MAESTRO CONSULTANTS

DIRECTIONAL, HORIZONTAL, AND MULTILATERAL DRILLING

COURSE OUTLINE 2024

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TRAINING TITLE
DIRECTIONAL, HORIZONTAL, AND MULTILATERAL DRILLING

VENUE
Istanbul, Turkey

DURATION
5 Days

DATES
04 - 08 March 2024

PRICE
$6,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet.

TRAINING INTRODUCTION
This Directional, Horizontal and Sidetrack Drilling training seminar will increase the participants' understanding of the operations carried out by directional drillers and how directional and horizontal wells are planned and optimized. The basic applications and techniques for multilateral wells will be covered and participants will receive instructions on planning and evaluating horizontal wells based on the objectives of the horizontal well, and how to perform the proper planning for directional and horizontal well. In addition, this training will cover how to predict wellbore path based on historical data and determine the requirements to hit the target, and help solve related problems.

TRAINING OBJECTIVES
- Interpret TVD, polar, rectangular coordinates, dogleg severity and the problems associated with it
- Interpret torque and drag and what factors affect those in the drilling process
- Understand main concepts associated to well path planning
- Recommend suitable measures to mitigate operational issues related to directional and horizontal drilling
- Understand main concepts associated to well construction of multilateral wells

TRAINING AUDIENCE
- Drilling Engineer
- Completion Engineers
- Completion Supervisors
- Drilling Managers

- Drilling Technical Support Personnel

TRAINING OUTLINE

DAY 1

Directional Profiles and Other Applications of Directional Drilling

- Directional Drilling Fundamentals and Short History
- Applications and Limitations
- History and Applications of Extended Reach Drilling
- Directional Well Profiles (2D, 3D, designer wells)
- Survey Calculation Methods: Tangential, Balanced Tangential
- Average Angle, Radius of Curvature, Minimum Curvature
- Survey Calculation Exercises

DAY 2

Dogleg, Torque and Drag Calculations

- Factors that Affect Torque and Drag
- Friction Coefficient
- Directional Profile
- String Weight
- Directional Drill String Design
- Conventional Directional well
- High Angle or Horizontal Well
- Problems & Case History

DAY 3

Planning Directional and Horizontal Wells including Extended Reach Wells (ERD)

- Determining Directional Well Plan
- Planning Directional Well with Single Equation
- Planning Horizontal Wells
- Planning ERD

DAY 4

Hole Cleaning Practices in Deviated and Horizontal Wells

- Hole Cleaning Problems Associated With Inclination
- Annular Velocity
- Flow Regime And Viscosity
- Drill Pipe Rotation and Reciprocation
- Multi-lateral Wells Concepts and Application
- Horizontal and Multilateral Drilling Technology
    - Methods & Applications
    - Levels of Multilateral Wells
    - How to Perform a Multi-lateral Well

- New Technologies Application (Rotary Steerable, Thin Wall Motors, etc.)

DAY 5

Completion for Horizontal and Multi-lateral Wells

- The Difference of Production between Horizontal and Vertical
- Difference of Production between Horizontal and ERD
- Difference of Production between Horizontal and Multi-lateral

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course.

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of "real life" issues in their organizations.
The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.