



# Weatherford®

## REAL RESULTS

### Zero NPT: Four Large-Diameter Liners Successfully Run Deep into Unstable Wellbores

#### Objectives

- Run large-OD production liners (the largest liners to the deepest depths ever in Trinidad) to total depth (TD) in two wells as integral parts of the well completions. Both wellbores were unstable; one well required an exceptionally long liner.
- Eliminate nonproductive time (NPT).

#### Results

- Weatherford's detailed quality plan covered everything from manufacture of the liners to their installation with Nodeco® liner hanger systems.
- **IA25 well:** Running the 10 3/4- x 16-in. liner required a test pressure for tieback exceeding the ratings of the liner system. Weatherford modified the system, using a high-pressure tieback seal bore and seal stem, and it tested successfully. The 7 5/8- x 10 3/4-in. liner had to reach 17,070 ft (5,203 m) TD in an unstable wellbore. A reamer shoe was used with the Nodeco system to rotate, wash, and ream the liner for 2,000 ft (610 m) and successfully reached TD in 14 hr.
- **IA24 well:** The 13 5/8- x 16-in liner, an extremely long 6,095 ft (1,858 m), was run to 13,790 ft (4,203 m) TD, where it functioned as designed. The 7 5/8- x 13 5/8-in. liner required last-minute incorporation of dual Sub-Surface Release™ plugs to extend below a lower completion polished bore receptacle (PBR); the liner was run successfully to TD.

#### Value to Client

- Four liners, two standard tiebacks, and two completion tiebacks were run successfully with zero NPT.

"Thanks to the Weatherford team in making this a success and contributing to some of the biggest wells for BP, and to the commissioning of Train IV—a significant milestone for the people of Trinidad and Tobago."

Tony Seesahai, BP



Weatherford's Nodeco liner hanger was originally designed for applications in the North Sea, one of the toughest environments in the world. With its ability to handle high torque stresses and its high hanging capacity, the system was ideal for running long and heavy liners to deep depths from BP's Immortelle platform.

#### Client

BP Trinidad and Tobago

#### Location

East coast of Trinidad, Immortelle platform

#### Liner Sizes

- **Well IA25:** 10-3/4 x 16 in. and 7-5/8 x 10-3/4 in. with a 10 3/4-in. tieback and a 7-in. one-trip completion
- **Well IA24:** 13-5/8 x 16 in. and 7-5/8 x 13-5/8 in. with a 10 3/4-in. tieback and a 7-in. one-trip completion

#### Liner Hanger Setting Depth

- **Well IA25:** 17,070 ft (5,203 m)
- **Well IA24:** 13,790 ft (4,203 m)

#### Products/Services

- Weatherford liner system
- Sub-Surface Release cementing plug system
- Reamer shoe