

## Cementing Treatment



<b>Start Date</b>	3/27/2018	<b>Well</b>	G & D HANKS U-27-28HN
<b>End Date</b>	3/27/2018	<b>County</b>	WELD
<b>Client</b>	BAYSWATER EXPLORATION & PRODUCTION, LLC	<b>State/Province</b>	CO
<b>Service Supervisor</b>	Wesley Bell	<b>API</b>	05-123-46033
<b>District</b>	Cheyenne, WY	<b>Rig</b>	True 38
		<b>Type of Job</b>	Surface

### WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Open Hole	13.50			1,563.00	1,563.00	30.00
Casing	8.92	9.63	36.00	1,553.00	1,553.00	

Shoe Length (ft): 42

### HARDWARE

<b>Top Plug Used?</b>	Yes	<b>Max Casing Pressure - Rated (psi)</b>	3520
<b>Top Plug Provided By</b>	Customer	<b>Max Casing Pressure - Operated (psi)</b>	950
<b>Top Plug Size</b>	9 5/8	<b>Pipe Movement</b>	No
<b>Centralizers Used</b>	Yes	<b>Job Pumped Through</b>	Casing
<b>Centralizers Quantity</b>	16	<b>Top Connection Thread</b>	LTC
<b>Landing Collar Depth (ft)</b>	1,513	<b>Top Connection Size</b>	9 5/8

### CIRCULATION PRIOR TO JOB

<b>Well Circulated By</b>	Customer	<b>PV Mud Out</b>	1
<b>Circulation Prior to Job</b>	Yes	<b>YP Mud In</b>	3
<b>Circulation Time (min)</b>	60	<b>YP Mud Out</b>	3
<b>Mud Density In (ppg)</b>	8.5	<b>10 sec SGS</b>	1
<b>Mud Density Out (ppg)</b>	8.5	<b>10 min SGS</b>	1
<b>PV Mud In</b>	1	<b>30 min SGS</b>	1

### TEMPERATURE

<b>Ambient Temperature (°F)</b>	40	<b>Slurry Cement Temperature (°F)</b>	55
<b>Mix Water Temperature (°F)</b>	50	<b>Flow Line Temperature (°F)</b>	72

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### BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.3337			0.00				20.0000
Lead Slurry	BJCem S100.03.1C	12.0000	2.5298	14.86	0.00	1,050.00	265	667.0000	119.4000
Tail Slurry	BJCem S100.03.1C	12.5000	2.2256	12.59	1,050.00	500.00	150	336.0000	59.6000
Displacement Final	Water	8.3337			0.00			0.0000	116.6000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Water	Fresh Water	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	Foam Preventer, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A- 7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A- 7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.03.1C	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.03.1C	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
Tail Slurry	BJCem S100.03.1C	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Displacement Final	Water	Fresh Water	100.0000	PCT

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### DISPLACEMENT AND END OF JOB SUMMARY

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Displaced By	BJ Services	Cement returns During Job	Yes
Calculated Displacement Volume (bbls)	116.6	Amount of Cement Returned/Reversed	36
Actual Displacement Volume (bbls)	114	Method Used to Verify Returns	Visual
Did Float Hold?	Yes	Amount Bled Back After Job	0.5
Bump Plug	Yes	Total Volume Pumped (bbls)	315.6
Bump Plug Pressure (psi)	950	Top Out Cement Spotted	No
Were Returns Planned at Surface	Yes	Lost Circulation During Cement Job	No

Customer Name Bayswater  
 Well Name G&D Hanks U-27-28HN  
 Job Type Surface

District Cheyenne  
 Supervisor Wesley Bell  
 Engineer Oscar Medrano

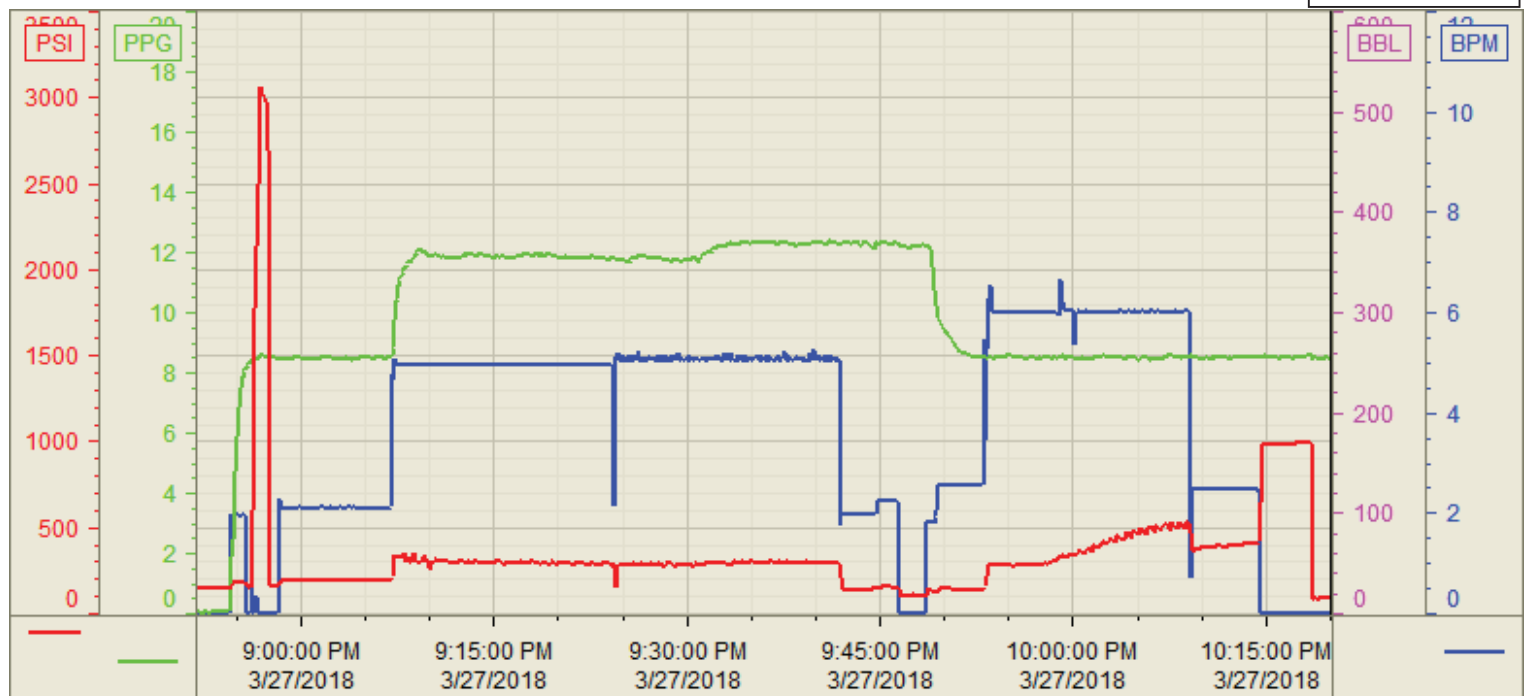


Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	3/27/2018 14:12	Mobilization	Callout		1					Crew called out for job, requested time on location was 18:30.
2	3/27/2018 16:40	Mobilization	Arrive on Location		48					Crew and all equipment on location
3	3/27/2018 17:00	Operational	Spot Units		49					spot in all units
4	3/27/2018 17:10	Operational	Rig Up	Cement Pump Truck	50					Rig in all BJ equipment, iron/water/bulk/air
5	3/27/2018 18:00	StandBy	Customer		85					Wait for rig to run casing and circulate bottoms up
6	3/27/2018 20:30	Operational	Safety Meeting	Cement Pump Truck	53					Hold STEACS briefing with rig crew and pump crew. Review job procedures and job hazards.
7	3/27/2018 21:10	Operational	Pressure Test	Cement Pump Truck	54	8.34	2	2	2900	Fill lines and pressure test with fresh water, no leaks, good test.
8	3/27/2018 21:13	Operational	Start Pumping	Cement Pump Truck	55	8.34	2.5	20	50	Pump 20bbls of fresh water ahead with red dye
9	3/27/2018 21:21	Operational	Pump Lead Cement	Cement Pump Truck	58	12	5	119.4	120	Pump 119.4bbls of Lead cement at 12ppg, Y: 2.53, WR: 14.86, 265sk, 12.59, 150sk. Top of tail at 914'
10	3/27/2018 21:46	Operational	Pump Tail Cement	Cement Pump Truck	60	12.5	5	59.6	150	Pump 59.6 Tail cement at 12.5ppg, Y: 2.23, WR: 12.59, 150sk. Top of tail at 914'
11	3/27/2018 22:00	Operational	Drop Top Plug	Cement Pump Truck	63	8.34	0	0	0	Shut down, drop top rubber plug 9 5/8", Start displacement
12	3/27/2018 22:14	Operational	Pump Displacement	Cement Pump Truck	64	8.34	6	50	220	50bbls of displacement away
13	3/27/2018 22:17	Operational	Pump Displacement	Cement Pump Truck	64	8.34	6	15	330	65bbls of displacement away, water to surface
14	3/27/2018 22:20	Operational	Pump Displacement	Cement Pump Truck	64	8.34	6	15	450	80bbls of displacement away, cement to surface. 36bbls total to surface
15	3/27/2018 22:29	Operational	Land Plug	Cement Pump Truck	67	8.34	2.5	34	350	114bbls of displacement away, land plug, bump to 950psi.
16	3/27/2018 22:32	Operational	Check Floats	Cement Pump Truck		8.34	0	0	0	Check Floats, floats hold, 5bbls back to trucks
17	3/27/2018 22:35	Operational	Clean Pumps and Lines	Cement Pump Truck	62					wash up pump to 4sided tanks
18	3/27/2018 22:40	Operational	Rig Down	Cement Pump Truck	73					Rig out all BJ equipment, iron, bulk, air, and water
19	3/27/2018 23:30	Mobilization	Leave Location		74					All crew and pump leave location.

Customer: Bayswater  
Well Number: U-27-28HN  
Lease Info: G&D Hanks



Print Date/Time  
3/27/2018 10:22:22 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	86.8	3/27/2018 10:19:57 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	DH - Density (PPG)	8.51	3/27/2018 10:19:57 PM	Cementer\DENSITY2_ACTUAL_RATE
3	Combined Rate	0.00	3/27/2018 10:19:57 PM	Cementer\Flow_Combined
4				
5				

Source: Control1 10:22:17 PM