

Cementing Treatment



Start Date	11/12/2017	Well	33-9-3L Buford
End Date	11/12/2017	County	WELD
Client	Confluence DJ LLC	State/Province	CO
Client Field Rep		API	05-123-45544
Service Supervisor	Wesley Bell	Formation	
Field Ticket No.		Rig	
District	Cheyenne, WY	Type of Job	Long String

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	8.92	9.63	36.00	1,546.00	1,546.00			
Open Hole	8.50			17,367.00	7,334.00	9.70		
Casing	4.78	5.50	20.00	17,358.00	7,334.00			

Shoe Length (ft): 15

HARDWARE

Bottom Plug Used?	Yes	Max Casing Pressure - Rated (psi)	12630
Bottom Plug Provided By	Customer	Max Casing Pressure - Operated (psi)	3000
Bottom Plug Size	5.5"	Pipe Movement	No
Top Plug Used?	Yes	Job Pumped Through	Casing
Top Plug Provided By	Customer	Top Connection Thread	Butress
Top Plug Size	5.5"	Top Connection Size	5.5"
Centralizers Used	Yes		
Landing Collar Depth (ft)	17,343		

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CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	8
Circulation Time (min)	3hrs	10 min SGS	9
Lost Circulation Prior to Cement Job	No	30 min SGS	11
Mud Density In (ppg)	10.75	Flare Prior to/during the Cement Job	No
Mud Density Out (ppg)	10.75	Gas Present	No
PV Mud In	22		
PV Mud Out	22		
YP Mud In	13		
YP Mud Out	13		

TEMPERATURE

Ambient Temperature (°F)	50	Slurry Cement Temperature (°F)	50
Mix Water Temperature (°F)	48	Flow Line Temperature (°F)	84

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	CD Spacer	11.0000					80.0000
Lead Slurry	P100-X2	12.5000	2.0761	11.84	850	1,737.0000	313.3000
Tail Slurry	P50-X1	13.5000	1.4774	7.45	1,800	2,659.0000	472.7000
Displacement 1	MMCR Water	8.3337				0.0000	10.0000
Displacement Final	Biocide and Clay Protection	8.3331				0.0000	375.1000

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Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Spacer	GELLANT WATER, GW-86	0.80	PPB
Spacer / Pre Flush / Flush	CD Spacer	SAND, S-8, Silica Flour, 200 Mesh	100.00	PCT
Spacer / Pre Flush / Flush	CD Spacer	SURFACTANT, SS-267, (BJS ONLY)	0.50	GPB
Spacer / Pre Flush / Flush	CD Spacer	Spacer Surfactant, SS-247, (BJS Only)	0.50	GPB
Lead Slurry	P100-X2	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Lead Slurry	P100-X2	IntegraSeal CELLO	0.13	LBS/SK
Lead Slurry	P100-X2	SPECIAL ADDITIVE, MPA-300	0.10	BWOB
Lead Slurry	P100-X2	CEMENT, ASTM TYPE III	100.00	PCT
Lead Slurry	P100-X2	FLUID LOSS, FL-24, (BJS Only)	0.30	BWOB
Lead Slurry	P100-X2	RETARDER, HIGH TEMP, R-31 (BJS Only)	0.20	BWOB
Lead Slurry	P100-X2	BONDING AGENT, BA-60	0.40	BWOB
Tail Slurry	P50-X1	FLUID LOSS, FL-66	0.20	BWOB
Tail Slurry	P50-X1	CEMENT, CLASS G	50.00	PCT
Tail Slurry	P50-X1	Flyash (Rockies)	50.00	PCT
Tail Slurry	P50-X1	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Tail Slurry	P50-X1	GELLANT WATER, GW-86	0.10	BWOB
Tail Slurry	P50-X1	EXTENDER, BENTONITE	2.00	BWOB
Tail Slurry	P50-X1	AR-20	0.10	BWOB
Displacement 1	MMCR Water	AR-61	0.10	GPB
Displacement Final	Biocide and Clay Protection	BIOCIDE, ALPHA 544	0.01	GPB
Displacement Final	Biocide and Clay Protection	ASF-50	0.08	GPB

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TREATMENT SUMMARY

Fluid	Rate (bpm)	Fluid Vol. (bbls)
CD Spacer	0.00	80.00
P100-X2	0.00	309.20
P50-X1	0.00	473.50
MMCR Water	0.00	10.00
Biocide and Clay Protection	0.00	374.10

	Min	Max	Avg
Pressure (psi)	0	3000	1500
Rate (bpm)	0	6.3	3.15

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	Amount of Cement Returned/Reversed	80bbls
Calculated Displacement Volume (bbls)	385	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	377	Amount of Spacer to Surface	80bbls
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	4bbls
Bump Plug Pressure (psi)	2800	Total Volume Pumped (bbls)	1253bbls
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
		Plug Catcher	No

Customer Name Confluence Resources
 Well Name Buford 33-9-3L
 Job Type Long String

District Cheyenne
 Supervisor Wesley Bell
 Engineer Jason Creel



Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	11/12/2017 7:30	Mobilization	Arrive on Location		48					Arrive on location, requested time was 09:00
										Spot and rig in bulk unit, pump unit, and compressor trailer. Run all water, bulk, air, and iron.
2	11/12/2017 7:40	Operational	Rig Up		50					
3	11/12/2017 9:00	StandBy	Customer		85					Wait for rig to finish circulating the well
4	11/12/2017 10:00	Operational	Safety Meeting		53					Hold pre job STEACS with rig crew and pump crew. Review job procedure and hazards
5	11/12/2017 10:42	Operational	Start Pumping	Cement Pump Truck		8.34	2	2	150	Fill lines with fresh water
6	11/12/2012 10:45	Operational	Pressure Test	Cement Pump Truck	54	8.34	0.5		5000	Test lines, no leaks
7	11/12/2012 10:54	Operational	Pump Spacer	Cement Pump Truck	56	11	5	80	150	Pump 80bbls of spacer at 11ppg
8	11/12/2012 11:11	Operational	Pump Lead Cement	Cement Pump Truck	58	12.5	5	73.5	200	Pump 73.5bbls of Lead 1 cement at 12.5ppg. 2000sk, Y: 2.06, WR: 11.77
9	11/12/2012 11:24	Operational	Pump Lead Cement	Cement Pump Truck	58	12.5	6.3	239.8	250	Pump 239.8bbls of Lead 2 cement at 12.5ppg, 6500sk, Y: 2.07, WR: 11.81, Extra retarder added into mix water
10	11/12/2012 12:10	Operational	Pump Tail Cement	Cement Pump Truck	60	13.5	5.6	472.7	350	Pump 472.7bbls of Tail cement at 13.5ppg, 18000sk, Y: 1.47, WR: 7.43.
11	11/12/2012 13:36	Operational	End Pumping	Cement Pump Truck	69					Finish mixing cement, clean pumps and lines to open top tanks
12	11/12/2012 13:44	Operational	Drop Bottom Plug	Cement Pump Truck	57	8.34	4	10	200	Drop bottom 5.5" plug, displace 10bbls of water with 1gal AR-61
13	11/12/2012 13:48	Operational	Drop Top Plug	Cement Pump Truck	63	8.34	5			Drop top 5.5" rubber plug
										Displace with fresh water, Spacer to surface at 210 away(not counting 10bbls below top plug), shut down briefly to swap returns to open top tanks
14	11/12/2012 13:50	Operational	Pump Displacement	Cement Pump Truck	64	8.34	6	300	2600	
15	11/12/2012 14:44	Operational	Other (See comments)	Cement Pump Truck	76	8.34	4	0	2500	Slow rate, cement to surface at 290away
16	11/12/2012 15:03	Operational	Other (See comments)	Cement Pump Truck	76	8.34	2	65	2300	Slow rate for last 20bbls
17	11/12/2012 15:05	Operational	Land Plug	Cement Pump Truck	67	8.34	2	3	2100	Land bottom plug, burst at 3100psi
18	11/12/2012 15:10	Operational	Land Plug	Cement Pump Truck	67	8.34	2	10	2200	Land Top plug, Bump up to 2800psi, hold for 3min
19	11/12/2012 15:14	Operational	Check Floats	Cement Pump Truck	68	8.34				Floats did not hold on first 2attempts, on third attempt floats held, 4bbls back to pump
20	11/12/2012 15:32	Operational	Rig Down	Cement Pump Truck	73					Rig down all BJ lines and units
21	11/12/2012 17:00	Mobilization	Leave Location		74					All BJ equipment and crew leave location



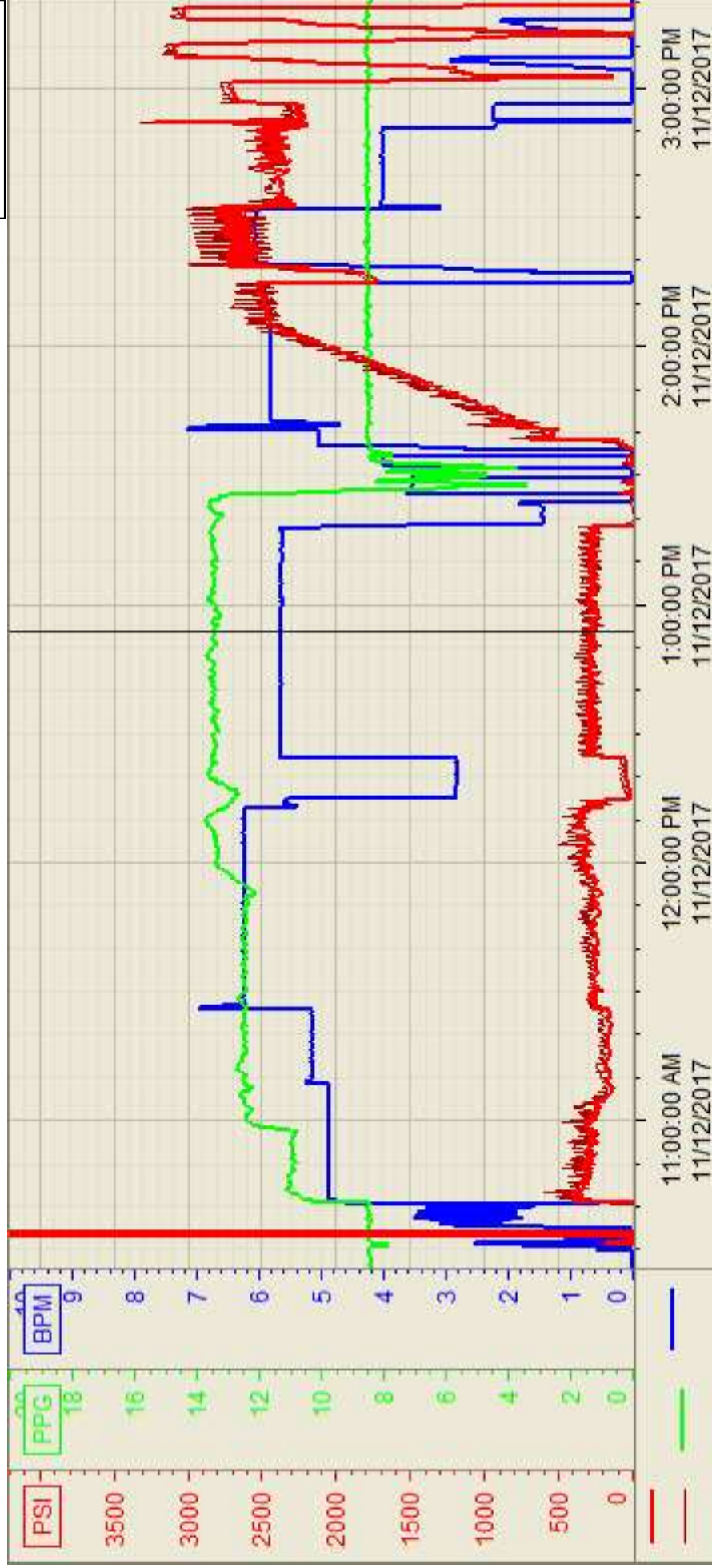
Print Date/Time

11/12/2017 3:50:00 PM

Customer: Confluence Resources

Well Number: 33-9-3L

Lease Info: Buford



Name	Y value	X value/time stamp	Tag name Y
1 DS - Press (PSI)	243.4	11/12/2017 12:53:37 PM	CementerDS_DISCHARGE_PRESS_DIAL
2 PS - Press (PSI)	221.4	11/12/2017 12:53:33 PM	CementerPS_DISCHARGE_PRESS_DIAL
3 DH - Density (PPG)	13.40	11/12/2017 12:53:31 PM	CementerDENSITY2_ACTUAL_RATE
4 Combined Rate	5.64	11/12/2017 12:53:41 PM	CementerFlow_Combined
5			

Source: Control1 3:49:55 PM