

# Contents

Preface	vi
TELLAM, J. H. & BARKER, R. D. Towards prediction of saturated-zone pollutant movement in groundwaters in fractured permeable-matrix aquifers: the case of the UK Permo-Triassic sandstones	1
<b>Flow</b>	
LOVELL, M. A., JACKSON, P. D., HARVEY, P. K. & FLINT, R. C. High-resolution petrophysical characterization of samples from an aeolian sandstone: the Permian Penrith Sandstone of NW England	49
SCOTT, J. B. T. & BARKER, R. D. Pore geometry of Permo-Triassic sandstone from measurements of electrical spectroscopy	65
BLOOMFIELD, J. P., MOREAU, M. F. & NEWELL, A. J. Characterization of permeability distributions in six lithofacies from the Helsby and Wilmslow sandstone formations of the Cheshire Basin, UK	83
POKAR, M., WEST, L. J. & ODLING, N. E. Petrophysical characterization of the Sherwood Sandstone from East Yorkshire, UK	103
NEWELL, A. J. Calcrete as a source of heterogeneity in Triassic fluvial sandstone aquifers (Otter Sandstone Formation, SW England)	119
BOUCH, J. E., HOUGH, E., KEMP, S. J., MCKERVEY, J. A., WILLIAMS, G. M. & GRESWELL, R. B. Sedimentary and diagenetic environments of the Wildmoor Sandstone Formation (UK): implications for groundwater and contaminant transport, and sand production	129
STREETLY, M. J., HEATHCOTE, J. A. & DEGNAN, P. J. Estimation of vertical diffusivity from seasonal fluctuations in groundwater pressures in deep boreholes near Sellafield, NW England	159
SEYMOUR, K. J., INGRAM, J. A. & GEBBETT, S. J. Structural controls on groundwater flow in the Permo-Triassic sandstones of NW England	169
AKHURST, M. C., BALL, D. F., BRADY, L., BUCKLEY, D. K., BURNS, J., DARLING, W. G., MACDONALD, A. M., McMILLAN, A. A., Ó DOCHARTAIGH, B. É., PEACH, D. W., ROBINS, N. S. & WEALTHALL, G. P. Towards understanding the Dumfries Basin aquifer, SW Scotland	187
<b>Unsaturated flow</b>	
TAYLOR, S. & BARKER, R. DC electrical properties of Permo-Triassic sandstone	199
WINSHIP, P., BINLEY, A. & GOMEZ, D. Flow and transport in the unsaturated Sherwood Sandstone: characterization using cross-borehole geophysical methods	219
<b>Pollutant movement</b>	
BASHAR, K. & TELLAM, J. H. Non-reactive solute movement through saturated laboratory samples of undisturbed stratified sandstone	233
GOODDY, D. C. & BLOOMFIELD, J. P. Controls on dense non-aqueous-phase liquid transport in Permo-Triassic sandstones, UK	253
KINBURGH, D. G., NEWELL, A. J., DAVIES, J., SMEDLEY, P. L., MILODOWSKI, A. E., INGRAM, J. A. & MERRIN, P. D. The arsenic concentration in groundwater from the Abbey Arms Wood observation borehole, Delamere, Cheshire, UK	265
BUTCHER, A., LAWRENCE, A., JACKSON, C., CULLIS, E., CUNNINGHAM, J., HASAN, K. & INGRAM, J. A. Investigating rising nitrate concentrations in groundwater in the Permo-Triassic aquifer, Eden Valley, Cumbria, UK	285
PRIVETT, K. D. The capillary characteristic model of petroleum hydrocarbon saturation in the Permo-Triassic sandstone and its implications for remediation	297
REES, S. B. Investigation and management of a kerosene leakage into a Permo-Triassic sandstone aquifer in the UK	311
BOTTRELL, S. H., WEST, L. J. & YOSHIDA, K. Combined isotopic and modelling approach to determine the source of saline groundwaters in the Selby Triassic sandstone aquifer, UK	325
Index	339