

CASE STUDY- 2021- AFRICA

Stronghold® Barricade® successfully installed 18 annular barriers in West Africa

Challenge

A major operator required annular remediation rock-to-rock barriers on 13 deepwater wells offshore, remote, West Africa. Both single and dual barriers were required across 9 5/8" and 13 3/8" casing up to a depth of 2500 metres. The customer required a means to optimise barrier verification with the intent of eliminating the requirement of drill out and log annular remediation. In addition to being a new country entry for Archer, the project had a challenging time frame with limited infrastructure onshore and was heavily affected by the global pandemic in terms of personnel travel between UK-Onshore-Offshore.

Solution

Archer offered the Stronghold® Barricade® to place rock-to-rock barriers, with the Defender® system as an option to verify existing annular barriers. The modular design of the Stronghold® tools allows conversion between the two Stronghold® systems. To optimise barrier verification methods, Archer shared previous experience where successful planning and implementation of a well-specific verification checklist designed around optimised cement barrier placement, thereby eliminating the drill out and log requirement of annular barrier verification.



“Excellent performance from offshore personnel. Tools worked extremely well in tough conditions”

Result

The success relied on a close working relationship between Archer and the customer to plan and execute the abandonment plugs. Utilising Archers global experience in annular remediation, the Stronghold Barricade® System was successfully deployed to place 18 abandonment plugs across 13 of the 15 wells.

Barrier verification was carried out using the drill out and log method for the initial two wells to provide reference for future well verification. The remaining barriers were successfully verified using the checklist verification process thereby saving the customer on average 63 hours per well, 21 days across the project.

Management of Change performed resulting in all equipment being safely and efficiently redressed offshore between wells resulting in a major reduction in Covid-19 risk by eliminating the need for multiple onshore work programs.



STRONGHOLD®
Permanent Caprock Integrity