

reviews

Landmarks in North Sea geology

Petroleum and the Continental Shelf of North-West Europe. Volume 1: Geology. Edited by Austin W. Woodland. Pp. ix+501. (Applied Science Publishers: Barking, UK, 1975; published on behalf of the Institute of Petroleum.) £16.

THIS book is outstanding, and a credit to all the people and organisations who were responsible for its production. In November 1974 a conference was held at the Bloomsbury Centre, London, organised by the Institute of Petroleum, the Petroleum Exploration Society of Great Britain, the UK Offshore Operators' Association, the Geological Society of London, and the Institute of Geological Sciences. This meeting was attended by some 900 geologists from oil companies, universities and state organisations.

The first three days were devoted to the geology of offshore Britain, especially the North Sea. The last two days were devoted to environmental problems associated with subsea petroleum production. This volume contains the 38 papers presented in the first three days. Broadly speaking, the papers fall into three main groups: geophysical surveys of north-western and south-western British waters, as yet largely unexplored; a series of papers giving broad and system-by-system reviews of North Sea stratigraphy and sedimentation; a third group of papers are field case histories. These document most of the southern gas area fields, and a fair number of the Jurassic, Chalk and Tertiary oilfields of the northern North Sea. Coverage is not just confined to British waters, but includes material ranging geographically from seismic sections off the northern Norwegian coast, through descriptions of oil fields in Norwegian and Danish waters (Ekofisk and Dan fields) to gas fields in onshore Holland.

There is a comparable breadth of technical information. This ranges from the trans-European stratigraphic syntheses presented in papers by the Ziegler brothers, through the many field case histories (documented by

Europe in the Sixteenth century by A. Ortelius

geophysical logs and seismic sections), to esoteric accounts of palaeotemperature analysis, coal metamorphism, petrography of volcanic rocks, petrophysics of chalk, and intimate analyses of stratigraphic boundaries.

The oil companies who contributed papers to this volume are to be congratulated for their generosity in releasing such a wealth of information over which they have proprietary rights, and which they acquired at great expense and hazard, financial and human. Similarly, congratulations are due for the manner in which this volume has been produced. A large page size was sensibly chosen enabling ample display of maps, seismic sections and well logs. The figures are clear and uniformly drafted to a high standard. The quality of reproduction of photographs and seismic sections is also excellent. Each paper is followed by an account of the discussion which it generated, and the book is concluded by a subject index.

There is no doubt that the discovery of North Sea oil has been the biggest stimulus to British geologists since the advent of William Smith. This volume provides a landmark in the history of North Sea geological studies and may be the definitive text and sourcebook for more than a decade. It provides an excellent insight into the thought processes and extent of technical knowledge required by a practising petroleum geologist. This book may demonstrate to many geologists outside oil companies that the search for petro-

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leum requires a breadth of scientific knowledge, a clarity of thought, and an ability to synthesise and communicate complex data, that it might not have been thought possible could exist outside a university.

At £16 for 501 pages, this book is worth every penny. **R. C. Selley**

Petroleum and the Continental Shelf of North-West Europe. Volume 2: Environmental Protection. Edited by H. A. Cole. Pp. 126. (Applied Science: Barking, UK, 1975.) £8.

THE objective of the conference was to obtain authoritative statements from specialists in two fields: the effect of oil pollution on the marine environment and, from the oil industry, indications of how they operate offshore when drilling and developing oilfields, and the safety precautions taken to prevent spillage of crude.

The papers explaining how oil wells are drilled and fields developed and produced will, I fear, make heavy reading for the non-specialist to whom they should have been addressed. An overall impression of complex problems solved with sophisticated equipment and with considerable attention to preventing oil spillage is conveyed. Reading these papers, however, the non-specialist would have to be very persevering to understand what a blow-out is, how it occurs, who can prevent it and with what equipment.

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