AN LDI TRAINING COURSE

Drilling Aspects, Project, Operation, and Risk Management

by
Prof. Dr.Ing.- Ir. Bonar Tua Halomoan Marbun

Course Description

During this course participants will learn project and risk management principles and how to apply these principles during drilling operation management. Attendees will experience a holistic, multi-disciplinary, and integrated management course that will involve operations, personnel, administration, finance, and legal functions. The main goal of this course will be to teach participants how to apply the critical project and risk management concepts that are required to run drilling projects in a safe, efficient, cost-effective, and environmentally-friendly manner. Participant will have the opportunity to learn about project planning and design, contract models, drilling program and planning software. Other topics that will be covered include tendering and contracting strategy, project finance and administration, supply chain management, and project closeouts. HSEQ management systems, risk management processes, levels of risk management, and operational risk management and analysis will also be covered. By the end of the course, participants should be familiar with the key issues and principles associated with drilling projects and risk management, as well as how to apply those learned skills. Participants will also learn how to integrate these principles in the asset or project teams to optimize the management of the drilling project and manage identified risks in order to increase the value of a project.

The Drilling Operations Management in Oil Fields course is designed to equip participants with comprehensive knowledge of managing all aspects of drilling activities. It emphasizes planning, execution, and monitoring of both onshore and offshore drilling operations with a strong focus on safety, quality, and operational integration. The course explores the latest drilling technologies and strategies for enhancing performance while reducing operational costs. Participants will learn about risk management in drilling projects and how to address field challenges effectively. This program is ideal for engineers, supervisors, and technicians aiming to develop their project management and operational skills in the oil and gas sector. The content is based on international standards and best practices in drilling management, ensuring practical and applicable learning for professionals seeking to excel in this critical field.

Audience

The course will be most beneficial to drilling managers, general managers, asset managers, project managers, finance managers, and project controllers with direct responsibility for, or involvement in, the management of resources with on-going or planned drilling operations. It is also be suitable for experienced drilling engineers, drilling superintendents and drilling supervisors.

Participants should not have basic drilling engineering and well planning experience. Additional experience with drilling operations will be helpful and will enable participants to better understand some of the consequences faced from hazards encountered in drilling activities.

- Drilling and production engineers in the oil sector.
- Field supervisors and drilling operations controllers.
- Technicians specialized in well drilling.
- Petroleum project managers.
- Staff of drilling service companies and contractors.
- Safety and operational risk management experts.
- Professionals aiming to enhance their drilling management skills.

Objectives

- Understand the organizational structure of drilling operations.
- Efficiently plan and execute drilling programs.
- Manage resources and equipment in drilling projects.
- Apply safety and environmental standards during drilling.
- Analyze operational costs and manage project budgets.
- Monitor technical performance and corrective actions.
- Manage field crews and enhance team communication.
- Address operational challenges and emergency situations.

Content Outlines

Day 1

Module One – Drilling Management Fundamentals

- Introduction to drilling operations.
- Administrative structure of drilling teams.
- Legal and regulatory requirements.
- Scheduling and logistical planning.
- Coordination between field and office teams.
- Monitoring the implementation of operational programs.

Module Two – Equipment and Technologies

- Types of drilling equipment and applications.
- Directional and vertical drilling technologies.
- Mud and pressure control systems.
- Blowout preventers and wellhead controls.
- Modern and digital drilling technologies.
- Equipment upgrades and maintenance.

Day 2

Module Three – Safety and Risk Management

- Occupational health and safety standards.
- Risk assessment in drilling operations.
- Emergency procedures and rapid response.
- Safety training for field teams.
- Environmental compliance and reporting.
- Incident investigations and lessons learned.
- Case Study

Day 3

Module Four – Performance and Cost Management

- Technical and financial performance analysis.
- Key performance indicators in drilling.
- Budget control and project cost analysis.
- Daily reporting and financial tracking.
- Efficient use of resources and tools.
- Continuous improvement and lean practices.
- Case Study

Day 4

Module Five – Leadership and Field Coordination

- Managing teams and task allocation.
- Effective interdepartmental communication.
- Problem-solving and decision-making under pressure.
- Coordination with contractors and service providers.
- Creating a safe and motivated work environment.
- Leadership in high-risk and complex environments.
- Case Study

Day 5

Additional Modul – Well Completion and Work-Over

- Overview of Different Types of Well Completions
- Formation Damage
- Method of Well Perforation
- Sand Production Problems and Control Strategies in Reservoirs
- Common Well Stimulation Strategies
- General Overview of Well Intervention and Workover

About Instructor:

Prof. Dr.-Ing. Bonar Tua Halomoan Marbun

Full Professor of Drilling Engineering, Completion, Work-Over And Well Integrity of Petroleum and Geothermal

Petroleum Engineering Study Program Faculty of Mining and Petroleum Engineering Institute Technology Bandung, Indonesia.

Education:

Petroleum Engineering Bachelor Degree Bandung Institute of Technology, Institute of Petroleum Engineering, Bandung, Indonesia.

Petroleum Engineering Diplom Ingenieur Degree Clausthal University of Technology, Institute of Petroleum Engineering, Clausthal-Zellerfeld, Germany.

Dr.-Ingenieur in the field of Material Engineering and Science Clausthal University of Technology, Institute of Non-Metallic Materials, Clausthal-Zellerfeld, Germany.

Professional Experience

Member of Oil and Gas Independent Team Safety Control, General Directory of Oil and Gas, Ministry of Energy and Mineral Resources of Republic of Indonesia

Head of Petroleum Engineering Study Program, Institute Technology Bandung

Research and Development Centre, ThyssenKrupp, Beckum, Germany
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He is currently holding the position of a Senior Trainer of LDI Training and he certified to conduct its courses.

Training Confirmation

LDI Training will provide a Confirmation Letter after we receive registration and payment for the training according to the required quota.

For registration and more information please contact

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