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Sandstone aquifers are common worldwide: they contain a significant proportion of the Earth's fresh water supplies. However, because of their textural complexity and the frequent occurrence of both matrix and fracture flow, prediction of flow and pollutant migration is still a considerable challenge. This volume contains a collection of papers summarizing current research on an example sandstone aquifer: the UK Permo-Triassic Sandstone sequence. These red bed, organic-poor sandstones are of fluvial and aeolian origin, are often strongly textured, and are cut by discontinuities of a wide range of permeabilities. Matrix flow often dominates, but fracture flow also occurs. The papers in the volume deal with research on saturated and unsaturated flow, and solute and non-aqueous-phase liquid movement. They cover investigations from laboratory to regional scale, and involve a wide range of approaches, from petrophysical through geophysical and hydrochemical to modelling.

The book is intended to be of interest to researchers and practitioners involved in water resources and groundwater pollution, and to hydrogeology, water engineering, and environmental science students.

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Cover illustration:
Cliff section of the Permian Dawlish Sandstone Formation, Exeter Group, Dawlish, SW England.
Photograph by Peter Turner