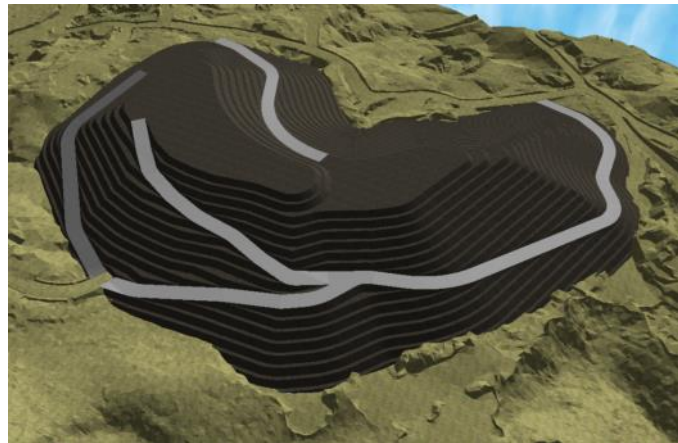


Project description

The project consists in providing the design of an engineered waste dump for the disposal of material in the Sorowako-Petea mining areas. Current dumping practice in Sorowako-Petea mining areas involves truck end-tipping of waste material from controlled high elevation zones. The dump, subject of this study, would be the first engineered waste dump to be built in Sorowako-Petea mining area. The project comprises three distinct phases as follows:

- **Phase 1: Conceptual design of a full scale engineered waste dump**, involving design concepts of the full scale engineered waste dump
- **Phase 2: Pilot project design and implementation**, involving design and construction of a pilot waste dump project for confirmation/optimization of the concepts developed in Phase 1.
- **Phase 3: Detailed design of a full scale engineered waste dump**, involving the design of one full scale waste dump using design data obtained from previous phases.



Key data

- Full Scale Dump: capacity of 33 Mm³, height of 125 m, slope 18°
- Pilot Dump: capacity of 0.9 Mm³, height of 50 m, slope 18°

Scope of work

- Design of the waste dump in its ultimate layout (pilot project and full scale dump).
- Design of access roads and drainage
- Dump stability and consolidation analysis
- Design of a monitoring plan of the dump.
- Progressive rehabilitation considerations.
- Detailed cost estimate of waste dump construction.
- Construction cost estimate of the dump.
- Design and implementation of in-situ testing, including trafficability test of access roads within the dump, dozer spreading performance, etc.
- Supervision and monitoring of pilot project construction.
- Interpretation of construction, in-situ testing and monitoring results of pilot project; and optimization of design parameters based on feedback from these results.

Sorowako-Petea mining areas

Engineered waste dump design

PTVI

Conceptual & detailed design

2019/2020

Project fees :
130 000 Euros

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