



Weatherford®

REAL RESULTS

DwC™ Technology with Defyer™ DPA Bit Mitigates Lost Circulation, Offshore Vietnam, Reduces Rig Time to Save Operator US\$175,000

Objectives

- Drill casing through a lost-circulation formation, adjacent to blocks where the use of conventional methods proved time-consuming.
- Provide an efficient, economical drilling method that facilitates installing the long-interval, top-hole surface casing string.

Results

- Weatherford's drilling-with-casing (DwC) technology with a 13 3/8-in. × 7-in. Defyer DPA 8516 drillable casing bit was chosen for both reliability, to drill through medium-soft formations interbedded with hard stringers, and the resultant smearing effect, to seal the annular ring for easier casing installation.
- Weatherford deployed the nonretrievable DwC system, drilling the 13 3/8-in. surface casing string through an interval of 2,715 ft (828 m), with the bit recorded at a rate of penetration high of 262 ft/hr (80 m/hr) and an on-bottom torque high of 12,000 ft-lb (20.70 kN•m).
- The operator set the casing at a depth of 3,032 ft (924 m), completing the operational objectives in 25 hours, which is a reduction compared to 37 hours when the offset well operator used conventional technology.

Value to Client

- Weatherford's DwC technology enabled the operator to drill through the lost-circulation zone faster than conventional methods and increase drilling efficiency.
- DwC system drilled and set the casing in a single run, saving the client a total of 12 hours rig time, or US\$175,000.



Weatherford's Defyer DPA drillable casing bit, designed for DwC applications, saved 12 hours of rig time and US\$175,000 when drilling through a lost-circulation zone in an offshore well.

Location

Malay-Tho Chu Basin, Vietnam

Well Type

Offshore, exploratory

Formation

Sandstone, claystone, and siltstone interbedded with limestone stringers

Hole Size and Angle

17 in. (432 mm), vertical

Casing Type and Size

13 3/8-in., 68-lb/ft L-80 BTC with torque rings

Depth In

317 ft (97 m)

Setting Depth

3,032 ft (924 m)

Run Length

2,715 ft (828 m)

Flow Rate

300 to 800 gal/min (1,136 to 3,028 L/m)

Products/Services

- DwC technology
- Defyer DPA 8516 drillable casing bit
- 13 3/8-in. internal casing drive tool (ICDT) spear

Weatherford
Drilling-with-Casing (DwC)
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