



# Foreword

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Based on their experience in geophysics as applied to the oil and gas industry and in the geotechnical and hydrogeological fields, the authors have set out to explain how conventional seismic methods used in exploration or in reservoir geophysics for imaging can be applied to hydrogeological surveys and to site characterizations in the framework of karstified geological formations, using for example the Dogger limestone of the Poitou threshold. After reviewing the current state of geological knowledge of the Poitou threshold, the book aims to describe how 3D seismic surveying, implemented with light seismic spreads, combined with vertical seismic profiles and full waveform acoustic logging, can be used to obtain a very high-resolution 3D block in depth, which points out karstic levels.

The book highlights how seismic imaging, complemented with both a geological study at a regional biostratigraphic scale and sequential sections established from drilling data, can lead to a stratigraphic characterization of the Dogger limestone. The authors propose a coherent karstogenesis scheme, without involving tectonic constraints, of karstogenic horizons in a sequence of carbonate deposits.

In addition to the field study of the Dogger limestone of the Poitou threshold, the authors provide readers with guidelines to carry out a seismic and stratigraphic characterization methodology that can be applied to hydrogeological investigations and reservoir studies.

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