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# use of geological and geophysical techniques for on-site inspection, study case: deep-seated gravitational slope deformations near the active Boconó fault, north of Bailadores, Mérida state, Venezuela

This work presents the results obtained from the use of geological and geophysical techniques for the identification of large unstable regions, and can be used in on-site inspections within the framework of cooperation and knowledge exchange of the Comprehensive Nuclear Test Ban Treaty (CTBT). Deep-seated gravitational slope deformations are slow and of great volume. The analyzed case is a sackung-type landslide, where the movement is slow and occurs in rocks with a high degree of metamorphism, covering about 10 km in length with more active zones and less active zones throughout the region. The study area is located in the west of the Venezuelan Andes, in the La Negra Pass sector north of the town of Bailadores, Mérida state, where one of the most important active faults in the country passes, the Boconó fault. Based on the field missions, the interpretation of aerial views and satellite images, a site was chosen in the deformation zone, where geophysical measurements were carried out using electrical (electrical resistivity measurement) and electromagnetic (ground penetrating radar) methods. It was obtained that: the evidence of deformation identified on the surface can be verified in the subsoil from the electrical resistivity tomography and the radargrams generated.

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