Accepted Manuscript

A boundary-integral framework to simulate viscous erosion of a porous medium

Bryan D. Quaife, M. Nicholas J. Moore

 PII:
 S0021-9991(18)30498-4

 DOI:
 https://doi.org/10.1016/j.jcp.2018.07.037

 Reference:
 YJCPH 8162

To appear in: Journal of Computational Physics

Received date:17 April 2018Revised date:10 July 2018Accepted date:18 July 2018



Please cite this article in press as: B.D. Quaife, M.N.J. Moore, A boundary-integral framework to simulate viscous erosion of a porous medium, *J. Comput. Phys.* (2018), https://doi.org/10.1016/j.jcp.2018.07.037

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A highly accurate numerical method for the simulation of erosion in a two-dimensional porous medium that resolves multibody interactions.
- A method to allow for erosion while artificially fixing the area so that numerical and analytical results can be compared.
- A demonstration of channelization occurring in porous medium and the resulting drag and resistivity of the flow.

Download English Version:

https://daneshyari.com/en/article/8953888

Download Persian Version:

https://daneshyari.com/article/8953888

Daneshyari.com