

Scale Control Using ML2515

Background

A mining company operates a large copper plant in the western US. Operating systems include grind circuit, Knelson Concentrators for placer gold, floatation circuit for copper extraction and CIL leach for gold recovery. The incumbent water treatment company had been on site for 5 years.

Problem

Maintenance department was forced to take one of their Knelson Concentrators off line every 10 days to remove calcium carbonate scale from the bowls. Downtime due to cleaning reduced production by 25% from the KC circuit. Maintenance costs add further to the overall spend and a solution to the problem was pursued by plant personnel.

Solution

The local ChemTreat team was allowed to survey the plant and submit a recommendation for treatment. After extensive water chemistry data was collected and an in-depth understanding of the operation gained, ML2515 was selected as the product of choice.



Program Evaluation

Three scale probes were strategically installed throughout the circuit where scale frequently occurred. Probes were monitored daily while chemical dosage was turned down until scale was formed. A final dosage of 3.4 ppm kept the system and scale probes clean. As a backup to the above method, calcium levels were recorded from the Mill water tank and the entrance of the Knelson Concentrators. These values clearly showed that calcium remained soluble when the proper chemical dosage was set.

Benefits

Knelson Concentrator shut downs for cleaning are no longer necessary. Chemical cost for the KC circuit was reduced by a staggering 75% annually.

