

## **GEOMECHANICAL CHARACTERIZATION OF BANDED IRON FORMATION FROM OPEN PIT MINES IN FERRIFEROUS QUADRANGLE, MG, BR.**

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Production of the iron ore in Brazil from Quadrilátero Ferrífero in Minas Gerais state is about 57%. All ore comes from open pit mines with more than 100 meters high. Due to the low prices of iron ores in the last ten years, the slope angle is one of the most important economic factor for these mines. Geomechanical properties and structural features are the main input parameters for the mine slope stabilities studies. This work is a result of data collection and interpretation of main open pit mines in QF, as: Casa de Pedra Mine from CSN group, Timbopeba and Cauê Mine from CVRD group, Águas Claras, Mutuca and Pico's Mine from MBR group, Capanema Mine from MSG and Germano Mine from SAMARCO. The work shows the results of point load tests, direct shear tests on rock cores and anisotropic strength from point load and shear tests. Using the shear test results and rock characterization data such as fracture spacing, aperture, filling, wall data was evaluated the rock mass strength, using modified Hoek and Brown method, from Hoek (1992).