

COURSE OVERVIEW DE0433
Advanced Gas Condensate Reservoir Management

Course Title

Advanced Gas Condensate Reservoir Management

Course Date/Venue

Session 1: May 19-23, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
 Session 2: November 09-13, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



H-STK[©] INCLUDED

Course Reference

DE0433



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Date/Venue



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Advanced Gas Condensate Reservoir Management. It covers the gas condensate reservoir characteristics, phase behavior, and their significance in the oil and gas industry; the phase behavior and PVT analysis for gas condensate systems and reservoir fluid properties; the rock-fluid interactions in gas condensate reservoirs and their impact on reservoir behavior and recovery; the reservoir classification and characterization and techniques for reservoir fluid sampling and laboratory analysis; and the reservoir engineering principles specific to gas condensate reservoirs.

Further, the course will also discuss the design, execution and interpretation of well tests in gas condensate reservoirs to reservoir properties and performance; the reservoir performance analysis, condensate banking, pressure maintenance and enhancement strategies and the use of nodal analysis for production optimization; the enhanced gas recovery (EGR) methods and hydraulic fracturing techniques to improve well productivity in tight gas condensate formations; the artificial lift systems suitable for gas condensate wells to enhance production; and the low salinity water flooding as an EOR technique in gas condensate reservoirs.



During this interactive course, participants will learn the thermal recovery methods and the latest technological advances and research directions in enhancing gas condensate recovery; building and calibrating reservoir simulation models specific to gas condensate reservoirs; the advanced techniques for modeling phase behavior and multiphase fluid flow in gas condensate systems; the uncertainty analysis and managing risks in gas condensate reservoir development projects; the field development planning and optimization in gas condensate fields; integrating renewable energy sources in gas condensate reservoir operations for sustainable development; and the regulatory, safety and environmental considerations in the development and management of gas condensate reservoirs.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an advanced knowledge on gas condensate reservoir management
- Discuss gas condensate reservoir characteristics, phase behavior, and their significance in the oil and gas industry
- Carryout phase behavior and PVT analysis for gas condensate systems and identify reservoir fluid properties
- Analyze rock-fluid interactions in gas condensate reservoirs and their impact on reservoir behavior and recovery
- Apply reservoir classification and characterization as well as techniques for reservoir fluid sampling and laboratory analysis
- Discuss reservoir engineering principles specific to gas condensate reservoirs
- Design, execute and interpret well tests in gas condensate reservoirs to determine reservoir properties and performance
- Employ reservoir performance analysis, condensate banking, pressure maintenance and enhancement strategies and the use of nodal analysis for production optimization
- Carryout enhanced gas recovery (EGR) methods and hydraulic fracturing techniques to improve well productivity in tight gas condensate formations
- Evaluate artificial lift systems suitable for gas condensate wells to enhance production and explore low salinity water flooding as an EOR technique in gas condensate reservoirs
- Implement thermal recovery methods and discuss the latest technological advances and research directions in enhancing gas condensate recovery
- Build and calibrate reservoir simulation models specific to gas condensate reservoirs and apply advanced techniques for modeling phase behavior and multiphase fluid flow in gas condensate systems
- Employ strategies for accurately modeling condensate banking and its effects on reservoir performance, conduct uncertainty analysis and manage risks in gas condensate reservoir development projects

- Illustrate the simulation of various enhanced recovery techniques and their impact on gas condensate reservoir management
- Carryout field development planning and optimization in gas condensate fields including the best practices for the management of gas condensate reservoirs to maximize recovery and economic returns
- Integrate renewable energy sources in gas condensate reservoir operations for sustainable development
- Discuss regulatory, safety and environmental considerations in the development and management of gas condensate reservoirs

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations on advanced gas condensate reservoir management for geologists, geophysicists, petrophysicists, engineers and other geoscientists personnel.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee


US\$ 8,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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The International Accreditors for Continuing Education and Training (IACET - USA)


Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology’s courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant’s involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant’s CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

	<p>Mr. Saber Hussein is a Senior Geophysicist with over 30 years of extensive experience within the Oil, Gas and Petrochemical Industries. His specialization widely covers in the areas of Basic Geology, Correlation Methods, Coring & Core Analysis, Core Handling, Overburden Effects, Conventional Data, Archie Equations, Mercury Injection, Rock Mechanics, Petrophysical Techniques, Geological, Geophysical & Petrophysical Evaluations, Stratigraphy & Sedimentology, Subsurface Maps, Geological Cross-Sections, Drilling Fluids, Drilling Data Analysis, Mud Logging, Porosity, Permeability, Basin Analysis, Reservoir Characterization, Facies Analysis & Sequence Stratigraphy, Structural Geology, Wellsite, Slick Line Operation and Fracture Characterization. Further, he is also well-versed in rock properties, seismic analysis, petroleum risk and decision, play analysis and risk assessment. Currently, he is the Exploration Division General Manager and Board Member of one of the leading Petrochemical Plant in the Middle East.</p> <p>During his career life, Mr. Saber has gained his practical and field experience through his various significant position and dedication as the Exploration Division General Manager, General Manager, Senior Geophysicist, Geophysicist, Expert Mud Logging Assistant and Geologist. He is also a Board Member of SUCO Strategy Plan Committee, wherein he was responsible for supervision of all Geological, Geophysical and Petro physical Operation activities as well as Data Processing and supervising all activities pertaining to the software and hardware of work station.</p> <p>Mr. Saber has a Bachelor’s degree in Geology. Further, he is a Certified Instructor/Trainer and an active member of Egyptian Petroleum Exploration Society (EPEX), American Association of Petroleum Geologists (AAPG), GSE and the Petroleum and Scientific Professional Syndicate. He has further delivered numerous trainings, courses, seminars and conferences internationally.</p>
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Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0900	<i>Introduction to Gas Condensate Reservoirs: Overview of Gas Condensate Reservoir Characteristics, Phase Behavior, and their Significance in the Oil and Gas Industry</i>
0900 - 0930	<i>Phase Behavior & PVT Analysis for Gas Condensate Systems: Detailed Examination of Phase Behavior in Gas Condensate Systems and the Importance of PVT (Pressure-Volume-Temperature) Analysis</i>

0930 – 0945	Break
0945 – 1100	Reservoir Fluid Properties: Key Fluid Properties in Gas Condensate Reservoirs, including Composition, Retrograde Condensation, and Dew Point Pressure
1100 – 1200	Rock-Fluid Interactions: Analysis of Rock-Fluid Interactions in Gas Condensate Reservoirs and their Impact on Reservoir Behavior and Recovery
1200 – 1215	Break
1215 – 1330	Reservoir Classification & Characterization: Classification of Gas Condensate Reservoirs and Methodologies for their Characterization Through Petrophysical Properties and Geological Features
1330 - 1420	Sampling & Laboratory Analysis: Techniques for Reservoir Fluid Sampling and Laboratory Analysis to Accurately Characterize Gas Condensate Reservoir Fluids
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 – 0830	Reservoir Engineering Fundamentals for Gas Condensates: Application of Reservoir Engineering Principles Specific to Gas Condensate Reservoirs
0830 - 0930	Well Testing & Interpretation: Design, Execution, and Interpretation of Well Tests in Gas Condensate Reservoirs to Determine Reservoir Properties and Performance
0930 – 0945	Break
0945 – 1100	Reservoir Performance Analysis: Techniques for Analyzing and Predicting Reservoir Performance, including Material Balance Methods and Numerical Simulation
1100 – 1200	Condensate Banking & Its Effects: The Phenomenon of Condensate Banking, Its Impact on Reservoir Productivity, and Strategies to Mitigate Its Effects
1200 – 1215	Break
1215 – 1330	Pressure Maintenance & Enhancement Strategies: Examination of Pressure Maintenance Techniques, Including Gas Reinjection and Water Injection, In Gas Condensate Reservoirs
1330 - 1420	Use of Nodal Analysis for Production Optimization: Application of Nodal Analysis to Optimize Production from Gas Condensate Wells and Reservoirs
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0830	Enhanced Gas Recovery (EGR) Methods: Overview of Enhanced Gas Recovery Techniques Applicable to Gas Condensate Reservoirs, including Miscible and Immiscible Gas Injection
0830 - 0930	Hydraulic Fracturing in Gas Condensate Reservoirs: Design and Application of Hydraulic Fracturing Techniques to Improve Well Productivity in Tight Gas Condensate Formations
0930 – 0945	Break
0945 – 1100	Artificial Lift Systems: Evaluation and Application of Artificial Lift Systems Suitable for Gas Condensate Wells to Enhance Production
1100 – 1200	Low Salinity Water Flooding: Exploration of Low Salinity Water Flooding as an EOR Technique in Gas Condensate Reservoirs
1200 – 1215	Break

1215 - 1330	Thermal Recovery Methods: Feasibility and Application of Thermal Recovery Methods in Heavy Gas Condensate Reservoirs
1330 - 1420	Technological Advances in Gas Condensate Recovery: Discussion on the Latest Technological Advances and Research Directions in Enhancing Gas Condensate Recovery
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 - 0830	Reservoir Simulation Models: Building and Calibrating Reservoir Simulation Models Specific to Gas Condensate Reservoirs
0830 - 0930	Modeling Phase Behavior & Fluid Flow: Advanced Techniques for Modeling Phase Behavior and Multiphase Fluid Flow in Gas Condensate Systems
0930 - 0945	Break
0945 - 1100	Handling Condensate Banking in Simulation Models: Strategies for Accurately Modeling Condensate Banking and Its Effects on Reservoir Performance
1100 - 1200	Uncertainty Analysis & Risk Management: Methods for Conducting Uncertainty Analysis and Managing Risks in Gas Condensate Reservoir Development Projects
1200 - 1215	Break
1215 - 1330	Simulation of Enhanced Recovery Techniques: Simulation of Various Enhanced Recovery Techniques and their Impact on Gas Condensate Reservoir Management
1330 - 1420	Case Studies on Reservoir Modeling & Simulation: Discussion of Real-World Case Studies Illustrating the Application of Modeling and Simulation in Managing Gas Condensate Reservoirs
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 - 0830	Field Development Planning for Gas Condensate Fields: Strategies for Field Development Planning and Optimization in Gas Condensate Fields
0830 - 0930	Gas Condensate Reservoir Management Best Practices: Best Practices for The Management of Gas Condensate Reservoirs to Maximize Recovery and Economic Returns
0930 - 0945	Break
0945 - 1045	Integration of Renewable Energy Sources: Discussion on the Integration of Renewable Energy Sources in Gas Condensate Reservoir Operations for Sustainable Development
1045 - 1200	Regulatory & Environmental Considerations: Overview of Regulatory, Safety, and Environmental Considerations in the Development and Management of Gas Condensate Reservoirs
1200 - 1215	Break
1215 - 1345	Future Challenges & Opportunities: Exploration of Future Challenges and Opportunities in Gas Condensate Reservoir Management, Including the Impact of Global Energy Transitions
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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