



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Kodak North FD 25-121HN 05-123-39346
S:26 T:6N R:67W Weld CO

CallSheet #: 471
Proposal #: 12791



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	221	Kresge, Adam	120
Bulk Trailer	506	218	Pena, James	120
Cement Pump	101	201	Hyde, Zack	120
Light Duty Pickups	3		Bell, Wesley	120

1.3 Timing

Event	Date/Time
Call Out	1/20/2017 10:00
Depart Facility	1/20/2017 12:30
On Location	1/20/2017 13:45
Rig Up Iron	1/20/2017 23:30
Job Started	1/21/2017 00:56
Job Completed	1/21/2017 03:48
Rig Down Iron	1/21/2017 04:00
Depart Location	1/21/2017 05:30

1.5 General Job Information

Metrics	Value
Well Fluid Density	9.7 lb/gal
Well Fluid Type	WBM
Rig Circulation Time	1 hours
Calculated Displacement	113.8 bbls
Actual Displacement	113.5 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	7 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	9.7 lb/gal
Well Fluid Density Out of Well	9.7 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 (sks)	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		627.00	155.04	0
1	3	Water	DisplacementFinal	8.33			42.00		114.00	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	1/20/2017	13:45					Arrive on location, requested time 16:00
2		Waiting	1/20/2017	13:55					Wait for rig to run casing
3		Spot trucks	1/20/2017	23:30					Spot in equipment
4		Rig In	1/20/2017	23:35					Rig in water lines, product, treating lines. Rig landed casing at 23:55 and circulated till 00:40
5		Safety Meeting	1/21/2017	00:30					Hold safety meeting, discuss job procedure, identify hazards
6		Fill Lines	1/21/2017	00:56	8.34	1	2	0	Fill lines with fresh water
7		Pressure test	1/21/2017	01:00	8.34			3500	Test lines to 3500, no leaks
8		Pump PreFlush	1/21/2017	01:04	8.35	2.5	20	180	Pump fresh water ahead, add 1lb red dye to last ten bbls
9		Pump Tail Cement	1/21/2017	01:14	14.5	5	161	250	Mix and pump cement at 14.5ppg, Y:1.39, WR: 6.76, 650sks
10		Shut Down/Drop Plug	1/21/2017	01:41	8.34	0	0	0	Shut down pumps, drop top plug. Wire indicator showed plug away
11		Start Displacement	1/21/2017	01:45	8.34				Begin displacement. Calculated displacement is 114bbls. Float Collar is @1471' and the casing is 9.625" 36#
12		Pump	1/21/2017	01:56	8.34	5	50	350	first 50bbls of displacement, pressure caught at 27away
13		Pump	1/21/2017	02:03	8.34	5	37	600	First sign of red dye coming to surface
14		Decrease Pump Rate	1/21/2017	02:05	8.34	2	7	500	Decrease pump rate last 20bbls
15		Land plug	1/21/2017	02:14	8.34	2	19.5	1400	Final circulating pressure prior to bump was 900psi. Plug landed .5bbls early
16		Casing Test	1/21/2017	02:16	8.34			2300	Start casing test, 2300psi for 15minutes, pressure bleed down to 900psi
17		Casing test	1/21/2017	02:34	8.34			3000	Second attempt on casing test, 15 min, Pressure bled to 1900
18		Casing Test	1/21/2017	02:56	8.34			3100	Third attempt on casing test, 30min, Pressure bleed to 1490psi
19		Casing Test	1/21/2017	03:32	8.34			2500	Fourth test, 15min, pressure bleed to 1800psi. Customer satisfied



20		Check Floats	1/21/2017	03:50	8.34				Floats held, 1.5bbbls back to tanks.
21		Rig Out	1/21/2017	03:55					Rig out all units, water lines, bulk lines
22		Job compete	1/21/2017	04:45					
2		Leave location	1/21/2017	05:00					

3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	46 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	29 mg/L	0-3000 mg/L
Total Alkalinity	20	0-1000
Total Hardness	<55 mg/L	0-500 mg/L
Carbonates	70 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

