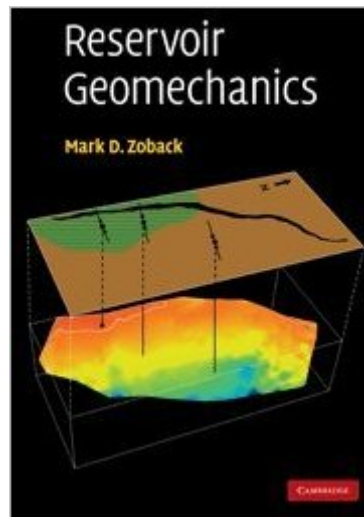


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# Reservoir Geomechanics



## Synopsis

This interdisciplinary book encompasses the fields of rock mechanics, structural geology and petroleum engineering to address a wide range of geomechanical problems that arise during the exploitation of oil and gas reservoirs. It considers key practical issues such as prediction of pore pressure, estimation of hydrocarbon column heights and fault seal potential, determination of optimally stable well trajectories, casing set points and mud weights, changes in reservoir performance during depletion, and production-induced faulting and subsidence. The book establishes the basic principles involved before introducing practical measurement and experimental techniques to improve recovery and reduce exploitation costs. It illustrates their successful application through case studies taken from oil and gas fields around the world. This book is a practical reference for geoscientists and engineers in the petroleum and geothermal industries, and for research scientists interested in stress measurements and their application to problems of faulting and fluid flow in the crust.

## Book Information

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## Customer Reviews

This book was recommended to me by one of my clients, and I was thrilled to discover it would be easy to pick up at , either in paperback or as a Kindle edition. I will not claim to have read this entire book from cover to cover, but I have read large swaths of it, and have found the information inside accurate and helpful. I find the style to be accessible, and this book is proving to be very useful to me at work.

I found this book to be an excellent overview of Reservoir Geomechanics. While comprehensive enough to adequately cover all the major problems that an industry geomechanicist is likely to encounter, it provides sufficient amount of detail for the reader to be able to study scientific literature in Geomechanics independently. All the key concepts and mathematical models are illustrated on a wide variety of case studies, and are presented in a form that allows a straightforward numerical implementation. Some knowledge of Mechanics of Continua and Rock Physics is probably a prerequisite. I would highly recommend this book to any serious student of Geomechanics.

The book contains all that one needs to know about reservoir geomechanics. The concepts and technical terms used in the book are easy to understand and readily applicable to solving subsurface problems. In addition, it contains valid field examples from around the world to demonstrate concepts. I truly enjoyed reading and learning from the book. I recommend it to all professionals in the geosciences interested in knowing or learning more about the mechanics of subsurface reservoirs. It's a great and truly outstanding book.

One of the most complete books on Reservoir Geomechanics!! Unfortunately there was no extensive treatment of Earth-Quake focal mechanisms, a subject Mark Zoback has much knowledge of. At present the production of the Groningen gasfields and the safety of the Dutch people living there depends on the controllability of this subject, I will spend my remaining professional career on this subject. Dr. Marc Hettema

I am taking Zoback's free online course, where he goes through the book in lectures. The lectures and book are each individually very good. He successfully uses many real-world datasets and examples to give an impression of both ideal complex behaviors. I think the book is a bit verbose. It is a very conversational style, almost like a transcript of the lectures in places. I guess if you are doing this as a part of self-paced learning that is a good thing. Zoback is an expert on hydrofracking, estimating and using the stress field to determine useful things about wellbore stability. The book reflects his 30 years as a researcher on the topic.

The quality of paper and graphics are excellent. Is a shame that unfortunately no hard cover is available for such material and quality on the content and the printing as well. I assure that the material presented on the book is very rich.

I bought this book to learn more about pore pressure and how it is predicted. It also has a lot of useful information about well bore stability and will give you a better understanding of geomechanics.

Quickly became a classic in the petroleum industry geomechanics literature. Adopts a very practical approach, highlighting the geological aspects in all applications discussed throughout the book. Displays complete references about each topic addressed, what is very useful because most of the formulation is rarely derived.

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Reservoir Geomechanics Shear Localization in Granular Bodies with Micro-Polar Hypoplasticity (Springer Series in Geomechanics and Geoengineering) Breakout: The Chosin Reservoir Campaign, Korea 1950 Working Guide to Reservoir Rock Properties and Fluid Flow

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