



Preview the Possibilities While Drilling and Increase Oil Recovery

LateralFlow™

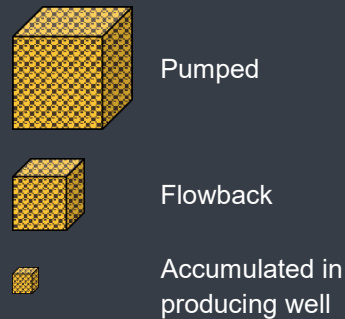
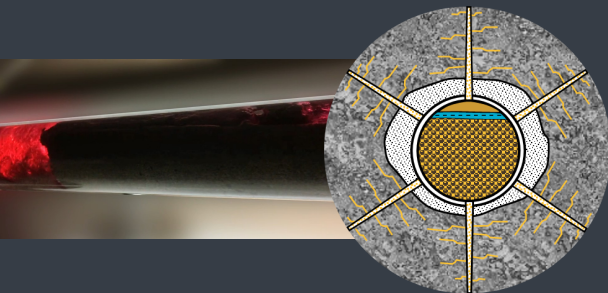


MPECORP provides now real-time, virtual modeling services for well trajectory optimization and drawdown management to minimize the length of production intervals of horizontal wells blocked by formation solids and proppant plugs formed during production. LateralFlow™ is a high-fidelity simulation solution for the dynamics of 3- and 4-phase flows in horizontal wellbores. It delivers the physics-based optimization of well trajectories and choke management strategies through identifying the blocked production intervals considering numerous factors, such as inflow profile of oil, water, and gas; flowing bottomhole pressure; initial decline rate; completion design; production time; and solids properties. The effect of solids accumulation in the horizontal wellbore on well productivity and recovery factor is quantified using the following parameters:

- **Plugging Factor:** The ratio of the length of completely plugged production intervals to the total length of production intervals
- **Deposited-to-Pumped-Proppant Ratio:** The ratio of the mass of proppant deposited in the well to the mass of proppant pumped into the well
- **Solids Holdup:** The ratio of the cross-sectional area occupied by solids to the total cross-sectional area of the production liner or casing

Proppant Plug in Horizontal Wellbore

Proppant Volume



Featured in *Materials Performance*, the flagship magazine of NACE International

How it works



1

Identify plugged sections



2

Optimize planned trajectory



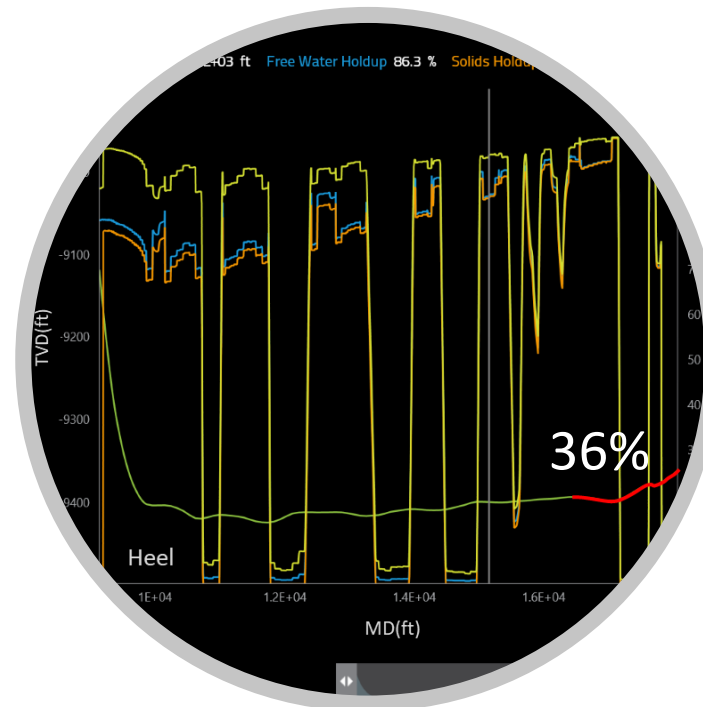
3

Share options with the multi-disciplinary team



4

Adjust trajectory while drilling



Virtual modeling gives engineers the power to see how their well designs will perform so they can be optimized before the wells are drilled, completed, and stimulated.

