
# Well Performance: Mastering Well Productivity Optimization and Reservoir Management Strategies

Course Overview:
Well performance is a critical aspect of oil and gas production, influencing the efficiency and profitability of hydrocarbon recovery
This comprehensive 5-day professional training course will provide a thorough understanding of well performance principles, evaluation methods, and optimization strategies for maximizing well productivity and ensuring sustainable reservoir management

Course Objectives:
By the end of this course, participants will be able to:
1
Grasp the fundamental principles of well performance and its significance in oil and gas production
2
Analyze the factors that influence well productivity, including reservoir characteristics, wellbore configuration, and production parameters
3
Apply well performance evaluation techniques to assess well productivity and identify potential problems
4
Implement optimization strategies to enhance well productivity, such as artificial lift, stimulation, and reservoir management
5
Utilize well performance data and logs to diagnose production problems and optimize reservoir depletion strategies
6
Integrate well performance analysis with economic considerations to maximize hydrocarbon recovery and project profitability
Course Agenda:
Day 1: Introduction to Well Performance and Reservoir Engineering
• Delve into the history and evolution of well performance analysis and its role in reservoir engineering
• Explore the regulatory framework and operational standards governing well performance evaluation
• Discuss the economic significance of well performance in the oil and gas industry
• Analyze the relationship between well performance and reservoir characteristics
Day 2: Well Productivity Evaluation and Diagnostic Methods
• Identify the different types of well performance curves and their applications
• Understand the principles of well performance analysis using Inflow Performance Relationships (IPRs) and Productivity Indices (PIs)
• Apply techniques to analyze well performance data, identify wellbore and reservoir issues, and optimize production parameters
• Discuss the use of diagnostic plots and tools for troubleshooting well performance problems
Day 3: Well Productivity Optimization Strategies
• Explore various artificial lift methods, such as gas lift, electric submersible pumps (ESPs), and hydraulic pumps, to enhance well productivity
• Analyze the principles and applications of well stimulation techniques, such as acidizing, fracturing, and matrix stimulation
• Discuss reservoir management strategies, such as waterflooding, gas injection, and pressure maintenance, to optimize well performance and reservoir depletion
• Evaluate the economic feasibility and technical considerations of well productivity optimization techniques
Day 4: Well Performance Monitoring and Data Analysis
• Understand the importance of real-time well performance monitoring and data acquisition systems

• Discuss techniques for integrating well performance data with reservoir modeling and simulation tools
• Analyze well performance trends and identify potential problems early to prevent production losses
• Utilize data analytics and machine learning techniques to enhance well performance prediction and optimization

Day 5: Case Studies and Advanced Well Performance Optimization

• Analyze real-world case studies of successful well performance optimization projects
• Explore advanced well performance optimization techniques, such as intelligent well completions, multi-stage fracturing, and reservoir conformance control
• Discuss emerging trends in well performance analysis and optimization, such as data-driven decision-making, digital twins, and real-time simulation
• Network with other professionals from diverse backgrounds within the oil and gas industry to share knowledge and experiences in well performance optimization

Who Should Attend:

• Petroleum engineers, reservoir engineers, and production engineers involved in well performance evaluation, optimization, and reservoir management
• Field supervisors, wellsite engineers, and production operators responsible for overseeing well performance and production operations
• Well performance software and equipment manufacturers and service company personnel engaged in well performance analysis, optimization, and monitoring technologies

Course Benefits:

• Develop a comprehensive understanding of well performance principles, evaluation methods, and optimization strategies
• Gain hands-on experience in well performance analysis, diagnostic techniques, and optimization methodologies through case studies and real-world scenarios
• Enhance your ability to identify and mitigate well performance problems, ensuring efficient production and maximizing hydrocarbon recovery
• Stay updated on the latest advancements in well performance technologies and optimization methodologies

Network with other professionals from diverse backgrounds within the oil and gas industry to share knowledge and experiences in well performance optimization