

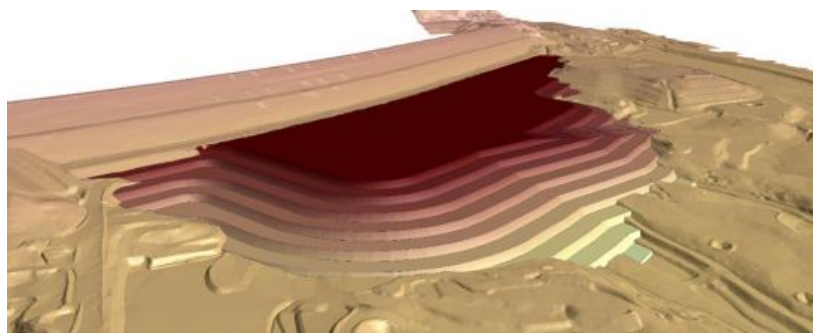
Project description

The project consists in constructing a buttress at the downstream toe of the berm KO2, in order to improve the factor of safety of the structure and to meet with the latest standards requirements, in particular ANCOLD 2012 .

KO2 TSF, within KO2 valley in Goro mine, covers a footprint of 132 ha, with a height of 63 m and length of 1.3km. The TSF aims to store residue from the hydrometallurgical plant for Nickel processing. The project area is characterized by a moderate seismicity , with a PGA of 0,09g, corresponding to the seismic event OBE.

The project comprises two distinct phases as follows:

- **Phase 1 (2021-2023):** Construction of a small buttress with waste material



from the pit or dry residue from DWP2 plant if it the plant is operational before 2023. The purpose of the small buttress is to withstand earthquake events for a return period of 1:400 .

- **Phase 2 (2023-2025):** Construction of the ultimate buttress with dry residue from DWP2, designed to withstand the earthquake events OBE and MCE.

Key data

- Small buttress: capacity of 1.1 Mm³, footprint of 12 ha, height of 38 m, slope 11°.
- Ultimate buttress: capacity of 3.6 Mm³, footprint of 25 ha, height of 42 m, slope 11°.

Scope of work

- Analysis of available geotechnical data and development of a geological model .
- Complementary geotechnical investigation including in-situ and laboratory testing.
- Stability analysis according to ANCOLD recommendations and consolidation analysis.
- Design of the small buttress and the ultimate buttress, including the general layout, access roads and drainage .
- Develop construction drawings.
- Design of a monitoring plan of the small buttress.
- Detailed cost estimate of buttresses construction .

New Caledonia

KO2 BUTTRESS

VNC

DETAILED DESIGN

2020

Project fees :

63 000 Euros

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INGÉNIERIE