Paraffin Prevention Performance Review

THE ISSUE

A leading US Independent Oil and Gas Producer was experiencing extreme paraffin problems in their Delaware Basin operations of Texas and New Mexico. Conventional chemical programs deployed for prevention & remediation and hot water treatments for remediation were met with poor success and high operating costs. Paraffin related failures caused the Producer to pull wells prematurely, lose oil production during downtime, handle operational challenges in restoring production in failed wells and cope with high flowline pressures.

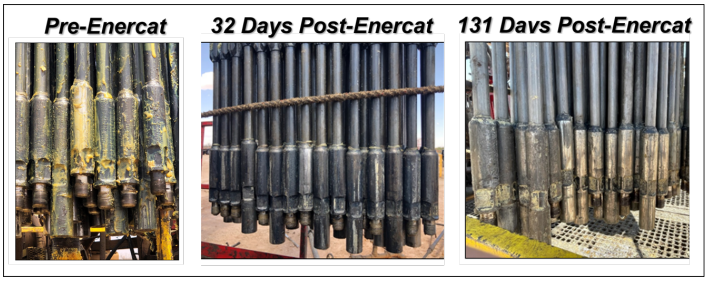
THE SOLUTION

The Independent Oil and Gas Producer engaged the Enercat Technology Group to install Enercat™ Downhole Tools for a 130-day trial in 2 wells experiencing extreme paraffin deposition problems. The Enercat™ Downhole Tool is a novel yet proven technology that lowers Wax Appearance & Pour Point temperatures and impedes the paraffin crystallisation process by weakening the intermolecular London Dispersion forces that govern precipitation, crystallization, and wax deposition in paraffinic crudes.

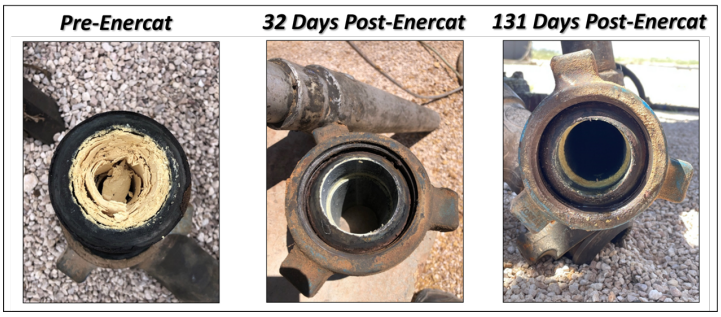
The results of the trial in paraffin prevention in downhole production equipment and at surface flowline facilities were extraordinary. After 30 days post-Enercat™ installation there was little to no paraffin build-up on the rods and only very slight paraffin forming on steel couplings and rods after 130 days post-Enercat™ installation. There was no paraffin deposition in surface flowlines at 32 days post-Enercat™ installation nor at 131 days post-Enercat™ installation.

PARAFFIN PRODUCTION DURING INITIAL ROD PULLING

REDUCING PARAFFIN BUILD-UP ON RODS BY ENERCAT™



ELIMINATING PARAFFIN BUILD-UP IN FLOWLINES BY ENERCAT™



COMMERCIAL BENEFIT AND PRODUCER'S ENDORSEMENT

The leading US Independent Oil and Gas Producer provided the Enercat Technology Group with a post-mortem analysis of the 130-day 2 well trial:

- ✓ Conventional chemical programs were not used after the Enercat™ tools were installed resulting in 100% cost savings.
- ✓ No hot water treatments were required to restore production in well failures.
- ✓ Flow lines were clean with no paraffin deposition.
- ✓ No lost production due to paraffin related downtime.

The Producer enthusiastically endorsed the Enercat™ Downhole Tool, proclaiming that "***it would take years for a paraffin related failure to occur based on the slight paraffin build-up seen on rods after 133 days***".

Moreover, after a thorough evaluation of the Enercat™ tool's performance by the chief production engineer in concurrence with the production foreman and rig consultant, the chief engineer declared "***I find Enercat™ tools to be the best paraffin prevention method and should be used as the first line of defense.***"