Transient well testing provides indirect determination of reservoir and well parameters. It is one of the most important in a spectrum of diagnostic tools used by petroleum engineers to characterize hydrocarbon assets and predict their future performance. This new monograph is the go-to handbook for designing, running, and analyzing different types of transient tests in oil and gas reservoirs. Since the publication of SPE's last monograph on well testing, considerable advances in testing tools, computing technology, and theoretical development have continued to enhance the information that can be obtained from transient testing and change the methods of interpretation. A gap in the petroleum engineer's library for a comprehensive book covering the state of the art in well-test analysis has existed for some time now. Practicing petroleum engineers need a single up-to-date reference for transient testing of oil, gas, and water wells; *Transient Well Testing* has been written to fill that gap.
Transient well testing in horizontal well gives a special and more complex analysis compared to vertical well analysis. A buildup test was examined at horizontal well E-4AH in G-Segment to determine vertical and horizontal permeability. Two flow regimes existed during the test, early-time radial flow and intermediate-time linear flow. They were discovered from pressure versus time plot and pressure derivative analysis. Recommendations for well test design, ops and well test interpretation. Well test interpretation to re-evaluate the field potential Re-interpreting old well tests can help to re-evaluate the well and field potential or prepare for an EOR process (Enhanced Oil Recovery). By applying new techniques and tools (including Deconvolution), previous analysis could be re-visited to obtain a better understanding of the data and better describe the well [...]