

INTRODUCING HYDROGEOLOGY

Hydrogeology is an important and vibrant sub-set of geology. It deals with the distribution and movement of water, groundwater, in the rocks of the Earth. Groundwater transport is one part of the overall hydrological cycle; water is transferred by evaporation from the oceans into the atmosphere. Some falls to land as precipitation, some percolates underground, much of it to become groundwater. Groundwater travels from areas of high elevation to discharge points such as springs or to lower elevation surface waters. On its way, it acquires its own distinct chemical signature, while its period underground can vary between only a few weeks to tens of thousands of years.

Hydrogeology interacts with a variety of diverse disciplines beyond geology, not least hydrology, climatology and socioeconomics. Nick Robins describes the basic concepts of groundwater flow analysis in simple language and avoids burdening the reader with overmuch analytical detail. All facets of hydrogeology, physical and chemical, are described, so the book places hydrogeology in its pivotal position: underpinning our increasing demands on the environment. A variety of topical issues are considered, including climate change impact, water scarcity, nuclear waste repositories and oil shale fracking.

In common with the other titles in the series, *Introducing Hydrogeology* is written to inform the non-scientist interested in learning more about this important topic; as an introduction to the science for those starting on or contemplating a career in hydrogeology; and to those studying related topics, such as civil engineering, who require a sound overview of this branch of earth science.

Dr Nicholas Robins worked for much of his career as a hydrogeologist with the British Geological Survey. He worked both at home and overseas with extensive periods in Africa and the Middle East as well as in Asia and Central America. He was also at one time based at Harwell in Oxfordshire involved with research into radioactive waste disposal. Robins is author or editor of a number of books and is currently Editor-in-Chief for the International Association of Hydrogeologists.

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Preface	viii	
1	Water, Earth's special mineral	1
2	Aquifers and the three Rs: Rainfall, runoff and recharge	11
3	Aquifer properties and groundwater flow	22
4	Groundwater flow and numerical analysis	32
5	Boreholes and test pumping	40
6	Groundwater management	50
7	Groundwater quality	57
8	Groundwater pollution, vulnerability and protection	66
9	Coastal aquifers and small islands – a challenge	74
10	Flood, drought and subsidence	81
11	Some topical issues	90
12	Hydrogeology	97
	Glossary	102
	Further reading	108