

RapidStart® Initiator CT Sleeve Opens Successfully 32 Months After Installation

MURPHY SEES REPEATED RELIABILITY IN DUC WELLS

TEXAS, EAGLE FORD SHALE

CHALLENGES

Murphy E&P had two DUC wells with frac sleeves installed 32 months prior that were ready to be completed.

- » Potential impact of delayed and uncompleted wells
- » Reduce cost, complexity, and risk
- » Verify casing integrity prior to stimulating the well

SOLUTIONS

RapidStart® Initiator CT sleeves perform casing integrity test, and reliably hold up in harsh downhole conditions.

- » Help eliminate coiled tubing and tubing conveyed perforating (TCP)

RESULTS

After 32 months of being downhole in two separate wells, the RapidStart Initiator CT sleeves performed the casing integrity test and opened successfully.

- » Saved Murphy E&P by helping to eliminate coiled tubing and TCP
- » Provided operator with confidence in managing risk in wells completed after an extended timeframe

OVERVIEW

In the market of drilled and uncompleted (DUC) wells, there have been concerns about using frac sleeves in the completion design, then having them reliably open one, two, and almost three years later with repeatable success. Typical duration for operators to activate toe sleeves or frac sleeves in a non-suppressed market is one to four months. Murphy Exploration and Production Co. successfully opened two Halliburton RapidStart® Initiator CT (Casing Test) sleeves in two separate wells after being downhole for 32 months — an industry first.

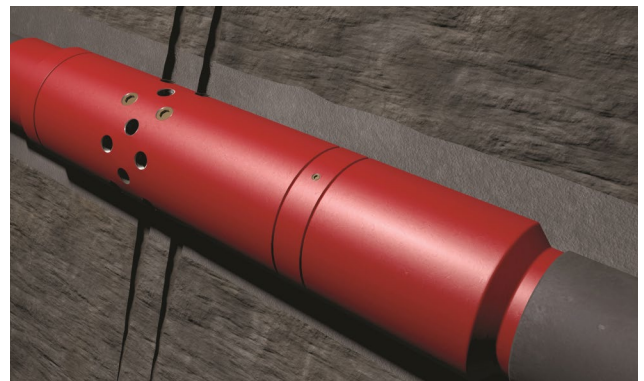
CHALLENGE

Several years ago, Murphy E&P was searching for ways to help eliminate the service complexity and cost associated with having to perforate the toe of the well using tubing conveyed perforating (TCP).

A year or so later, they were looking for a toe sleeve solution with the enhanced capability to perform a casing integrity test. This feature would provide Murphy E&P with greater operational efficiency, as it would help eliminate the need for several downhole trips to set a retrievable bridge plug for testing the casing string.

Fast-forward to the current day, when the downturn has impacted many companies in the oil and gas industry. Many operators have pushed forward with drilling wells, albeit at a slower rate, but have postponed the expense related to completing the wells until much later to adjust to the downturn. This deferment has many operators evaluating the unanticipated risk associated with well construction decisions made years earlier with a shorter duration between the first turn of the drill bit and opening the valve for production.

One of the challenges Murphy E&P is currently managing is a well inventory of cemented long string completions with first generation tools, like the RapidStart® Initiator sleeve, and second generation toe sleeves, like the aforementioned RapidStart Initiator CT sleeve, which has been installed in their wellbores for more than two years.



SOLUTION

Initially, to help eliminate service complexity and cost, Halliburton proposed the RapidStart Initiator sleeve for a toe sleeve solution. Later, when Murphy E&P needed to perform a true casing integrity test but also wanted to eliminate operational inefficiencies, the RapidStart Initiator CT frac sleeve system was chosen as the interventionless means of establishing a flow path at the toe of the well.

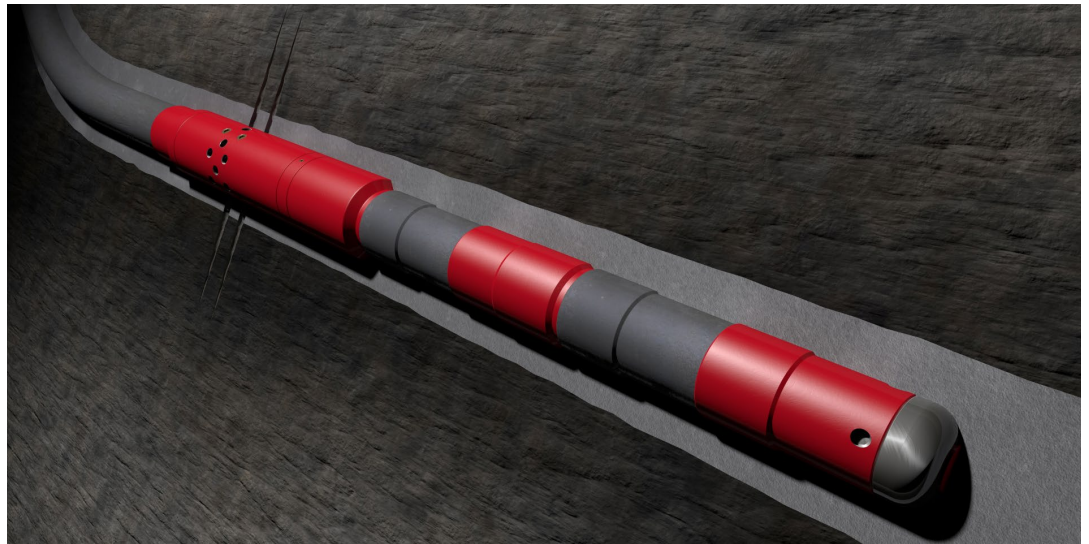
Additionally, by installing the RapidStart Initiator CT sleeve in the toe of each well, the costs and risk associated with running a retrievable plug, testing against the plug, and then retrieving the plug are removed.

RESULTS

After 32 months of being downhole in two separate wells over 7,000 feet deep, with static bottom-hole temperature up to 215°F, functioning at a total pressure of 10,000 psi, and providing a 30-minute casing integrity test — both RapidStart Initiator CT sleeves opened successfully as designed. The extended amount of time spent in those downhole conditions speaks to the reliability of the sleeves.

The extended time is also a first: We have no known competitors who have come close to reaching this timeframe.

This milestone achievement is a testament to the RapidStart Initiator CT sleeve, but it also provides operators with confidence in managing risk when evaluating the completion design of wells that are anticipated to be drilled but completed after an extended timeframe.



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Tools**