

## Nanushuk Formation Brookian Topset Play Alaska North Slope

This book demystifies that art and science of seismic interpretation for those with and without formal geophysical training. From geologists to managers and investors, The Art and Science of Seismic Interpretation is a guide to what seismic data is, how it is interpreted, and what it can deliver.

CD-ROM contains: Geographic Information Systems (GIS) Database and Supplementary Data for Chapters.

Seismic attributes play a key role in exploration and exploitation of hydrocarbons. In Seismic Attributes for Prospect Identification and Reservoir Characterization (SEG Geophysical Developments No. 11), Satinder Chopra and Kurt J. Marfurt introduce the physical basis, mathematical implementation, and geologic expression of modern volumetric attributes including coherence, dip/azimuth, curvature, amplitude gradients, seismic textures, and spectral decomposition. The authors demonstrate the importance of effective color display and sensitivity to seismic acquisition and processing. Examples from different basins illustrate the attribute expression of tectonic deformation, clastic depositional systems, carbonate depositional systems and diagenesis, drilling hazards, and reservoir characterization. The book is illustrated generously with color figures throughout. "Seismic Attributes" will appeal to seismic interpreters who want to extract more information from data; seismic processors and imagers who want to learn how their efforts impact subtle stratigraphic and fracture plays; sedimentologists, stratigraphers, and structural geologists who use large 3D seismic volumes to interpret their plays within a regional, basinwide context; and reservoir engineers whose work is based on detailed 3D reservoir models. Copublished with EAGE.

A colourful Earth System Science textbook on the Cretaceous world, with numerous learning features and website.

A multidisciplinary approach to research studies of sedimentary rocks and their constituents and the evolution of sedimentary basins, both ancient and modern.

The Sedimentary Basins of the United States and Canada, Second Edition, focuses on the large, regional, sedimentary accumulations in Canada and the United States. Each chapter provides a succinct summary of the tectonic setting and structural and paleogeographic evolution of the basin it covers, with details on structure and stratigraphy. The book features four new chapters that cover the sedimentary basins of Alaska and the Canadian Arctic. In addition to sedimentary geologists, this updated reference is relevant for basin analysis, regional geology, stratigraphy, and for those working in the hydrocarbon exploration industry. Features updates to existing chapters, along with new chapters on sedimentary basins in Alaska and Arctic Canada Includes nearly 300 detailed, full-color paleogeographic maps Written for general geological audiences and individuals working in the resources sector, particularly those in the fossil fuel industry

This book provides a comprehensive overview of the geology and the petroleum potential of the Arctic. Nine papers offer a circum-Arctic perspective on the Phanerozoic tectonic and palaeogeographic evolution, the currently recognized sedimentary basins, the gravity and magnetic fields and, perhaps most importantly, the petroleum resources and yet-to-find potential of the basins. The remaining 41 papers provide data-rich, geological and geophysical analyses and individual oil and gas assessments of specific basins throughout the Arctic.

These detailed and well illustrated studies cover the continental areas of Laurentia, Baltica and Siberia and the Arctic Ocean. Of special interest are the 13 papers providing new data and interpretations on the extensive, little known, but promising, basins of Russia.

The 5-year Circum-Arctic Lithosphere Evolution (CALE) program developed new constraints

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on the tectonic history of the central Amerasia basin of the Arctic Ocean. This volume is the final synthesis of the CALE program, which brought together an international team of scientists to develop integrated, multi-disciplinary understanding of the region. This approach, based on the integration of much new geological and geophysical data from onshore and offshore, is necessary to advance our understanding of this basin. Regional onshore-to-offshore transects are central to the 18 papers in this volume. The diverse science supporting these crust-to-mantle regional transects includes structural, geochronological, isotopic, potential fields, and seismic reflection and refraction data. Four chapters present circum-Arctic investigations by the regional CALE teams. The final chapter addresses pan-Arctic themes. This unique collaboration, relying on new data and new syntheses of existing data sheds new light on the history of the Arctic Ocean.

Summarizes and analyzes our current knowledge of the bathymetry, seismicity, regional geophysics, regional geology, and tectonic development of the Arctic Ocean basin and its margins, including the hydrocarbon, gas hydrate, and mineral resource potential. Meticulously produced with many clear figures, and includes three microfiche cards in pocket. The purpose of the core workshop is to provide an opportunity to examine a large collection of core from all major stratigraphic units present in NPRA. The chapters in this volume provide a current perspective on the genesis and petroleum potential of each stratigraphic interval. A comprehensive and richly illustrated overview of the Gulf of Mexico Basin, including its reservoirs, source rocks, tectonics and evolution.

Petroleum Geoscience is a comprehensive introduction to the application of geology and geophysics to the search for and production of oil and gas. Uniquely, this book is structured to reflect the sequential and cyclical processes of exploration, appraisal, development and production. Chapters dedicated to each of these aspects are further illustrated by case histories drawn from the authors' experiences. Petroleum Geoscience has a global and 'geotemporal' backdrop, drawing examples and case histories from around the world and from petroleum systems ranging in age from late-Pre-Cambrian to Pliocene. In order to show how geoscience is integrated at all levels within the industry, the authors stress throughout the links between geology and geophysics on the one hand, and drilling, reservoir engineering, petrophysics, petroleum engineering, facilities design, and health, safety and the environment on the other. Petroleum Geoscience is designed as a practical guide, with the basic theory augmented by case studies from a wide spread of geographical locations. Covers all the key aspects of the origin of petroleum, exploration, and production. It takes account of the modern emphasis on the efficient utilisation of reserves, on new methods in exploration (such as 3-D seismics). Book takes 'value-chain' approach to Petroleum Geoscience. First new text on petroleum geology for geology undergraduates to be published in the last ten years. Packed full of real-life case studies from Petroleum industry.

Over the past two decades there has been increased interest in the availability of hydrocarbon charge through a better understanding of petroleum geochemistry and the identification and characterization of petroleum source rocks. These rocks are geochemically unique and form under specific sets of circumstances. This book brings together both geologic and geochemical data from fifteen petroleum source rocks, ranging in age from Devonian to Eocene, that would otherwise be widely dispersed in the literature or available only in proprietary corporate databases. Much of this information, presented in either a tabular or graphic fashion, provides the petroleum explorationist and the geochemist with a framework to establish relationships among various geochemical indices and depositional settings.

When the U.S. Department of the Interior released its 1989 estimates of how much undiscovered oil and gas remain in the United States, a controversy ensued. Some members of the petroleum industry charged that the estimates were too low. This book evaluates the scientific credibility of the statistical and geological methods underlying the estimates.

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Beaufort Sea Planning Area Proposed 1996 Oil and Gas Lease Sale 144, Alaska Outer Continental Shelf (OSC) Environmental Impact Statement Northeast National Petroleum Reserve-Alaska (NPR-A) Environmental Impact Statement Arctic Research of the United States Alaska Outer Continental Shelf, Beaufort Sea Planning Area Sales 186, 195, and 202, Oil and Gas Lease Sale Environmental Impact Statement Petroleum Exploration Plays and Resource Estimates, 1989, Onshore United States Region 1, Alaska, Region 2, Pacific Coast U.S. Geological Survey Bulletin Petroleum Plays and Systems in the National Petroleum Reserve-Alaska

Although carbonates make up only 20% of the sedimentary rock record, they account for more than 50% of the world's proven oil reserves. Carbonates differ from siliclastics in generation, geomorphology, and diagenesis, all of which modify the mineralogy, porosity, and permeability so important to reservoir quality and 3-D seismic response. The first eight chapters establish the geologic framework and consist of state-of-the-art review papers written by recognized experts in carbonate generation, rock properties, sequence stratigraphy, seismic stratigraphy, and structural deformation. The last 10 chapters illustrate the seismic expression of carbonate terranes through carefully chosen case studies drawn from the United States, Venezuela, Norway, China, Saudi Arabia, Italy, and the Bahamas, augmented by two careful studies of seismic signal-to-noise problems specific to carbonates. A recurring theme in each of these case studies is the importance of integrating seismic and petrophysical control with geologic models to better predict carbonate facies quality and distribution. This book is destined to become a well-worn reference volume that sits easily within reach of every geologist, geophysicist, and engineer involved in the exploration or exploitation of carbonate reservoirs. Cutting-edge techniques have always been utilized in petroleum exploration and production to reduce costs and improve efficiencies. The demand for petroleum in the form of oil and gas is expected to increase for electricity production, transport and chemical production, largely driven by an increase in energy consumption in the developing world. Innovations in analytical methods will continue to play a key role in the industry moving forwards as society shifts towards lower carbon energy systems and more advantaged oil and gas resources are targeted. This volume brings together new analytical approaches and describes how they can be applied to the study of petroleum systems. The papers within this volume cover a wide range of topics and case studies, in the fields of fluid and isotope geochemistry, organic geochemistry, imaging and sediment provenance. The work illustrates how the current, state-of-the-art technology can be effectively utilised to address ongoing challenges in petroleum geoscience.

The Frontiers in Sedimentary Geology series was established for the student, the researcher, and the applied scientist to enhance their potential to stay abreast of the most recent ideas and developments and to become familiar with certain topics in the field of sedimentary geology. This series deals with subjects that are in the forefront of both scientific and economic interests. The treatment of a subject in an individual volume, therefore, should be a combination of topical, regional, and interdisciplinary approaches. The interdisciplinary aspects are becoming more and more important because most studies dealing with the natural sciences cannot effectively stand alone. Although this thrust may sound simple, in reality it is not, basically because each discipline has developed its

own jargon and definitions offers. Communication among disciplines is a major issue and can be accomplished more constructively when people with different backgrounds join together at the same symposium and can read from the same volume rather than confining themselves within the world of their own specialty meetings and journals. Books in this series provide this connective link between disciplines. Each book in this series provides a continuous and connected flow of concepts throughout the volume by the use of introductory chapters that outline a topic to help the reader grasp its problems and to understand the contributions that follow.

Statement of Ken Salazar, Secretary of the Interior, on current activities at the Dept. of the Interior related to oil and gas exploration on the Outer Continental Shelf, particularly about the ongoing response to the explosion of the Deepwater Horizon drilling rig in the Gulf of Mexico off the Louisiana coast. This massive and potentially unprecedented environmental disaster, which has resulted in the tragic loss of life and many injuries, is commanding the Dept. of the Interior's time and resources as they work to ensure that the spill is stopped; that our great natural resources along the Gulf Coast are protected and restored; and that we get to the bottom of what happened and hold those responsible accountable.

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