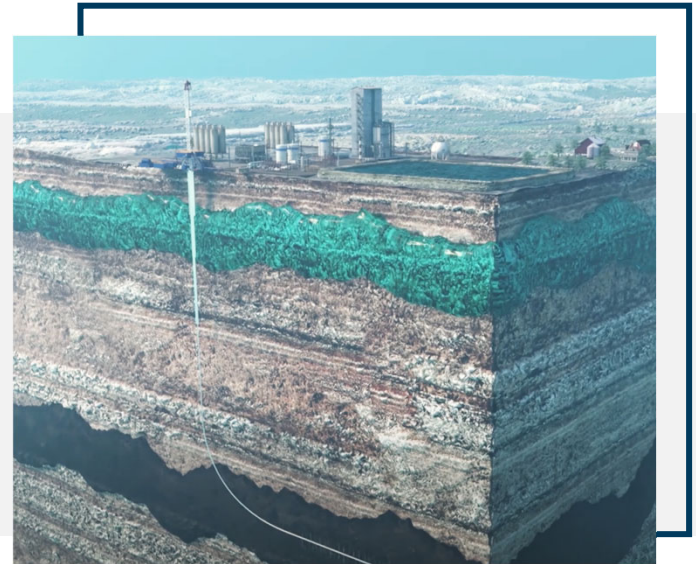


AssurEOR STIM[®]

Production Enhancement and Well Stimulation Treatment

Synergistic biosurfactant blend to improve production for enhanced oil recovery



Unique Multifunctional Attributes

- ✓ Safely returns the wellbore to its “natural” water-wet state
- ✓ Reduces surface energy, interfacial tension and capillary pressure
- ✓ Increases the effective permeability of the reservoir
- ✓ Assembles in nanosize micelles to penetrate deeper into shale rock
- ✓ Removes and disperses organic compounds from the rock surfaces
- ✓ Mobilizes residual oil over extended periods of time

Biosurfactant Advantages:

- Low critical micelle concentration (CMC)
- Better reservoir retention
- High temperature and TDS stability
- Good biodegradability and safe handling



User Benefits:

- Increase in oil & gas production
- Sustained incremental oil and treatment longevity
- Efficacy across many formations and reservoir conditions
- Reduced safety concerns and simplified logistics

AssurEOR STIM Applications

- ✓ Low-pressure squeeze for enhanced oil recovery
- ✓ Combined with AssurEOR FLOW[®] to remediate organic deposits
- ✓ Bull head with perforation diverter for minimal well intervention
- ✓ Combined with isolation tools during workovers or well cleanups
- ✓ Variable shut-in time based on well specifics and operational parameters
- ✓ Variable treatment volume based on perforation intervals and reservoir type

Portfolio Breakdown

STIM 1005C	Non-emulsifying, non-ionic biosurfactant blend
STIM 1006C	Non-emulsifying, non-ionic biosurfactant blend with iron control
STIM 1007C	Non-emulsifying, non-ionic biosurfactant blend for carbonate and sandstone
STIM 1010C *	Non-emulsifying, slightly anionic biosurfactant blend *Winterized version also available.
STIM 5010C	Highly concentrated (>80% active), non-emulsifying biosurfactant blend