



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Kodak North FD 25-161HN 05-123-39343
S:26 T:6N R:67W WELD CO

CallSheet #: 465
Proposal #: 12792



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

Dear Mr. Mount,

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,

Holden Fauber

Sales | (307) 757-6083 | holdenfauber@altcem.com

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

Sales Office 475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158



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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	1515	15
Casing	Inner	9.625	8.921	36	n/a	0	1515	0

1.2 Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Bulk Trailer	503		Kresge, Adam	120
Bulk Trailer	506		Pena, James	120
Cement Pump	101		Hyde, Zack	120
Light Duty Pickups	5		Bell, Wesley	120
Plug Container	150519			
Swage	150541			

1.3 Timing

Event	Date/Time
Call Out	1/19/2017 01:30
Depart Facility	1/19/2017 06:00
On Location	1/19/2017 06:00
Rig Up Iron	1/19/2017 15:00
Job Started	1/19/2017 16:15
Job Completed	1/19/2017 17:45
Rig Down Iron	1/19/2017 17:55
Depart Location	1/19/2017 20:00

1.5 General Job Information

Metrics	Value
Well Fluid Density	8.3 lb/gal
Well Fluid Type	Water
Rig Circulation Time	1 hours
Calculated Displacement	113.8 bbls
Actual Displacement	113 bbls
Total Spacer to Surface	10 bbls
Total CMT to Surface	2 bbls
Well Topped Out	No

1.7 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	8.34 lb/gal
Well Fluid Density Out of Well	8.34 lb/gal

1.8 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	109 °F



1.9 Circulation

Lost Circulation Experienced
No

1.10 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem S100-22	Primary	14.50	1.39	6.76		626.00	155.00	0
1	3	Water	DisplacementFinal	8.33			42.00		113.80	0

1.11 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Primary	ALTCem S100-22	AC3-10	Cement	100.00	%
1	2	Primary	ALTCem S100-22	ADF-20	Defoamer	0.03	gal/sk



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		arrive on location	1/19/2017	06:00					crew was on same site pumping on a different well, requested time was 07:30
2		wait on rig	1/19/2017	06:00					Wait for rig to finish running casing before spotting to minimize time blocking part of location
3		Rig In	1/19/2017	15:00					rig in bulk units, pump truck, water lines, treating lines. Rig landed casing at 15:00 and circulated for one hour.
4		Safety meeting	1/19/2017	15:50					Discussed job procedure and associated hazards. Discussed staying clear of high pressure lines and not hammering on any line unless you know its bleed down
5	1	Fill lines	1/19/2017	16:15	8.34	1	4	0	Fill lines with fresh water
6		Pressure Test	1/19/2017	16:20	8.34	0.5	0	3000	Lines tested, no leaks
7	2	Pump Spacer	1/19/2017	16:23	8.34	2	20	150	Pump 20bbls fresh ahead with 1lb Red Dye in last 10
8	3	Pump Cement	1/19/2017	16:30	14.5	5	155	300	Pumped cement at 14.5ppg, Y:1.39, WR: 6.76, 101bbls of mix water
9		Shut Down	1/19/2017	17:00	14.5	0	0	0	Shut down, drop plug. Wire indicated plug dropped
10		Start Displacement	1/19/2017	17:04	8.34	0	0	0	Started displacement. Added Biocide at a ratio of .09gal/bbl. Casing is 9.625" 36# with a capacity of .0773 bbl/ft. calculated displacement is 113.8bbls
11	4	Pumping	1/19/2017	17:14	8.34	5	50	450	Caught pressure of 300psi at 30 bbls away
12	5	Decrease Pump Rate	1/19/2017	17:22	8.34	4	44	700	Decrease pump rate per customer request
13	6	Decrease Pump Rate	1/19/2017	17:24	8.34	3	6	500	Decrease pump rate per customer request
14	7	Bump Plug	1/19/2017	17:29	8.34	2	13.8	1000	Plug landed, Cement back to surface at 111bbls of displacement away. 2bbls back total.
15		Casing test	1/19/2017	17:30	8.34			2300	15minute Casing test at 2300psi
16		Check Floats	1/19/2017	17:45	8.34				Floats held, 1.5bbls back to surface
17		Rig Down	1/19/2017	17:50					Rig down all units, lines, cement head
18		Job complete	1/19/2017	19:00					
19		Leave location	1/19/2017	19:10					all crew leave location

3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	45 °F	50-80 °F
pH Level	5.5	5.5-8.5
Chlorides	100 mg/L	0-3000 mg/L
Total Alkalinity	10	0-1000
Total Hardness	<55 mg/L	0-500 mg/L
Carbonates	35 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	100 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

