



Great Western Operating Company

Ottesen LE 06-351HNX

API # 05-123-48287

Surface

11/9/2018

Quote #: 22411

Execution #: 12917



Great Western Operating Company, LLC

Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202

Dear Great Western Operating Company, LLC,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,
Jason Creel
Field Engineer I | (307) 256-0306 | Jason.Creel@BJServices.com

Field Office
1716 East Allison Rd., Cheyenne WY. 82007 | (307) 638-5585

Sales Office
999 18th St. Suite 1200, Denver, CO. 80202 | (281) 408-2361

Cementing Treatment



Start Date 11/9/2018 **Field Ticket#** FT-12917-C6D3L20202-16118
End Date 11/9/2018 **Well** OTTESEN LE #06-351HNX
Client Great Western Operating Company LLC **API#** 05-123-48287
Service Sup. Hector Montoya **County** WELD
District Cheyenne, WY **State/Province** CO
Type of Job Surface **Project ID** PRJ1012480
Execution ID EXC-12917-C6D3L202

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50			1,862.00	1,777.00	30.00		
Casing	8.92	9.63	36.00	1,862.00	1,777.00		J-55	LTC

Shoe Length (ft): 41

HARDWARE

Bottom Plug Used? Yes **Landing Collar Depth (ft)** 1,820
Bottom Plug Provided By Non BJ **Max Casing Pressure - Rated (psi)** 3,520.00
Bottom Plug Size 9.625 **Max Casing Pressure - Operated (psi)** 2,816.00
Centralizers Used Yes **Job Pumped Through** No Manifold
Centralizers Quantity 17.00 **Top Connection Thread** LTC
Centralizers Type Bow **Top Connection Size** 9.625

CIRCULATION PRIOR TO JOB

Well Circulated By Rig **Mud Density In (ppg)** 8.30
Circulation Prior to Job Yes **Solids Present at End of Circulation** No
Circulation Time (min) 30.00 **Flare Prior to/during the Cement Job** No
Circulation Rate (bpm) 6.00 **Gas Present** No
Lost Circulation Prior to Cement Job No

TEMPERATURE

Ambient Temperature (°F) 46.00 **Slurry Cement Temperature (°F)** 52.00
Mix Water Temperature (°F) 46.00

Cementing Treatment



BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.3300						20.0000
Tail Slurry	BJCem S100.3.XC	14.5000	1.3902	6.80	1,803.00	837	1,163.0000	207.0000
Displacement Final	Water	8.3300					0.0000	136.1000

Fluid Type	Fluid Name	Component	Concentration	UOM
Tail Slurry	BJCem S100.3.XC	FOAM PREVENTER, FP-13L	0.0060	GALS/SK
Tail Slurry	BJCem S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	Amount of Cement Returned/Reversed	25.00
Calculated Displacement Volume (bbls)	139.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	139.00	Pressure Left on Casing (psi)	0.00
Did Float Hold?	Yes	Amount Bled Back After Job	0.50
Bump Plug	Yes	Total Volume Pumped (bbls)	139.00
Bump Plug Pressure (psi)	1,220.00	Top Out Cement Spotted	No
Were Returns Planned at Surface	Yes	Lost Circulation During Cement Job	No
Cement returns During Job	Full		

GREAT WESTERN
OTTESEN 06-351HNX - Entry Blank - Surface

