

## The <u>ONLY PATENTED</u> solution offering Efficient, Economical and Optimized Solution for Refrac Well Prep & Water Shut Off!!

Operators have limited options when preparing their well inventory for refracturing. Typically, this process involves running a liner or long string to the surface. However, the preparation time and associated costs can be prohibitive, especially given current supply chain challenges and rising casing costs.

Once wells are prepped with a new liner or long string, the reduced casing size significantly diminishes frac rates. This issue is compounded as operators are then forced to use smaller frac plugs and perforating guns.

SwellFrac offers an innovative solution to prepare these wells using a surface pumping application that seals off all existing and open perforation tunnels. This patented process involves pumping an aqueous slurry from the surface, which screens out inside the perforation tunnels. Once in place, overpressure is applied, allowing the SwellFrac material to swell and form plugs within the tunnels. In fresh water and bottomhole temperatures (BHT) exceeding 150°F, swelling typically takes a few hours or less. Any residual SwellFrac material left in the wellbore is then cleaned out, leaving the well ready for re-frac operations to begin.

SwellFrac's particle size distribution and revolutionary *REACTIVE FIBER*™ interlocks within the perforation tunnels, forming a solid plug once swollen. Surface testing demonstrates zero leak-off at differential pressures exceeding 10,000 PSI. The resulting plugs are chemically resistant, capable of withstanding high BHTs. Even when the well is flowed back and producing hydrocarbons, the SwellFrac plugs remain swollen—thanks to our in-house proprietary osmotic superabsorbent polymer (SAP) elastomer—despite the absence of water.

## **Features**

- Prepare the entire lateral in one application
- Rapid swelling time
- Prep wells for re-Frac, water shutoff and P&A
- Rapid prep from start to finish
- Pressure seal increases with higher delta pressures
- Rig less preparation
- Super absorbing polymer compound
- Permanent Swell!

## **Benefits**

- SwellFrac plugs remain swollen when water is no longer present
- Compatible with acids and high BHT
- Pressure tight seal in the perforation tunnel prevents frac migration behind casing
- Existing well construction stays the same for frac rates, frac plugs and production rates







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SwellFrac Fully Swelled Plugging off the Frac Matrix





REACTIVE FIBER™

## **SwellFrac**

- SwellFrac's maximum swell out is 400% increase in volume
- Proprietary SAP (Super Absorbent Polymer) & osmotic elastomer
- Maximum BHT rating of 500°F
- Does not damage casing, tubulars or formation
- Single sack solution



