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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Sources of Geothermal Heat -- Thermodynamics Background and the Properties of Water -- The Equations Governing Heat and Single-Phase Fluid Flow and their Simplification for Particular Applications -- Geothermal Drilling and Well Design -- Well Measurements from Completion Tests to the First Discharge -- Phase Change Phenomena and Two-Phase Flow -- The Discharging Well -- The Transient Response of Formations to Flow in a Well – Transient Pressure Well Testing -- The Economics of a Geothermal Electricity Generation Project -- The Power Station -- The Steamfield -- The Resource Development Plan -- Struggles Between Commercial Uses and Conservation – Examples from New Zealand -- Appendix 1: Saturation Properties of Water from the Triple Point to the Critical Point -- Appendix 2: Compressibility of Water from 0-100°C and 0-1000 Bar -- Appendix 3: The Boiling-Point-for-Depth Curve.
Sommario/riassunto	This book explains the engineering required to bring geothermal resources into use. The book covers specifically engineering aspects that are unique to geothermal engineering, such as measurements in wells and their interpretation, transport of near-boiling water through long pipelines, turbines driven by fluids other than steam, and project economics. The explanations are reinforced by drawing comparisons

with other energy industries. This book also: Presents the only comprehensive treatment of geothermal engineering Connects problems and technologies of geothermal engineering to a variety of related topics in earth science, economics, and project oversight Covers techniques developed in the petroleum industry and explains these techniques at a fundamental level Includes material for practitioners and students of various engineering disciplines and earth scientists Geothermal Engineering: Fundamentals and Applications is appropriate in coverage and rigor for practitioners working in the energy and environmental resource sectors. The volume also finds an audience within the growing number of upper-division undergraduate and graduate courses in geothermal engineering and geothermal energy offered through various engineering departments and programs in earth science.