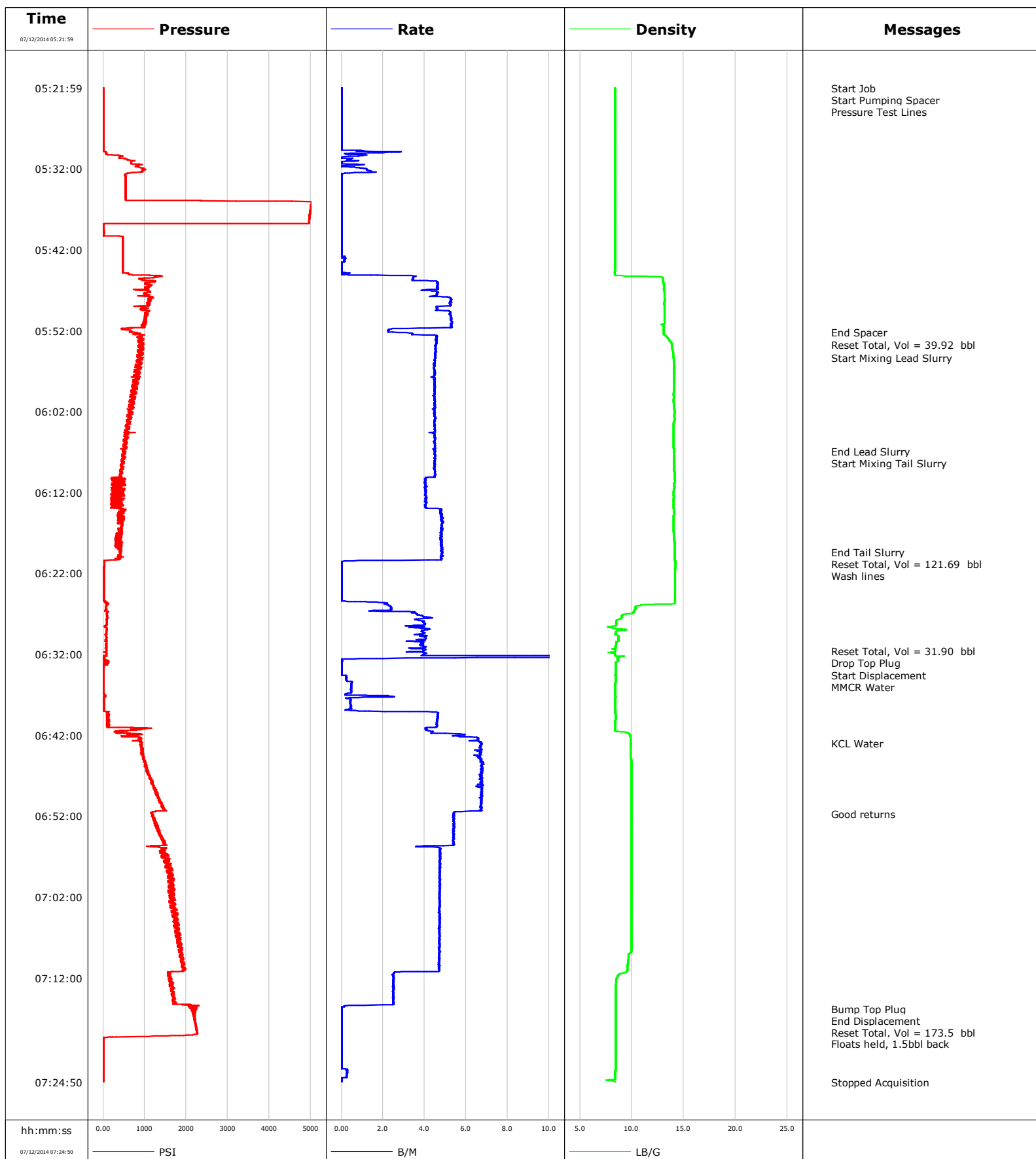


**Well** Zisch 3D-6H  
**Field** Wattenberg  
**Engineer** Michael Simon/ Morrow  
**Country** United States

**Client** Encana  
**SIR No.** C459-02916  
**Job Type** 4 1/2 Production  
**Job Date** 07-12-2014



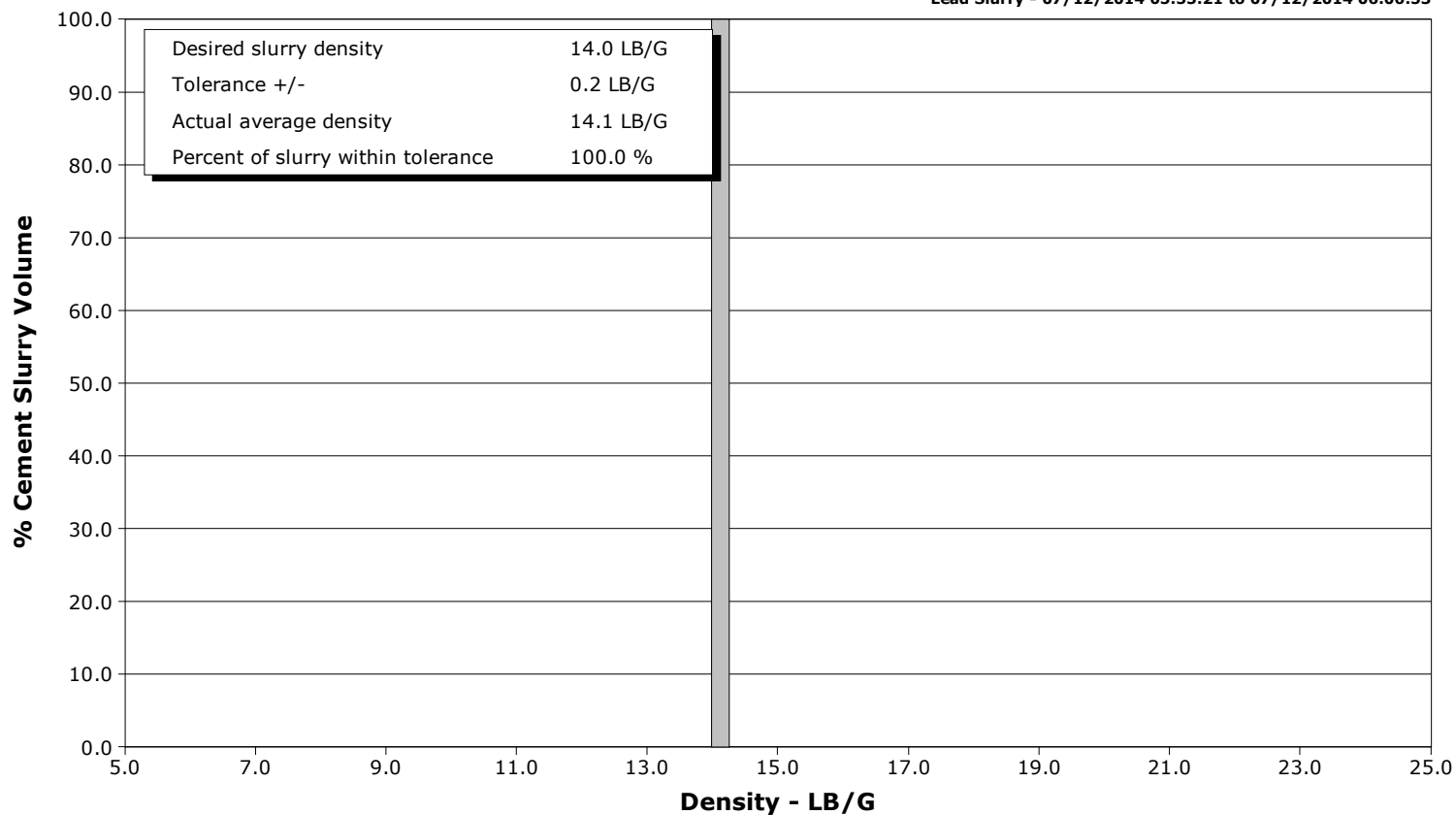
# Schlumberger

## Cementing Qa/Qc Density Report

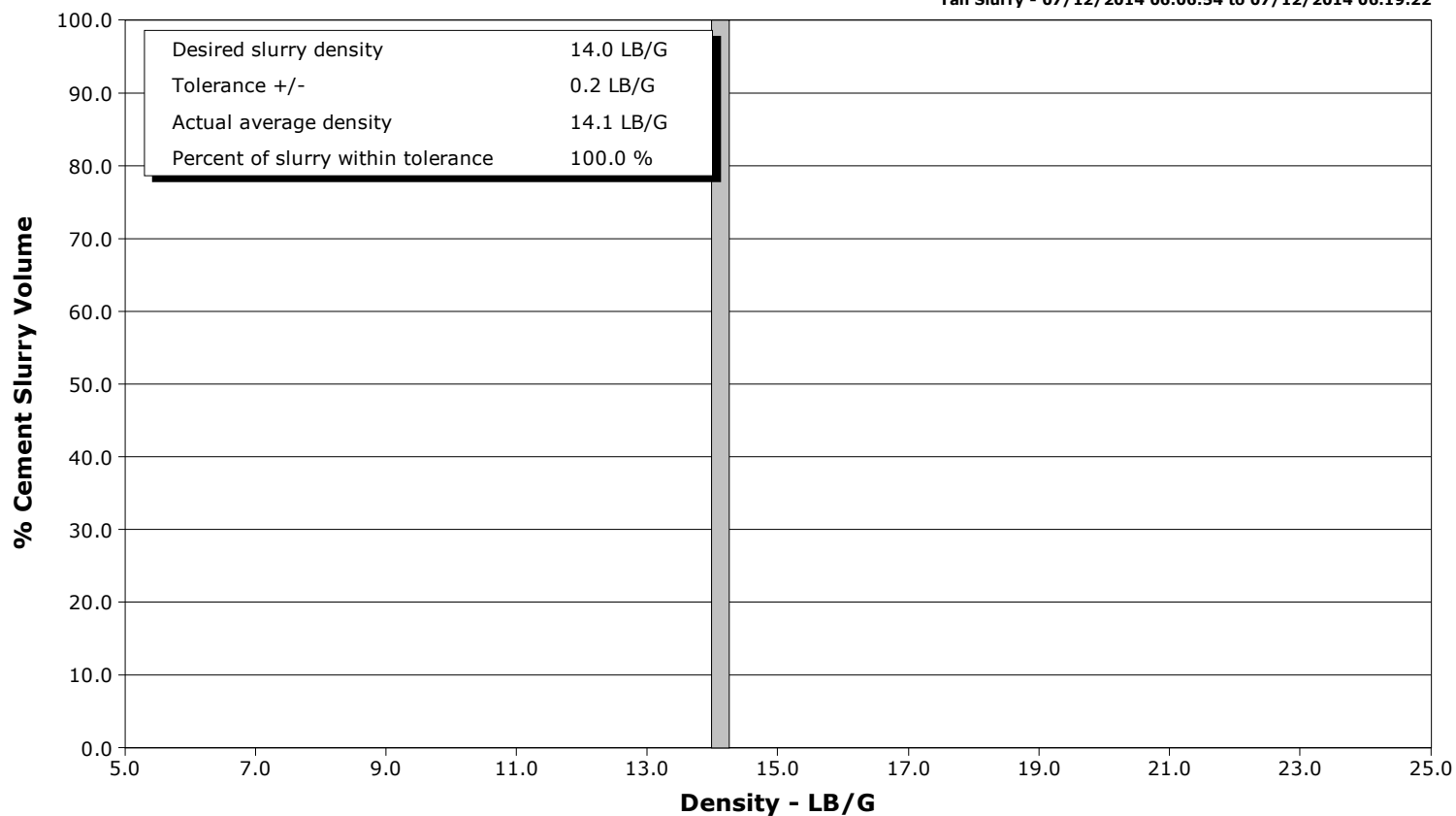
**Well** Zisch 3D-6H  
**Field** Wattenberg  
**Engineer** Michael Simon/ Morrow  
**Country** United States

**Client** Encana  
**SIR No.** C459-02916  
**Job Type** 4 1/2 Production  
**Job Date** 07-12-2014

**Lead Slurry - 07/12/2014 05:55:21 to 07/12/2014 06:06:53**



**Tail Slurry - 07/12/2014 06:06:54 to 07/12/2014 06:19:22**





# Cementing Service Report

				Customer Encana		Job Number C459-02916				
Well Zisch 3D-6H 3D-6H			Location (legal) Cheyenne		Schlumberger Location Rock Springs		Job Start Jul/12/2014			
Field Wattenberg		Formation Name/Type		Deviation	Bit Size 6.1 in	Well MD 11629.0 ft	Well TVD			
County Weld		State/Province Colorado		BHP	BHST 196 degF	BHCT 196 degF	Pore Press. Gradient			
Well Master 0631472464		API/UWI								
Rig Name Ensign 124		Drilled For Oil & Gas		Service Via Land		Casing/Liner				
				Depth, ft	Size, in	Weight, lb/ft	Grade	Thread		
Offshore Zone		Well Class New		Well Type Development		11629.0	4.500	13.5	P110	BUTT
				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 4 1/2 Production								
Max. Allowed Tub. Press		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole				
						Top,	Bottom,		No. of Shots	Total Interval
Service Instructions										Diameter
Treat Down Casing		Displacement 173.5 bbl		Packer Type		Packer Depth				
Tubing Vol.		Casing Vol. 173.6 bbl		Annular Vol. 209.0 bbl		Openhole Vol. 397.0 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 9871 psi				Shoe Type Float		Squeeze Type				
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 11629.0 ft		Tool Type				
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type		Tool Depth		
Cement Head Type				Stage Tool Depth		Tail Pipe Size				
Job Scheduled For Jul/12/2014		Arrived on Location Jul/12/2014		Leave Location Jul/12/2014		Collar Type Float		Tail Pipe Depth		
						Collar Depth 11625.4 ft		Sqz. Total Vol.		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
07/12/2014	04:32:01					Started Acquisition				
07/12/2014	05:21:59					Start Job				
07/12/2014	05:21:59	6	0.0	8.40	0.0					
07/12/2014	05:22:02					Start Pumping Spacer				
07/12/2014	05:22:02	6	0.0	8.40	0.0					
07/12/2014	05:22:04					Pressure Test Lines				
07/12/2014	05:22:04	6	0.0	8.40	0.0					
07/12/2014	05:23:01	3	0.0	8.40	0.0					
07/12/2014	05:26:01	3	0.0	8.39	0.0					
07/12/2014	05:29:01	4	0.0	8.39	0.0					
07/12/2014	05:32:01	958	1.2	8.39	1.4					
07/12/2014	05:35:01	539	0.0	8.39	2.1					
07/12/2014	05:38:01	4969	0.0	8.39	2.1					
07/12/2014	05:41:01	471	0.0	8.39	2.1					
07/12/2014	05:44:01	467	0.0	8.38	2.2					
07/12/2014	05:47:01	912	3.9	13.11	10.0					
07/12/2014	05:50:01	1084	5.2	13.19	24.8					
07/12/2014	05:52:16					End Spacer				
07/12/2014	05:52:16	799	3.2	13.07	35.0					
07/12/2014	05:52:18					Reset Total, Vol = 39.92 bbl				
07/12/2014	05:52:18	805	3.3	13.07	35.1					

Well			Field		Job Start	Customer		Job Number
Zisch 3D-6H 3D-6H			Wattenberg		Jul/12/2014	Encana		C459-02916
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
07/12/2014	05:55:21					Start Mixing Lead Slurry		
07/12/2014	05:55:21	910	4.5	14.02	48.7			
07/12/2014	05:56:01	902	4.4	14.08	51.7			
07/12/2014	05:59:01	710	4.5	14.05	65.1			
07/12/2014	06:02:01	706	4.5	14.13	78.6			
07/12/2014	06:05:01	522	4.5	14.00	92.0			
07/12/2014	06:06:53					End Lead Slurry		
07/12/2014	06:06:53	479	4.5	14.06	100.4			
07/12/2014	06:06:54					Start Mixing Tail Slurry		
07/12/2014	06:06:54	473	4.5	14.06	100.5			
07/12/2014	06:08:01	455	4.5	14.07	105.5			
07/12/2014	06:11:01	207	4.0	14.08	118.6			
07/12/2014	06:14:01	397	4.7	14.04	130.8			
07/12/2014	06:17:01	353	4.8	14.05	145.3			
07/12/2014	06:19:22					End Tail Slurry		
07/12/2014	06:19:22	389	4.9	14.13	156.6			
07/12/2014	06:20:01	421	4.8	14.13	159.8			
07/12/2014	06:20:32					Reset Total, Vol = 121.69 bbl		
07/12/2014	06:20:32	29	0.1	14.20	161.6			
07/12/2014	06:20:57					Wash lines		
07/12/2014	06:20:57	25	0.0	14.20	161.6			
07/12/2014	06:23:01	22	0.0	14.18	161.6			
07/12/2014	06:26:01	85	2.3	10.59	162.7			
07/12/2014	06:29:01	88	4.0	9.32	173.1			
07/12/2014	06:31:37					Reset Total, Vol = 31.90 bbl		
07/12/2014	06:31:37	79	3.9	8.43	183.2			
07/12/2014	06:31:40					Drop Top Plug		
07/12/2014	06:31:40	74	3.9	8.43	183.4			
07/12/2014	06:31:41					Start Displacement		
07/12/2014	06:31:41	67	3.9	8.43	183.5			
07/12/2014	06:32:01					MMCR Water		
07/12/2014	06:32:01	76	3.9	8.41	184.8			
07/12/2014	06:35:01	11	0.2	8.46	189.8			
07/12/2014	06:38:01	14	0.4	8.42	191.5			
07/12/2014	06:41:01	97	4.6	8.41	201.0			
07/12/2014	06:42:58					KCL Water		
07/12/2014	06:42:58	939	6.7	9.90	211.7			
07/12/2014	06:44:01	942	6.7	9.89	218.7			
07/12/2014	06:47:01	1141	6.7	9.98	238.9			
07/12/2014	06:50:01	1332	6.7	9.99	259.1			
07/12/2014	06:51:46					Good returns		
07/12/2014	06:51:46	1179	5.4	9.99	270.4			
07/12/2014	06:53:01	1297	5.4	9.99	277.2			
07/12/2014	06:56:01	1513	4.8	9.99	293.0			
07/12/2014	06:59:01	1602	4.7	9.99	307.2			
07/12/2014	07:02:01	1601	4.7	9.99	321.4			
07/12/2014	07:05:01	1689	4.7	9.99	335.5			
07/12/2014	07:08:01	1871	4.7	9.99	349.7			
07/12/2014	07:11:01	1945	4.7	9.59	363.8			
07/12/2014	07:14:01	1710	2.5	8.45	371.7			
07/12/2014	07:15:49					Bump Top Plug		
07/12/2014	07:15:49	2154	0.0	8.44	375.1			
07/12/2014	07:15:50					End Displacement		
07/12/2014	07:15:50	2216	0.0	8.44	375.1			

Well			Field		Job Start	Customer	Job Number
Zisch 3D-6H 3D-6H			Wattenberg		Jul/12/2014	Encana	C459-02916
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
07/12/2014	07:15:52	2172	0.0	8.44	375.1		
07/12/2014	07:17:01	2209	0.0	8.45	375.1		
07/12/2014	07:20:01	10	0.0	8.45	375.1		
07/12/2014	07:20:06					Floats held, 1.5bbl back	
07/12/2014	07:20:06	11	0.0	8.45	375.1		
07/12/2014	07:23:01	10	0.0	8.45	375.1		
07/12/2014	07:24:50	9	0.0	8.40	375.4		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 4.3	N2	Mud 0.0	Maximum Rate 21.7		Total Slurry 121.0	Mud 0.0	Spacer 40.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 5049	Final 9	Average 839	Bump Plug to	Breakdown	Type		Volume		Density
Avg. N2 Percent		Designed Slurry Volume 120.0 bbl		Displacement 173.5 bbl	Mix Water Temp 68 degF		Cement Circulated to Surface? <input type="checkbox"/>		Volume
							Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative Kuby Bulchett				Schlumberger Supervisor Michael Simon/ Morrow			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
							-		-