

Kinetix Matrix

Matrix stimulation design

APPLICATIONS

- Matrix stimulation of conventional reservoirs
- Treatments using mechanical or chemical diversion
- Coiled tubing (CT) or bullheaded matrix treatments
- Stimulation delivery for all types of completions

BENEFITS

- Maximizes stimulation effectiveness by optimizing types and volumes of fluid systems, CT position, and pumping schedule
- Ensures stimulation efficiency by optimizing diversion for the completion and downhole environment
- Enables real-time decision making by integrating data from ACTive* real-time downhole coiled tubing services and other real-time sensing technologies

FEATURES

- Optimization of acid placement
- Scale-up of laboratory core flow tests to field conditions
- Diverter optimization
- Integration with ACTive services for
 - determination of initial permeability and skin damage
 - monitoring of fluid placement and diversion during treatment
 - treatment evaluation
 - thermal modeling
- Data exchange with other modules and plug-ins on the Techlog* wellbore software platform

Kinetix Matrix* matrix stimulation design software integrates reservoir petrophysical and treatment fluid chemical data to optimize design of matrix stimulation treatments for the reservoir. Engineers can assess the performance of different treatment fluids and volumes by simulating placement for different pumping and diversion schedules.

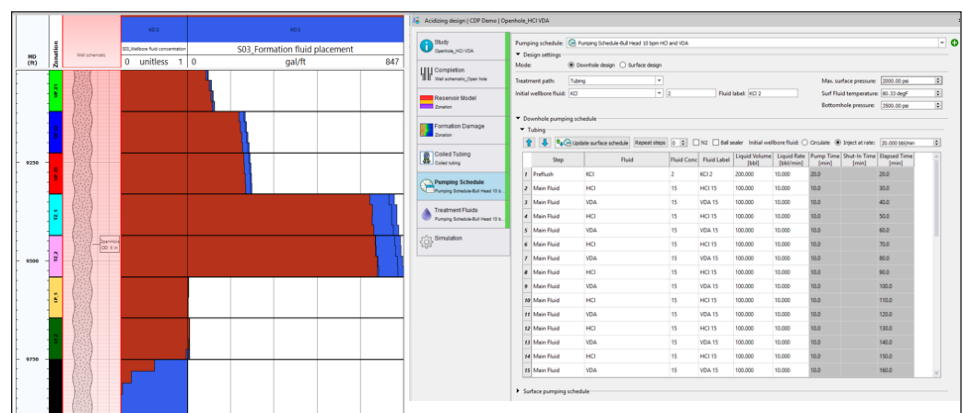
State-of-the-art models are included for placement in horizontal or vertical wells with cased or openhole completions. For openhole completions, the software simulates acid spending in the openhole section of the wellbore.

The software can simulate fluid placement through tubing, CT, CT/casing annulus, or dual flow paths such as simultaneous injection through CT and the CT/casing annulus. CT movement (if any) during injection is also simulated.

Improve stimulation efficiency by optimizing diversion

Kinetix Matrix design software also includes a comprehensive set of tools to simulate mechanical and chemical diversion during acid placement. The software can simulate mechanical diverters such as ball sealers as well as mechanical options often used in modern completions, such as segmented wellbores, sliding sleeves, and perforated liners. For chemical diversion the software simulates the performance of foamed fluids, viscoelastic fluids, and fluids containing particulates and fibers.

Kinetix Matrix design software presents these complex stimulation models in an intuitive and integrated workflow. Petrophysical characterization of the reservoir, design and optimization of the acid treatment, and monitoring of placement during execution are all performed on the Techlog platform. This facilitates data exchange and integration with other modules on the platform. For example, combining Kinetix Matrix design with THERMA* distributed temperature and distributed acoustic sensing (DAS) analysis software creates a comprehensive matrix stimulation design, interpretation, and evaluation workflow.



Kinetix Matrix design combines stimulation domain expertise with powerful simulation software and data-exchange workflows to maximize your well's production potential.

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