

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Sunday, June 04, 2017

TC Country Club West #2-9-11 Production

Job Date: Tuesday, May 23, 2017

Sincerely,

Justin Lansdale

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 **TC Country Club West #2-9-11** cement **Production** 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.

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 #: 3754151 | | Quote #: | | Sales Order #: 0904044026 | | | | |
| Customer: EXTRACTION OIL & GAS | | | | Customer Rep: Kaylen Holgate/Larry Segal | | | | | | |
| Well Name: TC COUNTRY CLUB WEST | | | Well #: 2-9-11 | | API/UWI #: 05-123-43511-00 | | | | | |
| Field: WATTENBERG | | City (SAP): GREELEY | | County/Parish: WELD | | State: COLORADO | | | | |
| Legal Description: SE NE-8-5N-66W-2462FNL-1195FEL | | | | | | | | | | |
| Contractor: PATTERSON-UTI ENERGY | | | | Rig/Platform Name/Num: PATTERSON 341 | | | | | | |
| Job BOM: 7523 7523 | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | |
| Sales Person: HALAMERICA\HX38199 | | | | Srv Supervisor: Vaughn Oteri | | | | | | |
| Job | | | | | | | | | | |
| | | | | | | | | | | |
| Formation Name | | | | | | | | | | |
| Formation Depth (MD) | | Top | | Bottom | | | | | | |
| Form Type | | | | | BHST | | | | | |
| Job depth MD | | 20260ft | | | 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 |
| Casing | | 9.625 | 8.921 | 36 | | | 0 | 1587 | 0 | 0 |
| Casing | | 5.5 | 4.67 | 23 | | | 0 | 20248 | 0 | 0 |
| Open Hole Section | | | 8.5 | | | | 1587 | 20260 | 0 | 0 |
| | | | | | | | | | | |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| Guide Shoe | 5.5 | | | | | Top Plug | 5.5 | 1 | KLX | |
| Float Shoe | 5.5 | | | 20248 | | Bottom Plug | 5.5 | | | |
| Float Collar | 5.5 | | | 20243 | | SSR plug set | 5.5 | | | |
| Insert Float | 5.5 | | | | | Plug Container | 5.5 | 1 | HES | |
| Stage Tool | 5.5 | | | | | Centralizers | 5.5 | | | |
| | | | | | | | | | | |
| 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 | 11.5 lb/gal Tuned Spacer III | Tuned Spacer III | 50 | bbl | 11.5 | 3.74 | | 6 | | |

| 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 | ElastiCem Lead | ELASTICEM (TM) SYSTEM | 3175 | sack | 13.2 | 1.57 | | 8 | 7.54 |
| 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 | Displacement | Displacement | 427 | bbl | 8.33 | | | 8 | |
| | | | | | | | | | |
| Cement Left In Pipe | | Amount | 5 ft | | Reason | | | Shoe Joint | |
| Comment 50bbl of cement back to surface | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comments |
|-------|----------|-------------------|-------------------|-----------|----------|--------|---|
| Event | 1 | Call Out | Call Out | 5/22/2017 | 14:00:00 | USER | Call out from ARC hub |
| Event | 2 | Arrive At Loc | Arrive At Loc | 5/22/2017 | 20:00:00 | USER | Requested on location @ 2200 Arrived on location @2000 met with company rep to discuss job process and concerns |
| Event | 3 | Other | Other | 5/22/2017 | 20:10:10 | USER | TD-20260 TP-20248 FC-20243 Surf-1587 mud-10.0ppg OH-8.5 Casing 5.5 23# |
| Event | 4 | Start Job | Start Job | 5/23/2017 | 02:28:11 | COM4 | Held pre-job safety meeting with all hands on location to discuss job process and hazards |
| Event | 5 | Test Lines | Test Lines | 5/23/2017 | 02:49:38 | COM4 | Pressure tested pump and lines found no leaks and pressure held good 4810psi |
| Event | 6 | Pump Spacer 1 | Pump Spacer 1 | 5/23/2017 | 02:52:39 | COM4 | Mixed 50bbl of 11.5ppg Tuned spacer III at 6.0bpm 565psi |
| Event | 7 | Pump Cement | Pump Cement | 5/23/2017 | 03:02:48 | COM4 | Mixed 3175sks or 887bbl of 13.2ppg Y-1.57 G/sk-7.53 Elasticem at 8.0bpm 833psi |
| Event | 8 | Shutdown | Shutdown | 5/23/2017 | 04:56:40 | COM4 | |
| Event | 9 | Clean Lines | Clean Lines | 5/23/2017 | 04:56:48 | COM4 | Washed pumps and lines with fresh water |
| Event | 10 | Drop Top Plug | Drop Top Plug | 5/23/2017 | 04:56:51 | COM4 | KLX released plug witnessed by company rep and HES supervisor |
| Event | 11 | Pump Displacement | Pump Displacement | 5/23/2017 | 05:02:50 | COM4 | Pumped 427bbl of fresh water to displace cement |
| Event | 12 | Bump Plug | Bump Plug | 5/23/2017 | 05:57:31 | COM4 | Bumped plug 500psi over final pump pressure |

| | | | | | | | |
|-------|----|---------|---------|-----------|----------|------|--|
| Event | 13 | Other | Other | 5/23/2017 | 05:59:23 | COM4 | Released pressure back to pump truck to check floats, Floats held good 5.0bbl back |
| Event | 14 | End Job | End Job | 5/23/2017 | 06:06:12 | COM4 | 50bbl of cement back to surface |

Custom Results

