WELL PLACEMENT FUNDAMENTALS

DRL053

COURSE OVERVIEW

The purpose of this course will be to introduce the concept of geosteering which consists in placing a horizontal or high angle well geologically and successfully. It will provide processes tools and techniques that can be used to perform the proposed task. This includes integrating geological and petrophysical data in real-time during drilling for the decision process. The main three methods to geologically position a well will be discussed alongside the technologies involved.

This multidisciplinary task comprising: directional drilling, drilling dynamics, geology, wire line petrophysical measurements, and formation evaluation while drilling (LWD) will be reviewed.

COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Identify potential benefits from horizontal drilling in your location
- Be aware of the different drilling tools and the correct selection for the project
- Have an awareness on the directional drilling process
- Understand how LWD tools work and their differences with original WL tools
- Have an awareness on selecting LWD fit for porous sets based on project objectives
- Understand the components for a real time well placement project
- Understand the steps to generate a correlation model for teal time update
- Recognize steering the well based on images
- Evaluate the conditions for the use of remote boundary detection

WHO SHOULD ATTEND

Drilling Engineers, Completion Engineers, Geologist, Geophysicist

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Pre course evaluation

2. Geological Well Placement and Reservoir Geology
   - Basic concepts and application
   - Technologies, processes, and methods
   - Essential elements of reservoir geology
   - Structural features

3. Directional Drilling and Measurement While Drilling (MWD)
   - Direction drilling concepts
   - MWD position and drilling-related data
   - MWD techniques and tools

4. Formation Evaluation and Logging While Drilling (LWD)
   - LWD tools and techniques
   - Formation evaluation techniques
   - Practical examples

5. Applications of LWD Measurements
   - Influence of LWD on high angle wells
   - Practical examples
   - LWD images, acquisition, and application

6. Applying Well Placement Methods
   - Model-compare-update method
   - Incorporating real-time dip analysis
   - Remote boundary detection

7. Post course evaluation.