

Cui, L.; Cheng, A. H.-D.; Abousleiman, Y.

Poroelastic solution for an inclined borehole. (English) Zbl 0889.73002

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Summary: An analytical solution for an infinitely long borehole in an isotropic, poroelastic medium, inclined to the far-field principal stresses, is presented. The solution utilizes a loading decomposition scheme which leads to three fundamental problems: a poro-elastic plane-strain, an elastic uni-axial, and an elastic antiplane shear problem.

MSC:

[74E05](#) Inhomogeneity in solid mechanics

[74B99](#) Elastic materials

Cited in 4 Documents

Keywords:

[infinitely long borehole](#); [far-field principal stresses](#); [loading decomposition scheme](#)

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