



Soft Ground Accesses – De-characterization of the Central Dam

CLIENT CHALLENGES

Existing soil had regions with high levels of saturation and very low support capacity. As an initial solution, the mine purchased amphibious backhoe excavators to access the site, however, due to slow progress and high operating costs, the process became unfeasible. Subsequently, access embankments with thicknesses of up to 2.0 m in height, made of rocks, were used. Due to the failure of the material and its short useful life, in addition to the complications of obtaining and transporting aggregates to the site, the mine decided to look for another solution.

TENSAR SOLUTION

With the objectives of accessing the site and reducing the aggregate thickness, the use of TriAx® Geogrid was proposed. Thus, with only 60 cm of aggregate on the geogrid, it was possible to provide a safe entry for all the heavy equipment needed in the removal and excavation processes. A reduction in aggregate thickness between 60% and 70% was obtained, compared to the conventional processes used to date. This reduced the direct cost of the materials used in the access embankment, saved construction time, and reduced other indirect costs involved.

Itatiaiuçu Central Dam

 Itatiaiuçu, Gerais Mine (Brazil)



Developer: USIMINAS central tailings dam.

Installation: October of 2019.

System: Spectra with Tx160 Geogrid.
15,000 m² Installed.

Value: The Spectra System allowed the **reduction** of thickness, **decrease** in **construction time**, and the **reduction** of direct and indirect **costs**.

For more
information:

Tensar
A Division of CMC

