

# Case Study: Deep-set HEX in Gulf of Mexico

## Challenge

The client's deepwater well in the Gulf of Mexico was producing fines from unidentified sources. The operator required a thru-tubing Retrievable Bridge Plug as a deep set barrier to enable integrity testing of the tieback liner. But with tight restrictions, formation pressure of 16,200 psi, temperature of 195F, measured depth of 21,695 ft., and lots of debris and potential for getting stuck, it was a challenge to find a suitable solution.

## Solution

The client chose Interwell's 180-350 HEX due to the clearance around the neck and for the open area that allows fines and debris to fall down around the plug. Due to the challenging well conditions it was crucial for the client to be able to mill over or fish out the plug, in the occurrence it wouldn't release on slickline or coiled tubing.

Interwell set the HEX plug on e-line using the 2.7" High Pressure Hydrostatic Setting Unit (HSU) with no downtime. The client pressured up to 2,500 psi on top of the HEX plug to test their tieback liner and then bled off pressure slowly to perform a negative test and test their formation.

Interwell rigged up the 1.5" GS Pulling tool and in two attempts retrieved the HEX plug on slickline - not a simple task considering the challenging well environment.

## Value Created

In many wells in the Gulf of Mexico it is still common practice for operators to use composite or cast-iron bridge plugs (CIBP) with cement on top to temporarily abandon wells. Many operators continue with this costly, time-consuming operation even though many companies offer thru-tubing plugs. They are not Vo-rated and not as easy to retrieve as Interwell's plugs.

Interwell successfully retrieved the HEX plug in 12 hours with slickline, saving the client over US\$500k in rig time. Coiled tubing was standing by as a contingency but was not required - an operation estimated to take over 24 hours.

### Date:

December 2015

### Region/Field:

US/Deepwater GoM

"This [plug retrieval] was highlighted as one of the highest risk points of the operation. Mechanical failures, delivery issues, solids, pressure etc., all could have created situations difficult to recover from in the wellbore. Recovering the plug gets the operations past a major hurdle."  
GoM Operator

