4% Increase in Gold Recovery with use of Gravity Circuit Antiscalant

Zalta™ Antiscalant

Customer Challenge
A gold mine in Australia was dealing with persistent low gravity recovery for many years. One of the primary factors was blocked fluidization holes on the Knelson concentrator caused by calcium carbonate scale, which was accelerated due to the high pressure and centrifugal forces of the Knelsons. Due to hazardous conditions and high cost, the mine was looking for an alternative to a sulphamic acid descaler.

Recommended Solution
With a thorough water analysis and an extensive offsite product testing procedure, Zalta™ MA1140 antiscalant was selected as the optimal solution. This antiscalant was specifically designed for calcium carbonate scaling.

Results Achieved
After a 4 month trial, statistical data analysis was performed by the mine to validate the performance of the Solenis solution. Gold recoveries increased by 4% by improving gravity circuit operation and reducing gold feed going to the flotation and CIL circuits. By avoiding the need for acid cleaning, the mine also saved $50,000 associated with acid set-up and reduced hazardous working conditions.