



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

JOB PURPOSE: PRIMARY

Brant LE 08-239HN 05-001-10335
S:11 T:1S R:67W Adams CO

CallSheet #: 75203
Proposal #: 50410



Attention: Great Western Operating Company LLC,
Great Western Operating Company, LLC
1001 17TH STREET, SUITE 2000 | DENVER, CO 80202

Dear Great Western Operating Company LLC,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

Jason Creel

Field Engineer | (307) 256-0306 | Jason.creel@americacementing.com

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

Table of Contents

1 Job Details & Summary	3
1.1 Geometry	3
1.2 Equipment / People	3
1.3 Timing	3
1.4 Casing Equipment	3
• 1.4.1 Casing Equipment - Centralizer Depths	3
1.5 General Job Information	3
1.6 Job Details	4
1.7 Job Details (cont.)	4
1.8 Circulation	4
1.9 Job Execution Information	4
1.10 Job Fluid Details	4
2 Job Logs	5
3 Water Analysis	6
4 Pump Diagrams	7

1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	0	2037	30
Casing	Inner	9.625	8.921	36	0	2037	0

1.2 Equipment / People

Unit Type	Unit
Field Bin	CTF-013
Bulk Trailer	CTF-566
Pneumatic Trailer	FUF-308

1.3 Timing

Event	Date/Time
Call Out	10/16/2020 15:00
Depart Facility	10/16/2020 16:00
On Location	10/16/2020 18:30
Rig Up Iron	10/16/2020 19:00
Job Started	10/16/2020 21:15
Job Completed	10/16/2020 23:40
Rig Down Iron	10/16/2020 19:00
Depart Location	10/17/2020 00:30

1.4 Casing Equipment

Type	Description	Qty	MD	TVD
Bow Spring Centralizers	9.625"	19		
Landing/Float Collar			1993	1993
Float Shoe			2037	2037

1.4.1 Casing Equipment - Centralizer Depths

Surface Centralizers, 40.45, 82.03, 165.11, 289.82, 414.16, 538.89, 663.59, 787.48, 912.09, 1036.36, 1161.01, 1285.24, 1409.52, 1534.16, 1658.8, 1783.48, 1908.16, 1949.72, 2020.8

1.5 General Job Information

Metrics	Value
Well Fluid Density	8.4 lb/gal
Well Fluid Type	water
Rig Circulation Vol	285 bbls
Rig Circulation Time	30 hours
Calculated Displacement	154.1 bbls
Actual Displacement	154.1 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	40 bbls
Well Topped Out	N/A
Top Out Volume	N/A bbls

1.6 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

1.7 Job Details (cont.)

Metrics	Value
BHCT	86 °F
BHST	110 °F
Ambient Temperature	65 °F

1.8 Circulation

Lost Circulation Experienced
No

1.9 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)	Volume (cu.ft)	Top (ft)
1	1	Fresh Water	Spacer	8.34			42.00		20.00		0
1	2	ACem S100.3.XC	Primary	14.50	1.39	6.81		930.00	230.29	1292.70	0
1	3	Fresh Water	Displacement Final	8.34			42.00		154.10		0

1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Primary	ACem S100.3.XC	ASTM TYPE III	Cement	100.00	%

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	Callout	10/16/2020	15:00					Crew called out, requested on location at 21:00
2	Safety Meeting	10/16/2020	15:45					Talked about the hazards of driving to location.
3	Depart For Location	10/16/2020	16:00					Crew departed for location
4	Arrive On Location	10/16/2020	18:30					Crew arrived on location and talked about the hazards of spotting in equipment.
5	Safety Meeting	10/16/2020	18:45					Talked with crew about the hazards of rigging up water bulk and iron lines.
6	Rig Up Iron	10/16/2020	19:00					Crew rigged up
7	Waiting	10/16/2020	20:00					Waited for rig to finish Running casing and to circulating the well.
8	Safety Meeting	10/16/2020	21:15					Talked with American Cementing Crew and rig Crews about the hazards of pumping the job.
9	Fill Lines	10/16/2020	21:42	8.33	5	5	140	Pump 5 bbls water ahead to fill lines for the pressure test.
10	Shutdown	10/16/2020	21:43	8.33				Shutdown to line out valves for pressure test
11	Pressure Test Lines	10/16/2020	21:44	8.33			2500	Pressure Test AC lines to 2500 PSI.
12	Pump Spacer	10/16/2020	21:46	8.33	5.7	20	204	Pump 20 bbls water spacer with blue dye
13	Pump Cement	10/16/2020	21:51	14.5	4	31	293	Mix and Pump 930 sacks of ACem Cement at 14.5 lb/gal, 1.39 cuft/sk and 6.81 gals/sk from Pods 2, 3 and 4 on CTF-013. Slow rate at 28 bbls away to 2.8 bpm for the pod switch.
14	Pump Cement	10/16/2020	21:59	14.5	5.3	142	304	Switch to pod 3 on CTF-013 with 31 bbls away.
15	Pump Cement	10/16/2020	22:24	14.5	5.7	230	271	Switch to pod 4 to on CTF-013 with 142 bbls away.
16	Shutdown	10/16/2020	22:36				189	Shutdown to drop top plug and line out valves for displacement.
17	Pump Displacement	10/16/2020	22:39	8.33	6.5	0	174	Pump 154.1 bbls water displacement with Biocide and O2 scavenger.
18	Pump Displacement	10/16/2020	22:49	8.33	6.5	50	508	50bbls away.
19	Pump Displacement	10/16/2020	22:54	8.33	6.5	80	700	Blue dye to surface
20	Pump Displacement	10/16/2020	22:59	8.33	6.5	114	887	Cement to Surface
21	Slow Pump Rate	10/16/2020	23:02	8.33	2.8	135	699	Slow rate to land the plug.
22	Land Plug	10/16/2020	23:08	8.33	0	154.1	1550	Land plug, bring pressure up to 1500 psi for 30 min casing test. FCP was 835 psi
23	Test Casing	10/16/2020	23:18	8.33	0		1565	10 min into casing test.
24	Test Casing	10/16/2020	23:28	8.33	0		1575	20 min into casing test.
25	Test Casing	10/16/2020	23:38	8.33	0		1576	30 min into casing test.
26	Check Floats	10/16/2020	23:40					Floats held with 1 bbls back
27	Safety Meeting	10/16/2020	23:45					Talked with AC Crew about the hazards of rigging down.
28	Rig Down Iron	10/16/2020	23:50					Rig Down
29	Safety Meeting	10/17/2020	00:15					Talked with AC Crew about the hazards of driving back to the yard.
30	Depart Location	10/17/2020	00:30					Crew Departed Location.

3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	70 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	160	0-1000
Total Hardness	25 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

