



## 2.5. Course Content

The course examines well and seismic facies, both clastics and carbonates, within a simple sequence stratigraphic framework. The class will operate more as a workshop format as there are multiple operational exercises which have lectures interspersed between them to emphasise key concepts. The aim is to supply participants with an international spread of real-world examples which can serve as an analogue database for future work. The lectures will show pitfalls and things that went wrong as well as where seismic facies mapping worked. Participants will have the opportunity to practice construction of seismic facies maps during the course.

### A) Introduction

- Format, content, aims and objectives

### B) Sequence Stratigraphy

- The Exxon model
- Other models
- System tracts
- Chronostratigraphy
- Seismic stratigraphy
- Well facies

### C) Seismic Facies Mapping

- Introduction
- Scales, phase, datuming
- ABC method
- Other methods
- Automated methods
- ABC mapping exercise will be done to teach principles

### D) Lowstand Seismic Facies

- Basin floor fans and debrites
- Slope fans
- Sediment waves and contourites
- Prograding complexes
- Incised valleys
- Exercises will include deepwater sediments in the Gulf of Mexico, Carnarvon and Canning Basins. The Carnarvon exercise will also include a relative sea level change curve calculation and prediction of basinal facies.

### E) Transgressive Seismic Facies

- Basal transgressive sands
- Source rocks
- Exercises will include source rocks in China and North Slope as well as basaltransgressive sands in Pakistan and Carnarvon Basins

### F) Highstand Seismic Facies

- Prograding slopes and shelves
- Fluvial
- Alluvial
- Exercises will include prograding deltas and carbonates in Morocco, Vietnam and the Great Australian Bight

### G) Stratigraphic Examples

### H) Pitfalls and "Oddball" facies

- Scale
- Misspicking
- Mounds
- HRDZ's
- Other problems

### I) Seismic Facies Mapping Exercise

- Exercise on the Pearl River Mouth Basin, China



## 2.6. Daily Lesson Plan

Day 1	Day 2
09:30~13:00	09:30~13:00
Introduction Sequence Stratigraphy	Seismic Facies Mapping
13:00~14:00 - Lunch	13:00~14:00 - Lunch
14:00~17:30	14:00~17:30
Sequence Stratigraphy Cont.	Seismic Facies Mapping Exercises
Day 3	Day 4
09:30~13:00	09:30~13:00
Lowstand Seismic Facies	Transgressive Seismic Facies
13:00~14:00 - Lunch	13:00~14:00 - Lunch
14:00~17:30	14:00~17:30
Lowstand Seismic Facies Cont. Exercises	Highstand seismic facies Stratimagic Examples
Day 5	
09:30~13:00	
Pitfalls and "Oddball" facies	
13:00~14:00 - Lunch	
14:00~17:30	
Seismic Facies Mapping Exercise Course Wrap-up	

## 2.7. Course Language – delivery & requirements

Courses included in this proposal will be delivered in English and all course, exercise and presentation materials will also be written & supplied in English.

## 2.8. Course Materials

Each participant attending the course will be provided with a reference quality course manual and all exercise and other materials; these will be printed and provided by RPS.

## 2.9. Who Should Attend

This workshop is hands-on and is suitable for both geologists and geophysicists-anyone interested in deducing geology from seismic and well data.