LDI TRAINING
"Leading Edge Courses for Professionals" TM

An LDI Training Course

Directional, Horizontal & Multilateral Drilling

by

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

About the course

This course builds a firm foundation in the principles and practices of directional drilling, calculations, and planning for directional and horizontal wells. Specific problems associated with directional/horizontal drilling such as torque, drag, hole cleaning, logging and drill string component design are included. Participants will receive instruction on planning and evaluating horizontal wells based on the objectives of the horizontal well. The basic applications and techniques for multi-lateral wells are covered in the course. Additionally, they will become familiar with the tools and techniques used in directional drilling such as survey instruments, bottom hole assemblies, motors, steerable motors and steerable rotary systems. Participants will be able to predict wellbore path based on historical data and determine the requirements to hit the target.

Designed For

Drilling, production and operations engineers, field supervisors, toolpushers, managers and technical support personnel.

You will learn

Participants will learn how to:

- Make survey calculations
- Interpret TVD, polar and rectangular coordinates and vertical section
- Interpret dogleg severity and the problems associated with dogleg severity
- Plan a two-dimensional directional well
- Plan horizontal wells based on the objectives of the well

- Determine the best multi-lateral completion for an application
- Determine declination and non-magnetic drilling collar selection
- Apply the best survey instrument for the job
- Directionally drill with rotary BHA's, jetting, whipstocks, motor, steerable motors,
- Drill horizontally underbalanced
- Interpret torque and drag and determine what factors will affect the torque and drag
- Determine cementing requirements for directional wells

Course Content

- Applications for directional drilling
- Directional profiles
- Extended reach wells
- Survey calculations and accuracy
- Dogleg severity calculations and problems associated with doglegs
- Planning directional and horizontal wells
- Horizontal drilling methods and applications
- Logging high angle wells
- Hole-cleaning
- Multi-laterals
- Types of survey instruments
- Tools used to deflect a wellbore
- Torque and drag calculations
- Cementing

About Instructor

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

Associate Professor
Head of Petroleum Engineering Study Program Institut Teknologi Bandung

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, Institut Teknologi Bandung

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 according to the required quota.

For course registration and more information please email to

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