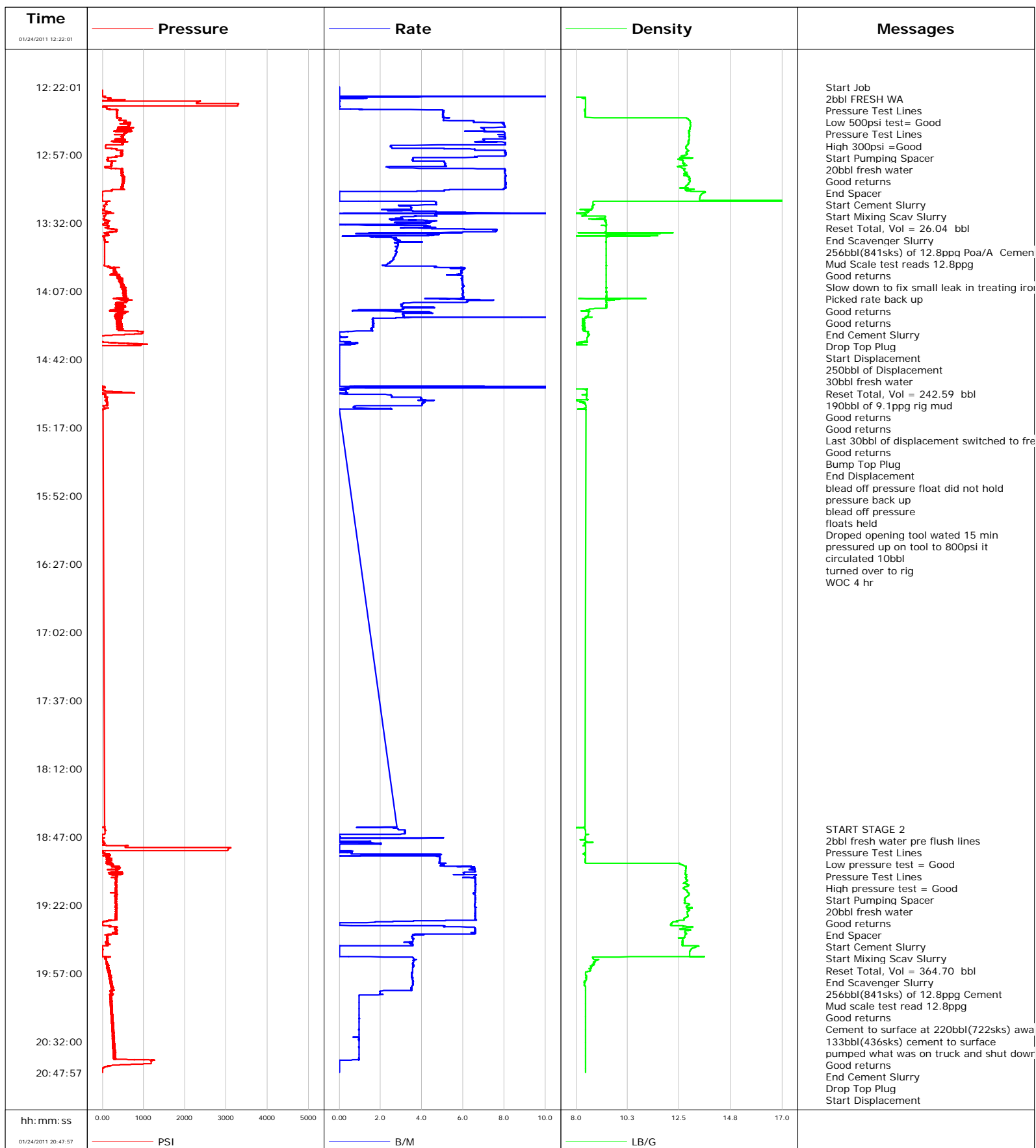


**Well** RGU 532-14-298  
**Field** Ryan Gulch  
**Engineer** Dustin C Krueger  
**Country** United States

**Client** Williams  
**SIR No.** 000457785  
**Job Type** Cement a 3266ft 9 5/8 2 Stage  
**Job Date** 1-24-2011



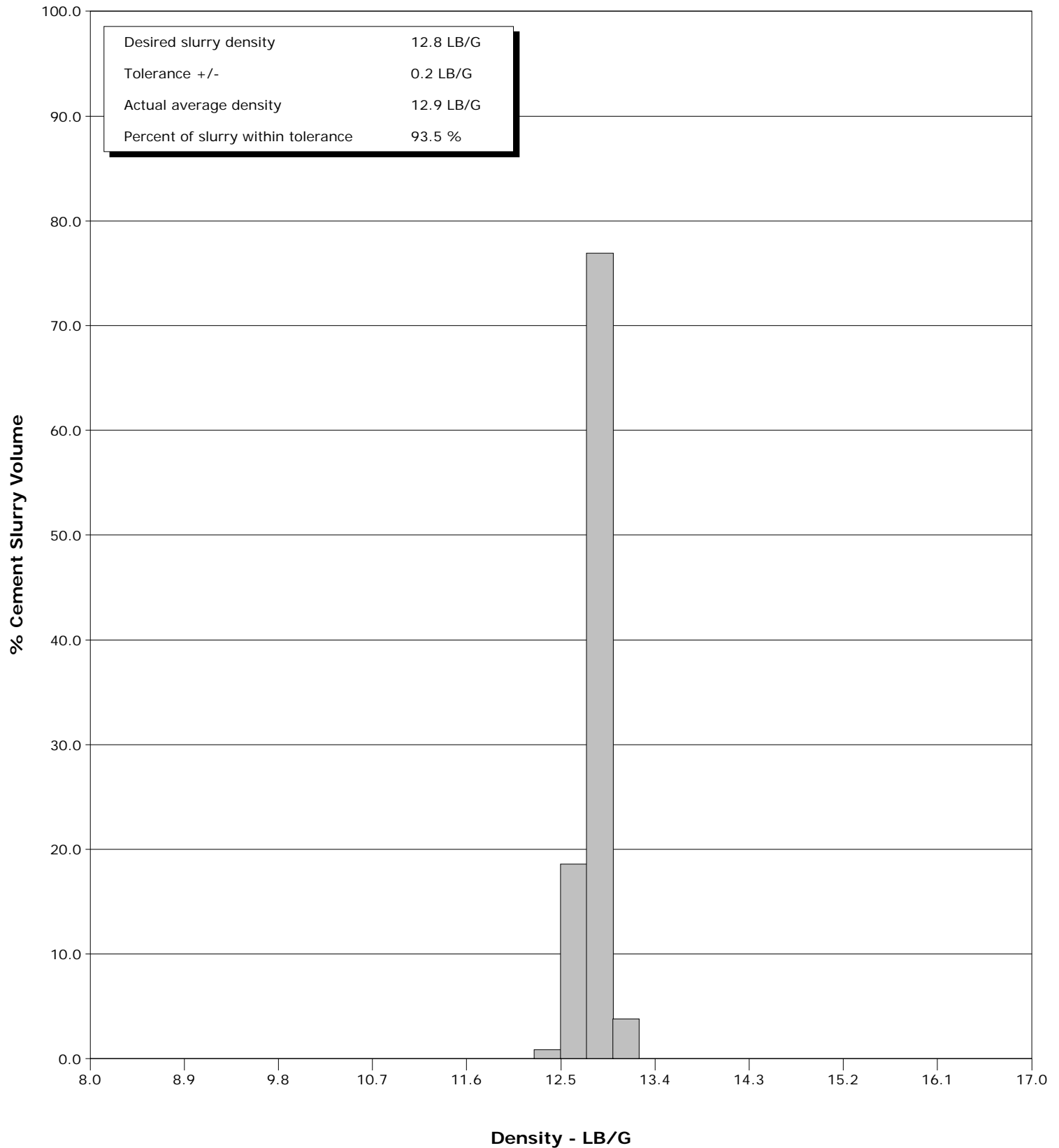


# Cementing Qa/Qc Density Report

**Well** RGU 532-14-298  
**Field** Ryan Gulch  
**Engineer** Dustin C Krueger  
**Country** United States

**Client** Williams  
**SIR No.** 000457785  
**Job Type** Cement a 3266ft 9 5/8 2 Stage  
**Job Date** 1-24-2011

Cement Slurry - 01/24/2011 12:37:59 to 01/24/2011 13:13:08





Well RGU 532-14-298 RGU 532-14-298			Field Ryan Gulch		Job Start Jan/24/2011	Customer Williams	Job Number 000457785
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/24/2011	12:26:07	-0	0.0	-0.00	0.0		
01/24/2011	12:28:37	135	0.0	8.41	4.3		
01/24/2011	12:31:07	3288	0.0	8.41	4.3		
01/24/2011	12:33:37	175	1.1	8.41	4.5		
01/24/2011	12:36:07	358	5.0	8.41	16.2		
01/24/2011	12:37:57					End Spacer	
01/24/2011	12:37:57	359	5.3	11.80	25.4		
01/24/2011	12:37:59					Start Cement Slurry	
01/24/2011	12:37:59	356	5.2	12.57	25.6		
01/24/2011	12:38:01					Start Mixing Scav Slurry	
01/24/2011	12:38:01	370	5.1	12.76	25.8		
01/24/2011	12:38:04					Reset Total, Vol = 26.04 bbl	
01/24/2011	12:38:04	397	5.1	12.83	26.0		
01/24/2011	12:38:37	447	5.1	12.90	28.8		
01/24/2011	12:39:07					End Scavenger Slurry	
01/24/2011	12:39:07	417	5.1	12.93	31.4		
01/24/2011	12:39:09					256bbl(841sks) of 12.8ppg Poa/A Cement	
01/24/2011	12:39:09	411	5.1	12.94	31.5		
01/24/2011	12:39:10					Mud Scale test reads 12.8ppg	
01/24/2011	12:39:10					Good returns	
01/24/2011	12:39:10	411	5.1	12.94	31.6		
01/24/2011	12:41:07	653	8.0	12.99	44.9		
01/24/2011	12:43:37	417	7.0	12.97	64.2		
01/24/2011	12:46:07	541	8.0	12.93	82.7		
01/24/2011	12:48:37	495	8.0	12.94	102.7		
01/24/2011	12:51:07	498	8.0	12.91	121.2		
01/24/2011	12:53:37	219	4.7	12.81	132.4		
01/24/2011	12:56:07	482	8.1	12.82	150.5		
01/24/2011	12:58:37	140	3.6	12.99	168.7		
01/24/2011	13:01:07	228	5.1	12.67	179.0		
01/24/2011	13:03:37	65	2.4	12.61	190.2		
01/24/2011	13:03:56					Slow down to fix small leak in treating iron	
01/24/2011	13:03:56	220	4.8	12.66	191.3		
01/24/2011	13:05:37					Picked rate back up	
01/24/2011	13:05:37					Good returns	
01/24/2011	13:05:37	474	8.0	12.74	204.4		
01/24/2011	13:06:07	480	8.0	12.81	208.4		
01/24/2011	13:08:37	504	8.0	12.90	228.5		
01/24/2011	13:11:07	502	8.1	12.95	248.6		
01/24/2011	13:13:01					Good returns	
01/24/2011	13:13:01	482	8.1	12.81	263.9		
01/24/2011	13:13:08					End Cement Slurry	
01/24/2011	13:13:08	478	8.0	12.80	264.9		
01/24/2011	13:13:19					Drop Top Plug	
01/24/2011	13:13:19	462	8.1	12.79	266.3		
01/24/2011	13:13:24					Start Displacement	
01/24/2011	13:13:24	466	8.0	12.78	267.0		
01/24/2011	13:13:27					250bbl of Displacement	
01/24/2011	13:13:27	487	8.1	12.78	267.4		
01/24/2011	13:13:28					30bbl fresh water	
01/24/2011	13:13:28	487	8.1	12.78	267.6		
01/24/2011	13:13:36					Reset Total, Vol = 242.59 bbl	
01/24/2011	13:13:36	492	8.0	12.79	268.6		
01/24/2011	13:13:37	492	8.1	12.79	268.8		

Well RGU 532-14-298 RGU 532-14-298			Field Ryan Gulch		Job Start Jan/24/2011	Customer Williams	Job Number 000457785
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/24/2011	13:18:37	-3	0.0	13.41	283.3		
01/24/2011	13:21:07	107	4.7	8.74	284.4		
01/24/2011	13:23:37	60	3.5	8.72	294.8		
01/24/2011	13:26:07	99	4.7	8.57	303.4		
01/24/2011	13:28:26					190bbl of 9.1ppg rig mud	
01/24/2011	13:28:26	37	3.7	8.89	315.1		
01/24/2011	13:28:37	49	3.5	9.28	315.8		
01/24/2011	13:29:52					Good returns	
01/24/2011	13:29:52					Good returns	
01/24/2011	13:29:52	53	3.1	9.23	319.6		
01/24/2011	13:31:07	145	4.6	9.29	323.9		
01/24/2011	13:33:37	158	4.4	9.31	331.5		
01/24/2011	13:36:07	343	7.6	9.32	345.4		
01/24/2011	13:38:37	56	1.8	11.56	357.4		
01/24/2011	13:41:07	60	2.9	9.31	363.5		
01/24/2011	13:43:37	53	2.8	9.31	370.7		
01/24/2011	13:46:07	52	2.8	9.31	377.6		
01/24/2011	13:48:37	52	2.7	9.31	384.5		
01/24/2011	13:51:07	52	2.6	9.31	391.2		
01/24/2011	13:53:37	49	2.2	9.31	397.3		
01/24/2011	13:56:07	290	6.0	9.32	409.3		
01/24/2011	13:58:37	381	5.8	9.32	424.0		
01/24/2011	14:01:07	394	6.0	9.32	438.9		
01/24/2011	14:03:37	465	6.0	9.33	453.8		
01/24/2011	14:06:07	522	6.0	9.33	468.8		
01/24/2011	14:08:37	548	6.0	9.33	483.8		
01/24/2011	14:11:07	555	5.3	9.85	498.5		
01/24/2011	14:13:37	508	3.0	9.33	512.1		
01/24/2011	14:16:07	468	3.1	8.62	520.4		
01/24/2011	14:18:37	470	3.1	8.54	527.6		
01/24/2011	14:21:07	359	1.6	8.37	535.9		
01/24/2011	14:23:37	416	1.6	8.36	540.0		
01/24/2011	14:26:07	377	1.6	8.34	544.1		
01/24/2011	14:28:37	978	0.0	8.51	546.4		
01/24/2011	14:30:27					Last 30bbl of displacement switched to fresh water	
01/24/2011	14:30:27					Good returns	
01/24/2011	14:30:27	-21	0.2	8.52	546.5		
01/24/2011	14:30:30					Bump Top Plug	
01/24/2011	14:30:30	-19	0.2	8.53	546.5		
01/24/2011	14:30:32					End Displacement	
01/24/2011	14:30:32	-20	0.4	8.53	546.5		
01/24/2011	14:30:34					blead off pressure float did not hold	
01/24/2011	14:30:34					pressure back up	
01/24/2011	14:30:34					blead off pressure	
01/24/2011	14:30:34	-20	0.4	8.52	546.5		
01/24/2011	14:30:35					floats held	
01/24/2011	14:30:35	-20	0.3	8.51	546.5		
01/24/2011	14:31:00					Dropped opening tool wated 15 min	
01/24/2011	14:31:00					pressured up on tool to 800psi it	
01/24/2011	14:31:00	-21	0.0	8.49	546.5		
01/24/2011	14:31:07	-21	0.0	8.48	546.5		
01/24/2011	14:32:00					circulated 10bbl	
01/24/2011	14:32:00	-24	0.0	8.48	546.5		
01/24/2011	14:33:37	409	0.8	7.49	546.9		

Well RGU 532-14-298 RGU 532-14-298			Field Ryan Gulch		Job Start Jan/24/2011	Customer Williams	Job Number 000457785
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/24/2011	14:38:37	-23	0.0	0.00	547.4		
01/24/2011	14:41:07	-23	0.0	-0.00	547.4		
01/24/2011	14:43:37	-21	0.0	-0.00	547.4		
01/24/2011	14:46:07	-21	0.0	-0.00	547.4		
01/24/2011	14:48:37	-21	0.0	-0.00	547.4		
01/24/2011	14:51:07	-19	0.0	-0.00	547.4		
01/24/2011	14:53:37	-19	0.0	0.00	547.4		
01/24/2011	14:56:07	61	25.0	0.00	550.2		
01/24/2011	14:58:37	312	0.3	8.48	562.1		
01/24/2011	15:01:07	71	2.5	8.47	565.3		
01/24/2011	15:03:37	115	4.1	8.27	574.9		
01/24/2011	15:06:07	35	0.8	8.43	583.8		
01/24/2011	15:07:00					turned over to rig	
01/24/2011	15:07:00	46	0.8	8.43	584.5		
01/24/2011	18:42:56					START STAGE 2	
01/24/2011	18:42:56	50	2.8	8.40	587.6		
01/24/2011	18:42:58					2bbl fresh water pre flush lines	
01/24/2011	18:42:58	50	2.9	8.40	587.7		
01/24/2011	18:43:05					Pressure Test Lines	
01/24/2011	18:43:05	50	2.9	8.40	588.1		
01/24/2011	18:43:09					Low pressure test = Good	
01/24/2011	18:43:09	63	2.9	8.40	588.3		
01/24/2011	18:43:12					Pressure Test Lines	
01/24/2011	18:43:12	51	2.9	8.40	588.4		
01/24/2011	18:43:17					High pressure test = Good	
01/24/2011	18:43:17	49	2.9	8.40	588.6		
01/24/2011	18:43:20					Start Pumping Spacer	
01/24/2011	18:43:20	50	2.9	8.39	588.8		
01/24/2011	18:43:23					20bbl fresh water	
01/24/2011	18:43:23					Good returns	
01/24/2011	18:43:23	50	2.9	8.40	588.9		
01/24/2011	18:43:37	66	3.2	8.41	589.6		
01/24/2011	18:46:07	-1	0.0	8.43	596.6		
01/24/2011	18:48:37	6	0.0	8.41	597.2		
01/24/2011	18:51:07	13	0.0	8.41	598.8		
01/24/2011	18:53:37	3046	0.0	8.41	598.8		
01/24/2011	18:56:07	155	4.9	8.41	600.8		
01/24/2011	18:58:37	130	4.9	8.41	612.0		
01/24/2011	19:01:07	227	4.9	12.56	624.3		
01/24/2011	19:02:38					End Spacer	
01/24/2011	19:02:38	343	6.5	12.80	632.6		
01/24/2011	19:02:41					Start Cement Slurry	
01/24/2011	19:02:41	331	6.5	12.80	632.9		
01/24/2011	19:02:42					Start Mixing Scav Slurry	
01/24/2011	19:02:42	352	6.5	12.80	633.0		
01/24/2011	19:02:45					Reset Total, Vol = 364.70 bbl	
01/24/2011	19:02:45	362	6.6	12.80	633.3		
01/24/2011	19:03:32					End Scavenger Slurry	
01/24/2011	19:03:32	352	6.6	12.80	638.5		
01/24/2011	19:03:36					256bbl(841sks) of 12.8ppg Cement	
01/24/2011	19:03:36					Mud scale test read 12.8ppg	
01/24/2011	19:03:36					Good returns	
01/24/2011	19:03:36	366	6.6	12.80	638.9		
01/24/2011	19:03:37	366	6.6	12.79	639.0		

Well RGU 532-14-298 RGU 532-14-298			Field Ryan Gulch		Job Start Jan/24/2011		Customer Williams		Job Number 000457785	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
01/24/2011	19:08:37	351	6.6	12.80	671.1					
01/24/2011	19:11:07	326	6.6	12.77	687.6					
01/24/2011	19:13:37	340	6.6	12.69	704.1					
01/24/2011	19:16:07	316	6.5	12.93	720.6					
01/24/2011	19:18:37	326	6.6	12.76	737.0					
01/24/2011	19:21:07	314	6.6	12.73	753.5					
01/24/2011	19:23:37	360	6.6	13.05	769.9					
01/24/2011	19:26:07	324	6.6	12.86	786.4					
01/24/2011	19:28:37	324	6.6	12.79	802.9					
01/24/2011	19:31:07	0	0.4	12.18	815.1					
01/24/2011	19:33:37	332	6.6	12.99	820.4					
01/24/2011	19:36:07	326	6.6	12.75	836.8					
01/24/2011	19:38:37	112	3.6	12.74	848.5					
01/24/2011	19:40:42					Cement to surface at 220bbl(722sks) away				
01/24/2011	19:40:42					133bbl(436sks) cement to surface				
01/24/2011	19:40:42	117	3.6	12.65	855.9					
01/24/2011	19:41:07	82	3.2	12.65	857.4					
01/24/2011	19:41:38					pumped what was on truck and shut down				
01/24/2011	19:41:38					Good returns				
01/24/2011	19:41:38	130	3.4	12.65	859.1					
01/24/2011	19:41:52					End Cement Slurry				
01/24/2011	19:41:52	93	3.5	12.65	859.9					
01/24/2011	19:42:29					Drop Top Plug				
01/24/2011	19:42:29	131	3.6	12.65	862.1					
01/24/2011	19:42:32					Start Displacement				
01/24/2011	19:42:32	107	3.6	12.65	862.3					
01/24/2011	19:42:34					97bbl fresh water				
01/24/2011	19:42:34	116	3.6	12.65	862.4					
01/24/2011	19:42:35					Good returns				
01/24/2011	19:42:35	118	3.6	12.65	862.5					
01/24/2011	19:43:37	-1	0.0	13.22	864.0					
01/24/2011	19:46:07	2	0.0	12.96	864.0					
01/24/2011	19:48:37	41	0.5	13.59	864.0					
01/24/2011	19:51:07	108	3.6	8.84	872.8					
01/24/2011	19:53:37	113	3.6	8.68	881.8					
01/24/2011	19:56:07	181	3.6	8.59	890.7					
01/24/2011	19:58:37	178	3.5	8.45	899.5					
01/24/2011	20:01:07	189	3.6	8.40	908.4					
01/24/2011	20:03:37	220	3.5	8.40	917.3					
01/24/2011	20:06:07	218	2.1	8.41	926.0					
01/24/2011	20:06:29					Slowed to 2bpm				
01/24/2011	20:06:29	232	2.0	8.42	926.7					
01/24/2011	20:08:24					Slowedto 1bpm				
01/24/2011	20:08:24	219	1.0	8.42	930.3					
01/24/2011	20:08:37	189	1.0	8.41	930.5					
01/24/2011	20:11:07	199	1.0	8.42	932.9					
01/24/2011	20:13:37	207	1.0	8.42	935.3					
01/24/2011	20:16:07	213	1.0	8.42	937.7					
01/24/2011	20:18:37	225	1.0	8.42	940.1					
01/24/2011	20:21:07	225	1.0	8.42	942.5					
01/24/2011	20:23:37	231	1.0	8.42	944.9					
01/24/2011	20:26:07	261	1.0	8.42	947.3					
01/24/2011	20:28:37	253	1.0	8.42	949.8					
01/24/2011	20:31:07	269	1.0	8.42	952.1					

Well RGU 532-14-298 RGU 532-14-298			Field Ryan Gulch		Job Start Jan/24/2011	Customer Williams		Job Number 000457785	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G	Volume BBL	Message		
01/24/2011	20:36:07	262		1.0	8.42	956.9			
01/24/2011	20:38:37	272		1.0	8.42	959.4			
01/24/2011	20:41:07	300		1.0	8.42	961.8			
01/24/2011	20:42:55						Bump Top Plug		
01/24/2011	20:42:55	1184		0.0	8.42	962.3			
01/24/2011	20:42:57						End Displacement		
01/24/2011	20:42:57	1183		0.0	8.42	962.3			
01/24/2011	20:42:59						.5bbl back		
01/24/2011	20:42:59	1184		0.0	8.42	962.3			
01/24/2011	20:43:01						floats held		
01/24/2011	20:43:01	1183		0.0	8.42	962.3			
01/24/2011	20:43:37	1047		0.0	8.42	962.3			
01/24/2011	20:46:07	2		0.0	8.42	962.3			
01/24/2011	20:47:51						End Job		
01/24/2011	20:47:51	3		0.0	8.42	962.3			

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 6.0	N2	Mud 0.0	Maximum Rate 7.0		Total Slurry 509.0	Mud 250.0	Spacer 40.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 3000	Final 400	Average 200	Bump Plug to 1000	Breakdown 325	Type FreshWater		Volume 657.0 bbl		Density 8.34 lb/gal	
Avg. N2 Percent		Designed Slurry Volume 509.0 bbl		Displacement 250.2 bbl		Mix Water Temp 60 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 133.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative Brent Bascom				Schlumberger Supervisor Dustin C Krueger				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-