



Hydrocarbon Production Operations Training Conference





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Introduction

This hydrocarbon production operations program will give the participants an integrated view of hydrocarbon production and related facilities during the reservoir's life. Participants in this hydrocarbon production operations conference will explore the various phases of hydrocarbon production operations, including the hydrocarbon production process, from reservoir to end-users.

The hydrocarbon production operations course emphasizes the importance of calculating reserves and understanding fluid properties from the reservoir through the gathering network. This knowledge is critical for surface facility engineers responsible for designing or operating equipment and facilities.

Understanding Hydrocarbon Management Workshop

Participants will engage in a comprehensive hydrocarbon management workshop during the hydrocarbon training conference. This workshop will cover key topics such as hydrocarbon measurement training, hydrocarbon accounting training, and how to navigate the complex hydrocarbon processing conference landscape.

Attendees at the hydrocarbon production operations conference will participate in hands-on exercises and case studies to deepen their understanding of the concepts and strategies crucial for effective hydrocarbon production operations management.

Targeted Groups

- Technologists.
- Mechanical engineers.
- Safety and Inspection engineers.
- Operations, Maintenance, or Project Engineers.
- This hydrocarbon production operations conference requires a broad understanding of the oil and gas industries' structure, operations, and economics.

Conference Objectives

At the end of this hydrocarbon training conference, participants will be able to:

- Explore global oil and gas-related statistics, such as reserves, production, consumption, and exports.
- Learn about upstream, midstream, and downstream operations and related facilities.
- Learn about various methods and techniques to explore, drill, produce, treat, and transport oil, gas, and their products.
- Understand various field facilities' oil and gas operations, from the wellhead, flow lines, separators, tanks, pumps, compressors, and pipelines to gas treatment and processing.
- Understand the basic concepts regarding evaluating oil and gas reserves, artificial lift, and enhancing recovery.
- Understand the hydrocarbon exploration and production challenges, such as offshore operations, horizontal drilling, and other safety concerns.
- Get a general understanding of petroleum economics and risk analysis.

Targeted Competencies

Upon the end of this hydrocarbon training conference, the target competencies will be able to:

- Understand the role of petroleum economics in evaluating field development projects.
- Understand the role of petroleum/reservoir engineers in optimizing recovery.
- Learn about oil and gas processing details, including exploration, refining, storage, transportation, and retailing.
- Understand the value chain from the well to the consumer.
- Know fundamental technologies of both upstream and downstream oil and gas industries.
- Understand how oil and gas industries are organized for effective and efficient operation.
- Develop the necessary skills to evaluate and make effective decisions related to the oil and gas industry.

Conference Content

Unit 1: Introduction and Overview

- Global Energy Statistics.
- Hydrocarbon Industry Components.
- The Upstream Operations.
- Exploration Methods.
- Seismic Surveys.
- Drilling Operations.
- Drilling Problems and Challenges.
- Well, Testing, Completion.
- Hydrocarbon Production Problems.
- Well, Stimulation and Maintenance.

Unit 2: Hydrocarbon Properties

- Rock Properties.
- Porosity and Permeability.
- Estimating Hydrocarbon Reserves.
- Oil and Gas Production.
- Artificial Lift Methods and Facilities.
- Reservoir Drive Mechanisms.
- Pressure Maintenance Technology.
- Hydrocarbon Recovery Methods.
- Primary, Secondary, and Tertiary Recovery.
- Reservoir Simulation.
- Oil and Gas Field Surface Facilities.

Unit 3: The Downstream Operations

- Wellheads Types.
- Production Manifolds.
- GOSP Gas-Oil Separation Plant Facilities.
- Oil and Gas Separation.
- Emulsion Treatment.
- Separator Types, Operation, and Troubleshooting.
- Oil Treatment, Storage, and Transportation.
- Oil Tank Types.
- Gas Treatment and Processing.
- Process Troubleshooting.

Unit 4: Heat Exchangers

- Oil and Gas Measurement and Control.
- Pipeline Operation and Pigging.
- Valve Types.
- Pumps and Compressor Stations.
- Refinery Operations and Products.
- Operation Troubleshooting.

Unit 5: The Role of Technology

- Safety and Accident Prevention.
- Production Problems.
- Corrosion Protection and Cathodic Protection.
- Scale Prevention and Treatment.
- Petroleum Economics and Risk Analysis.