

Boss Hog® Frac Plugs Cut Project Time and Costs in Haynesville Shale

CHALLENGE:

A global oil and gas company operating in the Haynesville Shale wanted to reduce cost, time, and risk in multistage, extended-reach lateral completions. With previous completions as a benchmark, the company wanted to:

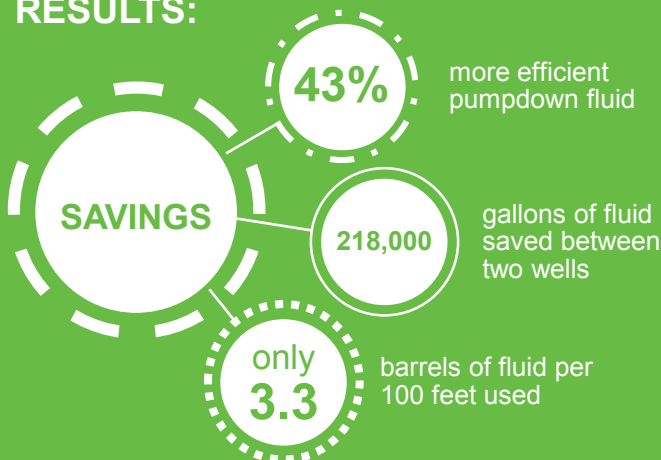
- Provide an efficient, multistage completion solution that reduces over-flushing on pumpdowns.
- Eliminate premature frac plug settings.
- Effectively seal in the extreme well environment exceeding 350°F.
- Minimize drillout time and risk.

RECOMMENDATION:

Downhole Technology proposed using the Boss Hog® composite frac plug with the HELISEAL® Fluid Propulsion System; one-piece lower slip and composite upper slip.

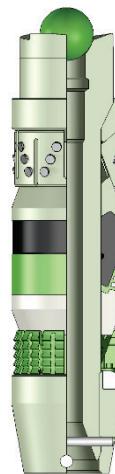
The HELISEAL design allows for a no-resistance free fall in the vertical section of the well and provides an inflated surface area allowing horizontal pumpdown with less fluid use and a faster run rate. The patented, one-piece lower slip is pre-segmented to prevent presets and allows the operator to maintain isolation and pressures exceeding 15,000 psi and temperatures above 350°F. The composite upper slip with noncarbide inserts circulate to the surface, along with the small cuttings when the plugs are drilled out.

RESULTS:



Boss Hog® Frac Plugs Reduced Fluid Used by 43% and Sealed Tight Without Presetting

Boss Hog® frac plug



- Casing = **5.5" #26**
- True Vertical Depths = **14,000'**
- Total Depths = **21,000' +**
- Total Number of Plugs Used = **77**
- Static Temperature = **355°F**
- Max Pressure = **14,000 psi**

Benefits

The technologically evolved design of the Boss Hog® frac plug allows operators to:

- Reduce over-flushing during pump down.
- Maintain seal during entire stage frac.
- Eliminate premature settings during pumpdown.
- Reduce debris and drill out times.