Contents

Introduction

EGGERS, M. J. Diversity in the science and practice of engineering geology 1

Urban engineering geology

PRICE, S. J., FORD, J. R., CAMPBELL, S. D. G. & JEFFERSON, I. Urban Futures: the sustainable management of the ground beneath cities 19

MARKER, B. R. Urban planning: the geoscience input 35

KOZLYAKOVA, I. V., EREMINA, O. N., ANISIMOVA, N. G. & KOZHEVKOVA, I. A. Study of geology and Carboniferous subcrop topography upon engineering geological mapping of Moscow territory 45

TUĞRUL, A., YILMAZ, M., SÖNMEZ, İ. & HASDEMİR, S. Sustainable management of aggregate resources in İstanbul 55


Engineering geology in mining

BAXTER, H. Geophysics, geochemistry and engineering geology: how disciplines combine to improve mine slope design in the Pilbara detrital valleys of Western Australia 81

CAMMACK, R. Developing an engineering geological model in the fractured and brecciated rocks of a copper porphyry deposit 93

POPE, D., DURAN, A., GROCOTT, G., HOLM, O. & BELL, A. Geological structural controls on stability of footwall slopes: an example from the Bowen Basin, Queensland 101

STRANG, D. R. Whitehall quarry, Northern Wedge failure: 22 years of investigation 111

Engineering geology in managing risk from geohazards

FLENTJE, P., MINER, T., STIRLING, D., PALAMAKUMBURE, D. & WINDLE, D. Landslide inventory and susceptibility zoning across SE Australia 119

PARRY, S. Landslide hazard assessments: problems and limitations. Examples from Hong Kong 135

DI CAPUA, G., PEPPOLONI, S., AMANTI, M., CIPOLLONI, C. & CONTE, G. Site classification map of Italy based on surface geology 147

Geological models for engineering studies

GRIFFITHS, J. S. Incorporating geomorphology in engineering geological ground models 159
### CONTENTS

GOLDSMITH, R. & McCUE, K. Revised hazard assessment for Afulilo Dam, Samoa 169


**Interaction of engineering geology and geomechanics**


TAKAHASHI, M., KATO, M., LIN, W. & SATO, M. Three-dimensional pore geometry and permeability anisotropy of Berea sandstone under hydrostatic pressure: connecting path and tortuosity data obtained by microfocus X-ray CT 207

MOEIN, F., XUE, J., DENT, B. & MACKAY, R. Review of the historical data characterizing Latrobe Valley brown coal consolidation behaviour 217

INDRAWAN, I. G. B., WILLIAMS, D. J. & SCHEUERMANN, A. Effects of saline coal seam gas water on consistency limits, compaction characteristics and hydraulic conductivities of clays used for liners 227

HE, L. & WEN, B.-P. Effect of porewater salinity on residual shear strength of clays and their mixtures 239

Index 249