

07/14/2011 11:04:27

# Cementing Service Report

					Customer EnCana			Job Number BQP3-00148	
Well DW 8606A-33			Location (legal) P28		Schlumberger Location Grand Junction, CO			Job Start Jul/14/2011	
Field Double Willow		Formation Name/Type Shale		Deviation 0 deg	Bit Size 14.8 in		Well MD 2345.0 ft		Well TVD 2345.0 ft
County Garfield		State/Province Colorado		BHP psi	BHST 110 degF		BHCT 91 degF		Pore Press. Gradient lb/gal
Well Master		API/UWI							
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	120.0	16.0	65.0			
				2345.0	9.6	36.0	K55		
Drilling Fluid Type		Max. Density lb/gal	Plastic Viscosity cP	Tubing/Drill Pipe					
				T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	
Service Line Cementing	Job Type 9 5/8" Surface Casing								
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				Diameter in
				Treat Down Casing	Displacement 178.0 bbl		Packer Type		Packer Depth ft
				Tubing Vol. bbl	Casing Vol. 182.0 bbl		Annular Vol. 287.0 bbl		Openhole Vol. 470.0 bbl
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input type="checkbox"/>		Casing Tools			Squeeze Job		
Lift Pressure 450 psi				Shoe Type Guide			Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 2345.0 ft			Tool Type		
No. Centralizers		Top Plugs 1	Bottom Plugs	Stage Tool Type			Tool Depth ft		
Cement Head Type Single				Stage Tool Depth ft			Tail Pipe Size in		
Job Scheduled For Jul/14/2011		Arrived on Location Jul/14/2011		Leave Location Jul/14/2011		Collar Type Float		Tail Pipe Depth ft	
						Collar Depth 2306.0 ft		Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message		
07/14/2011	06:36:43	-7	0.0	9.15	0.0	0	Started Acquisition		
07/14/2011	06:36:44	-7	0.0	9.15	0.0	0	Start Job		
07/14/2011	06:36:45	-7	0.0	9.15	0.0	0	Held Safety Meeting		
07/14/2011	06:36:46	-7	0.0	9.15	0.0	0	Flow 2 bbls Water Ahead		
07/14/2011	06:38:23	-8	0.0	9.15	0.0	0			
07/14/2011	06:40:03	14	0.0	8.42	0.9	0			
07/14/2011	06:41:43	42	1.5	8.44	1.2	0			
07/14/2011	06:43:23	1164	0.0	8.39	2.1	0			
07/14/2011	06:43:49	1143	0.0	8.39	2.1	0	Pressure Test Lines		
07/14/2011	06:43:50	1142	0.0	8.39	2.1	0	Pressure Test = Good		
07/14/2011	06:45:03	4056	0.0	8.39	2.1	0			
07/14/2011	06:45:11	4026	0.0	8.39	2.1	0	Pressure Test Lines		
07/14/2011	06:46:43	-1	0.0	8.39	2.1	0			
07/14/2011	06:48:23	4	0.0	8.39	2.1	0			
07/14/2011	06:50:03	4	0.0	8.39	2.1	0			
07/14/2011	06:51:43	4	0.0	8.39	2.1	0			
07/14/2011	06:53:23	4	0.0	8.39	2.1	0			
07/14/2011	06:54:19	4	0.0	8.39	2.1	0	Reset Total, Vol = 2.12 bbl		
07/14/2011	06:55:03	4	0.0	8.39	2.1	0			
07/14/2011	06:56:43	120	3.5	8.92	4.1	12			
07/14/2011	06:57:06	120	3.5	8.94	5.5	12	Start Pumping Spacer		

Well			Field		Job Start	Customer		Job Number
DW 8606A-33			Double Willow		Jul/14/2011	EnCana		BQP3-00148
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
07/14/2011	06:58:23	175	5.0	8.99	11.1	12		
07/14/2011	07:00:03	243	6.4	9.03	21.0	12		
07/14/2011	07:01:43	240	6.4	9.06	31.7	12		
07/14/2011	07:03:23	213	6.4	9.12	42.3	12		
07/14/2011	07:05:00	207	6.4	9.18	52.6	12	Good Returns	
07/14/2011	07:05:03	204	6.4	9.18	52.9	12		
07/14/2011	07:06:43	211	6.4	9.15	63.5	12		
07/14/2011	07:08:23	164	5.0	8.98	72.2	12		
07/14/2011	07:10:03	156	5.0	8.82	80.5	12		
07/14/2011	07:10:55	151	5.0	8.75	84.8	12	Reset Total, Vol = 82.69 bbl	
07/14/2011	07:10:58	155	5.0	8.75	85.1	12	Start Pumping Water	
07/14/2011	07:11:43	157	5.0	8.73	88.8	12		
07/14/2011	07:13:23	127	5.0	8.39	97.1	12		
07/14/2011	07:14:01	137	5.0	8.70	100.2	0	End Water	
07/14/2011	07:14:02	131	5.0	8.85	100.3	0	Reset Total, Vol = 15.52 bbl	
07/14/2011	07:14:05	134	5.0	9.06	100.6	0	End Spacer	
07/14/2011	07:15:03	147	5.0	9.13	105.4	0		
07/14/2011	07:16:43	146	5.0	8.61	113.7	0		
07/14/2011	07:18:23	138	5.0	8.39	122.0	0		
07/14/2011	07:20:03	150	5.0	8.39	130.3	0		
07/14/2011	07:21:43	182	5.0	9.64	138.4	0		
07/14/2011	07:23:23	161	5.0	9.64	146.7	0		
07/14/2011	07:25:03	172	5.0	9.64	155.0	0		
07/14/2011	07:26:43	163	5.0	9.64	163.3	0		
07/14/2011	07:28:23	86	3.5	8.39	171.1	0		
07/14/2011	07:30:03	91	3.5	8.39	177.0	0		
07/14/2011	07:30:24	79	3.6	8.87	178.2	16	Reset Total, Vol = 77.89 bbl	
07/14/2011	07:30:27	93	3.6	9.69	178.4	16	Start Pumping Spacer	
07/14/2011	07:30:28	93	3.6	9.82	178.5	16	50 bbl MudPush II	
07/14/2011	07:30:29	80	3.6	9.82	178.5	16	MudPush II @ 10.0 ppg	
07/14/2011	07:31:43	82	3.5	9.95	182.9	19		
07/14/2011	07:33:23	128	5.1	10.04	191.2	17		
07/14/2011	07:33:33	122	5.1	10.06	192.0	17	Good Returns	
07/14/2011	07:35:03	118	5.1	10.04	199.7	15		
07/14/2011	07:36:43	184	6.5	10.18	208.3	15		
07/14/2011	07:38:23	127	6.1	10.08	218.9	9		
07/14/2011	07:39:39	302	6.2	10.53	226.5	25	Reset Total, Vol = 48.27 bbl	
07/14/2011	07:39:41	172	6.2	10.53	226.7	25	End Spacer	
07/14/2011	07:39:44	352	6.3	10.51	227.0	25	Start Mixing Lead Slurry	
07/14/2011	07:39:48	189	6.3	10.50	227.4	25	337 bbls Lead Slurry	
07/14/2011	07:40:03	321	6.3	10.54	229.0	26		
07/14/2011	07:41:43	236	5.9	10.62	239.5	28		
07/14/2011	07:43:23	216	6.5	10.17	249.9	25		
07/14/2011	07:45:03	241	6.5	10.29	260.7	26		
07/14/2011	07:46:43	334	6.7	10.56	271.6	27		
07/14/2011	07:48:23	334	7.9	10.68	284.8	28		
07/14/2011	07:50:03	325	8.0	10.47	298.0	26		
07/14/2011	07:51:43	323	7.9	10.64	311.3	28		
07/14/2011	07:53:23	323	8.0	10.52	324.5	26		
07/14/2011	07:55:03	321	7.9	10.68	337.8	27		
07/14/2011	07:56:43	334	7.9	10.69	351.0	28		
07/14/2011	07:58:23	324	7.9	10.60	364.2	27		
07/14/2011	07:59:49	319	8.0	10.62	375.6	27	Full Returns	
07/14/2011	08:00:03	323	8.0	10.62	377.5	27		

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DW 8606A-33			Double Willow		Jul/14/2011	EnCana		BQP3-00148
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
07/14/2011	08:03:23	330	7.9	10.74	404.0	27		
07/14/2011	08:05:03	104	3.6	11.11	413.0	7		
07/14/2011	08:06:43	93	3.6	11.05	419.1	24		
07/14/2011	08:08:23	311	6.1	10.85	426.8	25		
07/14/2011	08:10:03	243	6.5	10.99	437.5	28		
07/14/2011	08:11:43	248	6.5	10.81	448.4	28		
07/14/2011	08:13:23	353	8.0	10.92	460.3	30		
07/14/2011	08:15:03	337	8.0	10.81	473.5	29		
07/14/2011	08:16:43	314	7.9	10.82	486.8	29		
07/14/2011	08:18:23	326	8.0	10.87	500.0	30		
07/14/2011	08:20:03	330	8.0	10.83	513.3	30		
07/14/2011	08:21:43	331	8.0	10.80	526.6	29		
07/14/2011	08:23:23	322	8.0	10.88	539.9	31		
07/14/2011	08:25:03	335	8.0	10.83	553.2	29		
07/14/2011	08:26:43	326	8.0	10.83	566.4	29		
07/14/2011	08:28:09	165	5.1	10.89	576.3	30	MudPush II Returns	
07/14/2011	08:28:23	168	5.1	10.91	577.5	30		
07/14/2011	08:30:03	173	5.1	11.04	585.9	30		
07/14/2011	08:31:43	167	5.1	11.05	594.4	30		
07/14/2011	08:33:23	232	6.5	10.92	603.5	30		
07/14/2011	08:35:03	247	6.5	10.58	614.3	25		
07/14/2011	08:36:43	241	6.5	11.21	625.0	33		
07/14/2011	08:37:25	183	5.2	11.90	629.5	39	End Lead Slurry	
07/14/2011	08:37:33	195	5.1	11.96	630.2	40	Reset Total, Vol = 403.68 bbl	
07/14/2011	08:38:23	207	5.0	12.19	634.4	42		
07/14/2011	08:40:03	142	4.8	12.15	642.6	43		
07/14/2011	08:41:43	245	4.8	12.05	650.5	43		
07/14/2011	08:43:23	120	4.8	12.14	658.4	43		
07/14/2011	08:45:03	302	5.0	12.17	668.1	43		
07/14/2011	08:46:11	320	6.5	12.16	675.4	43	Good Cement to Surface	
07/14/2011	08:46:43	333	6.5	12.15	678.8	43		
07/14/2011	08:47:44	306	6.5	12.15	685.4	43	Start Mixing Tail Slurry	
07/14/2011	08:47:48	325	6.5	12.15	685.9	43	94 bbl Tail Slurry	
07/14/2011	08:48:23	316	6.5	12.14	689.7	43		
07/14/2011	08:50:03	302	6.5	12.10	700.5	42		
07/14/2011	08:51:43	322	6.5	12.06	711.4	42		
07/14/2011	08:53:23	293	6.5	12.04	722.2	42		
07/14/2011	08:55:00	76	2.9	11.85	728.4	29	End Tail Slurry	
07/14/2011	08:55:03	76	2.9	11.86	728.6	29		
07/14/2011	08:56:43	68	2.9	10.34	733.3	21		
07/14/2011	08:58:23	51	3.1	8.86	738.6	12		
07/14/2011	09:00:03	108	5.0	8.69	745.6	10		
07/14/2011	09:00:22	110	5.0	8.69	747.2	10	Drop Top Plug	
07/14/2011	09:00:23	110	5.0	8.69	747.3	10	Start Displacement	
07/14/2011	09:00:24	111	5.0	8.69	747.4	10	178 bbl Displacement	
07/14/2011	09:01:43	117	5.0	8.45	754.0	6		
07/14/2011	09:03:23	118	5.0	8.40	762.4	10		
07/14/2011	09:05:03	207	6.4	8.40	772.0	4		
07/14/2011	09:06:43	213	6.3	8.14	782.6	8		
07/14/2011	09:08:23	272	6.4	8.38	793.2	8		
07/14/2011	09:10:03	272	6.4	8.37	803.8	14		
07/14/2011	09:11:43	274	6.3	8.38	814.4	0		
07/14/2011	09:13:23	321	6.3	8.38	825.0	0		
07/14/2011	09:15:03	346	6.3	8.38	835.5	0		

Well			Field		Job Start		Customer		Job Number	
DW 8606A-33			Double Willow		Jul/14/2011		EnCana		BQP3-00148	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
07/14/2011	09:18:23	438	6.3	8.38	856.6	0				
07/14/2011	09:20:03	441	6.3	8.38	867.2	0				
07/14/2011	09:21:43	487	6.3	8.38	877.7	0				
07/14/2011	09:23:23	494	6.3	8.38	888.3	0				
07/14/2011	09:25:03	534	6.3	8.38	898.8	0				
07/14/2011	09:26:43	441	3.9	8.38	907.6	0				
07/14/2011	09:28:23	447	3.9	8.38	914.1	0				
07/14/2011	09:30:03	400	2.5	8.38	918.3	0				
07/14/2011	09:31:43	910	0.0	8.38	919.7	0				
07/14/2011	09:33:23	-1	0.0	8.38	919.7	0				
07/14/2011	09:35:03	-2	0.0	8.39	919.7	0				
07/14/2011	09:35:08	-3	0.0	8.39	919.7	0	Bump Top Plug			
07/14/2011	09:35:17	-2	0.0	8.39	919.7	0	End Displacement			
07/14/2011	09:35:21	-3	0.0	8.39	919.7	0	Plug Bumped @ 177 bbls Displacement			
07/14/2011	09:35:54	-2	0.0	8.39	919.7	0	Floats Held			
07/14/2011	09:35:55	-3	0.0	8.39	919.7	0	220 bbls Good Cement to Surface			
07/14/2011	09:36:43	-2	0.0	8.39	919.7	0				

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 5.8	N2	Mud	Maximum Rate 8.0		Total Slurry 919.7	Mud 0.0	Spacer 148.8	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 4237	Final 187	Average 285	Bump Plug to 900	Breakdown	Type		Volume bbl		Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 431.0 bbl		Displacement 172.6 bbl		Mix Water Temp 60 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 220.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Ira Cox				Schlumberger Supervisor Ryan Bowditch				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-