HALLIBURTON

iCem® Service

# EXTRACTION OIL & GAS-EBUS

Date: Monday, May 13, 2019

## Lind 26W-30-6N Surface

Job Date: Wednesday, May 08, 2019

Sincerely,

**Bryce Hinsch**

# 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 **Lind 26W-30-6N** cement **surface** casing job. 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 10 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 Fort Lupton**

***The Road to Excellence Starts with Safety***

| | | | |
|---|---|---|---|
| **Sold To #:** 369404 | **Ship To #:** 3912487 | **Quote #:** | **Sales Order #:** 0905682397 |
| **Customer:** EXTRACTION OIL & GAS - | | **Customer Rep:** Justin Humphries | |
| **Well Name:** LIND | **Well #:** 26W-30-6N | | **API/UWI #:** 05-123-48231-00 |
| **Field:** WATTENBERG | **City (SAP):** WINDSOR | **County/Parish:** WELD | **State:** COLORADO |
| **Legal Description:** NE NE-26-7N-67W-393FNL-821FEL | | | |
| **Contractor:** Justin Humphries | | **Rig/Platform Name/Num:** Cartel 15 | |
| **Job BOM:** 7521 7521 | | | |
| **Well Type:** HORIZONTAL OIL | | | |
| **Sales Person:** HALAMERICA\HX38199 | | **Srvc Supervisor:** Clifton Keck | |

**Job**

| | | | | |
|---|---|---|---|---|
| **Formation Name** | | | | |
| **Formation Depth (MD)** | **Top** | | **Bottom** | |
| **Form Type** | | | **BHST** | |
| **Job depth MD** | 1646ft | | **Job Depth TVD** | |
| **Water Depth** | | | **Wk Ht Above Floor** | |
| **Perforation Depth (MD)** | From | | **To** | |

**Well Data**

| Description | New / Used | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|---|---|---|---|---|---|---|---|---|---|---|
| Open Hole Section | | | 13.5 | | | | 0 | 1646 | | |
| Casing | | 9.625 | 8.921 | 36 | | | 0 | 1646 | | |

**Tools and Accessories**

| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make |
|---|---|---|---|---|---|---|---|---|---|
| **Guide Shoe** | 9.625 | | | 1646 | | **Top Plug** | 9.625 | 1 | HES |
| **Float Shoe** | 9.625 | | | | | **Bottom Plug** | 9.625 | | HES |
| **Float Collar** | 9.625 | | | | | **SSR plug set** | 9.625 | | HES |
| **Insert Float** | 9.625 | | | | | **Plug Container** | 9.625 | | HES |
| Stage Tool | 9.625 | | | | | **Centralizers** | 9.625 | 4 | HES |

**Fluid Data**

**Stage/Plug #: 1**

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Red Dye Spacer | Red Dye Spacer | 10 | bbl | 8.33 | | | 4 | |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---|---|---|---|---|---|---|---|---|---|
| 2 | SwiftCem | SWIFTCEM (TM) SYSTEM | 550 | sack | 13.5 | 1.74 | | 8 | 9.2 |
| 9.20 Gal | | **FRESH WATER** | | | | | | | |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---|---|---|---|---|---|---|---|---|---|
| 3 | Fresh Water | Fresh Water | 120 | bbl | 8.33 | | | 8 | |

| | | | | | |
|---|---|---|---|---|---|
| Cement Left In Pipe | **Amount** | ft | Reason | **Shoe Joint** | |
| Mix Water: | pH 7 | **Mix Water Chloride:** | 0 ppm | Mix Water Temperature: | **54 °F** |
| Plug Bumped? | Yes | **Bump Pressure:** | 1050 psi | Floats Held? | **Yes** |

**Comment: BUMPED PLUG ON CALCULATED DISPLACEMENT, 550 PSI – 1050 PSI, BLED BACK 0.5 BBL, FLOATS HELD, 10 BBL CMT TO SURFACE**

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density (ppg) | Comb Pump Rate (bbl/min) | Pump Stg Tot (bbl) | DS Pump Press (psi) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Event | 1 | Arrive At Loc | Arrive At Loc | 5/8/2019 | 02:00:00 | USER | | | | | ON LOCATION TIME WAS SET TO 04:00, RIG WAS DRILLING, CM SIGNED WOC, TESTED WATER, GOT NUMBERS, ASSESSED LOCATION FOR HAZARDS |
| Event | 2 | Assessment Of Location Safety Meeting | Assessment Of Location Safety Meeting | 5/8/2019 | 02:15:00 | USER | | | | | HELD SAFETY MEETING AND DISCUSSED HAZARDS ASSOCIATIED WITH SPOTTING TRUCKS AND RIGGING UP HES EQUIPMENT |
| Event | 3 | Rig-Up Equipment | Rig-Up Equipment | 5/8/2019 | 02:30:00 | USER | | | | | RIGGED UP ALL HES EQUIPMENT TO BE AS READY AS POSSIBLE. |
| Event | 4 | Safety Meeting - Pre Job | Safety Meeting - Pre Job | 5/8/2019 | 09:30:00 | USER | 8.10 | 0.10 | 9.90 | 6.00 | DISCUSSED HAZARDS ASSOCIATED WITH PRESSURE TEST, MIXING CMT, RUNNING BULK EQUIPMENT, AND ALL JOB RESPONSIBILITIES ASSOCIATED |
| Event | 5 | Test Lines | Test Lines | 5/8/2019 | 10:04:33 | COM5 | 8.35 | 0.00 | 27.90 | 21.00 | TESTED KICKOUTS AT 500 PSI AND LINES TO 2500 PSI |
| Event | 6 | Pump Spacer 1 | Pump Spacer 1 | 5/8/2019 | 10:06:39 | COM5 | 8.15 | 0.20 | 28.00 | 7.00 | RED DYE SPACER- 10 BBL, 8.33 PPG, 4 BPM, 65 PSI |
| Event | 7 | Pump Cement | Pump Cement | 5/8/2019 | 10:09:32 | COM5 | 8.32 | 4.00 | 11.30 | 58.00 | SWIFTCEM- 550 SKS, 170 BBL, 13.5 PPG, 8 BPM, 210 PSI |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Event | 8 | Drop Top Plug | Drop Top Plug | 5/8/2019 | 10:32:58 | COM5 | 14.98 | 0.00 | 169.40 | 74.00 | HES TOP PLUG |
| Event | 9 | Pump Displacement | Pump Displacement | 5/8/2019 | 10:34:30 | COM5 | 29.39 | 0.00 | 0.00 | 2.00 | 124 BBL, 8.33 PPG, 8 BPM, 320 PSI |
| Event | 10 | Bump Plug | Bump Plug | 5/8/2019 | 10:53:58 | COM5 | 8.29 | 0.00 | 126.70 | 1045.00 | LANDED PLUG ON CALCULATED DISPLACEMENT, 550 PSI - 1050 PSI, BLED BACK 0.5 BBL, FLOATS HELD |
| Event | 11 | Post-Job Safety Meeting (Pre Rig-Down) | Post-Job Safety Meeting (Pre Rig-Down) | 5/8/2019 | 22:52:01 | USER | | | | | DISCUSSED ALL HAZARDS ASSOCIATED WITH RIGGING DOWN HES EQUIPMENT |
| Event | 12 | Rig-Down Equipment | Rig-Down Equipment | 5/8/2019 | 22:52:06 | USER | | | | | |
| Event | 13 | Depart Location Safety Meeting | Depart Location Safety Meeting | 5/8/2019 | 22:52:08 | USER | | | | | DISCUSSED HAZARDS ASSOCIATED WITH LEAVING LOCATION AND BEST ROUTE TO TAKE |
| Event | 14 | Depart Location | Depart Location | 5/8/2019 | 22:52:09 | USER | | | | | |

## 3.0 Attachments

### 3.1 Extraction Lind 26W-30-6N Surface Chart