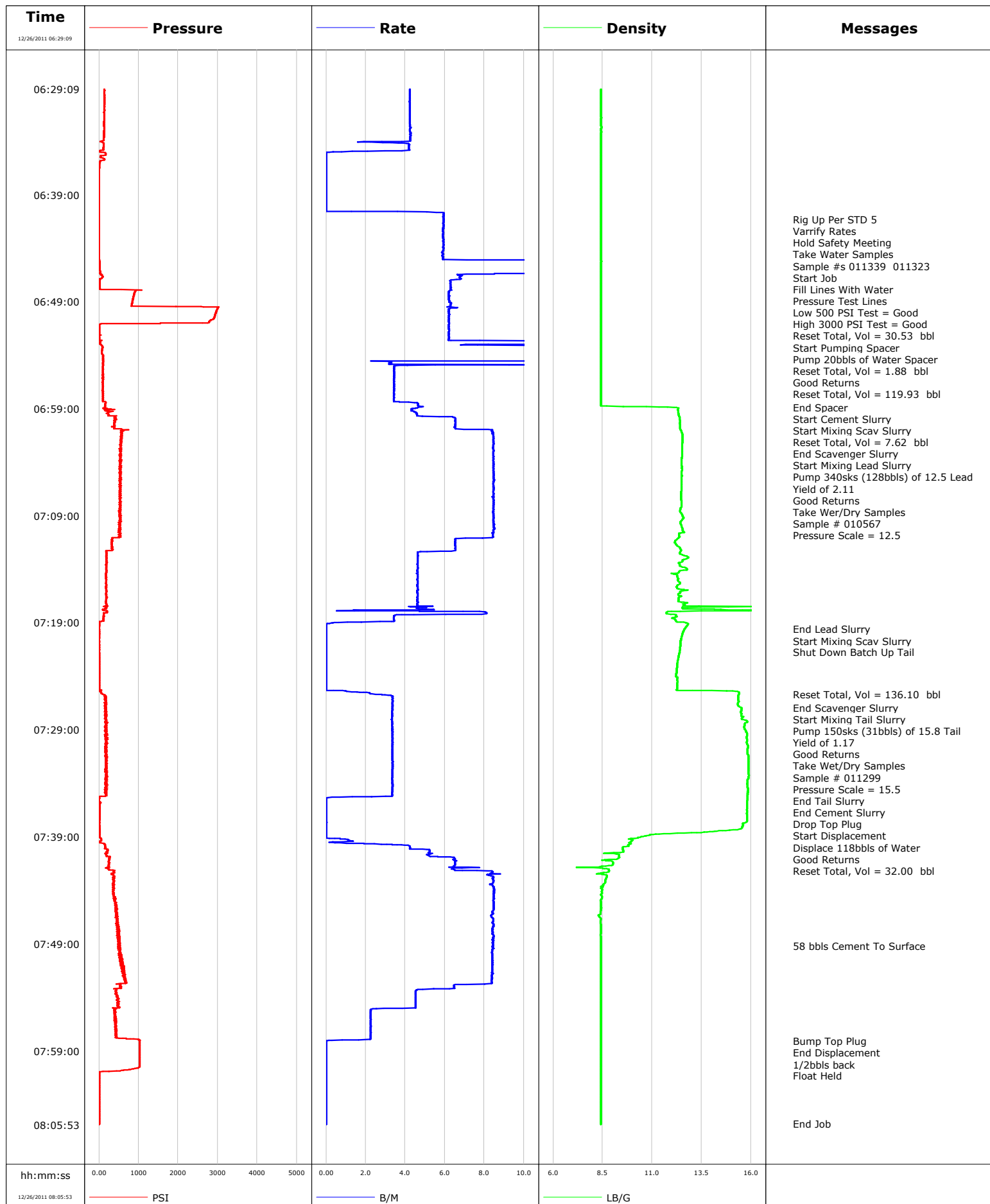


<b>Well</b>	HMU Federal 16-14D2	<b>Client</b>	Encana
<b>Field</b>	Mamm Creek	<b>SIR No.</b>	682778
<b>Engineer</b>	Dant Ryan/Ted Hansen	<b>Job Type</b>	9 5/8 Surface
<b>Country</b>	United States	<b>Job Date</b>	12-25-2011



				Customer Encana			Job Number 682778		
Well HMU Federal 16-14D2 HMU FEDERAL 16-14D2				Location (legal) J16W			Schlumberger Location		
							Job Start Dec/25/2011		
Field Mamm Creek		Formation Name/Type Shale		Deviation deg		Bit Size 12.3 in		Well MD 1569.0 ft	
County Garfield		State/Province Colorado		BHP psi		BHST 100 degF		BHCT 86 degF	
Well Master 0631254659		API/UWI						Pore Press. Gradient lb/gal	
Rig Name Nabors M-11		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		40.0		16.0	
						65.0		N/A	
						0.0		9.6	
						36.0		K55	
Drilling Fluid Type Bentonite		Max. Density 9.70 lb/gal		Plastic Viscosity 13.000 cP		Tubing/Drill Pipe			
						T/D		Depth, ft	
						Size, in		Weight, lb/ft	
						Grade		Thread	
Service Line Cementing		Job Type 9 5/8 Surface							
Max. Allowed Tub. Press 3000 psi		Max. Allowed Ann. Press 500 psi		WH Connection Single Cement head		Perforations/Open Hole			
						Top, ft		Bottom, ft	
						shot/ft		No. of Shots	
						Total Interval ft			
						ft		ft	
						ft		ft	
						ft		ft	
						Treat Down Casing		Displacement 118.0 bbl	
						Packer Type		Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 122.0 bbl	
						Annular Vol. 91.0 bbl		Openhole Vol. 216.0 bbl	
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools		Squeeze Job			
Lift Pressure 776 psi				Shoe Type Float		Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1569.0 ft		Tool Type			
No. Centralizers		Top Plugs		Bottom Plugs		Stage Tool Type		Tool Depth ft	
Cement Head Type Single						Stage Tool Depth ft		Tail Pipe Size in	
Job Scheduled For Dec/25/2011 21:00		Arrived on Location Dec/25/2011 22:00		Leave Location Dec/25/2011		Collar Type Float		Tail Pipe Depth ft	
						Collar Depth 1523.0 ft		Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
12/26/2011	06:29:09	131	4.2	8.42	2260.6	Started Acquisition			
12/26/2011	06:30:49	135	4.2	8.42	2267.6				
12/26/2011	06:32:29	130	4.2	8.43	2274.7				
12/26/2011	06:34:09	92	2.9	8.42	2281.6				
12/26/2011	06:35:49	69	0.0	8.42	2285.0				
12/26/2011	06:37:29	-5	0.0	8.42	0.0				
12/26/2011	06:39:09	-5	0.0	8.42	0.0				
12/26/2011	06:40:49	-4	5.9	8.42	1.2				
12/26/2011	06:41:19	-4	6.0	8.42	4.2	Rig Up Per STD 5			
12/26/2011	06:41:20	-3	5.9	8.42	4.3	Varrify Rates			
12/26/2011	06:41:25	-3	5.9	8.42	4.8	Start Job			
12/26/2011	06:41:27	-4	5.9	8.42	5.0	Fill Lines With Water			
12/26/2011	06:41:32	-3	5.9	8.42	5.5	Pressure Test Lines			
12/26/2011	06:41:34	-4	6.0	8.42	5.7	Low 500 PSI Test = Good			
12/26/2011	06:41:35	-4	6.0	8.42	5.8	High 3000 PSI Test = Good			
12/26/2011	06:41:38	-3	5.9	8.42	6.1	Reset Total, Vol = 30.53 bbl			
12/26/2011	06:41:40	-4	5.9	8.42	6.3	Start Pumping Spacer			
12/26/2011	06:41:57	-4	5.9	8.42	7.9	Reset Total, Vol = 1.88 bbl			
12/26/2011	06:42:29	-5	5.9	8.42	11.1				
12/26/2011	06:44:09	-5	5.9	8.42	21.0				
12/26/2011	06:45:49	20	18.1	8.42	12.4				

Well			Field		Job Start		Customer		Job Number	
HMU Federal 16-14D2 HMU FEDERAL 16-14D2			Mamm Creek		Dec/25/2011		Encana		682778	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/26/2011	06:49:09	834	6.3	8.41	40.5					
12/26/2011	06:50:49	2800	6.2	8.41	50.9					
12/26/2011	06:52:29	11	6.2	8.41	61.3					
12/26/2011	06:54:09	104	19.3	8.42	85.1					
12/26/2011	06:55:49	100	3.5	8.41	97.7					
12/26/2011	06:57:02	110	3.4	8.41	101.9	Reset Total, Vol = 119.93 bbl				
12/26/2011	06:57:29	108	3.4	8.41	103.4					
12/26/2011	06:58:53	163	4.7	11.78	108.8	End Spacer				
12/26/2011	06:58:55	151	4.6	12.24	109.0	Start Cement Slurry				
12/26/2011	06:58:56	172	4.6	12.30	109.0	Start Mixing Scav Slurry				
12/26/2011	06:59:02	160	4.3	12.31	109.5	Reset Total, Vol = 7.62 bbl				
12/26/2011	06:59:09	215	4.3	12.30	110.0					
12/26/2011	06:59:17	345	4.4	12.31	110.6	End Scavenger Slurry				
12/26/2011	06:59:18	271	4.4	12.31	110.6	Start Mixing Lead Slurry				
12/26/2011	07:00:16	397	6.5	12.41	116.1	Pump 340sks (128bbls) of 12.5 Lead				
12/26/2011	07:00:17	398	6.5	12.41	116.2	Good Returns				
12/26/2011	07:00:49	391	6.5	12.41	119.6					
12/26/2011	07:02:29	554	8.4	12.50	133.5					
12/26/2011	07:03:45	560	8.4	12.49	144.2	Sample # 010567				
12/26/2011	07:04:09	546	8.5	12.49	147.5					
12/26/2011	07:05:49	540	8.4	12.48	161.6					
12/26/2011	07:05:51	552	8.5	12.48	161.9	Pressure Scale = 12.5				
12/26/2011	07:07:29	531	8.4	12.46	175.7					
12/26/2011	07:09:09	558	8.5	12.58	189.8					
12/26/2011	07:10:49	526	8.4	12.36	203.9					
12/26/2011	07:12:29	188	4.6	12.39	215.1					
12/26/2011	07:14:09	198	4.6	12.41	222.8					
12/26/2011	07:15:49	182	4.6	12.28	230.5					
12/26/2011	07:17:29	116	5.4	16.21	238.2					
12/26/2011	07:19:09	1	0.0	12.81	244.9					
12/26/2011	07:19:35	-1	0.0	12.65	244.9	End Lead Slurry				
12/26/2011	07:19:36	-1	0.0	12.64	244.9	Start Mixing Scav Slurry				
12/26/2011	07:19:47	0	0.0	12.59	244.9	Shut Down Batch Up Tail				
12/26/2011	07:20:49	0	0.0	12.44	244.9					
12/26/2011	07:22:29	1	0.0	12.30	244.9					
12/26/2011	07:24:09	1	0.0	12.28	244.9					
12/26/2011	07:25:43	122	2.8	15.38	245.6	Reset Total, Vol = 136.10 bbl				
12/26/2011	07:25:49	133	3.3	15.35	245.9					
12/26/2011	07:26:55	173	3.4	15.50	249.6	End Scavenger Slurry				
12/26/2011	07:26:56	188	3.4	15.52	249.6	Start Mixing Tail Slurry				
12/26/2011	07:27:20	139	3.3	15.48	251.0	Good Returns				
12/26/2011	07:27:21	203	3.3	15.48	251.0	Take Wet/Dry Samples				
12/26/2011	07:27:29	175	3.3	15.54	251.5					
12/26/2011	07:29:09	171	3.3	15.74	257.0					
12/26/2011	07:29:25	188	3.4	15.80	257.9	Pressure Scale = 15.5				
12/26/2011	07:30:49	196	3.3	15.82	262.6					
12/26/2011	07:32:29	161	3.4	15.86	268.2					
12/26/2011	07:34:09	172	3.4	15.82	273.8					
12/26/2011	07:35:13	71	3.3	15.81	277.4	End Tail Slurry				
12/26/2011	07:35:14	25	3.0	15.81	277.4	End Cement Slurry				
12/26/2011	07:35:17	10	1.3	15.82	277.5	Drop Top Plug				
12/26/2011	07:35:18	10	0.7	15.82	277.6	Start Displacement				
12/26/2011	07:35:19	10	0.3	15.82	277.6	Displace 118bbls of Water				
12/26/2011	07:35:20	9	0.1	15.82	277.6	Good Returns				

Well			Field		Job Start		Customer		Job Number	
HMU Federal 16-14D2 HMU FEDERAL 16-14D2			Mamm Creek		Dec/25/2011		Encana		682778	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G	Volume BBL	Message			
12/26/2011	07:35:49	38		0.0	15.78	277.6				
12/26/2011	07:37:29	12		0.0	15.79	277.6				
12/26/2011	07:39:09	44		0.2	10.14	277.6				
12/26/2011	07:40:49	193		5.2	9.32	283.5				
12/26/2011	07:42:29	310		8.6	8.46	294.9				
12/26/2011	07:44:09	362		8.5	8.45	309.0				
12/26/2011	07:45:49	427		8.5	8.41	323.1				
12/26/2011	07:47:29	450		8.4	8.41	337.1				
12/26/2011	07:49:09	479		8.4	8.41	351.2				
12/26/2011	07:49:11	512		8.4	8.41	351.4	58 bbls Cement To Surface			
12/26/2011	07:50:49	534		8.4	8.41	365.2				
12/26/2011	07:52:29	662		8.4	8.41	379.2				
12/26/2011	07:54:09	499		4.5	8.41	388.7				
12/26/2011	07:55:49	417		2.2	8.41	394.5				
12/26/2011	07:57:29	439		2.2	8.41	398.2				
12/26/2011	07:58:05	1033		0.0	8.41	399.3	Bump Top Plug			
12/26/2011	07:58:06	1023		0.0	8.41	399.3	End Displacement			
12/26/2011	07:59:09	1020		0.0	8.41	399.3				
12/26/2011	08:00:49	609		0.0	8.41	399.4				
12/26/2011	08:02:29	6		0.0	8.41	399.4				
12/26/2011	08:04:09	6		0.0	8.41	399.4				

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 5.1	N2	Mud	Maximum Rate 8.8		Total Slurry 417.5	Mud 0.0	Spacer 126.9	N2	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 3027	Final 6	Average 320	Bump Plug to 1100	Breakdown	Type	Volume bbl	Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 159.0 bbl		Displacement 121.8 bbl		Mix Water Temp 60 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 58.0 bbl
						Washed Thru Perfs <input type="checkbox"/>		To ft	
Customer or Authorized Representative Jeff Johnson			Schlumberger Supervisor Dant Ryan/Ted Hansen			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>	
						-		-	