CASE HISTORY

Mining



RECORDED BENEFITS

- \$4M annual ROI
- 90% decrease in scaling rate
- Decreased system descaling requirements
- Increased production throughput
- Improved EHS

\$4M Annual ROI Attained at Gold Mine by Pairing Two Novel Technologies

Zalta™ Antiscalant with OnGuard™ Automation

Customer Challenge

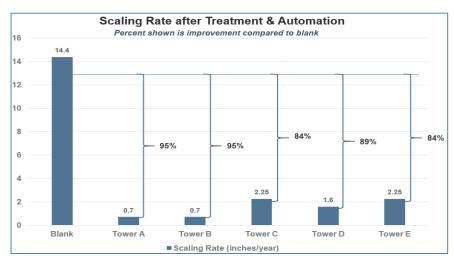
A gold mine experienced consistent scale buildup in a process water system with conditions so harsh that they were unable to find an antiscalant chemistry capable of relief. This operation was forced to shut down approximately four times per year for system descaling as standard procedure.

Recommended Solution

Solenis' Mining R&D team partnered with this gold mine to develop a new Zalta antiscalant that could withstand the harsh system conditions while greatly reducing the scaling rate. The demand for this new antiscalant fluctuates based on process variability, as is typical for most mining antiscalant applications. Solenis further partnered with this gold mine to design a new OnGuard automation program and control algorithm that automatically adjusts antiscalant feed rate to match current system demand based on variable scale-risk indicators in the process. OnGuard also provides on-line monitoring and data management capabilities.

Results Achieved

The scaling rate in this gold mine's harsh process water system decreased 90% through the addition of the new Zalta antiscalant paired with the new OnGuard automation program. Benefits include decreased system descaling requirements, increased production throughput, and improved EHS. Ultimately, this Solenis program delivers \$4M of annual ROI to the gold mining operation.



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