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Titolo	Reservoir Engineering [[electronic resource]] : Fundamentals and Applications / / by Sylvester Okotie, Bibobra Ikporo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-02393-1
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (430 pages)
Disciplina	622.3382
Soggetti	Fossil fuels Engineering geology Engineering—Geology Foundations Hydraulics Geotechnical engineering Fossil Fuels (incl. Carbon Capture) Geoengineering, Foundations, Hydraulics Geotechnical Engineering & Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Reserves and Reservoir Characterization -- Volumetric Reserves Estimation -- Water Influx -- Material Balance -- Linear Form of Material Balance Equation -- Decline Curve Analysis -- Pressure Regimes and Fluid Contacts -- Inflow Performance Relationship -- History Matching -- Reservoir Performance Prediction.
Sommario/riassunto	This book provides a clear and basic understanding of the concept of reservoir engineering to professionals and students in the oil and gas industry. The content contains detailed explanations of key theoretic and mathematical concepts and provides readers with the logical ability to approach the various challenges encountered in daily reservoir/field operations for effective reservoir management. Chapters are fully illustrated and contain numerous calculations involving the estimation of hydrocarbon volume in-place, current and abandonment reserves, aquifer models and properties for a particular reservoir/field, the type

of energy in the system and evaluation of the strength of the aquifer if present. The book is written in oil field units with detailed solved examples and exercises to enhance practical application. It is useful as a professional reference and for students who are taking applied and advanced reservoir engineering courses in reservoir simulation, enhanced oil recovery and well test analysis.