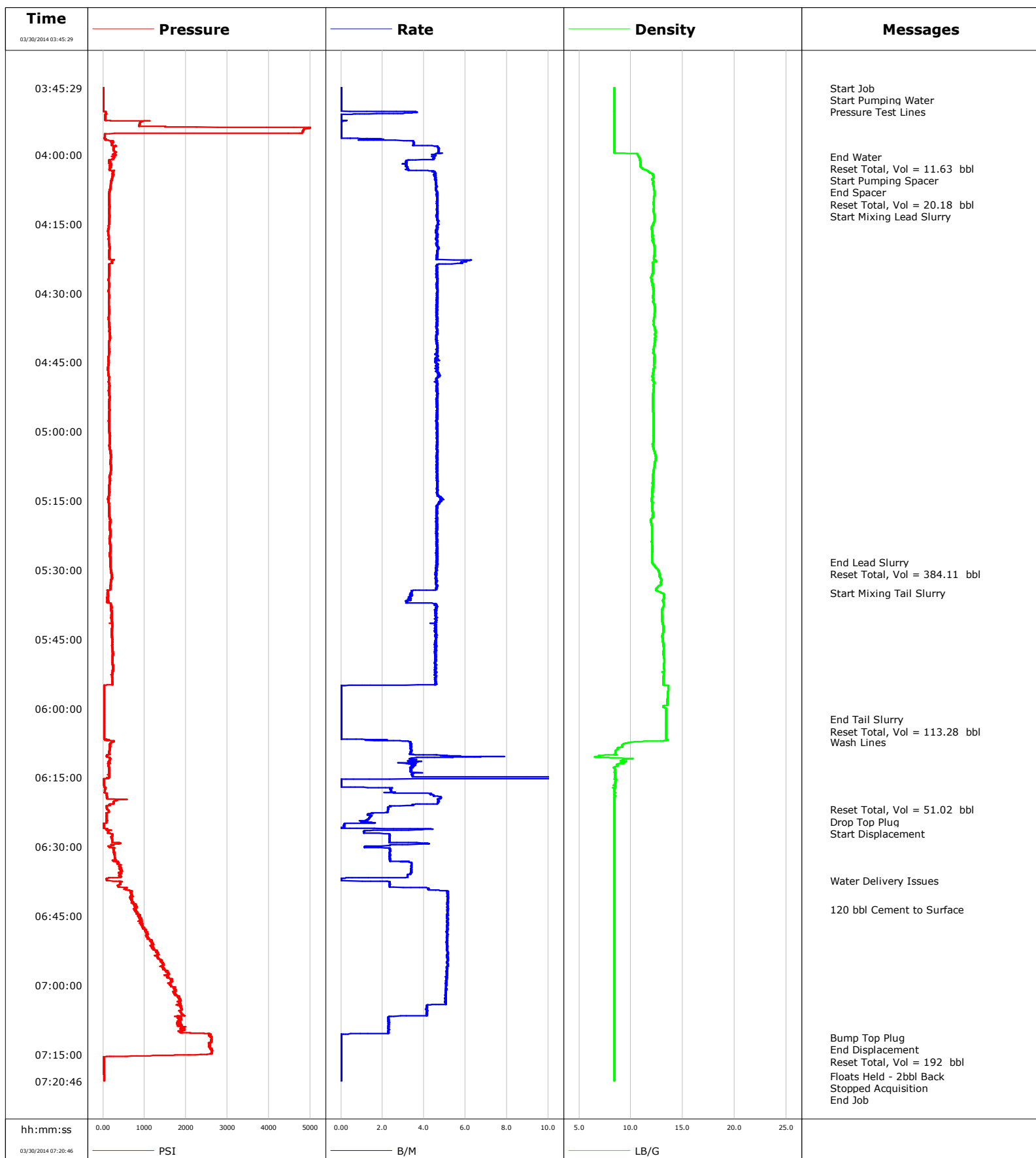


Well Snowking 13-33
Field Arikaree Creek
Engineer Michael Simon/ T Morrow
Country United States

Client Nighthawk
SIR No. C567-00623
Job Type 5 1/2 Production
Job Date 03-30-2014

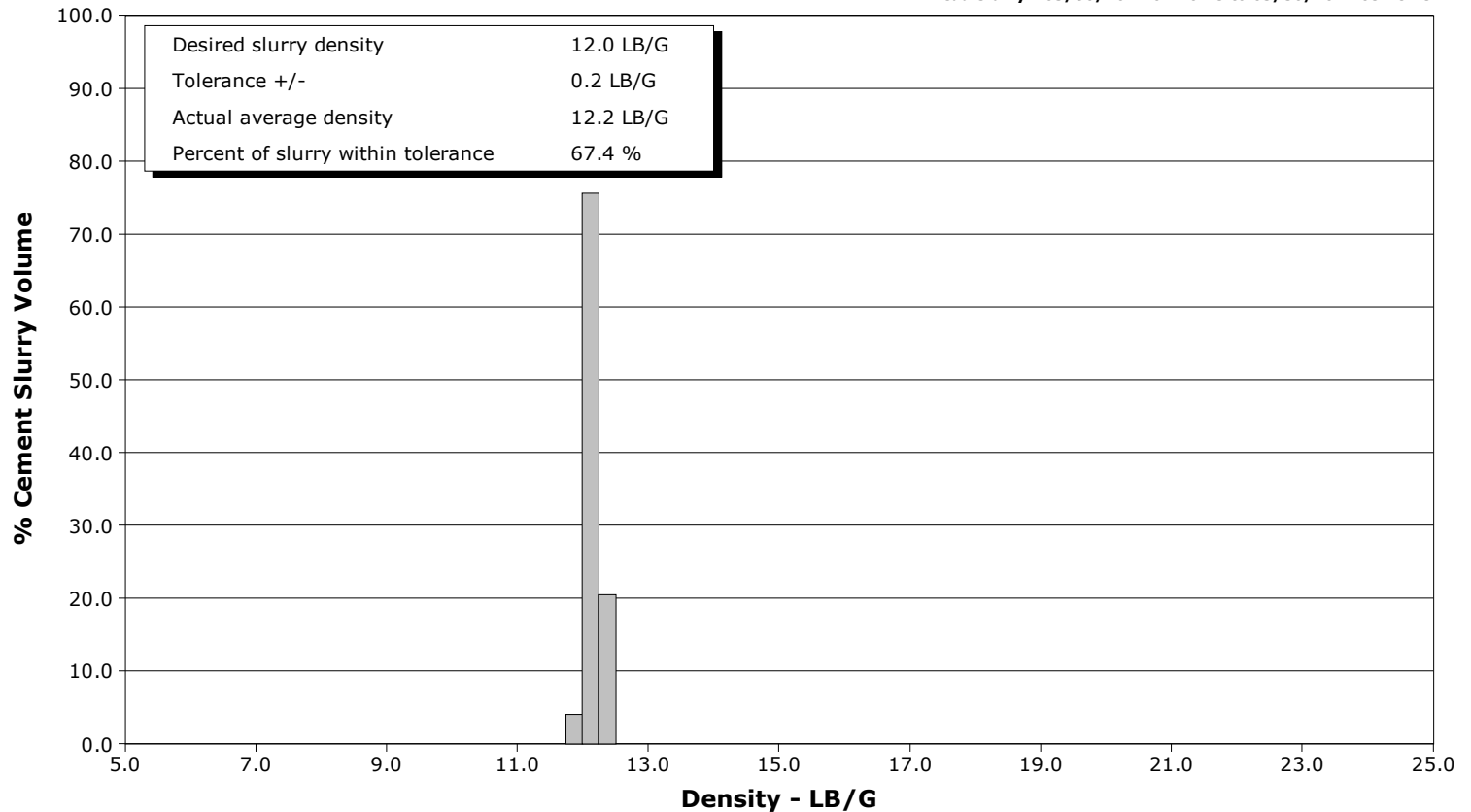


Schlumberger Cementing Qa/Qc Density Report

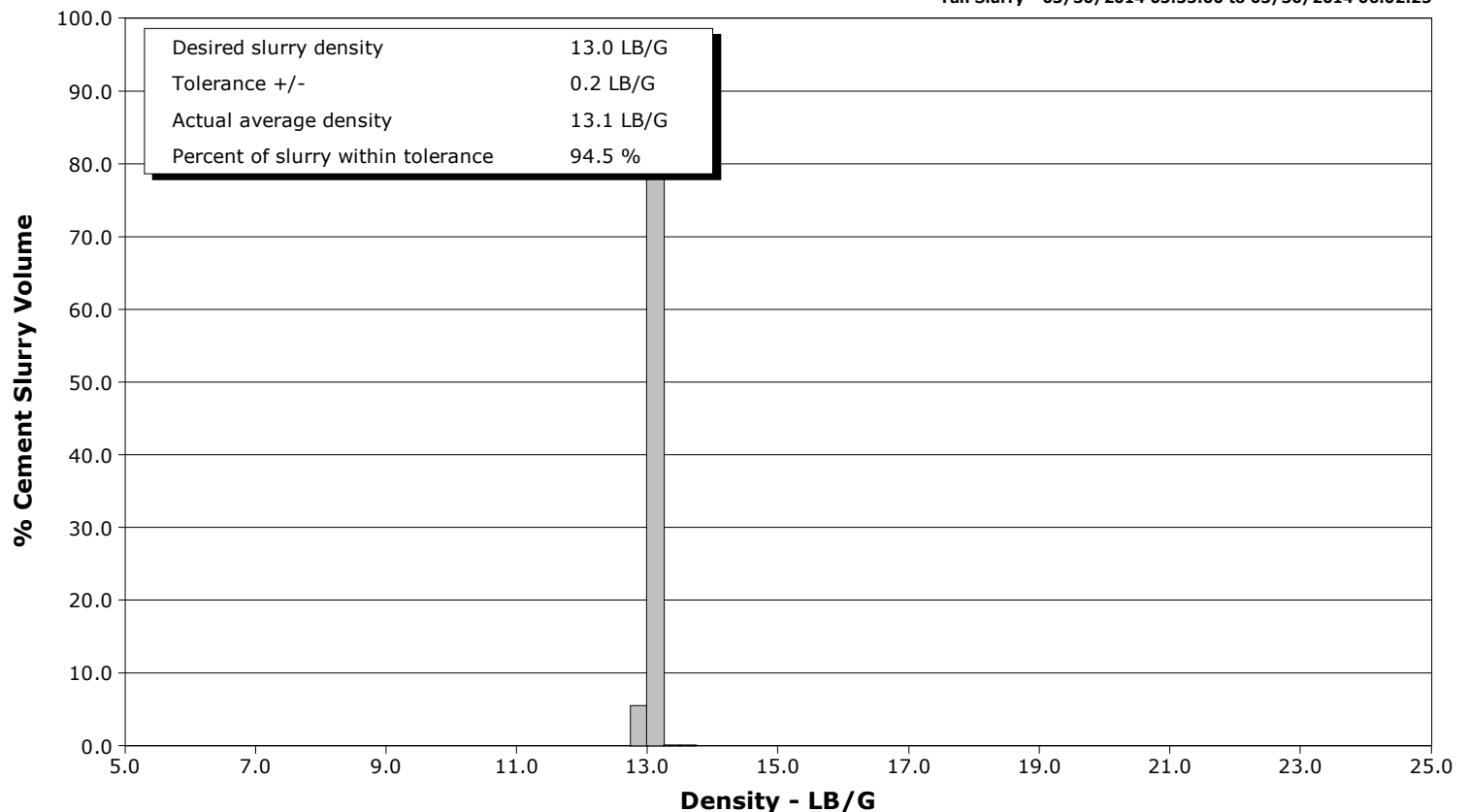
Well Snowking 13-33
Field Arikaree Creek
Engineer Michael Simon/ T Morrow
Country United States

Client Nighthawk
SIR No. C567-00623
Job Type 5 1/2 Production
Job Date 03-30-2014

Lead Slurry - 03/30/2014 04:10:45 to 03/30/2014 05:28:19



Tail Slurry - 03/30/2014 05:35:00 to 03/30/2014 06:02:25





Cementing Service Report

					Customer Nighthawk			Job Number C567-00623							
Well Snowking 13-33 13-33				Location (legal) Cheyenne			Schlumberger Location Rock Springs			Job Start Mar/30/2014					
Field Arikaree Creek		Formation Name/Type			Deviation		Bit Size 8.7 in		Well MD 8372.0 ft		Well TVD				
County Lincoln		State/Province Colorado			BHP		BHST 188 degF		BHCT 160 degF		Pore Press. Gradient				
Well Master 0631527984		API/UWI													
Rig Name Xtreme 11		Drilled For Oil & Gas		Service Via Land		Casing/Liner									
Offshore Zone		Well Class New		Well Type Development		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
						8372.0		5.500		17.0		N80		8RD	
						0.0		0.000		0.0					
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe									
						Depth,		Size,		Weight,		Grade		Thread	
Service Line Cementing		Job Type 5 1/2 Production													
Max. Allowed Tub. Press 4000 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole									
Service Instructions						Top,		Bottom,				No. of Shots		Total Interval	
														Diameter	
						Treat Down Casing		Displacement 194.0 bbl		Packer Type		Packer Depth			
						Tubing Vol.		Casing Vol. 194.6 bbl		Annular Vol. 369.0 bbl		Openhole Vol. 560.0 bbl			
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>				Casing Tools				Squeeze Job					
Lift Pressure						Shoe Type Float				Squeeze Type					
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input checked="" type="checkbox"/>				Shoe Depth 8372.0 ft				Tool Type					
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth					
Cement Head Type Single						Stage Tool Depth				Tail Pipe Size					
Job Scheduled For Mar/30/2014		Arrived on Location Mar/30/2014		Leave Location Mar/30/2014		Collar Type Float				Tail Pipe Depth					
						Collar Depth 8325.0 ft				Sqz. Total Vol.					
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message								
03/30/2014	02:10:31						Started Acquisition								
03/30/2014	03:45:29	9	0.0	8.40	0.0	0.0									
03/30/2014	03:45:31						Start Job								
03/30/2014	03:45:31	9	0.0	8.40	0.0	0.0									
03/30/2014	03:45:34						Start Pumping Water								
03/30/2014	03:45:34	9	0.0	8.40	0.0	0.0									
03/30/2014	03:45:36						Pressure Test Lines								
03/30/2014	03:45:36	9	0.0	8.40	0.0	0.0									
03/30/2014	03:46:31	9	0.0	8.40	0.0	0.0									
03/30/2014	03:49:31	6	0.0	8.40	0.0	0.0									
03/30/2014	03:52:31	51	0.0	8.40	1.8	1.8									
03/30/2014	03:55:31	47	0.0	8.40	1.8	1.8									
03/30/2014	03:58:31	252	4.7	8.40	8.3	8.3									
03/30/2014	04:00:29						End Water								
03/30/2014	04:00:29	261	4.4	10.76	17.5	17.5									
03/30/2014	04:00:31						Reset Total, Vol = 11.63 bbl								
03/30/2014	04:00:31	254	4.5	10.76	17.6	17.6									
03/30/2014	04:00:40						Start Pumping Spacer								
03/30/2014	04:00:40	265	4.5	10.81	18.3	0.7									
03/30/2014	04:01:31	149	3.1	10.92	21.6	4.0									
03/30/2014	04:04:31	240	4.6	12.12	32.5	14.9									

Well			Field		Job Start		Customer		Job Number	
Snowking 13-33 13-33			Arikaree Creek		Mar/30/2014		Nighthawk		C567-00623	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message			
03/30/2014	04:05:39	206	4.6	12.12	37.7	20.0				
03/30/2014	04:05:41						Reset Total, Vol = 20.18 bbl			
03/30/2014	04:05:41	203	4.6	12.13	37.8	20.2				
03/30/2014	04:07:31	174	4.6	12.20	46.2	8.4				
03/30/2014	04:10:31	143	4.6	12.18	60.1	22.3				
03/30/2014	04:10:45						Start Mixing Lead Slurry			
03/30/2014	04:10:45	150	4.6	12.18	61.2	23.4				
03/30/2014	04:13:31	154	4.6	12.27	74.0	36.2				
03/30/2014	04:16:31	121	4.6	12.07	87.9	50.1				
03/30/2014	04:19:31	144	4.6	12.23	101.8	64.0				
03/30/2014	04:22:31	159	4.6	12.22	115.7	77.9				
03/30/2014	04:25:31	151	4.6	12.10	130.8	93.0				
03/30/2014	04:28:31	144	4.6	12.11	144.7	106.9				
03/30/2014	04:31:31	137	4.6	12.18	158.6	120.8				
03/30/2014	04:34:31	143	4.6	12.27	172.4	134.6				
03/30/2014	04:37:31	160	4.6	12.28	186.3	148.5				
03/30/2014	04:40:31	138	4.6	12.31	200.2	162.3				
03/30/2014	04:43:31	144	4.7	12.24	214.0	176.2				
03/30/2014	04:46:31	118	4.7	12.20	227.9	190.1				
03/30/2014	04:49:31	149	4.6	12.25	241.9	204.0				
03/30/2014	04:52:31	160	4.7	12.13	255.8	217.9				
03/30/2014	04:55:31	155	4.6	12.14	269.6	231.8				
03/30/2014	04:58:31	148	4.6	12.15	283.5	245.7				
03/30/2014	05:01:31	157	4.6	12.17	297.4	259.6				
03/30/2014	05:04:31	185	4.6	12.30	311.3	273.5				
03/30/2014	05:07:31	188	4.6	12.26	325.2	287.4				
03/30/2014	05:10:31	169	4.6	12.13	339.1	301.3				
03/30/2014	05:13:31	138	4.6	12.04	353.0	315.2				
03/30/2014	05:16:31	141	4.6	12.03	367.2	329.4				
03/30/2014	05:19:31	168	4.6	11.91	381.0	343.2				
03/30/2014	05:22:31	179	4.6	12.02	394.9	357.1				
03/30/2014	05:25:31	180	4.6	12.09	408.7	370.9				
03/30/2014	05:28:19						End Lead Slurry			
03/30/2014	05:28:19	177	4.6	12.04	421.7	383.9				
03/30/2014	05:28:22						Reset Total, Vol = 384.11 bbl			
03/30/2014	05:28:22	184	4.6	12.04	421.9	384.1				
03/30/2014	05:28:31	176	4.6	12.07	422.6	0.7				
03/30/2014	05:31:31	210	4.6	12.77	436.4	14.5				
03/30/2014	05:34:31	116	3.4	12.46	450.1	28.1				
03/30/2014	05:35:00						Start Mixing Tail Slurry			
03/30/2014	05:35:00	110	3.4	12.95	451.7	29.8				
03/30/2014	05:37:31	188	4.6	13.18	460.4	38.5				
03/30/2014	05:40:31	202	4.6	13.02	474.1	52.2				
03/30/2014	05:43:31	212	4.6	13.15	487.8	65.9				
03/30/2014	05:46:31	223	4.5	13.13	501.6	79.6				
03/30/2014	05:49:31	229	4.6	13.22	515.2	93.3				
03/30/2014	05:52:31	229	4.6	13.16	528.9	107.0				
03/30/2014	05:55:31	29	0.0	13.60	540.2	118.2				
03/30/2014	05:58:31	26	0.0	13.51	540.2	118.2				
03/30/2014	06:01:31	29	0.0	13.40	540.2	118.2				
03/30/2014	06:02:25						End Tail Slurry			
03/30/2014	06:02:25	29	0.0	13.40	540.2	118.2				
03/30/2014	06:02:30						Reset Total, Vol = 113.28 bbl			
03/30/2014	06:02:30	29	0.0	13.40	540.2	118.2				

Well			Field		Job Start	Customer	Job Number
Snowking 13-33 13-33			Arikaree Creek		Mar/30/2014	Nighthawk	C567-00623
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
03/30/2014	06:07:21						Wash Lines
03/30/2014	06:07:21	225	3.3	10.03	541.7	119.8	
03/30/2014	06:07:31	183	3.4	9.69	542.2	0.1	
03/30/2014	06:10:31	100	6.7	6.48	553.2	11.0	
03/30/2014	06:13:31	150	3.4	8.45	563.8	21.7	
03/30/2014	06:16:31	23	0.0	8.44	576.1	33.9	
03/30/2014	06:19:31	98	4.8	8.42	584.2	42.0	
03/30/2014	06:21:58						Reset Total, Vol = 51.02 bbl
03/30/2014	06:21:58	106	2.3	8.42	593.2	51.0	
03/30/2014	06:22:01						Drop Top Plug
03/30/2014	06:22:01						Start Displacement
03/30/2014	06:22:01	117	2.2	8.42	593.3	0.1	
03/30/2014	06:22:31	138	2.2	8.42	594.5	1.2	
03/30/2014	06:25:31	17	0.1	8.42	597.9	4.7	
03/30/2014	06:28:31	219	2.3	8.41	603.4	10.2	
03/30/2014	06:31:31	268	2.4	8.41	610.7	17.4	
03/30/2014	06:34:31	426	3.4	8.41	619.0	25.8	
03/30/2014	06:37:22						Water Delivery Issues
03/30/2014	06:37:22	108	0.0	8.41	626.4	33.2	
03/30/2014	06:37:31	424	2.2	8.41	626.5	33.3	
03/30/2014	06:40:31	704	5.2	8.41	637.7	44.5	
03/30/2014	06:43:31	752	5.1	8.41	653.1	59.9	
03/30/2014	06:43:37						120 bbl Cement to Surface
03/30/2014	06:43:37	784	5.1	8.41	653.6	60.4	
03/30/2014	06:46:31	938	5.1	8.41	668.5	75.3	
03/30/2014	06:49:31	1047	5.1	8.41	683.9	90.6	
03/30/2014	06:52:31	1289	5.1	8.41	699.2	106.0	
03/30/2014	06:55:31	1464	5.1	8.41	714.6	121.4	
03/30/2014	06:58:31	1565	5.1	8.41	729.9	136.7	
03/30/2014	07:01:31	1731	5.1	8.41	745.1	151.9	
03/30/2014	07:04:31	1881	4.1	8.40	760.0	166.8	
03/30/2014	07:07:31	1829	2.3	8.41	770.9	177.7	
03/30/2014	07:10:31	2531	2.3	8.41	777.8	184.6	
03/30/2014	07:11:26						Bump Top Plug
03/30/2014	07:11:26	2608	0.0	8.41	777.9	184.7	
03/30/2014	07:11:28						End Displacement
03/30/2014	07:11:28	2608	0.0	8.41	777.9	184.7	
03/30/2014	07:11:35						Reset Total, Vol = 192 bbl
03/30/2014	07:11:35	2610	0.0	8.41	777.9	184.7	
03/30/2014	07:13:31	2589	0.0	8.41	777.9	0.0	
03/30/2014	07:16:31	22	0.0	8.42	777.9	0.0	
03/30/2014	07:19:31	28	0.0	8.42	777.9	0.0	
03/30/2014	07:19:36						Floats Held - 2bbl Back
03/30/2014	07:19:36	32	0.0	8.42	777.9	0.0	
03/30/2014	07:20:46	26	0.0	8.42	777.9	0.0	
03/30/2014	07:20:46						Stopped Acquisition

Well Snowking 13-33 13-33	Field Arikaree Creek	Job Start Mar/30/2014	Customer Nighthawk	Job Number C567-00623
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.3	N2	Mud 0.0	Maximum Rate 18.1	Total Slurry 497.0	Mud 0.0	Spacer 21.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5091	Final 34	Average 419	Bump Plug to	Breakdown	Type	Volume	Density	
Avg. N2 Percent	Designed Slurry Volume 475.0 bbl		Displacement 192.0 bbl	Mix Water Temp 50 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 120.0 bbl		
Customer or Authorized Representative Jerry Hendrick			Schlumberger Supervisor Michael Simon/ T Morrow		Washed Thru Perfs <input type="checkbox"/>	To		
					Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		
					-	-		