

Eliminating Composite Plugs Reduces Gas-to-Sales Time

Case study: PerfFRAC service saves
Goodrich Petroleum 4 days in East Texas well

Challenge

Efficient multistage stimulation
of thin sand zones

Solution

PerfFRAC*† selective perforating,
applied fracturing, and stage
isolation with ball sealers

Results

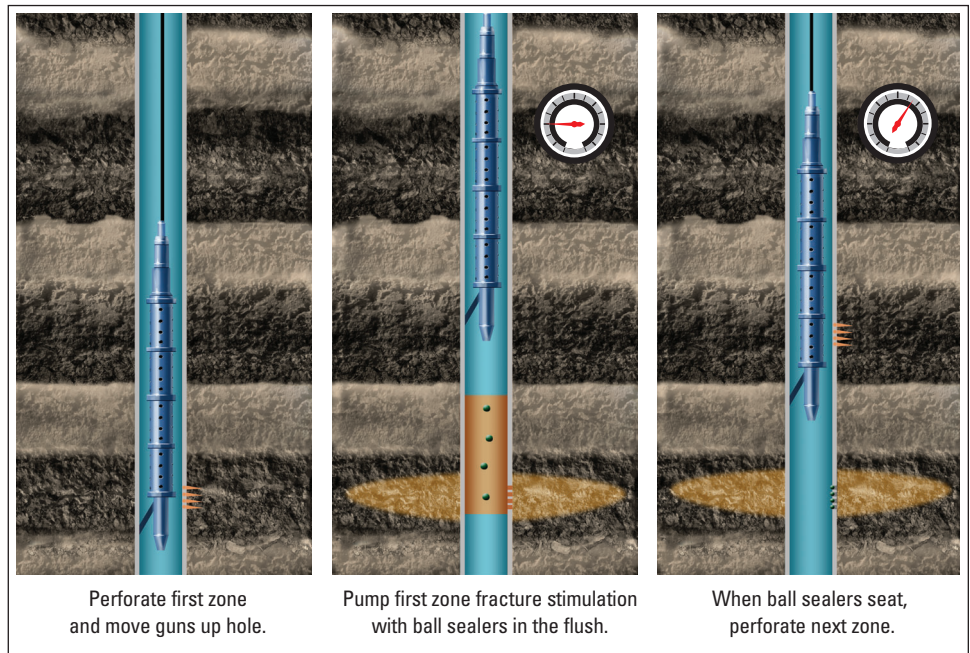
Saved 40% over
conventional treatment and
reduced gas-to-sales time
by 4 days

A challenging assignment

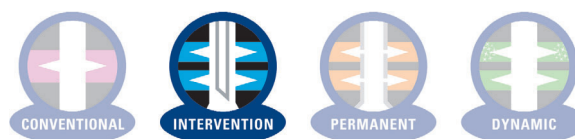
Goodrich Petroleum needed to stimulate four thin zones over a 1,000-ft interval in a gas well in the Travis Peak Sand in East Texas. The traditional process involved four steps:

- perforating the first interval
- fracture stimulating the first interval
- flowing the well overnight and setting a composite bridge plug (CBP) for isolation.

This process had to be repeated for each fracturing stage. After the last zone was fractured, a coiled tubing unit would drill out the CBPs to enable flowback. This method would take 5 days and cost USD 255,000. Goodrich asked for a new method to reduce time and cost without sacrificing production.



The PerfFRAC service stimulated four zones in one run.





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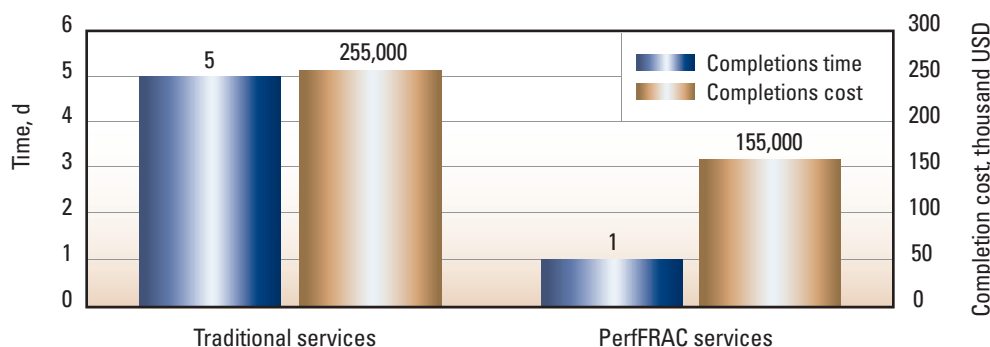
An innovative approach

Goodrich selected the PerfFRAC service, which completed this job in less than a day. First, guns are run in the hole to perforate the first stage. While the first stage fracturing job is being pumped, the guns are moved up the hole and positioned to shoot the holes for the second stage. Once the first stage stimulation is completed, ball sealers are pumped in the well. When the ball sealers seat against and seal the first stage perforations and pressure begins to rise, the guns positioned at the second stage are fired. This process is repeated until all stages have been stimulated. The PerfFRAC service requires no CBPs, and therefore there is no need for a coiled tubing unit to drill out the plugs.

In addition to these cost and time advantages, the PerfFRAC service can also allow the economical stimulation of pay zones that might have been bypassed, enabling the operator to maximize the potential of the reservoir. Production is increased through the precise stimulation of target zones, as opposed to a limited entry approach involving a large number of intervals and high pump rates.

"The PerfFRAC process has allowed Goodrich Petroleum Corp. to quickly perf and individually stimulate several formation intervals in a single day without the use of composite plugs or the coiled tubing required to drill them out. This has saved completion dollars and has shortened our time to first gas sales."

Tom Nemeč
Vice President,
Project Management



PerfFRAC services saved time and money over traditional services.

Significant cost/time savings

Using the PerfFRAC service saved Goodrich Petroleum 4 days and USD 100,000, or 40%, over using the conventional bridge plug method. Single-pass stimulation of multiple zones was key to the time savings. Lower total costs for this multistage stimulation stemmed from a cost-effective method that reduced time and equipment needed.

About the Contact family

Contact* staged fracturing and completion services maximize reservoir contact by offering the most efficient and effective services for each well. This portfolio of services offers wide breadth of choices in four fundamental categories. Each choice can be enhanced with real-time measurement options. The Contact intervention category enables multiple stages to be perforated/jetted, fractured, and isolated in one intervention.

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