

Modeling of the natural vertically directed body waves generation processes in geological media

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Abstract

The report reviews interdisciplinary problem relevant to the search method hydrocarbon a low-frequency seismic sounding, based on the study of resonance properties of geological media. Problem is in the representation of the process of natural formation of a vertically directed body waves in a geological medium. In this survey was suggested and simulated a scattering mechanism of surface Rayleigh waves on inhomogeneities with Poisson's ratio different from the enclosing environment. The result of simulation of the upper part of the section as a set of layers consisting of elements with a random Poisson's ratio is observed a natural formation of a vertically directed volume waves.
