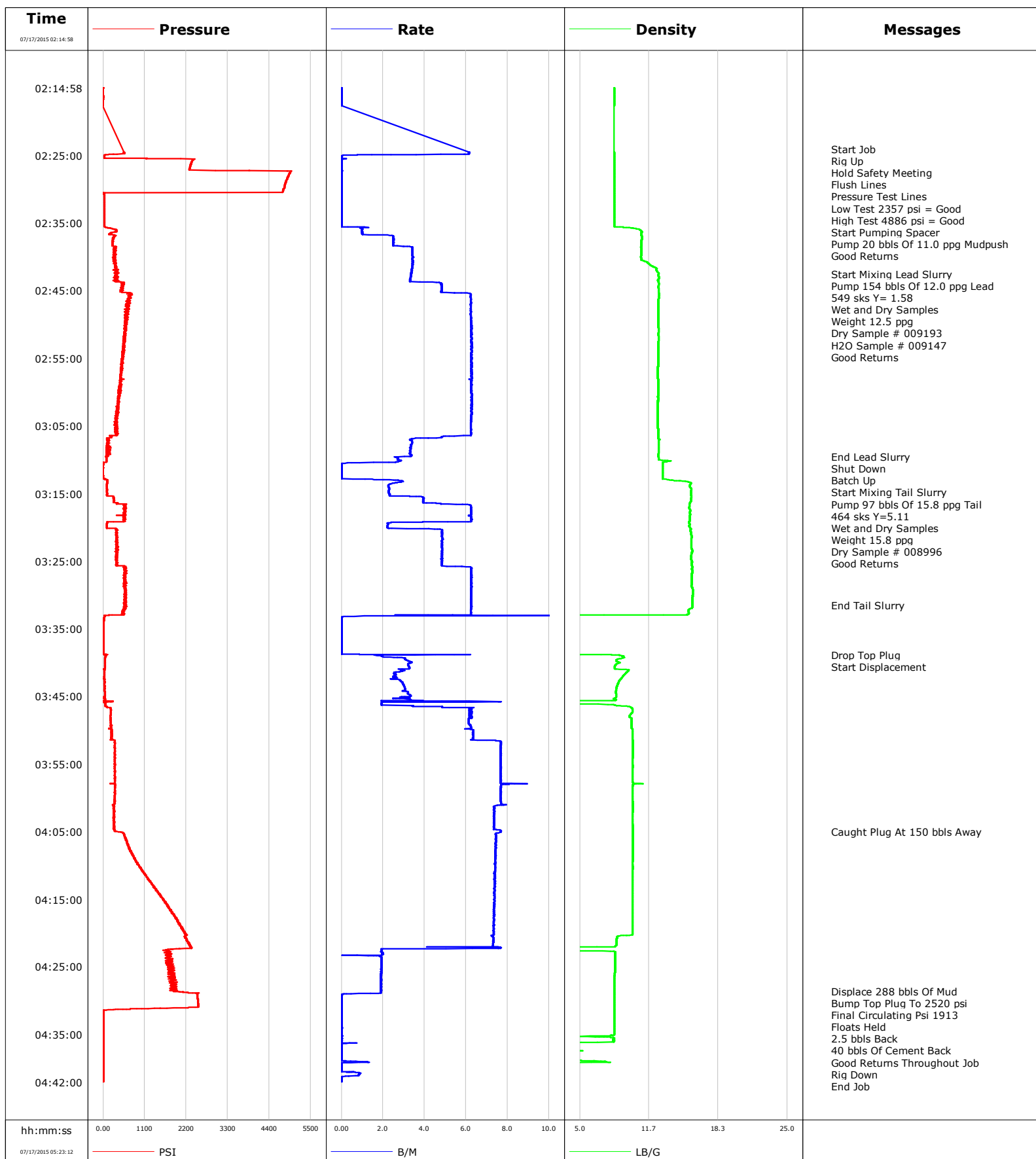


Well Waag 23
Field Wattenberg
Engineer Justin Zika/Black
Country United States

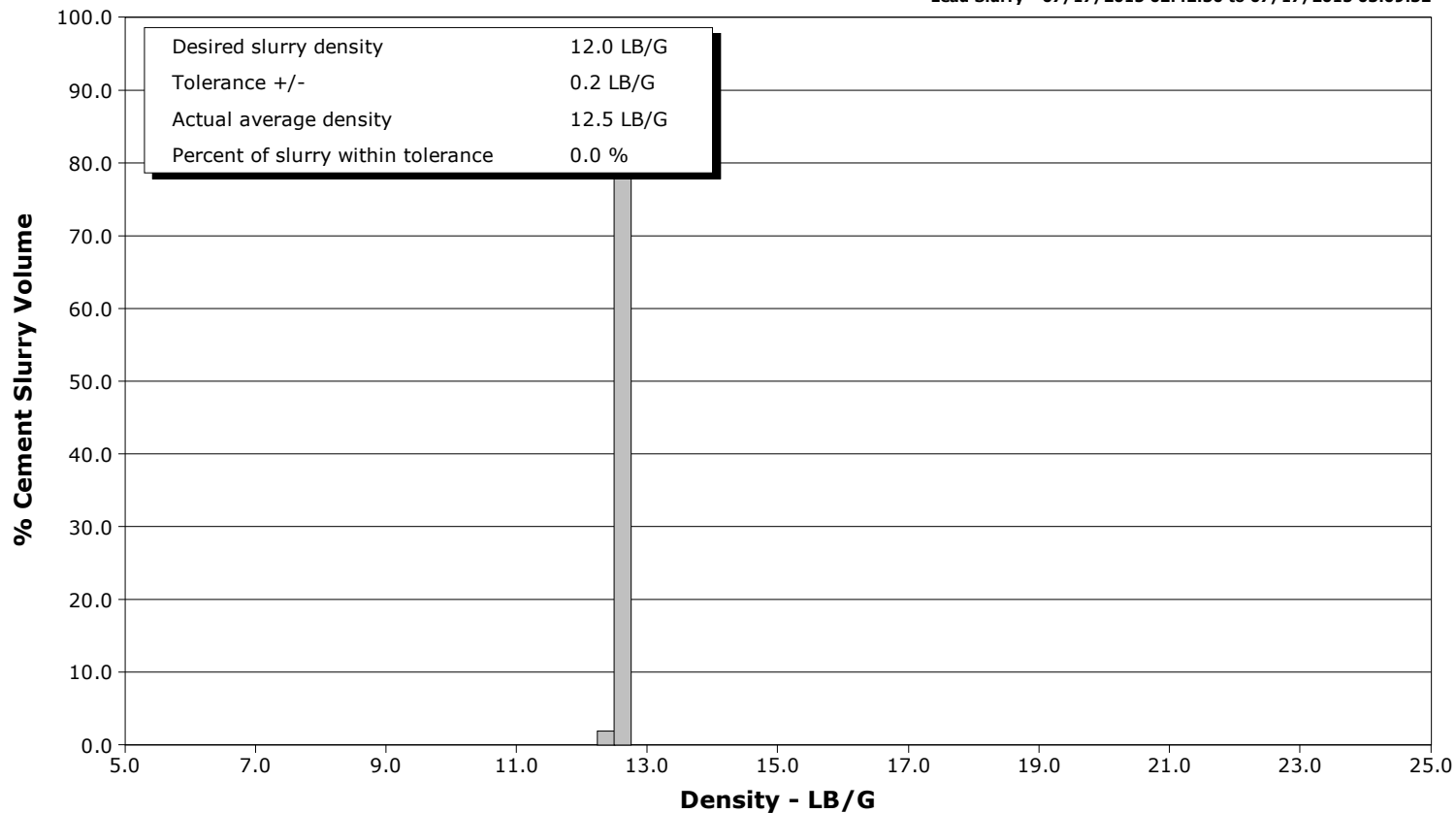
Client Extraction Oil Gas
SIR No. 2161719
Job Type Intermediate
Job Date 07-17-2015



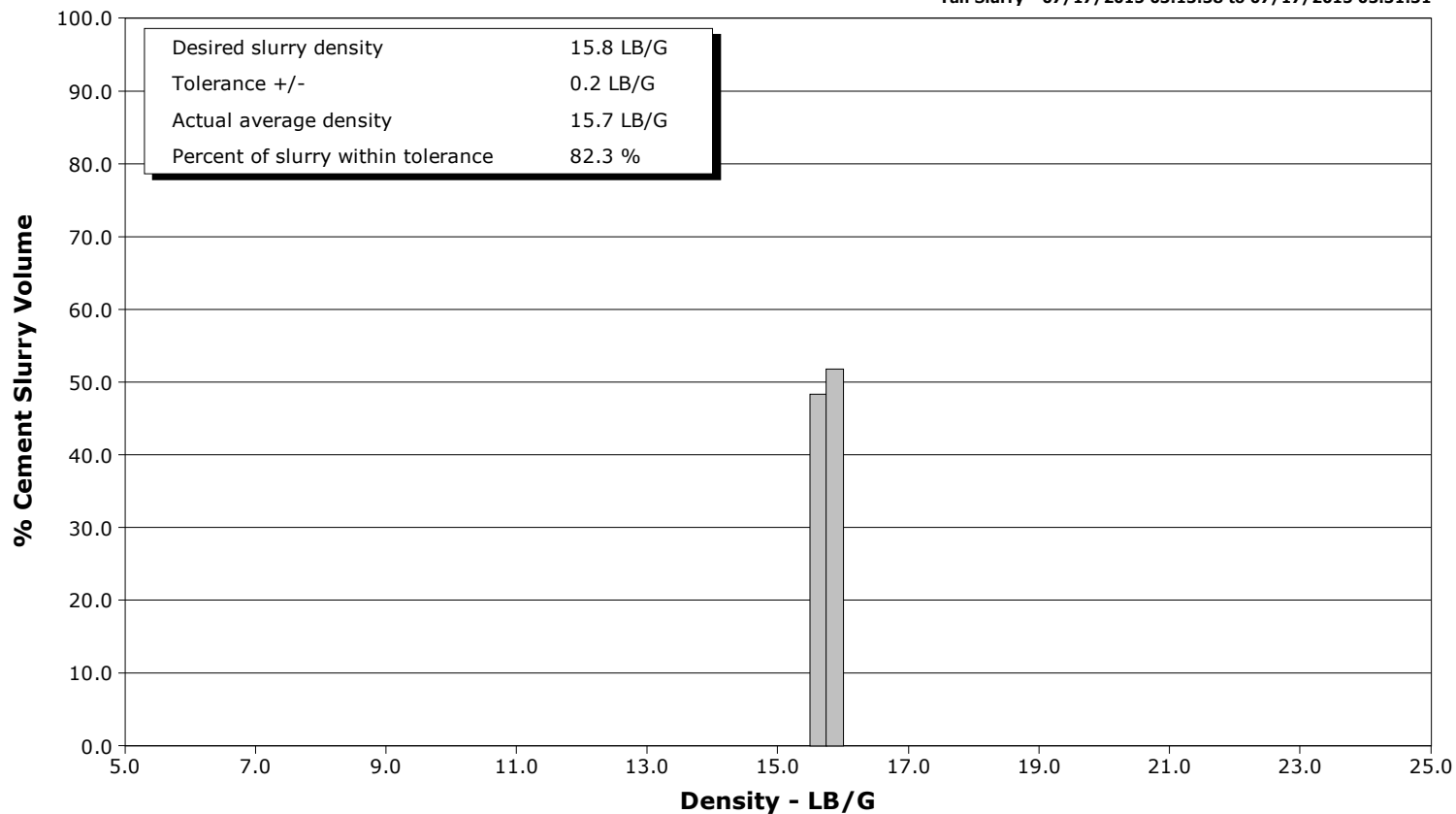
Well Waag 23
Field Wattenberg
Engineer Justin Zika/Black
Country United States

Client Extraction Oil Gas
SIR No. 2161719
Job Type Intermediate
Job Date 07-17-2015

Lead Slurry - 07/17/2015 02:42:30 to 07/17/2015 03:09:32



Tail Slurry - 07/17/2015 03:13:38 to 07/17/2015 03:31:31



Cementing Service Report

				Customer Extraction Oil & Gas			Job Number 2161719											
Well Waag 23 23			Location (legal) Cheyenne,WY			Schlumberger Location CWY			Job Start Jul/17/2015									
Field Wattenberg			Formation Name/Type Shale			Deviation deg		Bit Size 8.8 in		Well MD 7585.0 ft		Well TVD 7190.0 ft						
County Weld			State/Province Colorado			BHP psi		BHST 208 degF		BHCT 175 degF		Pore Press. Gradient lb/gal						
Well Master 0631593032			API/UWI 05123403490000															
Rig Name Patterson 346		Drilled For Oil		Service Via Land		Casing/Liner												
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread				
Offshore Zone		Well Class New		Well Type Development		7570.0		7.0		26.0		110		8RD				
						0.0		0.0		0.0								
Drilling Fluid Type			Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe											
							T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line Cementing			Job Type Intermediate															
Max. Allowed Tub. Press 4500 psi			Max. Allowed Ann. Press psi		WH Connection Single Cement head		Perforations/Open Hole											
							Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft			
Service Instructions Rig Up Hold Safety Meeting Flush Lines Pressure Test Lines Pump 20 bbls Of 11.0 ppg Mudpush Pump 154 bbls Of 12.0 ppg Lead Pump 97 bbls Of 15.8 ppg Tail Drop Top Plug Displace							ft		ft						Diameter in			
							ft		ft									
							ft		ft									
			Treat Down Casing		Displacement 288.0 bbl		Packer Type		Packer Depth ft									
			Tubing Vol. bbl		Casing Vol. 290.0 bbl		Annular Vol. 205.0 bbl		Openhole Vol. 497.0 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 5114 psi						Shoe Type Float			Squeeze Type									
Pipe Rotated <input type="checkbox"/>			Pipe Reciprocated <input type="checkbox"/>			Shoe Depth 7570.0 ft			Tool Type									
No. Centralizers			Top Plugs 1		Bottom Plugs		Stage Tool Type			Tool Depth ft								
Cement Head Type Single						Stage Tool Depth ft			Tail Pipe Size in									
Job Scheduled For Jul/17/2015 00:00			Arrived on Location Jul/17/2015 00:00		Leave Location Jul/17/2015 07:00		Collar Type Float			Tail Pipe Depth ft								
							Collar Depth 7528.0 ft			Sqz. Total Vol. bbl								
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message												
07/17/2015	02:14:58	0	0.0	8.32	0.0	Started Acquisition												
07/17/2015	02:16:38	-0	0.0	8.32	0.0													
07/17/2015	02:24:58	37	0.2	8.32	2.2													
07/17/2015	02:25:27	1137	0.3	8.32	2.2	Pressure Test Lines												
07/17/2015	02:26:38	2305	0.0	8.32	2.3													
07/17/2015	02:28:18	4884	0.0	8.32	2.3													
07/17/2015	02:29:58	4778	0.0	8.32	2.3													
07/17/2015	02:31:38	28	0.0	8.32	0.0													
07/17/2015	02:33:18	30	0.0	8.32	0.0													
07/17/2015	02:34:58	32	0.0	8.32	0.0													
07/17/2015	02:35:35	52	0.3	8.61	0.0	Start Pumping Spacer												
07/17/2015	02:36:38	157	1.0	10.94	1.0													
07/17/2015	02:38:18	262	2.5	10.95	5.0													
07/17/2015	02:39:58	322	3.5	10.88	10.6													
07/17/2015	02:41:38	323	3.4	12.31	3.3													
07/17/2015	02:42:30	345	3.3	12.58	6.2	Start Mixing Lead Slurry												
07/17/2015	02:43:18	318	3.3	12.58	8.9													
07/17/2015	02:44:58	500	4.8	12.58	16.3													
07/17/2015	02:46:38	685	6.2	12.56	26.2													
07/17/2015	02:48:18	607	6.2	12.57	36.5													
07/17/2015	02:49:58	593	6.3	12.55	46.9													

Well			Field		Job Start	Customer		Job Number
Waag 23 23			Wattenberg		Jul/17/2015	Extraction Oil & Gas		2161719
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
07/17/2015	02:53:18	554	6.3	12.54	67.8			
07/17/2015	02:54:58	503	6.3	12.53	78.2			
07/17/2015	02:56:38	471	6.3	12.51	88.7			
07/17/2015	02:58:18	480	6.3	12.53	99.1			
07/17/2015	02:59:58	458	6.2	12.53	109.5			
07/17/2015	03:01:38	408	6.3	12.52	120.0			
07/17/2015	03:03:18	381	6.3	12.51	130.4			
07/17/2015	03:04:58	352	6.2	12.50	140.8			
07/17/2015	03:06:38	212	4.8	12.54	151.0			
07/17/2015	03:08:18	134	3.3	12.58	156.9			
07/17/2015	03:09:32	69	3.0	12.54	161.0	End Lead Slurry		
07/17/2015	03:09:58	80	2.7	12.60	162.1			
07/17/2015	03:10:24	-12	2.3	13.03	0.2	Shut Down		
07/17/2015	03:11:38	-1	0.0	12.99	0.3			
07/17/2015	03:13:18	107	2.9	15.52	1.4			
07/17/2015	03:13:38	104	2.3	15.65	2.3	Start Mixing Tail Slurry		
07/17/2015	03:14:58	105	2.3	15.68	5.3			
07/17/2015	03:16:38	603	6.0	15.55	11.4			
07/17/2015	03:18:18	553	6.2	15.57	21.8			
07/17/2015	03:19:58	97	2.2	15.57	29.2			
07/17/2015	03:21:38	379	4.8	15.73	36.6			
07/17/2015	03:23:18	350	4.8	15.81	44.7			
07/17/2015	03:24:58	362	4.8	15.79	52.8			
07/17/2015	03:26:38	560	6.3	15.83	62.0			
07/17/2015	03:28:18	562	6.3	15.76	72.4			
07/17/2015	03:29:58	560	6.2	15.88	82.9			
07/17/2015	03:31:31	600	6.3	15.83	92.5	End Tail Slurry		
07/17/2015	03:31:38	609	6.3	15.83	93.3			
07/17/2015	03:33:18	30	0.0	-0.04	0.4			
07/17/2015	03:34:58	5	0.0	0.03	0.4			
07/17/2015	03:36:38	3	0.0	0.03	0.4			
07/17/2015	03:38:18	7	0.0	0.04	0.0			
07/17/2015	03:38:47	74	0.9	2.64	0.0	Drop Top Plug		
07/17/2015	03:39:58	47	3.4	8.84	3.4			
07/17/2015	03:41:38	34	2.5	9.38	8.5			
07/17/2015	03:43:18	39	3.0	8.63	13.1			
07/17/2015	03:44:58	48	3.3	8.49	18.3			
07/17/2015	03:46:38	116	5.2	9.95	23.7			
07/17/2015	03:48:18	206	6.1	9.98	34.0			
07/17/2015	03:49:58	219	6.3	10.09	44.3			
07/17/2015	03:51:38	311	7.7	10.10	55.1			
07/17/2015	03:53:18	312	7.7	10.10	67.9			
07/17/2015	03:54:58	311	7.7	10.09	80.6			
07/17/2015	03:56:38	306	7.7	10.09	93.4			
07/17/2015	03:58:18	310	7.7	10.09	106.3			
07/17/2015	03:59:58	307	7.7	10.09	119.1			
07/17/2015	04:01:38	275	7.4	10.10	131.7			
07/17/2015	04:03:18	284	7.3	10.09	143.9			
07/17/2015	04:04:58	334	7.7	10.10	156.3	Caught Plug At 150 bbls Away		
07/17/2015	04:06:38	654	7.4	10.10	168.7			
07/17/2015	04:08:18	766	7.4	10.10	181.1			
07/17/2015	04:09:58	938	7.4	10.09	193.4			
07/17/2015	04:11:38	1140	7.4	10.09	205.7			
07/17/2015	04:13:18	1382	7.4	10.09	218.0			

Well			Field		Job Start	Customer		Job Number
Waag 23 23			Wattenberg		Jul/17/2015	Extraction Oil & Gas		2161719
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
07/17/2015	04:16:38	1787	7.3	10.09	242.5			
07/17/2015	04:18:18	1990	7.3	10.08	254.8			
07/17/2015	04:19:58	2164	7.3	10.08	267.0			
07/17/2015	04:21:38	2301	7.3	8.54	279.2			
07/17/2015	04:23:18	1713	0.8	8.41	285.9			
07/17/2015	04:24:58	1719	1.9	8.40	289.0			
07/17/2015	04:26:38	1908	1.9	8.33	292.2			
07/17/2015	04:28:18	1873	1.9	8.32	295.4			
07/17/2015	04:28:33	1944	1.9	8.32	295.9	Displace 288 bbls Of Mud		
07/17/2015	04:29:58	2506	0.0	8.32	296.6			
07/17/2015	04:31:38	4	0.0	8.32	296.6			
07/17/2015	04:33:18	6	0.0	8.32	0.0			
07/17/2015	04:34:58	6	0.0	8.32	0.0			
07/17/2015	04:36:38	3	0.0	-0.01	0.1			
07/17/2015	04:38:18	7	0.0	-0.01	0.1			
07/17/2015	04:39:58	6	0.0	0.01	0.0			
07/17/2015	04:41:38	3	0.0	0.76	0.5			
07/17/2015	04:59:58	11	0.0	-0.01	0.0			
07/17/2015	05:01:38	10	0.0	-0.01	0.0			
07/17/2015	05:03:18	11	0.0	-0.02	0.0			
07/17/2015	05:04:58	11	0.0	0.00	0.0			
07/17/2015	05:06:38	10	0.0	-0.01	0.0			
07/17/2015	05:08:18	10	0.0	-0.01	0.0			
07/17/2015	05:09:58	9	0.0	-0.01	0.0			
07/17/2015	05:11:38	9	0.0	-0.01	0.0			
07/17/2015	05:13:18	9	0.0	-0.01	0.0			
07/17/2015	05:14:58	9	0.0	-0.01	0.0			
07/17/2015	05:16:38	9	0.0	-0.01	0.0			
07/17/2015	05:18:18	8	0.0	-0.02	0.0			
07/17/2015	05:19:58	8	0.0	-0.02	0.0			

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 5.3	N2	Mud	Maximum Rate 25.0	Total Slurry 251.0	Mud 0.0	Spacer 20.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 4986	Final 1913	Average 569	Bump Plug to 2520	Breakdown	Type	Volume bbl	Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 251.0 bbl		Displacement 288.0 bbl	Mix Water Temp 70 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 40.0 bbl		
						Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative Larry Siagel			Schlumberger Supervisor Justin Zika/Black			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		
						-	-		