



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Kodak North FD 25-120HC 05-123-39387
S:26 T:6N R:67W Weld CO

CallSheet #: 476
Proposal #: 12793



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



Table of Contents

1 Job Details & Summary	3
1.1 Geometry	3
1.2 Equipment / People	3
1.3 Timing	3
1.5 General Job Information	3
1.7 Job Details	4
1.8 Job Details (cont.)	4
1.9 Circulation	4
1.10 Job Execution Information	4
1.11 Job Fluid Details	4
2 Job Logs	5
3 Water Analysis	6
4 Pump Diagrams	6



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	1514	20
Casing	Inner	9.625	8.921	36	n/a	0	1514	0

1.2 Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Cement Pump	101	201	Cook, John	136
Bulk Trailer	503		Dewit, Eric	136
Bulk Trailer	506		Montoya, Hector	136
Light Duty Pickups	3		Hyde, Andrew	136

1.3 Timing

Event	Date/Time
Call Out	1/21/2017 18:00
Depart Facility	1/21/2017 19:30
On Location	1/21/2017 20:30
Rig Up Iron	1/22/2017 06:00
Job Started	1/22/2017 07:53
Job Completed	1/22/2017 09:40
Rig Down Iron	1/22/2017 10:30
Depart Location	1/22/2017 11:30

1.5 General Job Information

Metrics	Value
Well Fluid Density	8.4 lb/gal
Well Fluid Type	Water
Rig Circulation Vol	250 bbls
Rig Circulation Time	1 hours
Calculated Displacement	114 bbls
Actual Displacement	114 bbls
Total Spacer to Surface	20 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	8.4 lb/gal
Well Fluid Density Out of Well	8.4 lb/gal

1.8 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	109 °F

1.9 Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
Yes	0	0	111

Circulation Details:

111 bbls into displacement lost returns got 2 bbls of cement to surface

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		650.00	160.72	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		Call Out	1/21/2017	18:30					BJ crew got called out and requested on location at 23:00
2		Depart Yard	1/21/2017	19:30					BJ crew left yard
3		Arrive On Location	1/21/2017	20:30					BJ crew arrived on location
4		Safety Meeting	1/21/2017	20:35					BJ crew talked about the hazards of spotting in equipment and rigging up
5		Waiting	1/21/2017	21:00					Wait for rig crew to finish running casing
6		Rig Up	1/22/2017	06:00					Rig up
7		Safety Meeting	1/22/2017	07:30					BJ and rig crew talked about the hazards of pumping the job
8		Fill Lines	1/22/2017	07:53	8.33	2	3	13	Pump 3 bbls of water to fill lines
9		Pressure Test	1/22/2017	07:57					Pressure test pumps and lines to 3000 psi
10		Pump Spacer	1/22/2017	08:00	8.33	2	20	80	Pump 20 bbls of dye water spacer
11		Pump Cement	1/22/2017	08:09	14.5	5	160	150	Mix up and pump 650 sks of ALTCem S100-22 primary cement at 14.5 ppg, yield 1.39, 6.76 gal/sk
12		Shutdown	1/22/2017	08:41					Shutdown to line out manifold to drop top plug
13		Drop Top Plug	1/22/2017	08:42					Company man witness plug leave manifold
14		Pump Displacement	1/22/2017	08:43	8.33	5	114	150	Pump 114 bbls of water displacement
15		Slow Rate	1/22/2017	08:50	8.33	3	85	1500	Slow Rate rig Pump Broke down, after slowing down the well was trying to bridge off, 85 bbls away
16		Slow Rate	1/22/2017	09:13	8.33	2	100	1250	Slow rate the last 20 bbls to 2 bpm, at 111 bbls away lost returns
17		Bump Plug	1/22/2017	09:24				2000	Bump plug take it 500 psi over casing test to 2400 psi
18		Casing Test	1/22/2017	09:25				2400	
19		Check Floats	1/22/2017	09:40					Check floats got 1 bbl back to the truck
20		Safety Meeting	1/22/2017	09:50					BJ crew talked about the hazards of rigging down
21		Rig Down	1/22/2017	10:30					Rig Down
22		Depart Location	1/22/2017	11:30					Depart Location
23		Other	1/22/2017	11:03					Got 2 bbls Cement back to surface



3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	56 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	>375 mg/L	0-500 mg/L
Carbonates	140 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

