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Wastes; 5.3 Waste Estimation; 5.4 Environmental Fate of Petroleum Wastes; 5.5 Current Practices of Waste Management; 5.6 Evaluation of Current Waste Management Technologies; 5.7 Alternative Waste Management; 5.8 Sustainability of Waste Management; Chapter 6. Reservoir Engineering and Secondary Recovery; 6.1 Introduction 6.2 Well Test Analysis 6.3 Current Practice in Well Logging; 6.4 Current Practices of Core Analysis; 6.5 Practical Guidelines; Chapter 7. Enhanced Oil Recovery (EOR) Operations; 7.1 Introduction; 7.2 Contributions of Different Disciplines; 7.3 Different EOR Techniques; 7.4 Gas Injection; 7.5 Chemical EOR; 7.6 Microbial EOR; 7.7 EOR in Marginal Reservoirs; 7.8 Scaling of EOR Schemes; 7.9 Environmental Consideration in EOR Operations; 7.10 Alternative Technologies for EOR; 7.11 CO₂ EOR Technology; 7.12 Electromagnetic Heating for EOR Chapter 8. Transportation, Processing, and Refining Operations 8.1 Introduction; 8.2 Pipelines and Risk Management; 8.3 Natural Gas Supply and Processing; 8.4 Oil Refining; 8.5 Sustainable Oil Refining Model; 8.6 Corrosion in Petroleum Structures; 8.7 Hydrate Problems and Some Suggestions; Chapter 9. Decommissioning of Drilling and Production Facilities; 9.1 Introduction; 9.2 Historical Analysis; 9.3 Type of Oil Platforms/Platform Structures; 9.4 Environmental Issues in Decommissioning; 9.5 Toxicity and Degradation of Waste Generation; 9.6 Decommissioning Regulations 9.7 Current Practices of Decommissioning

Sommario/riassunto

This is the first book in the petroleum sector that sheds light on the real obstacles to sustainable development and provides solutions to each problem encountered. Each solution is complete with an economic analysis that clarifies why petroleum operations can continue with even greater profit than before while ensuring that the negative environmental impact is diminished. The new screening tools and models proposed in this book will provide one with proper guidelines to achieve true sustainability in both technology development and management of the petroleum sector.
