

Title: Field Data Demonstrate Benefits of Combining Gas Lift with Flow Improver

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OBJECTIVES/SCOPE:

As gas lift utilization increases as a form of artificial lift for many assets in the Permian Basin, optimization through gas allocation remains a challenging problem. Operators are often limited on the amount of gas that can be injected downhole due to infrastructure capabilities and added operational cost. In addition to how these constraints impact production, wells may have a higher tendency for “slugging” behavior. This regime can also be exasperated by high water cuts, steep natural declines, and sub-optimal gas lift injection depth and volume.

METHODS PROCEDURES, PROCESS:

This presentation provides field and production data illustrating the results of applying a unique chemical composition that improves flowing conditions in gas lift wells.

RESULTS, OBSERVATIONS, CONCLUSIONS:

Through downhole introduction, the flow improver has decreased fluid density and surface tension in the wellbore, resulting in a decrease in flowing bottom-hole pressure. In addition to a reduction in slugging, the flow improver helped lower critical velocity needed for production flow out of the wellbore.

An ROI* to the operator was calculated based on chemical cost and monetary gain from increased fluid production.

*Financial measure variables (i.e., \$/bbl, \$/Mcf, dosage, etc.) included in presentation.