

Field Seminar

Sequence Stratigraphy and Reservoir Distribution in a Modern Carbonate Platform, Bahamas

AAPG seminar

Leaders: Gregor P. Eberli, G. Michael Grammer, and Paul M. (Mitch) Harris

Date: June 15-20, 2009

Location: Begins and ends in Miami, Florida. Four days are spent on a chartered boat in the Bahamas. Flights to and from the Bahamas, all ground transportation, boat, accommodation in the Bahamas, meals, and course notes are included in the tuition.

Who Should Attend: Petroleum geologists, geophysicists and reservoir engineers who are working in carbonates and need to understand facies heterogeneities and porosity distribution on exploration and production scales.



Corals offshore Andros Island

Getting ready to explore the platform

Objectives and Content

This seminar consists of a core workshop (1 day) combined with the examination of modern and Pleistocene deposits on Great Bahama Bank (5 days). This combination of subsurface data and modern and ancient deposits helps to

illustrate the vertical and horizontal variability of facies and rock properties in carbonate platform reservoirs. Cores from a seven hole transect from Great Bahama Bank to the deep-water areas in the Straits of Florida (Bahamas Transect) provide a unique opportunity to assess the sequence stratigraphic distribution of facies and diagenetic modification in platform carbonate reservoirs. Log and laboratory data from these wells calibrate the rock properties and provide insights into porosity/velocity relationships and permeability in platform carbonates.

As modern analogs, the facies belts on Great Bahama Bank display the depositional heterogeneities that could occur in ancient hydrocarbon reservoirs. We explore the spatial heterogeneity within a carbonate platform, a facies belt or individual facies bodies, while simultaneously exploring the fundamental controlling processes. In particular, sedimentary structures, dimensions and lateral variability of classic reservoir facies are examined during the seminar. Pleistocene outcrops on Bahamian islands show how these facies are preserved in the ancient rock record. The goals of the seminar are (1) to illustrate the processes that produce heterogeneities in carbonates, (2) to improve the interpretation of subsurface data sets of carbonate systems and (3) to outline solutions for the construction of carbonate reservoir models.

Tuition: \$3,850

Registration at AAPG: <u>http://www.aapg.org/education/fieldseminars/details.cfm?ID=4</u>

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