PetroSkills

Bits and Hydraulics

MODULE

About the Skill Module

This skill module addresses roller cone and fixed cutter bit design features and their associated hydraulics programs at an awareness competency level.

Target Audience

Technical staff, business professionals, technicians, analysts and other non-technical staff who are involved with but have limited experience with drilling operations.

You Will Learn

Participants will learn how to:

- Identify design features and selection criteria for roller cone bit types
- Explain failure modes for roller cone bits and how this information can be used to improve performance
- Identify design features and selection criteria for fixed cutter bit types
- Explain failure modes for fixed cutter bits and how this information can be used to improve performance
- Explain tool system options which allow wellbore enlargement to a diameter greater than the internal drift diameter of a previously installed casing string
- Discuss situations where this may be required
- Explain rotary coring bit options
- Explain the relationship between cost per foot of a bit run and the cost of a bit, its rate of penetration, footage drilled, and the cost of the drilling operation
- Determine optimum time to pull a used bit based upon its cost per foot trend
- Balance competing objectives for the drilling hydraulics system
- Maintain ECD below fracture pressure of open hole
- Select nozzle sizes for adequate bit hydraulics
- Maintain operating pressure and total pump power demands within rig capabilities

Product Details

Categories: Upstream

Disciplines: Well Construction/Drilling

Levels: Basic

Product Type: Individual Skill Module

Format: On-Demand

Duration: 3.5 hours (approx.)

$395.00