

VERSA-OUT

Water-based filtercake breaker system

APPLICATIONS

- Destruction of filtercake created by VERSAPRO* invert-emulsion reservoir drill-in fluid system
- Openhole completion injector and producer wells drilled with oil-based fluid and completed with standalone screens, expandable screens, or openhole gravel pack
- Oil-based filtercake remediation

BENEFITS

- Enables ready injection or flowback through restrictive completions
- Removes filtercake along the entire interval
- Delays breakthrough
- Eliminates time and cost of filtercake removal intervention
- Reduces time and equipment cost with rig equipment compatibility
- Enables placement during standard completion operations, eliminating the need for separate coiled tubing intervention operations

FEATURES

- Low corrosion rate with controlled release of D-STRUCTOR* organic-acid precursor breaker

VERSA-OUT* water-based filtercake breaker system enables ready injection or flowback through restrictive completions such as premium screens and openhole gravel packs. This system delays the destruction of the filtercake created by the VERSAPRO system and effectively removes the filtercake.

Removes filtercake along the entire interval

Heat and water in the well convert the active ingredient from the D-STRUCTOR breaker into organic acid. The other breaker components begin destroying the invert emulsion and water wet the calcium carbonate bridging agents so they may be readily dissolved with the acid. This breaker promotes complete destruction of the filtercake along the interval. A delay can be engineered and customized based on well conditions to meet operational requirements.

Eliminates time and cost of filtercake removal intervention

VERSA-OUT breaker system enables placement during the completion operation when it is possible to make direct contact with the filtercake, even for difficult-to-contact situations like openhole gravel packs. Because of their fast-acting nature, conventional breaker treatments need to be placed as part of an intervention operation. This requires extra time and cost to rig up coiled tubing and other intervention equipment.

Reduces time and equipment cost with rig equipment

The nonaggressive characteristics of VERSA-OUT breaker system enable the system to be mixed and placed with the rig equipment, saving costs related to specialized containers and pumps that are required to manage a conventional breaker treatment operation. As compared with conventional aggressive breakers, VERSA-OUT breaker system also requires fewer personnel.

Specifications

Product	Concentration
FAZE-MUL* primary reversible emulsifier and surfactant	0.5 to 1 lb/bbl [1.4 to 2.85 kg/m ³]
SAFE-VIS* polymer fluid loss control additive (optional)	1 to 2 lb/bbl [2.85 to 5.7 kg/m ³]
Brine	60 to 70 vol %
D-STRUCTOR organic acid precursor breaker	25 to 30 vol %
PEN-X* breaker surfactant package	5 to 20 vol %
Organic acid inhibitor (optional)	0.25 to 1 vol %