

Analytical Methods Petroleum Exploration Tno

Characterisation of the shallow subsurface has gained in importance as civil and geotechnical engineering and environmental applications have become more dependent on a precise definition of geomechanical and geohydrological properties. A better understanding of the subsurface conditions offers wide-ranging benefits to governments, industry and individual citizens. Subsurface geological modelling became an economic and technologic reality in the late 1980's, when competing 3-D geoscientific information systems were the subject of considerable research and evaluation, especially by the petroleum exploration industry. Investigations in the shallow subsurface impose additional requirements that have only recently become technically and economically achievable. The very shallow urban underground environment, where many infrastructure and utilities elements are located, presents the most difficult characterisation problems. Subsurface modelling techniques have matured, along with modern data base concepts. The evolution of the Internet and Web-browser technologies has expanded information transmission and dissemination capabilities. Subsurface models are being integrated with decision-support systems to provide predictions of technical and economic performance. Yet even the most sophisticated of these models leave some uncertainty in geologic interpretation. A variety of techniques for assessing uncertainty have been developed and are being evaluated.

The WPC is dedicated to the application of scientific advances in the oil and gas industries, to technology transfer, and to the use of the world's petroleum resources. The Fifteenth World Petroleum Congress was held between 12-16th October 1997 in Beijing, China.

U.S. Dept. of Energy, Office of Scientific and Technical Information

The Leading Edge

Journal of Petroleum Technology : Official Publication of the Society of Petroleum Engineers of AIIME.

The Geophysical Directory

Applications to Hydrocarbon Exploration and Production

Geothermal Energy Update

This volume presents an overview of the results of a European Union integrated program in which approximately two hundred earth scientists participated, drawn from all fields related to exploration. Two classes of modeling were addressed - geological modeling - the relationship between sedimentation and the resulting reservoir conditions; and wave-propagation modeling - the investigation of wave-propagation through media of various degrees of complexity. Wave-propagation modeling was carried out either mathematically or physically with the most modern techniques available. The project was the inversion of seismic data, that is the determination of the parameters of the medium from observations. This problem is closely related to modeling since it is based on the inversion of the mathematical steps and often uses modeling for verification and updating of concepts with a coverage that is both broad in area and in discipline. The geophysical investigations are at the leading edge of current research. Although detailed results have been published separately by investigators, this volume is the only source of reference which summarizes sufficient detail to enable the reader to follow the scientific reasoning.

This book provides theories, experiences, reflections and future directions for social scientists who wish to engage with policy-oriented research in cities and regions. The 'policy learning' perspective is comprehensively discussed, focusing on actors promoting 'policy knowledge' and the role of stakeholders. The book also aims to provide practical insights for policy-makers and practitioners interested in research-based approaches to cities and regions.

Application of Stress-Wave Theory to Piles: Quality Assurance on Land and Offshore Piling

Final Report of the CEC's Geoscience I

Fossil Energy Update

U.S. Geological Survey Circular

Proceedings

Petroleum Abstracts

This book describes a novel physics-based approach to inverse modeling that makes use of the properties of the equations governing the physics of the processes under consideration. It focuses on the inverse problems occurring in hydrogeology, but the approach is also applicable to similar inverse problems in various other fields, such as petroleum-reservoir engineering, geophysical and medical imaging, weather forecasting, and flood prediction. This approach takes into consideration the physics – for instance, the boundary conditions required to obtain a well-posed mathematical problem – to help avoid errors in model building and therefore enhance the reliability of the results. In addition, this method requires less computation time and less computer memory. The theory is presented in a comprehensive, not overly mathematical, way, with three practice-oriented hydrogeological case studies and a comparison with the conventional approach illustrating the power of the method. Forward and Inverse Modeling of Groundwater Flow is of use to researchers and graduate students in the fields of hydrology, as well as to professional hydrologists within industry. It also appeals to geophysicists and those working in or studying petroleum reservoir modeling and basin modeling.

This book focuses on describing and applying risk analysis of vapour cloud explosions (VCEs) in various oil and gas facilities, such as petrol stations, processing plants, and offshore platforms. Discussing most of the complicated features of gas explosion accidents, the book studies in detail the gas explosion risk analysis approaches of different oil and gas facilities in order to develop more accurate, detailed, efficient and reliable risk analysis methods for VCEs under different conditions. Moreover, it introduces an advanced overpressure approach to predict VCEs using computational fluid dynamics (CFD) modelling, and details applications of CFD using a FLAME ACceleration Simulator (FLACS). The book is intended for researchers and organisations engaged in risk and safety assessments of VCEs in the oil and gas industry.

Methods and Applications in Reservoir Geophysics

Energy Research Abstracts

Knowledge, Policymaking and Learning for European Cities and Regions

Geobyte

Nuclear Science Abstracts

Modeling The Earth For Oil Exploration

The use of diesel-powered equipment in underground mining operations provides many benefits to the industry. It also presents many challenges to the health and safety of workers as it is a significant source of submicrometer aerosols and noxious gases. This book was developed to assist the coal and metal/nonmetal underground mining industries in their efforts to reduce the exposure of workers to aerosols and gases from diesel-powered equipment. It includes information collected by researchers at the National Institute for Occupational Safety and Health/Office of Mine Safety and Health Research (NIOSH/OMSHR). Prior to the production of this text, the knowledge on this complex issue was fragmented. The goal of this volume is to make the information available in one easy-to-use reference. The book includes comprehensive, mine-specific programs for use by mechanics, mine ventilation engineers, industrial hygienists, mine managers, union health and safety representatives, and personnel responsible for the acquisition of diesel vehicles, engines, exhaust aftertreatment systems, fuels, and lubricants. The description of methods to reduce exposure to diesel aerosols includes curtailment of diesel particulate matter and gaseous emissions at their source, and controlling airborne pollutants with ventilation and personal protective equipment. This information should also help researchers in industry, government, and academia to identify areas that need to be addressed in future research and development efforts.

A broad view of how the computer technology is being used in the petroleum industry, incorporating many products, applications, geological settings, approaches, philosophies, and operational aspects.

Within sections on technological foundations, practical realities, case studies, supporting roles and applications, geographical information system re

JPT : Journal of Petroleum Technology

The Geology of Central Europe: Mesozoic and Cenozoic

Exploration, Development, Production. Index

Applications to Fossil Fuel and Groundwater Resources

An Assessment of the "Depreciation at Will"

Energy Abstracts for Policy Analysis

Volume 2 provides an overview of the Mesozoic and Cenozoic evolution of Central Europe. This period commenced with the destruction of Pangaea and ended with the formation of the Alps and Carpathians and the subsequent Ice Ages. Separate summary chapters on the Permian to Cretaceous tectonics and the Alpine evolution are also included. The final chapter provides an overview of the fossil fuels, ore and industrial minerals in the region.

This comprehensive book highlights soft computing and geostatistics applications in hydrocarbon exploration and production, combining practical and theoretical aspects. It spans a wide spectrum of applications in the oil industry, crossing many discipline boundaries such as geophysics, geology, petrophysics and reservoir engineering. It is complemented by several tutorial chapters on fuzzy logic, neural networks and genetic algorithms and geostatistics to introduce these concepts to the uninitiated. The application areas include prediction of reservoir properties (porosity, sand thickness, lithology, fluid), seismic processing, seismic and bio stratigraphy, time lapse seismic and core analysis. There is a good balance between introducing soft computing and geostatistics methodologies that are not routinely used in the petroleum industry and various applications areas. The book can be used by many practitioners such as processing geophysicists, seismic interpreters, geologists, reservoir engineers, petrophysicist, geostatisticians, asset managers and technology application professionals. It will also be of interest to academics to assess the importance of, and contribute to, R&D efforts in relevant areas.

Scientific and Technical Aerospace Reports

Assessing Environmental Risk of Oil Spills with ERA Acute

Government Reports Announcements & Index

A New Methodology

JPT

Subsurface Conditions

The main intention of this book is to provide geoscientists interested or working in hydrocarbon exploration with a comprehensive understanding of the evolution of hydrocarbon migration systems in sedimentary basins and to give guidelines for its application in basin evaluation.

For this purpose, the book fully integrates hydrogeologic and hydrodynamic aspects of the evolution of sedimentary basins with petroleum geologic aspects. It will be of interest to petroleum geologists, hydrogeologists, geochemists and reservoir geologists.

This work collates the topics discussed in the sixth International Conference on land and offshore piling. It covers topics such as: wave mechanics and its application to pile mechanics; driving equipment and developments; and pile integrity and low strain dynamic testing.

50th Anniversary Commemorative Volume

Hydrogeology of Sedimentary Basins : Application to Exploration and Exploitation

6th European Conference on the Mathematics of Oil Recovery

Terrigenous Clastic Depositional Systems

Soft Computing and Intelligent Data Analysis in Oil Exploration

Official Monthly Publication of the Petroleum Branch, American Institute of Mining and Metallurgical Engineers

This open access book introduces readers to a new methodology for assessing the risks to the marine environment following accidental oil spills. The methodology will soon be implemented on the Norwegian Continental Shelf and will be complemented by guidelines for its use in a regulatory framework. The brief book is intended to provide international readers with a basic grasp of what the ERA Acute methodology consists of, what its applications are, and the underlying impact and restoration models used in its development. The content is divided into three main parts: an introduction and overview of risk management applications for generalists at the management level, a model overview for generalist scientists, and a more detailed final section for risk assessment professionals, which presents the results of the validation and sensitivity testing.

Nonrenewable energy resources, comprising fossil fuels and uranium, are not randomly distributed within the Earth's crust. They formed in response to a complex array of geologic controls, notably the genesis of the sedimentary rocks that host most commercial energy resources. It is this genetic relationship between economic resources and environment that forms the basis for this book. Our grouping of petroleum, coal, uranium, and groundwater may appear to be incongruous or artificial. But our basic premise is that these ostensibly disparate resources share common genetic attributes and that the sedimentological principles governing their natural distributions and influencing their recovery are fundamentally similar. Our combined careers have focused on these four resources, and our experiences in projects worldwide reveal that certain recurring geologic factors are important in controlling the distribution of commercial accumulations and subsurface fluid flow. These critical factors include the shape and stability of the receiving basin, the major depositional elements and their internal detail, and the modifications during burial that are brought about in these sediments by pressure, circulating fluids, heating, and chemical reaction. Since the first edition of this book in 1983, there has been a quantum leap in the volume of literature devoted to genetic stratigraphy and refinement of sedimentological principles and a commensurate increase in the application of these concepts to resource exploration and development.

Risk Analysis of Vapour Cloud Explosions for Oil and Gas Facilities

SPE Reservoir Evaluation & Engineering

United Kingdom Oil and Gas Fields

Future Energy Conferences and Symposia

Equations and Applications in Forward and Inverse Modeling of Groundwater Flow

Controlling Exposure to Diesel Emissions in Underground Mines

The DAW enables firms to accelerate depreciation of investments in platforms and other offshore equipment.

Geological Society Memoir 52 records the extraordinary 50+ year journey that has led to the development of some 458 oil and gas fields on the UKCS. It contains papers on almost 150 onshore and offshore fields in all of the UK's main petroliferous basins. These papers range from look-backs on some of the first-developed gas fields in the Southern North Sea, to papers on fields that have only just been brought into production or may still remain undeveloped, and includes two candidate CO2 sequestration projects. These papers are intended to provide a consistent summary of the exploration, appraisal, development and production history of each field, leading to the current subsurface understanding which is described in greater detail. As such the Memoir will be an enduring reference source for those exploring for, developing, producing hydrocarbons and sequestering CO2 on the UKCS in the coming decades. It encapsulates the petroleum industry's deep subsurface knowledge accrued over more than 50 years of exploration and production.

First Break

Journal of Petroleum Technology

50 Years of Learning - Proceedings of the 8th Petroleum Geology Conference

Geographic Information Systems in Petroleum Exploration and Development

Hydrocarbon Migration Systems Analysis

Petroleum Geology of NW Europe

We are poised to embark on a new era of discovery in the study of geomorphology. The discipline has a long and illustrious history, but in recent years an entirely new way of studying landscapes and seascapes has been developed. It involves the use of 3D seismic data. Just as CAT scans allow medical staff to view our anatomy in 3D, seismic data now allows Earth scientists to do what the early geomorphologists could only dream of - view tens and hundreds of square kilometres of the Earth's subsurface in 3D and therefore see for the first time how landscapes have evolved through time. This volume demonstrates how Earth scientists are starting to use this relatively new tool to study the dynamic evolution of a range of sedimentary environments.

Published by the Geological Society on behalf of PGC Ltd. (1 hardback volume in slipcase). The 8th Conference on the Petroleum Geology of NW Europe was held in September 2015 and marked the 50th anniversary of the first commercial discovery offshore in the North Sea (West Sole, in September 1965). Its focus was '50 Years of Learning – a Platform for Present Value and Future Success' and its objective was to provide an update on discoveries, developments, technologies and geological concepts from the region. The 39 extensively illustrated technical papers cover the full width of recent activity and are divided into the following sections: Plays and fairways; Play assessment; Recent successes and learnings from failures; Infrastructure-led exploration and development; Late-life fields, re-development and the 'next life'; Onshore exploration and development. The proceedings volume follows the format of many of the previous conferences since the first in 1974. Collectively these provide a unique documentation of the discovery and development of several NW European hydrocarbon provinces. The volume will be of interest to all geoscientists involved in exploration and development in NW Europe. It provides a fascinating overview of how creativity can continue to reveal hidden resources in an area that has been called 'mature' for at least the last 20 of its 50-year history.

Seismic Geomorphology

Peebles, Scotland, 8-11 September 1998 : Oral Presentations

Gas Exploration and Production at the Dutch Continental Shelf

Proceedings of the Fifteenth World Petroleum Congress, Natural Gas, Reserves Environment & Safety Business/Management Research and Transportation

The Double Constraint Inversion Methodology

U.S. Government Research Reports