

# CLEARMAX™ Solution Combines Inflow Test, Cleanout, and Displacement in 1 Trip, Saves 24 Hours Rig Time

## Objectives

- Optimize cleanup and inflow testing operations in tapered liner.
- Displace the well to clean completion fluid and pickle the drill pipe.

## Our Approach

- After reviewing well completion plans with the operator, Weatherford engineers proposed an innovative bottomhole assembly (BHA) to optimize wellbore cleanout and inflow testing operations. By mounting a CLEARMAX mechanical inflow test (MIT) packer and collapsible landing sub (CLS) on the wellbore-cleaning BHA, Weatherford could complete the operation in a single trip. Such operations normally took the customer two trips.
- At the rig, Weatherford crews rigged up to conduct the cleanup, inflow testing and subsequent displacement. They ran in the hole with the MIT and CLS on the cleanout string, along with string mills, casing scrapers, casing brushes, string magnets, and drift subs to clean the 9 5/8-in. casing and 7-in. liner.
- Upon approaching the liner top, the driller slowly lowered the toolstring until the CLS tagged the 7-in. liner. The CLS verified the liner-top depth and engaged with the liner hanger packer mandrel. The CLS transferred string weight across the MIT packer to set the packer in place, and a back-side pressure test confirmed packer integrity.
- The MIT packer was released, and drill water was pumped into the string to drawdown hydrostatic pressure and enable inflow testing of the 7 × 9 5/8-in. liner lap. The MIT packer was reset and the inflow test of the liner lap was performed with 1,840 psi (12.68 MPa) differential pressure across the packer.
- After successfully completing the inflow test, the crew picked up the CLS from the 7-in. liner top and collapsed the CLS to permit the BHA to pass through the 7-in. liner. They landed the BHA at the 4 1/2-in. liner top and confirmed its depth. The crew circulated the 9 5/8-in. casing and 7-in. liner until clean, then displaced the drilling fluid with clean completion fluid and pickled the drillstring.

## Value to Customer

- The Weatherford team performed wellbore cleanout, inflow testing, displacement and pickling operations in one trip. By avoiding a second trip, the team saved the operator approximately US \$65,000 in rig time.



The Weatherford collapsible landing sub is rigged up and ready to run in the hole.

**LOCATION**  
Saudi Arabia

**FIELD**  
Udhailiyah

**WELL TYPE**  
Onshore directional,  
unconventional gas producer

**HOLE ANGLE**  
42°

**CASING SIZE**  
9-5/8 in., 53.5 lb/ft

**LINER SIZE**  
7 in., 32 lb/ft  
4.5 in., 13.5 lb/ft

**TOP-OF-LINER**  
7-in. liner: 36,837 ft (3,422 m) MD  
4.5-in. liner: 14,202 ft (4,329 m) MD

**TOTAL DEPTH**  
14,242 ft ( 4,340 m) MD

**PRODUCTS/SERVICES**

- CLEARMAX MIT packer
- Collapsible landing sub
- Drift sub
- String mills
- MAX-Blade™ casing scraper
- MAX-Brush™ casing brush
- MAX-Force™ HD string magnets

