



Great Western Operating Company, LLC

Schneider HD 11-102HN

API # 05-123-46406

Surface

September 05, 2019

Quote #: QUO-35939-L6F8V6

Execution #: EXC-20984-K0T2W302



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	Gregory Black	RIG	Ikon 12
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 (%)	GRADE	THREAD
Open Hole	13.50	0.00	0.00	1,593.00	1,593.00	30.00		
Casing	8.92	9.63	36.00	1,593.00	1,579.300		J-55	LTC

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,546.15
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3512.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	2012.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	16.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	LTC
Landing Collar Depth (ft)	1,546.15	Top Connection Size	9.625

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	8.50
Circulation Prior to Job	No	Mud Density Out (ppg)	8.50
Circulation Time (min)	30.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	10.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	300.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	100.00	Slurry Cement Temperature (°F)	105.00
Mix Water Temperature (°F)	95.00		

Client: Great Western Operating Company, LLC

Well: SCHNEIDER HD 11-102HN

Well API: 05-123-46406

Start Date: 9/5/2019

End Date: 9/5/2019



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O 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	6.81	1,550.00	720	1001.0000	178.3000
Displacement 1	Water	8.3300					0.0000	118.5000

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	42.50
Calculated Displacement Vol (bbls)	118.50	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	118.50	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	1.50
Bump Plug Pressure (psi)	1310.00	Total Volume Pumped (bbls)	316.50
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Yes	Lost Circulation During Cement Job	No

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Start Date: 9/5/2019

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BJ Cementing Event Log

Surface - Cheyenne, WY

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	09/05/2019 10:15	Callout					Get to yard, pretrip equipment
2	09/05/2019 11:15	STEACS Briefing					journey management
3	09/05/2019 12:00	Depart for Location					left for location, location time of 16:30
4	09/05/2019 14:30	Arrive on Location					arrival on location
5	09/05/2019 15:50	STEACS Briefing					pre rig up steacs meeting
6	09/05/2019 15:55	Rig Up					rig up treating iron
7	09/05/2019 17:00	Rig					waiting for rig to run casing
8	09/05/2019 17:30	STEACS Briefing					pre-job safety meeting and job procedure with rig crew and company man
9	09/05/2019 17:40	Other (See comment)	8.3400	2.00	2.00	300.00	pump 2 bbls of H2O to fill pumps and lines
10	09/05/2019 17:42	Pressure Test	8.3400			2000.00	pressure test
11	09/05/2019 17:45	Pump Spacer	8.3400	3.00	20.00	120.00	pump 20 bbls of water with dye
12	09/05/2019 17:51	Pump Tail Cement	14.5000	5.00	178.00	300.00	lead=14.5 ;720 sks;178bbls;YIELD:1.39 cuft/sk;Mix water=6.81 gal/sks
13	09/05/2019 18:33	Drop Top Plug					shutdown to drop plug and prepare to wash pump and displace
14	09/05/2019 18:33	Pump Displacement	8.3400	5.00	20.00	500.00	pump displacement
15	09/05/2019 18:42	Pump Displacement	8.3400	5.40	20.00	677.00	pump displacement
16	09/05/2019 18:45	Pump Displacement	8.3400	5.50	30.00	675.00	pump displacement
17	09/05/2019 18:51	Pump Displacement	8.3400	5.50	20.00	723.00	pump displacement
18	09/05/2019 18:55	Pump Displacement	8.3400	3.00	20.00	550.00	slow rate to 3bpm last 20 bbls
19	09/05/2019 18:56	Land Plug					circulation pressure=675 ; final pressure=1310
20	09/05/2019 19:03	Spacer Back-to-Surface					spacer to surface bbls 20
21	09/05/2019 19:03	Cement Back-to-Surface					cement to surface bbls 42

22	09/05/2019 19:03	Other (See comment)					15 minute casing test would not hold
23	09/05/2019 19:30	Check Floats					bleed off/check floats 1.5 barrels back
24	09/05/2019 19:30	STEACS Briefing					brief on rig down
25	09/05/2019 19:36	Rig Down					rig down
26	09/05/2019 20:30	STEACS Briefing					journey management
27	09/05/2019 20:35	Leave Location					leave location



JobMaster Program Version 4.02C1
Job Number: 20984-KOT2W302
Customer: Great Western
Well Name: Schneider HD 11-102HN

