

Substantial Savings for Northeast Rig Operator



FIELD REPORT 175

Transforming Rig Efficiency: Derrick® Hyperpool® Outperforms Competitor's Newest Shaker, Saving Operator Over \$80,000 Per Well

Overview

Our recent rig conversion showcases the advanced efficiencies of our renowned Hyperpool® shaker technology. A Northeast rig operator contacted Derrick® to conduct a multi-well comparative analysis between their underperforming shakers and the Hyperpool. The decision to switch stemmed from a notable rise in screen consumption costs with the competitor's shakers. After operating with the competitor's equipment for 27 wells, the escalating expenses prompted concern and necessitated a change.

This required the competitor's shaker to be isolated during screen changing operations, exacerbating non-productive time (NPT).

The Solution

Derrick engineers installed three Hyperpools onto the existing competitor's setup with minor modifications to ensure proper flow and fluid distribution. The entire upgraded shaker system was completed without having to incur any delays during the rig move.

The Challenge

The evaluation encompassed an in-depth analysis of various drilling parameters including the average days on well, haul-off, synthetic base fluid dilution, low gravity solids (LGS)%, screen consumption, and expert testimonies from the rig site. This comprehensive assessment occurred while drilling 8.5" production sections, with an average interval depth reaching 11,400 ft.

Drilling Conditions:

ROP: 600 ft/hr

Circulating Rate: 400 - 700 GPM

Mud Weight: 11 - 13 PPG

Mud Type: Paraffin Synthetic Based Drilling Fluid

Due to the competitor shaker's front-end loading design, which requires removal of all screens to change the feed screen, screen panel changes took upwards of five minutes per panel.

CUSTOMER

Northeast Rig Operator

INDUSTRY

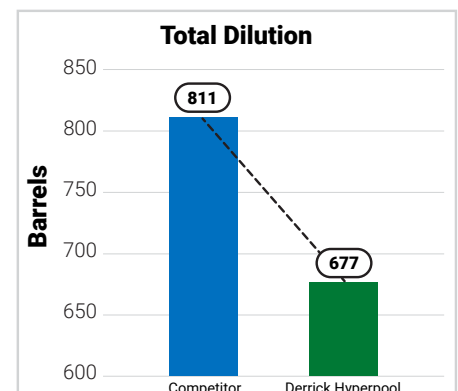
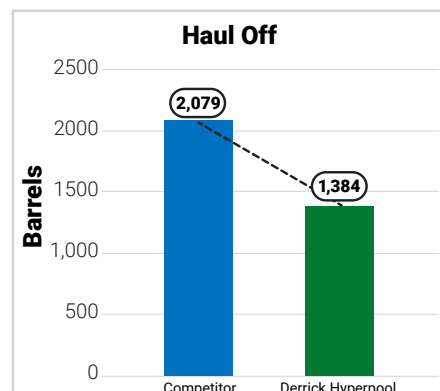
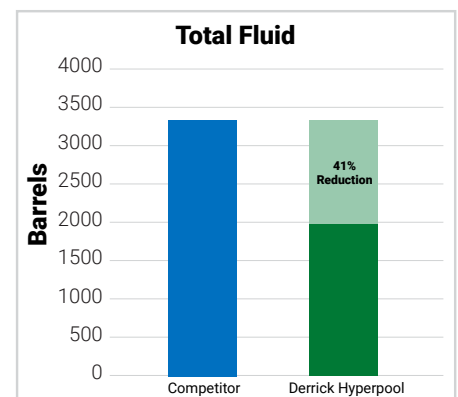
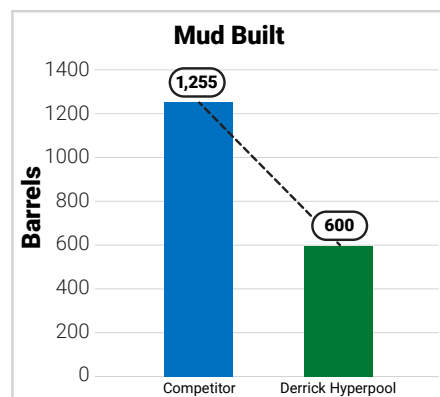
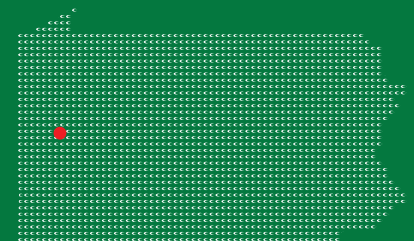
Oil Drilling

EQUIPMENT

Hyperpool® Shale Shaker

LOCATION

Butler County, Pennsylvania



The Results

The operator achieved significant improvements after implementing Hyperpool shakers featuring our patented Pyramid® screens; screen consumption decreased, and LGS% dropped by 3-5%. Operating with only two of three shakers, the rig enhanced capacity while utilizing the identical API 140 and API 170 screen sizes as before. Remarkably, drilling duration was reduced by an average of 2 days per well, from 6 to 4. Additional reductions included:

- Rig haul-off decreased by 33%.
- Base fluid dilution lowered by 38%.
- Mud built reduced by 52%.
- Solids Removal Efficiency (SRE) improved to 88.4% from the previous 84.5% with competitor units.

In total, these enhancements translated to over \$80,000 savings per well for the operator.

KEY INSTALLATION BENEFITS



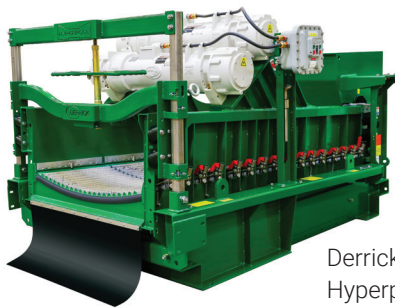
Cost savings per well \$80,000



**Base Fluid Dilution lowered by 38%
and Mud Built Reduced by 52%**



**Average Low Gravity Solids
Reduced 3-5%**



Derrick
Hyperpool

**Scan here to discover more about
the Derrick Hyperpool!**



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