



Deeper etching. Less acid. Lower corrosion.

The Baker Hughes ThermaStim geothermal low corrosive, in-situ acid

The Baker Hughes **ThermaStim™ geothermal low corrosive, in-situ acid** penetrates deep into the wellbore at extremely high temperatures to provide effective reservoir stimulation.

BETTER

This acid works in geothermal and other very hot environments to stimulate the reservoir in a completely different way. Because the acid requires heat to be activated:

- It doesn't react until it reaches the reservoir
- Let's you etch and stimulate deeper into the rock than you can with other acids, which only work near wellbore

The in-situ acid production allows for effective reservoir contact with lower treatment volumes—which allows you to stimulate more rock where you really need it.

SAFER

Not only does the ThermaStim system dissolve near wellbore scales, it also allows for deep etching of the geothermal rock with low corrosion packages that are not available on the market today. The in-situ acid generation is triggered by temperature which allows for protection

of surface on wellbore equipment without the need for an expensive corrosion package. It is safer on metallurgy, allowing you to focus on your production goals.

Because this acid is in-situ, there is no live acid while pumping. No acid component is produced at surface temperature, reducing HSE concerns at your location. This means:

- There is no need for acid tanks on location
- It's non-hazardous to humans and the environment
- Takes away your dependency on commodity acids
- Eliminates the transport and delivery of large volumes of acid typically needed

CLEANER

Because you can eliminate the large volumes of acid needed, you can reduce your carbon emissions.

This means you can get rid of:

- Transportation and delivery of raw acid, mixed water, and other additives
- Transportation of lined acid tanks
- Containment and neutralization of hazardous spills

APPLICATIONS

- Extended-reach wells
- Extremely high temperature geothermal wells (400°F/204.4°C plus)
- Sandstone/Carbonate formations

BENEFITS

- Provides effective stimulation in extremely high temperatures through in-situ acid production
- Cuts through near the wellbore and stimulates deep into the formation
- Lowers treatment volumes needed
- Zero reactivity and corrosivity on surface, making it safer to handle
- Reduces the need for corrosion inhibitor due to in-situ acid production
- Reduces HSE concerns and carbon emissions