

**USE OF WATER COVERS FOR THE PREVENTION OF ACID MINE
DRAINAGE GENERATION**

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ABSTRACT

The present paper is focused on the study of the use of water covers over reactive sulphidic tailings from Lavrion, in order to mitigate the environmental impacts associated with the production of acid mine drainage. The experimental tests were carried out in laboratory columns, where a layer of tailings was covered with a layer of water, sea water and acidic solution. The quality of the water cover as well as the quality of the pore water within the tailings mass was monitored, by measuring several critical parameters, over an eight month period. Finally, the performance of each water cover was compared to the environmental behaviour of the tailings under real climatic conditions.