



How can you get more from your existing wells? Where do you think the water used in your original stimulation has gone? All operators face these questions. How can you get more value from these declining wells?

Single Shot IOR[™] is a patent pending post-production technique that uses natural gas liquids (NGLs) and proprietary chemistry to mobilize hydrocarbons in gas and oil bearing formations.

The Challenges - Post Production

Many wells in tighter reservoirs experience a rapid decline from their initial production rates. Factors that contribute to the decline include:

- Large volumes of water injected into the wells during the original stimulation program may adversely affect relative permeability.
- Condensate-rich gas wells commonly experience condensate dropout in the near wellbore region, leading to rapid decline and impacting the well's ability to produce hydrocarbons.
- Near wellbore damage in oil wells from fines migration or paraffin deposition.

The Technology

The Single Shot IOR[™] system is designed to combat post-production challenges.

- Introduction of NGLs to a condensate blocked region re-establishes gas production by mobilizing and removing the liquids. Benefits include the initial surge of hydrocarbon liquids plus higher levels of sustained gas production.
- Utilize proprietary chemistry with NGLs to remove water block and restore relative permeability and enhance hydrocarbon mobility.
- Mobilize incremental hydrocarbons by introducing a miscible fluid (NGL) to the reservoir where it swells the residual hydrocarbon and reduces its viscosity, allowing it to flow more easily to the wellbore.

Condensate Block Remediation

Five vertical wells have been treated with the Single Shot IOR[™] system for under \$50,000 / treatment using between 200 - 400 bbls of NGLs.

Water Block Remediation

Four vertical wells have been treated for similar costs and volumes, utilizing our proprietary surfactant.

Contact Tadd Wallace @ <u>taddw@c3ofs.com</u> to initiate the NDA and discuss potential solutions for your wells. April 2023



