

GEOLOGICAL INVESTIGATIONS OF THE 'POVLATNA ZONA' AND 'ISTOČNO POLJE' OF THE GACKO COAL BASIN (BIH) FOR COAL QUALITY ASSESSMENT AND DESIGN OF A BENEFICIATION PLANT (2023–2025)

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Abstract

Geological exploration conducted in the "Gacko" coal basin 'Povlatna zona' and 'Istočno polje' (2023–2025) aims to accurately determine coal quantity and quality as a basis for reserve categorization and the design of a coal beneficiation plant. The acquisition of this facility, represents a strategic step toward reducing harmful emissions and increasing the efficiency of the Gacko Thermal Power Plant (RiTE Gacko).

The research includes lithological mapping and laboratory analyses, focusing on reclassification of reserves to category A, considering the complex stratification of the deposit. Special attention was given to coal chemistry and the physical properties of surrounding sediments. These findings will support the optimal selection of beneficiation technology and ensure a more stable supply of higher-quality coal.

This work is crucial for addressing excessive particulate emissions and coal quality instability, particularly after flooding affected the most valuable part of the deposit in late 2023.

Keywords: Coal mine, geology, exploration, coal quality