
GLOBAL
Business
Minds
HARNESS THE POWER
OF KNOWLEDGE
Mastering Well Control
TRAIN

Course Overview:
Well control is a critical aspect of drilling operations, ensuring the safety and integrity of wells during hydrocarbon exploration and production
This comprehensive 5-day professional training course will equip engineers, geoscientists, and technical professionals with a solid understanding of well control principles, techniques, and equipment, enabling them to contribute effectively to safe and efficient drilling operations

Course Objectives:
By the end of this course, participants will be able to:
1
Grasp the fundamental principles of well control, including kick detection, kick control, and wellbore kill procedures
2
Identify the causes of kicks and blowouts and the factors that contribute to well control incidents
3
Differentiate between primary well control and secondary well control measures
4
Understand the function and operation of blowout preventers (BOPs) and their role in well control
5
Apply well control procedures and techniques to safely manage wellbore kicks and maintain well integrity
Course Agenda:
Day 1: Introduction to Well Control
• Delve into the significance of well control in the oil and gas industry and its role in preventing wellbore kicks and blowouts
• Explore the history of well control incidents and the evolution of well control practices
• Discuss the regulatory framework and safety standards governing well control operations
• Analyze the economic and environmental consequences of well control failures
Day 2: Kick Detection and Analysis
• Understand the mechanisms of kick generation, including influx of formation fluids, gas migration, and lost circulation
• Identify the early warning signs and indicators of a kick, such as pressure fluctuations, mud returns, and pit level changes
• Discuss the importance of real-time monitoring and surveillance in kick detection
• Analyze techniques for kick detection and confirmation, including pit volume monitoring, flowline temperature, and gas detection
Day 3: Primary Well Control
• Delve into the principles of primary well control and its role in preventing kicks from reaching the surface
• Understand the operation of blowout preventers (BOPs) and their various components, including rams, annulators, and diverters
• Discuss the procedures for shutting in a well using BOPs and the importance of proper BOP maintenance and testing
• Analyze the factors influencing BOP selection and placement in different well configurations
Day 4: Secondary Well Control
• Explore the concept of secondary well control and its application when primary well control measures fail
• Discuss the principles of wellbore kill procedures, including fluid selection, injection rates, and kill calculations
• Understand the use of coiled tubing and snubbing units in secondary well control operations
• Analyze the challenges and considerations associated with wellbore kill operations in different well types

and environments
Day 5: Well Control Optimization and Emergency Preparedness
• Discuss techniques for optimizing well control performance and reducing the risk of wellbore kicks and blowouts
• Explore the importance of well planning, hazard identification, and risk assessment in well control
• Understand the principles of emergency preparedness, including incident response plans, communication protocols, and emergency training
• Analyze case studies of well control incidents and identify lessons learned for future prevention
Who Should Attend:
• Engineers, geoscientists, and technical professionals involved in drilling operations, well control planning, and wellbore management
• Petroleum engineers responsible for well design, wellbore integrity, and well control procedures
• Drilling engineers and completions specialists focused on BOP maintenance, well control equipment, and wellbore contingency planning
• Students and individuals interested in pursuing a career in drilling engineering, well control, or reservoir engineering
Course Benefits:
• Develop a comprehensive understanding of well control principles, techniques, and equipment
• Gain hands-on experience in kick detection, primary well control, and secondary well control scenarios
• Enhance your ability to apply well control knowledge to field operations, safety management, and incident prevention
• Stay updated on the latest advancements in well control technologies, regulatory requirements, and industry best practices
• Network with other engineers, geoscientists, and technical professionals in the field of well control and drilling operations