

9-5/8" Rubblizer™ Saves 7 Days Rig Time

As part of a Slot Recovery project for a major Chinese operator, the Deep Casing Tools (DCT) Rubblizer™ was successfully deployed to enable 676ft of 9-5/8" 47lb/ft casing to be recovered.

The Rubblizer™ used flow and surface rotation to break the cement bond and its structure, reducing casing anchoring forces and the load required to pull the casing, ensuring longer lengths of casing could be pulled. The Rubblizer™ successfully rubblized the cement behind the 9-5/8" casing, prior to 3 cuts being made. The 9-5/8" casing was then successfully pulled to surface with pull forces within the safe operating limits of the rig.

THE CHALLENGE

Deep Casing Tools operating partner PrimeStar Technologies was approached by their client in need of a solution to successfully cut and pull 9-5/8" casing which was known to have competent cement within the B annulus.

Close to surface, the cement posed a challenge to the project where conventional cutting and pulling operations with a jarring assembly would be limited due to space out and consequential vibration and shock to drilling structure.

THE SOLUTION

DCT's Rubblizer™ was selected to guarantee casings recovery to surface, enhancing the cutting and pulling operation.

The tool was required to break the cement bond and structure prior to conventionally cutting and pulling the 9-5/8" 47lb/ft casing to surface from a depth of 676ft. The traditional solution for this was to pilot mill the 9-5/8" from the last recovered section down.

To achieve this the Rubblizer™ expands the tubular within its elastic limits to break the bond and structure between casing and surrounding material. This elastic deformation allows the pipe to contract back to its initial shape and be pulled to surface.

THE RESULT

PrimeStar Technologies used their conventional Casing Cutter BHA to perform a cut at 676ft, an ITCO Spear was then used to attempt recovery from 150ft. An axial force of 330,000lbs was applied to the 526ft section of 9-5/8" casing to be recovered, no movement was observed.

The Rubblizer™ was successfully operated across a 526ft section of 9-5/8" casing, rubblizing the cement behind the casing, breaking the bond and structure. In doing so, the pull force required to pull the casing was reduced by up to 90%. This single run saved the operator 7 days rig time, when compared to the conventional option of pilot milling.



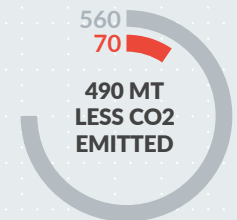
IN NUMBERS

Conventional Technology
Rubblizer™



168 HOURS SAVED

Use of the Rubblizer™ saved seven days of rig time equating to a total of \$840,000 USD saved.



87% EMISSIONS REDUCTION

The Rubblizer™ reduced 490MT of CO2 emissions, assisting operator reach their net zero targets.



UP TO 90% REDUCTION

A decrease of 90% in pull force required for the recovery of all sections.