

HALLIBURTON

iCem[®] Service

NOBLE ENERGY INC-EBUS

GUTTERSEN D10-745

Production Casing

Job Date: Tuesday, February 22, 2022

Sincerely,

KYLE BATH

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the Guttersen D10-745 production casing. 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.

Job was pumped per design with an average cement density of 13.22 ppg at 7.36 bbl/min. Cement was displaced with 20 bbl. of treated water with retarder and 379 bbl. of treated freshwater displacement. Plug was landed at 2,700 psi and bumped to 3,263 psi. Pressure was bled off and 5.5 bbl. of fluid was returned to the truck. Approximately 50 bbl. of spacer was returned to surface indicating a top of cement around 1,461'.

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 #: 345242 | | Ship To #: 3925432 | | Quote #: | | Sales Order #: 0907691487 | | | | |
| Customer: NOBLE ENERGY INC-EBUS | | | | | Customer Rep: Job Drahota | | | | | |
| Well Name: GUTTERSEN | | | Well #: D10-745 | | | API/UWI #: 05-123-48918-00 | | | | |
| Field: WATTENBERG | | City (SAP): KERSEY | | County/Parish: WELD | | | State: COLORADO | | | |
| Legal Description: SW SE-34-4N-64W-466FSL-1715FEL | | | | | | | | | | |
| Contractor: H & P DRLG | | | | | Rig/Platform Name/Num: H & P 517 | | | | | |
| Job BOM: 7523 | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | |
| Sales Person: HALAMERICA\HX41066 | | | | | Srvc Supervisor: Kyle Bath | | | | | |
| Job | | | | | | | | | | |
| | | | | | | | | | | |
| Job depth MD | | 17238ft | | | Job Depth TVD | | 6676ft | | | |
| | | | | | | | | | | |
| 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 |
| Casing | | 9.625 | 8.921 | 36 | | | 0 | 1949 | 0 | 1949 |
| Casing | | 5.5 | 4.892 | 17 | | | 0 | 17238 | 0 | 6676 |
| Open Hole Section | | | 8.5 | | | | 1949 | 17252 | 1949 | 6676 |
| | | | | | | | | | | |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| Float Shoe | 5.5 | 1 | HES | 17238 | | Top Plug | 5.5 | 1 | HES | |
| Float Collar | 5.5 | 1 | HES | 17194 | | Bottom Plug | 5.5 | 2 | HES | |
| | | | | | | Centralizers | 5.5 | 212 | SUMMIT | |
| | | | | | | | | | | |

| Fluid Data | | | | | | | | | |
|--|--------------|---------------------------|---------------------|---------|---------------------------|-------------------|------------------------|-----------------|------------------------|
| Stage #: 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 | Spacer | Tuned Prime Cement Spacer | 120 | bbl | 11.5 | 3.92 | | | 4242 |
| | | | | | | | | | |
| 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 | Cap Cement | ElastiCem™ | 140 | sack | 13.2 | 1.6 | 7.63 | 8 | 1068 |
| | | | | | | | | | |
| 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 | Lead Cement | ElastiCem™ | 697 | sack | 13.2 | 1.67 | 8.03 | 8 | 5597 |
| | | | | | | | | | |
| 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 |
| 4 | Tail Cement | NeoCem™ | 1165 | sack | 13.2 | 2.04 | 9.79 | 8 | 11405 |
| | | | | | | | | | |
| 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 |
| 5 | Displacement | Treated Fresh Water | 399 | bbl | 8.33 | | | | 16723 |
| | | | | | | | | | |
| | | | | | | | | | |
| Cement Left In Pipe | | Amount | 47 ft | | Reason | | | Shoe Joint | |
| Mix Water: | | pH 7 | Mix Water Chloride: | | 0 ppm | | Mix Water Temperature: | | 50 °F |
| Plug Bumped? | | Yes | Plug Displaced by: | | 8.33 lb/gal Treated Water | | Disp. Temperature: | | 50 °F |
| Cement Returns: | | 0 bbl. | Bump Pressure: | | 2700 psi | | Floats Held? | | Yes |
| Comment: RECIEVED 50 BBL TUNED PRIME SPACER TO SURFACE | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Seq. No. | Activity | Date | Time | Comments |
|----------|---------------------------------------|-----------|----------|--|
| 1 | Call Out | 2/21/2022 | 12:30:00 | CREW CALLED OUT, REQUESTED ON LOCATION 18:30 |
| 2 | Depart Yard Safety Meeting | 2/21/2022 | 17:15:00 | PRE CONVOY SAFETY MEETING WITH ALL HES EE |
| 3 | Crew Leave Yard | 2/21/2022 | 17:30:00 | CREW DEPART YARD FOR LOCATION |
| 4 | Arrive At Loc | 2/21/2022 | 18:30:00 | ARRIVE ON LOCATION, RECIEVED NUMBERS FROM CO REP, TD 17252, TP 17238, SJ 44, CSG 5.5 17#, PREV CSG 9 5/8 36# @ 1949, HOLE 8.5, MUD 10.2, TVD 6676, 212 CENTALIZERS, WATER TEST, TEMP 50, CHLORIDES 0, PH 7 |
| 5 | Assessment Of Location Safety Meeting | 2/21/2022 | 18:45:00 | SAFETY MEETING WITH ALL HES EE TO ASSESS ALL HAZARDS |
| 6 | Safety Meeting - Pre Rig-Up | 2/21/2022 | 19:00:00 | PRE RIG UP SAFETY MEETING WITH ALL HES EE |
| 7 | Safety Meeting - Pre Job | 2/21/2022 | 20:30:00 | PRE JOB SAFETY MEETING WITH RIG CREW AND CO REP |
| 8 | Start Job | 2/21/2022 | 21:47:05 | START RECORDING DATA |
| 9 | Drop Bottom Plug | 2/21/2022 | 21:47:12 | LAUNCH BOTTOM PLUG |
| 10 | Test Lines | 2/21/2022 | 21:51:45 | TEST LINES TO 4800 PSI |
| 11 | Pump Spacer 1 | 2/21/2022 | 22:05:27 | PUMP 120 BBLs TUNED PRIME SPACER 11.5 PPG, 7.5 BPM, 630 PSI |
| 12 | Check Weight | 2/21/2022 | 22:12:54 | VERIFY WEIGHT ON PRESSURIZED MUD SCALES |
| 13 | Drop Bottom Plug | 2/21/2022 | 22:24:01 | LAUNCH BOTTOM PLUG |
| 14 | Pump Cap Cement | 2/21/2022 | 22:24:04 | MIX AND PUMP 140 SKS 39.9 BBLs CAP CEMENT 13.2 PPG, 1.6 FT3/SK, 7.63 GAL/SK, 9 BPM 700 PSI, CALCULATED TOCC 997 |

| | | | | |
|----|--------------------------------|-----------|----------|--|
| 15 | Pump Lead Cement | 2/21/2022 | 22:30:07 | MIX AND PUMP 697 SKS 207 BBLS LEAD CEMENT 13.2 PPG, 1.67 FT3/SK, 8.03 GAL/SK, 9 BPM, 600 PSI, CALCULATED TOLC 1830 |
| 16 | Check Weight | 2/21/2022 | 22:34:10 | VERIFY WEIGHT ON PRESSURIZED MUD SCALES |
| 17 | Shutdown | 2/21/2022 | 22:45:53 | LEAK ON RIG FLOOR |
| 18 | Pump Tail Cement | 2/21/2022 | 23:00:04 | MIX AND PUMP 1165 SKS 423 BBLS TAIL CEMENT 13.2 PPG, 2.04 FT3/SK, 9.79 GAL/SK 8.5 BPM 1250 PSI, CALCULATED TOTC 6890 |
| 19 | Check Weight | 2/21/2022 | 23:06:07 | VERIFY WEIGHT ON PRESSURIZED MUD SCALES |
| 20 | Check Weight | 2/21/2022 | 23:47:02 | VERIFY WEIGHT ON PRESSURIZED MUD SCALES |
| 21 | Shutdown | 2/22/2022 | 00:01:05 | SHUTDOWN, WASH PUMPS AND LINES TO TANK |
| 22 | Drop Top Plug | 2/22/2022 | 00:12:58 | LAUNCH TOP PLUG |
| 23 | Pump Displacement | 2/22/2022 | 00:13:02 | PUMP 399 BBLS BIOCIDES DISPLACEMENT, FIRST 20 BBLS W/MMCR, 10 BPM 2950 PSI, RECEIVED 50 BBLS TUNED PRIME SPACER TO SURFACE |
| 24 | Bump Plug | 2/22/2022 | 01:06:42 | BUMPED PLUG AT 2700 PSI TOOK TO 3263 PSI |
| 25 | Check Floats | 2/22/2022 | 01:12:59 | FLOATS HELD TOOK 5.5 BBLS BACK |
| 26 | End Job | 2/22/2022 | 01:15:27 | STOP RECORDING DATA |
| 27 | Safety Meeting - Pre Rig-Down | 2/22/2022 | 01:20:00 | PRE RIG DOWN SAFETY MEETING WITH ALL HES EE |
| 28 | Depart Location Safety Meeting | 2/22/2022 | 02:30:00 | PRE DEPARTURE SAFETY MEETING WITH ALL HES EE |
| 29 | Crew Leave Location | 2/22/2022 | 03:00:00 | THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW |

3.0 Attachments

3.1 Job Chart

