Schlumberger

OpenPath Reach

Extended-contact stimulation service

APPLICATIONS

 Acid fracturing and matrix stimulation treatments in carbonate formations

BENEFITS

- Increases production by delivering reactive treatment fluids deep into the reservoir
- Reduces surface equipment requirements by using single-phase fluid systems
- Improves logistics with simplified fluid systems
- Limits environmental footprint compared with services using emulsified acid systems

FEATURES

- Low-viscosity, single-phase retarded acid system with high dissolution capacity
- Engineered job designs using the Kinetix* stimulation software suite
- High-rate pumping option
- Adjustable acid reaction rate for design flexibility to suit reservoir rock properties and conditions
- Compatibility with OpenPath Sequence* diversion stimulation service and MaxCO₃ Acid* degradable diversion acid system



OpenPath Reach service extends simulation penetration deep into the reservoir, maximizing hydrocarbon flow channels.

OpenPath Reach* extended-contact stimulation service improves production in carbonate wells with engineered acid stimulation designs that penetrate deep into the reservoir. The service combines slow-reacting fluid systems with reservoir-specific pumping schedules to maximize reservoir contact and ensure open pathways for hydrocarbon flow.

Engineers can optimize schedules and fluids using Kinetix Matrix* matrix stimulation design and other Kinetix suite components. The service can also be integrated with OpenPath Sequence service or MaxCO₃ Acid system to ensure uniform distribution of stimulation fluids along the wellbore.

Advanced fluid system

An OpenPath Reach service treatment designed with the single-phase retarded acid system achieves performance similar to that achieved with services using emulsified acids, but the single-phase fluid reduces overall footprint on location and minimizes the risk of emulsion issues during production.

Matrix acidizing

In matrix stimulation, OpenPath Reach services create longer wormholes in comparison with treatments using unmodified hydrochloric acid. Because the fluid system is compatible with friction reducers, designs may include high-rate pumping to accommodate long intervals and further extend wormhole length.

Acid fracturing

For acid fracturing, OpenPath Reach services improve the conductive fracture length in comparison with treatments using the same volume of unmodified hydrochloric acid.

OpenPath Reach service designs may also include a high-viscosity pad fluid followed by the lower-viscosity single-phase fluid system. This viscosity difference promotes viscous fingering, which creates selective etching patterns that help to maintain open channels for hydrocarbon flow after fracture closure.