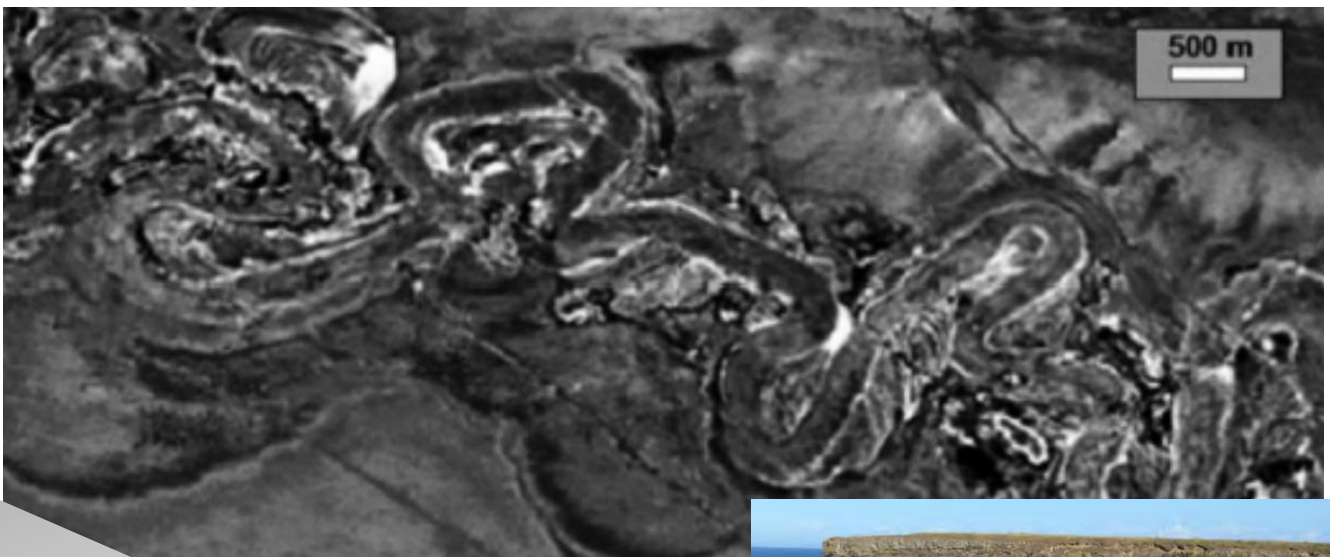


Integrated Deep-water depositional systems

This course combines field observations with in-class lectures and exercises to examine six deep water (DW) depositional systems. Field exercises emphasize practical applications by focusing on descriptions of DW lithofacies, stratal geometries, and the recognition of key stratigraphic surfaces. Participants learn how to describe core, integrate core datasets and well-log information with seismic for generating high-resolution fairway maps of reservoirs in different DW settings. Demonstrations in this course incorporate engineering data and show participants how to improve reservoir performance predictions. Examples of integrated core, well-log, and seismic datasets are compared and contrasted to outcrop datasets to help refine interpretation skills and extrapolate 2-D outcrop information into 3-D views of reservoir depositional systems.



Integrated Deep-water depositional systems

COURSE CONTENT

- Interpretation of sequence stratigraphic surfaces in outcrop, logs, and seismic in DW settings
- Utility and pitfall for use of outcrop datasets as reservoir analogs
- DW depositional models
- Main DW reservoir archetypes
- Reservoir architecture of confined, weakly confined & distributive DW systems
- Recognition criteria and mapping strategies for play elements in DW depositional settings
- Risking reservoir presence and predicting net-to-gross in DW systems
- Production strategies for the different archetypes of DW reservoirs

LEARNING OUTCOMES

- Comprehend sedimentological processes in deep water (DW) systems
- Recall DW lithofacies nomenclature and definitions
- Describe DW lithofacies from core and how to relate facies to reservoir architecture and environment of deposition (EoD)
- Interpret DW EoD based on lithofacies associations, stacking, and diversity
- Extrapolate key stratigraphic surfaces based on variations in lithofacies stacking patterns and associations
- Apply outcrop analogues and depositional models to better understand 3-D distribution of reservoir facies
- Build geologic models by tying rock properties to facies
- Map EoD and predict reservoir architecture
- Integrate core, well-logs, & seismic data to describe 3-dimensional architecture