

Title (en)
GEOELECTRIC PRE-PROSPECTING METHOD

Title (de)
GEOELEKTRISCHES VORAUSERKUNDUNGSVERFAHREN

Title (fr)
PROCEDE GEOELECTRIQUE DE RECONNAISSANCE PREALABLE

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Application
EP 99955730 A 19990918

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• DE 19842975 A 19980919

Abstract (en)
[origin: WO0017489A2] The aim of the invention is to carry out a geoelectric pre-prospecting method for mechanical and conventional tunnel and cavity advance headings for continuously detecting a specific rock resistance distribution in an advance heading forefield inside a rock formation during through positioning thereof. To this end, a geoelectric apparatus (9) feeds a screen current (I1) into the rock formation via an outer ring electrode (A1) and feeds a measured current (I0) via at least one inner electrode (A0) configured such that it is homopolar to the outer electrode (A1). The screen current constructs a constant zero-potential circular curve (0) between the outer ring electrode (A1) and the inner electrode (A0). At least one current electrode (B0) which has a polarity opposite the outer ring electrode (A1) and inner electrode (A0) and which is connected to the geoelectric apparatus (9) is arranged at a relatively large distance from the same in the rock formation. The geoelectric apparatus (9) measures the intensity of the measured current (I0) in order to calculate an apparent rock resistance (ρ -s) and simultaneously calculates a voltage (U0) between the inner electrode (A0) and the current electrode (B0).

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