

TRAINING TITLE

SEQUENCE STRATIGRAPHY: PRINCIPLES AND APPLICATIONS

Training Duration

5 days

Training Venue and Dates

Ref. No. PE051	Sequence Stratigraphy: Principles and Applications	5	13-17 Jan. 2025	\$5,500	Dubai, UAE
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

- \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING WORKSHOP DESCRIPTION

1. SEDIMENTOLOGY - MAIN DEPOSITIONAL ENVIRONMENTS.
2. Alluvial facies models, Fluvial facies models, Deltaic facies models, Shallow marine facies models, Deep marine facies models (examples from outcrops and field case studies), Facies analysis on core and wireline well log: related petrophysical characteristics, 3D geometry of depositional units and reservoir bodies.
3. SEISMIC SEQUENCE STRATIGRAPHY AT BASIN SCALE
4. Depositional sequences and system tracs; Methodology of interpretation; Quantitative prediction of potential source rocks and reservoir's location; Application to seismic interpretation.
HIGH-RESOLUTION SEQUENCE STRATIGRAPHY AT RESERVOIR SCALE
Identification of genetic sequences; Correlation by analysis of stacking patterns; Qualitative prediction reservoir bodies extent and quality; Interpretation exercise based on outcrop analogs and field studies
STRATIGRAPHY MODELING
2D and 3D deterministic stratigraphic modeling; Quantitative prediction of reservoir distribution and connectivity - case studies; From basin scale to reservoir scale: geostatistical modeling of inter-well heterogeneity; Different methods (object, pixel): educated software package; Integration of seismic and dynamic data Geochemistry, biostrat /lithostrat.

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TRAINING OBJECTIVES:

1. To present concepts and methods of sedimentology and sequence stratigraphy analysis.
2. Log analysis and identification of sequence boundaries, MFS, and System tracts; integration with seismic.
3. Analyze seismic sequences and identify sequence boundaries and system tracts.
4. Predict reservoir distribution and geometry.
5. Upon course completion, participants will be able to: identify the main depositional environments,

WHO SHOULD ATTEND?

Designed for geologists, geophysicists, and engineers actively working in the exploration and production of carbonate rocks.

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM

Module	Topics	Main Objective	Activity
1 Module	Introduction to sedimentology	Differentiate between all different environments and facies	Tutorials and quizzes
	Processes controlling sedimentology		
	Continental environments and their facies and modeling in outcrops, logging and seismic.		
	Marine environments and their facies and modeling in outcrops, logging and seismic.		
2	Introduction to sequence stratigraphy	Identify environments, sequences and	Tutorials and quizzes
	Identification sequence boundaries and system tracts in logging and seismic		
	Seismic Reservoir Characterization		

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Module	Prediction of source rocks and reservoir location in seismic lines	system tracts in logs and seismic lines	
3 Module	Genetic sequence stratigraphy	High resolution sequence stratigraphy	Tutorials and quizzes
	Stacking pattern		
	Qualitative prediction reservoir bodies		
	Regional correlation		
4 Module	Introduction to stratigraphic modeling	Modeling	Tutorials
	Detecting the modeling properties		
	2D sequence stratigraphic modeling		
	3D sequence Stratigraphic modeling		
5 Module	Dynamics of Basin wide Sedimentation Patterns and Sea-level Changes	Define all sequence stratigraphic elements	Tutorials and quizzes
	From basin scale to reservoir scale		
	Integration of seismic, bio, geochemistry, and lithostratigraphy		

NOTE:

Pre & Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day Review, and assessments will be carried out.

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