



Great Western Operating Company, LLC

Surface Post Job Report

B Farm LD 18-039HC (API 05-001-10090)

S:7 T:1S R:67W Adams CO



Great Western Operating Company, LLC

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

Dear Great Western Operating Company,

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,
Jacob Ojeda
Field Engineer I | (763) 516-3012 | jacob.ojeda@bjservices.com

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

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

Cementing Treatment



Start Date	12/29/2017	Well	B-FARM LD 18-039HC
End Date	12/29/2017	County	ADAMS
Client	GREAT WESTERN OPERATING COMPANY, LLC	State/Province	CO
Service Supervisor	Zach Hyde	API	05-001-10090
District	Cheyenne, WY	Type of Job	Surface

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50			1,712.00	1,712.00	25.00		
Casing	8.92	9.63	36.00	1,712.00			J-55	LTC

Shoe Length (ft.): 42

HARDWARE

Bottom Plug Used?	No	Landing Collar Depth (ft)	1,668
Top Plug Used?	Yes	Job Pumped Through	Iron
Top Plug Provided By	Customer	Top Connection Thread	LTC
Top Plug Size	9.625	Top Connection Size	9.625
Centralizers Used	Yes		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Lost Circulation Prior to Cement Job	No
Circulation Prior to Job	Yes	Solids Present at End of Circulation	No
Circulation Time (min)	30	Flare Prior to/during the Cement Job	No
Circulation Rate (bpm)	7	Gas Present	No
Circulation Volume (bbls)	126		

Cementing Treatment



TEMPERATURE

Ambient Temperature (°F)	50	Slurry Cement Temperature (°F)	70
Mix Water Temperature (°F)	70		

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.3300					20.0000
Tail Slurry	S100-22	14.5000	1.3901	6.78	760	1,056.0000	188.0000
Displacement Final	Water	8.3300				0.0000	128.2000

Fluid Type	Fluid Name	Component	Concentration	UOM
Tail Slurry	S100-22	CEMENT, ASTM TYPE III	100.00	PCT
Tail Slurry	S100-22	FOAM PREVENTER, FP-13L	0.03	GALS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
	Water	5.00	20.00			
	S100-22	5.00	188.00			
	Water	5.00	128.20			

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Were Returns Planned at Surface	Yes
Calculated Displacement Volume (bbls)	128	Cement returns During Job	Yes
Actual Displacement Volume (bbls)	128	Amount of Cement to Surface	20 bbls
Did Float Hold?	Yes	Amount Bled Back After Job	2400
Bump Plug	Yes	Top Out Cement Spotted	No
Bump Plug Pressure (psi)	600	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	No
Number of Plugs			

Customer Name Great Weastern
 Well Name 18-039HC B-FARM LD 18-039HC
 Job Type Surface

District Cheyenne
 Supervisor Zach Hyde
 Engineer _____

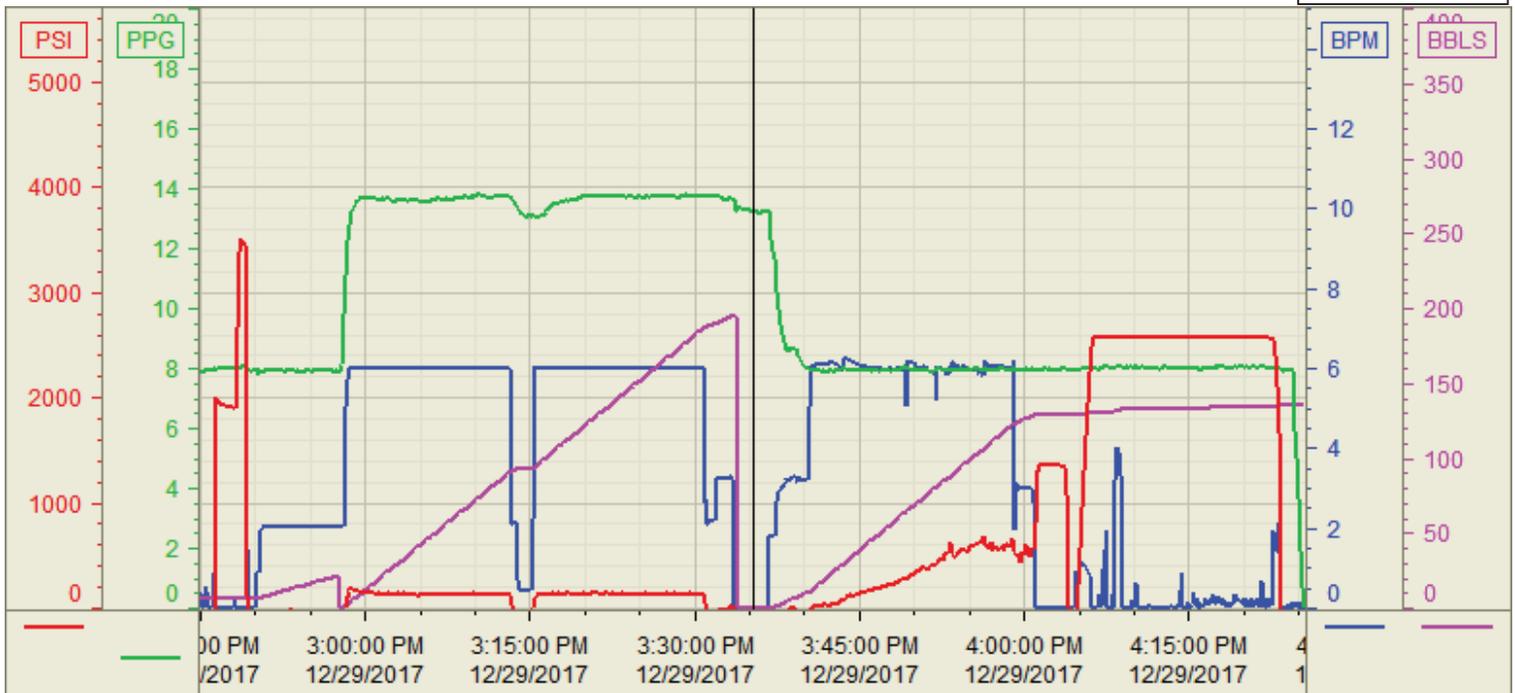


Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	12/29/2017 5:00		Call Out							Crew gets called out. Requested time was 1100
2	12/29/2017 7:00		Depart Facility							Crew leaves facility
3	12/29/2017 8:00		On Location							On location at 800
4	12/29/2017 8:00		Wait							Crew waits for rig to start running casing so we can spot in
5	12/29/2017 10:00		Rig Up							Crew rigs up iron and hoses needed for the job
6	12/29/2017 10:00		Wait							Crew waits for rig to finish running casing
7	12/29/2017 14:30		Safety Meeting							Crew has safety meeting with company man and rig crew discussing the job
8	12/29/2017 14:37		Fill Lines			8.33	2	5	0	Fill lines 5 bbls at 2 bpm
9	12/29/2017 14:47		Pressure Test							Pressure test to 3500 psi
10	12/29/2017 14:57		Water Spacer			8.33	4	15	150	15 bbls of water spacer at 4 bpm with 50 psi
11	12/29/2017 15:05		Primary			14.5	6	191	150	191 bbls of Primary cement at 14.5 ppg(760 sks, 1.39 yld , 6.78gal/sk) at 6 bpm with 150 psi
12	12/29/2017 15:40		Shutdown							Shutdown
13	12/29/2017 15:47		Drop Plug							Drop top plug
14	12/29/2017 15:47		Displacement			8.33	4	10	50	10 bbls of displacement away at 4 bpm washing up on top of the plug with 50 psi
15	12/29/2017 15:51		Displacement			8.33	6	110	600	118 bbls away at 6 bpm with
16	12/29/2017 16:06		Slow Rate							Slow rate last 10 bbls to 3 bpm to land the plug
17	12/29/2017 16:06		Displacement			8.33	3	8	600	128 bbls away at 3 bpm with 600 psi
18	12/29/2017 16:08		Land Plug							Landed plug went 500 psi over FCP which was 600 psi brought it up to 1100
19	12/29/2017 16:11		Check Floats		68					Check Floats
20	12/29/2017 16:12		Casing Test							2400 psi casing test for 15 minutes
21	12/29/2017 16:30		Check Floats							5 bbls back
22	12/29/2017 16:30		Job Complete							Job complete got 20 bbls cement to surface
23	12/29/2017 17:00		Rig Down							Rig down
24	12/29/2017 17:00		Depart Location							Depart location
25										
26										
27										
28										
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32										
33										
34										

Customer: Great Western
 Well Number: 18-039HC B-FARM
 Lease Info:



Print Date/Time
 12/29/2017 5:51:42 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	-82.5	12/29/2017 3:35:18 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Den2 - Discharge Density (PPG)	13.26	12/29/2017 3:35:18 PM	Cementer\DENSITY2_ACTUAL_RATE
3	Down Hole Total (BBLS)	0.0 i.	12/29/2017 3:35:17 PM i.	Cementer\DOWNHOLE_FLOW_TOTAL
4	Combined Rate (BPM)	0.00 i.	12/29/2017 3:35:17 PM i.	Cementer\Flow_Combined
5				

Source: Control1 5:51:38 PM