

John K. Warren

## Evaporites

A Geological Compendium, *Second Edition*

The monograph offers a comprehensive discussion of the role of evaporites in hydrocarbon generation and trapping, and includes new information on low temperature and high temperature brine-related metalliferous ores. It also provides a wealth of information on exploitable salts, in an expanded all-color volume that has been assembled and organized to provide quick access to relevant information on all matters related to evaporites and associated brines. In addition, there are summaries of evaporite karst hazards, exploitative methods, and problems that can arise in dealing with evaporites in conventional and solution mining operations. This second edition has been thoroughly revised and updated, with three new chapters focused on economic ore minerals across different temperature settings and a new chapter dealing with metaevaporites.

Written by a field specialist in evaporite-centred research and exploration, the book is designed to be a compendium that offers a comprehensive overview of the realms of low- and high-temperature evaporite evolution. It is aimed at earth science professionals, sedimentologists, oil and gas explorers, mining geologists and environmentalists.



**Dr. John Warren** is currently a Technical Director in SaltWork Consultants Pte Ltd, Australia and a Professor in the Graduate School of Petroleum Geoscience at Chulalongkorn University, Thailand. Prior to this he held the Shell Chair in Carbonate Studies at Sultan Qaboos University, Oman. Before that he was a contract Professor at Universiti Brunei Darussalam. In a former life as a fulltime bureaucrat he was Professor of Petroleum Geology and Director of the Key Centre in Resource Exploration in the School of Applied Geology at Curtin University in Perth, Western Australia. In the 1980s and early 90s he was a faculty member of the University of Texas in Austin and the National Centre of Petroleum Geology and Geophysics in Adelaide.

Dr Warren's research centres on rock matrix characterisation in evaporite-related hydrocarbon reservoirs and ore deposits, including the reliable scaling of wireline and rock-property data into reservoir and ore deposit models. He specializes in applied aspects of carbonate-evaporite studies and has written numerous papers and a number of books on various aspects of applied sedimentology and has consulted widely for the minerals and petroleum industries.

He has worked on rock characterisation problems in metal and hydrocarbon exploration programmes conducted by ADNOC, Asia-Pacific Potash, BHP Billiton Resources, BHP Billiton Petroleum, Chevron International, Chevron Thailand, Core Laboratories, Exxon International, Homestake, MMG, Nexen, NIOC, Pasminco, PTTEP, Saudi Aramco, Shell International, Statoil, and others. He has also served as a technical expert/consultant in evaporite studies for the AAPG, BBC, IHRDC, and New World Horizons. Dr Warren has served on World Bank Panel of Experts and currently serves on the Editorial Board of the Journal of Petroleum Geology.

Earth Sciences

ISBN 978-3-319-13511-3



9 783319 135113

► [springer.com](http://springer.com)

Warren

John K. Warren



Evaporites

# Evaporites

A Geological Compendium

*Second Edition*

2nd Ed.

 Springer