HALLIBURTON

iCem® Service

# BONANZA CREEK ENERGY-EBUS

**State North Platte F-36 Fed 25N-20-08 Production**
Job Date: Thursday, April 25, 2024

Sincerely,
**Meghan Van Zyl**

# Legal Notice

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# 1.0 Cementing Job Summary

## 1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State North Platte F-36 Fed 25N-20-08 - Production.** A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

**Approximately 51 bbls of cement were returned to surface.**

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton Rockies Cement Team**

## 1.2 Job Overview

| Job Details | |
|---|---|
| **API #:** | 05-123-52464 |
| **City, County:** | KERSEY,WELD |
| **SO#:** | 909297816 |

| Job Times | | |
|---|---|---|
| | **Date (mm/dd/yyyy)** | **Time (hh:mm)** |
| **Requested Time On Location:** | 4/25/24 | 5:00 |
| **Called Out Time:** | 4/24/24 | 23:00 |
| **Arrived On Location:** | 4/25/24 | 3:45 |
| **Job Started:** | 4/25/24 | 8:00 |
| **Job Completed:** | 4/25/24 | 11:55 |
| **Departed Location:** | 4/25/24 | 13:45 |

| | **Description** | **Units** | **Value** |
|---|---|---|---|
| 1 | Surface temperature at the time of the job | degree F | 60 |
| 2 | Mud type (OBM, WBM, Synthetic, Water, Brine) | - | OBM |
| 3 | Mud density | ppg | 9 |
| 4 | Casing set depth (shoe) | ft | 17687 |
| 5 | TVD | ft | 6307 |
| 6 | Float collar depth | ft | 17682 |
| 7 | Length of rate hole | ft | 15 |
| 8 | Previous casing shoe depth | ft | 1842 |
| 9 | Pre-job mud circulation time | hh:mm | 1:30 |
| 10 | Pre-job mud circulation rate | bpm | 13 |

| | | | |
|---|---|---|---|
| 11 | Pre-job mud circulation volume | bbls | 1170 |
| 12 | Mud circulation pressure at start of cement | psi | 1530 |
| 13 | Annual flow before the start of job | Y/N | N |
| 14 | Pipe movement during cement job | Y/N | N |
| 15 | Calculated displacement | bbls | 392.5 |
| 16 | Job displaced by | Rig/HES | HES |
| 17 | Estimated returns % during job | % | 100 |
| 18 | Fluid returns to surface | Spacer/Cement, bbls | CMT,51 BBLS |
| 19 | Final circulation pressure, rate prior to plug bump | psi @ bpm | 2870 @ 4 |
| 20 | Number of Centralizers | - | |
| 21 | Number of bottom plugs | - | 1 |
| 22 | Number of trucks used preparing/during job | - | 2 |
| 23 | Add hours? If Yes, put # | Y/N and hours | N |
| 24 | NPT? If Yes, put # | Y/N and hours | N |

## 1.3 Water Field Test

| | Recorded Value | Unit | Acceptable Limit | Potential Problems if Values Exceed the Limit |
|---|---|---|---|---|
| **pH** | 7 | | 6.0 - 8.0 | Chemicals in water can cause severe retardation |
| **Temperature** | 60 | F | 60 - 80 F | Can can pre-mature setting of cement |
| **Chlorides** | 0 | ppm | 3000 ppm | Can shorten thickening time |

## 1.4 Actual Pump Schedule

| | Density (ppg) | Volume (bbls) | Yield (ft3/sk) | Water Requirement (gal/sk) | Bulk Sacks (sks) | Total Water (gals) |
|---|---|---|---|---|---|---|
| **Spacer Fluid** | 11.5 | 120 | 2.57 | 16.2 | 262 | 4242 |
| **Cap Cement** | 13 | 165 | 1.64 | 8.1 | 565 | 4578 |
| **Lead Cement** | 13 | 211 | 1.58 | 7.48 | 750 | 5607 |
| **Tail Cement** | 13.2 | 410 | 1.56 | 7.59 | 1475 | 11193 |
| **Top Plug** | | | | | | |
| **Displacement Fluid** | 8.4 | 392.5 | | | | 16485 |

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

| Seq. No. | Activity | Date | Time | Comments |
|---|---|---|---|---|
| 1 | Summit Crew Notified Date/Time | 4/24/2024 | 23:00:30 | Crew called out for CIVITAS Production |
| 2 | Pre-Convoy Safety Meeting | 4/25/2024 | 01:45:29 | Discussed route and possible hazards |
| 3 | Depart Location for Service Center or Other Site | 4/25/2024 | 02:00:31 | Depart yard w/ 1 pump, 660, 1 pickup and 4 personnel. |
| 4 | Arrive at Location from Service Center | 4/25/2024 | 03:45:32 | Requested on location @ 0500 |
| 5 | Safety Meeting - Assessment of Location | 4/25/2024 | 04:00:33 | Discussed location and possible hazards. Water test: Temp - 60, Chlorides - 0, PH - 7, Sulfates - <200. 8 1/2 TD @ 17702'. Production casing set @ 17687'. 5.5" 20# P110, ST - 5' .0222 bbl/ft. CSG/OH - .0408 bbl/ft. CSG/CSG - .0479 bbl/ft. 9 5/8" 36# J55 set @ 1842'. Mud Weight - 9 ppg |
| 6 | Safety Meeting - Pre Rig-Up | 4/25/2024 | 04:10:37 | Discussed rig up and possible hazards. |
| 7 | Rig-up Lines | 4/25/2024 | 04:20:38 | Rig up equipment |
| 8 | Casing on Bottom | 4/25/2024 | 06:00:38 | |
| 9 | Circulate Well | 4/25/2024 | 06:30:39 | Rig circulating well 13 bpm @ 1530 psi |
| 10 | Safety Meeting - Pre Job | 4/25/2024 | 07:40:37 | Discussed job and possible hazards with everyone on location. |
| 11 | Pump Spacer 1 | 4/25/2024 | 07:44:38 | Pumped 3 bbls of FW |
| 12 | Drop Bottom Plug | 4/25/2024 | 07:45:40 | |
| 13 | Pressure Test | 4/25/2024 | 07:47:39 | Test lines to 6500 psi |

| | | | | |
|---|---|---|---|---|
| 14 | Start Job | 4/25/2024 | 07:53:37 | |
| 15 | Pump Spacer 1 | 4/25/2024 | 08:08:44 | Pumped 120 bbls of 11.5 ppg of Tuned Spacer. 2.57 cuft/sk and 16.2 gal/sk. Verified weight with pressurized mud scales. |
| 16 | Check Weight | 4/25/2024 | 08:16:09 | |
| 17 | Pump Lead Cement | 4/25/2024 | 08:28:20 | Pumped 165 bbls of 13 ppg Elasticem. 565 sks, 1.64 cuft/sk, and 8.1 gal/sk. Verified weight with pressurized mud scales. |
| 18 | Check Weight | 4/25/2024 | 08:31:38 | |
| 19 | Pump Lead Cement | 4/25/2024 | 08:52:13 | Pumped 211 bbls of 13 ppg Isobond cmt. 750 sks, 1.58 cuft/sk, and 7.48 gal/sk. Verifed weight with pressurized mud scales. Estimated TOC @ 2466.43' |
| 20 | Pump Tail Cement | 4/25/2024 | 09:22:43 | Pumped 410 bbls of 13.2 ppg Elasticem. 1475 sks, 1.56 cuft/sk, and 7.59 gal/sk. Verified weight with pressurized mud scales. Estimated TOC @ 7638' |
| 21 | Check Weight | 4/25/2024 | 09:25:04 | |
| 22 | Check Weight | 4/25/2024 | 09:44:34 | |
| 23 | Shutdown | 4/25/2024 | 10:29:46 | |
| 24 | Drop Top Plug | 4/25/2024 | 10:40:44 | 3rd party rupture plug |
| 25 | Pump Displacement | 4/25/2024 | 10:41:29 | Pumped 392.5 bbls of displacement. 1st 20 bbls FW w/ MMCR FW w/ Chemicals |
| 26 | Bump Plug | 4/25/2024 | 11:32:08 | Bump plug 2870 - 3400 psi |
| 27 | Check Floats | 4/25/2024 | 11:35:10 | Floats are good. Got 4.5 bbls back. |
| 28 | End Job | 4/25/2024 | 11:36:12 | Got 51 bbls of cement back to surface. |
| 29 | Pre-Rig Down Safety Meeting | 4/25/2024 | 11:40:13 | |
| 30 | Rig-Down Equipment | 4/25/2024 | 11:50:14 | |
| 31 | Depart Location Safety Meeting | 4/25/2024 | 12:30:15 | |

| | | | | |
|---|---|---|---|---|
| 32 | Depart Location | 4/25/2024 | 12:45:18 | Thank you for using Halliburton cement. Andrew Glover and crew. |

## 3.0 Attachments

### 3.1 Real Time iCem Job Chart