

# RipTide® RFID Underreamer Enlarges Borehole, Saves >14 Hours of Deepwater Rig Time Valued at \$150,000

## Objectives

- Enlarge a 17-in. pilot hole in a deepwater well in a single trip.
- Avoid generating pressure pulses in a narrow-pressure envelope.
- Prevent interference with measurement-while-drilling (MWD) and logging-while-drilling (LWD) tools.

## Our Approach

- A Weatherford borehole enlargement team met with the operator to conduct a pre-job analysis. The operator was concerned that a narrow pressure envelope might constrain underreamer operations. The operator also wanted to avoid any interference between the underreamer and nearby MWD and LWD tools.
- The Weatherford team recommended the RipTide RFID underreamer, which is actuated by radio-frequency identification (RFID) tags. And with no ball drop required for activation, its fullbore inside diameter enables operators to place the reamer anywhere on the drillstring.
- A Weatherford crew deployed to the rig and placed the RipTide RFID underreamer in the drillstring below the MWD and LWD tools and above the bit. After running in the hole to 6,903 ft (2,104 m), the crew pumped down RFID tags to activate the cutters on demand, and the drilling reamer enlarged the hole from 17 to 20 in.
- The Weatherford crew provided constant drilling operation support, including RipTide activation, drilling monitoring and analysis, and close collaboration with the rig personnel and customer representatives. The operation was completed without incidents or disruptions in service quality.

## Value to Customer

- The Weatherford RipTide underreamer enlarged the pilot hole in a single trip, which saved 14.3 hours of rig time valued at US \$150,000.
- RFID tags enabled underreamer activation and deactivation on command, thereby avoiding pressure pulses for actuation in a well constrained by a narrow pressure window.
- The underreamer created no interference with the MWD/LWD equipment, and its placement near the bit left minimal rathole while delivering a high-quality wellbore. This also gave the operator a successful approach for enlarging boreholes in subsequent wells drilled in the field.



Upon retrieval to surface, the cutters on the RipTide RFID underreamer showed only minor wear.

### LOCATION

Offshore Sarawak, Malaysia

### WELL TYPE

Deepwater, exploration

### FORMATION

Claystone

### INITIAL HOLE SIZE AND ANGLE

17 in., vertical

### FINAL HOLE SIZE

20 in.

### UNDERREAMER DEPTH

6,903 to 8,383 ft (2,104 to 2,555 m)

### PRODUCTS/SERVICES

RipTide RFID underreamer, 16500 series

