



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Marcus LD 11-361HN 05-123-43945
S:34 T:1N R:67W Weld CO

CallSheet #: 1384
Proposal #: 13980



SURFACE Post Job Report

Attention: Mr. Matt Mount | (303) 398-0373 | mmount@gwogco.com
Great Western Operating Company, LLC
1801 Broadway, Suite 500 | Denver, CO 80202

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,

Oscar Medrano

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@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



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1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	1822	25
Casing	Inner	9.625	8.921	36	n/a	0	1822	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Cement Pump	C938	Nepgen, AJ	182
Light Duty Pickups	3	Staples, Anthony	182
Bulk Trailer	E-527	Soto Jr., Ruben	182
Bulk Trailer	E696	Martinez, Michael	182

1.3 Timing

Event	Date/Time
Call Out	9/20/2017 13:00
Depart Facility	9/20/2017 14:00
On Location	9/20/2017 16:00
Rig Up Iron	9/20/2017 19:30
Job Started	9/20/2017 23:48
Job Completed	9/21/2017 01:42
Rig Down Iron	9/21/2017 01:50
Depart Location	9/21/2017 03:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	150 bbls
Rig Circulation Time	1 hours
Calculated Displacement	136.6 bbls
Actual Displacement	136 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	15 bbls
Well Topped Out	No

1.5 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	8.5 lb/gal
Well Fluid Density Out of Well	8.5 lb/gal

1.6 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	109 °F



1.7 Circulation

Lost Circulation Experienced
No

1.8 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	S100-22	Primary	14.50	1.39	6.76		762.00	188.42	0
1	3	Water	DisplacementFinal	8.33			42.00		129.00	0

1.9 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom	Start (gal)	End (gal)	Used (gal)
1	2	Primary	S100-22	AC3-10	Cement	100.00	%			
1	2	Primary	S100-22	ADF-20	Defoamer	0.03	gal/sk	5	0	5



2 Job Logs

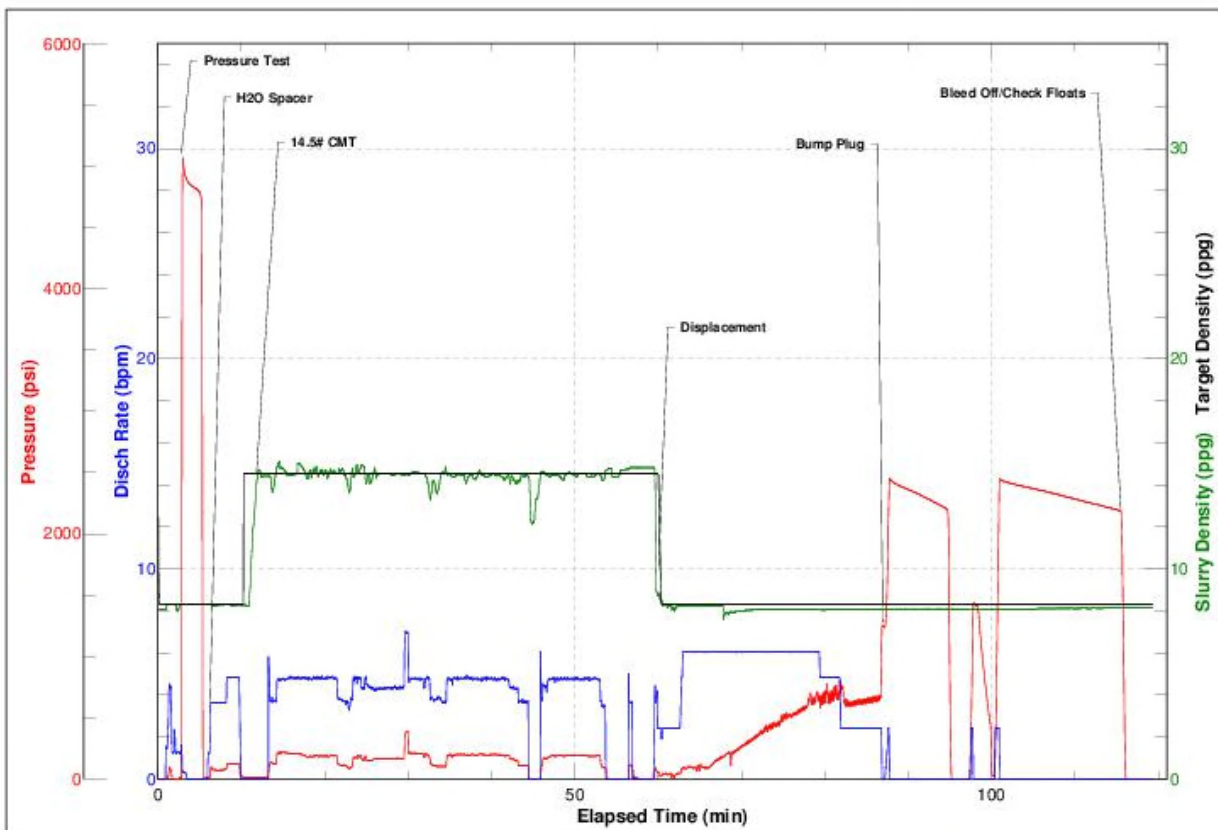
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Yard Call	9/20/2017	13:00					Pre-Trip Equipment
2	Leave Yard	9/20/2017	14:00					Convoy to Location
3	Arrive on Location	9/20/2017	16:00					Rig is Still Drilling
4	Spot Equipment	9/20/2017	19:00					
5	Pre-Rig Up Safety Meeting	9/20/2017	19:20					Have Briefing and assign Tasks
6	Rig Up	9/20/2017	19:30					
7	Pre-Job Safety Meeting	9/21/2017	23:30					Have Briefing with all Personnel on Location
8	Floor Rig Up	9/21/2017	23:40					Stab Head
9	Load Lines	9/21/2017	23:48	8.34	2	2	38	
10	Pressure Test	9/21/2017	23:50	8.34			5300	Make Sure Lines are Good
11	H2O Spacer	9/21/2017	23:53	8.34	4.8	20	122	20 Bbls Pre-Flush + Dye/Glitter Flakes
12	Cement	9/21/2017	23:58	14.5	4.7	183	211	Batch, Weigh, and Pump 762sks of 14.5# Cement (188.4 Bbls)
13	Cement	9/21/2017	00:30	14.5	2.5	5	101	Batched Up on Final Tub of CMT Job
14	Shut Down/Wash Up	9/21/2017	00:34	8.34				Wash Up Mixing Tub
15	Drop Plug	9/21/2017	12:39	8.34				Plug away, and Verified
16	Displace	9/21/2017	12:40	8.34	6	110	633	Pumped 6 Bpm for first 110 Bbls
17	Displace	9/21/2017	01:07	8.34	4.8	15	700	First Step Down
18	Displace	9/21/2017	01:10	8.34	2.4	11	640	Final Step Down Prior to Bumping
19	Bump Plug	9/21/2017	01:15	8.34			1260	Bumped Plug @ 136 Bbls and Got 15 Bbls of Good CMT to Surface
20	Casing Test	9/21/2017	01:16	8.34			2400	Casing Test to 2400, bled to 2180 in 15 min.
21	Check Floats	9/21/2017	01:42	8.34				2 Bbls Back
22	Pre-Rig Down Safety Meeting	9/21/2017	01:45					
23	Rig Down	9/21/2017	01:50					
24	Leave Location	9/21/2017	03:00					

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	71 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	1500 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

BJ JobMaster Program Version 4.02C1
Job Number: 1384
Customer: Great Western
Well Name: Marcus LD 11-361HN



BJ Services

Job Start: Wednesday, September 20, 2017