

Case study: Deepwater well, Gulf of Mexico

# Baker Hughes cuts and recovers complex tubing and upper completion, reduces unnecessary trips

A well in 5,610 ft (1710 m) in the Gulf of Mexico (GOM) required intervention after a loss in production. Baker Hughes recommended the **Mechanical Pipe Cutter™ (MPC™) pipe recovery service** in the 20,696-ft (6308-m) deep well. The electromechanical pipe-cutting tool reduces logistical and environmental constraints by providing precise, downhole pipe cutting without the use of ballistics or hazardous chemicals, reducing nonproductive time (NPT), risks, and overall intervention costs.

The operation involved running a mechanical tubing hanger through the 12° deviated borehole, cutting the 5½-in., 25% chrome (25 Cr) tubing at a depth of 18,750 ft (5715 m), pulling the upper completions, and rerunning an upper completions assembly.

The intervention required a clean tubing profile while generating minimal debris to reduce or eliminate any additional trips to dress-off the top of fish.

Due to the complex metallurgy, Baker Hughes developed a specially-coated

prototype blade for 25 Cr applications. This was followed by extensive pre-planning and three successful test cuts in simulated well conditions to ensure the operation's feasibility.

The operator requested the MPC tool be deployed on the portable **ATLAS ANYWHERE™ surface-based control system**, which operates our cased-hole products and services from any standard electric wireline cable.

Under tension, the MPC tool performed the cut cleanly and safely, in just 34 minutes, recovering the upper completion in a single trip. Upon inspection at the surface, the still-sharp blade on the MPC tool was fully intact with no missing teeth.

The combination of services from Baker Hughes enabled the operator to achieve a precise, high-quality cut while avoiding the use of ballistics or chemicals that add additional risks. The clean cut made by the MPC tool also reduced rig time by eliminating the need for a dress-off run.

## Challenges

- Offshore recompletion well with a well depth of 20,696 ft (6308 m), and a water depth of 5,610 ft (1710 m)
- Cut depth of 18,750 ft in a 12° deviated borehole

## Results

- Performed the cut in 34 minutes on the first attempt
- Eliminated a dress off run, reducing costly rig time
- Recovered the entire tubing and upper completion safely from the well in a single trip
- Deployed the MPC tool with a portable system and ran the tool on a competitor's wireline
- First 3¼-in. tool operation in the GOM for the operator



Tubing after being pulled to surface.