					Floats Held
11/26/2012	14:27:59					1/2 bbl Back
11/26/2012	14:27:59	-85	0.0	8.43	209.1	
11/26/2012	14:28:00					35 bbl Cement To Surface
11/26/2012	14:28:00					Blow Out Iron and Hoses
11/26/2012	14:28:00					Rig Down
11/26/2012	14:28:00	-86	0.0	8.43	209.1	
11/26/2012	14:28:02					End Job
11/26/2012	14:28:02	-86	0.0	8.43	209.1	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
3.4		0.0	6.7	209.1	0.0	25.9	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3076	-85	262					

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
		81.2 bbl		X	
				Washed Thru Perfs ☐	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Erasmo Parras	Jordan Moreland	☐ -	X -