



Great Western Operating Company, LLC

OTTESEN LE 06-050HN

API # 05-123-48286

Surface

January 05, 2020

Quote #: QUO-40834-V9K2T7

Execution #: EXC-23670-R5P7R102



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

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Eric Dewit	RIG	Ikon 12
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lbs/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Open Hole	13.50			1,770.00	1,761.00	30.00		
Casing	8.92	9.63	36.00	1,770.00	1,761.00		J-55	LTC

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,725.20
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	2,720.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	1,800.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	17.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	LTC
Landing Collar Depth (ft)	1,725.20	Top Connection Size	9.625

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density Out (ppg)	8.50
Circulation Prior to Job	Yes	Solids Present at End of Circulation	No
Lost Circulation Prior to Cement Job	No	Flare Prior to / during the Cement Job	No
Mud Density In (ppg)	8.50	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	41.00	Slurry Cement Temperature (°F)	51.00
Mix Water Temperature (°F)	50.00		

Client: Great Western Operating Company, LLC

Well: OTTESEN LE #06-050HN

Well API: 05-123-48286

Start Date: 1/5/2020

End Date: 1/5/2020

Field Ticket #: FT-23670-R5P7R10201-605981442



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	Water	8.3300			0.00				20.0000
Tail Slurry	BJCem S100.3.XC	14.5000	1.3902	6.81	0.00	1,725.00	800	1,113.0000	198.1000
Displacement Final	Water	8.3300			0.00			0.0000	130.1000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	BJCem S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	35.00
Calculated Displacement Vol (bbls)	133.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	133.00	Amt of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	0.50
Bump Plug Pressure (psi)	1,580.00	Total Volume Pumped (bbls)	353.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Yes	Lost Circulation During Cement Job	No

BJ Cementing Event Log

Surface - Cheyenne, WY - Eric Dewit

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/05/2020 08:00	Callout					Customer calls with an RTS of 14:00 on 1/5/1/20
2	01/05/2020 08:00	Other (See comment)					Crew gets equipment and materials ready to travel to location
3	01/05/2020 11:00	Depart for Location					
4	01/05/2020 14:00	Spot Units					
5	01/05/2020 14:30	Rig Up					Rig everything up
6	01/05/2020 15:00	STEACS Briefing					Pre-job safety meeting with BJ crew, Rig crew, and company man
7	01/05/2020 15:12	Other (See comment)	8.3400	5.00	2.00	86.00	Load pumps and lines
8	01/05/2020 15:13	Pressure Test	8.3400	0.00	0.00	3812.00	
9	01/05/2020 15:17	Pump Spacer	8.3400	5.00	20.00	213.00	Pump 20 bbls of fresh water + Dye
10	01/05/2020 15:21	Drop Top Plug					
11	01/05/2020 16:21	Pump Displacement	8.3400	7.00	0.00	148.00	
12	01/05/2020 16:24	Spacer Back-to-Surface	8.3400	7.00	75.00	666.00	
13	01/05/2020 16:36	Cement Back-to-Surface	8.3400	7.00	98.00	827.00	35 bbls of cement to surface
14	01/05/2020 16:39	Other (See comment)	8.3400	2.80	110.00	622.00	Drop rate to land the plug
15	01/05/2020 16:41	Land Plug	8.3400	2.80	133.00	1580.00	30 min csg test: start 1577 psi end 1602 psi
16	01/05/2020 16:48	Check Floats	8.3400	0.00	0.00	0.00	Floats held (.5 bbls back)



JobMaster Program Version 4.02C1

Job Number:

Customer: Great Western

Well Name: Ottesen LE 06-050HN

