

Well Preservation for Extended Shut-In Periods

EXTENDED WELL SHUT-INS CAUSE STAGNANT CONDITIONS, WHICH CREATE MICROBIAL GROWTH AND CORROSION RISKS THAT CAN BE MITIGATED WITH SPECIALTY CHEMICALS AND APPLICATION EXPERTISE

OVERVIEW

Multi-Chem, a Halliburton Service, works with customers through all market cycles. This includes helping operators preserve wells for extended shut-in periods, when it is not economically viable to produce.

CHALLENGES AND SOLUTIONS

As a well is shut in, the conditions move to stagnant from flowing, which results in system dynamic changes and increases the risk for asset damage. The risks an individual well or facility can face depends largely upon which risks the production conditions promote. Such risks can be intensified during the shut-in period.

Challenges include:

- » Corrosion rate increases
- » Sulfate Reducing Bacteria (SRB) and Acid Producing Bacteria (APB) proliferation in stagnant systems
- » Solids precipitation, corrosion byproducts, scale deposition and microbial activity

ADDITIONAL RECOMMENDATION:

- » If possible, circulate the well once per month to keep fluids dynamic and sand from settling.

Contact Multi-Chem for a specialty chemicals program that maximizes the value of your assets.

Risk Potential	Chemical Consideration	Purpose
Corrosion/degradation of downhole equipment during shut-in period	Corrosion Inhibitors	<ul style="list-style-type: none"> » Help maintain value of downhole assets from potentially corrosive environment » Reduce risk of potential problems during Return To Production (RTP) due to corrosion failure
Bacteria growth in fluid column during shut-in period	Biocide	<ul style="list-style-type: none"> » Minimize the growth of bacterial populations in water » Reduce potential of biofilm formation and acid gas creation » Reduce potential for Microbial Induced Corrosion (MIC) » Help reduce potential for FeS formation and deposition
Water chemistry potentials for scale deposition and sand/solids settling from fluid columns	Scale Inhibitors	<ul style="list-style-type: none"> » Minimize potential for scale deposition during shut-in period » Reduce risk of potential problems during RTP due to scale deposition in pumps
Sand/solids settling from fluid columns	Mechanical/Well Circulation	<ul style="list-style-type: none"> » Help reduce risk of potential during RTP due to solids stacking in downhole components

For a specialty chemicals treatment program characterized by superior service and chemical application expertise that maximizes the value of your assets, contact us at multichem@halliburton.com

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.

H013593 04/20 © 2020 Halliburton. All Rights Reserved.