

Quarterly Journal of Engineering Geology and Hydrogeology

The journal is abstracted and/or indexed in Current Contents, ASCA, Science Citation Index, Groundwater On-Line, Geological Abstracts, International Civil Engineering Abstracts, Petroleum Abstracts, Geotechnical Abstracts, GeoArchive, GeoRef and Geobase.

Advertising sales: Please contact Jonathan Knight, Century One Publishing Limited, Alban Row 27–31 Verulam Road, St. Albans, AL3 4DG, UK (tel: 01727 893894; direct line: 01727 739193; e-mail: jonathan@centuryonepublishing.ltd.uk)

CONTENTS – Volume 50, Part 2, May 2017

Thematic set: QJEGH 50th Anniversary Review Paper

- Geomaterials: aggregates, building stone and earthworks: papers from 50 years of QJEGH**
J. Cassar & J. R. Standing 95
- Photographic feature**
- Rapid loess flow slides in Heifangtai terrace, Gansu, China**
Jianbing Peng, Fanyu Zhang & Gonghui Wang 106
- A first look at a landslide triggered by the 2016 Kumamoto earthquake near the Aso Volcanological Laboratory**
Zili Dai, Fawu Wang, Kun Song & Akinori Iio 111
- Research article**
- Behaviour of slate following freeze–thaw and dry–wet weathering processes**
Kai Cui, Guopeng Wu, Xiuli Wang & Wenwu Chen 117
- A new approach to water head estimation based on water inflow into the tunnel (case study: Karaj water conveyance tunnel)**
Massoud Morsali, Mohammad Nakhaei, Mohsen Rezaei, Jafar Hassanpour & Hamidreza Nassery 126
- Engineering geological characterization of flints**
Mohammed Musa Aliyu, William Murphy, James Anthony Lawrence & Richard Collier 133
- Geotechnical profiling of deep-ocean sediments at the AFEN submarine slide complex**
B. N. Madhusudhan, M. A. Clare, C. R. I. Clayton & J. E. Hunt 148
- Site investigation for energy geostructures**
Fleur Loveridge, Jasmine Low & William Powrie 158
- Assessment of floor water inrush with vulnerability index method: application in Malan Coal Mine of Shanxi Province, China**
Qiang Wu, Yuanzhang Liu, Haixia Wu & Yifan Zeng 169
- Effects of lithofacies and environment on *in situ* and laboratory Schmidt hammer tests: a case study of carbonate rocks**
Hasan Arman, Osman Abdelghany, Waheed Hashem & Ala Aldahan 179
- Mapping shallow urban groundwater temperatures, a case study from Cardiff, UK**
G. J. Farr, A. M. Patton, D. P. Boon, D. R. James, B. Williams & D. I. Schofield 187
- Experimental study of the stabilization effect of cement on diesel-contaminated soil**
Huie Chen, Yaling Jiang, Wen Zhang & Xiaohong He 199
- Technical note**
- Large-scale engineering geomorphological mapping as an additional tool in the assessment of earthworks for transport infrastructure**
Hans J. Laimer 206

Quarterly Journal of Engineering Geology and Hydrogeology (ISSN 1470-9236) is published in February, May, August and November by the Geological Society Publishing House for the Geological Society, London. The Geological Society, Burlington House, Piccadilly, London W1V 0JU.

Subscription rates 2017 (volume 50, 4 parts). More information about subscription options can be found at <http://www.geolsoc.org.uk/LyellCollection>. Journal Subscriptions Department, Geological Society Publishing House, Unit 7, Brassmill Enterprise Centre, Brassmill Lane, Bath, UK, BA1 3JN (tel 01225 445046; fax 01225 442836; e-mail: sales@geolsoc.org.uk). The subscription prices for 2017 to institutions and non-Fellows is: UK, £510 + VAT (online only), £612 + VAT (online + print); EU, £571 + VAT (online only), £686 + VAT (online + print); Rest of World, £571 (online only), £686 (online + print). More information about subscription prices can be found at <http://www.geolsoc.org.uk/lcaccess>.

Outside Europe, the Journal is dispatched by various forms of airspeeded delivery. Airfreight and mailing in the USA by agent named Air Business Ltd, c/o Worldnet Shipping Inc., 156–15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Jamaica NY 11431. US Postmaster: send address corrections to the Quarterly Journal of Engineering Geology and Hydrogeology, Air Business Ltd, c/o Worldnet Shipping Inc., 156–15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Back numbers are normally dispatched by surface mail.

© The Geological Society of London 2017. No reproduction, copy or transmission of all or part of this publication may be made without the prior written permission of the publisher. In the UK, users may clear copying permissions and make payment to The Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS, UK, and in the USA to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Other countries may have a local reproduction rights agency for such payments. Full information on the Society's permissions policy can be found at www.geolsoc.org.uk/permissions

Publishing disclaimer: www.geolsoc.org.uk/pub_ethics

Inclusion of advertising in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

Cover Photograph. Final completion of the Tunnel de Chabrières, Alpes de Haute Provence, France, 2014. Tunnel with rock fall shelter through steeply dipping limestones with further rock bolts and rock catch nets protecting the tunnel portal. Part of the ongoing rock slope stability improvements to the D4085.

Photograph by: D. Giles, University of Portsmouth.