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Investigation of bedrock at the hilly area using common array profiling spectral analysis of surface waves method

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Abstract

Locating hard layers or bedrock is particularly important in deep subsurface exploration. However, due to the scale effect of conventional testing, it is sometimes difficult to provide a greater overview of the subsurface conditions. This motivates a method that is capable of providing better resolution to a certain depth. This paper presents an investigation of bedrock using a nondestructive method at the hilly area as a supportive method to the existing borehole. The borehole recorded granite at respectively at 25 and 24m. CAP-SASW method that is employed successfully mapping the interested area. The result showed that the granite is considered as a slightly weathered rock with shear wave velocity ranging from 850-1600 m/s. © 2021, Books and Journals Private Ltd. All rights reserved.

Author keywords

CAP-SASW; Nondestructive test; Subsurface exploration

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