Timeframe for Wells Completed

Over 340 Wells

Well Categorization for Comparison

Proppant Volume Comparison

Histogram of Average Proppant Volume per Well
(Wells Completed 2011-2014)

Proppant Type

CRCS OPERATOR A Curable Resin Coated Sand

UFS OPERATOR B Uncoated Frac Sand

Completion Data Comparison

Statistically Significant Completion Factors

Proppant Volume Larger Proppant Volumes Statistically Significant Positive Effect for Production

Further Support

Proppant Flowback
Can occur with UFS leading to frac width reduction, wellbore deposition, as well as pump and surface equipment damage.

Recommendations to the Operator

Double the CRCS proppant volume of Operator A to maximize short-term and maintain long-term production.

ROI of additional proppant is two months based on a 20% production increase.

Additional 16 wells per year drilled to maintain Operator A production rate if design switch to Operator B.