

# **REAL RESULTS**

## Deepwater Drilling-With-Liner Operation Isolates Depleted Sand and Sets Liner at 13,256 Ft in One Trip

## **Objectives**

- Drill through and isolate a 6.5-ppg, depleted-sand formation.
- Drill through a 306-ft shale interval to install the liner at a competent setting depth and cement the wellbore.
- Mitigate the high risk for fluid losses during drilling and cementation.

### Results

- Weatherford deployed its premium hydraulic drilling-with-liner (DwL) system to drill through the shale interval, isolate the depleted sand, and set the liner in a competent shale section at a depth of 13,256 ft (4,040 m), while eliminating the need to install a contingency liner.
- Rig personnel implemented rotating connections to prevent differential sticking.
- The annulus remained full throughout the operation, even while sustaining total fluid losses through the casing bit.
- The DwL system completed the operation within one 20-hour trip and met operational objectives, which included mitigating projected fluid losses to manageable levels.

## Value to Client

- This was the client's first successful deepwater DwL operation, and will open other similarly challenging formations for development.
- The operation helped the client meet its well construction objectives.
- By avoiding contingency liners, sticking, and other delays, the team completed the operation ahead of schedule.

Though the equivalent circulating density (ECD) exceeded the fracture gradient of the depleted sand even at minimum pump rates, the DwL system enabled the operator to safely complete the operation in one trip.



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The Weatherford 9 7/8-in. x 14-in. premium hydraulic DwL system drilled and isolated depleted sand, while reducing expected catastrophic fluid losses to manageable levels and enabling the client to meet its well construction objectives.

Location Gulf of Mexico

Well Type Offshore

Inclination 36°

**DwL Distance** 306 ft (93 m)

#### Total Depth 13,256 ft (4,040 m)

**On-Bottom Rate of Penetration** 16.7 ft/hour (5.1 m/hour)

**On-Bottom Drill Time** 18.29 hours

### **Products/Services**

- 9 7/8-in. x 14-in. premium hydraulic DwL system
- Cementation services
  - Liner hanger system
  - Liner top packer
  - 9 7/8-in. x 11 3/4-in. outer diameter (OD) non-rotating, elastometer-lined centralizers
    Heavy-duty stop collars
- 9 7/8-in. x 11 7/8-in. stabilizer
- Conventional-fill, poppet valve-type float collar

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