

Case study: Northern deepwater, Mexico

Baker Hughes HT60 and JamBuster services saved operator \$5 million USD

341 ft

Core obtained in 3 runs

100%

Recovery rate

\$5M

Estimated savings USD

An operator in an exploratory well in Mexico's northern deepwater region needed to recover core in a low consolidated soft sand formation with minimal geological data available. Additionally, the operator wanted to optimize well program runs that were twice the length typically used in the region, applying a core system never before deployed in the country.

Baker Hughes proposed employing the **HT60 Core Barrel System**, an advanced fit-for-purpose solution, to capture high-quality core samples. The HT60 has a hole diameter capacity of 12¼ in. to 17¼ in., a barrel diameter of 9½ in., and delivers a 5¼ in. core sample.

The Baker Hughes team used the HT60 system with a low-invasion PDC core bit with anti-whirl features that help increase sample quality in soft formations by avoiding filtrate invasion of the core.

The coring plan was enhanced with the Baker Hughes **JamBuster™ anti-jamming coring system**, which used telescoping core barrel sleeves to minimize the effects of core jamming and avoid the costs of unscheduled trips out of hole. Baker Hughes **GammaTrak™ wellsite gamma logging** was used for scanning core-filled inner barrels to verify that the target formations were achieved.

After winning the project against several competitors, Baker Hughes teams collaborated closely with the customer to develop a plan to acquire a 330 ft (101 m) core sample with the proposed technology.

The average run length for the project was 120 ft (37 m), twice the usual 60-ft (18 m) barrel normally run in this region. Baker Hughes performed a total of 3 runs, acquiring 341 ft (104 m) of high-quality core samples with 100% recovery.

The HT60 system had not been used in Mexico before, and these were the first 120-ft core barrel runs performed in the country. Core fluid invasion was kept to a minimum and no downtime or safety issues were reported. The operator avoided an expensive contingency plan for bypass coring, and predicted a 5-day reduction in rig time. Estimated savings were approximately \$5 million USD.