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Nota di contenuto	Frontmatter -- Contents -- Foreword -- Introduction -- 1 Shear velocity measurement in boreholes -- 2 Well seismic surveying -- 3 Acoustic logging -- 4 Tying surface seismic data -- 5 Contribution of seismic and acoustic methods to the characterization of karstic formations -- Conclusion
Sommario/riassunto	Approaches that are typically applied in deep exploration geophysics, combining different seismic and logging methods, can be technically adapted for certain geotechnical or hydrogeological surveys or some site characterizations in the framework of seismic hazard studies. Currently it is entirely feasible to implement this type of geophysical surveying if the situation requires. After reviewing the current state of knowledge regarding borehole measurements of subsurface shear velocities applied to the geotechnical field, this book illustrates the feasibility of carrying out vertical seismic profiles (VSPs) and logs in this field. This approach also illustrates the value of combining velocity measurements of formations provided by borehole seismic tools (VSP) and acoustic (sonic) tools. An innovative example of the application of borehole seismic and logging methods is then presented in the case study of a relatively near-surface (from 20 to 130 m) karst carbonate aquifer. It shows how a multi-scale description of the reservoir can be carried out by integrating the information provided by different 3D-THR surface seismic methods, full waveform acoustic logging, VSP with

hydrophones, borehole optical televiewer and flow measurements. In this book the authors provide readers with guidelines to carry out these operations, in terms of acquisitions as well as processing and interpretation. Thus, users will be able to draw inspiration to continue transferring petroleum techniques and other innovative methods for use in near-surface studies.

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