

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Chad Johnson	RIG	True 38
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Previous Casing	8.92	9.63	36.00	1,574.00	1,574.00	
Open Hole	8.50	0.00	0.00	18,643.00	7,333.00	5.00
Casing	4.78	5.50	20.00	18,628.00	7,333.00	

HARDWARE

Bottom Plug Used?	No	Centralizers Quantity	221.00
Top Plug Used?	Yes	Landing Collar Depth (ft)	18,604
Top Plug Provided By	Non BJ	Pipe Movement	None
Top Plug Size	5.500	Job Pumped Through	Manifold
Centralizers Used	Yes		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud Out	9
Circulation Prior to Job	Yes	Solids Present at End of Circulation	No
Lost Circulation Prior to Cement Job	No	10 sec SGS	10
Mud Density In (ppg)	10.50	10 min SGS	22
Mud Density Out (ppg)	10.50	30 min SGS	28
PV Mud In	25	Flare Prior to / during the Cement Job	No
PV Mud Out	25	Gas Present	No
YP Mud In	9		

TEMPERATURE

Ambient Temperature (°F)	65.00	Mix Water Temperature (°F)	60.00
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Client: Bayswater Exploration & Production, LLC

Well: LEFFLER #1-26-28HN

Well API: 05-123-49491

Start Date: 8/11/2019

End Date: 8/12/2019



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	12.0000			0.00				28.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.5000			0.00				26.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8295	9.87	0.00	6,905.00	935	1711.0000	304.7000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4772	7.45	6,905.00	11,693.00	1800	2659.0000	473.6000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0.00	0	0.0000	10.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	401.6000

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FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.1000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	IntegraCare EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.0700	BWOB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, SR-61L	0.1000	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB

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DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	32.00
Calculated Displacement Vol (bbls)	413.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	413.00	Amt of Spacer to Surface	80.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	5.00
Bump Plug Pressure (psi)	2400.00	Total Volume Pumped (bbls)	1303.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

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Production, LLC

Well: LEFFLER #-26-28HN

Well
API: 05-123-49491

Start
Date: 8/11/2019

End
Date: 8/12/2019



BJ Cementing Event Log

Long String - Cheyenne, WY - Chad Johnson

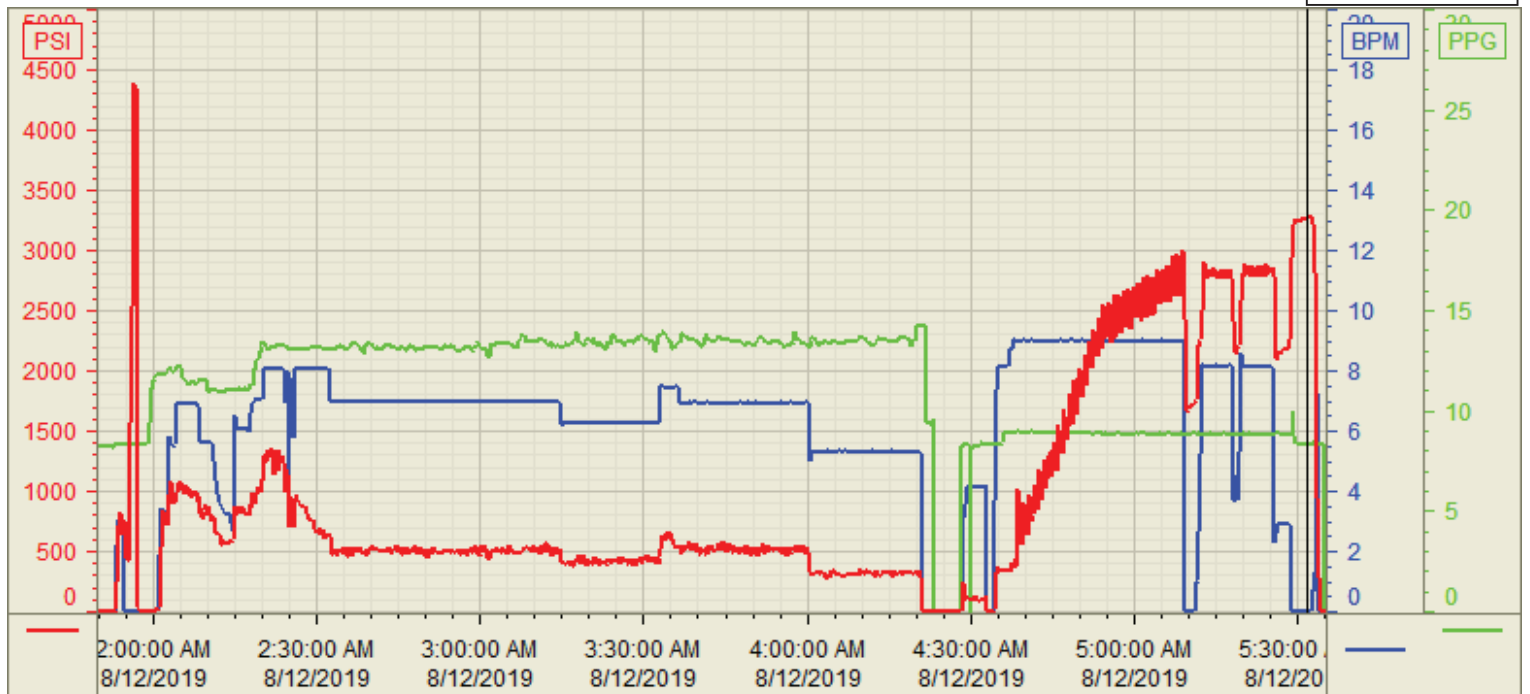
SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	08/11/2019 16:30	Callout					Crew called out requested on location for 2230
2	08/11/2019 21:00	Arrive on Location					Crew arrived on location
3	08/11/2019 21:05	STEACS Briefing					Safety meeting
4	08/11/2019 21:20	Spot Units					Spotted all units
5	08/11/2019 21:25	Rig Up					Rigged up all equipment
6	08/11/2019 23:00	Client					Waiting on rig to circulate the well
7	08/12/2019 01:30	STEACS Briefing					Safety meeting
8	08/12/2019 01:57	Prime Up	8.3400	3.00	5.00	500.00	Fill lines
9	08/12/2019 02:00	Pressure Test					Pressure test lines to 5000 psi
10	08/12/2019 02:06	Pump Spacer		5.00	80.00	600.00	Pump 28 bbls spacer at 12 ppg, 26 bbls at 11.5 ppg, 26 bbls at 11 ppg
11	08/12/2019 02:23	Pump Lead Cement	13.2000	7.00	305.00	700.00	Pump lead cement (935 sks, 1.83 Y, 9.87 gal/sk)
12	08/12/2019 03:10	Pump Tail Cement	13.5000	7.00	505.00	500.00	Pump tail cement (1915 sks, 1.48 Y, 7.45 gal/sk)
13	08/12/2019 04:28	Other (See comment)					Shutdown
14	08/12/2019 04:33	Wash Pumps and Lines					Wash pumps and lines to pit
15	08/12/2019 04:38	Drop Top Plug					Drop top plug
16	08/12/2019 04:39	Pump Displacement	8.3400	8.00	400.00	2800.00	Pump displacement
17	08/12/2019 05:14	Spacer Back-to-Surface					Spacer back to surface, 80 bbls spacer back
18	08/12/2019 05:28	Cement Back-to-Surface					Cement back to surface, 32 bbls cement back
19	08/12/2019 05:31	Other (See comment)	8.3400	3.00	13.00	2400.00	Slow pump rate
20	08/12/2019 05:34	Land Plug					Land plug at 2400 psi, took to 3400 psi
21	08/12/2019 05:37	Check Floats					Check floats, floats holding, 5 bbls back
22	08/12/2019 05:40	STEACS Briefing					Safety meeting
23	08/12/2019 06:00	Rig Down					Rigged down all equipment
24	08/12/2019 07:30	Leave Location					Crew departed location

Customer: Bayswater
Well Number: I-26-28HN
Lease Info: Leffler



Print Date/Time

8/12/2019 6:01:50 AM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	3278.6	8/12/2019 5:31:49 AM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	8.33 i.	8/12/2019 5:31:49 AM i.	Cementer\DENSITY_ACTUAL_RATE
3	Combined Rate	0.00	8/12/2019 5:31:51 AM	Cementer\Flow_Combined
4				
5				
				Source: Control1 6:01:44 AM