

Single treatment of X-CIDE XC24131 biocide lowered bacterial activity and nitrite losses in a closed cooling loop

CHALLENGES

- A closed cooling loop was flushed of 20wt% glycol with some glycol left behind
- The glycol created a food source for bacteria which excessively consumed nitrite used to provide passivating corrosion control
- Conventional glutaraldehyde and isothiazolone biocides were not able to control bacterial activity. The high pH (11) of the system had rendered conventional biocides ineffective
- Excessive nitrite and biocide chemical treatments were required which built up excessive salts in the closed loop

SOLUTION

- 200 ppm of X-CIDE™ XC24131 biocide was recommended after extensive lab fluid tests. It is more stable in the high pH cooling loop system and was able to control bacterial levels with a single treatment.
- A single annual maintenance dosage of 200ppm was then required to control the bacteria in the loop system

RESULTS

One

Treatment resolved the bacterial issue and avoided any upset to the smooth running of the production system

Lowered

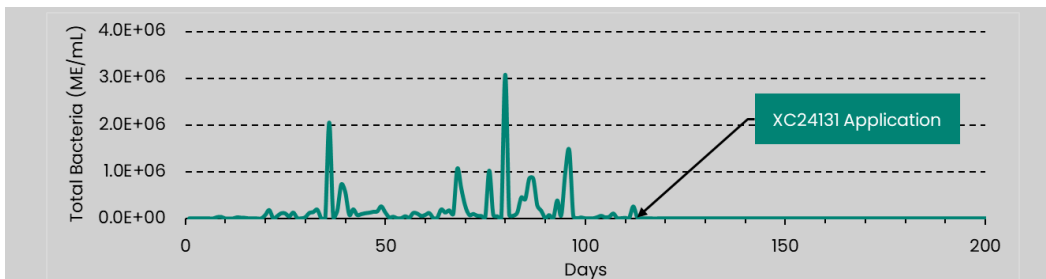
OPEX spend on chemicals

Reduced

Total live bacteria from 3M to <1,000ME/ml

“Baker Hughes expertise resolved the customer’s closed cooling loop issue with a single treatment.”

– **Nicholas Fisher**
Technical Manager, Baker Hughes
Upstream Chemicals



Closed loop total live bacteria trend

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