



Геофизични изследвания за изучаване на опасни провадания по повърхността на старо хвостохранилище

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Geophysical surveying for studying the presence of dangerous cavities formed in the upper part of an old tailing pond.

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Geophysical surveying was performed in the territory of an abandoned and set aside for conservation and recultivation tailing pond in the area of a lead-zinc mine in the Strandja-Sakar region. It was initiated by two deep local subsidences that took place in different years. The geophysical works were carried out in an area of 7200 sq.m along a 10 x 5 m grid and include electrical profiling using Schlumberger array (AB = 60 m, MN = 10m) and 22 points VES, which fall along three profile lines. The method of vertical electric sounding permits to study the inhomogeneity of the materials composing the tailing pond down to a depth of about 40 m. The obtained geophysical data were used in order to investigate the risk of a new subsidence in the area of the tailing pond.

The results of the geophysical surveying were applied during the performed activities aimed on strengthening of the identified areas characterized by a high risk for new subsidence.