

RapidStart® Initiator CT Sleeve Delivers Substantial Time and Money Savings to Argentina Operator Using Delayed Completions

LOCATION: NEUQUÉN BASIN, ARGENTINA

CHALLENGE

- » Reliably reduce cost and time of completion operations in Vaca Muerta shale play
- » Perform a casing pressure test before fracturing operations
- » Leave the tool in the wellbore for several months before activation

SOLUTION

- » RapidStart® Initiator CT sleeve for a true casing integrity test without the need for intervention

RESULT

- » 200,000 USD and 48 hours saved, compared to traditional TCP methods
- » Successful 35-minute casing pressure test before opening
- » Reliable casing test and flawless opening operation after sleeve was in wellbore for 129 days

OVERVIEW

A major operator in Argentina needed to reduce the cost and time associated with its plug and perforate (PnP) completion operations in the Vaca Muerta shale play. The goal was to improve project returns so that the operator could continue developing its acreage. One way to do so is to streamline the toe preparation for PnP operations in the operator's horizontal wells by the use of a reliable pressure-operated toe sleeve.

Halliburton recommended the RapidStart® Initiator CT sleeve to provide them with a true casing integrity test, without the need for intervention. The sleeve completed the casing integrity test and opened in the predicted time range. This cost-effective solution provided the operator a total saving of 200,000 USD in well toe preparation and saw a flow path at the toe of the well 48 hours faster compared to the traditional tubing-conveyed perforating (TCP) method.

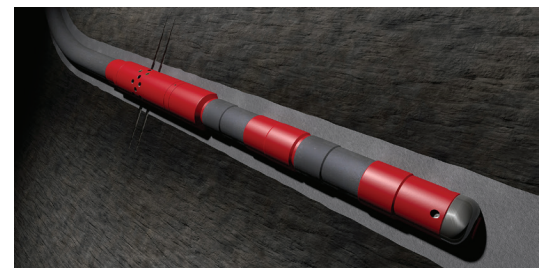
CHALLENGE

The operator needed a casing pressure integrity test to be performed before opening the toe sleeve for fracturing operations. The selected toe sleeve would need to withstand the cementing job operation and be able to withstand wellbore conditions for several months before being utilized.

SOLUTION

Halliburton recommended that the RapidStart Initiator CT (casing-test) sleeve be run as part of the casing string and then cemented in place. The RapidStart Initiator CT sleeve is a pressure-operated fracturing sleeve designed to enable a casing pressure integrity test prior to opening and without exceeding the testing pressure. It can establish a fluid flow path to the target formation to enable PnP operations without the need for intervention.

The RapidStart Initiator CT sleeve was the industry's first toe sleeve that allowed for a true casing pressure test, provided industry-leading reliability, reduced completion costs, and increased operational efficiency. By enabling positive verification of casing pressure integrity prior to fracturing operations, operators have confidence that they can safely perform stimulation operations. Additionally, the sleeve helps eliminate the need for a wellbore



intervention trip by coiled tubing to perform toe preparation operations and create access to the formation by perforating with TCP guns or a hydra-jetting process so that multistage stimulation operations can be conducted.

The RapidStart Initiator CT sleeve was run-in-hole as part of the casing string and cemented in place. The liner hanger was then set and the well was closed. A casing test was conducted 129 days after the sleeve was installed, and the sleeve opened within the predicted time range of 35 minutes after the test started.

RESULTS

- **Innovative:** This was the very first casing-test toe sleeve installed not only in Latin America, but also outside of the U.S.
- **Reliable:** The RapidStart Initiator CT sleeve allowed the operator to perform a true casing integrity test, with the sleeve opening successfully 129 days after installation.
- **Cost effective:** The operator realized a total saving of 200,000 USD in well toe preparation and saw a flow path at the toe of the well 48 hours faster compared to the traditional TCP method.
- **Job execution:** With the Halliburton Management System, Critical Well Review Process, and the Global Unconventional Completions Flex Team, the job was successfully planned from installation to the sleeve opening months later. The result was a successful operation, along with considerable savings in time and money for the operator.

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