

The Road to Excellence Starts with Safety

| | | | | | | | | | | |
|---|-------------------|---------------------------|-------------------------|----------------------------|--|-----------------------------------|------------------------|---------------------|-------------------|----------------------|
| Sold To #: 375989 | | Ship To #: 3899604 | | Quote #: | | Sales Order #: 0905810767 | | | | |
| Customer: CONFLUENCE DJ LLC-EBUS | | | | | Customer Rep: RED BENGE | | | | | |
| Well Name: 70 RANCH | | | Well #: 10-15-3L | | | API/UWI #: 05-123-47594-00 | | | | |
| Field: WATTENBERG | | City (SAP): KERSEY | | County/Parish: WELD | | | State: COLORADO | | | |
| Legal Description: SW SW-3-4N-63W-260FSL-1236FWL | | | | | | | | | | |
| Contractor: ENSIGN DRLG | | | | | Rig/Platform Name/Num: ENSIGN 140 | | | | | |
| Job BOM: 7523 7523 | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | |
| Sales Person: HALAMERICA\HX38199 | | | | | Srv Supervisor: Thomas Haas | | | | | |
| Job | | | | | | | | | | |
| Formation Name | | | | | | | | | | |
| Formation Depth (MD) | | Top | | | Bottom | | | | | |
| Form Type | | | | | BHST | | | | | |
| Job depth MD | | 16444ft | | | Job Depth TVD | | 6444 | | | |
| Water Depth | | | | | Wk Ht Above Floor | | 10 FT | | | |
| 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 | 0 | 9.625 | 8.921 | 36 | | | 0 | 1543 | 0 | 1543 |
| Casing | 0 | 5.5 | 4.778 | 20 | | | 0 | 16444 | 0 | 16444 |
| Open Hole Section | | | 8.5 | | | | 1543 | 16462 | 0 | 0 |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| | | | | | | Top Plug | 5.5 | 2 | DHT | |
| Float Shoe | 5.5 | | | 16444 | | Bottom Plug | 5.5 | 1 | DHT | |
| Float Collar | 5.5 | | | 16440 | | | | | | |
| | | | | | | Plug Container | 5.5 | 1 | HES | |
| Fluid Data | | | | | | | | | | |
| Stage/Plug #: 1 | | | | | | | | | | |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|--|-------------------|---|-----------------------------------|---------|------------------------|------------------------------|---------------|--------------|---------------------|
| 1 | DIESEL | DIESEL | 40 | bbbl | 8.3 | | | | |
| 2 | FDP-C1337-18 | SBM FDP-C1337-18 CEMENT SPACER SYS | 100 | bbbl | 12 | 3.25 | 20 | 8 | 3456 |
| 3 | ElastiCem | ELASTICEM (TM) SYSTEM | 1975 | sack | 14.4 | 1.7 | 7.32 | 8 | 14457 |
| 4 | MMCR Displacement | MMCR Displacement | 30 | bbbl | 8.34 | | | | |
| 0.50 gal/bbl | | MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781) | | | | | | | |
| 5 | Displacement | Displacement | 328 | bbbl | 8.34 | | | | |
| 0.20 gal/bbl | | CLA-WEB - TOTE (101985045) | | | | | | | |
| | | | | | | | | | |
| Cement Left In Pipe | | Amount | N/A | | | Reason | | | Shoe Joint |
| Mix Water: | | pH 7 | Mix Water Chloride: < 300 ppm | | | Mix Water Temperature: 80 °F | | | |
| Cement Temperature: | | N/A | Plug Displaced by: FW 8.33 lb/gal | | | Disp. Temperature: 80 °F | | | |
| Plug Bumped?: | | Yes | Bump Pressure: 2100 psi | | | Floats Held? Yes | | | |
| Cement Returns: | | N/A | Returns Density: N/A | | | Returns Temperature: N/A | | | |
| Comment BUMP PLUG AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2100 PSI, 5 MIN CASING TEST @ 2700 PSI, FLOATS HELD, 4 ½ BBLs BACK. 18 BBLs OF SPACER TO SURFACE. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density <i>(ppg)</i> | Comb Pump Rate <i>(bbl/min)</i> | DS Pump Press <i>(psi)</i> | Comments |
|-------|----------|---------------------------|---------------------------|----------|----------|--------|----------------------------|------------------------------------|-------------------------------|--|
| Event | 1 | Call Out | Call Out | 7/6/2019 | 06:00:00 | USER | | | | CREW CALLED OUT AT 06:00 07/06/2019, REQUESTED ON LOCATION 12:00 07/06/2019. CREW PICKED UP CEMENT, CHEMICALS (15 GAL MMCR, 10 GAL CLA-WEB, 20 GAL D-AIR, 3 LBS BE-3), 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 10025027/10989685 Bulk 660: 10991603/11062210 PUMP ELITE: 11645460/11897034 |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 7/6/2019 | 09:30:00 | USER | | | | DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW |
| Event | 3 | Crew Leave Yard | Crew Leave Yard | 7/6/2019 | 09:45:00 | USER | | | | STARTED JOURNEY MANAGEMENT. |
| Event | 4 | Arrive At Loc | Arrive At Loc | 7/6/2019 | 11:00:00 | USER | | | | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1543', CASING: 5.5" 20# @ 16444', 4' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6444', 9.9 PPG WELL FLUID, FRESH WATER DISPLACEMENT. |
| Event | 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 7/6/2019 | 11:30:00 | USER | | | | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER. |
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 7/6/2019 | 11:45:00 | USER | | | | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB. |
| Event | 7 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 7/6/2019 | 14:00:00 | USER | 8.36 | 0.00 | -6.00 | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| Event | 8 | Start Job | Start Job | 7/6/2019 | 15:17:34 | USER | 8.28 | 0.00 | 213.00 | START JOB DATA RECORDING |
| Event | 9 | Test Lines | Test Lines | 7/6/2019 | 15:19:31 | USER | 8.49 | 0.00 | 5794.00 | PRESSURE TEST FAILED DUE TO 1" VALVE, CHANGE OUT 1" VALVE |

| | | | | | | | | | | |
|-------|----|-----------------------------|-----------------------------|----------|----------|------|-------|------|---------|--|
| Event | 10 | Test Lines | Test Lines | 7/6/2019 | 15:23:32 | COM4 | 8.29 | 0.00 | 216.00 | PRESSURE TESTED SUCESSFUL PRESSURE TEST IRON TO 6500 PSI KO SET TO 500 KICKED OUT AT 400 PSI, 5TH GEAR STALL AT 1970 PSI. |
| Event | 11 | Pump Spacer 1 | Pump Spacer 1 | 7/6/2019 | 15:27:49 | COM4 | 8.33 | 0.00 | -2.00 | PUMP 100 BBLS SPACER @ 12 LBS/GAL ADDED 20 GAL OF D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES. |
| Event | 12 | Pump Cement | Pump Cement | 7/6/2019 | 15:44:20 | COM4 | 14.17 | 8.60 | 794.00 | PUMP 1975 SACKS OF ELASTICEM @ 14.4 LBS /GAL 1.7 YIELD, 7.32 GAL/SK TOC 1787', DENSITY MEASURED BY PRESSURIZED MUD SCALES. |
| Event | 13 | Drop Top Plug | Drop Top Plug | 7/6/2019 | 17:11:52 | COM4 | -0.26 | 0.00 | -5.00 | DROP 1ST TOP PLUG LEFT CONTAINER VERIFIED BY CO. MAN AND TOOL HAND |
| Event | 14 | Pump Displacement | Pump Displacement | 7/6/2019 | 17:11:57 | COM4 | -0.23 | 0.00 | -5.00 | PUMP 5 BBLS FRESH WATER SPACER BETWEEN 1ST TOP AND 2ND TOP PLUG |
| Event | 15 | Drop Top Plug | Drop Top Plug | 7/6/2019 | 17:13:42 | COM4 | 8.15 | 0.00 | 44.00 | DROP 2ND TOP PLUG LEFT CONTAINER VERIFIED BY CO. MAN AND TOOL HAND |
| Event | 16 | Pump Displacement | Pump Displacement | 7/6/2019 | 17:16:18 | COM4 | 8.30 | 0.90 | -4.00 | BEGIN CALCULATED DISPLACEMENT OF 598 BBLS WITH FRESH WATER, 15 GAL OF MMCIN IN FIRST 30 BBL, 10 GAL OF CLA-WEB AND 3 LBS OF BE3 ADDED THROUGH OUT. |
| Event | 17 | Other | RUPTURE DISK 1ST TOP PLUG | 7/6/2019 | 18:03:03 | USER | 8.42 | 3.10 | 2688.00 | RUPTURE DISK OF 1ST TOP @ 3000 PSI. |
| Event | 18 | Pump Displacement - End | Pump Displacement - End | 7/6/2019 | 18:06:23 | USER | 8.39 | 2.30 | 2130.00 | BUMP 2ND TOP PLUG FINAL CIRCULAING PRESSURE 2100 PSI |
| Event | 19 | Other | Casing Test | 7/6/2019 | 18:07:01 | USER | 8.42 | 0.00 | 2742.00 | 5 MIN CASING TEST AT 2700 PSI. |
| Event | 20 | Check Floats | Check Floats | 7/6/2019 | 18:10:20 | USER | 8.42 | 0.00 | 2829.00 | CHECK FLOATS, FLOATS HELD WITH 4 1/2 BBLS BACK |
| Event | 21 | End Job | End Job | 7/6/2019 | 18:12:10 | COM4 | 8.37 | 0.00 | -4.00 | END JOB DATA RECORDING |
| Event | 22 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 7/6/2019 | 18:20:00 | USER | 8.37 | 9.90 | 414.00 | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES. |
| Event | 23 | Rig-Down Completed | Rig-Down Completed | 7/6/2019 | 19:10:00 | USER | | | | ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL. |
| Event | 24 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 7/6/2019 | 19:20:00 | USER | | | | DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. |

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|-------|----|---------------------|---------------------|----------|----------|------|
| Event | 25 | Crew Leave Location | Crew Leave Location | 7/6/2019 | 19:30:00 | USER |
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THANK YOU FOR USING HALLIBURTON - THOMAS HAAS
AND CREW.

3.0 Attachments

3.1 70 RANCH 10-15-3L PRODUCTION – Job Chart

