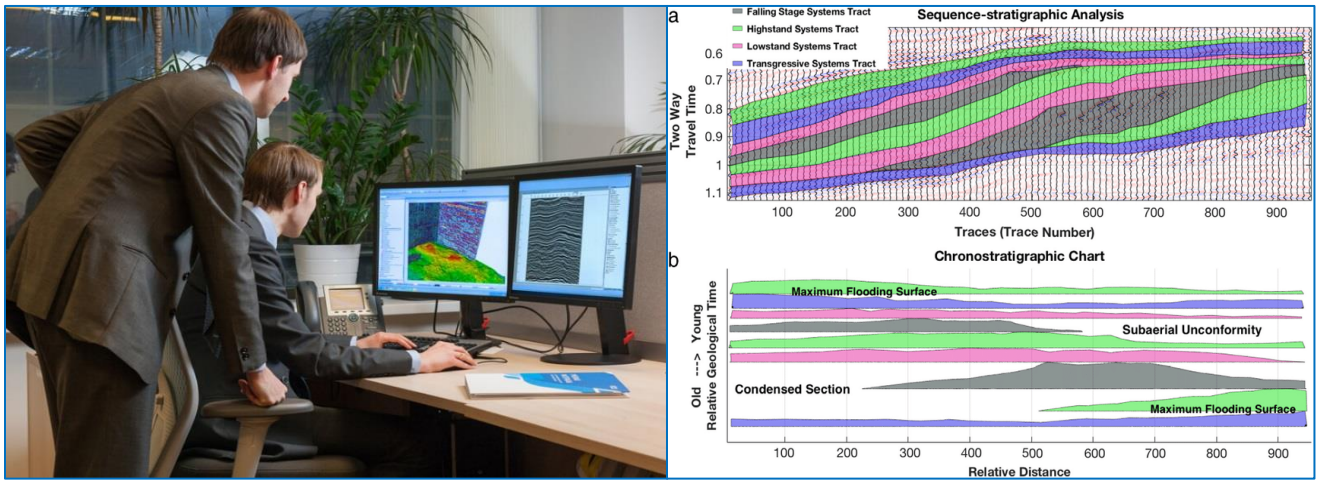

DE175:
Seismic Sequence Stratigraphy Interpretation

Training Objectives:

The objective of this intensive 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 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 highpoint:

- 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

By the end of the training, 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
- ✓ 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

Training Designed for:

This course is intended 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.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request." (This hands-on, highly-interactive training includes simulator, real-life case studies and exercises). **All participants will need to provide their own laptop with Excel, audio and excellent internet connection.**

This training course is available upon request in English or Arabic, virtual online live or face to face public/inhouse. Content, location and duration can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- PRE-TEST
- An Overview and the Use of Chronostatigraphy
  - 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

DAY TWO:

- Seismic Stratigraphy and Controls on Basin Stratigraphy
  - 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

DAY THREE:

- The Models and Principles
  - 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

DAY FOUR:

- Sequence Definition from Wells and Seismic
  - 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

DAY FIVE:

- Sequence Stratigraphy of Carbonates and Relative Sea-level Lowstands
  - 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

❖ Course Conclusion
❖ POST-TEST and EVALUATION

Training Methodology:

This training course will be based around PowerPoint presentations for each module followed by interactive and participative individual and team exercises. There will also be workshop sessions based around real exploration and development case studies to get participants to actively become aware of the predictive capabilities of applied sequence and seismic stratigraphy and how to integrate other stratigraphical data. Participants are also encouraged to bring along stratigraphic data, logs and seismic where appropriate from their own companies so that real working examples can be reviewed and interpreted.

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:
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Training & Career Development Department