

Case Study:

LIMESTONE GRINDING & QUICKLIME SLAKING PLANT



Location:
Democratic Republic of the Congo (DRC), Africa

Operation Type:
Copper

Equipment Solution:
Quicklime Slaking Plant & Limestone Grinding Plant

Scope of Project

The brief was to design, engineer, fabricate, project manage and supply both a quicklime slaking circuit and limestone grinding circuit to recover copper from the tailings or processed ore at a mine site based in Kolwezi, Democratic Republic of the Congo.

Project Outcome

Designed to fit into 33 sea containers, it took 34 weeks for the Transmin team to build and factory tested, before getting shipped from the Transmin workshop in Malaga, Western Australia to Durban, South Africa.

Due to limited resources in getting quicklime the client had to import limestone and mix it with quicklime in order for the extraction of copper to work effectively.

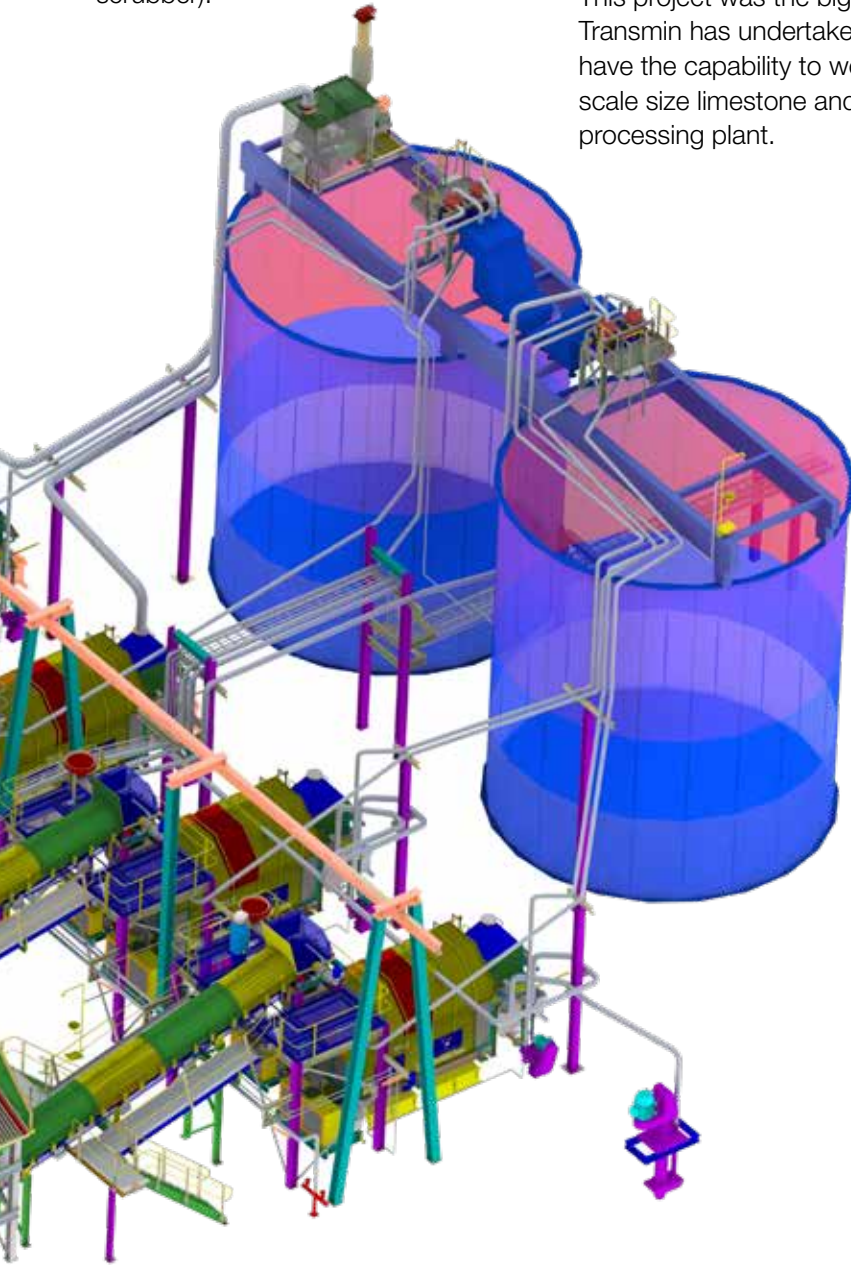
The quicklime slaking circuit comprised of three 2T bulk bag breakers that feed into a 80T storage silo and then two slaking circuits running in parallel.

The limestone feed system consisted of 3 feed hopper and conveyor assemblies that were to be fed by wheeled loaded (FEL). The grinding circuit was split into two streams, quicklime slaking and limestone milling.

With 10t/h capacity in each mill, the grinding circuits totalled four off ball mills, with integrated trommel discharges, discharge hoppers and fume hoods (connected to the wet scrubber).

The milk of lime (MOL) was then pumped to one of two storage tanks where it was used to dose the process via a ringmain (by others).

This project was the biggest that Transmin has undertaken. We have the capability to work on any scale size limestone and quicklime processing plant.



Features & Benefits

The benefits of using lime processing plants:

- ▶ **Processing**
Slaking and grinding mills of the roller mounted or vertical type. Grind performance to suit client process requirements.
- ▶ **Receival**
Intake of lime via bulk bag or pressurised vehicle.
- ▶ **Storage**
Single or multiple silos dependent upon site storage requirements.
- ▶ **Wetting**
Pre-wetting prior to mill for control of dust.
- ▶ **Limestone**
Separate limestone grinding facilities available.
- ▶ **Milk of Lime Storage**
Tankage is either site built or supplied complete.



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