Web of Science



Additional Resources

Search Cited Reference Search Advanced Search Search History Marked List (0)

# Web of Science®

< < Back to results list

■ Record 2 of 10
■

Record from Web of Science®

Gas transmissivity at the interface of a geomembrane and the geotextile cover of a partially hydrated geosynthetic clay liner

Print E-mail Add to Marked List Save to EndNote Web

Save to EndNote, Ref Man, ProCite more options

Author(s): Bouazza A (Bouazza, A.), Vangpaisal T (Vangpaisal, T.)

Source: GEOSYNTHETICS INTERNATIONAL Volume: 14 Issue:

Pages: 316-319 Published: OCT 2007

Times Cited: 5 References: 22 Citation Map

Abstract: The migration of gas through a geomembrane overlying a geosynthetic clay liner in a composite landfill cover is primarily a result of the flow through defects in the geomembrane. The nature of the contact conditions between the GCL and the geomembrane is of paramount importance if the leakage rate of a GCL/GM composite barrier with a defect in the geomembrane needs to be assessed effectively. The present paper reports on interface gas transmissivity measured in a specially made cell. It was found that the gas transmissivity ranged between 2 x 10(7) m(2)/s and 4.5 x 10(-7) m(2)/s for the range of moisture content and differential gas pressure investigated. This corresponded to a reduction of approximately 40% in the gas transmissivity when the moisture content increased from essentially dry to 120%.

Document Type: Article

Language: English

Author Keywords: geosynthetics; gas; geosynthetic clay liners;

geomembranes; interface flow; transmissivity

**KeyWords Plus:** WET-DRY CYCLES; COMPOSITE LINER; PERMEABILITY; FLOW; GCLS; EXCHANGE; BENEATH; LEAKAGE

**Reprint Address:** Bouazza, A (reprint author), Monash Univ, Dept Civil Engn, Bldg,60, Clayton, Vic 3800 Australia

#### Addresses:

1. Monash Univ, Dept Civil Engn, Clayton, Vic 3800 Australia

2. Ubon Ratchathani Univ, Dept Civil Engn, Ubon Ratchathani 34190, Thailand

E-mail Addresses: malek.bouazza@eng.monash.edu.au, thaveesak.v@ubu.ac.th

**Publisher:** THOMAS TELFORD PUBLISHING, THOMAS TELFORD HOUSE, 1 HERON QUAY, LONDON E14 4JD, ENGLAND

# Cited by: 5

This article has been cited 5 times (from Web of Science).

Frankovska J, Andrejkovicova S, Janotka I Effect of NaCl on hydraulic properties of bentonite and bentonite-palygorskite mixture GEOSYNTHETICS INTERNATIONAL 17 4 250-259 AUG 2010

Gates WP, Bouazza
A Bentonite transformations in strongly alkaline solutions GEOTEXTILES AND GEOMEMBRANES 28 2 219-225 APR 2010

Abuel-Naga HM, Bouazza
A Numerical Characterization
of Advective Gas Flow through
GWGCL Composite Liners
Having a Circular Defect in the
Geomembrane JOURNAL OF
GEOTECHNICAL AND
GEOENVIRONMENTAL
ENGINEERING 135 11 16611671 NOV 2009

[ view all 5 citing articles ]

Create Citation Alert

### **Related Records:**

Find similar records based on shared references (from Web of Science).

[ view related records ]

References: 22

View the bibliography of this record (from Web of Science).

#### Suggest a correction

If you would like to improve the

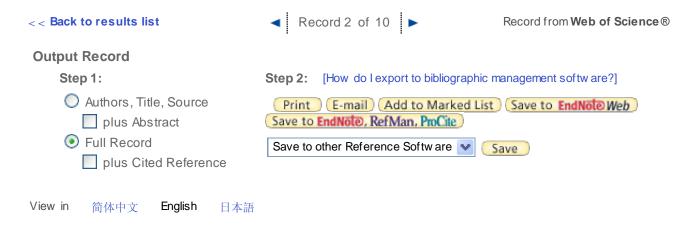
Subject Category: Engineering, Geological; Geosciences, Multidisciplinary; Materials Science, Multidisciplinary

quality of this product by suggesting corrections, please fill out this form.

IDS Number: 214AC

ISSN: 1072-6349

DOI: 10.1680/gein.2007.14.5.316



Please give us your feedback on using ISI Web of Knowledge.

Acceptable Use Policy Copyright © 2010 Thomson Reuters



Published by Thomson Reuters