

International Petroleum Management

INTRODUCTION

- Oil and gas are considered among the world's most critical resources and therefore play a pivotal role in driving the global economy. The exploration, production, refining, and distribution of oil and gas involve the most complex and capital-intensive processes and require state-of-the-art technology.
- This accelerated 10-day International Petroleum Management training seminar has been designed to enable participants to learn more about oil & gas production technologies, the chemistry of petroleum and the refining processes, the oil & gas exports and imports business, and best business practices.
- This international petroleum management training seminar will provide a more efficient understanding of the international oil and gas business value chain.

The delegates will also learn:

- The critical success factors of oil & gas operations – Seismic, wireline services, drilling, fracturing, well completion, production and processing for export
- Recoveries through the primary, secondary and enhanced oil recovery techniques
- Shale oil and gas production potential in different regions of the world
- Renewable energy sources and their comparative costs
- Energy economics, project evaluation and decision-making skills
- Crude oil and gas supply, transportation, marketing, trading and storage

OBJECTIVES

- To provide delegates with the understanding, knowledge and strategies that oil & gas management must make for success.

By the end of this training seminar, delegates will be able to:

- Have an understanding of the ways the oil & gas and energy industries have organized to operate effectively and efficiently
- Recognize the latest Game-changing technologies – seismic, well logging, horizontal drilling, fracking, gas to liquid, etc.
- Distinguish the renewable sources of energy and the future trends in Solar, Wind, Wave, Hydro, Geothermal, Nuclear, and the methodology to compare the costs of energy of each source
- Understand the benefits of integrating refineries with petrochemicals
- Gain an understanding of the ways the oil and gas industries have organized to operate effectively and efficiently

TRAINING METHODOLOGY

- This hands-on training seminar is a highly interactive stimulating learning experience, with opportunities to advance the opinions and ideas of the delegates. Participation is encouraged in a supportive environment that ensures the concepts introduced during the seminar are understood and reinforced. This is achieved through a mix of learning methods, including lecture style presentation, open discussion and case studies.
- PowerPoint slides and videos will be used during the seminar and will be augmented by business case studies and facilitated discussions. The delegates will be engaged and encouraged to exchange ideas. Short videos will also be used to reinforce specific technical and operational points and to relate the material to real-world experience.

WHO SHOULD ATTEND?

- Corporate Planners
- Senior Oil and Gas Managers
- Earth Scientists and Engineers
- Investment Bankers and Fund Managers
- Investment Analysts
- Media Analysts and Commentators
- Government Agencies - Regulators
- Anyone requiring a broad understanding of the structure, operations and economics of the oil and gas industries

Course Outline

Sources, Origin and Nature of Petroleum

- Introduction
- Industry Overview
- Chemistry of Fossil Fuels
- Origins of Hydrocarbon Deposits
- Basic Petroleum Geology
- Exploration Methods & Activities

Well Evaluations & Drilling Operations & Reservoir Management

- Types of Wells
- Well Evaluations
- Drilling Operations
- Well Completions
- Oil & Gas Reserve Estimates
- Volumetric Calculations – Original Oil & Gas In-Place
- Reservoir Depletion Mechanisms
- Declining Curve Analyses
- Case Study: Oil Reserves Estimation

Conventional & Unconventional Production

- Unconventional Oil & Gas
- Shale Oil & Gas, Tight Gas, and Heavy Oil Recovery
- Oil Recovery Methods
- Primary, Secondary and Tertiary
- Enhanced Oil Recovery Techniques
- Reservoir Management – maximize ultimate recovery of oil

New Oil & Gas Field Development and Economic Evaluation

- Typical Decision Yardsticks
- Petroleum Economics Analysis
- Net Present Value
- Internal Rate of Return
- Profitability Index
- Unit Tech Cost
- Economic Limit

Oil & Gas Contracts & Joint Ventures

- Need for Collaboration between Parties – NOC's and IOC's
- Alignment of Interests
- Oil & Gas Contracts
- Types of Contracts
- Concession Agreements
- Production Sharing Agreement / Contract (PSA / PSC)
- Technical Service Contract / Agreement (TSA)
- Joint Venture and Service Agreements

Petroleum Fiscal Regimes

- Comparison of Fiscal Regimes
- Auction Theory and Methods
- Similarities among Fiscal Systems
- Accounting Aspects of Fiscal Systems
- Division of Revenues and Profits
- Concession
- Concession Rentals
- Unitisation Agreements
- Royalties
- Profit Tax
- Corporate Tax
- Ring Fencing
- State Participation
- Signature Bonus
- Production Bonus
- Bidding for Leases

The Chemistry of Petroleum and the Refining Processes

- Crude and Product Quality
- Crude oil Refining Operations
- Crude Oil Fractions
- Crude Oil Refinery Products & Processes
- Refinery Configurations - separation, conversion and treatment
- Refining Complexity
- Pipelines
- Storage
- Treatment & Blending
- Utilities

Refining Economics – Environmental Aspects

- Refinery Economics
- Benefits of Integrating with Petrochemicals
- Global Oil Reserves, Production & Trade Movements
- Crude Oil and Refining Gross Product Worth (GPW)
- Freight
- Netback and Refining Margin
- Vessel Chartering
- Environmental Aspects
- Case Study: Netback Pricing Calculation

Oil & Gas Exports and Imports Business

- Organization of Petroleum Exporting Companies (OPEC)
- Other International and Multi-national Organizations
- International Energy Agency (IEA)
- Oil Markets – Crude Pricing Regimes
- Transportation Logistics – Pipelines, Terminals and Storage
- Crude Oil Tankers
- World's Major Pipelines
- World's Major Terminals, Refineries
- Transportation Logistics – Losses
- Bottle necks and Chokepoints

Pricing, Trading, Markets, Risk Management

- Crude oil Benchmarks
- Crude Price Assessment
- Oil Trading
- Total Barrel Economics
- Oil Markets – Futures
- Exposure – Price
- Hedging – Risk Management
- Pricing Management Considerations
- Derivatives
- Course Summary