



HARNESS THE POWER  
OF KNOWLEDGE

**Method for Description of Drill  
Cores Sedimentary Structures  
and Environments**

TRAIN



## Introduction:

Embark on an in-depth 5-day professional training journey to master the art of drill core description, unraveling the secrets of sedimentary structures and environments

Designed for aspiring and experienced geologists, geophysicists, and engineers, this course will equip you with the essential skills to meticulously describe drill cores, interpret sedimentary structures, and reconstruct paleoenvironments

Through hands-on core examination, interactive lectures, and in-depth discussions, you will gain a profound understanding of the principles and techniques employed in drill core description, enabling you to extract valuable geological information from these crucial subsurface records

## Course Objectives

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

- Thoroughly examine and describe drill cores using standardized geological methods and terminology
- Identify and classify a wide range of sedimentary structures, including bedding, laminations, ripples, cross-bedding, and bioturbation
- Interpret sedimentary structures to determine depositional environments, such as fluvial, marine, and lacustrine settings
- Reconstruct paleoenvironmental conditions, including paleocurrents, paleosalinity, and paleodepth
- Apply drill core descriptions to address geological challenges, such as reservoir characterization, facies analysis, and paleogeographic reconstruction

## Course Agenda

### Day 1: Introduction to Drill Cores and Sedimentary Structures

- Explore the significance of drill cores in geological investigations and their role in subsurface exploration
- Understand the principles of drill core sampling, handling, and preparation for description
- Delve into the classification and characteristics of various sedimentary structures

### Day 2: Hands-on Drill Core Description and Analysis

- Engage in hands-on drill core examination, identifying and describing sedimentary structures using standardized methods
- Utilize field guides and reference materials to accurately classify and interpret sedimentary structures
- Master the art of translating sedimentary structures into meaningful geological information

### Day 3: Interpretation of Sedimentary Structures and Depositional Environments

- Unravel the environmental significance of sedimentary structures, reconstructing depositional settings
- Apply knowledge of sedimentary structures to infer paleocurrents, paleosalinity, and paleodepth
- Explore the application of sedimentary structures in facies analysis and paleogeographic reconstruction

### Day 4: Advanced Drill Core Description Techniques

- Delve into advanced drill core description techniques, including detailed megascopic and microscopic analysis
- Utilize specialized tools and equipment to enhance core descriptions and extract additional geological data
- Explore the application of geochemical and mineralogical methods in drill core analysis

### Day 5: Case Studies and Applications of Drill Core Descriptions

- Analyze real-world case studies to apply drill core descriptions to address geological challenges
- Evaluate the role of drill core descriptions in reservoir characterization, groundwater exploration, and environmental assessments
- Discuss the future of drill core description and its integration with advanced technologies and data integration

## Who Should Attend

This course is designed for:

- Aspiring geologists seeking hands-on experience in drill core description and interpretation

- Geophysicists involved in subsurface exploration and interpretation of geological data
- Petroleum engineers utilizing drill core information for reservoir characterization and well planning
- Environmental scientists applying drill core data to assess groundwater resources and environmental conditions
- Individuals interested in gaining a comprehensive understanding of drill core description and its applications in various geological disciplines

#### Course Benefits

- Develop a comprehensive skill set in drill core description, interpretation, and paleoenvironmental reconstruction
- Enhance your ability to extract valuable geological information from drill cores for diverse applications
- Expand your knowledge of sedimentary structures and their significance in understanding depositional environments
- Apply drill core descriptions to address real-world geological challenges in various fields
- Stay updated on the latest advancements and techniques in drill core description and interpretation