

KAOLIN MINERALIZATION IN THE REGION OF PRADO, SOUTHERNMOST AREA OF BAHIA STATE, BRAZIL.

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In the region of Prado, southern Bahia State, Brazil, there are large deposits of kaolin. The ore has been mined by Monte Pascoal Mining Company Ltd. since 1992 and has been mainly used in the paper industry and in the catalyzer production for the petroleum industry. The deposits are both of primary and secondary or sedimentary origins. The former is originated from pegmatites and the latter is associated with the Barreiras Group of the Tertiary period. In the south of Bahia State, the Barreiras Group presents extent terraces arranged in steps slightly tilted towards the coast. The sediments are composed of different thickness layers of beige or slightly whitish kaolinite rich sand sediments. The crystalline basement is composed of Early Pre-Cambrian gneisses and pegmatites probably belonging to the Paraíba do Sul Complex. Kinzigite and secondarily granitic intrusions also occur in the region. The mineral deposit, which is currently being mined, is composed of a thick kaolin deposit of 30m in thickness approximately, presenting two very distinct levels. The kaolin at the base of the sequence is white in colour and kaolinite rich. After the benefaction, the kaolin reaches a high whiteness index over 89.0 GE and therefore it is mainly used as covering in the paper industry. The upper portion kaolin of the sequence is of secondary origin, ranging from light gray to light brown in colour presenting low crystalline degree and greater iron content. The ore is heterogeneous presenting little variation through the outcrops. After the benefaction, 96% of the kaolin particles are smaller than 2µm. The kaolin of the region of Prado has proved to be potentially important as to the quality of the ore. As a result of it, such region may soon become one of the main producing centers in Brazil.