



Case Study

Mining Industry

Talc depressant for copper flotation



Problem Statement

An increase in talc and other gangue minerals in the Lumwana ore resulted in low final concentrate quality. Watericon supplied a specialised blend of chemicals from its Hydrance™ range with high talc depressant capability. Plant was using Carboxy Methyl Cellulose (CMC).

Solution

Watericon’s Hydrance 9417 – a specialised talc depressant – was dosed at the SAG mill and on the cleaner columns of the flotation circuit.



Performance target

%Cu Assays	Target	Achieved
Flotation Concentrate	27,03	27,80
Flotation Tailing	0,061	0,036



Process

- Hydrance 9417, a specialised talc depressant, was dosed at the SAG mill and on the cleaner columns of the flotation circuit.



Savings impact

- Concentrate grades of **39.9% TCu** at cleaner
- Copper recoveries of **95.1%**
- Depressant dosage saving of **58%**
- Reduction in insols from **64.6% to 10.2%**