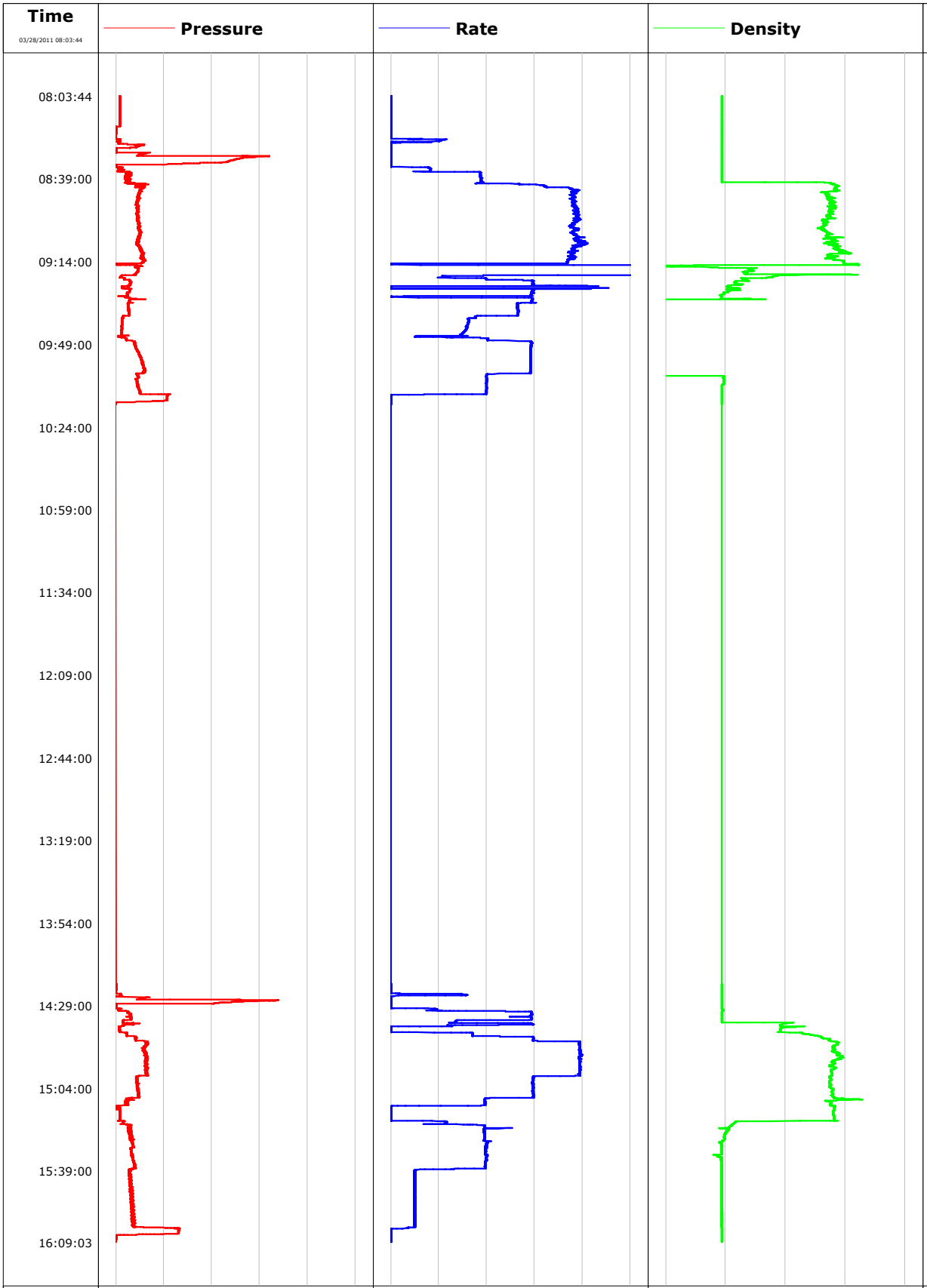
Schlumberger Cementing Job Report

Well	RG 433-14-298	**Client**	Williams
Field	Ryan Gulch	**SIR No.**	
Engineer	Tom Leduc	**Job Type**	9 5/8" 2-Stage Surface
Country	United States	**Job Date**	03-28-2011



Messages

Pump 9 5/8 2-Stage Surface @ 3070'
First Stage
20 bbl Water
226 bbl (743 sks) 12.8 Slurry
Displace 234 bbl Mud
Second Stage
20 bbl Water
220 bbl (722 sks) 12.8 Slurry
Displace 100 bbl Water
Start Job
Held Safety Meeting
Pressure Test Lines
Low Test = Good
Pressure Test Lines
High Test = Good
20 bbl Water
Good Returns
Reset Total, Vol = 21.41 bbl
Start Mixing Scav Slurry
226 bbl (743 sks) 12.8 Slurry
Take Wet and Dry Sample
Sample = 12.8 ppg
Good Returns
End Scavenger Slurry
Start Mixing Lead Slurry
Reset Total, Vol = 249.07 bbl
End Lead Slurry
Drop Top Plug
Start Displacement
Displace 234 bbl Mud
Good Returns
Lost Returns
209 bbl Away
Bump Top Plug
End Displacement
Bump Plug to 1100 psi
Bled off Pressure
Floats Held
Drop Bomp
Wait 10 Minutes
Pressure Up To 1500 psi
Open DV Tool
Pump 10 bbl
Turn Over to Rig
Wait 4 Hours
45 bbl Cement Back to Surface
Stopped Acquisition

Started Acquisition

Start Second Stage
Held Safety Meeting
Pressure Test Lines
Low Test = Good
Pressure Test Lines
High Test = Good
20 bbl Water
Good Returns
Reset Total, Vol = 381.06 bbl
Start Mixing Scav Slurry
220 bbl (722 sks) 12.8 Slurry
Take Wet and Dry Sample
Sample = 12.8 ppg
Good Returns
End Scavenger Slurry
Start Mixing Tail Slurry
End Tail Slurry
Reset Total, Vol = 203.90 bbl
Drop Top Plug
Start Displacement
Pump 203 bbl Cement
Cement to Surface

Cementing Service Report

Customer	Job Number
Williams	B708-00426

Well	Location (legal)	Schlumberger Location	Job Start
RG 433-14-298 RG 433-14-298	Rio Blanco	Grand Junction	Mar/28/2011

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Ryan Gulch	Shale	0 deg	13.5 in	3070.0 ft	3070.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Rio Blanco	Colorado		113 degF	95 degF	

Well Master	API/UWI
0631264713	

Rig Name	Drilled For	Service Via
Frontier 10	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
Bentonite	9.40 lb/gal	10.000 cP

Service Line	Job Type
Cementing	9 5/8" 2-Stage Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
5000 psi	2000 psi	Single Cement head

Service Instructions
9 5/8" 2-Stage Surface

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
3070.0	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	234.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	234.0 bbl	155.0 bbl	415.0 bbl

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

Lift Pressure	Pipe Rotated	Pipe Reciprocated
1519 psi	☐	☐

No. Centralizers	Top Plugs	Bottom Plugs

Cement Head Type
Single

Job Scheduled For	Arrived on Location	Leave Location
Mar/28/2011 07:00	Mar/28/2011 07:00	Mar/28/2011 16:00

Casing Tools		Squeeze Job	
Shoe Type	Float	Squeeze Type	
Shoe Depth	3070.0 ft	Tool Type	
Stage Tool Type	DV	Tool Depth	
Stage Tool Depth	1294.0 ft	Tail Pipe Size	
Collar Type	Float	Tail Pipe Depth	
Collar Depth	3025.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/28/2011	08:03:44	72	0.0	8.34	0.0	
03/28/2011	08:03:45					Pump 9 5/8 2-Stage Surface @ 3070'
03/28/2011	08:03:45	72	0.0	8.34	0.0	
03/28/2011	08:03:46					First Stage
03/28/2011	08:03:46					20 bbl Water
03/28/2011	08:03:46					226 bbl (743 sks) 12.8 Slurry
03/28/2011	08:03:46					Displace 234 bbl Mud
03/28/2011	08:03:46					Second Stage
03/28/2011	08:03:46	72	0.0	8.34	0.0	
03/28/2011	08:03:47					20 bbl Water
03/28/2011	08:03:47					220 bbl (722 sks) 12.8 Slurry
03/28/2011	08:03:47					Displace 100 bbl Water
03/28/2011	08:03:47	72	0.0	8.34	0.0	
03/28/2011	08:03:49					Start Job
03/28/2011	08:03:49	72	0.0	8.34	0.0	
03/28/2011	08:03:52					Held Safety Meeting
03/28/2011	08:03:52	72	0.0	8.34	0.0	
03/28/2011	08:03:54					Pressure Test Lines
03/28/2011	08:03:54	73	0.0	8.34	0.0	
03/28/2011	08:03:55					Low Test = Good
03/28/2011	08:03:55	73	0.0	8.34	0.0	

Well	Field	Job Start	Customer	Job Number
RG 433-14-298 RG 433-14-298	Ryan Gulch	Mar/28/2011	Williams	B708-00426

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/28/2011	08:03:57	72	0.0	8.34	0.0	
03/28/2011	08:03:59					High Test = Good
03/28/2011	08:03:59	73	0.0	8.34	0.0	
03/28/2011	08:04:01					20 bbl Water
03/28/2011	08:04:01					Good Returns
03/28/2011	08:04:01	72	0.0	8.34	0.0	
03/28/2011	08:06:14	73	0.0	8.35	0.0	
03/28/2011	08:08:44	74	0.0	8.35	0.0	
03/28/2011	08:11:14	74	0.0	8.34	0.0	
03/28/2011	08:13:44	74	0.0	8.34	0.0	
03/28/2011	08:16:14	74	0.0	8.34	0.0	
03/28/2011	08:18:44	0	0.0	8.34	0.0	
03/28/2011	08:21:14	-4	0.0	8.34	0.0	
03/28/2011	08:23:44	54	0.0	8.34	2.4	
03/28/2011	08:26:14	3	0.0	8.34	2.4	
03/28/2011	08:28:44	496	0.0	8.34	2.4	
03/28/2011	08:31:14	2393	0.0	8.34	2.4	
03/28/2011	08:33:44	7	0.0	8.34	2.4	
03/28/2011	08:36:14	211	3.7	8.34	6.5	
03/28/2011	08:38:44	195	3.8	8.34	15.8	
03/28/2011	08:40:13					Reset Total, Vol = 21.41 bbl
03/28/2011	08:40:13	208	3.7	8.35	21.4	
03/28/2011	08:40:14					Start Mixing Scav Slurry
03/28/2011	08:40:14	230	3.7	8.35	21.5	
03/28/2011	08:40:16					226 bbl (743 sks) 12.8 Slurry
03/28/2011	08:40:16					Take Wet and Dry Sample
03/28/2011	08:40:16	216	3.8	8.35	21.6	
03/28/2011	08:40:17					Sample = 12.8 ppg
03/28/2011	08:40:17					Good Returns
03/28/2011	08:40:17	244	3.8	8.35	21.7	
03/28/2011	08:41:14	577	5.3	12.98	25.7	
03/28/2011	08:43:44	508	7.7	13.03	42.9	
03/28/2011	08:44:20					End Scavenger Slurry
03/28/2011	08:44:20	497	7.6	12.91	47.5	
03/28/2011	08:44:21					Start Mixing Lead Slurry
03/28/2011	08:44:21	513	7.5	12.80	47.6	
03/28/2011	08:46:14	486	7.6	12.80	61.9	
03/28/2011	08:48:44	436	7.7	13.03	81.0	
03/28/2011	08:51:14	459	7.7	13.05	100.1	
03/28/2011	08:53:44	419	7.8	12.92	119.5	
03/28/2011	08:56:14	455	7.8	12.55	138.9	
03/28/2011	08:58:44	488	7.5	12.61	158.1	
03/28/2011	09:01:14	499	7.6	12.70	177.2	
03/28/2011	09:03:44	465	8.0	13.39	196.4	
03/28/2011	09:06:14	453	8.0	12.63	216.0	
03/28/2011	09:08:44	531	7.6	13.22	235.5	
03/28/2011	09:11:14	539	7.5	12.74	254.5	
03/28/2011	09:13:21					Reset Total, Vol = 249.07 bbl
03/28/2011	09:13:21	591	7.4	13.25	270.5	
03/28/2011	09:13:22					End Lead Slurry
03/28/2011	09:13:22	591	7.4	13.30	270.6	
03/28/2011	09:13:23					Drop Top Plug
03/28/2011	09:13:23	572	7.4	13.30	270.7	
03/28/2011	09:13:24					Start Displacement

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RG 433-14-298 RG 433-14-298	Ryan Gulch	Mar/28/2011	Williams	B708-00426

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/28/2011	09:13:26					Displace 234 bbl Mud
03/28/2011	09:13:26					Good Returns
03/28/2011	09:13:26	592	7.4	13.36	271.1	
03/28/2011	09:13:44	609	7.4	13.43	273.3	
03/28/2011	09:16:14	437	25.0	7.24	301.3	
03/28/2011	09:18:44	428	22.8	9.41	362.8	
03/28/2011	09:21:14	170	4.0	9.23	391.4	
03/28/2011	09:23:44	294	5.9	9.09	405.1	
03/28/2011	09:26:14	289	5.9	8.70	415.8	
03/28/2011	09:28:44	160	0.0	8.35	429.6	
03/28/2011	09:31:14	286	5.9	0.01	441.8	
03/28/2011	09:33:44	259	5.3	0.01	455.2	
03/28/2011	09:36:14	266	5.3	0.01	468.4	
03/28/2011	09:38:44	122	3.3	0.02	478.3	
03/28/2011	09:41:14	120	3.2	0.02	486.4	
03/28/2011	09:43:44	116	3.1	0.02	494.2	
03/28/2011	09:46:14	187	3.4	0.02	500.5	
03/28/2011	09:48:44	391	5.9	0.02	512.9	
03/28/2011	09:51:14	432	5.8	0.03	527.5	
03/28/2011	09:53:44	492	5.8	0.03	542.1	
03/28/2011	09:56:14	541	5.8	0.03	556.7	
03/28/2011	09:58:44	571	5.8	0.03	571.2	
03/28/2011	10:01:14	561	5.8	0.03	585.8	
03/28/2011	10:03:44	420	4.0	8.43	596.2	
03/28/2011	10:05:22					Lost Returns
03/28/2011	10:05:22	438	4.0	8.43	602.7	
03/28/2011	10:05:28					209 bbl Away
03/28/2011	10:05:28	438	4.0	8.42	603.1	
03/28/2011	10:06:14	455	4.0	8.35	606.2	
03/28/2011	10:08:44	488	4.0	8.35	616.2	
03/28/2011	10:11:14	1069	0.0	8.35	621.9	
03/28/2011	10:13:44	-3	0.0	8.35	621.9	
03/28/2011	14:19:54					Start Second Stage
03/28/2011	14:19:54	0	0.0	8.34	621.9	
03/28/2011	14:19:55					Held Safety Meeting
03/28/2011	14:19:55	-0	0.0	8.34	621.9	
03/28/2011	14:19:57					Pressure Test Lines
03/28/2011	14:19:57	0	0.0	8.34	621.9	
03/28/2011	14:19:58					Low Test = Good
03/28/2011	14:19:58	0	0.0	8.34	621.9	
03/28/2011	14:20:00					Pressure Test Lines
03/28/2011	14:20:00	-0	0.0	8.34	621.9	
03/28/2011	14:20:01					High Test = Good
03/28/2011	14:20:01	-0	0.0	8.34	621.9	
03/28/2011	14:20:02					20 bbl Water
03/28/2011	14:20:02	0	0.0	8.34	621.9	
03/28/2011	14:20:03					Good Returns
03/28/2011	14:20:03	0	0.0	8.34	621.9	
03/28/2011	14:21:14	0	0.0	8.34	621.9	
03/28/2011	14:23:44	2	0.0	8.34	621.9	
03/28/2011	14:26:14	470	0.0	8.34	624.4	
03/28/2011	14:28:44	7	0.0	8.34	624.4	
03/28/2011	14:31:14	97	2.6	8.37	626.7	
03/28/2011	14:33:44	316	5.7	8.35	640.9	

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RG 433-14-298 RG 433-14-298	Ryan Gulch	Mar/28/2011	Williams	B708-00426

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/28/2011	14:36:06	137	2.6	10.94	651.5	
03/28/2011	14:36:10					Start Mixing Scav Slurry
03/28/2011	14:36:10	132	2.5	11.31	651.7	
03/28/2011	14:36:11					220 bbl (722 sks) 12.8 Slurry
03/28/2011	14:36:11	132	2.5	11.31	651.7	
03/28/2011	14:36:12					Take Wet and Dry Sample
03/28/2011	14:36:12					Sample = 12.8 ppg
03/28/2011	14:36:12					Good Returns
03/28/2011	14:36:12	138	2.4	11.25	651.8	
03/28/2011	14:36:14	239	2.9	11.21	651.9	
03/28/2011	14:38:44	71	0.0	10.79	658.6	
03/28/2011	14:41:14	226	3.4	11.99	661.7	
03/28/2011	14:43:44	410	5.9	12.83	674.6	
03/28/2011	14:46:14	629	7.9	12.97	693.8	
03/28/2011	14:48:44	596	7.9	13.17	713.5	
03/28/2011	14:49:48					End Scavenger Slurry
03/28/2011	14:49:48	614	8.0	13.13	722.0	
03/28/2011	14:49:49					Start Mixing Tail Slurry
03/28/2011	14:49:49	614	8.0	13.13	722.1	
03/28/2011	14:51:14	648	7.9	13.27	733.3	
03/28/2011	14:53:44	643	7.9	13.01	753.0	
03/28/2011	14:56:14	649	7.9	12.90	772.7	
03/28/2011	14:58:44	456	6.5	12.88	792.4	
03/28/2011	15:01:14	438	5.9	12.84	807.2	
03/28/2011	15:03:44	443	5.9	12.88	822.0	
03/28/2011	15:06:14	461	5.9	12.96	836.9	
03/28/2011	15:08:44	290	3.9	14.06	850.4	
03/28/2011	15:09:58					End Tail Slurry
03/28/2011	15:09:58	241	3.9	12.89	855.2	
03/28/2011	15:10:02					Reset Total, Vol = 203.90 bbl
03/28/2011	15:10:02	200	3.9	12.90	855.4	
03/28/2011	15:10:03					Drop Top Plug
03/28/2011	15:10:03	229	3.9	12.90	855.5	
03/28/2011	15:10:04					Start Displacement
03/28/2011	15:10:04	229	3.9	12.90	855.6	
03/28/2011	15:10:05					Pump 203 bbl Cement
03/28/2011	15:10:05	242	3.9	12.90	855.6	
03/28/2011	15:10:06					Cement to Surface
03/28/2011	15:10:06	242	3.9	12.88	855.7	
03/28/2011	15:10:08					Displace 100 bbl Water
03/28/2011	15:10:08					100 bbl Cement to Surface
03/28/2011	15:10:08	217	3.9	12.88	855.8	
03/28/2011	15:10:11					Good Returns
03/28/2011	15:10:11	225	3.9	12.89	856.0	
03/28/2011	15:11:14	214	3.9	12.87	860.2	
03/28/2011	15:13:44	78	0.0	13.00	860.6	
03/28/2011	15:16:14	81	0.0	13.01	860.6	
03/28/2011	15:18:44	158	2.2	8.85	862.8	
03/28/2011	15:21:14	262	3.9	8.60	871.6	
03/28/2011	15:23:44	285	3.9	8.44	881.4	
03/28/2011	15:26:14	318	3.9	8.36	891.1	
03/28/2011	15:28:44	358	4.0	8.33	901.1	
03/28/2011	15:31:14	331	3.9	8.33	911.0	
03/28/2011	15:33:44	351	4.0	8.32	921.0	

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RG 433-14-298 RG 433-14-298	Ryan Gulch	Mar/28/2011	Williams	B708-00426

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/28/2011	15:38:44	283	1.0	8.33	939.0	
03/28/2011	15:41:14	287	1.0	8.33	941.5	
03/28/2011	15:43:44	284	1.0	8.33	944.0	
03/28/2011	15:46:14	339	1.0	8.33	946.5	
03/28/2011	15:48:44	330	1.0	8.33	949.0	
03/28/2011	15:51:14	334	1.0	8.33	951.5	
03/28/2011	15:53:44	317	1.0	8.33	954.0	
03/28/2011	15:56:14	326	1.0	8.33	956.5	
03/28/2011	15:58:44	360	1.0	8.33	959.0	
03/28/2011	16:01:14	377	1.0	8.33	961.5	
03/28/2011	16:03:44	1306	0.0	8.34	963.4	
03/28/2011	16:06:14	3	0.0	8.34	963.4	
03/28/2011	16:08:44	-0	0.0	8.34	963.4	
03/28/2011	16:08:55					Bump Top Plug
03/28/2011	16:08:55	-1	0.0	8.34	963.4	
03/28/2011	16:08:56					End Displacement
03/28/2011	16:08:56	-1	0.0	8.34	963.4	
03/28/2011	16:08:57					Bump Plug to 1400 psi
03/28/2011	16:08:57					DV Tool Closed
03/28/2011	16:08:57					Bled off Pressure
03/28/2011	16:08:57	-0	0.0	8.34	963.4	
03/28/2011	16:08:58					Tool Held
03/28/2011	16:08:58					Rig Down
03/28/2011	16:08:58	-0	0.0	8.34	963.4	
03/28/2011	16:09:01					End Job

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
5.2		0.0	25.0	963.4	0.0	47.6	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3401	1400	375	1000		FreshWater	608.0 bbl	8.34 lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
	446.0 bbl	459.2 bbl	40 degF	Cement Circulated to Surface? [X]	Volume
				Washed Thru Perfs [ ]	To

Customer or Authorized Representative	Schlumberger Supervisor		
Brent Bascom	Tom Leduc	Circulation Lost [ ]	Job Completed [X]
		-	-