

CASE STUDY: 2019

First Stronghold® Barricade® System operation successfully executed in the Caspian Sea for BP

Challenge

The challenge was to plug and abandon a well that was suffering from sustained casing pressure. The objective was to set a 100 meter rock-to-rock barrier to isolate the sustained casing pressure and permanently plug the wellbore.

Solution

The solution chosen for this objective was the Stronghold® Barricade® System.

The Stronghold® Barricade® system provides a full lateral isolation by perforating the casing, cleaning the annular space on back side of the casing and setting a rock-to-rock cement plug.

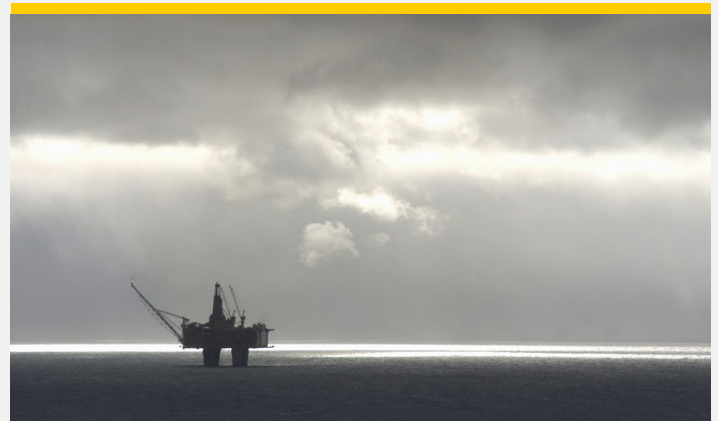
For this specific well the casing was successfully perforated from 1433m to 1533m. The perforations were washed from top to bottom with standpipe pressure decrease and cuttings coming over the shakers as positive indicators of performance.

The cement job was successfully executed using the Stronghold® Barricade® System's unique pump and pull technique.

By directing the cement laterally using the Barricade® tool the cement were injected as the tool were moved upwards providing a full lateral coverage of cement. The cementing operation was executed successfully and the objective was met.



STRONGHOLD®
Permanent Caprock Integrity



Result

The cement plug was verified by a weight test, positive and negative pressure test to “no flow” criteria as per BP requirement.

The sustained casing pressure (SCP) in B annulus was bled down to zero and remained at zero confirming that SCP was remediated. The Stronghold® Barricade® System provided a full lateral isolation with positive verifications, meeting BP’s expectations and delivered the objective for the well.

“A milestone was set for The Stronghold® Barricade® System by performing the first operation for BP in the Caspian Sea.

The operation is also the longest barrier ever set using the Stronghold® Barricade® System”