

TRETOLITE inhibitor increases ESP run time more than 500%

CHALLENGES

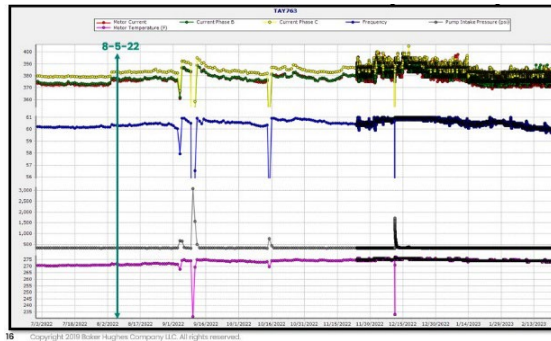
- A US operator based on the West Coast had been experiencing premature ESP failures related to significant calcium naphthenate deposition
- Wells producing 40-90 BOPD with water cuts as high as 80% were often failing in as little as 21 days
- Historically, the wells were treated with acid to reduce the deposition but these acids, and other non-acid naphthenate inhibitors, led to secondary issues including corrosion and poor water quality



Example of calcium naphthenate deposition

SOLUTION

- Baker Hughes developed and deployed a [TRETOLITE™ demulsifier technology](#) (TRETOLITE NMC) using a fast-screening biphasic bottle test and interfacial tension measurements
- Baker Hughes also identified a new inhibition method using a complexation of ARN acid that enabled:
 - Lower dosages vs. alternative methods
 - Non-corrosive, pH independence
 - No impact to water quality
- Baker Hughes upgraded the [FLEXPump™ ESP](#) with Teflon-coated Armor I stages for superior, non-stick properties and high chemical resistance



During the field trial, Baker Hughes monitored the ESP setpoints, tracking production rates, and oil in water counts for the operator to ensure the solution was working as planned.

RESULTS

5-well

field trial that proved the effectiveness of the calcium naphthenate inhibition

560%

increase in ESP run times without failure

Zero

negative impact on production rates

Superior

water clarity