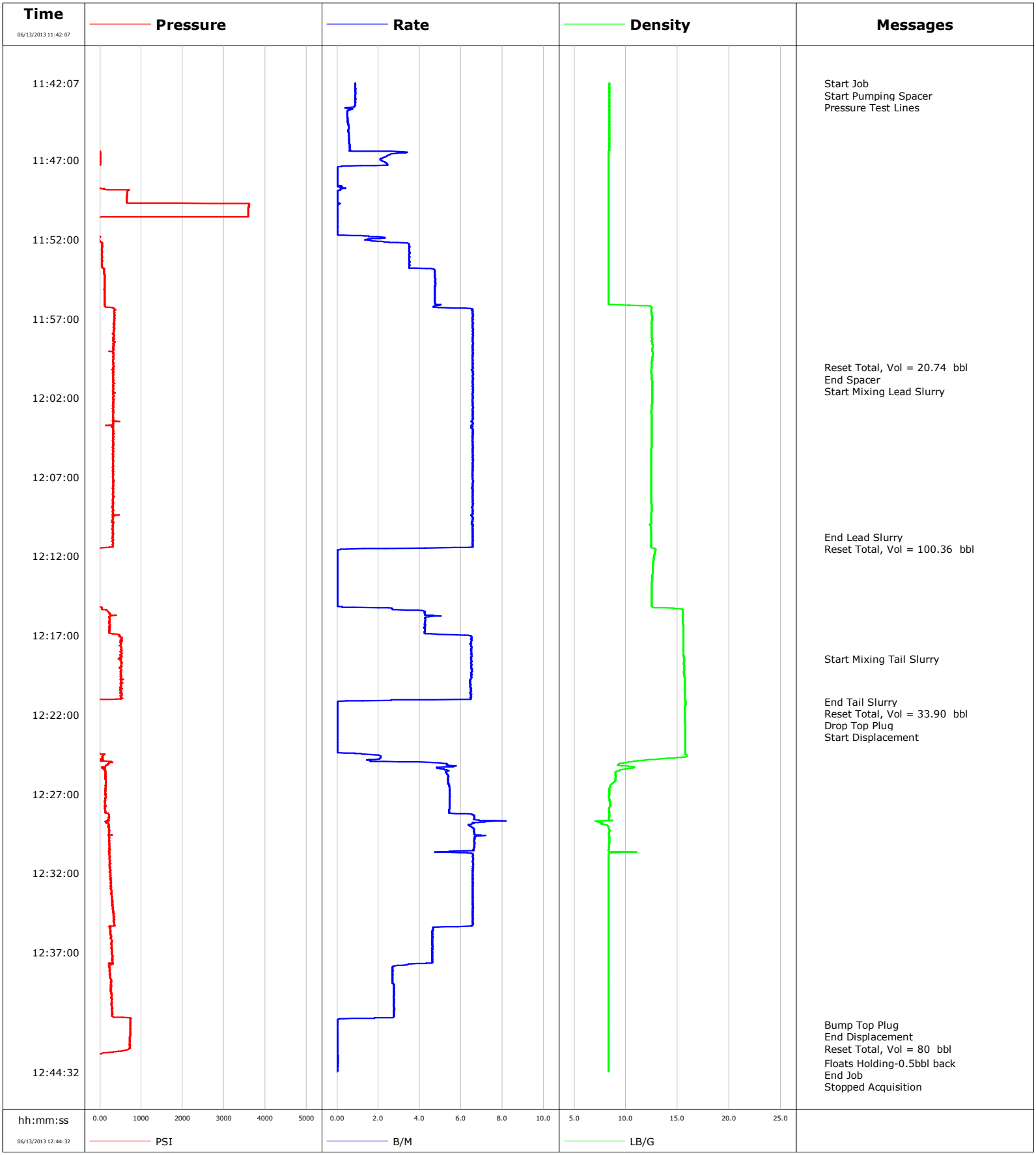
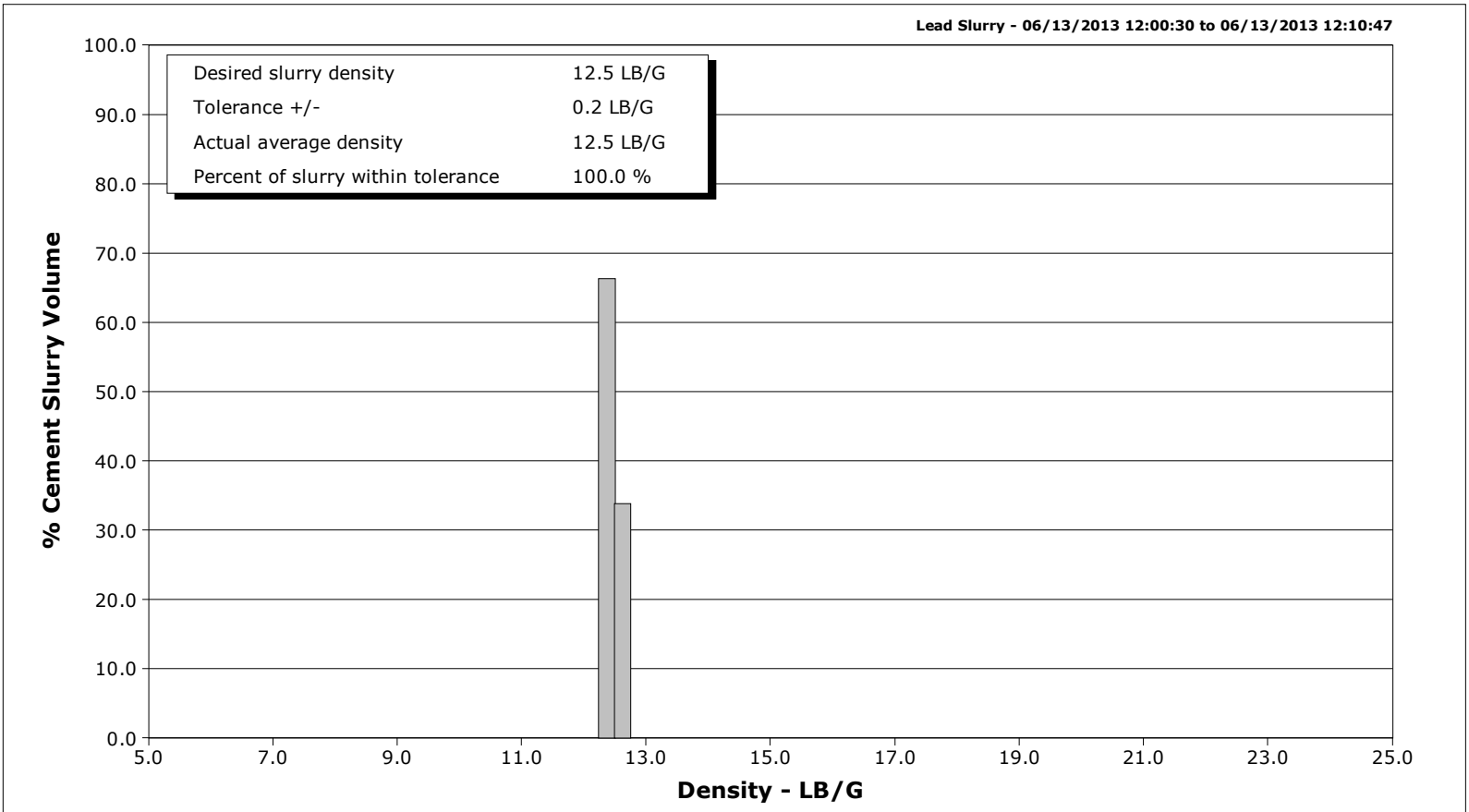
Schlumberger Cementing Job Report

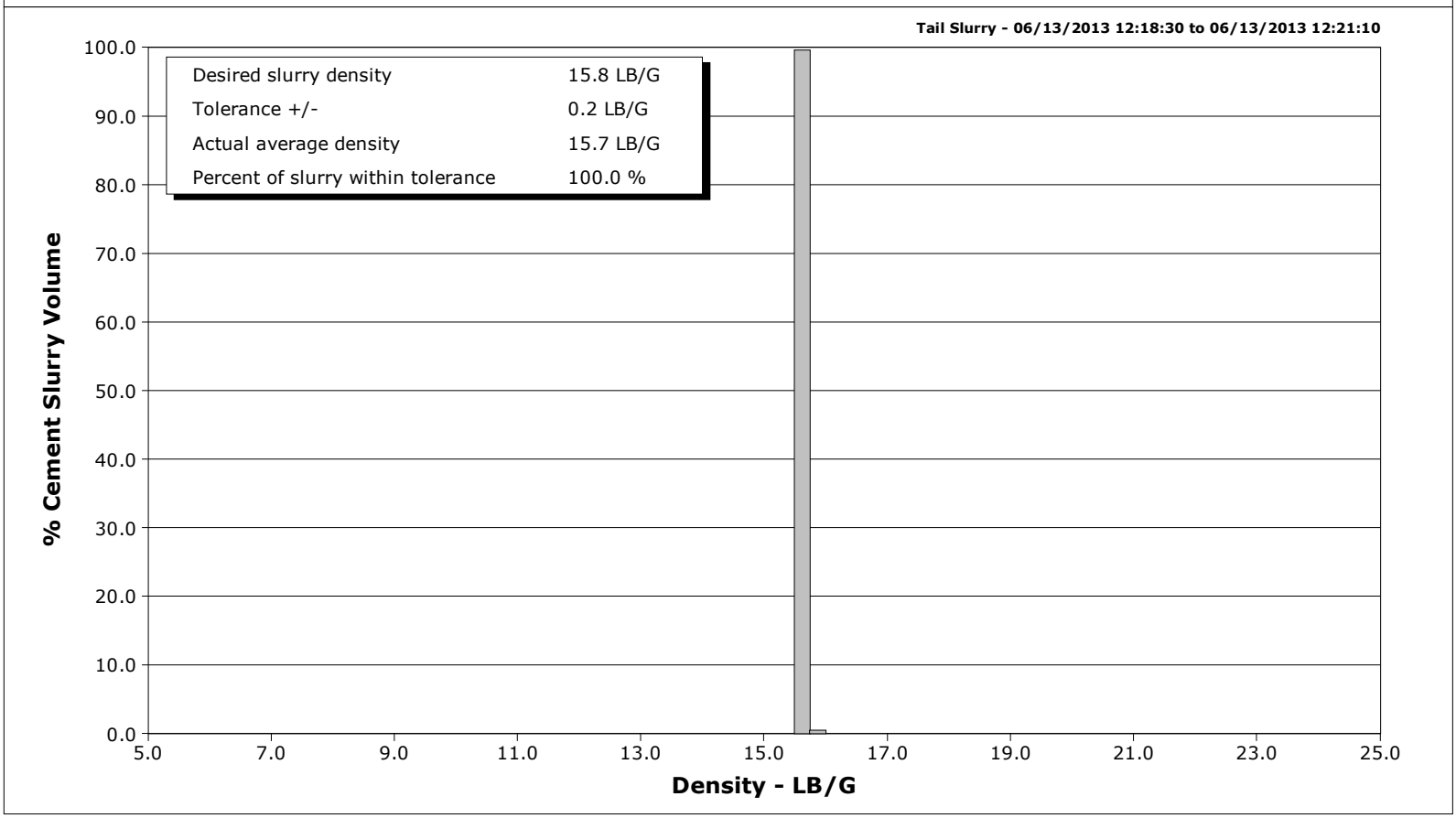
Well	Hagen 15-14A	**Client**	Encana
Field	Parachute	**SIR No.**	C459-01502
Engineer	Michael Simon	**Job Type**	Surface
Country	United States	**Job Date**	06-13-2013



Schlumberger Cementing Qa/Qc Density Report

Well	Hagen 15-14A	**Client**	Encana
Field	Parachute	**SIR No.**	C459-01502
Engineer	Michael Simon	**Job Type**	Surface
Country	United States	**Job Date**	06-13-2013





Cementing Service Report

Customer	Job Number
Encana	C459-01502

Well	Location (legal)	Schlumberger Location	Job Start
Hagen 15-14A 15-14A	Grand Junction	Rock Spriings	Jun/13/2013

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Parachute			12.7 in	1079.0 ft	1079.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado		94 degF	85 degF	

Well Master	API/UWI
0631473066	05045220190000

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
	9.30 lb/gal	

Service Line	Job Type
Cementing	Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
4000 psi		Single Cement head

Service Instructions

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1077.5	9.630	36.0	J55	8RD
0.0	0.000	0.0		

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	80.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	83.3 bbl	75.0 bbl	161.0 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
533 psi	☐	☐	Guide	1077.5 ft		

No. Centralizers	Top Plugs	Bottom Plugs	Stage Tool Type	Stage Tool Depth	Tool Depth	Tail Pipe Size
	1					

Cement Head Type	Collar Type	Collar Depth	Tail Pipe Depth	Sqz. Total Vol.
Single	Float	1031.8 ft		

Job Scheduled For	Arrived on Location	Leave Location
Jun/13/2013	Jun/13/2013	Jun/13/2013

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
06/13/2013	11:03:53						Started Acquisition
06/13/2013	11:42:07	-52	0.9	8.41	0.0	0.0	
06/13/2013	11:42:09						Start Job
06/13/2013	11:42:09	-52	0.9	8.41	0.0	0.0	
06/13/2013	11:42:15						Start Pumping Spacer
06/13/2013	11:42:15	-52	0.9	8.41	0.1	0.1	
06/13/2013	11:42:19						Pressure Test Lines
06/13/2013	11:42:19	-51	0.9	8.41	0.2	0.2	
06/13/2013	11:42:53	-52	0.9	8.41	0.7	0.7	
06/13/2013	11:45:53	-52	0.6	8.41	2.6	2.6	
06/13/2013	11:48:53	722	0.2	8.30	5.2	5.2	
06/13/2013	11:51:53	-0	2.3	8.30	5.5	5.5	
06/13/2013	11:54:53	112	4.7	8.30	16.7	16.7	
06/13/2013	11:57:53	330	6.6	12.49	33.8	33.8	
06/13/2013	12:00:05						Reset Total, Vol = 20.74 bbl
06/13/2013	12:00:05						End Spacer
06/13/2013	12:00:05	314	6.6	12.49	48.2	48.2	
06/13/2013	12:00:30						Start Mixing Lead Slurry
06/13/2013	12:00:30	321	6.6	12.48	2.2	2.2	
06/13/2013	12:00:53	324	6.6	12.52	4.7	4.7	
06/13/2013	12:03:53	316	6.5	12.51	24.4	24.4	

Well	Field	Job Start	Customer	Job Number
Hagen 15-14A 15-14A	Parachute	Jun/13/2013	Encana	C459-01502

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
06/13/2013	12:09:53	297	6.5	12.47	63.7	63.7	
06/13/2013	12:10:47						End Lead Slurry
06/13/2013	12:10:47	325	6.6	12.44	69.6	69.6	
06/13/2013	12:10:48						Reset Total, Vol = 100.36 bbl
06/13/2013	12:10:48	321	6.6	12.44	69.7	69.7	
06/13/2013	12:12:53	-37	0.0	12.59	0.0	0.0	
06/13/2013	12:15:53	221	4.3	15.49	2.5	2.5	
06/13/2013	12:18:30						Start Mixing Tail Slurry
06/13/2013	12:18:30	448	6.5	15.63	17.1	17.1	
06/13/2013	12:18:53	528	6.5	15.62	19.6	19.6	
06/13/2013	12:21:10						End Tail Slurry
06/13/2013	12:21:10	-41	0.1	15.80	33.9	33.9	
06/13/2013	12:21:11						Reset Total, Vol = 33.90 bbl
06/13/2013	12:21:11	-40	0.1	15.80	33.9	33.9	
06/13/2013	12:21:12						Drop Top Plug
06/13/2013	12:21:12	-41	0.0	15.80	0.0	0.0	
06/13/2013	12:21:13						Start Displacement
06/13/2013	12:21:13	-41	0.0	15.80	0.0	0.0	
06/13/2013	12:21:53	-41	0.0	15.70	0.0	0.0	
06/13/2013	12:24:53	13	1.6	11.70	0.8	0.8	
06/13/2013	12:27:53	115	5.4	8.37	16.5	16.5	
06/13/2013	12:30:53	245	6.6	8.30	35.9	35.9	
06/13/2013	12:33:53	296	6.6	8.31	55.6	55.6	
06/13/2013	12:36:53	286	4.6	8.31	72.4	72.4	
06/13/2013	12:39:53	272	2.7	8.30	82.2	82.2	
06/13/2013	12:41:33						Bump Top Plug
06/13/2013	12:41:33	731	0.0	8.30	85.7	85.7	
06/13/2013	12:41:34						End Displacement
06/13/2013	12:41:34	735	0.0	8.30	85.7	85.7	
06/13/2013	12:41:37						Reset Total, Vol = 80 bbl
06/13/2013	12:41:37	732	0.0	8.30	85.7	85.7	
06/13/2013	12:42:53	729	0.0	8.30	85.7	0.0	
06/13/2013	12:43:57						Floats Holding-0.5bbl back
06/13/2013	12:43:57	-52	0.0	8.30	85.7	0.0	
06/13/2013	12:44:25						End Job
06/13/2013	12:44:25	-51	0.0	8.30	85.7	0.1	
06/13/2013	12:44:32	-52	0.0	8.31	85.7	0.1	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
4.4		0.0	8.2	133.0	0.0	20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3609	-52	359	755				

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume	Washed Thru Perfs	To
	129.0 bbl	80.0 bbl	80 degF	X	50.0 bbl		

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Terry Dunn	Michael Simon	-	X -