

1. Record Nr.	UNINA9910462008203321
Autore	Willhite G. Paul
Titolo	Waterflooding [[electronic resource]] / G. Paul Willhite
Pubbl/distr/stampa	Richardson, TX, : Society of Petroleum Engineers, 1986
ISBN	1-61399-165-7
Descrizione fisica	1 online resource (335 p.)
Collana	SPE textbook series ; ; v. 3
Disciplina	622/.3382
Soggetti	Oil field flooding Petroleum industry and trade Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographies and indexes.
Nota di contenuto	<p>""Preface""; ""Contents""; ""Introduction""; ""1-Background""; ""1.1 Introduction""; ""1.2 Development of Waterflooding""; ""1.3 Primary Production""; ""2-Microscopic Efficiency of Immiscible Displacement""; ""2.1 Introduction""; ""2.2 Fundamental Principles Governing Fluid and Rock Interactions""; ""2.3 Methods of Inferring Fluid Distributions in Porous Media""; ""2.4 Principles of Multiphase Flow in Porous Media""; ""2.5 Residual Oil Saturation""; ""2.6 Mobilization of Residual Oil""; ""3-Macroscopic Displacement Efficiency of Linear Waterflood""; ""3.1 Introduction""</p> <p>""3.2 Development of Equations Describing Multiphase Flow in Porous Media""""3.3 Solutions to Fluid Flow Equations in Linear Systems""; ""4-Immiscible Displacement in Two Dimensions Areal""; ""4.1 Introduction""; ""4.2 Fluid Flow Equations in 2D Areal Displacement""; ""4.3 Displacement in a Five-Spot Pattern""; ""4.4 Correlations Developed From Scaled Laboratory Models The CGM Model""; ""4.5 Streamtube Models""; ""4.6 Comparison of CGM and Streamtube Models for a Five-Spot Pattern""; ""4.7 Prediction of Areal Displacement by 2D Numerical Simulators""</p> <p>""4.8 Limitations of 2D Areal Simulators""""5-Vertical Displacement in Linear and Areal Models""; ""5.1 Introduction""; ""5.2 Two-Dimensional (2D) Displacement in Uniform Stratified Reservoirs Layered Models""; ""5.3 Gravity Segregation and Crossflows in Linear Reservoirs""; ""5.4 Approximation of 2D Flow With Thickness-Averaged Properties""; ""5.5</p>

Estimation of Vertical Displacement Efficiency With Scaled Laboratory Models"; "5.6 Numerical Simulation of 2D Displacement in Linear Systems Including Gravity Segregation and/or Crossflow"; "5.7 Viscous Fingering"

"5.8 Estimating Waterflood Performance With 3D Models and Reservoir Simulators"; "5.9 Summary"; "6-Waterflood Design"; "6.1

Introduction"; "6.2 Factors Constituting a Design"; "6.3 Reservoir Description"; "6.4 Selection of Potential Flooding Patterns"; "6.5

Injection Rates"; "6.6 Estimation of Waterflood Performance"; "7-The Role of Reservoir Geology in the Design and Operation of Waterfloods";

"7.1 Introduction"; "7.2 Field Cases Illustrating the Importance of Reservoir Description"; "7.3 Reservoir Description"

"7.4 Depositional Environment for Sandstone Reservoirs"; "7.5 Depositional Environment for Carbonate Reservoirs"; "7.6

Development of a Reservoir Description"; "Appendix A: Computer Programs"; "Appendix B: Streamtube Parameters for Pattern Floods, Higgins-Leighton Streamtube Model"; "Author Index"; "Subject

Index"
