

# Hedberg program

## SUNDAY JULY 1

19.30 – 20.30 Pick up conference program, abstracts, name badges: meet and relax with refreshments.

## MONDAY JULY 2

08.15 – 08.30 Pick up conference program, abstracts, name badges.

08.30 – 08.45 Welcome to the conference

Keith James, José Luis Granja-Bruña, Jorge Navarro Comet.

### Introduction

08.45 – 09.00 Overview of Middle America - current geological understanding

James, K. (James Pindell)

### Regional synopses

09.00 – 09.40 History of geological requirements for the CCW rotational opening of the Gulf of Mexico and the Pacific Origin of the Caribbean oceanic crust and Arc System

Pindell, J.

09.50 – 10.30 Middle American geology and evolution

James, K.

10.40 – 11.15 coffee break

### Posters

Middle America – Intracontinental extension along ancient structures

James, K.

New map Caribbean

Pubellier, M.

Maps of Cuba, Jamaica and Hispaniola. Mexico

Davison, I.

### Gulf of Mexico, Bahamas

11.15 – 11.35 What caused rifting in the Gulf of Mexico and why it matters: Stratigraphic and thermal implications

Keppie, F.

11.40 – 12.00 Plate tectonics evolution of Mexico and the Gulf of Mexico since the Late Triassic

Padilla y Sanchez, R.J.

12.05 – 12.25 Two-phase Mesozoic opening of the Gulf of Mexico using regional gravity, well, seismic reflection data from both conjugate margins:

Mann, P., Steier, A., Lin, P.

12.30 – 12.50 Geological analysis and comparison of the Perdido, Subsalt and Mexican Ridges Fold Belts. An overview of the Mexican petroleum geology in the Gulf of Mexico"

Solano de Alva, J.

13.00 – 14.30 Lunch

Note: after each presentation there are 5 minutes for questions.

## Posters:

Paleocene-Eocene Boundary Sea Level Drawdown of the Gulf of Mexico  
Rosenfeld, J.

Paleo-canyons and contemporaneous oil seeps at the Paleocene/Eocene boundary, Tampico-Misantla Basin, eastern Mexico  
Cossey, S.

Exploration potential in NW Cuba  
Davison, I.

14.30 – 14.50 Paleogene canyons and contemporaneous oil seeps, Tampico-Misantla Basin. Eastern Mexico  
Cossey, S

14.55 – 15.15 Modern Sedimentation and Sediment Distribution in the Gulf of Mexico  
Decker, J.

15.20 – 15.40 Bahamas – Cuba Margin, An Untested, Frontier Oil Province  
Hiscock, R.

15.45 – 16.05 Tectonic driven changes in Tertiary Burgos basin sediment provenance, Gulf of Mexico:  
van Heiningen, P., Kaymakci, N.

### 16.10 – 16.30 Break

16.30 – 16.50 Miocene Compressional Tectonics in the Campeche Basin, Mexico:  
Davison, I.

16.55 – 17.15 Structural and stratigraphic constraints on the relationship between extension and landscape evolution in the Early Mesozoic Eastern Gulf of Mexico  
Weislogel, A.L.

### 17.20 – 18.00 Round Table

19.00 – 20.30 Walk up the hill behind the Parador to observe outcrops of Triassic Buntsandstein (1 - 1.5 hours. Moderately rough ground, boots not essential)

Note: after each presentation there are 5 minutes for questions.

## TUESDAY JULY 3

### Central America

08.30 – 08.50 Synthesis of terrane stratigraphy and assembly of S-Central America

Baumgartner, P. O., G. Andjic, C. Baumgartner-Mora, D. Buchs, A. Bandini, K. Flores and F. Barat

08.55 – 09.15 Evolution and dynamics of arc-related sedimentary basins in southern Central America

Brandes, C., Winsemann, J.

09.20 – 09.40 Radiolarian biochronology and paleoceanography of Pacific Terranes in Central America and the Caribbean

Baumgartner, P., O., G. Andjic, M. Sandoval-Gutierrez, A. Bandini-Maederm M-O. Diserens, C. Baumgartner-Mora and J. Kukoc.

09.45 – 10.05 Geology of the Isthmus of Panama, onshore synthesis and offshore implications

Montes, C.

10.10 – 10.30 Coniacian-Santonian organic-rich Loma Chumico Formation of N-Costa Rica: An expression of Oceanic Anoxic Event 3?

Andjic, G., Baumgartner, P., Baumgartner-Mora, C.

10.35 – 10.55 "intra-oceanic" volcanic arcs; Lesser Antilles and Central American volcanic arcs

James, K.

11.00 – 11.30 coffee break

### Posters

A geological perspective on the formation of the Isthmus of Panama

Buchs, D. J. Brimms, H: Combes, A. Kerr, J. Wang, D. Cavell, R. Miranda, D. Irving, R. Coronado, A. Tapiam E. Chichaco, S. Redwood, D. Kukoc, P. Baumgartner

Tectonic controls and sedimentary evolution of the Gulf of Venezuela

Navas, R. Escalona, A. Ramírez, R.

Structure of the Sinu Fold Belt between the Magdalena Fan and the Uramita Fault (offshore northwest Colombia)

Rodríguez, I.

11.30 – 11.40 Pre-spreading history of the Cayman Trough

Rosenfeld, J.

### Northern South America

11.45 – 12.05 Orietta Trinidad removed or late arrival?

12.30 – 14.00 Lunch

14.00 – 14.20 Hydrocarbon Exploration in the Gulf of Mexico and Caribbean, a Plate Tectonic Perspective

Pindell, J.

14.25 – 14.45 Colombia Sinu Offshore Basin Tectonic Evolution, Depositional Models, and Impact of the Panama Arc-South America Collision

Fanchen Kong

14.50 – 15.10 Basement Characterization and Tectonic Evolution of the Guajira Peninsula

Asensio, A.

15.15 – 15.35 Lithospheric structure of northwestern Venezuela: implications for the understanding of

Note: after each presentation there are 5 minutes for questions.

continental margins evolution  
Mazuera, F., Escalona, A., Schmitz, M.

15.40 – 16.00 How do we explain the giant reserves of northern South America?  
James, K.

**16.05 – 16.30 Break**

## **Greater Antilles**

16.30 – 16.55 Crustal structure and evolution of the Nicaraguan Rise from regional gravity, well, and seismic reflection data:  
Mann, P., Carvajal, L.C., Sanchez, J., Ott B.

17.00 – 17.10 Middle Cretaceous to Recent North America-Caribbean plate boundary history: Mexico to the Virgin Islands via Guatemala, Cuba and Jamaica  
Pindell, J.

17.05 – 17.25 Eocene basin development and sedimentation patterns in central and western Jamaica  
Mitchell, S.

**17.30 – 17.45 Round Table**

## **WEDNESDAY JULY 4**

08.30 – 08.50 The Muertos margin (NE Caribbean): a review of the crustal structure and its tectonic significance  
Granja-Bruña, J.L., ten Brink, U.S., Carbó-Gorosabel, A., Muñoz-Martín, A., Llanes Estrada, P., Gorosabel-Araus, J.M., Rodríguez-Zurrutero, A.

08.55 – 09.15 New constraints on the tectono-sedimentary evolution of the San Pedro Basin (south-eastern Dominican Republic offshore margin): Implications for its hydrocarbon potential  
Gorosabel-Araus, J.M., Granja-Bruña, J.L., Gallego-Mingo, A., Gómez de la Peña, L., Mas, R., Rodríguez-Zurrutero, A., Carbó-Gorosabel, A.

09.20 – 09.40 Submarine morpho-structure and active processes along the North American-Caribbean boundary plate (Dominican Republic sector)  
Rodríguez-Zurrutero, A., Granja-Bruña, J.L., Carbó-Gorosabel, A., Muñoz-Martín, A., Gorosabel-Araus, J.M., Gómez de la Peña, L., Gómez Ballesteros, M., Pazos, A., Catalán, M., Espinosa, S., Druet, M., P. Llanes, P., ten Brink, U.

09.45 – 10.05 The Value of Onshore Geology for Caribbean Offshore Exploration: Walton Basin, Jamaica  
Jim Hendry, M. Slatford, S. Shirt, E. and J. Rice.

10.10 – 10.30 Tectonic blocks and basin evolution from the late Cretaceous to Paleogene in eastern Jamaica  
Mitchell, S.

## **Lesser Antilles**

10.35 – 10.55 Tomographic Imaging of Lesser Antilles Slab; Significance for Estimating the Age and Amount of Eastward Motion of the Overriding Caribbean Plate.  
Mann, P., Chen, Y-W., Wu, J., Suppe, J.

**11.00 – 11.30 coffee**

## **Posters**

On a new tectono-sedimentary model of the south-eastern margin of Hispaniola  
Gorosabel-Araus, J.M., Granja-Bruña, J.L., Gallego-Mingo, A., Gómez de la Peña, L., Mas, R., Rodríguez-Zurrutero, A., Carbó-Gorosabel, A

Note: after each presentation there are 5 minutes for questions.

Preliminary results of the along- and across-strike crustal structure in the northern Hispaniola margin

Rodríguez-Zurrunero, A., Granja-Bruña, J.L., Leroy, S., Ellouz-Zimmerman, N., Carbó-Gorosabel, A., Muñoz-Martín, A., Gorosabel-Araus, J.M., Corbeau, J., Gómez de la Peña, L., ten Brink, U.S.

## Caribbean Plate

11.30 – 11.50 Structure and Hydrocarbon Prospectivity of the North Panama Deformed Belt: Insights from latest seismic reflection imaging

Reuber, K., Andy Bliss. A. For abstract please see Goswami et al.

11.55 – 12.15 Basement configuration in the Colombian Basin from potential field data

Olaiz, A., Swank, M.

## 12.20 – 13.50 Lunch

13.50 – 14.15 Fault Characterization in the Colombia Basin, Southern Caribbean: Implications for Lithology, Stress State, and Exploration Risk

Joseph R. Jacobs, Troy D. Waller II\*, Scott J. Wilkins, Cody S. Comiskey, Matthew G. Morris

14.20 – 14.40 New contributions for defining the subduction geometries in the converging margin between NW South America and SW Caribbean Basin

Vargas, C.A.

## 15.30 – 18.30 FIELD TRIP

Transport provided by Sigüenza Universitaria

**NOTE: this trip involves some 50 kilometres of bus journey. The outcrops are easily accessible.**

**BY ATTENDING THIS FIELD TRIP ATTENDEES WILL BE UNDERSTOOD TO ASSUME THEIR OWN RISK/INSURANCE.**

20.00 – 21.00 Organ recital, organized by the Sigüenza town hall, in the magnificent cathedral. The acoustics and playing are great. Don't miss it!

## THURSDAY JULY 4

08.30 – 08.50 New Evidence for Spreading Ridge, Colombia Basin, Southern Caribbean

Troy D. Waller II, Brian R. Frost

08.55 – 09.15 Crustal Modeling of the Caribbean- South American Plate Boundary, at Venezuelan Central Coast

Villarroel, V.

09.20 – 09.50 Evidence for subaerial development of the Caribbean oceanic plateau in the Late Cretaceous and palaeo-environmental implications

David Buchs, A. C. Kerr, J. Brimms, J- P. Zapata-Villada, T. Correa-Restrepo and G. Rodríguez

09.55 – 10.15 Integrated tectonic evolution of the Aves remnant arc, Lesser Antilles active volcanic arc, Tobago forearc, and Barbados accretionary prism of the southeastern Caribbean

Mann, P., Gómez, S. Álvarez, T.

Note: after each presentation there are 5 minutes for questions.

10.20 – 10.50 Tectonic Models – their influence on Exploration Decision-Making across the Greater Caribbean  
Slatford, M.

### **11.00 – 11.30 coffee**

11.30 – 11.45 Is salt present in the Caribbean?  
James, K.

11.50 – 12.05 Middle Eocene flysch/wildflysch, unconformity and overlying shallow marine carbonate rocks  
James, K.

### **Hydrocarbons**

12.10 - 12.25 Hydrocarbons in the Caribbean  
James, K.

### **12.30 – 14.00 Lunch**

14.00 - 14.10 How do we explain the giant reserves of northern South America?  
James, K.

14.15 - 14.35 High potential, undeveloped, deep Cretaceous reservoirs in Lake Maracaibo Basin  
Aymard, R.

14.40 - 15.00 Barbados Petroleum and its role in understanding source rock distribution in the southern Caribbean region  
Cedeño, A., Ohm, S. Escalona, A.

15.05 – 15.25 Palaeoenvironments and potential of Cretaceous and Paleogene source rocks in Jamaica  
Cherry, S.

15.30 – 15.55 Offshore Colombia Hydrocarbon Potential, Southern Caribbean  
Troy Waller II, David M. Jones, Joseph R. Jacobs, Istvan Barany, Karilys Castillo, Craig Markey, Fanchen Kong

16.00 – 16.20 Unlocking Hydrocarbon Potential of the Caribbean Plate with the New Deep Strata Survey Approach  
Nikitin, A., Amelin, N., Iakovlev, A.

### **16.25 – 16.40 Break**

16.40 – 17.00 Caribbean Hydrocarbon Potential from Regional Seismic Data Analysis  
Rodriguez, K., Hodgson, N.

17.05 – 17.25 Kenya's world class lacustrine source rock: A geochemical analysis and proven petroleum system  
Lee Anderson, J. Grimmer, L. Cajas, G. Rodrigo, R. Gomez, E. Cuñado, M. Flor Garcia

17.30 – 17.50 The Origin of Supergiant Hydrocarbon Accumulations (Isotope Geochemical and Geodynamic Aspects) Title  
Valyaev, B., Dremmin, I.

### **17.55 – Round Table/Conference Wrap Up**

Note: after each presentation there are 5 minutes for questions.