

Contribution of Geological and Geotechnical Studies in a Phosphate Open Pit Mine Project (Gafsa – Tunisia)

¹GOUIA Bechir, ²HLAIEM Amor. ¹Institut Supérieur des Etudes Technologiques - Rades, Tunisia. ²Institut Supérieur des Etudes Technologiques - Gafsa, Tunisia.

The aim of this work was to analyse the slope stability of the "Oum El Khecheb" area; a project of an open pit mine located in the phosphate basin of Gafsa (Tunisia).

The "Oum El Khecheb" deposit presents a 60 to 70° slope angle. It is made up of phosphate series, farmed by a clay layer at the bottom and a thick layer roof made of limestone and gypsum.

Stability study requires different approaches and calculating methods.

Finally, geological, geotechnical and geometrical parameters, permit the elaboration of the ultimate pit, the general rough outlines of exploitation method and a stable configuration of excavated slopes in the massif.