

EXPLOITATION OF BAUXITE FROM PADUREA CRAIULUI MOUNTAINS AND THE IMPACT ON ENVIRONMENTAL FACTORS

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Abstract. *The paper presents the impact of the exploitation of bauxite in the Pădurea Craiului Mountains on the environmental factors. The extraction of bauxite was carried out by surface quarries and underground galleries. Exploitation of this field irrespective of the established method produces a significant impact on environmental factors. For this reason it is compulsory to establish some works, solutions that will lead to the restoration and ecological reconstruction of these mining perimeters, whether they are quarries, tailings dumps or tailings ponds. The present paper presents bauxite quarries in Zece Hotare, Bihor County, the impact on the environment as well as a series of technical measures to reproduce the economic cycle of degraded and polluted land.*

Keywords: bauxite, quarry, galleries, pollution, environment.

1. Introduction

Bauxite is an ore or a mixture of mineral substances, consisting mainly of aluminium hydrates, iron oxide, alumina silicate and titanium oxide. The bauxites appear in amorphous compact or earth mass, and the most sought-after bauxites are those with low silica content (SiO₂).

The country with the largest production of bauxite in the world is Australia. It is followed by Guinea and Brazil. A remarkable growth of bauxite production was recorded in China, India and Jamaica.

During 1990-2006, Romania appears as a bauxite producer. Since there were bauxite deposits in Transylvania there were also various attempts to set up an aluminium industry to capitalize on this deposit. The interest for the bauxite ore in the Pădurea Craiului Mountains manifested after 1900. Its exploitation also took place before and during the First World War, but preferentially, i.e.

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