

PETROGRAPHICAL AND MINERALOGICAL STUDIES ON LATERITIC BAUXITE PROFILES OF SHAHUWADI TALUKA OF KOLHAPUR DISTRICT, MAHARASHTRA

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Abstract

This study was carried out with an objective to fill up the lack of information on the exact mineral paragenesis during lateritic weathering of the parent rocks, the micro-environments of formation of laterites, bauxites and associated clays, and the nature of post-diagenetic processes that affect laterites and bauxites (Khanapurkar and Suryawanshi, 2014). Laterite and bauxite deposits occurring at five localities namely Dhangarwadi, Girgaon, Udgiri, Malaiwada and Manoli of Shahuwadi Taluk of Kolhapur district of Maharashtra were investigated in this study.

Petrographic examination of thin sections of bauxites, laterites and basalt from these areas show that they are composed mainly of gibbsite and cliachite, with a minor proportion of boehmite, goethite, hematite, limonite and kaolinite. Thin sections of various lithological variants from many profiles, ranging from fresh basalt to laterite, obtained from different locations, positioned to cover the entire length of the plateau, were also petrographically examined.

Keywords: Deccan Trap, Laterite, Bauxite, Petrography, Gibbsite, Cliachite.