New High Performance Antiscalant Enables Control of Highly Variable System

Zalta™ MA11-440 Antiscalant

Customer Challenge
A gold mine with variable process conditions was experiencing elevated maintenance issues and inconsistent results. The incumbent program was not able to manage the calcium carbonate scale. As a result, the mine leadership team sought a more effective antiscalant program and holistic approach to improve and ensure performance goals were achieved.

Recommended Solution
Solenis conducted a thorough evaluation of the customer’s facility and water systems along with an extensive offsite product testing procedure. As a result, Zalta MA11-440 antiscalant, a new product developed to handle extreme conditions was selected to be evaluated. In addition, a new equipment skid was coupled with OnGuard™ 3S analyzer to provide real-time system performance monitoring and to control the antiscalant dosage based on the actual system scaling rate.

Results Achieved
Zalta MA11-440 program in combination with the OnGuard 3S analyzer achieved excellent performance in preventing scale buildup and provided a 60% reduction in antiscalant chemical costs. The OnGuard 3S data correlated very well to the actual scale buildup at the target areas in the circuit and is now being used as an invaluable tool to enable immediate response to process changes.

Recorded Benefits
- $200,000 total cost reduction
- Real-time monitoring to react quickly to unpredicted scale buildup
- Improved pump skid reliability to ensure less maintenance hours required
- No negative downstream process impacts
- Improved worker safety by providing detailed training and reducing skid maintenance points

OnGuard 3S Real-Time Data of Two Different Water Streams:

- Increased Dosage → Scale reduced