

Course Name

GC2. High-Performance Water Based Drilling Fluids

Duration

Three (3) days

Objectives

This course is designed to provide participants with a basic understanding of High-Performance Water Based Drilling Fluid Systems used to drill problematic formations such as highly hydratable and dispersible shales and tectonically stressed formations. The course gives details about the design, fluid formulation, field trial, drilling and fluid performance. Classroom exercises and discussions on the practical cases are also included.

Content

- Introduction
- Clay Chemistry
- Shale Inhibition Mechanisms
- Characteristics and of Classification of High-Performance Systems
- Potassium/PHPA Drilling Fluid
- Aluminum Drilling Fluid
- Glycol Drilling Fluid
- Mixed Metal Oxide Drilling Fluid
- Silicate Drilling Fluid
- Amine Drilling Fluid
- Aphronics

Prerequisites

Basic knowledge of drilling, drilling fluids and well construction.

Audience

Drilling and drilling fluid engineers, superintendents and supervisors, and all professionals involved in well planning and operation.