### Gulf Coast Association of Geological Societies and Gulf Coast Section of SEPM

#### 66th Annual Convention

September 18–20, 2016—Corpus Christi, Texas

# ANNOUNCEMENT





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Hosted by the Corpus Christi Geological Society

### We thank our generous emerald sponsor for supporting the

### 2016 Annual GCAGS/GCSSEPM Convention and Exhibition



#### Welcome!

On behalf of the Corpus Christi Geological Society, I invite you to come see us in Corpus Christi, Texas in September for the 66th Annual Convention of the Gulf Coast Association of Geological Societies. We are happy to co-convene with the Gulf Coast Section of the SEPM (Society for Sedimentary Geology) again this year.

Our technical committee, Rick Paige, Bob Critchlow, Allen Lassiter, and Stephen Thomas, have put together an exciting technical program. There are over 110 oral and 60 poster presentations planned. We have four outstanding short courses, four field trips, a K–12 teacher training, and more. This is certainly a robust and fulfilling technical program.

Guests and spouses of participants will have the opportunity to visit Rockport-Fulton, one of America's Best Small Coastal Towns according to USA Today, on Monday. Then join other guests for an exciting Segway tour of our Corpus Christi Bayfront on Tuesday.

"South" Texas starts here! Mile marker zero for IH–37 is in downtown Corpus Christi. Historically, in 1845 Corpus Christi was the muster point (at mile marker 0) for General Zachary Taylor's march towards the Rio Grande River, claiming deepest South Texas for the United States. Corpus Christi has also been the first mile marker for many oil and gas careers. Conoco, Exxon, Shell, Sun, Texaco, and so many other companies used their rich oil and gas fields of deep

South Texas to train and grow young geoscientists and engineers. Smaller companies continue that tradition as they develop our mature fields and explore for new opportunities.

Our Theme for 2016 is "Looking Back – Thinking Forward." There is little new oil being made. However, with technology, innovation, and pluck, we are looking at older, once disregarded fields and making a future that will lead to America's energy independence.

As I write this letter oil is recovering through \$40 a barrel. Of course, the oil business has seen downturns and hard times in the past. Most of us have experienced this cycle too many times. With that perspective, let's "Look Back" at strategies and optimism that saw us through the toughest times and adapt as we "Think Forward" to our future. Mr. Charles Sheppard, the Vice President of Exploration at EOG, our all convention luncheon speaker on Monday, addresses this same topic. He will talk about U.S. Exploration Success (L48 Onshore Focus). Additionally, we have three other exciting luncheons planned for Tuesday, including one on the historic 1919 hurricane. Robbie Gries, past AAPG president, will speak about Pioneering Women in Petroleum Geology at a breakfast on Tuesday morning.

GCAGS 2016 has a great technical program and we are planning parallel social and networking opportunities. The Sunday night Icebreaker will feature Margaritas and Mariachis! On Monday, we head to Brewster's Street Ice House for cold beer and bluegrass music—featuring Texas Grassroots (including a two-time Texas fiddle champion and two local geologists).

Join GCAGS 2016 as the CCGS celebrates our Society's 80<sup>th</sup> Anniversary in Corpus Christi, the city by the Sparkling Sea. *Thinking Forward!* Our U.S. Energy Industry is made up of the smartest, strongest, and most resourceful people.

I **look forward** to seeing you in Corpus Christi!

Dawn S. Bissell

Dawn Stewart Bissell

General Chairman, GCAGS 2016 Convention

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### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

All events will be held at the American Bank Center Convention Center, 1901 Shoreline Boulevard, Corpus Christi, Texas, unless otherwise noted. Locations and times subject to change – consult the program book and convention application on your mobile device on site. Please visit www.gcags2016.com for the most up to date information.

#### **OPENING SESSION and AWARDS CEREMONY**

5:00 pm-6:00 pm • Sunday, September 18 • Henry Garrett Ballroom B

Join GCAGS President Brent Hopkins, GCSSEPM President Dorene West, and General Chairman Dawn Bissell in welcoming attendees to Corpus Christi and acknowledging worthy individuals for their contribution to both GCAGS and GCSSEPM. Entrance by badge only.

#### **ICEBREAKER RECEPTION** (Sponsorship Available)

6:00 pm-8:00 pm • Sunday, September 18 • Exhibit Hall (Watergarden A & B)

Margaritas and Mariachis! See old friends and meet new ones as you check out the Exhibit Hall. Entrance by badge only.

#### **ALL-CONVENTION LUNCHEON (Sponsorship Available)**

11:45 am-1:15 pm • Monday, September 19 • Henry Garrett Ballroom A • \$50

Join us for the All-Convention Luncheon, where Charles Sheppard, Vice President Exploration, EOG Resources, will be our keynote speaker. He will discuss "U.S. Exploration Success (L48 Onshore Focus)." Space is limited, so purchase your ticket early. For more information, please see page 14.

#### **HAPPY HOUR IN THE EXHIBIT HALL** (Sponsorship Available)

5:00 pm-6:00 pm • Monday, September 19 • Exhibit Hall (Watergarden A & B) Hosted by GCAGS President Brent Hopkins and GCSSEPM President Dorene West

Join Brent, Dorene, and Dawn Bissell, General Chairman, for a reception in the exhibit hall. We will have light refreshments and a drink before we head over to Brewster's Street Ice House for 4-star food in a casual environment and some awesome bluegrass music. Entrance by badge only.

#### <u>BREWSTERS AND BLUEGRASS</u> (Sponsored by CGG, Dawson, EGI-Seismic, and Seitel)

6:30 pm–9:30 pm • Monday, September 19 • \$50 (includes buffet, 2 drink tickets, and entertainment)

Brewster's Street Ice House is the centerpiece of Corpus Christi's Sports, Entertainment, and Art District offering an indoor-outdoor venue with great food, cold beer, and great views. **South Texas Grassroots** features two of our local geologists and a two-time Texas State fiddle champion playing bluegrass and classic country music.

#### <u>WOMEN IN GEOSCIENCES BREAKFAST</u> (Sponsorship Available)

7:00 am-8:30 am • Tuesday, September 20 • \$25

Join us in celebrating Gulf Coast Women in Geosciences in this special breakfast networking event. Robbie Gries, past president of AAPG and founder and President of Priority Oil and Gas LLC, will discuss "Pioneering Women in Petroleum Geology...the Deep and Real History." Space is limited, so purchase your ticket early. For more information see page 13.





#### **EXHIBIT HALL 'WALK & TALK' BOX LUNCH** (Sponsorship Available)

11:30 am-1:15 pm • Tuesday, September 20 • Exhibit Hall (ABC Watergarden A & B) • \$25

Pre-purchase a box lunch and take this final opportunity to visit the offerings of our exhibitors, the posters, and their authors. The exhibit hall closes at 1:30 pm, so hurry over following the close of the morning's oral sessions.

#### **GCSSEPM LUNCHEON** (Sponsorship Available)

11:45 am-1:15 pm • Tuesday, September 20 • \$50

Mike Blum, Ritchie Distinguished Professor, University of Kansas, will present "Predicting Sedimentary System Response to Human Activities: The Once and Future Mississippi Delta." For more information, please see page 14.

#### **LOCAL HISTORY LUNCHEON – 1919 The Storm (Sponsorship Available)**

11:45 am-1:15 pm • Tuesday, September 20 • \$50

Local historian and businessman Jim Moloney will discuss his book, "1919 The Storm," about a hurricane that devastated Corpus Christi and the surrounding area. A few copies of the book by the same title will be available for sale. Please see page 15 for more information.

#### **AAPG DPA LUNCHEON (Sponsorship Available)**

11:45 am-1:15 pm • Tuesday, September 20 • Henry Garrett Ballroom A • \$50

Dr. Rusty Riese drills into some of today's hotly contested topics of public discourse, including fracking, public education, and climate change; and investigates our role as geoscientists in these public arenas. Dr. Riese advocates becoming involved in shoring up the scientific foundations of the next generation and speaking out about the science behind our work. Join Dr. Riese in this event, hosted by the AAPG's Division of Professional Affairs, for a plated luncheon and thought-provoking conversation. This talk should qualify for a formal Professional Development Hour for Ethics. For more information, please see page 14.

#### **CORPUS CHRISTI GEOLOGICAL SOCIETY GOLF OUTING (Sponsorship Available)**

8:00 am • Sunday, September 18 • \$100 Maximum 100 golfers

The CCGS Golf Outing will be held at NorthShore Country Club across the bay from the Omni Hotel and ABC Center in Portland, Texas. This Championship links style course on the shores of Corpus Christi Bay is reminiscent of the many famous ocean front golf courses in the United States. Cost includes a round of golf, golf cart, and Sunday Bruch after the round. Please contact Fermin Munoz at fmunoz04@hotmail.com, 361–960–1126 (cell) for more information.







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### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **REGISTRATION (Watergarden A)**

#### **Dates & Times:**

Saturday, September 17	3:00 pm-6:00 pm
Sunday, September 18	7:00 am-8:00 pm
Monday, September 19	7:00 am-6:00 pm
Tuesday, September 20	7:00 am-12:00 noon

Instructions on how to pre-register, or register on site, are provided on page 34. For additional questions or information, please inquire at <a href="mailto:info@gemworldevents.net">info@gemworldevents.net</a>.

#### **THE EXHIBITION (Watergarden A & B)**

#### **Dates & Times:**

Sunday, September 18 (	Icebreaker)6:00 pm-8:00 pm
Monday, September 19	8:30 am-6:00 pm
Tuesday, September 20	8:30 am-1:30 pm

Explore the displays of scores of service companies, production companies, fossil and gem dealers, universities, research institutions, and publishers during the two days of the exhibition. Is your company looking for a cost-effective face-to-face venue to market your products or services? Does your non-profit organization wish to promote your program to a broad cross-section of the geoscience community—at a reduced exhibit fee? See page 12 for details!

THE GCAGS EXHIBITION—Where Geoscience Meets Industry: Networking, technology, information systems, and data all under one roof!

#### <u>SPEAKERS' & POSTER PRESENTERS' BREAKFAST</u> (Sponsorship Available)

7:00 am-8:00 am • Monday & Tuesday, September 19 & 20

All session chairs, speakers, and poster presenters are invited to attend this complimentary breakfast on the day of their presentations. Reminders will be given regarding session timing, audiovisual equipment, how speakers will be introduced, and when poster presenters must be in their booths, followed by a Q&A session.

#### JUDGES' BREAKFAST (Sponsorship Available)

7:00 am-8:00 am • Monday, September 19 ONLY

All judges are invited to attend this complimentary breakfast on Monday. Information will be provided as to judging criteria and regarding which sessions to attend. Instructions and judging forms will be available at both the breakfast and in the Speakers' & Poster Presenters' Room/Judges' Tally Room.

#### SPEAKERS' & POSTER PRESENTERS' ROOM & JUDGES' TALLY ROOM (Sponsorship Available)

#### **Dates & Times:**

Sunday, September 18	1:00 pm-5:00 pm
Monday, September 19	7:00 am-6:00 pm
Tuesday, September 20	7:00 am-5:00 pm

#### **STUDENT ACTIVITIES (Sponsorship Available)**

Students can register at a reduced rate for participation in conference activities, short courses, select field trips, and service as student volunteers. Space is limited so sign up early. See page 29 for details.





#### **TEACHER ACTIVITY** (Sponsorship Available)

"Make Your Class Exciting Through Earth Science" is an earth science workshop and field trip for K-12 teachers that will reinforce core earth science knowledge for all levels. See page 30 for details.

#### **SPOUSE & GUEST ACTIVITIES** (Sponsorship Available)

Tour the Fulton Mansion and take a SegWay tour of the Bayfront. Visit us in the Hospitality Suite. For more information, please see page 31.

#### **POSTER SESSIONS** (Sponsorship Available)

The GCAGS 2016 poster sessions will take place in the Exhibit Hall (Watergarden A) on the second floor of the American Bank Center. Over 40 student research posters and 20 professional posters covering a diverse range of topics will rotate (Monday morning–Tuesday morning). Authors will be available for discussion during the coffee breaks on Monday and Tuesday mornings (9:45 am–10:15 am) and Monday afternoon (2:45 pm–3:15 pm). For more information, please see pages 21–25.

#### **GCAGS BOARD MEETING**

8:00 am-2:00 pm • Sunday, September 18 • Omni Hotel Bayview Room

GCAGS Officers, Committee Chairs, and Society Presidents or their representatives are invited to attend the Board Meeting. An invitation and RSVP will be issued by GCAGS prior to the Convention.



#### Register Soon! Early bird discount ends August 7, 2016!

#### **GCAGS** in the Digital Realm



- Visit the convention website, www.gcags2016.com, for details and continual updates.
- Have a smart phone or tablet? Scan the QR code at left and go directly to the convention website.
- Connect with the Gulf Coast Geo-Community!



Like us on Facebook at <a href="https://www.facebook.com/GCAGS">https://www.facebook.com/GCAGS</a>



Follow us on Twitter at <a href="https://twitter.com/GCAGSorg">https://twitter.com/GCAGSorg</a> or via username @GCAGSorg (Use #GCAGS, #GCAGS2016, or #GCAGSCC in all your conference posts!)



You can also find us on LinkedIn in the group named "Gulf Coast Association of Geological Societies" or visit us at <a href="https://www.linkedin.com/groups/6708404">https://www.linkedin.com/groups/6708404</a>.

All events will be held at the American Bank Center (ABC) Convention Center, 1901 Shoreline Blvd., Corpus Christi, Texas, unless otherwise noted. Locations and times subject to change—consult the program book and convention application on your mobile device on site.

Please visit www.gcags2016.com for the most up to date information.

	Friday, Sept. 16
8:00 am departure	Field Trip #1 (2-day): Rio Grande Delta and the Sand Sheets, p. 26
	Saturday, Sept. 17
8:00 am-12:00 noon	Field Trip #2: Ice Age Mammal Fossil Hunt, p. 26
8:00 am-4:00 pm	Field Trip #3: Storm Signals in the Stratigraphic Record of the Texas Gulf Coast, p. 26
8:30 am-4:30 pm	Earth Science Teacher Training: Make Your Class Exciting through Earth Science, p. 30
1:00 pm-4:30 pm	Short Course #1 (1/2-day): Depositional Environments of Ancient Clastic Systems from Well Logs, p. 20
3:00 pm-6:00 pm	Registration Open at American Bank Center, p. 34
	Sunday, Sept. 18
7:00 am–8:00 pm	Registration Open at American Bank Center, p. 34
8:00 am–1:00 pm	Corpus Christi Geologial Society Golf Outing, p. 3
8:00 am-3:00 pm	GCAGS Board Meeting (by invitation only), p. 5
8:00 am–4:00 pm	Field Trip # 4: Geomorphology and Geologic History of the Nueces River Valley, Corpus Christi Bay, Laguna Madre, and Padre Island, p. 27
8:00 am-4:00 pm	Short Course #2: Big Things from Small Matters: Basin Analysis from Paleontology, Geochemistry, and More, p. 28
8:00 am-4:00 pm	Short Course #3: Geopressure for Prospect Assessment, p. 28
8:00 am-4:00 pm	Short Course #4: Basic Seismic Attributes, p. 28
8:00 am-4:00 pm	IBA Training Session, p. 29
8:00 am-4:30 pm	Exhibitor Move-In
1:00 pm-5:00 pm	Speaker/Judges Room Open, p. 4
2:00 pm-4:00 pm	Guest Hospitality, Omni Hotel, p. 31
5:00 pm-6:00 pm	Opening Session/Awards Ceremony at American Bank Center, p. 10
6:00 pm-8:00 pm	Exhibits/Posters Open at American Bank Center, p. 21
6:00 pm-8:00 pm	Icebreaker in Exhibit Hall, p. 2
	Monday, Sept. 19
7:00 am-8:00 am	Speaker/Poster Presenters' Breakfast, p. 4
7:00 am-8:00 am	Judges' Breakfast, p. 4
7:00 am-8:00 am	AAPG House of Delegates' Breakfast, Omni Hotel
7:00 am-6:00 pm	Registration Open at American Bank Center, p. 34
7:00 am-6:00 pm	Speaker/Judges Room Open, p. 4
8:00 am-10:00 am	Guest Hospitality, Omni Hotel, p. 31
8:25 am-11:05 am	Oral Session: Gulf of Mexico Systems, p. 16
8:25 am-11:05 am	Oral Session: Salt Tectonics, p. 17
8:25 am-11:30 am	Oral Session: Gulf of Mexico Deepwater Plays, p. 16
8:25 am-11:30 am	Oral Session: Eagle Ford—Understanding the Unconventionals, p. 16
8:25 am-11:30 am	Oral Session: Advances in Geophysics, p. 16
8:25 am-11:30 am	Oral Session: Reservoir Quality and Prediction, p. 17
8:30 am-12:00 pm	Poster Session 1, Exhibit Hall, p. 21
8:30 am-6:00 pm	Exhibits/Posters Open at American Bank Center, pp. 12 and 21

Guest Activity #1: Fulton Mansion Tour, Lunch, and Shopping in Rockport-Fulton, Texas, p. 31

9:00 am-4:00 pm

	Monday, Sept. 19, Continued
11:45 am–1:15 pm	All-Convention Luncheon: Mr. Charles Sheppard, VP Exploration, EOG Resources, ABC Henry Garrett Ballroom A, p. 14
1:25 pm-2:45 pm	Oral Session: Gulf of Mexico Deepwater Plays, p. 17
1:25 pm-4:05 pm	Oral Session: Gulf of Mexico Systems, p. 18
1:25 pm-4:30 pm	Oral Session: Gulf of Mexico Field/Case Studies, p. 18
1:25 pm-4:30 pm	Oral Session: Advances in Geophysics, p. 18
1:25 pm-4:55 pm	Oral Session: Eagle Ford—Understanding the Unconventionals, p. 17
1:25 pm-4:55 pm	Oral Session: New/Improved Methodologies with Applications to Petroleum E&P, p. 19
1:25 pm-6:00 pm	Poster Session 2, Exhibit Hall, p. 22
4:00 pm-6:00 pm	Guest Hospitality, Omni Hotel, p. 31
5:00 pm-6:00 pm	Happy Hour in the Exhibit Hall, p. 2
6:30 pm-9:30 pm	Brewsters and Bluegrass, p. 2

	Tuesday, Sept. 20
7:00 am-8:30 am	Women in Geosciences Breakfast, p. 13
7:00 am-12:00 noon	Registration Open at American Bank Center, p. 34
7:00 am-5:00 pm	Speaker/Judges Room Open, p. 4
7:30 am-8:00 am	Speaker/Poster Presenters' Breakfast, p. 4
8:00 am-10:00 am	Guest Hospitality, Omni Hotel, p. 31
8:25 am-10:40 am	Oral Session: Enhanced, Secondary Recovery/Reservoir Pressure Prediction, p. 19
8:25 am-10:40 am	Oral Session: Geo Education, p. 19
8:25 am-11:30 am	Oral Session: Gulf of Mexico Deepwater Field Studies, p. 19
8:25 am-11:30 am	Oral Session: Changing Coastal Landscape, p. 20
8:25 am-11:30 am	Oral Session: Protecting and Stewarding Water Resources, p. 20
8:30 am-1:00 pm	Poster Session 3, Exhibit Hall, p. 24
8:30 am-1:30 pm	Exhibits Open at American Bank Center, p. 12
9:30 am-12:00 noon	Guest Activity #2: Segway Tour of Corpus Christi Bayfront, p. 31
11:30 am-12:50 pm	Expo Box Lunch in the Exhibit Hall, p. 3
11:45 am–1:15 pm	Tuesday Luncheon: GCSSEPM: Predicting Sedimentary System Response to Human Activities: The Once and Future Mississippi Delta, p. 14
11:45 am–1:15 pm	Tuesday Luncheon: AAPG DPA: Geologists, the Public, and Public Policy: What are our ethical responsibilities?, ABC Henry Garrett Ballroom A, p. 14
11:45 am-1:15 pm	Tuesday Luncheon: Local History – 1919 The Storm, p. 15
1:25 pm-2:45 pm	Oral Session: Uranium Resources, p. 21
1:25 pm-2:45 pm	Oral Session: Changing Coastal Landscape, p. 21
1:25 pm-4:05 pm	Oral Session: Plate Tectonic Studies, p. 20
1:25 pm-4:30 pm	Oral Session: Conventional Clastics and Carbonates, p. 20
1:25 pm-4:30 pm	Oral Session: Protecting and Stewarding Water Resources, p. 21
2:00 pm-5:00 pm	Guest Hospitality, Omni Hotel, p. 31

THANK YOU to our sponsors for supporting the 2016 GCAGS/GCSSEPM Annual Convention and Exhibition! Your support in our current environment is critical and much appreciated.

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For more information about sponsorship opportunities for GCAGS 2016, please contact:

Lonnie Blake at 361–876–6614 or sponsorships@gcags2016.com





American Shoreline, Inc.







#### <u>OPENING SESSION AND AWARDS CEREMONY • 5:00 pm • Sunday, September 18 • American Bank Center Henry Garrett Ballroom A</u>

GCAGS President Brent Hopkins, GCSSEPM President Dorene West, and General Chairman Dawn Bissell will welcome attendees to the 66th annual GCAGS Convention. They will also honor individuals for exemplary service, presentations, and papers at the Awards Ceremony.

The Awards Ceremony recognizes the 2016 recipients of GCAGS and GCSSEPM special honors, as well as the awardees of the best presentations and best published papers in the 2015 *GCAGS Transactions* and *GCAGS Journal*, all of whose works have made important contributions to GCAGS and the advancement of geosciences.

2016 GCAGS Transactions Dedication – Owen Hopkins

2016 GCAGS Distinguished Service Awards – Linda Sternbach, Brent Hopkins, and Alfredo Guzman

2016 GCAGS Don R. Boyd Medal for Excellence in Gulf Coast Geology – Scott Tinker

2016 GCAGS Honorary Membership – Mary Broussard and Larry Bartell

2016 GCAGS Outstanding Educator – Paul Weimer, Charles M. Woodruff, Jr., and Thomas L. McGehee

2016 GCAGS Special Commendation - Dianna Phu, Meredith Faber, Sandra Rushworth, and David Risch

2016 GCAGS Owen R. Hopkins Outstanding Earth Science Teacher Award – Leigh Marsh

2016 GCSSEPM Doris Curtis Malkin Medal – Mark Rowan, Rowan Consulting, Inc.

2016 GCSSEPM Distinguished Service Award – Bruce Hart, Statoil

2016 AAPG Gulf Coast Section Imperial Barrel Award – 1st Place, University of New Orleans, Josiah Hulsey, Ryan Jones, Will Morrison, Zexuan Wang, Celeste Woock, Toby Roesler, Stone Energy, Benjamin Kirkland, Nexen Petroleum, and Dr. Royhan Gani, Advisor; 2nd Place, University of Houston, Shenelle Gomez, Jordan Dickinson, Jing Hua, Lingfei Mao, David Mora, Dr. Mark Richardson, Micahel Liebelt, Dr. John Castagna, Advisor, and Dr. Paul Mann, Advisor; and 3rd Place, Texas A&M University, Tyler Ruchala, John Phillips, Walker Ligon, Ryan Wilcoxson, Meagan DePugh, Vernon Moore, Marathon, Timothy Powell, independent, Dr. Carlos Dengo, advisor, and Dr. Nicholas Perez, advisor

2015 AAPG Gulf Coast Section A. I. Levorsen Memorial Award – Elizabeth A. Watkins, Julio Tamashiro, Marcelo Cristian Torrez Canaviri, Nicolas Martin, Eldar Guliyev, Renato Leite, Nhom (Vince) Nguyen, Abayomi Aina, and Mauro R. Becker, "A Geology-Based, Non-Seismic Attribute Method to Generate Facies, Lithology, and Petrophysical Parameters in the Chinook and Cascade Fields, Walker Ridge, Gulf of Mexico, USA"

**2015 Thomas A. Philpott Excellence of Presentation Awards – 1st Place, Christopher D. Walker, Glen A. Anderson, Paul G. Belvedere, Alison T. Henning, Francis O. Rollins, Eric Soza, and Shalina Warrior,** "Compartmentalization between the GC0738\_1 Mad Dog North Wellbores—Evidence for Post-Depositional Slumping in the Lower Miocene Reservoirs of the Deepwater Southern Green Canyon, Gulf of Mexico"; **2nd Place, Pilar Rojas,** "The Road to Shell's Appomattox Discovery"; and **3rd Place, Clement Bataille, Gabriel Bowen, and Dylana Watford,** "Chemostratigraphic-Based Age Model for the Black Peaks Formation: Implications for Early Paleogene Paleoclimate in Sub-Tropical North America"

**2015 Gordon I. Atwater Best Poster Awards – 1st Place**, **Alessio Checconi**, **Peter Conn**, **and James Stockley**, "Post Well Analysis of Gulf of Mexico: A Multidisciplinary Approach for a More Confident Understanding of this Complex Petroleum System"; **2nd Place**, **James A. MacKay**, "Comparing the Results of the Kelly Criterion and Risk Aversion: Quick Look Practical Alternatives to Portfolio Optimization"; and **3rd Place**, **Selim Simon Shaker**, "A New Approach to Pore Pressure Predictions: Generation, Expulsion, and Retention Trio—Case Histories from the Gulf of Mexico"

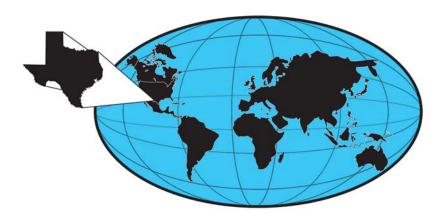


2015 Grover E. Murray Best Published Paper Awards – 1st Place, Kathleen S. Haggar, Les R. Denham, and Louis J. Berent, "Analysis of the Goose Point area near Lacombe, Louisiana, Validates New Geophysical Data Type – Natural Sourced Electromagnetism (NSEM) – for Detection of Lineaments Associated with Faults and Sedimentary Features"; 2nd Place, Elizabeth Ann Watkins, Julio Tamashiro, Mercelo Cristian, Torrez Canaviri, Nicolas Martin, Eldar Guliyev, Renato Leite, Nhom (Vince) Nguyen, Abayomi Aina, and Mauro R. Becker, "A Geology-Based, Non-Seismic Attribute Method to Generate Facies, Lithology, and Petrophysical Parameters in the Chinook and Cascade Fields, Walker Ridge, Gulf of Mexico, USA"; and 3rd Place, Christopher D. Walker, Glen A. Anderson, Paul G. Belvedere, Alison T. Henning, Francis O. Rollins, Eric Soza, and Shalina Warrior, "Compartmentalization between the GC0738\_1 Mad Dog North Wellbores—Evidence for Post-Depositional Slumping in the Lower Miocene Reservoirs of the Deepwater Southern Green Canyon, Gulf of Mexico"

**2015** President's Award for Outstanding Paper (*GCAGS Journal*, vol. 4) – Shirley Dutton, Robert G. Loucks, and William A. Ambrose, "Factors Controlling Permeability Variation in Onshore, Deep Paleogene Wilcox Sandstones in the Northern Gulf of Mexico Basin: Targeting High-Quality Reservoirs"



Hydrate Energy International



THUNDER EXPLORATION, INC.





#### 12 2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition

**The Exhibit Hall** (Watergarden A & B) will be the host area for a number of events, there will be plenty of opportunities to explore all that the exhibitors have to offer, see old acquaintances, and forge new ones.

- The traditional Icebreaker cocktail party (featuring Margaritas and Mariachis!) held on Sunday in the hall;
- A Happy Hour will be held in the Exhibit Hall from 5:00 pm to 6:00 pm on Monday;
- Extended breaks in the morning and afternoon oral sessions will permit in-depth discussions with the poster presenters; and
- A 'walk-and-talk' box lunch on Tuesday. Tickets are \$25 and may be purchased through pre-registration.

#### **Show hours are:**

Sunday, 18 September (Icebreaker)	.6:00 pm-	8:00 pm
Monday, 19 September	. 8:30 am–	6:00 pm
Tuesday, 20 September	. 8:30 am–	1:30 pm

Please note that children under the age of 13 will not be allowed in the exhibit hall anytime during exhibit setup or teardown.

During exhibit hours, children not of school-age will not be allowed into any activities within the exhibit hall, including the *Icebreaker reception*, unless they are young enough or small enough to be confined to a stroller, backpack, or front pack.

School-age children will be allowed to attend the exhibition during regularly scheduled hours if they are properly registered (as students) and they wear their badges at all time.

#### **Interested in Exhibiting?**

Space is still available! For a downloadable sales flier, floor plan, exhibitor list, and space application form, go to <a href="www.gcags2016.com">www.gcags2016.com</a> and click on "Exhibition" at the bottom of the landing page, then simply download the application form to begin the process. For an up-to-date exhibitor list or floor plan showing what booths are open, contact Bruce Lemmon, GCAGS Exhibits Manager, at 918–585–1004 or bruce@gemworldevents.net. Join the growing list of exhibiting companies, agencies, universities, and associations that have already committed!

#### **BE A JUDGE! VOLUNTEERS NEEDED!**

The recognition of outstanding technical presentations is fundamental to the advancement of geological ideas and concepts. GCAGS and GCSSEPM need your help in judging oral and poster sessions. All judges will be invited to a complimentary breakfast and asked to provide input to determine award winners. All that is required is observation of oral and poster sessions with grading based on standardized scorecards.

The awards committee will compile the scores, with winners honored at next year's convention.

Please volunteer by checking the appropriate box on your registration form, on the GCAGS website, or contact Bob Bell at rbell75961@aol.com.

You will be contacted to determine your preference for session(s) you are interested in judging. Your participation will be both rewarding and appreciated.



#### **WOMEN IN GEOSCIENCES BREAKFAST (Sponsorship Available)**

"Pioneering Women in Petroleum Geology...The Deep and Real History"

-Robbie Rice Gries, President, Priority Oil & Gas LLC

7:00 am-8:30 am • Tuesday, September 20 • \$25

**Abstract:** If not recorded, vast annals of history are lost. Pioneering women in petroleum geology entered the field very shortly after men became valued and accepted in the oil exploration...and women were first employed the year the American Association of Petroleum Geologists was founded! This was encouraged because so many men were conscripted or volunteered for World War I. And this was before women's suffrage!

Women became subsurface geologists at a time when the tools of the trade were rocks (no electric logs, no seismic, no paleontology) and surveying equipment. Interestingly, some of the greatest men in the profession were responsible for hiring, training, promoting, and keeping women in this career—names like Sidney Powers, Everette DeGolyer, George Matson, Alex McCoy, Wallace Pratt, and E. T. Dumble.

Required to quit, usually, when they married...only single women survived, some as entrepreneurs, some as well site geologists, and some in corporate management. The rare company, Amerada Petroleum, welcomed married women to continue working.

Women soon after World War I were responsible for the biggest technological advancement in exploration...working out stratigraphy with micropaleontology...which, still without well logs and seismic, became absolutely essential.

World War II created new opportunities again for women to enter the field and they did in droves. With the onset of electric logs and seismic, women could venture into exploration using the newest technology. But again, careers were discouraged after the war, both when women married and also because a new social order was developing...a powerful social dynamic of putting the "little ladies" back in the home "free of the burden of working"—the June Cleaver era. For the next thirty years it was a struggle for a woman to get an exploration job...and if they did, it always came bundled with menial tasks and inferior pay.

In the early 1970s, the EEOC threatened oil companies with denying them federal leases if they did not have a "diversity" plan for hiring women and other minorities. An immediate response resulted in the hiring of great numbers of women. Affirmitve Action actually worked and had lasting affects. Within a very few years women thought they were only hired for their brains! And by then, they probably were. But, the world had long forgotten the smart women who were the real pioneers.



**Biography:** Robbie Gries is founder and President of Priority Oil & Gas LLC, a Denver-based natural gas production, petroleum exploration, and development company with producing properties in Kansas and Wyoming. Robbie has been in the petroleum industry for over 40 years, and has been an independent in this industry since 1980. She has combined the business side of oil and gas with her passion for the science of geology and published over 30 papers. She is the 2012 recipient of the AAPG Michel T. Halbouty Outstanding Leadership Award. She was the first woman President of AAPG and expanded the footprint of the organization by visiting over 44 countries and all of the newly formed AAPG Regions. She is a Fellow and past Treasurer of the Geological Society of America. Robbie has been a Director for the Colorado Oil and Gas Association

and an officer, leader, and scientific contributor to the Rocky Mountain Association of Geologists. She has a Master's degree in geology from the University of Texas at Austin where she serves on the Advisory Council for the the Jackson School of Geosciences Geology Foundation. Robbie is a co-founder and a Board member of GeoScience World, an internet resource for the geosciences providing digital access to geological publications to over 19 countries. She is past president of the Colorado Women's Forum and 1997 recipient of the Woman Leader of Excellence Award from the Colorado Women's Leadership Coalition. She was a founder of People House, a Denver-based center for Human Potential started in 1974.



#### 2016 GCAGS/GCSSEPM **66th Annual Convention & Exhibition**

#### **ALL-CONVENTION LUNCHEON** (Sponsorship Available)

"U.S. Exploration Success (L48 Onshore Focus)"

-Charles Sheppard, Vice President Exploration, EOG Resources

11:45 am-1:15 pm • Monday, September 19 • ABC Henry Garrett Ballroom A • \$50

Abstract: The presentation will discuss key attributes for success in a complex, ever-changing business environment and volatile

commodity prices.



**Biography:** Charles Sheppard received his B.S. in Biology and his M.S. in Geology from State University of New York at Stony Brook. He held various Leadership, Exploration, and Strategic Planning positions with Mobil and ExxonMobil for 26 years. After being vice president of exploration with Hess, he then served on the Resource/Supply Team with the U.S. National Petroleum Council in Washington, D.C. Charles is currently the Vice President of Exploration for EOG Resources.

#### **GCSSEPM LUNCHEON** (Sponsorship Available)

"Predicting Sedimentary System Response to Human Activities: The Once and Future Mississippi Delta" -Mike Blum, Ritchie Distinguished Professor, University of Kansas

11:45 am-1:15 pm • Tuesday, September 20 • \$50

**Abstract:** The Mississippi River delta is in the midst of an environmental transformation of a scale unprecedented in United States history. More than 25% of deltaic wetlands have disappeared since 1932. The entire region is increasingly vulnerable to storm effects. This presentation provides a broad overview of recent geologic history, human impacts on the delta region, and prospects for the near future.

Holocene history of the delta region is well known and reflects filling of a glacial-period incised valley. This occurrence was followed by construction of an extensive and complex delta plain. The modern and future delta region can be understood by placing it in the context of processes and rates that prevailed during its evolution vs. processes and rates that will likely prevail in the near future. For example, mean rates of deposition required to fill the valley and construct the delta plain over the past 11–12 years are ~230 million tons/year, with the remaining supply likely dispersed to the shelf. Prior to the 20th century, sediment was dispersed to the delta plain through crevasse and distributary channels, but continuous levees now render much of the delta plain transport-limited. Moreover, more than 40,000 dams now trap ~50% of the Mississippi's natural sediment load. Total modern loads are ~200 million tons/year. This amount is less than the time-averaged rates for the storage component alone over the entire post-glacial period. The modern delta plain is therefore also severely supply-limited.



Biography: Dr. Mike Blum received his Ph.D. (1992) from the University of Texas at Austin, focusing on climatology, geomorphology, and sedimentology. He held faculty positions at Southern Illinois University (Assistant Professor, 1991–1995), the University of Nebraska–Lincoln (Assistant and Associate Professor, 1995–2003), and Louisiana State University (Harrison Family Professor, 2003–2008), then served as Research Advisor at ExxonMobil Upstream Research (2008–2014). His research interests include fluvial to shallowmarine processes and deposits, connections between fluvial-deltaic and deepwater systems, and source-tosink analysis. Mike is now the Ritchie Distinguished Professor in the Department of Geology of the University of Kansas, where he pursues these themes through his research and teaching.

#### **AAPG DPA LUNCHEON** (Sponsorship Available)

"Geologists, the Public, and Public Policy: What are Our Ethical Responsibilities?"

-Rusty Riese, Consultant (Retired); Adjunct Professor and Lecturer

11:45 am-1:15 pm • Tuesday, September 20 • American Bank Center, Henry Garrett Ballroom A • \$50

**Abstract:** In the polarizing and supercharged environment of today's public discourse, many views are hotly contested, but three stand out as worthy of attention from geological scientists: fracking, public primary and secondary education, and climate change. All three are interconnected.

Biography: Dr. W. C. Rusty Riese is a geoscientist based in Houston, Texas. He is widely experienced, having worked in both minerals and petroleum as a geologist, geochemist, and manager during more than 39 years in industry. He participated in





the National Petroleum Council evaluation of natural gas supply and demand for North America which was conducted at the request of the Secretary of Energy; in the more recent analysis of global supply and demand requested by the same agency; and in the National Research Council analysis of coalbed produced waters and their management in the western United States.

Dr. Riese has written and lectured extensively on various topics in economic geology including biogeochemistry, isotope geochemistry, uranium ore deposits, sequence stratigraphy, and coalbed methane petroleum systems; and he holds numerous domestic and international patents. He has more than thirty years

of teaching experience including twenty-five years at Rice University where he developed the curricula in petroleum geology and industry risk and economic evaluation, as well as several other courses. Dr. Riese is currently an Adjunct Professor at Rice University, Colorado State University, and University of New Mexico, where he sits on the Caswell Silver Endowment advisory board. He is a fellow in the GSA and the Society of Economic Geologists and a member of the AAPG and several other professional organizations.

Dr. Riese earned his Ph.D. from the University of New Mexico in 1980; his M.S. in geology from the same university in 1977; and his B.S. in geology from the New Mexico Institute of Mining and Technology in 1973. He is a Certified Professional Geologist, a Certified Petroleum Geologist, and is a Licensed and Registered Geologist in the states of Texas and South Carolina, respectively.

#### **LOCAL HISTORY LUNCHEON** (Sponsorship Available)

#### "1919 The Storm"

-Jim Moloney, Local Historian and Businessman

11:45 am-1:15 pm • Tuesday, September 20 • \$50

**Abstract:** A powerful hurricane devastated Corpus Christi on September 14, 1919. It left an official death toll of 284 with estimates of up to 500 more uncounted dead. Low-lying sections of the city were inundated by up to twelve feet of storm-driven tides. Downtown buildings lining the bay were destroyed or heavily damaged, while the rest of the downtown was flooded with oil-slicked waters. On North Beach, Corpus Christi's first suburban neighborhood of substantial residences, more than 220 homes were demolished by the storm tide. Those residents unable to reach the safety of high ground were swept into Nueces Bay to battle the storm and debris for their lives. Many died, but some survived the 14-mile struggle across the bay to come ashore on the back side of Nueces Bay.

Local historian and businessman Jim Moloney will discuss the 1919 hurricane and its effects on the city and surrounding areas. A few copies of the book by the same title will be available for sale.

**Biography:** Jim Moloney is an owner of Energy Gas Compression, which rents natural gas compressors throughout the Gulf Coast and South Texas area. Previously, Jim served six years as Executive Director of the Coastal Bend Community Foundation. Prior to joining the foundation in 1998, he was employed by Gas Compressors Incorporated and Gemini Engine Company.

Before coming to Corpus Christi in 1981, Jim earned a B.S. from Rensselaer Polytechnic Institute and an M.A. from the University of Texas at Dallas.

It was in Corpus Christi that Jim began his collection of postcards and Texana from South Texas, specializing in ephemera from Aransas, Kenedy, Kleberg, Nueces and San Patricio counties. His local postcard collection has over 7000 different local postcards.

Moloney is a recipient of the Dan Kilgore Local History Award from the Nueces County Historical Society and the John Guthrie Ford History Award from the Port Aransas Preservation and Historical Association. He is the co-author, co-editor, or publisher with Murphy Givens of eight books relating to the history of South Texas.





#### **ORAL SESSIONS**

#### **Monday AM**

#### **GULF OF MEXICO DEEPWATER PLAYS • Paul Weimer and John Wagner, Session Chairs**

- 8:25 OPENING REMARKS
- **8:30 Paul Weimer, Eric Zimmermann, Renaud Bouroullec, Harrison Hirsh, Brandon Snyder, and Allison Kimbrough:**Temporal and Spatial Evolution of Reservoirs, Northern Deepwater Gulf of Mexico
- **8:55** Paul Weimer, Renaud Bouroullec, Eric Zimmermann, and Henry Pettingill: Temporal and Spatial Evolution of Traps, Northern Deepwater Gulf of Mexico
- 9:20 Paul K. Wieg: Large-Scale Depositional Characteristics of the Wilcox Formation, Central Gulf of Mexico Deepwater
- 9:45 BREAK
- **10:15** Jason Kegel, Danielle Chaikin, and Brad Torry: New Insights from 3D Data over an Extinct Spreading Ridge and its Implications to Deepwater Offshore Exploration
- 10:40 Paul Weimer, Renaud Bouroullec, Veit Matt, Jim Adson, Aaron van den Berg, Todd Lapinski, and John Roesink:
  Petroleum Geology of the Mississippi Canyon, Atwater Valley, Western Desoto Canyon, and Western Lloyd Areas,
  Northern Deepwater Gulf of Mexico: Seals, Source Rocks, Generation, and Accumulation
- 11:05 Eric Zimmermann, Carlos Guzman, Mike Vercher, Stan Hewitt, Anish Kumar, Michael Mahnke, Vinay K. Mishra,
  Elizabeth Ruiz, and Nellyana Charmelo: Geological Interpretation of Mass-Transport Deposits in the Deepwater Gulf
  of Mexico: Integrating Borehole Geology, Borehole Geophysics, and Reservoir Engineering

#### EAGLE FORD—UNDERSTANDING THE UNCONVENTIONALS • Tucker Hentz and Steven C. Ruppel, Session Chairs

- 8:25 OPENING REMARKS
- 8:30 Ursula Hammes, Raymond Eastwood, Guin McDaid, Emilian Vankov, Jeffrey Yarus, and Amin Gherabati: Regional Assessment of the Eagle Ford Group of South Texas, USA: Insights from Lithology, Pore Volume, Water Saturation, Organic Richness, and Productivity Correlations
- 8:55 T. Scott Staerker, Jim Pospichal, Bronwyn Moore, Matthew Wehner, Matthew J. Corbett, Christopher M. Lowery, Michael C. Pope, and Arthur D. Donovan: Biostratigraphy for Understanding Stratal Surfaces and Facies Variability in the Eagle Ford Group of South and West Texas
- **9:20 John D. Pierce, Stephen C. Ruppel, Harry Rowe, and Danny Stockli:** U–Pb Geochronology and Sources of Volcanic Ash Deposits in the Late Cretaceous Eagle Ford Shale, South Texas
- 9:45 BREAK
- **10:15 Richard A. Denne and John A. Breyer:** Regional Depositional Episodes of the Cenomanian-Turonian Eagle Ford and Woodbine Groups of Texas and their Relationship to Oceanic Anoxic Event 2 (OAE2)
- 10:40 Tobi Kosanke: Pore Characterization and Geologic Controls on Matrix Permeability of the Eagle Ford Shale
- 11:05 Bo Chen, Dhananjay Kumar, Anthony Uerling, Sheryl Land, Omar Aguirre, Tao Jiang, and Setiawardono Sugianto:
  Using Seismic Inversion and Net Pay to Calibrate Eagle Ford Shale Producible Resources

#### **GULF OF MEXICO SYSTEMS • Dallas Dunlap, Session Chair**

- 8:25 OPENING REMARKS
- **8:30** Andrew S. Pepper: Back to the Rocks: Framework of Depositional Acmes in Source Rocks of the Gulf of Mexico Basin and North Caribbean Margin
- **8:55 Peter Rose:** Late Cretaceous and Tertiary Burial History of Central Texas
- **9:20** Harry Rowe and Stephen Ruppel: Chemofacies and Stable Carbon Isotope Analysis of the Cenomanian-Turonian Eagle Ford Formation: Sedimentation and Water Mass Evolution in the Maverick Basin, Southwest Texas
- 9:45 BREAK
- **10:15 Victor Mistretta:** Predicting Sedimentary Facies in the Gulf of Mexico Region from the Combination of Bathymetry, Gravity, and Magnetic Data using Fractal Geometry
- **10:40 Thomas E. Ewing and Juan L. Gonzalez:** The Late Quaternary Rio Grande Delta—A Distinctive, Underappreciated Geologic System

#### **ADVANCES IN GEOPHYSICS • Selim Shaker and Ed Egger, Session Chairs**

- 8:25 OPENING REMARKS
- 8:30 Jerry Kapoor and Denes Vigh: Full Waveform Inversion for Detailed Velocity Analysis
- 8:55 K. Rene' Mott, William Keller, and Mike Perz: 5D Interpolation Adds Value at the Drill Bit for a Texas 3D Seismic Survey
- **9:20** Randy Bissell: The Forgotten Curvature: Applications for the Negative of the Second Derivative to Post-Stack Seismic Reflection Trace Volumes



#### **Monday AM Oral Sessions, Continued**

#### 9:45 BREAK

- **10:15 Vladimir Rybakov, Irina Mardanova, and Yingwei Yu:** Case Study: The Use of Seismic Attributes to Detect Channels and Enhance Stratigraphic Traps Interpretation
- **10:40 Gary L. Kinsland, Robert Stewart, Li Chang, Doug Temple, and Mark King:** High Resolution Surface-Sourced Seismic Experiment to Image Wilcox Group Horizons in Northern Central Louisiana
- **11:05 Mark C. Robinson and Roger Espinosa:** Utilizing 3D Pseudo-Seismic Data Volumes for Stratigraphic Interpretation and Delineation of the Carter Sand Member of the Mississippian Parkwood Formation in the Black Warrior Basin, Alabama

#### SALT TECTONICS • Carl Fiduk and Rachelle Kernan, Session Chairs

- 8:25 OPENING REMARKS
- **8:30 Jean Pierre Malbrough and Abu Kabir Mostafa Sarwar:** Lower Tertiary Intra-Miocene Wedge and Salt Glacier, Keathley Canyon, Gulf of Mexico
- **8:55 Muhammad Nawaz Bugti and Paul Mann:** What is the Limiting Factor for Hydrocarbon Prospects of the Port Isabel Passive Margin Foldbelt, Northwest Gulf of Mexico?
- **9:20 C. Evelyn Gannaway, Katherine A. Giles, Mark G. Rowan, Thomas E. Hearon IV, and J. Carl Fiduk:** Stratigraphic and Structural Characteristics of a Megaflap Flanking Witcheline Diapir, Willouran Ranges, Australia
- 9:45 BREAK
- **10:15 Rachelle Kernen, Katherine Giles, C. Gannaway, Mark Rowan, and Joseph Fiduk:** Understanding the Origin of Deformed Stratigraphic Blocks inside the Neoproterozoic Patawarta Diapir, Flinders Ranges, South Australia
- **10:40 Joseph Fiduk, Marianne Clippard, George Jamieson, Sarah Power, and Vivain Robertson:** Distribution and Possible Origin of Salt Keels in the Deepwater Northern Gulf of Mexico

#### RESERVOIR QUALITY AND PREDICTION • Maggie Dalthorp, Session Chair

- 8:25 OPENING REMARKS
- **8:30 John Smythe, Henrik Roende, and Brad Torry:** Large-Scale Seismic Acquisition in Congested, Shallow Water Areas: Observations from Modern OBN Data in the Gulf of Mexico
- **8:55** Ajayendra 'AJ' Kumar, Zheng Gan, Lucien Morales, Ted Griffin, and John Dacy: Micro-CT Imaging—A Powerful Tool for Screening and Rapid Quantification of Rock Properties
- **9:20 Vegar Ravlo, Pradeep Bhattad, Mark Knackstedt, and Lucy Plant:** Using Digital Rock Technology for Multi-Scale Reservoir Characterization
- 9:45 BREAK
- **10:15 David Carr, Kerstan Wallace, Changbing Yang, and Andrew Nicholson:** CO<sub>2</sub> Sequestration Capacity Sectors in Miocene Strata of the Offshore Texas State Waters
- 10:40 HaiHong Wang, Howard Titchmarsh, Kevin Chesser, Jeff Zawila, Samuel Fluckiger, Gary Hughes, Edwin Kerr, Andrew Hennes, and Michael Hofmann: Maximizing Recoverable Reserves in Tight Reservoirs Using Geostatistical Inversion from 3D Seismic: A Powder River Basin Case Study

#### **Monday PM**

#### **GULF OF MEXICO DEEPWATER PLAYS • Paul Weimer and John Wagner, Session Chairs**

- 1:25 OPENING REMARKS
- 1:30 Jeff Kao and John Wagner: Examining Depositional Controls on Deepwater Wilcox Reservoirs in the Gulf of Mexico Basin
- 1:55 Paul Weimer, Richard Denne, Eric Zimmermann, Brandon Snyder, Harrison Hirsh, Daniel Bettinger, and Steve Cumella: Litho- and Biostratigraphic Evolution of the Middle Jurassic through Top Cretaceous Strata, Northern Deepwater Gulf of Mexico: Preliminary Results
- 2:20 Paul Weimer, Richard Denne, Eric Zimmerman, Steve Cumella, Brandon Snyder, Harrison Hirsh, Daniel Bettinger, William Gutterman, and Travis Payeur: Variations in Wireline Log Expression of the Top Cretaceous/Base Paleocene Chicxulub Debrite, Northern Deepwater Gulf of Mexico

#### EAGLE FORD—UNDERSTANDING THE UNCONVENTIONALS • Tucker Hentz and Steven C. Ruppel, Session Chairs

- 1:25 OPENING REMARKS
- **1:30** Lee Billingsley, Bill Layton, and Luke Finger: Geoscience Applications to Economic Development of a Relatively Shallow, Low Gravity, Structurally Complex Eagle Ford Oil Development, Atascosa County, Texas
- **1:55 Ohood B. AlSalem, Majie Fan, and Xiangyang Xie:** Subsidence and Burial Histories of the Fort Worth Basin Reflect Prolonged Ouachita Orogeny during the Mississippian-Permian



### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **Monday PM Oral Sessions, Continued**

- **2:20 Greg Frebourg, Stephen Ruppel, Robert Loucks, and Josh Lambert:** Depositional Controls on Sediment Body Architecture in the Eagle Ford/ Boquillas System: Insights from Outcrops in West Texas, USA
- 2:45 BREAK
- **3:15 Timothy Shane, David Borrok, and Brian Lock:** Geochemical Analysis of Parasequences within the Productive Middle Member of the Eagle Ford Formation at Lozier Canyon Near Del Rio, Texas
- **3:40 Robert Loucks and Robert Reed:** Some Thoughts on the Existence and Importance of Natural Microfractures in Unconventional Shale-Oil and Shale-Gas Systems: Real, Imaginary, Wrongly Defined, or Hypothetical?
- **4:05 George Asquith:** 'Shale Sweet Spots' Based on Pe versus RHOb Cross Plots and OGIPscf with and without Using GEOCHEM [ECS] Logs, Jurassic Haynesville Shale
- **4:30 Brian E. Lock and Ryan J. Boucher:** Mapping Sweetspots for Resource Shale Reservoirs Utilizing the Weighted 'Sweetness Index'

#### **GULF OF MEXICO SYSTEMS • Dallas Dunlap, Session Chair**

- 1:25 OPENING REMARKS
- :30 Thomas E. Ewing: Pliocene Sub-Willis Unconformity in Southeastern Texas: Forebulge to the Pliocene Mississippi Delta
- 1:55 Kyle Gabb and Harry Rowe: Close Proximity High Resolution Chemostratigraphic Profile of the Late Cretaceous Formations of Central Texas, USA
- **2:20** Leipin He: Post-Jurassic Sedimentary History of the Eastern Gulf of Mexico
- 2:45 BREAK
- **3:15 Juan Carlos Gloria-Lopez:** Diagenetic and Rock Physics Depth Trends in the Veracruz Tertiary Basin, Mexico
- **3:40 Cian O'Reilly, James Keay, Alex Fick, Alex Birch Hawkins, Dario Chisari, Jason Kegel, and Brad Torry:** Structural Styles and Regional Play Types in the Mexican Offshore from New Seismic Data

#### ADVANCES IN GEOPHYSICS • Selim Shaker and Ed Egger, Session Chairs

- 1:25 OPENING REMARKS
- 1:30 Louis Berent and Roice Nelson: Lightning Sparks Interest in the Unconventional Mapping of Active Subsurface Faults
- 1:55 Samuel LeRoy, Oleg Kouznetsov, Yury Lyasch, Igor Chirkin, Evgeny Rizanov, and Achmed Radwan: Seismic Support for Finding and Developing Fractured Oil and Gas Reservoirs: The Russian Experience with 'Side-View' and Micro-Seismic in Imaging Fracture Intensity and Hydrocarbon Saturation
- 2:20 Chond Zeng, Shuqian Dong, Zhaohong Wu, Jean Ji, Darrell Armetrout, Bin Wang, Julie Willmore, and Brad Torry:
  Practical Application of Adaptive Least-Squares Reverse Time Migration (LSRTM) to Advance Field Development and
  Uncover New Reserves in the Subsalt Provinces
- 2:45 BREAK
- **3:15 James Brewster and John Mims:** Source Body Migration, an Approximate Inversion Method for Full Tensor Gravity Gradiometer Data
- **3:40 Kathleen S. Haggar, Les R. Denham, and H. Roice Nelson, Jr.:** New Lightning Attribute Volumes Compared to the Texas Bureau of Economic Geology (BEG) Stratton 3D Seismic Survey
- 4:05 Sharon Cornelius and Pete Emmet: A Geological 3D Velocity Model in Keathley Canyon and Walker Ridge, Gulf of Mexico

#### **GULF OF MEXICO FIELD/CASE STUDIES • Bill Ambrose and Rick Paige, Session Chairs**

- 1:25 OPENING REMARKS
- **1:30 Rick Paige:** Chile Vieja Field: 3D Seismic Data Adds over 70 Bcf of Reserves by Revealing that a 'Bald' Structural High is Actually a Small, Shale-Filled Canyon
- **1:55 William A. Ambrose, Shirley P. Dutton, and Robert G. Loucks:** Depositional Systems, Facies Variability, and their Relationship to Reservoir Quality in the Eocene Upper Wilcox Group in Fandango Field, Zapata County, Texas
- **2:20 Shirley P. Dutton, William A. Ambrose, and Robert G. Loucks:** Diagenetic Controls on Reservoir Quality in Deep Upper Wilcox Sandstones in the Rio Grande Delta System, South Texas
- 2:45 BREAK
- 3:15 Ross Saunders, Ahmed Ammar, Chuck Henry, Tim Wilkinson, Mike Frismanis, Mike Bradshaw, Jeff Codd, and David Kessler: Revitalizing an Old Field—Main Pass 73—Gulf of Mexico Shelf
- **3:40** Andrew J. Petty and Erin T. Elliott: Hydrocarbons of the Viosca Knoll 204 Field Pensacola Clay, Upper Miocene, Northeastern Gulf of Mexico, with Gas Source Implications and Trends
- **4:05 Jeff A. Spencer:** The White Point Gassers, San Patricio County, Texas



#### **Monday PM Oral Sessions, Continued**

#### NEW/IMPROVED METHODOLOGIES WITH APPLICATIONS TO PETROLEUM E&P • Matt Hammer, Session Chair

- 1:25 OPENING REMARKS
- 1:30 Malcolm Hart: Problem-Solving with Microfossils: The Application of Thin Section Investigations to Micropaleontology
- **1:55 David Little, Edward Smith, Jason Kegel, and Brad Torry:** Understanding the Complex Petroleum Systems of the Greater Gulf of Mexico Using Post Well Analysis in Both U.S. and Mexican Territories
- 2:20 Gary K. Rice: Integration of Independent Exploration Data
- 2:45 BREAK
- 3:15 James A. MacKay and Gary P. Citron: Stress Testing Your Portfolio of Exploration Projects
- **3:40** James A. MacKay and Gary P. Citron: Utilizing the Kelly Criterion to Select the Best Projects when Capital is Temporarily Constrained
- **4:05 Arthur Johnson and Michael Max:** Low Environmental Risk and Technology Options to Enable Commercial Development Natural Gas Hydrate
- **4:30 Kelly Haggar:** New Geohazard Tools, Coupled with Lessons Learned in System Safety, will Improve Infrastructure Safety which Engineering cannot do Alone

#### **Tuesday AM**

#### **GULF OF MEXICO DEEPWATER FIELD STUDIES • Paul Weimer and John Wagner, Session Chairs**

- 8:25 OPENING REMARKS
- 8:30 Earl Cumming and Eric Zimmermann: Discovery and Development of the Who Dat Field (MC–547), Gulf of Mexico
- **8:55 Kimberley Kuijper, Owen Stephens, and Krista Aleman:** Deepwater Depositional Environments and their Unique Challenges within Gunflint Field, Gulf of Mexico
- 9:20 Ed Zinni: The Exploration Evolution of Marmalard Field: A Result of Improved Seismic Algorithms and Methods
- 9:45 BREAK
- **10:15 Christopher Walker and Glen Anderson:** Simple and Efficient Representation of Faults and Fault Transmissibility in a Reservoir Simulator; Case Study from the Mad Dog Field, Gulf of Mexico
- **10:40 Owen Stephens, Rafael Pinto, Ben Maxey, and Kyle Gray:** Big Bend: Rapid Field Development Success through Geoscience Integration in the Gulf of Mexico
- 11:05 Luke Francis and Leon Dzou: Geochemical Evidence of Secondary Microbial Methane in Atlantis Field, Gulf of Mexico

#### ENHANCED, SECONDARY RECOVERY/RESERVOIR PRESSURE PREDICTION • Selim Shaker and Maggie Dalthorp, Session Chairs

- 8:25 OPENING REMARKS
- 8:30 Sean Kimiagar: Using Analogs to Reality-Check Enhanced Oil Recovery Plans
- **8:55** Margaret Dalthorp and Kevin Beidelman: Geologic Input in the WorkoverProcess Provides Valuable Analysis to Define 'Sanded Up'
- 9:20 Selim Simon Shaker: Velocity for Pore Pressure Prediction Modeling and Risk Assessment
- 9:45 BREAK
- **10:15 Selim Simon Shaker and Walter Wornardt:** Strat-Geopressure Fairways—The Fast Track to Prospect's Evaluation: Case History from the Gulf of Mexico

#### **GEO EDUCATION • Mark Ford, Session Chair**

- 8:25 OPENING REMARKS
- **8:30** Rudolph A. Rosen, Erin Scanlon, and Johnnie Smith: Aquatic Science Education Pathway from Headwaters to Ocean is a Model for Place-Based Experiential Learning for Protecting and Stewarding Gulf States' Freshwater and Marine Resources
- 8:55 Walter Vernon Kramer: Preparing Del Mar College Geology Majors for a University Program
- **9:20** Mark Ford and Thomas McGehee: Expanding Horizons: A Writing Intensive Undergraduate Field Camp to Prepare Students for the Future
- 9:45 BREAK
- **10:15 Haibin Su and Brent Hedquist:** Developing Pathways to Geospatial Intelligence for South Texas Students: First Year Results



### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **Tuesday AM Oral Sessions, Continued**

#### CHANGING COASTAL LANDSCAPE • Mark Besonen and Brent Hedquist, Session Chairs

- 8:25 OPENING REMARKS
- 8:30 Philippe Tissot and Anthony Reisinger: Spatial Variability of Relative Sea Level Rise in the Texas Coastal Bend
- **8:55** Johnathan Rice and Alexander Simms: The Holocene History and Facies Architecture of the Nueces Bayhead Delta of the Northwestern Gulf of Mexico
- **9:20 Timothy Kearns, Guoquan Wang, Yan Bao, Jiajun Jiang, and Dongje Lee:** Subsidence-Groundwater Interaction in the Houston Metropolitan Area (2005–2014)
- 9:45 BREAK
- **10:15 Jeffrey Paine and Eddie Collins:** Lithological and Morphological Framework of Pleistocene Barrier Islands and Underlying Strata from Surface and Borehole Geophysics and Airborne Lidar in the Matagorda Embayment
- **10:40 Edwin Jefferson Bomer IV, Samuel J. Bentley, Kehui Xu, and Qin Chen:** Sedimentation Dynamics and Stratigraphy of Middle Breton Sound Estuary, Southeastern Louisiana: Spatiotemporal Evidence for Subdeltaic Evolution
- **11:05 John M. Swartz, John A. Goff, and Sean P. S. Gulick:** Depositional Processes and Stratigraphy of Heald Bank on the East Texas Inner Continental Shelf

#### PROTECTING AND STEWARDING WATER RESOURCES • Dorina Murgulet, Session Chair

- 8:25 OPENING REMARKS
- **8:30 Oludamilola Olusesan Alalade:** Removal of Hydraulic Fracturing Fluids from Petroleum Wastewater Using Sorption Techniques
- 8:55 Douglas Carlson: Influences on Water Quality of the Wilcox Aquifer in Northwestern Louisiana
- 9:20 Jihoon Kang and Richard A. McLaughlin: Passive Treatment of Bentonite Slurry using Coagulants and Flocculants
- 9:45 BREAK
- **10:15 Dorina Murgulet, Valeriu Murgulet, Richard Hay, and Alberto Mestas-Nuñez:** Relationships between Sea Surface Temperature Anomalies in the Pacific and Atlantic Oceans and South Texas Precipitation and Streamflow Variability
- **10:40 Riaz Khan, Jennifer Smith-Engle, Dorina Murgulet, and Philippe Tissot:** Temporal Spatial and Depth Variations of Ground Water Chemistry: An Indicator of Hydro-Geochemical Evolution in Shallow Coastal Aquifers, South Texas
- 11:05 Nicholas Spalt: Variation in Submarine Groundwater Discharge (SGD) among Semi-Arid Depositional Environments

#### **Tuesday PM**

#### PLATE TECTONIC STUDIES • Tom McGehee and Mark Ford, Session Chairs

- 1:50 OPENING REMARKS
- **1:55 Paul Mann and Andrew Steier:** Tweaking Pangea's Breakup: Triassic to Present Plate Tectonic Reconstructions Integrating Recent Geologic, Geophysical, and Hydrocarbon Data from the Atlantic and Gulf of Mexico Conjugate Margins
- **2:20 G. Keller, Jay Pulliam, Harold Gurolla, and Kevin Mickus:** An Overview of the Structure and Tectonic Evolution of the Gulf Coast Region of Texas and Louisiana
- 2:45 BREAK
- **3:15** Harold Gurolla, Jay Pulliam, Randy Keller, and Kevin Mickus: A Summary of New Observations of the Lower Crust and Upper Mantle Structure beneath the Gulf Coast Plain from Passive and Active Source Seismic Data
- **3:40 Luan Nguyen and Paul Mann:** Mesozoic Stretching Amounts of the Continental Margins of the Gulf of Mexico Basin Derived from 3D Gravity Inversion and Depth to Basement Mapping

#### **CONVENTIONAL CLASTICS AND CARBONATES • Bill Ambrose and Mike Bergsma, Session Chairs**

- 1:25 OPENING REMARKS
- **1:30 Doug Haywick, David Kopaska-Merkel, and Richard Keyes:** Petrographic and Faunal Characterization of Monteagle and Hartselle-Equivalent Strata in Northeastern Alabama
- **1:55** Xiaodong Zhang and Michael Pope: Surface to Subsurface Stratigraphy of the Upper Cretaceous Buda Formation in West Texas
- 2:20 Khaled S. Amrouni, Michael C. Pope, Ahmed S. El-Hawat, Adel A. Obeidi, Aimen Amer, Essa A. Elbileikia, Hassan S. El-Bargathi, Mohamed SH. Abdalla El-Jahmi, Khalid A. M. Mustafa, and Ahmed M. A. Al-Alwani: Distribution of Fault Controlled, Wave-Tide Dominated, Prograding Oolitic Shoals of the Miocene Carbonate-Evaporite Successions of Ar-Rajmah Group, Al-Jabal Al-Khdar Uplift and Soluq Trough, Cyrenaica, NE Libya
- **2:45 BREAK**



#### **Tuesday PM Oral Sessions, Continued**

- **3:15 Will Johnston:** 3D Seismic Interpretation of Polygonal Faulting in Upper Cretaceous Sediments, Powder River Basin, Wyoming
- **3:40 Jean Pierre Malbrough and Abu Kabir Mostafa Sarwar:** Lower Tertiary Wilcox Play with Prospective Wells, Keathley Canyon, Gulf of Mexico
- 4:05 Khaled S. Amrouni, Michael C. Pope, Ahmed S. El-Hawat, Adel A. Obeidi, Aimen Amer, Hassan S. El-Bargathi,
  Mohamed SH. Abdalla El-Jahmi, Ahmed M. A. Al-Alwani, Essa A. Elbileikia, and Khalid A. M. Mustafa:
  Paleoshoreline and Prograding Clinoforms of Oolitic Grainstones of the Miocene Carbonate-Evaporitic Sequences of the
  Ar-Rajmah Group, Al-Jabal Al-Khdar Uplift and Soluq Trough, Cyrenaica, NE Libya

#### **URANIUM RESOURCES • Mike Maxson and Peter Luthiger, Session Chairs**

- 1:25 OPENING REMARKS
- **1:30 Brent A. Elliott, Mark J. Mihalasky, and Susan M. Hall:** An Assessment of Undiscovered Uranium Resources in the Texas Gulf Coast: Part 1—Geologic Context
- **1:55** Mark J. Mihalasky, Brent A. Elliott, and Susan M. Hall: An Assessment of Undiscovered Uranium Resources in the Texas Gulf Coast: Part 2—Assessment Approach and Results
- **2:20 Lewis Haynes and Lee Clapp:** Assessment of Down-Hole Membrane-Diffused Hydrogen for Stimulating Uranium Reduction and Immobilization

#### CHANGING COASTAL LANDSCAPE • Mark Besonen and Brent Hedquist, Session Chairs

- 1:25 OPENING REMARKS
- 1:30 Aubrey Hepler and Shuhab Khan: Imaging the Internal Movements of Galveston Island with Ground Penetrating Radar
- 1:55 Kelly Haggar: Legal Aspects of Coastal Change: Geology is about 'What's a Fact?' while Law is about 'Which Facts Matter?'
- 2:20 Douglas Carlson: Global Climate Change Depends on More than Combustion of Fossil Fuels

#### PROTECTING AND STEWARDING WATER RESOURCES • Dorina Murgulet, Session Chair

- 1:25 OPENING REMARKS
- **1:30 Brian B. Hunt, Alex S. Broun, Douglas A. Wierman, David A. Johns, and Brian A. Smith:** Surface and Groundwater Interaction along Onion Creek, Central Texas
- **1:55** Valeriu Murgulet, Dorina Murgulet, Audrey Douglas, and Nicholas Spalt: Impact of Freshwater Environmental Flow Releases on River-Groundwater Exchange and Water Quality in a Semiarid Area: Nueces River, Texas
- **2:20** Audrey Douglas, Dorina Murgulet, and Nicholas Spalt: Effects of Naturally Occurring Radium Activity and Activity Ratio Heterogeneity on Derived Water Mass Ages and SGD: Lessons Learned from Nueces Bay, Texas
- 2:45 BREAK
- 3:15 Chu-Lin Cheng: A Preliminary Groundwater Conceptual Model for South Texas Sand Sheet
- **3:40** Melinda Faulkner, Kevin Stafford, and Matthew McBroom: The Hydromorphic Evolution of the Owl Mountain and Nolan Creek Provinces, Fort Hood Military Installation, Bell and Coryell Counties, Texas
- **4:05** Nima Ghahremani and Lee Clapp: Assessment of Brackish Groundwater Desalination Concentrate as Potential Source Water for Hydraulic Fracturing Operations in the Eagle Ford Shale

#### POSTER SESSIONS

#### Poster Sessions will be All Day Monday and Tuesday Morning in the Exhibit Hall.

#### Monday 8:30 AM (Session 1) • Allen Lassiter, Session Chair

#### **ADVANCES IN GEOPHYSICS**

- **Kyle Altimore and Kevin W. Stafford:** Delineation of Surficial Karst Manifestations using Photogrammetry (LiDAR) in Ordovician Carbonates of Colorado Bend State Park, Central Texas
- **Adam Majzoub and Kevin W Stafford:** Characterization and Delineation of Karst Geo-Hazards Along RM652 Using Electrical Resistivity Tomography, Culberson County, Texas
- **Julie Willmore, Henrik Roende, Christopher Egger, Chuck Mason, and Brad Torry:** Consideration to Data Driven Solutions for the Acquisition of New Marine 3D Seismic Data



### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **Monday AM Poster Session, Continued**

#### **CHANGING COASTAL LANDSCAPE**

**John R. Andrews, Jeffrey G. Paine, Caudle L. Tiffany, and Kutalmis Saylam:** Topographic and Bathymetric Lidar Applications in Coastal Research at the Bureau of Economic Geology

**Robert Ivy and Gary L. Kinsland:** Regional Subsurface Investigation of the Uppermost Cretaceous of Northern Louisiana **Lisa A. McLaughlin, Jonathan Sulaica, and Michael Parker:** Quantifying Material Removed as a Result of 2002 Flood at Canyon Lake: A GIS Analysis

#### **GEO EDUCATION**

Anita Chavez and Juan L. González: Constraining the Thickness and Volume of the South Texas Sand Sheet

**Sarah M. Dillon, Adolfo Enciso, and Mark T. Ford:** pXRF Analysis of Heterogeneous Rocks with Respect to Sample Preparation: Applications to Mafic Igneous Rocks

**Preston W. McLaughlin:** Analysis, Prediction, and Impacts of Shoreline Change Rates along the Eastern Aransas National Wildlife Refuge, Texas

#### **GULF OF MEXICO SYSTEMS**

**Shelby L. Davis, Shweta Mohandas, Ghervy G. Nzoumba, and Thomas E. Yancey:** Diatomite in Late Eocene Jackson Group, Fayette County, Texas

Erik S. Heider and David King: Early Modification Stage Dynamics of Shallow Crater-Filling Units, Wetumpka Impact Structure,
Alabama

**Celeste D. Lohr, Paul C. Hackley, Brett J. Valentine, and Catherine B. Enomoto:** Thermal Gradient Trends in the Tuscaloosa Marine Shale Play Area: Preliminary Results from Studies to Support Oil and Natural Gas Resource Assessments

**Sridharan Vallabhaneni:** Stratigraphic Architecture of the Upper Cretaceous Eaglebine Interval in Leon, Madison, Grimes, and Brazos Counties, Texas

#### **MEXICO, LATIN AMERICA, CARIBBEAN**

Jason Fisher and David King: Early Paleogene Submarine Fan Facies in Southern Belize

**David Lankford-Bravo and Paul Mann:** Improved Mapping of the Subsalt, Continent-Ocean Boundary in the U.S. Gulf of Mexico and Implications for the Structural Relief for Overlying Folds of the Passive Margin Fold-Thrust Belt

#### **OTHER GULF COAST STUDIES**

Frank G. Cornish: Hydrocarbon Traps Associated with Upper Wilcox Canyons and Seismic Response, Mid Gulf Coast, Texas
 S. M. Kariminia, N. L. Engelhardt-Moore, and Russell E. Hinote: Modification of the Acetic Acid Methodology for Improved Microfossil Extraction to Meet Requirements of the Oil and Gas Industry

#### **PROTECTING AND STEWARDING WATER RESOURCES**

**Melinda S. Faulkner, Kevin W. Stafford, and Matthew W. McBroom:** The Hydromorphic Evolution of the Owl Mountain and Nolan Creek Provinces within the Fort Hood Military Installation, Bell and Coryell Counties, Texas

#### **RESERVOIR QUALITY AND PREDICTION**

Khaled S. Amrouni, Ahmed S. El-Hawat, Michael C. Pope, Aimen Amer, Adel A. Obeidi, Hassan S. El-Bargathi, Ahmed M. A. Al-Alwani, Mohamed S. H. Abdalla El-Jahmi, Khalid A. M. Mustafa, and Essa A. Elbileikia: Paleogeographic Reconstruction of the Late Miocene Sequences Wadi Yunis Member of Al Khums Formation, Sirt Basin, Central Libya

#### **RESERVOIR PRESSURE PREDICTION**

**Feng Chen and Gary L. Kinsland:** Study of Channel Morphology and Infill Lithology in the Wilcox Group in Central Louisiana Using Seismic Attribute Analysis

#### **URANIUM RESOURCES**

**Nima Ghahremani, Yaneth Gamboa, Lucy Camacho, and Lee Clapp:** Measurement of Rare Earth Element Concentrations in Produced Water from the Eagle Ford Shale

Monday 1:30 PM (Session 2) • Allen Lassiter, Session Chair

#### **ADVANCES IN GEOPHYSICS**

**Aaron A. Eaves and Kevin W Stafford:** Delineation of Karst Geohazards along Highway 652 through the Use of Ground Penetrating Radar: Culberson County, Texas



#### **Monday PM Poster Session, Continued**

**Yi-An Lin and Guoquan Wang:** Ground Motions along the Long-Point Fault Derived from Continuous GPS Observations (2013–2015)

**Francis C. Okocha and Wesley A. Brown:** Gravitational Study of the Hastings Salt Dome and Associated Faults in Brazoria and Galveston Counties, Texas

#### **CHANGING COASTAL LANDSCAPE**

**Juhi Aggarwal and Shuhab D. Khan:** Application of Geophysical Techniques to Study Texas Coast: Internal Architecture of Beach-Dune Morphology Lower Barrier Islands along the Texas Barrier Islands

**Jacob Byerly, Brent C. Hedquist, and Haibin Su:** Utilizing Satellite Imagery to Analyze the Relationship between Surface Temperature and Recent Land Use/Cover Change in San Antonio, Texas

Douglas Carlson: Subsidence Rate in New Orleans, Louisiana, Dependence on Location and Time

#### **CONVENTIONAL CARBONATES & CLASTICS**

**John Cooper, Jeff rey Hardwick, and Alexis Godet:** Integrated Stratigraphy of the Austin Chalk Group across the San Marcos Arch, Bexar County, Texas

**Gary L. Kinsland and John W. Snedden:** Comparison of a Portion of the K/Pg Boundary Deposits in Two Locations: Webb County, Texas and LaSalle Parish, Louisiana

#### **GULF OF MEXICO FIELD/CASE STUDIES**

**Kody Kramer, Thomas W. Bjerstedt, and William W. Shedd:** 3D Visualization and Characterization of a Mississippi River-Scale Deepwater Channel-Levee System on the Basin Plain, Gulf of Mexico

#### **GEO EDUCATION**

**Emily D. Hager-Hahn and Mark T. Ford:** Crystal Size Distribution Analyses to Constrain Petrologic Parameters of Basalt Flows in the Blackfoot Volcanic Field, Idaho

**Pawan Kakarla and Wesley A. Brown:** Geotechnical Properties of the Rodessa Formation in East Texas: A Compressive and Tensile Strength Analysis Using Artificial Neural Network Methodology

**Subbarao Yelisetti, Thomas L. McGehee, and Lionel Hewett:** Overview of Proposed Geophysics/Petrophysics Programs at Texas A&M University–Kingsville

#### **GULF OF MEXICO SYSTEMS**

**David Lankford-Bravo, Muhammad Nawaz Bugti, Sharon L. Cornelius, and Paul Mann:** Documentation of Isolated Lenses of High-Velocity, Eocene to Miocene Limestone Within Clastic Rocks above and below Allochthonous Salt Bodies, North-Central Gulf of Mexico

**Zachary Wilson and Seiichi Nagihara:** Characterization of Geothermal Anomalies in the Louisiana Continental Shelf, Gulf of Mexico, Using Corrected Bottom-Hole Temperatures

#### **MEXICO, LATIN AMERICA, CARIBBEAN**

**Jonathan Sulaica, Juan Carlos Laya, Michael C Pope, and Niall Slowey:** Facies Distribution and Paleogeographic Evolution of Pleistocene Carbonates in Bonaire, Netherlands Antilles

#### **OTHER GULF COAST STUDIES**

**Billy Hales, Ruben Cano, and Thomas L. McGehee:** Bridging Students' Knowledge Gaps through Research: A Case Using Synthetic Hydrogeologic Models

**Allen Lowrie:** Regional Bathymetric Maps of the Iranian Makran Margin, a Subduction Zone, and the Northern Gulf of Mexico, a Passive Margin, are Similar from Differing Origins

#### **PROTECTING AND STEWARDING WATER RESOURCES**

**Sergio Mireles, Yongsik Ok, Chu-Lin Cheng, and Jihoon Kang:** Removal of Zinc from Stormwater Runoff using Charcoal Based Adsorbents

#### **RESERVOIR QUALITY AND PREDICTION**

**Liang Xiao and Xiu-hong Xie:** A New Method of Evaluating Tight Gas Sands Pore Structure from Nuclear Magnetic Resonance (NMR) Logs



### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **Monday PM Poster Session, Continued**

#### **RESERVOIR PRESSURE PREDICITION**

**Kenneth L. Stover and Wesley A. Brown:** Seismic Interpretation and Analysis of the Etouffee Reservoir Sand and the Surrounding Area in Terrebonne Parish, Southeast Louisiana

#### **SALT TECTONICS**

**Matthew R. Worrell and Wesley A. Brown:** Structural, Stratigraphic, and Geomorphologic Reconstruction of an Early Stage Pliocene Raft in Viosca Knoll-Mississippi Canyon, GOM, Using 3D Seismic Data

#### **EAGLE FORD—UNDERSTANDING THE UNCONVENTIONALS**

Peng Li, Michael E. Ratchford, Marc W. Charette, Bradley J. Walls, and Richard P. Philp: Unconventional Reservoir Characterization of the Brown Dense Mudstone (Lower Smackover Formation), Gulf Coastal Plain, South Arkansas

#### Tuesday 8:30 AM (Session 3) • Allen Lassiter, Session Chair

#### **ADVANCES IN GEOPHYSICS**

Louis J. Berent: Lightning Sparks Interest in the Unconventional Mapping of Active Subsurface Faults

**Leah J. Hogarth, Conrad Kolb, and Joël Le Calvez:** Using Crosswell Measurements to Enhance Velocity Model Calibration for Real-Time Microseismic Monitoring

#### CONVENTIONAL CARBONATES & CLASTICS

Khaled S. Amrouni, Michael C. Pope, Ahmed S. El-Hawat, Aimen Amer, Essa A. Elbileikia, Hassan S. El-Bargathi, Adel A. Obeidi, Osama Rahil Shaltami, Khalid A. M. Mustafa, Ahmed M. A. Al-Alwani, Mohamed SH. Abdalla El-Jahmi, Salah S. Abdelsalam El-Ekhfifi, and Matthew P. Wehner: Silicification in the Cyrenaican Miocene Carbonate-Evaporite Sequence, NE Libya: Origin, Occurrence, Facies, and Sea Level Relationship

**Randy Bissell:** Evolving Models for Eocene Deepwater Channel Complexes and Fan Systems, Scotland District, Barbados **Xiaodong Zhang and Michael Pope:** Surface to Subsurface Stratigraphy of the Upper Cretaceous Buda Formation in West Texas

#### **GEO EDUCATION**

**Monica M. Estrada, Scott S. Fenner, and Mark T. Ford:** Using pXRF to Assess Heterogeneous Sample Preparation Methods: Applications to Coarse-Grained Felsic Rocks

Martial J. Morrison, Juan M. Lorenzo, Peter D. Clift, and Kory M. Konsoer: Analysis of a Discontinuity Surface within Point Bar Deposits of False River, Louisiana

#### **GULF OF MEXICO SYSTEMS**

**Thomas W. Bjerstedt, Kody Kramer, and William W. Shedd:** Latest Pleistocene "Blue Unit" of Mississippi Fan System, Gulf of Mexico

**Jay K. Mishra and Yogesh Agnihotri:** New Insights into Basement Tectonics and its Control on Salt and Sediment Structural Styles in Northern Gulf of Mexico

#### **MEXICO, LATIN AMERICA, CARIBBEAN**

**Sergio Perez Rodriguez:** GIS and Statistics Applied to the Analysis of the Distribution of Hydrocarbon Reserves by Fields and Formations in the Sureste Basin, Mexico

#### **OTHER GULF COAST STUDIES**

**Randolph G. De La Garza and Juan L. Gonzalez:** A Rancholabrean Community of Giant Gopher Tortoises (*Gopherus hexagontus*) within Willacy County, Texas

Allen Lowrie: Contemporaneous and Mesozoic Low Gradient Shelf Deposition across Wide Continental Shelves

#### **PROTECTING AND STEWARDING WATER RESOURCES**

Ingrid Eckhoff: Structural Controls on Fluid Migration in Cretaceous Strata, Central Texas

**Rohan Jayasuriya, Lucy Camacho, and Lee Clapp:** Seasonal Monitoring of Water Quality and Wastewater Effluent Discharges along the Lower Rio Grande, Texas

#### **RESERVOIR QUALITY AND PREDICTION**

**Lisa A. McLaughlin and Juan Carlos Laya:** Characterization of Porosity Systems Based on Diagenetic Models and its Effect on Petrophysical Analysis in Permian Carbonates



#### **Tuesday AM Poster Session, Continued**

#### **RESERVOIR PRESSURE PREDICITION**

**Qilong Fu, William Ambrose, and Jim Barton:** Lithofacies, Diagenesis, and Pore Network of the Pennsylvanian Caddo Limestone in Stephens County, Texas

**Robert G. Loucks and Qilong Fu:** Origin and Characterization of the Lithofacies and Dual Micropore/Macrospore Network in Pennsylvanian (Desmoinesian) Caddo Shelf-Buildup Complexes, Stephens County, North-Central Texas

#### **SALT TECTONICS**

**Pin Lin and Paul Mann:** Kinematics of Jurassic Rifting and Oceanic Spreading between the Continental Blocks of Western Florida and the Yucatan Peninsula

#### **EAGLE FORD—UNDERSTANDING THE UNCONVENTIONALS**

**Justin Mauck and Gregory Frébourg:** Rafted Wood in the Bouldin Member of the Eagle Ford Formation, Walnut Creek, Travis County, Texas

**Timothy Shane:** Geochemical Analysis of Parasequences within the Productive Middle Member of the Eagle Ford Formation at Lozier Canyon near Del Rio, Texas

**J. Jonathan Tuck, Burabari Kponi, Thomas L. McGehee, and Mark T. Ford:** Optimization of pXRF Sampling Methods in Analyzing Hydrocarbon-Rich Zones in the Eagle Ford Shale

#### **URANIUM RESOURCES**

**Nebechi Osia, Dorina Murgulet, and Lee Clapp:** Microcosm Study to Evaluate Alternative Reduced Sulfur Compounds for Stimulating In-Situ Microbial Reduction and Immobilization of Uranium



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#### Field Trips (Sponsorship Available)

Note: You must be registered for the convention to participate in a field trip.

#### **Overnight Trip:**

#### TRIP #1: Rio Grande Delta and Great Sand Sheet

**Leaders:** Thomas E. Ewing, Frontera Exploration Consultants, San Antonio, TX and Juan L. Gonzalez, Dept. of Env. Sciences, UT–Rio Grande Valley, Edinburg, TX

Friday–Saturday • September 16–17 (depart 8:00 am, Friday, from the Omni Hotel and return 6:00 pm, Saturday)

\$300 per person includes bus, hotel (double occupancy), guide materials, breakfast tacos, lunches, and water. You cover: dinner and personal items. Maximum 25 participants



This two-day trip will explore the Rio Grande Delta, a unique delta-shoreline complex at the southern tip of Texas. The Rio Grande delta is one of the major deltas of North America. The delta was formed by the sediment-rich Rio Grande/Rio Bravo during the Altithermal. The river carried huge but irregular flows into a semiarid environment. Eolian activity has extensively modified the delta plain. Major historical developments, including Mexican War and Civil War battle sites, will be addressed as well. Combining available geologic information with global satellite photography gives a balanced view of an important delta.

#### **Saturday Trips:**

#### TRIP #2: Ice Age Mammal Fossil Hunt (Sponsored by Kemco)

**Leaders:** Jon Baskin, TAMU–Kingsville, and Ronnie Thomas, Retired 8:00 am–12:00 noon • Saturday, September 17 • Depart/return to Omni Hotel

\$125 per person (cost includes transportation and refreshments) Maximum 35 participants

The Laurentide Ice Sheet was near its maximum 18,000 years ago, covering Canada and much of North America with ice 2 miles thick in some places. In South Texas, sea level was 330 feet lower and the coastline extended 50 miles further east. The Nueces River Valley was a veritable paradise at the time, home to over 15 now extinct



mammals, including Columbian Mammoths, Giant Ground Sloths, and Saber-toothed Cats. Join us on a Fossil Hunt for the bones of these Ice Age Mammals. Samples collected from this site are used for educational purposes only and are never to be sold, or given to individuals as awards, incentives, or tokens of appreciation.

#### TRIP #3: Storm Signals in the Stratigraphic Record of the Texas Gulf Coast

**Leader:** James Garrison, Jr., Ph.D. Research Associate Professor, UT–Dallas, Sara Miller, EOG Resources, Corpus Christi, and Alberto Mesta, Associate Research Professor, Texas A&M–Corpus Christi

8:00 am–4:00 pm • Saturday, September 17 • Depart/return to Omni Hotel \$125 per person; \$85 for students (cost includes transportation, lunch, and materials)

Maximum 26 participants; 6 student slots available

This 3-stop field trip will examine storm signals in the stratigraphic record of the Texas Gulf Coast. Stop 1 is Padre Island to discuss the evolution of the island and storms discovered using GPR transects; Stop 2 will be the dunes on Mustang Island showing how their evolution records burgisane events and intensity; and Stop 3 is the Cum Hall

how their evolution records hurricane events and intensity; and Stop 3 is the Gum Hollow Delta illustrating the preservation of storminess in bay deltas. The guidebook will be three papers covering this research.



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#### **Sunday Trip:**

TRIP #4: Geomorphology and Geologic History of the Nueces River Valley, Corpus Christi Bay, Laguna Madre, and Padre Island\*

**Leaders:** Randy Bissell, Headington Energy Partners/TAMU–CC, Dr. Mark Besonen, TAMU–CC, and Tom Fett, PE

8:00 am-4:00 pm • Sunday, September 18 • Depart/return to Omni Bayfront Hotel

\$125 per person; \$85 for students (cost includes transportation, lunch, and materials).

Maximum 30 participants; 8 student slots available

This 9-stop field trip will explore the lower Nueces River Valley to examine the geomorphology of the Nueces River and its flood plain; the Nueces Bayhead delta; the genesis of Corpus Christi Bay; Flour Bluff and Laguna Madre; and the dunes and



washover fans on Padre Island. Whole core representing Oligocene fluvial and shoreface deposits will be examined at relevant locales. Lunch will include a presentation on the history of the city; the geomorphology prior to industrial development; and the consequences of major hurricanes. The trip will involve semi-strenuous hikes to certain locales. Waterproof footwear is recommended.

\*This Field Trip and the Depositional Environments Short Course (SC #1) compares ancient and modern clastic systems.





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#### **Short Courses (Sponsorship Available)**

Note: You must be registered for the convention to enroll in a short course.

#### COURSE #1: Depositional Environments of Ancient Clastic Systems from Well Logs\*

**Instructor: Tom Fett** 

12:30 pm-4:30 pm, Saturday, September 17

Location: EOG Training Facility, 539 N. Carancahua St., Corpus Christi, TX \$100 per person, \$60 for students (cost includes all course materials)

Maximum 50 persons, 10 students

This course will cover stratigraphic studies in general, pattern recognition; dipmeter applications; imaging applications, including presentation formats; sedimentary features, especially cross bedding; vertical grain size profiles; bars, channels, and fans; growth faulting; depositional environments and systems; role of wireline measurements; field trips; and other resources.

\*This Short Course and the Geomorphology of Nueces River Valley Field Trip (FT #4) compares ancient and modern clastic systems.

#### <u>COURSE #2</u>: Big Things from Small Matters: Basin Analysis from Paleontology, Geochemistry, and More

**Instructor:** Woodson Godfrey

8:00 am-4:00 pm • Sunday, September 18

Location: American Bank Center, 1901 N. Shoreline Blvd., Corpus Christi, TX

\$150 per person, \$110 for students (cost includes refreshments and all course materials)

Maximum 40 persons, 8 students

The content of this course is aimed at the geologist who uses this type of information in the pursuit of hydrocarbon exploration and production, whether in shales, sands, or carbonates. The course covers

descriptions of the commonly applied fossil groups to exploration paleontology, quality assurance in data quality, and how to produce effective integration of data types. The origins and distribution of fossil remains, kerogen, and their applications in both conventional and unconventional trend development settings will be discussed. The uses of paleoecology and microenvironments. Case studies and theory in the application of paleontology to basin analysis will be discussed along with project post-mortem examinations.

#### **COURSE #3:** Geopressure for Prospect Assessment

**Instructor:** Selim Simon Shaker

8:00 am-4:00 pm • Sunday, September 18

Location: American Bank Center, 1901 N. Shoreline Blvd., Corpus Christi, TX

\$150 per person, \$110 for students (cost includes refreshments and all course materials)

Maximum 30 persons, 6 students

A viable prospect is contingent on hydrocarbon source, a reservoir that can contain and deliver, competent seal, and drillable well trajectory. These amalgamated aspects are chiefly a consequence of the subsurface geopressure vertical and lateral partitions. Moreover, successful drilling relies on accurate prediction of pore-fracture pressure within the drilling tolerance window and their safety limitations.

Each participant will have a fundamental understanding of geopressure partitions, prospect's trapping integrity, and reserve potentials.

#### **COURSE #4: Basic Seismic Attributes**

**Instructor:** Dr. Robert Schneider

8:00 am-4:00 pm • Sunday, September 18

Location: EOG Training Facility, 539 N. Carancahua St., Corpus Christi, TX

\$150 per person, \$110 for students (cost includes refreshments, lunch, and all course materials)

Maximum 40 persons, 8 students

This geophysical course will introduce and/or reinforce key concepts related to seismic attributes. The course has five sections: 1) Basic rock physics (stress/strain, elastic moduli, etc.); 2) Seismic fundamentals (reflection coefficients, phase, etc.); 3) Post-stack attributes (definitions, instantaneous and geometric attributes, curvature, etc.); 4) Pre-stack attributes (gathers, AVO, cross plots, tuning, etc.); and 5) Special topics.



#### **Student Activities (Sponsorship Available)**

#### **STUDENT PARTICIPATION**

We offer a special registration fee (only \$35) to facilitate student participation. This fee is applicable for students or new grads who have not yet accepted employment offers. Students may also register as a Student Volunteer. If selected, you will receive a refund of your registration fee after you have worked a half day, as assigned. This fee allows entry to the Opening Session, Icebreaker, Exhibition, all technical sessions, reduced rates for short courses and select field trips, all coffee breaks, the Monday Happy Hour in the exhibit hall, and a digital copy of the 2016 GCAGS Transactions.

#### **STUDENT VOLUNTEERS**

Half-day volunteers are needed beginning 7:00 am, Saturday, September 17, through Tuesday, September 20th. Volunteers will earn full-paid student registration. Assignment preferences will be weighed on volunteer date, and registration fees will be refunded on site upon completion of a half day's work. Possible responsibilities include serving as short course assistants, checking in field trip/short course participants, technical session 'runners,' ticket-taking, manning registration, preparing convention packets, and staffing judges' room. For more information, contact Casey Mibb, Volunteers Chair, at clmibb@yahoo.com.

#### Volunteers Needed during these Times and Dates

Saturday, September 17	7:00 am-6:00 pm
Sunday, September 18	7:00 am-7:00 pm
Monday, September 19	7:00 am-5:00 pm
Tuesday, September 20	7:00 am-4:00 pm

#### **AAPG IMPERIAL BARREL AWARD COMPETITION TRAINING (Students Only)**

**Instructors:** Larry Garmezy and Steven Bloemendaal; with additional past competition participants

8:00 am to 4:00 pm • Sunday, September 18

Location: American Bank Center, 1901 N. Shoreline Blvd, Corpus Christi, TX

\$25 per person (cost includes refreshments and all course materials)

Maximum 25 students

This course is designed to introduce the participant to the fundamentals of basin analysis, the evaluation of petroleum systems, and quantitative prospect assessment (risk and volumes). Following brief lectures, the students will work in teams to evaluate, delineate, and describe the critical elements of a working hydrocarbon province. They will learn about the variety of maps needed to produce an evaluation, how to build play element maps on a specific reservoir interval, summary play maps that describe how the play works, and where sweet spots are located. This is followed by a hands-on suite of exercises that emphasize practical, simple principles for carrying out a quantitative prospect assessment. In addition, this year's course will include insight from past participants who will share their own IBA experiences, and will also assist with the course.



Mary J. Broussard

#### **TEACHER ACTIVITY** (Sponsorship Available)

GCAGS and the Corpus Christi Geological Society recognize the value of helping primary and secondary teachers effectively convey earth science information to their students. We are pleased to present the following course for teachers at minimal cost for participants.

#### **Make Your Class Exciting through Earth Science**

Instructor: J. R. Jones

8:30 am to 4:30 pm • Saturday, September 17

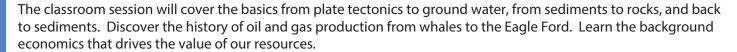
Location: EOG Training Facility • 539 N. Carancahua, Corpus Christi, TX

\$50 per person (cost includes refreshments, lunch, field trip

transportation, and all course materials)

Maximum 30 persons

This earth science workshop targets grade 6 thru 12 TEKs but is also appropriate for elementary level teachers and will reinforce core earth science knowledge for all levels. Participants will earn 6 CPE's. This workshop will include a morning classroom session then a field trip in the afternoon. Be prepared to have some fun. Sturdy, waterproof footwear is recommended.



The field trip topics will include 1) How bays are formed, 2) Erosion and deposition, 3) Man's effect on the environment, 4) Wetlands value and importance to ocean health, 5) Changing salinities, 6) Relative sea level rise, 7) Subsidence, and 8) Restoration and enhancement.



brighter thinking."







BANKING INSURANCE

#### **HOSPITALITY** (Sponsorship Available)

Welcome to Corpus Christi and the 2016 GCAGS Convention! All guests and spouses are invited to take part in the events that are included in your registration fee. In addition, two activities are available at extra cost that will give you the opportunity to learn more about the culture and local Corpus Christi area. The Guest Fee includes the Opening Session, Icebreaker, Exhibition Hall, all coffee breaks, and Happy Hour on Monday. **Please note that professionals may not register as guests.** 

Join us in the Hospitality Suite at the Omni Hotel, Room 1754, from Sunday, September 18th, through Tuesday, September 20th. Morning and afternoon refreshments will be available daily. Our hostesses will be on hand to answer any questions about local restaurants and shopping.

#### Hospitality Suite Hours – Presidential Suite, Room 1754, Omni Hotel

Sunday, Sept. 18	2:00 pm-4:00 pm
Monday, Sept. 19	8:00 am-10:00 am and 4:00 pm-6:00 pm
Tuesday, Sept. 20	8:00 am-10:00 am and 2:00 pm-5:00 pm

#### **Guest Activity #1: Fulton Mansion Tour, Lunch and Shopping in Rockport-Fulton, Texas**

**Leader:** Darlene Murry

9:00 am-4:00 pm • Monday, September 19 • Depart/return to Omni Hotel \$60 per person includes bus and tour entry. You cover lunch.

Maximum 14 participants, Minimum 9 participants

We will take a short bus drive up the coast to Rockport-Fulton for a private tour of the Fulton Mansion. Rising above the Aransas Bay and surrounded by stately live oaks, the Fulton Mansion must have appeared incredible in 1877, as it does today, with its mansard roof and ornate trim. Interior gas lighting, flushtoilets, and other refinements were progressive and luxurious elements for this



part of Texas. On a private tour just for GCAGS guests, you will get a glimpse into the life of an affluent family in the late 1800s. You will journey through the restored home, learn about George Fulton's engineering skills, and take a walk through Harriet Fulton's gardens. After the tour, we will have lunch and spend time shopping the Art Galleries, Boutiques, and Antique Shops of delightful downtown Rockport. Rockport-Fulton is the 5th Best Small Coastal Town in America; 6th Top Destination in Texas; 7th Coolest Small Town in America; and one of the 100 Best Small Art Towns in America.

#### **Guest Activity #2: SEGWAY Tour of the Corpus Christi Bayfront**

**Leader:** Darlene Murry

9:30 am-12:00 noon • Tuesday, September 20

\$55 per person paid to SegCity Tours. You cover lunch.

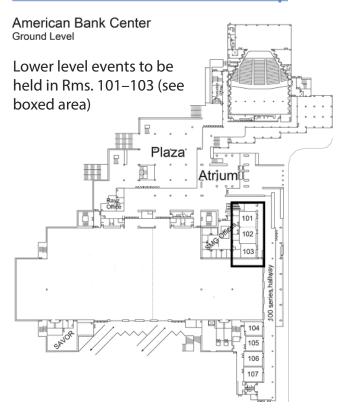
Maximum 9 participants

There's so much more to see than the sea in Corpus Christi. Do you know just how far Jupiter is from the Sun? What did Columbus' ship look like? Have you seen our historic district? Easy, fun, and utterly entertaining you'll be talking about SegCity's Award Winning city tour for years to come.

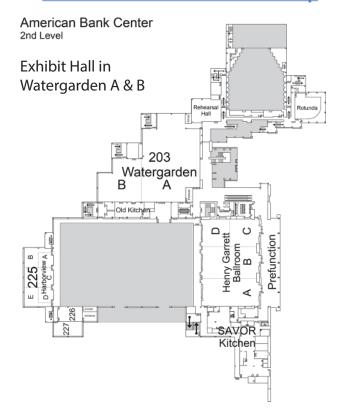
"I can't ride a Segway!" If you can stand up unaided you can most likely ride a Segway. Remember that you don't have to balance a Segway, it balances you backwards and forward so you're in excellent hands. A Segway is reading your balance about 100 times every second and is working hard to keep you safe all the time. The SegCity Tour Guides are fully equipped to give you the best training experience to help you feel confident to operate a Segway before you go on a tour.



#### **Americas Bank Center – Level 1 Map**



#### **Americas Bank Center – Level 2 Map**





#### **ABC Parking Map**

Surface Parking passes are available at the American Bank Center:

\$13 for a 4-day pass

\$10 for a 3-day pass

\$5 per day without a pass





#### **OMNI CORPUS CHRISTI HOTEL**

900 North Shoreline Boulevard 361–887–1600

**RATES:** Start at \$149 for a Single or Double Deluxe Room

Modern Comforts By The Water ~ Grand Corpus Christi hotel on the Texas coast.

The Omni is an easy walk (just a 1/2 mile) down beautiful Shoreline Boulevard from the American Bank Center. Located in the lively downtown Marina District, Omni Corpus Christi Hotel offers newly renovated rooms with spectacular views of the Corpus Christi bay. The hotel is situated along 131 miles of Texas coast; there are virtually limitless choices for water sports, including year-round sailing, swimming, snorkeling, and some of the world's best deep-sea fishing. All are just moments away from this spectacular Corpus Christi hotel. Located just 15 minutes from Corpus Christi International Airport.



The convention rate is \$149 for single or double deluxe room, \$159 for triple occupancy, \$169 for quad. Rates do not include applicable taxes. Reservations may be made by calling Omni reservations, 1–800–THE–OMNI, the hotel directly at 1–361–887–1600, or by going to the "Accommodations" page on meeting website, gcags2016.com/Accommodations/Accommodations. html, and clicking on the link "Omni Hotel" in the first sentence at the top of the page. Be sure to mention GCAGS/Gulf Coast Association if phoning in your reservation. **The discount deadline is Friday, August 26, 2016**, after which rooms will be released for general booking. Don't delay—Reserve now!

See more at: http://www.omnihotels.com/hotels/corpus-christi/meetings/gulf-coast-association-of-geological-societies

#### **Awards & Accolades**

- "Highest in Guest Satisfaction Among Upper Upscale Hotel Chains" J. D. Power 2015 North American Hotel Guest Satisfaction Index Study
- Omni Corpus Christi Hotel and Republic of Texas Bar & Grill named Best of the Best in the city by the Corpus Christi Caller-Times.
- The hotel placed among the top hotels in town, and the restaurant also picked up honors in the fine dining category and received the Reader's Choice Award in the Best Wines category.

#### **ABC Omni Location Map**



#### Highlights

Non-smoking luxury hotel

- 475 newly renovated guest rooms and suites
- · Body N Balance, massage services
- Daniel's Coiffure, full-service salon
- Outdoor heated swimming pool
- Wi-Fi Internet service complimentary for Select Guest® members

#### **Parking**

Guest self-parking (\$10 per day with in-and-out privileges)\* Valet parking (\$18 per night including unlimited access)\*

\*Rates subject to change

Shuttle bus service between the hotel and the American Bank Center will be provided beginning Sunday.





### 2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition

#### Pre-Registration Early Discount Deadline: August 7, 2016

There are three easy ways to register for the **66**th **GCAGS Annual Convention**:

#### 1. Register online (credit card is required)

Go to www.gcags2016.com and click on "Register Now!" link on the home page.

#### 2. By mail (check or credit card; IMPORTANT: checks may be drawn on U.S.-based banks only)

Send your registration form and payment to:

2016 GCAGS Annual Convention *c/o Attendee Interactive* 2205 Warwick Way, Ste. 110

Marriottsville, MD 21104

Make checks payable to: GCAGS 2016

#### 3. By fax (credit card only)

Fax your registration form, including credit card information, to 1–410–480–1892.

All registration, social-event, optional-tour, short-course and field-trip fees must be paid IN FULL at the time of the registration. All fax registrations not including credit-card information or mail-in registrations received without credit-card information or a signed check from a U.S. bank will be returned. If completing a hard-copy form, use one form per professional or student registrant. If registering a spouse or guest, be certain to provide the individual's name for the badge. **Professionals may not register as spouses or guests. All speakers and poster presenters must be registered. Professional/Student registration is required to participate in short courses and field trips.** 

#### Registration fees are as follow (all prices in USD):

GCAGS/GCSSEPM Professional* through August 7	\$200.00
Professional* after August 7	\$300.00
Student (ID will be required on site)**	\$35.00
Student Volunteer (see p. 29)**	\$35.00
Spouse/Guest***	\$75.00
Exhibit Booth Worker	\$95.00
Icebreaker Only	\$60.00

<sup>\*</sup> Professional fee includes the Opening Session, Icebreaker, Exhibition, all technical sessions, all coffee breaks, Monday Happy Hour in the Exhibit Hall, and digital copy of the 2016 GCAGS Transactions.

Pick up your badges and tickets to any optional events at Registration located in Watergarden A, Level 2 of the American Bank Center, anytime during the following hours:

Saturday, Sept. 17	3:00 pm-6:00 pm
Sunday, Sept. 18	7:00 am-8:00 pm
Monday, Sept. 19	7:00 am-6:00 pm
Tuesday, Sept. 20	7:00 am-12:00 noon









<sup>\*\*</sup> Student fee includes the Opening Session, Icebreaker, Exhibition, all technical sessions, reduced fees for short courses and select field trips, all coffee breaks, Monday Happy Hour in the Exhibit Hall, and digital copy of the 2016 GCAGS *Transactions*. A \$25 box lunch for Tuesday is available for additional purchase.

<sup>\*\*\*</sup> Spouse/Guest fee includes the Opening Session, Icebreaker, Exhibition, all coffee breaks, Monday Happy Hour in the Exhibit Hall, and access to the Hospitality Suite Sunday, Sunday, Sept. 18, Monday, Sept. 19, and Tuesday, Sept. 20.

# **Registration Form**

Save Time—Register ONLINE! www.gcags2016.com

THE ENTINEER OF THE PARTY OF TH	:		REG	REGISTER ONLY ONE PROFESSIONAL OR STUDENT PER FORM*
Gulf Coast Association of Geological Societies / Gulf Coast Section of SEPM, September 18–20, 2016	ntion of the eological Societies / september 18–20, 2016	Fee Per No. of Person Tickets/ Items	of Total sts/ Cost is	*School-age children may register as students. Everyone must be properly badged—NO exceptions.
Explore the Future: Looking Bac	Back, Thinking Forward	\$200		GCAGS/GCSSEPM Professional Early Bird (by August 7) (includes Icebreaker, all coffe breaks, Monday Happy Hour, and digital copy of the 2016 GCAGS Transactions)
Arist, Texas - Sept. 18-	w.gcags2016.com	\$300		GCAGS/GCSSEPM Professional (after August 7)
ē	Ste. 110, Marriottsville, MD 21104	\$35 1		Student (ID will be required on site)
Fax: 1–410–480–1892 Email: gcags@attendeeinteractive.com	eractive.com	\$35		Student Volunteer (nos: 10 will be required on site; registering in this category does NOT automatically make you a volunteer; you will be contacted by the Volunteers Chair; if selected as a volunteer and work scheduled hours, then you will receive a refund)
				Spouse/Guest: Name for badge (required)
First Name Last Name Firs	First Name for Badge	\$75		(NOTE: A guest can only register through a convention registrant and may not be a GCAGS or GCSSEPM membe or in any way employed in the industry.)
Company or Organization (exactly as wanted on name badge)	Position	\$95 1		Exhibit Booth Worker Icebreaker ONLY, Sun., Sept. 18
Mailing Address				GCAGS PUBLICATIONS
		\$65		Hard Copy of 2016 GCAGS Transactions (to be picked up at the GCAGS Bookstore in the Exhibit Hall
City State/Country	Zip/Postal Code	\$75		Hard Copy of 2016 GCAGS Transactions (to be shipped from GCAGS)
		\$25		Hard Copy of 2016 GCAGS Journal, v. 5 (to be picked up at the GCAGS Bookstore in the Exhibit Hall)
Phone Fax E-m	E-mail (Required)	\$35		Hard Copy of 2016 GCAGS Journal, v. 5 (to be shipped from GCAGS)
Doctor	NO.			SPECIAL EVENTS
Would you like to be a Judge? Oral Poster		\$100		Corpus Christi Geological Society Golf Outing, Sun., Sept. 18
Do not share my contact information with 2016 GCAGS exhibitors.	xhibitors.	\$50		All-Convention Luncheon, Mon., Sept. 19
By registering for the 2016 GCAGS/GCSSEPM Convention, I release and	and agree to indemnify the Gulf	\$50		Brewsters and Bluegrass - Great Food, Cold Beer, and Live Music, Mon., Sept. 19
Coast Association of Geological Societies (GCAGS), the Gulf Coast Section of SEPM (GCSSEPM), a the Cormis Christi Geological Society (CCGS), and the agents, officers, servants, and employees of	Section of SEPM (GCSSEPM), and ers. servants, and employees of	\$25		Women In Geosciences Breakfast, Tues., Sept. 20
each, from all liability for any loss, damage, or injury sustained by me while involved in any way with	while involved in any way with	\$50		GCSSEPM Luncheon, Tues., Sept. 20
the Convention except that each of the GCAGS, GCSSEPM, and CCGS is not released from such liability to the extent the eams is caused by its actual negligence or willful misconduct. I have carefully read	is not released from such liabil-	\$50		AAPG DPA Luncheon, Tues., Sept. 20
and understand this waiver and release. I further acknowledge that phot	photographs may be taken of me	\$50		Local History – 1919 The Storm Luncheon, Tues., Sept. 20
during the convention, and by my attendance I am giving permission to the GCAGS and CCGS to use	the GCAGS and CCGS to use	\$25		Exhibit Hall 'Walk & Talk' Box Lunch, Tues., Sept. 20
ley illay de				SPOUSE & GUEST ACTIVITIES
Owner/Partner/Officer Geophysicist	Engineer Refired	09\$		Guest Activity #1: Fulton Mansion Tour, Lunch, and Shopping, Mon., Sept. 19
nior Geologist		\$55*	n/a	Guest Activity #2: SEGWAY Tour of the Corpus Christi Bayfront, Tues., Sept. 20 *THIS IS FOR RESERVATION ONLY — PAYMENT ON SITE TO SEGWAY
	start in Corpus		0,	SHORT COURSES, TEACHER TRAINING, and IBA SEMINAR
Payment Information: Check One	Christi?	\$100		SC #1: Dep. Environ. of Ancient Clastic Systems, Sat., Sept. 17 (Prof. Registration)
Visa ☐ MasterCard ☐ American Express [	s ☐ Check ☐	\$60		SC #1: Dep. Environ. of Ancient Clastic Systems, Sat., Sept. 17 (Student Reg.)
**************************************		\$150		SC #2: Big Things from Small Matters, Sun., Sept. 18 (Professional Registration)
Card Account #		977		

Storm Signals in the Stratigraphic Record ..., Sat., Sept. 17 (Student Registration) FT #3: Storm Signals in the Stratigraphic Record ..., Sat., Sept. 17 (Prof. Registration) FT #4: Geomorphology and Geologic History ..., Sun., Sept. 18 (Student Registration) the badge. Professionals may not register as spouses or guests. All speakers and poster presenters must be registered. Changes to your registration such as adding a spouse or guest, events, short courses, or field riths, and changing contact information may be made by sending an email to sondra@geamworldevents.net. Changes to your registration involving a refund (deleting events, short courses, or field trips or cancelling outright) must be made in writing to sondra@geamworldevents.net. A fee of \$75 will be charged for all cancellations in full. NO REFUNDS will be issued after August 15, 2016. Geomorphology and Geologic History ..., Sun., Sept. 18 (Prof. Registration) FT #2: Ice Age Mammal Fossil Hunt, Sat., Sept. 17 (Prof. & Student Registration) FT #3: FT #4: \$125 \$125 \$125 \$85 \$85

FT #1: Rio Grande Delta and Great Sand Sheet, Fri.-Sat., Sept. 16-17 (Prof. Reg.

\$300

For Hotel Information, Please Visit Our Website at www.gcags2016.com/Accommodations/

ADA or Dietary Special Needs (please specify)

**Authorized Signature** 

\* Please make all checks payable to: GCAGS 2016. \* Purchase orders will not be accepted. GCAGS does not invoice for the convention. \* Checks must be drawn from a U.S. hank and in U.S. dollars ONLY. \* Credit cards are charged in U.S. dollars ONLY.

SC #3: Geopressure for Prospect Assessment, Sun., Sept. 18 (Student Registration)

SC #4: Basic Seismic Attributes, Sun., Sept. 18 (Professional Registration)

\$150

\$110

\$50 \$25

\$110

Total Amt. \$

CVV2 Credit Card Security Code

**Expiration Date** (Month/Year)

\$150

SC #4: Basic Seismic Attributes, Sun., Sept. 18 (Student Registration)

TT #1: Make Your Class Exciting ..., Sat., Sept. 17 (Teacher Registration) IBA #1: AAPG IBA Competition Training, Sun., Sept. 18 (Students Only)

Geopressure for Prospect Assessment, Sun., Sept. 18 (Prof. Registration)

All registration, social event, optional tour, short course, and field trip fees must be paid IN FULL at the time of begistration, all flax registrations not including credit card information or maid-in registrations not a signad check will be returned. If completing a printed form, use one form per professional or student registrant. If registering a spouse or guest, be certain to provide the individual's name for

Registration



Please print name as it appears on card

### **2016 GCAGS/GCSSEPM 66th Annual Convention & Exhibition**

#### **GCAGS Officers**

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Vice President (President-Elect)
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Carl Fiduk

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Rick Paige, Bob Critchlow, and Allen Lassiter

Oral Sessions Rick Paige

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Short Courses Stephen Thomas

Field Trips Robby Sterett

Sponsorship Lonnie Blake

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Publicity Sebastian Wiedmann

> Social Media Dianna Phu

Webmaster Jill Willis

Spouse/Guest Darlene Murry

Entertainment/Arrangements
Dorothy Jordan and Alexandra Dyckman

Registration
Susan Stone and Jeanie Timmerman

Audio Visual
Dennis Moore and Fermin Munoz







#### CALL FOR PAPERS

## 67th GCAGS Convention November 1–3, 2017 San Antonio, Texas





#### Session Themes

- The Gulf of Mexico Systems
- Conventional Carbonates & Clastics
- Tight Gas Plays
- Resource Plays
- Emerging Exploration
- Advances in Geophysical Technologies
- Enhanced and Secondary Recovery
- Reservoir Prediction and Quality
- Water Resources
- Other Sessions Developed from Submissions

#### Field Trips & Short Courses

Have Ideas? Need Information? Contact Tom Fett, Field Trip Chairman, at <a href="mailto:info@gcaqs2017.org">info@gcaqs2017.org</a>.

#### Join the 2017 GCAGS Convention with an Oral or Poster presentation!

Please submit a 250-word abstract or summary of your planned paper or poster before **January 1, 2017**, to our Technical Program Chair, **Lee Billingsley**, at

<u>technicalprogram@gcags2017.org</u>. Authors of accepted papers and posters will be notified
<u>February 1, 2017</u>. Final full papers or extended abstracts, with or without figures, for publication in the GCAGS Transactions will be due by <u>March 1, 2017</u>, to the GCAGS Transactions Editor.
Full information, instructions, size limitations, and helpful hints for abstracts, summaries, extended abstracts, and full papers can be found on

www.gcags2017.org

Thank you for your participation!

### If you'd like to publish in the GCAGS Journal The Peer-Reviewed Journal of Gulf Coast Geoscience

Submit an extended abstract of at least 600 words, including 1–2 representative figures, to the *GCAGS Journal* Editor, **Barry Katz** at <u>barrykatz@chevron.com</u> by <u>December 15, 2016</u>. Once accepted for publication, a full manuscript should be submitted before <u>March 1, 2017</u>. Full instructions for manuscript submissions will be posted online at www.gcags2017.org. Convention presentations of *Journal* submissions are encouraged, but not required.

Most Events will occur at the

Spectacular MARRIOTT RIVERCENTER HOTEL





Gulf Coast Association of Geological Societies c/o UT BEG Box X, University Station Austin, TX 78713–8924





September 18–20, 2016
Corpus Christi, Texas
www.gcags2016.com

