

RECORDED BENEFITS

- +4% increase in copper recovery across all feed grades
- Consistent $\geq 80\%$ recovery across all feed grades
- Improved mine operation by fully utilizing lower grade ores
- 25% reduction in cohesive/adhesive parameter of ground ore

Wet Grinding Aid in Hard Rock Mining Increases Recovery by 4 Percentage Points

Zalta™ Grinding Aid

Customer Challenge

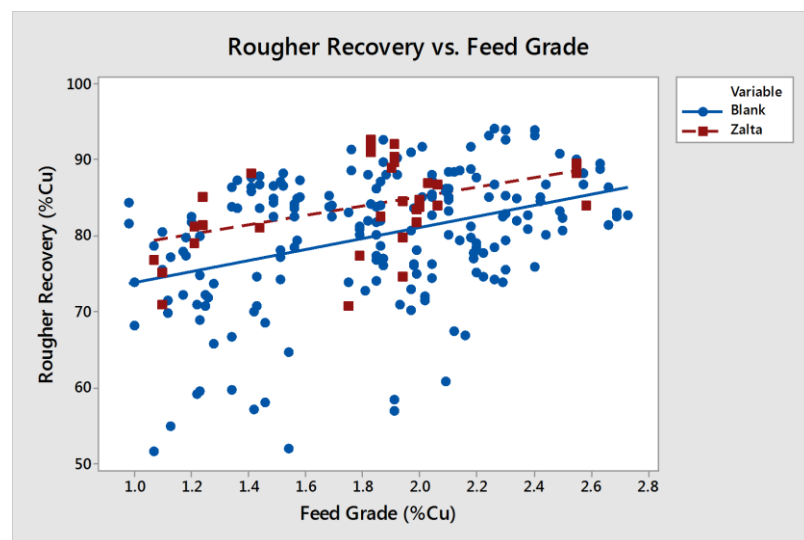
A copper mine in Latin America was failing to meet increased and consistent copper rougher recovery targets of +80% at optimized throughput. The rougher flotation stage was the process bottleneck. Also, the mine struggled to gain copper recovery due to the increased utilization of lower grade ore.

Recommended Solution

Solenis utilized their methodical blueprinting approach to identify customer needs. Using this information, it was then determined that a Zalta grinding aid could reduce ground ore cohesive/adhesive parameter, ground ore average particle size and, as a result, enhance copper recovery at a given throughput.

Results Achieved

After a two week trial, recovery was statistically analyzed from mill data and showed a 4% increase over untreated/blank in a wide range of ore feed grades and process conditions. In addition, the adhesive/cohesive ground ore parameter decreased by an average of 25% over the blank. Trial results correlated well with in-house lab pre-screening methodology using a lab-scale planetary ball mill grinding and the analysis of the ground ore.



Recovery increase with Zalta of 4.0% \pm 1.17% with 99.9% confidence

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