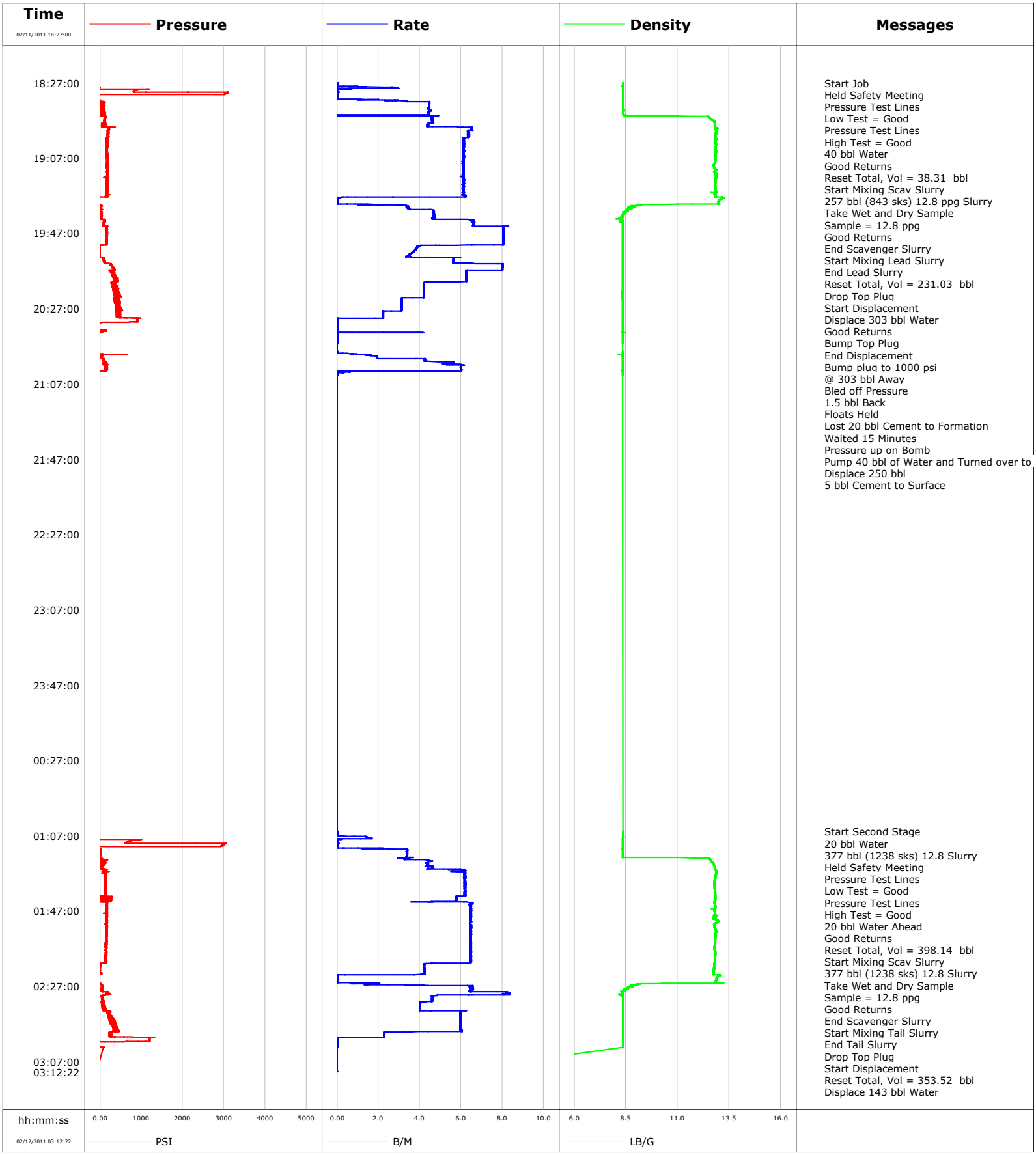
Schlumberger Cementing Job Report

Well	RGU 334-24-198	**Client**	Williams
Field	Ryan Gulch	**SIR No.**	
Engineer	Tom Leduc	**Job Type**	9 5/8" 2-Stage Surface
Country	United States	**Job Date**	02-11-2011



Cementing Service Report

Customer	Job Number
Williams	B708-00235

Well	Location (legal)	Schlumberger Location	Job Start
RGU 334-24-198 RGU 334-24-198	Rio Blanco	Grand Junction	Feb/11/2011

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Ryan Gulch	Shale	0 deg	13.5 in	3952.0 ft	3952.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Rio Blanco	Colorado		120 degF	99 degF	

Well Master	API/UWI
0631231215	

Rig Name	Drilled For	Service Via
Cyclone 29	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
Bentonite	9.00 lb/gal	7.000 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
3952.0	9.630	36.0	J-55	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	303.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	303.0 bbl	183.0 bbl	517.0 bbl

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

Lift Pressure	1955 psi	Shoe Type	Float	Squeeze Type	
Pipe Rotated	☐	Shoe Depth	3952.0 ft	Tool Type	
Pipe Reciprocated	☐	Stage Tool Type		Tool Depth	
No. Centralizers	Top Plugs / Bottom Plugs	Stage Tool Depth		Tail Pipe Size	
Cement Head Type	Single	Collar Type	Float	Tail Pipe Depth	
Job Scheduled For: Feb/11/2011 14:00	Arrived on Location: Feb/11/2011 14:00	Collar Depth	3924.0 ft	Sqz. Total Vol.	
	Leave Location: Feb/12/2011 03:00				

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/11/2011	18:26:54					Pump 9 5/8 2-Stage @ 3952'
02/11/2011	18:26:54					First Stage 40 bbl Water
02/11/2011	18:26:54					257 bbl (843 sks) 12.8 ppg Slurry
02/11/2011	18:26:54					Displace 303 bbl Water
02/11/2011	18:26:54					Second Stage
02/11/2011	18:26:54					20 bbl Water
02/11/2011	18:26:54					377 bbl (1238 sks) 12.8 Slurry
02/11/2011	18:26:55					Displace 143 bbl Water
02/11/2011	18:27:00	-81	0.0	8.38	0.0	
02/11/2011	18:27:04					Start Job
02/11/2011	18:27:04	-82	0.0	8.38	0.0	
02/11/2011	18:27:06					Held Safety Meeting
02/11/2011	18:27:06	-82	0.0	8.38	0.0	
02/11/2011	18:27:07					Pressure Test Lines
02/11/2011	18:27:07	-82	0.0	8.38	0.0	
02/11/2011	18:27:08					Low Test = Good
02/11/2011	18:27:08	-82	0.0	8.38	0.0	
02/11/2011	18:27:10					Pressure Test Lines
02/11/2011	18:27:10	-82	0.0	8.38	0.0	
02/11/2011	18:27:11					High Test = Good
02/11/2011	18:27:11	-82	0.0	8.38	0.0	

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RGU 334-24-198 RGU 334-24-198	Ryan Gulch	Feb/11/2011	Williams	B708-00235

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/11/2011	18:27:13	-82	0.0	8.38	0.0	
02/11/2011	18:27:46					Good Returns
02/11/2011	18:27:46	-82	0.0	8.38	0.0	
02/11/2011	18:29:24	-17	2.7	8.36	0.5	
02/11/2011	18:31:54	819	0.0	8.37	2.2	
02/11/2011	18:34:24	-73	0.0	8.37	2.3	
02/11/2011	18:36:54	9	3.4	8.37	4.7	
02/11/2011	18:39:24	15	4.4	8.37	15.7	
02/11/2011	18:41:54	15	4.5	8.38	26.9	
02/11/2011	18:44:24	-19	0.0	8.52	37.2	
02/11/2011	18:44:54					Reset Total, Vol = 38.31 bbl
02/11/2011	18:44:54	94	4.7	12.46	38.3	
02/11/2011	18:44:58					Start Mixing Scav Slurry
02/11/2011	18:44:58	109	4.6	12.45	38.6	
02/11/2011	18:45:00					257 bbl (843 sks) 12.8 ppg Slurry
02/11/2011	18:45:00					Take Wet and Dry Sample
02/11/2011	18:45:00					Sample = 12.8 ppg
02/11/2011	18:45:00					Good Returns
02/11/2011	18:45:00	144	4.6	12.46	38.8	
02/11/2011	18:45:34					End Scavenger Slurry
02/11/2011	18:45:34	114	4.6	12.54	41.4	
02/11/2011	18:45:35					Start Mixing Lead Slurry
02/11/2011	18:45:35	114	4.6	12.54	41.5	
02/11/2011	18:46:54	117	4.6	12.67	47.5	
02/11/2011	18:49:24	45	4.4	12.81	58.9	
02/11/2011	18:51:54	201	6.5	12.85	72.7	
02/11/2011	18:54:24	189	6.3	12.91	88.7	
02/11/2011	18:56:54	185	6.1	12.86	104.4	
02/11/2011	18:59:24	167	6.1	12.82	119.7	
02/11/2011	19:01:54	158	6.1	12.83	135.0	
02/11/2011	19:04:24	160	6.1	12.85	150.3	
02/11/2011	19:06:54	179	6.1	12.83	165.6	
02/11/2011	19:09:24	174	6.1	12.81	180.9	
02/11/2011	19:11:54	176	6.1	12.77	196.2	
02/11/2011	19:14:24	170	6.1	12.77	211.4	
02/11/2011	19:16:54	182	6.1	12.87	226.7	
02/11/2011	19:19:24	181	6.1	12.83	242.0	
02/11/2011	19:21:54	169	6.1	12.81	257.2	
02/11/2011	19:23:49					End Lead Slurry
02/11/2011	19:23:49	184	6.1	12.81	268.9	
02/11/2011	19:23:53					Reset Total, Vol = 231.03 bbl
02/11/2011	19:23:53	167	6.1	12.81	269.3	
02/11/2011	19:23:54					Drop Top Plug
02/11/2011	19:23:54	167	6.1	12.81	269.4	
02/11/2011	19:23:56					Start Displacement
02/11/2011	19:23:56	178	6.1	12.81	269.7	
02/11/2011	19:23:57					Displace 303 bbl Water
02/11/2011	19:23:57					Good Returns
02/11/2011	19:23:57	167	6.1	12.81	269.8	
02/11/2011	19:24:24	165	6.1	12.84	272.5	
02/11/2011	19:26:54	164	6.2	12.82	287.8	
02/11/2011	19:29:24	-72	0.0	13.01	293.9	
02/11/2011	19:31:54	-34	1.5	9.20	294.5	
02/11/2011	19:34:24	12	3.5	8.64	302.7	

Well	Field	Job Start	Customer	Job Number
RGU 334-24-198 RGU 334-24-198	Ryan Gulch	Feb/11/2011	Williams	B708-00235

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/11/2011	19:39:24	41	4.6	8.04	326.0	
02/11/2011	19:41:54	96	6.6	8.34	341.7	
02/11/2011	19:44:24	154	8.0	8.34	360.0	
02/11/2011	19:46:54	144	8.0	8.35	380.1	
02/11/2011	19:49:24	164	8.0	8.34	400.1	
02/11/2011	19:51:54	149	8.0	8.34	420.2	
02/11/2011	19:54:24	-13	3.9	8.34	436.1	
02/11/2011	19:56:54	-14	3.7	8.34	445.6	
02/11/2011	19:59:24	-14	3.4	8.34	454.4	
02/11/2011	20:01:54	109	5.6	8.34	467.5	
02/11/2011	20:04:24	294	8.0	8.34	484.8	
02/11/2011	20:06:54	272	6.3	8.34	504.3	
02/11/2011	20:09:24	309	6.3	8.34	519.9	
02/11/2011	20:11:54	389	6.3	8.33	535.5	
02/11/2011	20:14:24	316	4.2	8.34	547.9	
02/11/2011	20:16:54	352	4.2	8.33	558.3	
02/11/2011	20:19:24	466	4.2	8.33	568.8	
02/11/2011	20:21:54	377	3.1	8.34	578.6	
02/11/2011	20:24:24	483	3.1	8.34	586.4	
02/11/2011	20:26:54	423	3.1	8.34	594.2	
02/11/2011	20:29:24	477	2.2	8.34	601.0	
02/11/2011	20:31:54	490	2.2	8.34	606.5	
02/11/2011	20:34:24	215	0.0	8.34	607.1	
02/11/2011	20:35:18					Bump Top Plug
02/11/2011	20:35:18	-79	0.0	8.34	607.1	
02/11/2011	20:35:19					End Displacement
02/11/2011	20:35:19	-79	0.0	8.34	607.1	
02/11/2011	20:35:21					Bump plug to 1000 psi
02/11/2011	20:35:21					@ 303 bbl Away
02/11/2011	20:35:21					Bled off Pressure
02/11/2011	20:35:21					1.5 bbl Back
02/11/2011	20:35:21	-80	0.0	8.34	607.1	
02/11/2011	20:35:22					Floats Held
02/11/2011	20:35:22					Lost 20 bbl Cement to Formation
02/11/2011	20:35:22	-79	0.0	8.34	607.1	
02/11/2011	20:36:54	-78	0.0	8.34	607.1	
02/11/2011	20:39:24	-59	0.0	8.34	607.2	
02/11/2011	20:41:54	-83	0.0	8.35	607.9	
02/11/2011	20:44:24	-81	0.0	8.35	607.9	
02/11/2011	20:49:53					Waited 15 Minutes
02/11/2011	20:49:53	-80	0.0	8.35	607.9	
02/11/2011	20:49:54					Pressure up on Bomb
02/11/2011	20:49:54					Pump 40 bbl of Water and Turned over to Rig
02/11/2011	20:49:54					Displace 250 bbl
02/11/2011	20:49:54	-81	0.0	8.35	607.9	
02/11/2011	20:51:54	62	1.4	8.32	609.0	
02/11/2011	20:54:24	88	4.2	8.34	615.4	
02/11/2011	20:56:54	146	5.3	8.34	628.3	
02/11/2011	20:59:24	151	6.0	8.33	643.3	
02/11/2011	21:01:54	-83	0.0	8.34	648.7	
02/11/2011	21:02:35					5 bbl Cement to Surface
02/11/2011	21:02:35	-83	0.0	8.34	648.7	
02/12/2011	01:04:40					Start Second Stage
02/12/2011	01:04:40	-137	0.0	8.37	648.7	

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RGU 334-24-198 RGU 334-24-198	Ryan Gulch	Feb/11/2011	Williams	B708-00235

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/12/2011	01:04:41					377 bbl (1238 sks) 12.8 Slurry
02/12/2011	01:04:41	-138	0.0	8.37	648.7	
02/12/2011	01:04:43					Held Safety Meeting
02/12/2011	01:04:43	-138	0.0	8.37	648.7	
02/12/2011	01:04:45					Pressure Test Lines
02/12/2011	01:04:45	-138	0.0	8.37	648.7	
02/12/2011	01:04:46					Low Test = Good
02/12/2011	01:04:46	-138	0.0	8.37	648.7	
02/12/2011	01:04:47					Pressure Test Lines
02/12/2011	01:04:47	-138	0.0	8.37	648.7	
02/12/2011	01:04:49					High Test = Good
02/12/2011	01:04:49	-138	0.0	8.37	648.7	
02/12/2011	01:04:50					20 bbl Water Ahead
02/12/2011	01:04:50	-137	0.0	8.37	648.7	
02/12/2011	01:04:52					Good Returns
02/12/2011	01:04:52	-138	0.0	8.37	648.7	
02/12/2011	01:06:54	-138	0.0	8.37	648.8	
02/12/2011	01:09:24	837	0.0	8.35	650.8	
02/12/2011	01:11:54	2973	0.0	8.35	650.9	
02/12/2011	01:14:24	-8	3.4	8.35	652.8	
02/12/2011	01:16:54	3	3.4	8.35	661.2	
02/12/2011	01:18:45					Reset Total, Vol = 398.14 bbl
02/12/2011	01:18:45	-2	3.6	11.08	667.5	
02/12/2011	01:18:47					Start Mixing Scav Slurry
02/12/2011	01:18:47	-23	3.5	11.85	667.6	
02/12/2011	01:18:49					377 bbl (1238 sks) 12.8 Slurry
02/12/2011	01:18:49	-20	3.5	12.35	667.7	
02/12/2011	01:18:50					Take Wet and Dry Sample
02/12/2011	01:18:50					Sample = 12.8 ppg
02/12/2011	01:18:50					Good Returns
02/12/2011	01:18:50	-24	3.4	12.45	667.8	
02/12/2011	01:19:24	2	3.2	12.55	669.6	
02/12/2011	01:20:00					End Scavenger Slurry
02/12/2011	01:20:00	150	4.4	12.60	672.0	
02/12/2011	01:20:02					Start Mixing Tail Slurry
02/12/2011	01:20:02	47	4.4	12.60	672.2	
02/12/2011	01:21:54	20	4.4	12.72	680.4	
02/12/2011	01:24:24	-24	4.5	12.80	691.6	
02/12/2011	01:26:54	121	6.2	12.88	706.1	
02/12/2011	01:29:24	127	6.2	12.82	721.6	
02/12/2011	01:31:54	118	6.2	12.78	737.0	
02/12/2011	01:34:24	126	6.2	12.78	752.5	
02/12/2011	01:36:54	142	6.2	12.81	767.9	
02/12/2011	01:39:24	204	5.8	12.82	783.2	
02/12/2011	01:41:54	214	5.8	12.80	797.7	
02/12/2011	01:44:24	153	6.4	12.82	813.3	
02/12/2011	01:46:54	171	6.5	12.79	829.4	
02/12/2011	01:49:24	134	6.4	12.76	845.6	
02/12/2011	01:51:54	153	6.5	12.95	861.7	
02/12/2011	01:54:24	152	6.4	12.78	877.8	
02/12/2011	01:56:54	163	6.5	12.83	894.0	
02/12/2011	01:59:24	162	6.5	12.83	910.1	
02/12/2011	02:01:54	143	6.5	12.81	926.3	
02/12/2011	02:04:24	156	6.4	12.79	942.4	

Well	Field	Job Start	Customer	Job Number
RGU 334-24-198 RGU 334-24-198	Ryan Gulch	Feb/11/2011	Williams	B708-00235

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/12/2011	02:09:24	153	6.5	12.81	974.7	
02/12/2011	02:11:54	145	6.4	12.81	990.8	
02/12/2011	02:14:24	147	6.5	12.80	1006.9	
02/12/2011	02:16:54	-10	4.2	12.77	1018.1	
02/12/2011	02:17:32					End Tail Slurry
02/12/2011	02:17:32	-7	4.2	12.77	1020.7	
02/12/2011	02:17:33					Drop Top Plug
02/12/2011	02:17:33	-2	4.2	12.77	1020.8	
02/12/2011	02:17:34					Start Displacement
02/12/2011	02:17:34	-13	4.2	12.77	1020.9	
02/12/2011	02:17:36					Reset Total, Vol = 353.52 bbl
02/12/2011	02:17:36	-22	4.2	12.76	1021.0	
02/12/2011	02:17:37					Displace 143 bbl Water
02/12/2011	02:17:37					Partial Returns
02/12/2011	02:17:37	-22	4.2	12.76	1021.1	
02/12/2011	02:19:24	-3	4.2	12.72	1028.6	
02/12/2011	02:21:54	-126	0.0	12.93	1034.7	
02/12/2011	02:24:24	-109	0.0	12.85	1034.7	
02/12/2011	02:26:54	55	6.5	8.84	1039.7	
02/12/2011	02:29:24	38	6.4	8.41	1056.0	
02/12/2011	02:31:54	56	4.6	8.33	1074.9	
02/12/2011	02:34:24	74	4.6	8.38	1086.4	
02/12/2011	02:36:54	106	4.0	8.38	1096.9	
02/12/2011	02:39:24	125	4.0	8.38	1107.0	
02/12/2011	02:41:54	186	6.0	8.38	1120.7	
02/12/2011	02:44:24	217	6.0	8.38	1135.6	
02/12/2011	02:46:54	360	6.0	8.38	1150.5	
02/12/2011	02:49:24	396	5.9	8.38	1165.4	
02/12/2011	02:51:54	219	2.3	8.38	1177.6	
02/12/2011	02:54:24	1199	0.0	8.38	1182.8	
02/12/2011	02:56:54	-124	0.0	8.38	1182.8	
02/12/2011	02:59:24	89	0.0	8.38	1182.8	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
13.9		0.0	25.0	1182.8	0.0	41.4	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3098	1400	135	1000		FreshWater	1135.0 bbl	8.34 lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
	630.0 bbl	499.8 bbl	65 degF	☐	
				Washed Thru Perfs ☐	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Joe Honeycutt	Tom Leduc	X	X
		-	-