

# **CEMENTING TECHNOLOGY**

# **DRL012**

# **COURSE DESCRIPTION**

Cementing is a difficult operation and the quality of the result depends on many factors associated with: the state of the open hole section; the equipment and materials employed; the fluids used; the procedures applied. This course presents methods and procedures to be applied at the well site. The course covers drawing up the cementing program; Different types of cementing; Setting cement plugs to combat lost circulation; and Causes of failure in casing cement jobs and remedies.

#### **COURSE GOAL**

To enhance participants' knowledge, skills, and abilities necessary to understand the process of bonding the pipe to the formation on other operation in drilling or completion process.

## **COURSE OBJECTIVES**

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

- Draw up the cementing program.
- Identify different types of cementing.
- Set cement plugs to combat lost circulation.
- Explain causes of failure in casing cement jobs and remedies.

#### WHO SHOULD ATTEND

- Drilling Engineers.
- Drilling supervisors with over tow years working experience in drilling engineering operations.

#### **COURSE DURATION**

5 Working Days

#### **COURSE OUTLINES**

- 1. Drawing up the cementing program:
  - Cement classes according to API specifications.
  - Slurries.
  - General information on flow regime and on spacers.
  - Mud conditioning before cementing.



#### 2. Different types of cementing:

- One-stage cementing and two-stage cementing.
- Cementing with stinger.
- Cementing a liner.

## 3. Setting cement plugs to combat lost circulation:

- Thixotropic slurries, cement gels, cement slurries without additives, and their placement.
- Plaster Diesel Oil Cement (PDOC) and Diesel Oil Cement (DOC), and their placement.

#### 4. Causes of failure in casing cement jobs and remedies:

- Losses during slurry placement.
- Slurry over-displacement.
- Lack of tightness of the cement sheath.
- Flash set.
- Setting defect.
- Lack of mechanical strength.
- Cement deterioration.
- Casing disconnection.

