



Stratigraphy Sequence, Seismic & Integrated Stratigraphic Analysis

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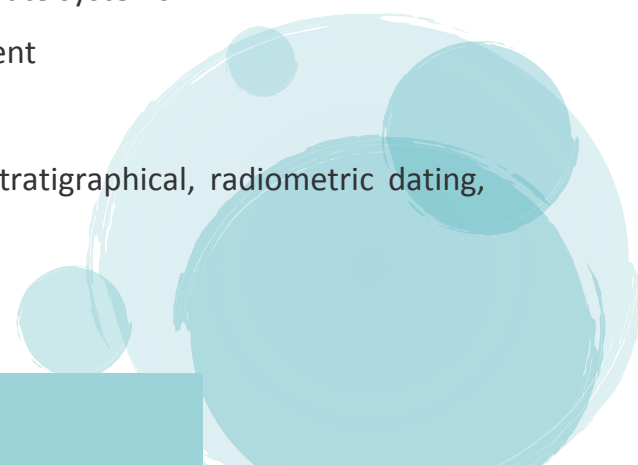
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Introduction:

The objective of this training course is to get more out of seismic and well data through the use of sequence and seismic stratigraphy and integrated stratigraphic analysis to further constrain geological models. Ultimately, it can be used to predict and discover more hydrocarbon plays, to improve the estimation of play and prospect risk and to determine what lithology is going to be drilled ahead of the drill bit.

This 5-day interactive Stratigraphy training course will deal with the fundamentals and practical applications of sequence and seismic stratigraphy. It will include exercises and case histories for some interpretation and workshop discussion.

This training course will feature:

- The history of sequence stratigraphy
 - The models and principles of seismic and sequence stratigraphy
 - Controls on basin stratigraphy.
 - Sequence definition from wells and seismic
 - The fundamentals of sequence stratigraphy in carbonate systems
 - Relative sea level lowstands and reservoir development
 - Sequence stratigraphy in lacustrine environments
 - Integration of other stratigraphic information, biostratigraphical, radiometric dating, chemostratigraphical
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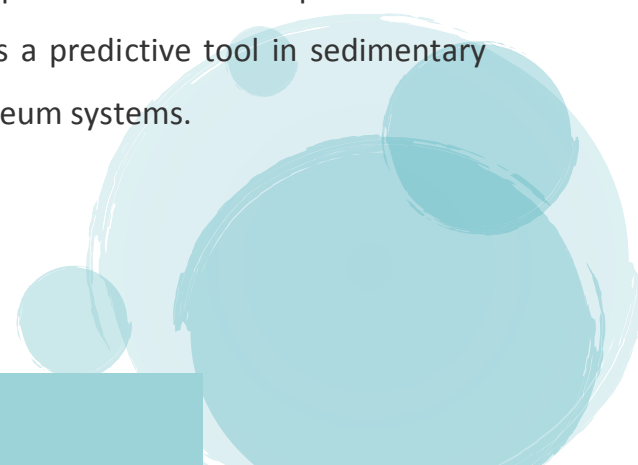
Objectives:

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

- Understand the critical use of chronostratigraphy in providing a temporal and spatial display of depositional packages
 - Have a full understanding of sedimentary basin types and their depositional patterns
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- Identify the main sequences on seismic
 - Integrate other geological data and then identify sequences and parasequences on well logs
 - Have awareness with the terms and definitions used in sequence and seismic stratigraphy.
 - Use sequence and seismic stratigraphy towards new play definition and as an aid in play and prospect risking.

Who should attend?

This BTS training course is suitable for exploration and development geologists, seismic interpreters, sedimentologists, petrographers and other upstream subsurface professionals who are interested in optimally utilizing geological data as a predictive tool in sedimentary basins and for identifying hydrocarbon plays in active petroleum systems.



Course Outline:


Day One: An Overview and the Use of Chronostatigraphy

Competency Description: Understanding the fundamental laws, principles and application of chronostratigraphic techniques and to be able to identify key stratal surfaces and sequences on seismic.

Key behaviors

- Understand and apply key technical laws and principles
- Apply chronostratigraphy the under-used tool in exploration
- Recognize all stratal surfaces on seismic and on well logs
- Develop key interpretation skills

Topics to be covered

- Outline and overview
 - The history of sequence stratigraphy and stratigraphic models
 - Chronostratigraphy and seismic models
 - Condensation surfaces
 - Erosion and non-deposition surfaces
 - Coastal onlap and eustatics
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Day Two: Seismic Stratigraphy and Controls on Basin Stratigraphy

Competency Description: To recognize the geometry of depositional systems, to be able to identify seismic sequences and to understand the main controls on basin stratigraphy.

Key behaviors

- Understand key technical laws and principles
- Identify key aspects of sedimentary sequences
- Interpret sequences from seismic
- Understand the key controls of basin deposition

Topics to be covered

- Principles and the geometry of depositional systems
 - Types of seismic reflector terminations
 - Changes in accommodation space
 - Controls on basin stratigraphy
 - Orders of cyclicity
 - Types of sedimentary basins
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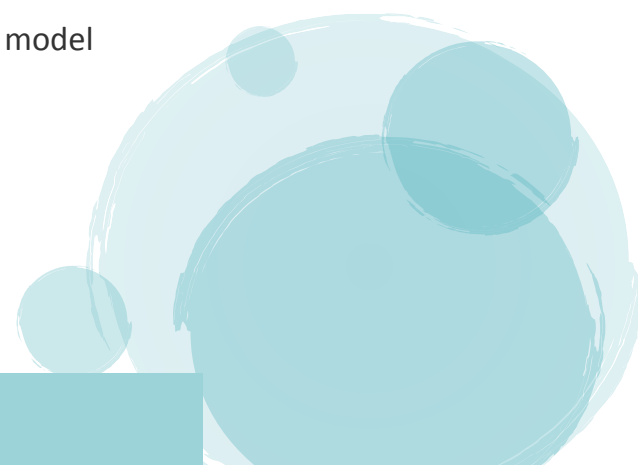
Day Three: The Models and Principles

Competency Description: To be able to recognize sequence and seismic sequence boundaries and all clastic systems tracts and to know where these are developed in a typical shelf to basin profile.

Key behaviors

- Develop key interpretation skills
- Learn how to fully integrate geological and seismic data
- Develop 3D visualization skills
- Able to recognize all of the systems tracts and to know where these develop in a typical shelf to basin transect

Topics to be covered

- The Exxon Model
 - Sequence boundary types and systems tracts
 - Other systems tract types and variations on the ideal model
 - Genetic stratigraphic sequences
 - Sequences on seismic
 - Sequence boundary recognition
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Day Four: Sequence Definition from Wells and Seismic

Competency Description: To be able to identify key stratal surfaces and sequences on seismic and also how to calibrate these by using integrated well log data and recognize seismic facies and how to identify them by using seismic attributes.

Key behaviours

- Develop key seismic interpretation skills
- Develop 3D visualization skills
- Recognize all stratal surfaces on seismic and on well logs
- Recognition of internal sequence character using seismic data and how this can be used in exploration

Topics to be covered

- The use of well log data
 - Definition of surfaces and systems tracts
 - Recognition of systems tracts on seismic
 - Recognition of stratal surfaces on seismic
 - Seismic facies analysis
 - Analysis of seismic attributes
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Day Five: Sequence Stratigraphy of Carbonates and Relative Sea-level Lowstands

Competency Description: To understand the controls on carbonate production and sedimentation and how sequence stratigraphical techniques can be applied on carbonate platforms and their associated shelves.

Key behaviours

- Understand key technical principles for carbonate platform deposition
- Identify key aspects of carbonate sequences and platform growth
- Interpret sequences from seismic
- Understand the key controls of basin deposition

Topics to be covered

- Carbonate systems overview
 - Introduction to carbonate sequence stratigraphy
 - Carbonate platform drowning and causes
 - Highstand shedding
 - Controls on carbonate production and sedimentation
 - Relative sea level lowstands, carbonate, evaporate and siliclastic partitioning
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