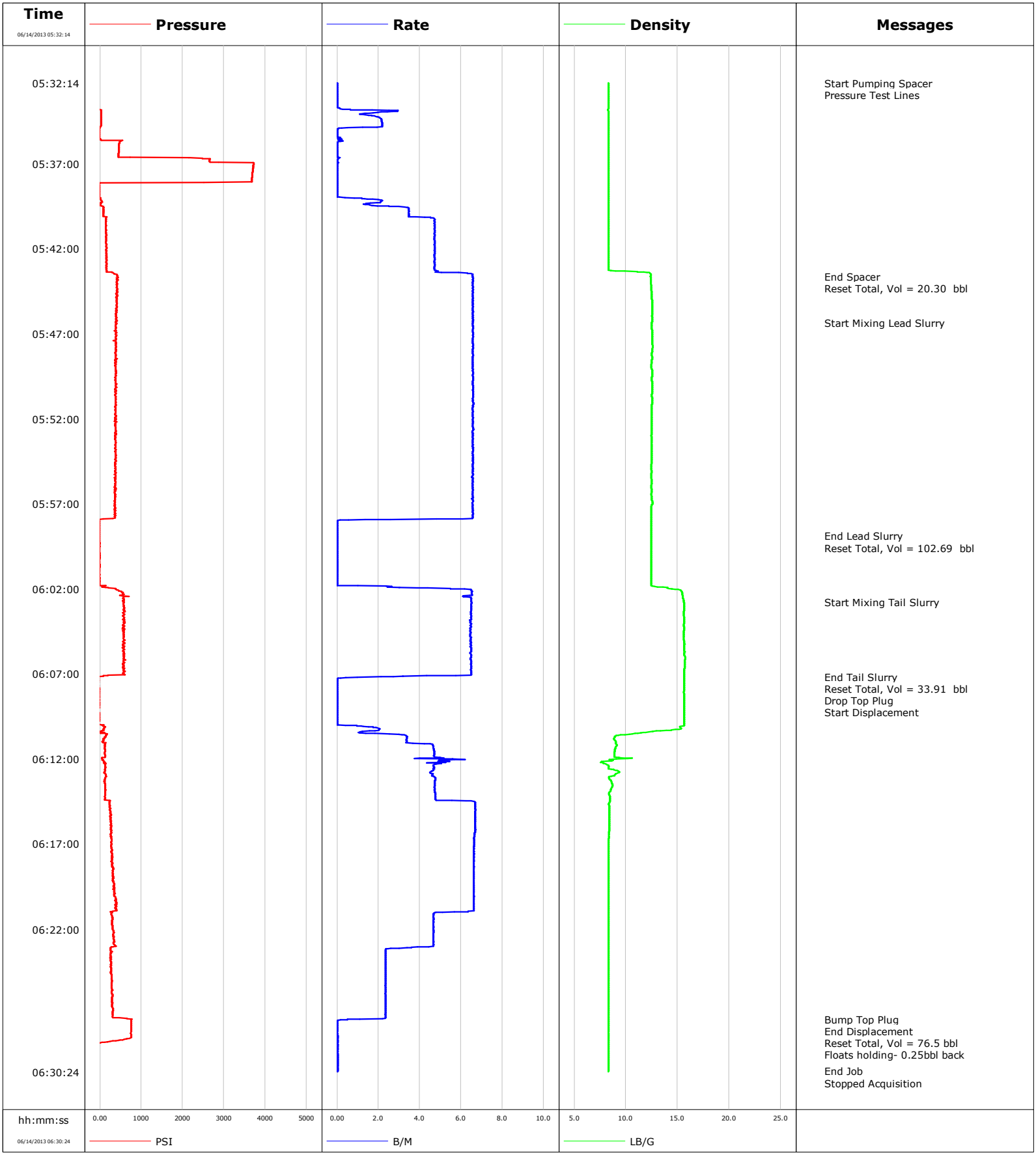
Schlumberger

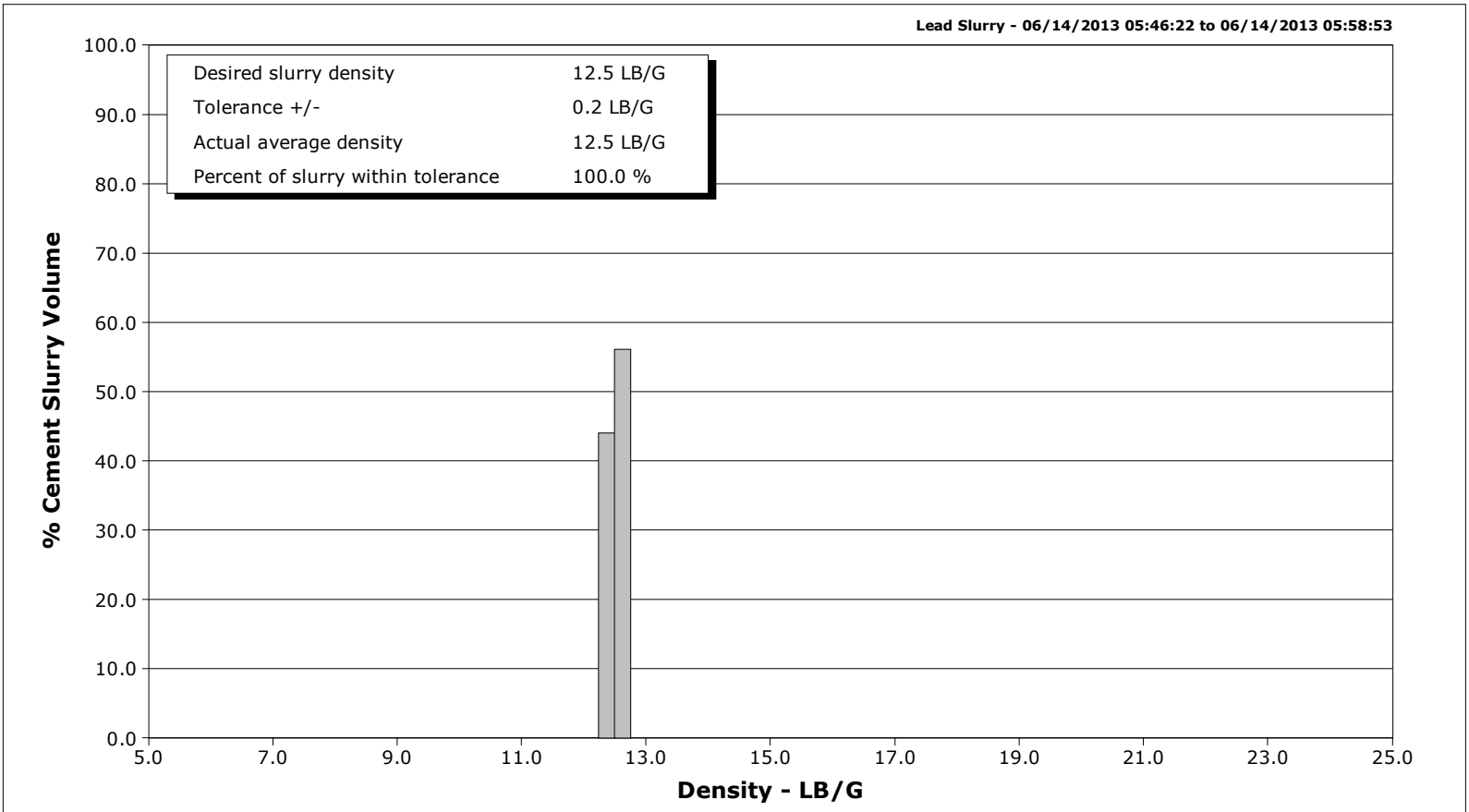
Cementing Job Report

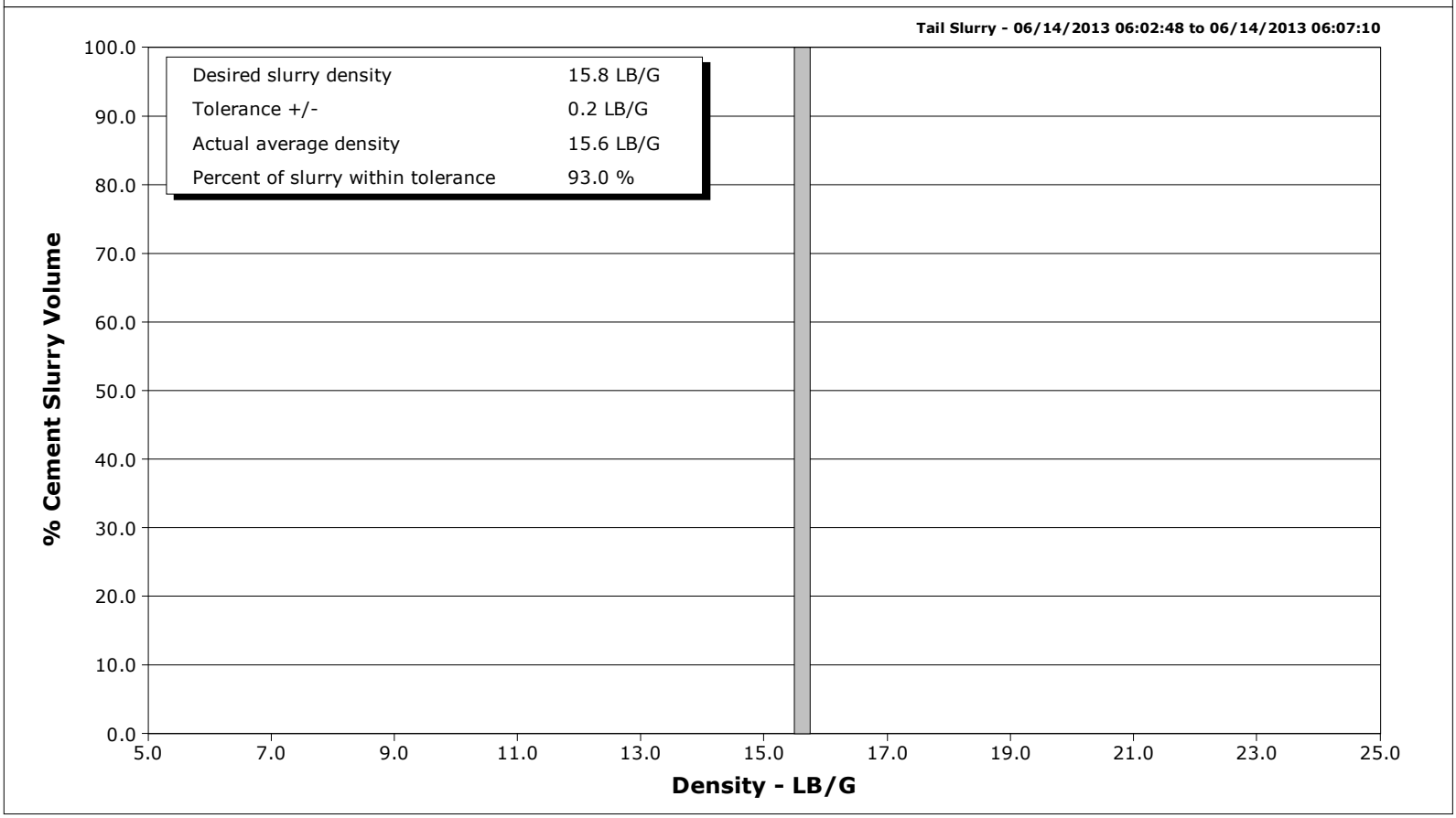
Well	Hagen 223B	**Client**	Encana
Field	Parachute	**SIR No.**	C459-01503
Engineer	Michael Simon	**Job Type**	Surface
Country	United States	**Job Date**	06-14-2013



Schlumberger Cementing Qa/Qc Density Report

Well	Hagen 223B	**Client**	Encana
Field	Parachute	**SIR No.**	C459-01503
Engineer	Michael Simon	**Job Type**	Surface
Country	United States	**Job Date**	06-14-2013





Cementing Service Report

Customer	Job Number
Encana	C459-01503

Well	Location (legal)	Schlumberger Location	Job Start
Hagen 223B 22-3B	Grand Junction	Rock Spriings	Jun/14/2013

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Parachute			12.7 in	1039.0 ft	1039.0 ft

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

Well Master	API/UWI
0631473067	05045220170000

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
	9.50 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
1039.0	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	76.5 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	80.3 bbl	72.0 bbl	155.0 bbl

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

Lift Pressure	Pipe Rotated	Pipe Reciprocated
514 psi	☐	☐

No. Centralizers	Top Plugs	Bottom Plugs
	1	

Cement Head Type
Single

Job Scheduled For	Arrived on Location	Leave Location
Jun/14/2013	Jun/14/2013	Jun/14/2013

Casing Tools		Squeeze Job	
Shoe Type	Guide	Squeeze Type	
Shoe Depth	1039.0 ft	Tool Type	
Stage Tool Type		Tool Depth	
Stage Tool Depth		Tail Pipe Size	
Collar Type	Float	Tail Pipe Depth	
Collar Depth	991.8 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
06/14/2013	04:10:09						Started Acquisition
06/14/2013	05:32:12						Start Job
06/14/2013	05:32:14	-27	0.0	8.31	0.0	0.0	
06/14/2013	05:32:15						Start Pumping Spacer
06/14/2013	05:32:15	-27	0.0	8.31	0.0	0.0	
06/14/2013	05:32:18						Pressure Test Lines
06/14/2013	05:32:18	-27	0.0	8.31	0.0	0.0	
06/14/2013	05:34:09	26	1.5	8.31	0.7	0.7	
06/14/2013	05:37:09	3709	0.0	8.30	2.2	2.2	
06/14/2013	05:40:09	151	4.3	8.30	5.4	5.4	
06/14/2013	05:43:09	164	4.7	8.30	19.5	19.5	
06/14/2013	05:43:38						End Spacer
06/14/2013	05:43:38	417	6.6	12.38	22.2	22.2	
06/14/2013	05:43:39						Reset Total, Vol = 20.30 bbl
06/14/2013	05:43:39	429	6.6	12.38	22.3	22.3	
06/14/2013	05:46:09	383	6.6	12.54	16.4	16.4	
06/14/2013	05:46:22						Start Mixing Lead Slurry
06/14/2013	05:46:22	373	6.5	12.52	17.8	17.8	
06/14/2013	05:49:09	383	6.6	12.54	36.1	36.1	
06/14/2013	05:52:09	357	6.6	12.52	55.8	55.8	
06/14/2013	05:55:09	392	6.6	12.48	75.5	75.5	

Well	Field	Job Start	Customer	Job Number
Hagen 223B 22-3B	Parachute	Jun/14/2013	Encana	C459-01503

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
06/14/2013	05:58:53						End Lead Slurry
06/14/2013	05:58:53	-18	0.0	12.45	93.7	93.7	
06/14/2013	05:58:56						Reset Total, Vol = 102.69 bbl
06/14/2013	05:58:56	-18	0.0	12.45	93.7	93.7	
06/14/2013	06:01:09	-12	0.0	12.46	0.0	0.0	
06/14/2013	06:02:48						Start Mixing Tail Slurry
06/14/2013	06:02:48	563	6.5	15.60	5.8	5.8	
06/14/2013	06:04:09	556	6.5	15.62	14.5	14.5	
06/14/2013	06:07:09	78	3.2	15.66	33.8	33.8	
06/14/2013	06:07:10						End Tail Slurry
06/14/2013	06:07:10	-29	2.7	15.65	33.8	33.8	
06/14/2013	06:07:12						Reset Total, Vol = 33.91 bbl
06/14/2013	06:07:12	-39	1.0	15.63	33.9	33.9	
06/14/2013	06:07:13						Drop Top Plug
06/14/2013	06:07:13						Start Displacement
06/14/2013	06:07:13	-39	0.4	15.63	0.0	0.0	
06/14/2013	06:10:09	112	1.7	15.26	0.2	0.2	
06/14/2013	06:13:09	126	4.8	8.37	12.4	12.4	
06/14/2013	06:16:09	282	6.7	8.39	29.9	29.9	
06/14/2013	06:19:09	308	6.6	8.31	49.8	49.8	
06/14/2013	06:22:09	338	4.7	8.31	67.4	67.4	
06/14/2013	06:25:09	282	2.3	8.31	76.7	76.7	
06/14/2013	06:27:19						Bump Top Plug
06/14/2013	06:27:19						End Displacement
06/14/2013	06:27:19	744	0.5	8.31	81.7	81.7	
06/14/2013	06:27:22						Reset Total, Vol = 76.5 bbl
06/14/2013	06:27:22	758	0.1	8.31	81.7	81.7	
06/14/2013	06:28:09	743	0.0	8.31	0.0	0.0	
06/14/2013	06:28:20						Floats holding- 0.25bbl back
06/14/2013	06:28:20	756	0.0	8.31	0.0	0.0	
06/14/2013	06:30:22						End Job
06/14/2013	06:30:22	-30	0.0	8.31	0.1	0.1	
06/14/2013	06:30:24	-30	0.0	8.31	0.1	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
4.5		0.0	6.7	136.0	0.0	20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3722	-31	429	747				

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
	125.0 bbl	76.5 bbl	70 degF	[X]	46.0 bbl
				Washed Thru Perfs [ ]	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Vlad Kochetov	Michael Simon	-	[X] -