



Great Western Operating Company, LLC

Surface Post Job Report

Ocho LD 17-369HC (05-001-10000)

S:8 T:1S R:67W Adams CO



Great Western Operating Company, LLC

Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202

Dear Great Western Operating Company,

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,
Jacob Ojeda
Field Engineer I | (763) 516-3012 | jacob.ojeda@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

Cementing Treatment



| | | | |
|---------------------------|---|-----------------------|------------------|
| Start Date | 02/24/2018 | Well | Ocho LD 17-369HC |
| End Date | 02/24/2018 | County | ADAMS |
| Client | GREAT WESTERN OPERATING COMPANY, LLC | State/Province | CO |
| Service Supervisor | Andrew Hyde | API | 05-001-10000 |
| District | Cheyenne, WY | Type of Job | Surface |

WELL GEOMETRY

| Type | ID (in) | OD (in) | Wt. (lb/ft) | MD (ft) | TVD (ft) | Excess(%) | Grade | Thread |
|-----------|---------|---------|-------------|----------|----------|-----------|-------|--------|
| Open Hole | 13.50 | | | 1,721.00 | 1,720.70 | 15.00 | | |
| Casing | 8.92 | 9.63 | 36.00 | 1,721.00 | 1,720.70 | | J-55 | LTC |

Shoe Length (ft): 44

HARDWARE

| | | | |
|----------------------------------|----------|------------------------------|-------|
| Bottom Plug Used? | No | Job Pumped Through | Hose |
| Top Plug Used? | Yes | Top Connection Thread | 8RD |
| Top Plug Provided By | Customer | Top Connection Size | 9.625 |
| Top Plug Size | 9.625 | | |
| Centralizers Used | Yes | | |
| Centralizers Quantity | 17 | | |
| Landing Collar Depth (ft) | 1,678 | | |

Cementing Treatment



CIRCULATION PRIOR TO JOB

| | | | |
|--------------------------------------|-----|--------------------------------------|----|
| Well Circulated By | Rig | Solids Present at End of Circulation | No |
| Circulation Prior to Job | Yes | Flare Prior to/during the Cement Job | No |
| Circulation Time (min) | 30 | Gas Present | No |
| Lost Circulation Prior to Cement Job | No | | |
| Mud Density In (ppg) | 8.4 | | |
| Mud Density Out (ppg) | 8.4 | | |

TEMPERATURE

| | |
|----------------------------|----|
| Ambient Temperature (°F) | 28 |
| Mix Water Temperature (°F) | 85 |

BJ FLUID DETAILS

| Fluid Type | Fluid Name | Density (ppg) | Yield (Cu Ft/sk) | H2O Req. (gals/sk) | Planned Top of Fluid (Ft) | Length (Ft) | Vol (sk) | Vol (Cu Ft) | Vol (bbls) |
|----------------------------|-----------------|---------------|------------------|--------------------|---------------------------|-------------|----------|-------------|------------|
| Spacer / Pre Flush / Flush | Water | 8.3300 | | | 0.00 | | | | 20.0000 |
| Tail Slurry | BJCem S100.3.XC | 14.5000 | 1.3901 | 6.78 | 0.00 | 1,740.00 | 716 | 996.0000 | 177.2000 |
| Displacement Final | Water | 8.3300 | | | 0.00 | | | 0.0000 | 131.3000 |

| Fluid Type | Fluid Name | Component | Concentration | UOM |
|----------------------------|-----------------|-----------------------------|---------------|---------|
| Spacer / Pre Flush / Flush | Water | DYE, RED TRACER FLOURESCENT | 0.0500 | PPB |
| Tail Slurry | BJCem S100.3.XC | CEMENT, ASTM TYPE III | 100.0000 | PCT |
| Tail Slurry | BJCem S100.3.XC | FOAM PREVENTER, FP-13L | 0.0300 | GALS/SK |

Cementing Treatment



TREATMENT SUMMARY

| Time | Fluid | Rate (bpm) | Fluid Vol. (bbls) |
|-------|-----------------|------------|-------------------|
| 19:53 | Water | 5.00 | 20.00 |
| 20:03 | BJCem S100.3.XC | 5.00 | 177.20 |
| 20:55 | Water | 5.00 | 131.30 |

DISPLACEMENT AND END OF JOB SUMMARY

| | | | |
|---------------------------------------|-----|------------------------------------|-------|
| Displaced By | BJ | Amount of Cement Returned/Reversed | 26 |
| Calculated Displacement Volume (bbls) | 129 | Amount of Spacer to Surface | 20 |
| Actual Displacement Volume (bbls) | 129 | Amount Bled Back After Job | 1 bbl |
| Did Float Hold? | Yes | Total Volume Pumped (bbls) | 328 |
| Bump Plug | Yes | Top Out Cement Spotted | No |
| Bump Plug Pressure (psi) | 680 | Lost Circulation During Cement Job | No |
| Were Returns Planned at Surface | Yes | | |
| Cement returns During Job | Yes | | |

Customer Name Great Western

Well Name OCHO LD 17-369HC

Job Type Surface

District Cheyenne

Supervisor Andrew Hyde

Engineer



| Seq No. | Start Date/Time | Category | Event | Equipment | Event ID | Density (lb/gal) | Pump Rate (bpm) | Pump Vol (bbls) | Pipe Pressure (psi) | Comments |
|---------|-----------------|--------------|--------------------|-----------|----------|---------------------|--------------------|--------------------|------------------------|---|
| 1 | 2/24/2018 9:00 | Mobilization | Call Out | | | | | | | BJ crew gets called out and requested on location at 14:30 |
| 2 | 2/24/2018 10:30 | Mobilization | Safety Meeting | | | | | | | BJ crew talks about the hazards of driving to location |
| 3 | 2/24/2018 11:30 | Mobilization | Depart Yard | | | | | | | Depart yard |
| 4 | 2/24/2018 13:00 | Mobilization | Arrive On Location | | | | | | | Arrive on location |
| 5 | 2/24/2018 13:15 | Operational | Safety Meeting | | | | | | | BJ crew talks about the hazards of spotting in equipment and rigging up |
| 6 | 2/24/2018 13:30 | Operational | Rig Up | | 50 | | | | | Rig up |
| 7 | 2/24/2018 14:30 | Operational | Waiting | | | | | | | Wait for rig crew to finish running casing |
| 8 | 2/24/2018 19:00 | Operational | Safety Meeting | | | | | | | BJ and rig crew talk about the hazards of pumping the job |
| 9 | 2/24/2018 19:38 | Operational | Fill Lines | | | 8.33 | 2 | 3 | 50 | Pump 3 bbls of water ahead |
| 10 | 2/24/2018 19:49 | Operational | Pressure Test | | 54 | | | | | Pressure test pumps and lines to 2800 psi |
| 11 | 2/24/2018 19:53 | Operational | Pump Spacer | | 56 | 8.33 | 3 | 20 | 263 | Pump 20 bbls of dye water spacer |
| 12 | 2/24/2018 20:03 | Operational | Pump Cement | | | 14.5 | 4.5 | 177 | 150 | Mix up and pump 716 sks of S100.3XC cement at 14.5 ppg, yield 1.39, 6.78 gal/sk, 177 bbls |
| 13 | 2/24/2018 20:47 | Operational | Shutdown | | | | | | | Shutdown to line out manifold to drop top plug |
| 14 | 2/24/2018 20:48 | Operational | Drop Top Plug | | 63 | | | | | customer witness plug leave manifold |
| 15 | 2/24/2018 20:55 | Operational | Pump Displacement | | 64 | 8.33 | 6 | 109 | 250 | Pump 129 bbls of water displacement |
| 16 | 2/24/2018 21:15 | Operational | Slow Rate | | | 8.33 | 3 | 20 | 576 | Slow rate the last 20 bbls to 3 bpm to land plug |
| 17 | 2/24/2018 21:20 | Operational | Bump Plug | | | | | | | Bump plug at 680 psi, took it up to 1360 psi |
| 18 | 2/24/2018 21:23 | Operational | Check Floats | | 68 | | | | | Check floats got 1 bbl back |
| 19 | 2/24/2018 21:25 | Operational | Casing Test | | | | | | 1000 | Pressure up to 1000 psi for 15 min casing test |
| 20 | 2/24/2018 21:40 | Operational | Release Pressure | | | | | | | Casing test was good release pressure |
| 21 | 2/24/2018 21:50 | Operational | Safety Meeting | | | | | | | BJ crew talks about the hazards of rigging down |
| 22 | 2/24/2018 22:00 | | Rig Down | | 73 | | | | | Rig down |
| 23 | 2/24/2018 23:00 | Operational | Depart Location | | | | | | | Depart location |
| 24 | 2/24/2018 23:01 | Operational | Other | | | | | | | Got 26 bbls cement to surface |



JobMaster Program Version 4.02C1
Job Number: 3399
Customer: GRERAT WESTERN
Well Name: OCHO LD 17-369-HC

