

Official Magazine of the International Association of Drilling Contractors

DRILLING

C O N T R A C T O R

JULY
AUG
2008

DRILLING CONTRACTOR

OFFICIAL MAGAZINE OF THE INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

JULY/AUGUST 2008



NORTH SEA

Rig supply likely to stay tight, with few rigs being built for this harsh environment



INNOVATIVE DRILLING
Rotary steerables, LWD, SWD, drilling with casing take new steps forward

ALL DRILLING, ALL COMPLETIONS, ALL THE TIME

World's longest extended-reach well drilled offshore Qatar



Crews on the GSF Rig 127 overcame many constraints to drill the record well.

Transocean's jackup GSF Rig 127 has set a world record for the longest extended-reach well ever drilled at 40,320 ft (12,289 m) MD with a 35,770-ft (10,902-m) horizontal section. The well was drilled offshore Qatar in 36 days and incident-free. The new record of 7.6 miles is also the first well in the history of offshore drilling that exceeds 40,000 ft (12,191 m). The well surpasses by approximately 2,000 ft the prior extended-reach record of 38,322 ft (11,680 m) MD set by another drilling contractor with a land rig on Sakhalin Island earlier this year.

The rig's crew, working with the operator, **Maersk Oil Qatar AS**, overcame many constraints, including high drilling torque in the horizontal section. The Well BD-04A is in the Al-Shaheen field offshore Qatar. Crews used extensive deck-management planning and a supply boat to hold additional drill pipe so that the rig could stay within its variable deck load rating.

Worldwide, Schlumberger technology has contributed to six of the top seven extended-reach directional projects. The latest, drilled in the Al-Shaheen field offshore Qatar, reached a total depth of 40,320 ft. Total step-out distance from the surface location was 35,770 ft.

In all, the well set 10 records, including:

- Longest well ever drilled.
- Longest along-hole departure (37,956 ft).
- Longest 8 ½-in. section (35,449 ft).
- Highest ERD ratio (AHD/TVD): 10.485.
- Highest Directional Drilling Difficulty Index (DDI): 8.279.
- Deepest directional control.
- Deepest downlink, MWD transmission and LWD geosteering (40,320 ft).
- Deepest battery-less operation.
- Longest reservoir contact (35,449 ft).
- Longest open hole.

The 8 ½-in. horizontal section was drilled in two runs with the PowerDrive X5 and PowerDrive Xceed RSS. The TeleScope high-speed telemetry-while-drilling system transmitted geosteering information in real time and continuous measurements of parameters that affect drilling efficiency. The system also ensured that downlinking commands were received by the bottom-hole assembly all the way to total depth. Continuous trajectory control enabled drillers to keep the wellbore within the 3-ft "sweet spot" of the 10-ft-thick reservoir 95% of the time.

For the first time, totally battery-less LWD triple combo equipment was used. The TeleScope, geoVISION and adnVISION systems were powered by a turbine generator driven by drilling fluid circulation.

The record-breaking performance involved a Schlumberger D&M team assigned to the customer for more than a year. Drilling engineers located in Maersk's offices provided close collaboration, and Operation Support Center (OSC) engineers ensured clear communications and vital data were available for decision-making. Repair and maintenance personnel prepared and tested the equipment.



The Well BD-04A for Maersk Oil Qatar broke 10 world records, reaching a total depth of 40,320 ft. For the first time, totally battery-less LWD triple combo equipment was used.

1st phase is completed in rigless subsea well intervention project in Australia

PHASE ONE OF a rigless intervention activity on **Woodside's** Vincent project, offshore Western Australia, has been completed. This marks the first ever fully integrated rigless subsea well intervention project in the Asia Pacific region. **TSMarine's** Perth subsidiary operates a multi-year service contract with Woodside, and this milestone project has

seen **TSMarine's** offshore well intervention vessel, the *Havila Harmony*, successfully deploy, install and test seven subsea trees and carry out wireline intervention on all seven wells. This is the first phase of a campaign that will include the installation and completion of up to 11 subsea trees in the Vincent field and a range of commissioning and decommissioning projects in region. This also was the first time the deployment and installation on wire of subsea xmas trees from a monohull vessel has taken place in the region. Similarly, it was the first time a subsea well intervention project has been carried out using wireline services from a monohull vessel in Australian waters.

tioning projects in region. This also was the first time the deployment and installation on wire of subsea xmas trees from a monohull vessel has taken place in the region. Similarly, it was the first time a subsea well intervention project has been carried out using wireline services from a monohull vessel in Australian waters.