

Volume 65 | Issue 7

March 2023

# ***BULLETIN***

HOUSTON GEOLOGICAL SOCIETY



## ***In this issue:***

### **MEET THE CANDIDATES**

HGS Executive Board Election  
begins April 10th

### **GEOINTERIORS**

March Mineral & Fossil Sale  
benefitting HGS

### **ANNUAL VOLUNTEER DAY AT YMCA CAMP CULLEN**

March 25, 2023



## Board of Directors 2022-2023

President (P)	Walter Light, Jr.	Thunder Exploration	713-823-8288	wthunderx@aol.com
President-Elect (PE)	Paul Britt	Texplore Inc.	832-372-5725	pbritt@texplore.com
Vice President (VP)	Scott Sechrist	Acoustic Geoscience Consulting	281-638-1213	penntexas53@yahoo.com
Secretary (S)	Amanda Johnston	Hess	832-331-5876	johnstonama@gmail.com
Treasurer (T)	Bruce Blake	Tri-Star Petroleum	713-459-7508	bruce.blake@tri-stargroup.com
Treasurer-Elect (TE)	Fang Lin	Chevron	281-253-0430	fanglinvt@yahoo.com
Editor (E)	Ken Thies	Toxodon Exploration	713-598-0526	kenthies.kt@gmail.com
Editor-Elect (EE)	Caroline Wachtman	Oxy	281-825-9627	carolinewachtman@gmail.com
Director 21-23 (D1)	Lanette Marcha	Chevron	832-808-0263	lmarcha@hotmail.com
Director 22-24 (D2)	Bill DeMis	Rochelle Court, LLC	713-402-8627	billdemis@aol.com
Director 22-24 (D3)	Troy Meinen	ERM - Southwest Inc.	713-962-5495	troymeinen@gmail.com
Director 21-23 (D4)	Dianna Phu	INTECSEA	281-236-3131	dianna@exabyte.com

Committee	Chairperson	Phone	Email	Board Rep.
AAPG House of Delegates	Kenneth Mohn	713-485-9696	kwmohn123@gmail.com	P
Academic Liaison	Paul Mann	713-743-3646	pmann@uh.edu	D2
Advertising	Bryan Guzman	832-503-4645	bryanguzman85@gmail.com	E
Africa Conference	Caroline Wachtman	281-825-9627	carolinewachtman@gmail.com	PE
Applied Geoscience Conference	Jason Simmons	832-573-2687	jason.simmons@bhge.com	P
Geomechanics	Umesh Prasad	713-879-2529	umesh.prasad@bhge.com	P
Arrangements	Scott Sechrist	281-638-1213	penntexas53@yahoo.com	VP
Awards	Mike Nieto	281-783-6130	michael.nieto@pofg.com	P
Ballot / Elections	John Jordan	713-594-5648	john.jordan.062255@gmail.com	S
Calvert Fund	Jeff Lund	713-253-7481	jeff.lund@corridoroilandgas.com	PE
Continuing Education	Thom Tucker	281-413-0833	century@flash.net	D4
	Cheryl Desforges	713-816-9202	cheryldesforges@hotmail.com	D4
Communications Committee	Dianna Phu	281-236-3131	hgs.socialmedia@gmail.com	PE
	Rosemary Laidacker	713-805-9672	rmlgeo@gmail.com	PE
Earth Science Week	Lynn Travis		lynnstravis@gmail.com	D2
Educational Outreach	VACANT			D2
Employment / Expo Committee	Amanda Johnston	832-331-5876	johnstonama@gmail.com	D3
Environmental & Eng, Geology	Matthew Cowan	713-777-0534	mrcowan1@hal-pc.org	VP
	Troy Meinen	713-962-5495	troy.meinen@erm.com	VP
Exhibits	Marcus Zinecker	469-693-1285	marcuspzinecker@gmail.com	D3
Field Trips	Constantin Platon	832-686-3231	constantin@oakgeosciences.com	D4
Finance	Bruce Blake	713-459-7508	bruce.blake@tri-stargroup.com	T
	Walter Light, Jr.	713-823-8288	wthunderx@aol.com	T
	Patty Walker	832-444-0900	pattywalker1@icloud.com	T
	Paul Britt	832-372-5725	pbritt@texplore.com	T
	Mike Erpenbeck	832-418-0221	mike.erpenbeck@hotmail.com	T
	Fang Lin	281-253-0430	fanglin@chevron.com	T
Foundation Fund	Joe Lynch	346-333-9872	joelynchtx@gmail.com	PE
General Meetings	Scott Sechrist	281-638-1213	penntexas53@yahoo.com	VP
Golf Tournament	Jimmy Bagley	832-564-6028	jbagley@continentalabs.com	D1
	Kenny Baucum	713-882-6010	kenneth.baucum@stratagraph.com	D1
Government Affairs	Henry Wise	281-242-7190	hmwise@yahoo.com	D4
				D4
Guest Night	Dave Orchard		dmorchard_geology@outlook.com	D1
HGS New Publications	William Rizer	503-852-3062	rizerwd@gmail.com	EE
International Explorationists	Steve Getz	713-304-8503	sgetz@outlook.com	VP
Latin American Conference	Ceri Davies	281-777-0683	ceri.davies@cgg.com	P
Membership Growth	Gustavo Carpio	832-706-7619	gecarpio@gmail.com	S
Membership, New	Sharma Dronamraju	713-503-5011	parsonal.sharma@gmail.com	S
Museum of Natural Science	Inda Immega	713-661-3494	immega@swbell.net	D2
	Janet Combes	281-463-1564	jmcombes@msn.com	D2
NeoGeos	Bryan Bottoms	405-623-4533	geobottoms@gmail.com	D3
Nominations	Mike Erpenbeck	832-418-0221	mike.erpenbeck@hotmail.com	P
North American Explorationists	Mark Hamzat	832-540-3216	mark@bdsrvs.com	VP
	John Bishop	713-819-0891	johnwbishop@outlook.com	VP
Office Management	Walter Light, Jr.	713-823-8288	wthunderx@aol.com	P
Scholarship Night	Fang Lin	281-253-0430	fanglin@chevron.com	P
Outcrop Family Campout	VACANT			D1
Science & Engineering Fair	Dorene West	281-413-7172	dbwesthou@earthlink.net	D2
Shrimp Peel & Crawfish Boil	Michael Salazar	713-410-4391	msalazar@coregeologic.com	D1
Clay Shoot	Howard Wood	832-277-0141	hw@coregeologic.com	D1
Social Media	Dianna Phu	281-236-3131	hgs.socialmedia@gmail.com	D4
	Lauren Robinson	317-402-6482	lseidman5.robinson@gmail.com	D4
Tennis Tournament	Constantin Platon	832-686-3231	constantin@oakgeosciences.com	D1
Vendor's Corner	HGS Office	713-463-9476	office@hgs.org	TE
Video Committee	Linda Sternbach	832-567-7337	linda.sternbach@gmail.com	D3
Web Management	VACANT			D4
HGS Executive Office Director	Andrea Peoples	713-463-9476	andrea@hgs.org	
HGS Web Content Manager	Alyssa Cushing	713-463-9476	acushing@hgs.org	

# *Table of Contents*

*ON THE COVER: Peyto Lake in Banff National Park, Canada. Lake color is due to glacial flour from the melt waters of Peyto Glacier to the southwest. Rocks in the background range from Pre-Cambrian to Jurassic and include the Lower Cambrian Burgess Shale containing some of the best preserved fossils of the "Lower Cambrian Explosion" 541-530 Million years BP. Photo provided by Ken Thies.*

## **6 LETTER FROM THE PRESIDENT**

Walter Light, Jr.

## **17 HGS VIRTUAL SHORT COURSE**

"Geomechanics Aspects in Carbon Capture & Storage"

## **8 LETTER FROM THE EDITOR**

Ken Thies

## **18 HGS VOLUNTEER DAY**

at YMCA Camp Cullen, March 25, 2023

## **9 GEOINTERIORS MINERAL & FOSSIL SALE**

March 2023

## **22 MEET THE CANDIDATES FOR THE 2023-2024 BOARD ELECTION**

Voting begins April 10, 2023

## **10 GEOGULF 2023**

Registration open now!

## **27 HGS SCHOLARSHIP NIGHT RECAP**

Linda Sternbach

## **13 HGS INTERNATIONAL MEETING**

"Past, Present, & Future Northern South America Petroleum Plays" by Steve Getz & Tom Moon

## **28 MAY HGS SHORT COURSE**

May 24, 2023

## **16 HGS E&E MEETING**

"Ethics & Geoscience Practice in Texas 2023" by Mark Varhaug

## **29 SCIENCE & ENGINEERING FAIR RECAP**

Dorene West, SEFH HGS Chair

# Volunteer Opportunities

## Interested in Volunteering?

The HGS is always looking for energetic members to become volunteers for the society! As the largest local geological society in the country, we depend on the support of our members to help us organize and execute our many activities. Committees such as Educational Outreach, Continuing Education, and our annual social event committees are always looking for extra helping hands. Contact the HGS Office at [office@hgs.org](mailto:office@hgs.org) to start volunteering today!

### I.T. Specialist Needed

Do you specialize in I.T.? Would you be willing to donate your services to the Houston Geological Society? HGS is in need of an I.T. specialist who has experience with website building/coding and other computer technologies. If you or someone you know would be interested, please contact the HGS Office at [office@hgs.org](mailto:office@hgs.org).

### Dinner Meeting Liaison

HGS is in search of volunteers to assist with our monthly dinner meetings. Volunteer responsibilities would include pickup/return of meeting materials to/from the HGS office, and managing the registration table at the meeting. Please contact the HGS Office at [office@hgs.org](mailto:office@hgs.org) if you are interested.

### Exhibits Chairman

HGS is proud to participate in a number of exhibits each year such as NAPE, GCAGS, etc. We are in search of volunteers to help us at these events! Responsibilities include transportation of the HGS booth to and from conferences, manning the booth at these events, and signing up new or returning memberships. If you or someone you know is interested in lending a helping hand, please contact the HGS Office at [office@hgs.org](mailto:office@hgs.org).

### Educational Outreach Committee Chairman

The Educational Outreach Committee provides geoscience learning resources to students, educators, and the general public of southeast

Texas. Outreach activities include geoscientist visits to classrooms, scout troops, and other public assemblages, with presentations and hands-on activities about geology and careers in geoscience.

Interested? Please contact the HGS Office at [office@hgs.org](mailto:office@hgs.org) for more information.

### Membership Committee

Houston Geological Society is 100 this year! Yes, HGS started in 1923. Just imagine how the organization thrived and has grown all these years. Purely by the volunteering efforts of Geoscientists. The Membership Committee is responsible for promotion of memberships and contribute to the growth of HGS! The Membership Committee needs two (2) student members to help process membership applications. Please contact: Sharma Dronamraju; Chair, Memberships at [Sharma@akdpsi.com](mailto:Sharma@akdpsi.com). The information on HGS membership criteria is [HERE](#).



Join us for the HGS Annual



# SHRIMP PEEL & CRAWFISH BOIL

Friday, April 21, 2023  
12:00pm - 6:00pm

BEAR CREEK PIONEERS PARK, PAVILION 6  
3535 War Memorial St. Houston, TX 77084



FEATURING BOILED SHRIMP &  
CAJUN CRAWFISH FROM 3-TIME  
CRAWFISH BOIL CHAMPIONS  
"KAJUN THUNDA"

Join us in celebrating the 100th  
anniversary of HGS! Sponsorship  
opportunities available. Contact the HGS  
Office at [office@hgs.org](mailto:office@hgs.org) to learn more.

HGS MEMBERS \$40 NON-MEMBERS \$50 WALK UPS \$55  
**REGISTER ONLINE AT [HGS.ORG](https://www.hgs.org)**



Greetings fellow geoscientists and HGS Members! We continue to build membership, improve attendance/participation in events, and we are making good progress toward financial sustainability.

### Multiple in-person events

A quick lookback at attendance of the in-person February events.

- February 8 E&E Meeting 29 attended
- February 9 Neogeos Happy Hour and Geotrivia 29 attended
- February 11 Science & Engineering Fair of Houston 7 HGS members served as Judges
- February 13 HGS Scholarship Night Dinner Meeting. 102 registered. **Over \$50,000 raised for this event!**

### Membership

In-person events that span a range of subjects continue to contribute to membership growth.

Our paid membership continues to grow to a total of 1687 for January, an increase of 47 over the previous month.

Please help us continue to boost our membership by encouraging your service company contacts to become members. Logical service companies include mudloggers, wireline companies, directional companies and rock labs.

Even if folks are not geologists, they can become HGS Associate Members.

**Furthering our goals for the year, here's what coming up in the near term.**

**March 6 - Our International Dinner Meeting** promises to be an exciting and informative meeting.

Steve Getz will give us an overview of the exploration plays of northern South America. EXXON, Hess, Nexus, Apache, Total are some of the key players in this part of the world. The marine channel and fan play will likely extend south from Suriname along the east coast of South America. If you have not attended one of the Society's in-person events in the last couple of years, please consider joining us for this worthwhile dinner meeting. For registration and details see the HGS Bulletin or HGS Weekly Announcements.

**March 8 - Environmental & Engineering Group - Ethics Presentation 5:30 to 9:00**

Dinner meeting at the Craft Republic. For registration and details see the HGS Bulletin or HGS Weekly Announcements.

**March 10 - Our Continuing Education Short Course - A Virtual Event. 8:00am to 12:00pm**

"Geomechanical Aspects in Carbon Capture and Storage"

For registration and details see the HGS Bulletin or HGS Weekly Announcements.

**March 25 - HGS Volunteer Day at YMCA Camp Cullen**

For registration and details see the HGS Bulletin or HGS Weekly Announcements.

**Additional 2023 events include:**

**HGS Shrimp Peel and Crawfish Boil. Friday April 21. 12pm to 6pm. Bear Creek Pioneer's Park.**

This is one of our annual premier events. Reserve your tickets and considering sponsoring this fun event.

**April 23 to 25 - GeoGulf 2023 (formerly GCAGS).** Linda Sternbach and her team have planned a fantastic technical program with 100 talks in keeping with the HGS 100th year anniversary.

Please register and attend this multi-day event.

**May 24 - Full Day Core Workshop. Stay tuned for more details.**

**June 1-8 - Grand Canyon Raft Trip. Accepting wait list reservations.**

### Financial Sustainability

We continue to make progress on the goal of financial sustainability. Critical to achieving this goal is having a thorough, in-advance understanding of all the costs associated with running individual events. Over the last six months we have made great strides in this understanding.

***Achievement of our financial sustainability goal requires membership support and member participation in the society-sponsored events as well as active solicitation of sponsors. Please encourage your service company contacts to become an HGS sponsor.***

**The Board of HGS officers and I thank you for your support of the Houston Geological Society with your membership and your participation in the scheduled events. We also thank all the committee chairs and volunteers who help us carry out our mission. We encourage you come out, join us, and get reconnected in your local geological community.**

**Keep up the great work!**

**Walter S. Light, Jr. - President**



# Advertise with HGS

The Houston Geological Society has many advertising opportunities to help you promote your business. The money raised through advertising helps the HGS to be able to support continuing education, networking, outreach to students, student scholarships, and young professional activities. Check out some of our advertising opportunities below!



## Vendor Corner

Promote your business with a booth at an in-person luncheon or dinner meeting. HGS will also post your logo, website/social link(s) and a brief company summary on the HGS website below the technical meeting's announcement and abstract.



## HGS Bulletin

Published 10 months out of the year and available digitally on the HGS website, the HGS Bulletin is an outstanding technical journal sent electronically to all current members and to subscribing libraries around the world.



## Virtual HGS Event Sponsorship

Promote your business at a virtual meeting. Along with the opportunity to reach a global audience, HGS will promote your business on the event page, on our social media, and at the technical talk.



## GeoJobs

The HGS GeoJobs section provides a variety of employment information to interested HGS members and the geological and geophysical community at large. If your business has an employment opportunity, let us help you fill the position!



## HGS Weekly Newsletter

The HGS Weekly Newsletter is published digitally every week, and reaches a global community of 8,000+ people. HGS will promote your business with an ad of your design or your logo and a link to your website or social media.

*To learn more about advertising rates and how you can promote your business with us, visit our website or contact the HGS Office at 713-463-9476 or [office@hgs.org](mailto:office@hgs.org).*







Membership in the HGS has been shrinking for the past number of years. From well over 3,300 back in 2017 (2800+ active and emeritus), we are down to a less than half that total number and below 1050 active and emeritus. Student membership has fallen from 400+ to less than 200. These numbers do not portend good things for our organization and the science as a whole. As we approach our 100th year as a society, I think it is important to ask ourselves why? Certainly, Covid is to blame for some of this drop in the last several years and certainly there are many who have left the profession due to layoffs, retirements and even deaths. But are there other critical reasons?

Membership cost has not risen in line with other expenses and many members are subsidized by employers. We have brought back in-person meetings and have kept the price as low as we can. We work to bring speakers that we believe will appeal to a broad range of our membership. Attendance is still very low by historical standards. Our course offerings, field trips and social events are priced as best the society can afford in the current market.

Those of us who are still here in the long term all have reasons why we joined and why we stayed. AAPG and HGS membership were important for a number of reasons. Making contacts, training classes, keeping up on the latest developments in the industry, being a part of something in our profession, and service to others. Has that changed? If not, what is it? Are social media contacts considered a good substitute for face to face contacts?

When I became a member back in 1978, I quickly learned that the more contacts I had, the more classes, meetings and field trips I attended, the more I learned and therefore the more valuable I was to my employer.

Take a look at the President's letter this month and see some of the recent events that have happened and what is coming up in the near future. There are many opportunities to make new contacts, learn and serve.

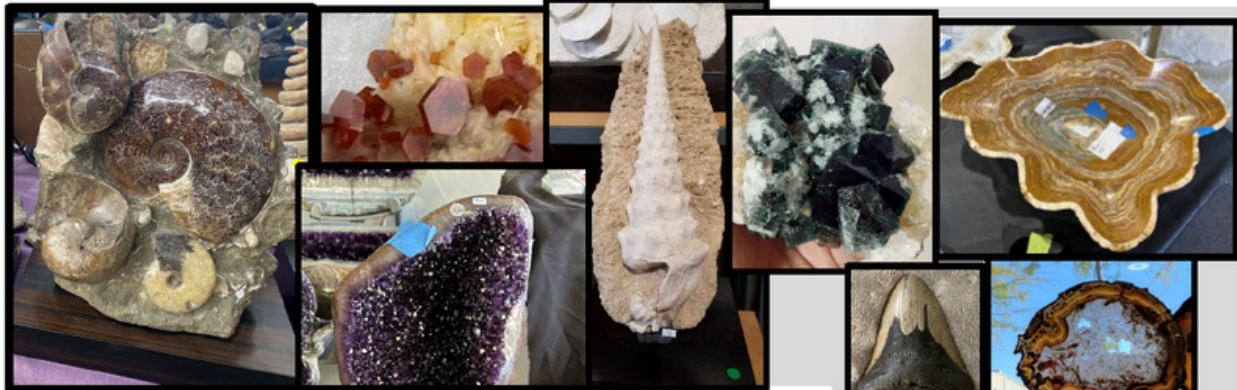
We are always looking for new ideas and opportunities to grow as a society, so let us know your thoughts.



*Photo provided by Ken Thies. Taken on a field trip to Africa in a private safari park.*



# March Houston Mineral and Fossil Sale



## Minerals, Fossils, Meteorites, Petrified Wood, Onyx and Bowls

When: March 4<sup>th</sup> (pre-order pickup only, 9:00 AM -5:00 PM)  
March 5<sup>th</sup> & 11<sup>th</sup> (9 AM-4PM), March 12<sup>th</sup> (9 AM-2 PM)

Where: 24300 Stuebner Airline Rd, Tomball (not Spring)(Private Warehouse)  
No Credit Cards – Check or Cash

Bring: packing material (towels, blankets) checkbook, friends!

You will write two checks – one to GeoInteriors and one for an additional 10% to either the **Houston Geophysical Society** or the **Geological Society of Houston**, ECHOS, Alzheimer's Association or Trinity Ablaze (charity donation). Prices are 50-70% below retail. We'll have over \$350k in cool stuff. Come support the societies!



Email [Galent888@gmail.com](mailto:Galent888@gmail.com) for pre-order options and a list of what's available.



[GeoInteriors.com](http://GeoInteriors.com) offers a selection of the finest minerals for home or office decoration. We travel to the far corners of the earth and buy directly from mine owners to find the most colorful and decorative pieces at the best prices. Our specialty is amethyst – large cathedrals and crusts. Our minerals make excellent room accessories, entryway pieces, office ornaments and unique gifts.

**EARLY REGISTRATION ENDS MARCH 17**



## AAPG Gulf Coast Section Conference Houston, Texas Register NOW

<https://Pheedloop.com/Geogulf23/site/home/>

Info at [www.geogulf2023.org](http://www.geogulf2023.org)



Welcome to an Immersive  
Gulf Coast Geoscience  
Conference!  
Theme: "United We Explore  
the Gulf Coast and  
Beyond"  
Charles A. Sternbach,  
General Chair

- 100 Technical Talks on the Gulf of Mexico
- Three Concurrent Sessions, two full days
- 50 Professional/Student Posters, Exhibits
- Three short courses, four field trips
- Exhibitions, Book Signings, Icebreaker
- Receptions, Networking, Social Events
- HGS Host Society 100<sup>th</sup> Anniversary
- Sponsorship Opportunities

*Don't Miss the  
All-Convention Luncheon  
Monday, April 24 at the Norris Center*

Harrison "Jack" Schmitt, Apollo 17  
moonwalker, passes the rock hammer to  
Jessica Watkins, NASA Space Station  
Astronaut, In person.



## Education Opportunities with Globally Renowned Experts

### Short Courses!

#### Salt Tectonics of the Gulf of Mexico

Instructor: Mark Rowan, Two Day Class  
Saturday and Sunday, April 22-23, 2023

#### Gulf of Mexico Sedimentary Basin: Depositional Evolution and Petroleum Applications

Instructor: Dr. John W. Snedden  
All Day Saturday, April 22, 2023

#### Structural, Tectonic, Paleogeographic Evolution of the GOM, Caribbean, and North S. America

Instructor: Dr. Jim Pindell, Tectonic Analysis, Rice U.  
All day Sunday, April 23, 2023

Convention Registration is Required to Sign Up  
for Short Courses- Signup on the Pheedloop site.

### Field Trips! Signup at [www.geogulf23.org](http://www.geogulf23.org)

#### NASA Space Center Houston with Apollo 17

Moonwalker Harrison "Jack" Schmitt and  
James F. Reilly, Jr NASA retired astronaut  
All Day: Saturday, April 22, 2023

#### Historic Spindletop Museum in Beaumont, TX:

Guided Tour of Museum and Geology  
All Day: Wednesday, April 26, 2023  
Field Trip Leader: Rosemary Laidacker

#### Texas Coastal Processes Brazos River Delta to Galveston Island

All Day Wednesday, April 26, 2023  
Field Trip Leader: Erik Scott, Rice

#### Texas Hill Country: Greatest Hits of TX Early Paleozoic Rocks and Structure

Three Days: Thursday, April 27 to Sunday, April 30.  
Field Trip Leaders: Andy Roark and Sean Romito

## Technical Program (in-person)

### Monday Morning, April 24

#### Opening Keynote:

##### Conventional GOM Giant Oil and Gas Fields, Lessons to Find More

Charles Sternbach and Dick Bishop

#### Advantaged Basins: Economic and Future Driven

Session Chair: Robert Fryklund, S&P Global

- Fryklund, Bob, S&P Global: Advantaged Basins:  
Robust Oil and Gas Fields and CCUS Management
- Panel Presentations with Industry Experts in Oil and  
Gas and CCUS

#### GOM Tectonics I: Regional Setting of the Gulf of Mexico and Guyana South America

Session Chairs: James Pindell et al

- Horn, Brian: Exploration Perspective of the GoM
- Ott, Bryan: Guyana Basin --Erich, Robert: Timing of  
Igneous Activity During Triassic-Jurassic Rifting
- Afifi, Ahmed: Mesozoic Rafting, Sureste Basin, GoM

#### Geoscience Advances in CCUS, Energy Storage, Wind Energy

Session chair: Allen Bertagne

- Rogers, Harold: Salt Cavern Storage GOM --
- Bertagne, Allen: Subsurface CO2 Storage N. GOM
- Holmes, Gordon: Time Lapse Seismic for CCS  
Reservoir Monitoring
- Bain, Graham: CO2 Storage Potential in Louisiana
- Hill, Andy W: Offshore Wind: Geosciences Role

#### Jurassic Smackover Reservoirs, Nophlet Sands

Session Chair: Ted Godo

- The Smackover- Nophlet Petroleum System:  
Comparisons of US Gulf Coast and Deepwater with  
Mexico's Sureste Basin
- Walkinshaw, Steven: Low-Resistivity Oil, Gas and Carbon  
Dioxide In The MAFLA Region GOM
- Erlich, Robert: Nophlet Formation and the Louann Salt  
in Southwest Texas: Regional Implications for the GoM

#### GOM Tectonics 2: Dynamic Rift and Salt Deposition Models GOM and Mexico

Session Chairs: James Pindell et al

- Pindell, James; Heyn, Teuni: Reconstructing Syn-Rift,  
Sag, and Salt Paleogeography, and the Role of Syn-Rift  
Dynamic Elevation and Dissipation, Gulf of Mexico--
- How Deep Was the Pre-Salt Depositional Depression in  
the Gulf of Mexico, and What Are the Implications
- Pindell, James: Late Cretaceous--Cenozoic Evolution of  
the North America--Caribbean Plate Boundary

#### Geoscientists Will Be Exploring the Moon and Mars in the Next Decade

Session Chairs: Bill Ambrose et al

- Ambrose, Bill: Water-Ice Resources on the Moon
- Reilly, Jr, James F.; The Martian Field Geologist
- Cook, Doug: The Search for Life on Mars
- Wyatt, Doug, NASA, Exploring for Lunar Volatiles

## NETWORKING SOCIAL EVENT:

### "United We Celebrate!"

Moran Hotel, Mon. 6:00-8:00 PM

Fireside Bar, outside patio, Texas stars!  
Co-Hosted with SIPES Houston Chapter.  
Meet Successful Entrepreneurs,  
Independents, Young Professionals





## Monday Afternoon April 24

### Eagle Ford: Texas' Biggest Shale Asset- Mature and Moving Forward

Session Chair: Marianne Rauch

- DeMits, Bill: How the Austin Chalk Play of Grimes County, Texas Initiated the Eagle Ford Shale Play
- Donovan, Art: Unraveling "Eaglebine" Secrets
- Donohue, Catherine: Eagle Ford: Additional Oil Opportunity in East Texas
- Savvaiddis, Alexandros: Seismicity Site Characterization for Geo-Energy Related Projects

### Late Cretaceous-Paleogene Hinterland Tectonics and Clastic Deposition Trends

Session Chairs: James Pindell, et al

- Heyn, Teunis: Dynamic Topographic Events o GoM
- Cossey, Stephen: The Paleogene Water-level Drawdown Hypothesis, Gulf Of Mexico
- Gray, Gary: Geodynamics Mexican Orogen And Foreland Basin System Nuevo Leon Mexico

### The Continuing Austin Chalk Resurgence

Session Chair: Tom Bowman

- Von Bassenheim, Daniela: Webb County "Chalkstars": Activity Trends
- Bowman, Tom: The Austin Chalk Resurgence
- Mire, Kurt: Austin Chalk Economics: Understanding Decline Curves
- Griffith, Christine: Regional Sequence Stratigraphy, Biostratigraphy Austin Chalk In South, Central Texas

### The Haynesville Shale: LNG, Natural Gas Boomtime

Session Chair: Bill DeMits

- Williams, Matt: Tellurian Inc.: Haynesville Shale Assets
- Kimiagar, Sean: The Haynesville: An Activity Update
- Hammes, Ursula: Comparison of Texas Shale Plays – Eagle Ford/Tuscaloosa, Haynesville/Bossier
- DeMits, Bill: The Coming Commodity Super Cycle

### Exploring the Mexico Sureste Basin and Beyond

Session Chairs: James Pindell et al.

- Heyn, Teunis: Tectonic Significance of the Middle Miocene Unconformity- Campeche Salt Gulf of Mexico
- Snedden, John: Zama Field, Mexico Deepwater: Upper Miocene Slope to Basin Paleo-Transport
- Lawton, Timothy: Sandstone Petrography and U-Pb Zircon Provenance, Sureste Basin, Mexico
- Steffenson, Carl: Recent Drilling History and Play Types, Campeche Area, Southern Gulf of Mexico
- Shann, Mark: A Deliberate Search for Disruptive Oil & Gas Discoveries, Clues Along the Way

## 72<sup>nd</sup> Annual GCAGS Celebrating Past, Present, and Future Explorers!



### Onshore Gulf Coast Exploration Analogs, Lessons

Session Chairs: Steve Getz and Bob Wiener

- Getz, Steven: Petroleum Plays Associated with Shelf Margin Submarine Slides-Niger Delta Analog
- Wiener, Bob: Petroleum Salt-Related Shelf Margin Slides: Upper Texas and S. Louisiana
- Hardy, Rogers: The Quest from the Marsh Out onto the Shelf and Beyond: Offshore Exploration Journey
- Rava, Barry: Subtle-Fault Prospects, Onshore Gulf Coast
- Hughes, Simon: Real Time XRF Chemostratigraphy

## Tuesday Morning April 25

### Petroleum Systems I: Discovery Thinking

Session Chairs: Andrew Pepper

- Andy Pepper, Fresh Ideas for Exploration, Development, and Production
- Pindell, James: Rotation Poles And Spreading Isochrons For Gulf Of Mexico Opening
- Bugti, Nawaz Md: Gulf of Mexico Oxfordian Source Rock UEP Basin Center Oceanic Crust Age
- Laigle, Jean-Marie: Interactive Prospect Volume Assessment in the Gulf Coast

### Texas Rocks and Reservoirs

Session Chair: Kelly Hattori

- Schneider, Robert: Channel Delineation in Lower Wilcox, SE Texas: Integrated Seismic and Well Logs
- Hattori, Kelly: Reservoir Quality And Production Trends In The Carbonate Pettet Formation, Rusk County, E. T
- Loucks, Robert: U. Cretaceous Del Rio-Buda, S. Texas
- Flaig, Peter: Outcrops of the Upper Simsboro to Lower Calvert Bluff Formations, Wilcox Group
- Cox, Katrina: Petrophysical Low Resistivity Sands

### Petroleum Systems 2: Discovery Thinking

Session Chair: Andrew Pepper

- Pascoe, Rob: Middle And Lower Miocene Middle Slope Systems Of The Outer West Louisiana Shelf: An Unexplored Play Between Historical Paradigms
- Shann, Mark: Key Differences in Petroleum Systems Across the Greater GOM, Potential for Two New Unexplored Oil Provinces
- Hasan, Md Nahidul: Estimates of Thermal Stress and Expelled Petroleum from Mesozoic-Cenozoic Potential Source Rocks, Southern Gulf of Mexico
- Cendano, Andres: Petroleum Systems Of The Carbonate Platform Areas Of The Southern GOM: South Florida, The Greater Peten Basin Of Guatemala-Belize, And The Yucatán And Chiapas Areas Of Mexico

### Deepwater Business Panel: Re-Shaping Energy Strategies, the Next 50 Years

Session Chair: Mark Leonard

- Sears, Richard: The Economics of Deepwater: Myths and Realities Through the Decades;
- Chisholm, Tim: Deepwater Independent's View-
- Yeilding, Cindy: 100 More Years of Deepwater

### Deepwater Symposium 1: Understanding Deepwater Sediments and Patterns

Session Chairs, Jon Rotzein, et al

- Downard, Ali: Quantitative Evaluation of Deepwater Fan Hierarchy: Insights from Full Physics-Based Forward Stratigraphic Models
- Fedele, Juan: Gravity Flow Bedforms and Associated Sedimentary Structures
- Gan, Yuqian: Shelf to Slope to Basin Floor Clinoform Outcrop Exposed at La Jardinera, Jurassic Neuquén Basin, Argentina
- Hester, Lara: Quantitative Models to Predict Fluid Properties (GOR) Mud Gas Compositional Data

### Jurassic, Cretaceous Rocks and Reservoirs in TX, AL

Session Chairs: Bob Loucks and Robert Reed

- Reed, Robert: Textures, Mineralogy, and Reservoir Properties of an Altered Mafic Tuff Core Upper Cretaceous of Central Texas
- Loucks, Robert: Volcanic Origin of Grains in the Upper Cretaceous Austin Chalk
- Cherepon, Alan: Recent Rock Discoveries at Pilot Knob, Austin,
- Maende, Albert: Identification Of Producing And Bypassed Pay Oil Zones In The Smackover Fm

### Innovation in GOM Salt Tectonics

Session Chairs: David Lankford-Bravo et al

- Rowan, Mark: The Triggers And Evolution of Mesozoic Salt-Related Deformation In The GoM
- Bloxton, Julie: Geochemical Data Calibrating XRF in the Louann Salt Variations in the Puma Diapir
- Cornelius, Sharon: Comparison of the Salt in Offshore Brazil, with the GoM Louann Salt

### Entrepreneurship: Transitions and Strategies

Session Chair: Bill Fairhurst

- Light, Walter: From Inception to Self-Sustaining E&P Company in Forty-Two Years (HGS Presidential Address)
- Rava, Barry: The Business Cycle And Prospecting
- Fairhurst, Bill: Entrepreneurship: Transitions & Strategies
- Pommer, Laura: Disrupting The Oil And Gas Investment Paradigm
- Burdick, Don: Private Equity Firm to a Direct Private Equity: The Olifant Energy II Story

## Tuesday Afternoon April 25

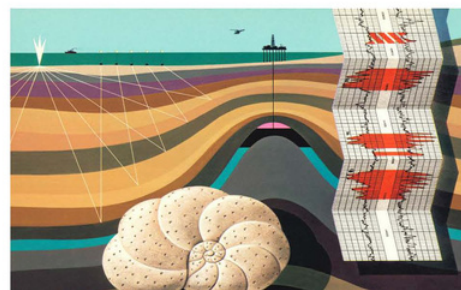
### Deepwater Symposium 2: Geo-Seismic Technology and Scientific Breakthroughs

Session Chairs, Jon Rotzein, et al

- Kirkland, Benjamin: Geochemists need Supervision: Expanding the Use of Supervised Machine Learning
- Sweet, Michael: How Fast Can a Submarine Canyon Form? Evolution of Mississippi Canyon
- Woodruff, Diane: Gulf of Mexico's Horn Mountain Field: Exploration Success Below a Mature Field
- Mullin, Peter: An Emerging Cretaceous Play in the Eastern Gulf of Mexico Shelf
- Joshi, Nikhil: Gulf Coast CO2 Storage - a Techno-Commercial Perspective
- Verna, Sumit: Seismic Attributes for Deep Water Depositional Systems

### Technology Tuesday Networking Luncheons

- Jeff Nealon, Chevron Geophysical Manager "Refocusing On The Gulf: How New Seismic Methods Drive New Investments."
- Daniel Minisini, Minigeology YouTube Videographer, "Wise Words from Celebrated Geologists. Should We Listen to Them?" Hosted by GCSSEPM







Continuing  
Education  
Opportunities  
April 22-April 30

## Short Courses at the Norris City Center

Short Courses Registration is on Pheedloop, combined with Conference Registration  
<https://pheedloop.com/Geogulf23/site/home/>

### SC-1: Salt Tectonics with Dr. Mark Rowan

Saturday and Sunday April 22-23- all day

Student discount prices. Read the agenda at [www.geogulf2023.org](http://www.geogulf2023.org), short courses  
\$425 Professional, student \$250 discount price

### SC-2: Gulf of Mexico Deposition with Dr John Snedden

Saturday April 22, all day \$195 Professional, student \$99 discount price

### SC-3: GOM, Mexico, S. America Tectonics - Dr. Jim Pindell

Sunday April 23 all day. \$195 Professional, student \$99 discount price

## GeoGulf/ GCAGS Field Trips

Field Trip Registration is at [www.geogulf2023.org](http://www.geogulf2023.org) under Field Trips Tab

### FT-1: NASA Space Center Tour with Jack Schmitt (Apollo 17) and James Reilly (ISS) in-person.

Saturday April 22- all day. \$199

Tour Space Center, Mission Control, Rocket Park, Shuttle, VIP Tour

### FT-2: Spindletop Museum Tour

Wednesday, April 26 - all day. \$125

See the historic Spindletop well and Museum, near Beaumont TX

### FT-3: Brazos River and Galveston

Wednesday April 26 , all day \$175

Recent sediments and depositional patterns barrier islands

### FT-4: Greatest Hits of the Paleozoic Hill Country

Thursday April 27-April 30, 3 days \$650

Enchanted Rock, Paleozoic sands, carbonates, structure, Pre-Cambrian rocks



# HGS INTERNATIONAL DINNER MEETING



MONDAY, MARCH 6, 2023 | 5:30 - 9:00PM  
NORRIS CONFERENCE CENTER, CITYCENTRE  
816 TOWN AND COUNTRY BLVD #210 HOUSTON, TX 77024  
HGS MEMBERS \$65 NON-MEMBERS \$75 STUDENTS \$25 WALKUPS \$75  
[HTTPS://WWW.HGS.ORG/CIVICISM/EVENT/INFO?ID=2445](https://www.hgs.org/civicism/event/info?id=2445)  
EVENT CONTACT: STEVE GETZ | [SLGETZ@OUTLOOK.COM](mailto:SLGETZ@OUTLOOK.COM)

## *Past, Present, and Future Northern South America Petroleum Plays*

**PLATE MARGIN TECTONICS:** Northern South American continental margin tectonics from Trinidad through Columbia have been driven by the interaction of the South American plate and the Caribbean plate (which it has been bypassing since the late Mesozoic). These plate margin interactions led to major strike-slip faulting from Columbia (in the west) through offshore Trinidad (in the east). Most likely, the entire area of the northern Andes from Peru through Columbia was also affected by these oblique plate collisions. These collisions could partially explain the Cretaceous and younger foreland basin development that occurred in Columbia, Ecuador, and Peru.

**HC SOURCE ROCKS:** Portions of Northern South America, especially the area from offshore Guyana through onshore Colombia, are World Class Petroleum provinces several times over. The bulk of the petroleum reserves in this large area reside in Cretaceous through Miocene marginal marine shelf and slope sandstones deposited in the Maracaibo and East Venezuela foreland basins. Maracaibo basin sandstones, along with Maracaibo Lower Cretaceous and fractured Paleozoic carbonates, were hydrocarbon productive throughout the twentieth century. Most of petroleum reserves pooled in the Maracaibo and East Venezuela basins were expulsed from the world class middle Mesozoic Type II Aptian through Santonian kerogenous La Luna foreland basin shales. These tremendous oil and gas source rocks (best in the Western Hemisphere) were deposited in restricted marine circulation zones that existed along the drawn-down northern continental margin of South America as it was pushed by the Caribbean plate during episodes of central Atlantic Sea floor spreading. However, foreland basins and thrust fold belts in Columbia, Ecuador, and Peru also contain areas of good Middle Cretaceous source rock development.

**ACTIVE (AND DEVELOPING) PETROLEUM OPPORTUNITIES:** Logical lateral extensions of the recent twelve-(12) BBO Guyana Cretaceous deep water sandstone discoveries are in the rank wildcat stage of development in the Trinidad and French Guyana offshore. Because of their exploration and development costs, these plays are major oil company plays. Opportunities still exist, however, for small to medium independent oil operators all along NE South American continental margin. Mobile zone fold belts along the mobile (western) margin of the Mara  n-Oriente-Putumayo basin complex have seen limited exploration drilling but could represent areas that contain national to world class oilfields.

Seismic acquisition, processing and interpretation in these thrust fold belts are technically challenging and should be worked by experienced conventional explorationists. Oil and gas opportunities still exist for small to medium sized oil and gas companies in the Magdalena basin complex and the Llanos basin. Cretaceous and Tertiary carbonates are lightly explored in northern South America. Oil has been produced from the folded and fractured Lower Cretaceous (and even metamorphosed Paleozoic) carbonates in the Maracaibo basin; and gas and condensate have been tested from fractured Cretaceous carbonates offshore northeastern South America (e.g., Venezuela's Perla 17 TCF gas field). Unconventional petroleum opportunities also exist on the Northern and Northwestern margins of South America, but they will not be discussed here.

Though Venezuela still has exceptionally good exploration and development opportunities, it also will not be discussed here. As a failed authoritarian socialist state, it has become an economically toxic OPEC member with complicated business issues. Just last year, Mathew Smith of Staebok News wrote an article entitled, "Venezuela's oil reserves doomed to become the world's largest stranded asset." Though Venezuela contains the largest oil reserves in the world, most of its petroleum reserves (possibly as much as 77%) are composed of the heavy and extra-heavy, high-sulfur crudes pooled along the southern margin of the East Venezuela Basin in the Orinoco heavy oil belt. These Faja Orinoco crudes are mainly heavy (and extra-heavy crudes) with 10 degrees or less API gravities. This makes them highly carbon-intensive to extract, refine and export. Super-major oil companies are now reevaluating their business strategy in light of 'Environmental-Social- Governance and Climate Change.' Hence, many now choose to eschew high-cost carbon-intensive petroleum projects, especially land-based ones like those in Venezuela. The dilapidated state of Venezuela's petroleum infrastructure complicates doing business there even further.

**DOING BUSINESS IN SOUTH AMERICA:** In order to comprehend the very complex history and development of the petroleum industry in South America, it becomes necessary to learn the main vocabulary and terms scattered throughout centuries of oil and gas exploration and development. Or, put more simply, the "Business of Oil". The "Natural Resources Business" came long before the fledgling science we call the 'oil and gas business' began to develop. Exploration managers drive our industry. He (or she) can be the Exploration VP of a major oil company or even a solitary



wildcatter with little or no money. Good exploration managers know there are several very important things that are vital in creating a successful Latin America oil and gas venture. First, key management personnel must speak the language of the countries of interest and know how the local culture and politics work. (Though Portuguese is spoken in Brazil, Spanish and English are the dominant languages used to do business in Latin America as a whole.) Second, you must have a law firm "in country" that will work for you – not themselves. Good businessmen tell lawyers what to do, and in extreme cases, how to do it. Third, "Political Risk" is always the dominant factor for the companies who truly do their 'economic homework' in Latin America. Finally, people who work in and/or for the oil business know that there are two living oil "elephant species": African and Indian. Though African elephants are larger and more robust (e.g., oil and gas fields of the Middle East), smaller Indian elephants (e.g., Exxon-Mobil's recent oil discoveries offshore Guyana) can be easier to handle and more economical to use. They are both still elephants..

### Biographical Sketches



**Steven L. Getz** is a professional geologist and geophysicist who worked nine years with Cities Service Oil Company before becoming an oil and gas consultant for many decades. During his lengthy career he has generated prospects that led to large oil and gas discoveries in Equatorial

Guinea, Guatemala, as well as Trinidad, wherein he held the title of Chief Geophysicist for Trinmar Limited for two staggered six-month contracts. During his fifty plus year career, he has also generated prospects that became commercial oil and gas discoveries in: the Permian basin, Indonesia, China, and the Gulf of Mexico basin. From 1983 through 1987, he was an owner/partner of a NASD firm, wherein he held a Series 24 license. During 2004, he was a new ventures geophysicist for Santos USA. From 2005 through 2010, he held the title of Chief Geologist with Allen Hoffman Exploration. He then became Exploration Manager for Fortesa International in their onshore Senegal acreage for several years. For several years Steven Getz worked for Green Cloud Inc, a geothermal energy company. Steven Getz has given six one-hour talks to the HGS during the past ten years and co-hosted a course on understanding how over-pressured sediments influence hydrocarbon accumulations last year. He has been Chairman of the AAPG Geophysical Integration Group and served twice as an ACE Conference Session Chair. Steven has also served as Chairman of the HGS North American Group, and he is current Chairman of the HGS International Group and Foreman of the AAPG Gulf Coast section. From 2012 through 2013, he was active in the SEG IQEarth field studies group and served twice as a SEG Annual Conference Session Chair. Steven is a certified geologist with the AAPG and the State of Texas. His interests include music, poetry, chess, and martial arts.



**Thomas Moon** is a very experienced physicist and geoscientist who began his exploration and management career working for Shell as a geophysicist. After graduate schools, he worked for Union Oil, Houston Oil and Minerals, and Newmont Oil before forming his

exploration/consulting company – Mquest International, Inc. in 1984. Prior to forming Mquest, Tom held positions as architect and manager of corporate worldwide database and mapping systems, chief geophysicist, and international exploration manager. He is a computer mapping systems expert, and an accomplished computer specialist. (Landmark, 2D-3D modeling software, Kingdom Suite workstation expert along with most business software.) In order to continuously improve subsurface mapping with seismic imaging, Mquest has been designing and testing high-frequency seismic field techniques and acoustic sources. We have developed our current HESS (Handheld Energy Seismic Source) for specialized, very high frequency field acquisition. Tom has learned how to navigate basins and governments in the main international producing basins such as Gulf of Mexico, European North Sea, North Africa through the Middle East, Southeast Africa, and Southeast Asia.

Tom is fluent in Spanish and has years of experience living and working in Latin America. He and Mquest Associates have co-authored, with Earth Satellite Corporation, a major study on the Sub-Andean Basins, and he has taught geophysics for geologists in Peru. He has written many proprietary reports and packaged projects and properties for sale or purchase. He was invited to brief the presidential transition team on the needs of the smaller oil operators after an earlier presidential election in Peru.

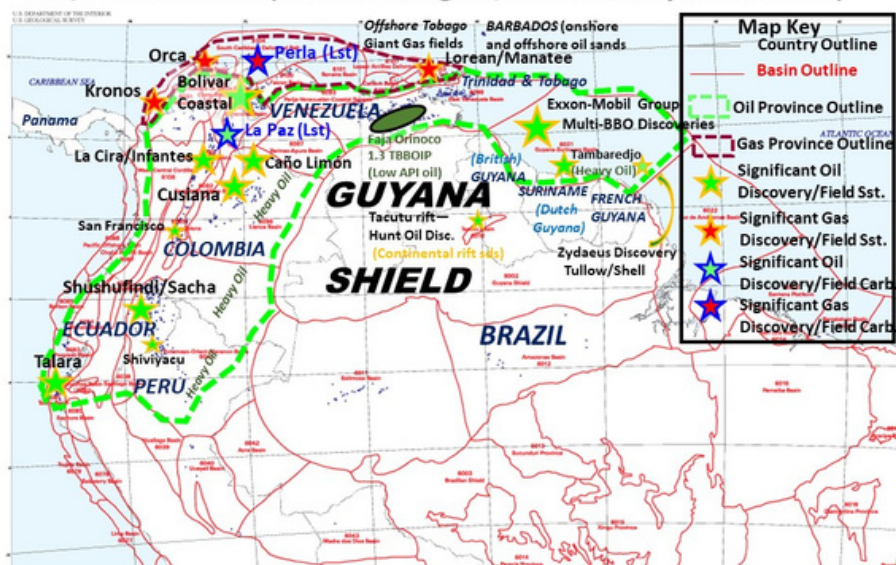
Almost all of Tom's publications – memos, articles, studies, and course work and lectures, along with confidential projects, were/are proprietary and restricted.

Tom's schooling: special correspondence schooling in English (grades 5-8) while residing in Cochabamba, Bolivia. He graduated from High School in Navasota, Texas in 1962. Tom earned his BS in physics from Texas A&M University and his MS in geophysics/geology from the University of Houston. (Graduate studies under Dr. Milton Dobrin.) As an undergraduate, he was a COOP student from the Physics Department (A&M) assigned to NASA, Flight Simulation, and Astronaut Training, Houston.

Tom is married to Jamie L. Moon (high school sweetheart). Jamie is a graduate of Baylor University and worked as a technical editor at the NASA Manned Spacecraft Center in Houston. After being a stay-at-home mom for many years, she served as superintendent's secretary and publications editor of the Klein Independent District until she retired. They have three sons and four grandchildren, and live in Spring, Texas.



**Fig 1. South American Basins with Significant Oil and Gas Fields and/or Discoveries (1998 USGS figure, annotated by Steven Getz)**



## Vendor Corner Sponsors



Energy Advisors Group (EAG) has been delivering value to clients with asset packaging, marketing and transaction services for more than 30 years. EAG provides clients the experienced marketing, divestment and consulting services they need to manage their portfolio, create new business opportunities and facilitate profitable transactions. EAG assists sellers by organizing data, creating customized packaging, and leveraging its industry databases and marketing channels to execute an aggressive sale process. EAG typically closes 30 to 35 deals per year and has handled over 1,000 projects since 1988.

EAG's proprietary databases, with nearly 30,000 transactions documented, includes over 110,000 client contacts across more than 60,000 companies and offers extensive intelligence on past buyer-seller activities, forward plans, and M&A appetite.

[Website](#) | [LinkedIn](#)

## Vendor Corner Sponsors



Founded in 1952 by the Klibert family, Diversified Well Logging, LLC., began its operations in the Gulf of Mexico - offshore Louisiana - and expanded by moving into land-based operations as the unconventional boom began to take off. Since its foundation DWL has always been proud to be a part of the dynamic oil and gas industry, and has always strived to be a step ahead of the challenges and changes the industry has gone through. The drive for innovation and improved efficiency continues today.

[Website](#)



# HGS ENVIRONMENTAL & ENGINEERING MEETING

WEDNESDAY, FEBRUARY 8, 2023 | 5:30 - 9:00PM

CRAFT REPUBLIC HOUSTON

11470 WESTHEIMER RD, HOUSTON TX 77077

HGS MEMBERS \$35 NON-MEMBERS \$40 STUDENTS \$15 WALKUPS \$40

[HTTPS://WWW.HGS.ORG/CIVICRM/EVENT/INFO?ID=2416](https://www.hgs.org/civicrm/event/info?id=2416)

EVENT CONTACT: MATTHEW COWAN | MRCOWAN1@HAL-PC.ORG



## *Environmental Testing & Monitoring at Carbon Capture & Sequestration Sites*

Global commitments toward net-zero emissions and new incentives for carbon sequestration in the form of federal tax credits (Section 45Q) or California Low Carbon Fuel Standard (LCFS) credits are driving the rapid development of geologic carbon capture and sequestration (CCS) projects.

To obtain permits for these projects and receive these credits, proactive monitoring is required to address three criteria: conformance with the proposed injection plan, containment of the gas within the injection zone, and identification of environmental effects.

Through detailed site characterization and environmental monitoring, including a robust baseline dataset, a reliable monitoring network, and an understanding of gas migration from deep strata, the operator of CCS projects can reliably detect and attribute anomalous carbon dioxide levels to natural variation versus a leak from the storage reservoir.

This presentation will provide an overview of the environmental monitoring considerations and regulatory requirements for geologic CCS projects.

### ***Biographical Sketches***



**Danny Kingham** is a Senior Hydrogeologist at GSI Environmental Inc. and a registered Professional Geoscientist with 17 years of professional experience. Ms. Kingham is actively involved in environmental issues related to carbon capture and sequestration,

including application of federal and state guidelines on environmental monitoring and verification programs. She has managed large litigation projects regarding environmental impacts related to oil and gas operations, emerging contaminants, chemical and manufacturing facilities, landfills, pipelines, and air emissions throughout the US and abroad. Ms. Kingham is an expert in site investigations for residential and commercial/industrial properties, including chemical manufacturing plants and oil and gas facilities, under various state and federal regulatory programs.



**Christ Niamike** is an Environmental Engineer at GSI Environmental Inc. with 4 years of professional experience. Mr. Niamike has assisted with the development of environmental monitoring and verification programs for USEPA UIC Class VI permit applications,

more specifically the design of soil gas and groundwater monitoring programs. Mr. Niamike has extensive experience in environmental site investigation and remediation at chemical facilities in both Texas and California, all under applicable state and federal guidance.



**Needing more luck with your sales efforts? Promote your business as a Vendor Corner at an HGS meeting!**

Make direct contact with interested geoscience buyers without being lost in an ocean of exhibitors. The money that is raised through Vendor Corner helps the HGS support continuing education, networking, outreach to students, student scholarships, and young professional activities. [Click here to read more!](#)

# HGS CONTINUING EDUCATION SHORT COURSE

FRIDAY, MARCH 10, 2023  
VIRTUAL EVENT VIA ZOOM  
8:00AM - 12:00PM

HGS MEMBERS \$200 NON-MEMBERS \$350 STUDENTS/EMERITUS/IN-TRANSITION \$100

[HTTPS://WWW.HGS.ORG/CIVICRM/EVENT/INFO?ID=2446](https://www.hgs.org/civicrm/event/info?id=2446)



## *Geomechanics Aspects in Carbon Capture and Storage (CCS)*

Registration includes: Course Notes, emailed after the course from the HGS CEC dedicated email  
4 Hours PDH; Certificate emailed after the course

This course provides an overview of the most critical geomechanical aspects of Carbon Capture and Storage (CCS). Attendees will learn about geomechanics principles, concepts, and workflows as they apply to the assessment of the three pillars of CCS: capacity, injectivity and containment. We will discuss the main geomechanical risks and how they may vary from project to project. We will also address data requirements to effectively de-risk a project as well as the type of models that are best suited to address geomechanical risks and their impact on project performance. Case studies will be covered as practical examples to demonstrate workflows and screening tools. Both geoscientists and engineers can benefit from attending this introductory course, as well as managers and decisions makers.



### *Biographical Sketches*



**Ewerton Araujo, PhD** - Geomechanics specialist with 20 years in the oil and gas industry. Ewerton started as an R&D engineer before joining GeoMechanics International, where he worked on projects in the Americas, Middle East, and Africa. After that, he joined Equinor as the

SME for geomechanics of USA and Canada assets, and following that, was hired by BHP to implement and develop the geomechanics discipline in the Petroleum business. His expertise covers all geomechanics-related aspects of wells planning, drilling, completions, operation, and abandonment, in addition to reservoir geomechanics during exploration, appraisal, and production. He is currently a senior consultant and managing partner at Subsurface Alliance LLC.



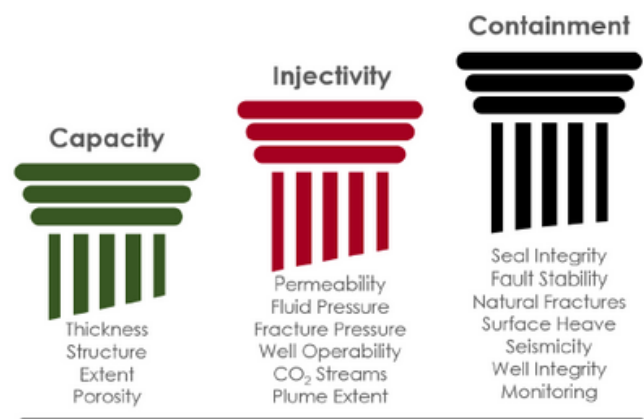
**Jorge Pastor, PhD** - Geomechanics specialist with 25+ years of experience in the oil and gas industry. Jorge started his career as R&D engineer developing geomechanical simulators for Petrobras. In 2004, he joined Schlumberger where he was directly involved in 1D and 3D

projects for Brazil, Mexico, Colombia, and USA. Later, he joined BHP in Houston where he led the development of coupled 3D projects for multiple Gulf of Mexico fields. He used these models for wellbore stability, sanding, compaction/subsidence, cap/casing integrity and fault reactivation analyses. His expertise also includes interpretation and QC of rock mechanics tests as well as software development. Dr. Pastor is currently a senior consultant and managing partner at Subsurface Alliance LLC.



**Fermin Fernandez-Ibanez, PhD** - Geoscientist with 15+ years of experience in Development, Production, and Research & Technology. Structural geology and geomechanics expert. He worked as geomechanics consultant for GeoMechanics International before

joining ExxonMobil where he became corporate SME for fractured reservoirs. He also has experience in geothermal and CCS projects. Fermin has worked assets around the world, including SE Asia (PNG, Vietnam, Indonesia, Australia-NZ, Malaysia), South America (Colombia, Argentina, Mexico, Brazil pre-salt), Europe/Caspian (Kazakhstan, West Med), Kurdistan, Gulf of Mexico, and Canada (SAGD). Currently, he holds a senior consultant and managing partner position at Subsurface Alliance LLC.



**Where is Geomechanics in CCS?**



# GIVING BACK

## Annual Volunteer

### Day at YMCA

### Camp Cullen



FOR YOUTH DEVELOPMENT®  
FOR HEALTHY LIVING  
FOR SOCIAL RESPONSIBILITY

HGS Members and friends needed for our annual Volunteer Day at YMCA Camp Cullen!

## March 25, 2023

**Do you have a burning desire to give back?** The HGS is teaming up with the YMCA to have a Volunteer Day on Saturday March 25th. The volunteer work we do that day will be at Camp Cullen, a YMCA summer camp located near Trinity, Texas.

We chose to help Camp Cullen for several reasons. First of all, most of the kids attending Camp Cullen are from the Houston area. Also, many campers are from underprivileged families and attend the camp free of charge. Last, but not least, there is a significant geology component to the camp's programs with an actual geologic field trip in the quarry, a geology lab with hand samples onsite, and a "gold" panning area for younger kids. HGS has also conducted its Outcrop Family Campout at Camp Cullen in the past.

The work planned for our group this year includes a variety of projects involving light construction/carpentry and bike trail clearing. We will also have several craft and organizing projects. You don't need any special skills, just a willingness to work!

For those interested, we'll also take a break at midday so you can see the quarry field trip area and the geology lab.

So, if you would like to do a good deed, spend a nice day in the Piney Woods, and perhaps help get kids interested in geoscience, please donate part of a Saturday to this effort. Depending on where you are located in the Houston area, it takes about 1 to 1 ½ hours to get to the camp. We plan to start work at 9am and will conclude by 4pm. Breakfast and lunch will be provided. You are welcome to have your older kids participate as volunteers and we will validate their service hours if needed. Younger kids are welcome and can participate in a variety of camp activities under supervision of our camp staff.

You can sign up at the following link which provides more details: [YMCA Camp Cullen: Volunteer Day - March '23 \(signupgenius.com\)](https://signupgenius.com).

If you have any questions, please contact HGS member John Adamick at [jadamick@stauroliteconsulting.com](mailto:jadamick@stauroliteconsulting.com).





# NeoGeos kickoff 2023 with February Happy Hour & GeoTrivia

BY ALYSSA CUSHING, HGS WEBSITE MANAGER  
PHOTOS PROVIDED BY BRYAN BOTTOMS

## THE HGS NEOGEOS ARE THE FUTURE OF THE INDUSTRY & LEADERS IN HGS

The group was formed in 2000 in order to help early career professional geoscientists network with similar professionals who already have several years of industry experience.

Committee Chairman, Bryan Bottoms, has revived the group and its monthly happy hours this year with a passion for bringing the community together. After a long hiatus the NeoGeos resumed their monthly happy hour festivities in the fall at Cottonwood Houston, bringing together 30+ people! February's festivities saw the return of GeoTrivia, and special geo-prizes awarded to the winning teams!



*If you're an early career professional (or not - all are welcome!) enthusiastic about expanding your network, connecting with peers, and enjoying a drink or two, bring your friends and colleagues to share your love of geology at the next NeoGeos Happy Hour & GeoTrivia! Be sure to check your email and HGS website for upcoming event announcements.*



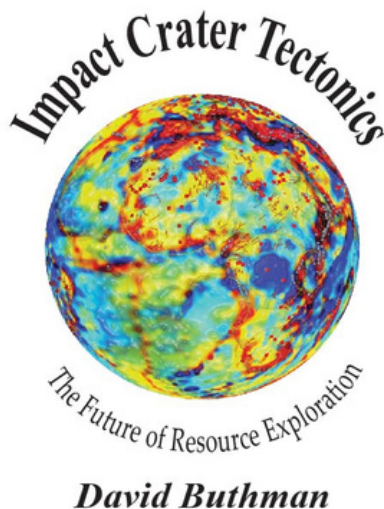


# March 2023

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>
			1
5 <i>GeoInteriors Mineral &amp; Fossil Sale benefitting HGS</i>	6 <i>HGS International Meeting</i> "Past, Present, & Future Northern South America Petroleum Plays" Page 13	7	8 <i>HGS E&amp;E Meeting</i> "Ethics & Geoscience Practice in Texas" Page 16
12 <i>GeoInteriors Mineral &amp; Fossil Sale benefitting HGS</i>	13	14 <i>HGS Board Meeting</i> 6 p.m.	15
19	20	21	22
26	27	28	29



Thursday	Friday	Saturday	
2	3	4 <b>GeoInteriors Mineral &amp; Fossil Sale Pre-Order &amp; Pickup Only</b>	<b>Reservations</b>  The HGS prefers that you make your reservations online through the HGS website at <a href="http://www.hgs.org">www.hgs.org</a> . If you have no internet access, you can email <a href="mailto:office@hgs.org">office@hgs.org</a> or call the office at 713-463-9476.  <b>Reservations for HGS meetings must be made or cancelled by the date shown on the HGS website calendar, which is normally 24 hours before hand or on the last business day before the event.</b>  If you make your reservation on the website or by email, an email confirmation will be sent to you. If you do not receive a confirmation, please contact the HGS Office at <a href="mailto:office@hgs.org">office@hgs.org</a> . Once the meals are ordered and name tags and lists are prepared, no more reservations can be added even if they are sent. <b>No-shows will still be billed.</b>
9	10 <b>HGS Virtual Short Course</b> "Geomechanics Aspects in Carbon Capture & Storage (CCS)" Page 17	11 <b>GeoInteriors Mineral &amp; Fossil Sale benefitting HGS</b>	
16	17	18	
23	24	25 <b>Volunteer Day at YMCA Camp Cullen</b>	
30	31	<div>RESERVE YOUR SPOT ONLINE AT HGS.ORG</div>	



*Impact Crater Tectonics* provides a universal geologic framework for the prediction of mineral resources: oil, gas, gold, rare earth minerals--a plethora of treasures underfoot. Based on solid scientific, mathematic, and geologic principles, this work consecrates an imminent paradigm shift in the manner we interpret geologic structures. *Impact Crater Tectonics* will change your viewpoint of Earth forever.

Full-color, 297-page, 8.5" x 11" perfect-bound book, with over 200 photos, graphs, and illustrations. Available on Amazon, or signed copy from author at [DButhman@ImpactCraterStudies.org](mailto:DButhman@ImpactCraterStudies.org).



# Candidates for the 2023-2024 Executive Board

## *Houston Geological Society Officer Election*



**President-Elect:** Bryan Guzman, Penny Patterson

**Vice President:** Bruce Blake, Linda Sternbach

**Secretary:** Kenneth Mohn

**Treasurer-Elect:** Ceri Davies, Tuan Vo

**Editor-Elect:** Ted Godo, Ross Harrison

**Directors (2 positions):** Bryan Bottoms, Janet Combes, Sharma Dronamraju, Judy Schulenberg

### HGS Election Voting Instructions

HGS Members will be able to vote online via the HGS website. You must be logged into your account to cast your vote. Ballots will be online only - no mailed ballots! Please check the HGS website in the coming weeks for updates and announcements.

**The voting period opens April 10, 2023 and continues to May 10, 2023.**

### *President-Elect (two candidates)*



**Bryan Guzman**

Ever since I joined the HGS, I have enjoyed the benefits of education, networking, and friendship. Currently, I am working with the GCAGS as Treasurer. For about 7 years, I had spent much of my

time working on the exhibits committee organizing the set-up and transportation of the HGS booth for various conventions throughout the year. When I served as HGS Secretary, it afforded me the opportunity to learn more about the many functions of the HGS. I was also exposed to the duties as the HGS Treasurer-elect and Treasurer where I witnessed the society's dedication to the various efforts through the annual budget. I was then given the opportunity to serve as the HGS Vice President during the COVID19 pandemic where I was able to schedule all our monthly technical talks digitally for the first time. It has been a pleasure meeting many people along the way and I am thankful to the opportunities the HGS has provided me while serving as a Chairman, Secretary, Treasurer, and Vice President. It would be my great pleasure to serve in the capacity of HGS President Elect.

#### **Education:**

2008 BS Geology University of Texas at San Antonio

2018 MS Analytics Texas A&M University

#### **Experience:**

2008 – 2011 Geologist - Ingrain Inc.

2011 – 2013 Geoscientist - Ingrain Inc.

2014 – 2015 Product Champion - Drill Cutting Technologies - Ingrain Inc.

2015 – 2017 Geologic Advisor - Ingrain Inc.

2017 – 2018 Senior Technical Advisor - Halliburton

2018 – 2019 Senior Account Manager - TGS

2019 – Present Veilvox LLC - Founder

2020 – 2021 Senior Account Manager - Premier Corex

2021 – Present Director Global Business Development & Technology - Premier Corex

[Read More](#)

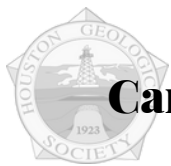


**Penny Patterson**

As the Houston Geological Society begins its 100th year as a professional society, it continues to be an integral organization in our geoscience community, which provides critical resources to our

members through HGS technical meetings and conferences, publications, networking social functions, and the HGS website. HGS is also a vibrant professional society that is evolving as our geoscience community is expanding in diverse areas such as improved technologies for renewable resources, carbon capture and sequestration, as well as our growing focus on environmental issues.

I am honored to be a nominee for the position of President-elect of the Houston Geological Society. If elected, I look forward to working with the HGS Board, our HGS members, and the greater Houston-area geoscience community to advance HGS's objectives of 1) stimulating interest and promoting advancement of geology, and 2) disseminating geological information through building geoscience community relationships and encouraging training in the science of geology. I support HGS Board's on-going business initiatives of building HGS membership, improving attendance at HGS events, and strengthening HGS's financial sustainability. My past HGS Board member positions have ideally situated me to assist with advancing HGS objectives and business initiatives. As HGS Vice President (2018-2019), I developed Luncheon and General Dinner Meetings speaker programs that brought in diverse presentations, which, in turn, increased HGS meeting attendance and engaged a broad spectrum of our geoscience community. As HGS Director of Science and Education (2014-2016), I worked with seven committees, which provided exceptional training and learning opportunities for geoscientists of all ages, including our young K12 scientists, industry and academia scientists, and our retired scientists. It is this dynamic engagement of our community that continues to advance and transfer our excellence in geoscience... [Read More](#)



## Candidates for the 2023-2024 Executive Board (*continued*)

### ***Vice President (two candidates)***

---



**Bruce Blake**

I'm honored to have been ask to run for Vice President of the HGS. The main function of this position is to help bring technical talks to the membership. Since 1977, my career has been focused on

conventional exploration having worked for companies of various sizes from a family owned small shop to a major international company. I've traveled to and seen exploration projects in six of the seven continents. And I've given talks at several local and international society meetings including being the 2014 Honorary Lecturer, Middle East & Africa for the SEG.

Having returned to Houston in 2016 from a dozen years as an expat in Calgary, Madrid, and Tripoli, I've become involved in HGS serving as this year's Treasurer. As Vice President of the HGS, I'll focus on bringing interesting exploration topics to the membership... [Read More](#)



**Linda Sternbach**

I would be honored to serve as HGS Vice President and celebrate HGS' 100-101st year as a geological society. I would organize the monthly dinner and luncheon talks, and work with the leaders

of HGS International Explorationists, E&E, and North American groups to recruit highly valued speakers. My experience with the recent GeoGulf conferences will guide my selection of scientific, applied petroleum exploration, and business-oriented speakers that will benefit HGS membership. I see the value of remote online access to technical talks like we experienced using Zoom in past years. I think this should be part of the HGS technical program, but in a way that lets HGS recover the cost of the running online meetings. I have worked to increase HGS membership renewal and growth after the pandemic. We found that personal contact (calls, email) was the most effective way to motivate membership renewal. I think we should reach out to potential new members using the HGS technical program as a reason to get new members to join HGS... [Read More](#)

### ***Secretary (one candidate)***

---



**Kenneth Mohn**

I spent my entire career in the oil and gas industry as a geologist, primarily working for seismic companies putting together upstream exploration seismic projects, both domestic and international. The importance of understanding the geology of a region when working on a project can make the difference between a well laid out program and a waste of time.

I recently formed Mohn & Associates to leverage my skills and the skills of other likeminded professionals to provide services to our clients. Designing a project without considering all the geological and geophysical factors that could affect the project can be a waste of money. Just doing things, like we always have, just because that is the way we do it, can achieve the same objective. We live in a world that is changing and we have to change with it. That does not mean we destroy what we have built and learned, but we improve on the systems we have. I am honored to run as a Board Member for the Houston Geological Society... [Read More](#)





## Candidates for the 2023-2024 Executive Board (*continued*)

### ***Treasurer - Elect (two candidates)***

---



**Ceri Davies**

I am very appreciative of the nomination to run for Treasurer-Elect of the Houston Geological Society. I moved to Houston 10 years ago and have always enjoyed the events and education provided by the

HGS and look forward to supporting the Society as it celebrates its centenary. The Africa and Latin America conferences have become a staple of my calendar and I enjoy the variety of talks provided by the evening dinners and general lunches.

My recent involvement with the HGS has included co-chairing the North American Explorationist Group, Board Member, Editor and most recently Chair of the Latin America conference held November 2021. As with all Societies, the HGS must adapt and evolve in order provide our members with applicable and interesting events and I look forward to working with the rest of the HGS team in the coming years, either through a Treasurer-Elect capacity or volunteering when resources are needed... [Read More](#)



**Tuan Vo**

My name is Tuan Vo and I am the Senior Project Lead for H2 Laboratories, a core-based NMR laboratory located in Canada. I have a Bachelor of Science Degree with a focus on Biochemistry from the

University of Texas at Austin. After graduation, I joined Core Laboratories in 2008 where I held numerous different positions located in both Houston, TX and Calgary, AB. Over my 14+ years, I have gained extensive experience in laboratory core analysis data and its application in formation evaluation. My focus is specializing in laboratory and industry experience involving core NMR and its use in interpretation and modelling on hydrocarbon-bearing reservoirs.

Besides HGS, I am an active member of the Society of Petrophysicists and Well Log Analysts (SPWLA), the Society of Petroleum Engineers (SPE), and a lifetime member of the Society of Core Analysts (SCA). Previously, I was the Treasurer for SPWLA's Unconventional Resources Special Interest Group (UR SIG) before restructuring... [Read More](#)

### ***Editor - Elect (two candidates)***

---



**Ted Godo**

Ted originally began his geologic studies at the age of 9 and continued through his master's degree in Geology from Ohio State University in 1979. Upon graduation, he joined Shell's exploration department

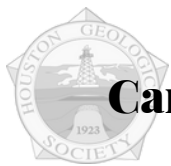
as a geologist. At Shell, he gradually rose to a position of chief geologist, supplying risking and ranking of the exploration portfolio in the western hemisphere. After his 35-year career at Shell he joined Murphy Oil as a geologic advisor. At Murphy, he evaluated New Venture opportunities in basins on both sides of the Atlantic margin (West Africa, Brazil, Mexico, and Canada). After 5 years with Murphy, he formed the geologic consulting company named Geodog Exploration LLC. At Geodog, Ted has consulted for companies exploring subsalt and Mesozoic opportunities in the Gulf of Mexico. Most of the consulting during this time has focused on the Mexican deep-water exploring for both Mesozoic and subsalt Tertiary targets... [Read More](#)



**Ross Harrison**

Ross is a geologist with expertise in secondary and tertiary recovery from Permian fields. In addition, he leads and plans the certification of CO2 injection for Enhanced Oil Recovery and CCUS

projects. Ross began his career at Oxy in 2017 and has identified, developed, and produced resources from large carbonate and mixed-carbonate-siliciclastic reservoirs. Ross earned a BA in English with a General Business Minor from Texas Christian University, a BS in Geology from Louisiana State University, and an MS in Geology from Texas Christian University. While in school, Ross supported applied research projects including characterization of modern siliciclastics of the Gulf Coast and a depositional evaluation of coal beds in the Raton Basin. Ross attended the 2021 HGS Grand Canyon Field Trip and enjoyed it so much that he will be co-leading the trip for HGS in 2023. Ross currently serves on Oxy's Early Career Network Steering Committee as President, having previously served as the Chair of Technical Development. He enjoys doing anything in the sun, running, climbing, fishing, mountaineering, reading, and learning... [Read More](#)



## Candidates for the 2023-2024 Executive Board (*continued*)

### ***Director (four candidates, pick two)***

---



**Bryan Bottoms**

I am incredibly honored to have been nominated for a position on the HGS Board of Directors this upcoming year. Since moving to Houston in 2019, I have found a great sense of community in the

HGS and have continued to increase my involvement with the society as time has gone on. This past year I served as the NeoGeos committee chair, hosting happy hours and trivia events aimed at encouraging the younger members of Houston's geologic community to become involved with the society. I have also volunteered my time for the society in educational outreach events like teaching fossils in elementary schools and participating as a judge in the Houston Science & Engineering Fair. I look forward to continuing my involvement with the society and hope to encourage turn out, especially amongst early career geoscientists... [Read More](#)



**Janet Combes**

I am interested in exploring new opportunities for the Houston Geological Society related to the approaching energy transition change – new approaches will involve geoscience techniques.

Interaction with local colleges will be needed also. I believe that I can offer a broad perspective and represent the diverse members of the world's largest local geological society. I especially appreciate HGS outreach endeavors to promote geology, both in schools and to the general public, as well as its efforts to support its membership and our industry. I feel honored that I was asked to run for the office of Director of the Houston Geological Society.

I have more than 40 years of experience as an interpretation geoscientist (geologist and geophysicist), working in industry, government agencies, and as an independent consultant. I took time between getting my degrees to work and also had jobs while enrolled. My focus has been primarily in petroleum exploration, production, and research, and I have worked both domestic and international projects for multiple companies, including Tenneco, Amoco, ExxonMobil, and ConocoPhillips and several independents. I also have experience with the Kansas Geological Survey, the Texas Bureau of Economic Geology, and the USGS. I think that having this depth and range of industry and non-industry experience helps prepare me for the diverse issues affecting the HGS... [Read More](#)



**Sharma Dronamraju**

Sharma earned his Master's degrees in Geology from the Indian Institute of Technology, Texas A&M University, and an MBA from Rice University. He worked as Geologist and held technical and

leadership positions in the upstream oil & gas and mid-stream companies for 38 years, in Houston and internationally. Currently, he is a Founder/Director of AKD Professional Solutions Inc. serving primarily the upstream oil & gas industry.

He has been a member and a volunteer with HGS for 25 years, an active Member of the AAPG (30 years), and a delegate with the AAPG HoD. He served on Continuing Education and International Exploration Committees, organized and chaired three workshops (Geopressures, Coal Bed Methane, and Reservoir Modeling, 2000), Co-Chaired the International Business of Exploration Symposium (2000), and received the Rising Star award (2000). Served as Session Chair for GCAGS and AAPG ICE. He now serves as Chair of the Memberships Committee. He has been a Guest Speaker at HGS and GSH... [Read More](#)



**Judy Schulenberg**

Judy Schulenberg has over 30 years' experience in all aspects of exploration and development, in both conventional and unconventional plays. She has supervised multidisciplinary teams,

written "best practices" guidelines for unconventional development, and has developed and delivered training courses for both geoscientists and non-geoscientists. She has extensive experience in all aspects of recruiting, mentoring and training in the oil industry. She is the President/owner of The Explorer Group 1 specializing in attribute analysis and machine learning applied to prospect generation and development, shallow hazard analysis, and breathing new life into older fields. She enjoys the challenge of "out of the box" situations and projects, especially where the application of new technology can be used to enhance previously successful plays.

Ms. Schulenberg is an active member of American Association of Petroleum Geologists (AAPG), Society of Exploration Geophysicists (SEG), Houston Geological Society (HGS), AAPG House of Delegates... [Read More](#)



The poster features a background image of a savanna landscape with acacia trees and a sunset sky. In the center, there is an orange square containing a white silhouette of the African continent with a single oil drop falling from its right side. Below the silhouette, the word "AFRICA" is written in large, bold, white capital letters, and "CONFERENCE" is written in smaller, white capital letters underneath. Below the orange square, the dates "20-21 SEPTEMBER 2023" and the location "LONDON" are displayed in white capital letters. A large, bold, white text line reads "Submit your abstract by 28 April". Below this, the URL "https://africa.pesgb.org.uk/callforabstracts/" is provided in white. The hashtag "#AFRICA2023" is also shown in white. In the bottom left corner, the "PES GB" logo is displayed, with a white oil drop icon between "PES" and "GB". In the bottom right corner, the circular logo of the "HOUSTON GEOLOGICAL SOCIETY" is visible, featuring a lighthouse and the year "1923".

**AFRICA**  
CONFERENCE

20-21 SEPTEMBER 2023  
LONDON

**Submit your abstract by 28 April**

<https://africa.pesgb.org.uk/callforabstracts/>

**#AFRICA2023**

**PES**  **GB**



## Unlocking African Energy to Power the Future

2023 sees the PESGB/HGS Africa Conference return to London and more importantly return to in-person talks, posters and exhibitors! The conference will bring together the leading subsurface experts to present and share the latest technical updates emerging from Africa over the last couple of years. The conference is unashamedly technical in its nature, it always has been and will continue to be focused on the rocks of Africa!

Africa has the resources to power the world through the Energy Transition and also to drive its own development out of energy poverty but the key to unlocking this potential remains in the subsurface community. Come and share your thoughts, insights and consider submitting an abstract.

# Scholarship Night 2023 Featured Lively Discussions of Emerging Careers in CCUS & Energy Exploration

BY LINDA STERNBACH



*HGS Foundation Scholarship recipients.*

Scholarship Night 2023 made a big splash on February 13 at the Houston Norris Center. HGS Scholarship Night Chair Fang Lin welcomes an audience of over 100 students, professors, and attendees. The audience was eager to hear about "Expanding the Horizon for Geoscientists in the Next Century." This Scholarship Night was dedicated to helping young geoscientists starting careers in both energy exploration in oil and gas, and the emerging new career of Carbon Capture, Utilization, & Storage of CO<sub>2</sub> (CCUS). Fang Lin stepped into the Scholarship night host and moderator role for the first time, with a polished and upbeat message everybody liked and appreciated.

Calvert Scholarship awards were presented by Jeff Lund, Judy Schulenberg, and Nicole Villareal of the HGS. The award winners are: Allison Barbato, LSU; Mary Campos, Stephen F Austin; Emila Caylor, University of Arizona; Edgar Contreras, U of H; Nicholas Ferry, University of Kansas; Tiffany Nordstrom, LSU; Leiser Silva, U of H; Jamie Singer, Stephen F Austin; Ryker Tracy, Texas Tech; and Jenelle Wemper, Texas A&M.

HGS Foundation Scholarships to undergraduates was presented by Joe Lynch, and Angela Hammond. The undergraduate scholarship winners are: Jameson Hampton, U of H; Matt Parker, Stephen F Austin; Sophia Layman, Sam Houston State; Nikhil Punithan, Texas A&M; Bavan Rajan, Rice University; Christopher Woods, Lamar University; Rebekah Garza, University of Texas, Maby Award and Abigail Hughes, Lamar University, Basinski Scholarship.

The first invited speaker was Monique Velasquez, Manager of Chevron's Global Exploration Review Team in Houston. Ms. Velasquez talked about what she has learned in over 20 years in the petroleum side of the business, and the corporate skills that have helped her in the career ladder of

assignments. One thing she stressed was that companies the size of Chevron are keen to have geoscientists understand roles and technical information outside their geologist or geophysicist job description. Newly hired geoscientists need to learn about engineering, drilling, business management. She suggested new hires be open to mentors and advisors outside the typical geoscience department, and be open to learning skills not taught in geoscience graduate school. Velasquez showed diagrams of pathways that start in geoscience, but eventually, with experience, take people to other departments and corporate units.

Alexei Vyssotski spoke after Ms. Velasquez and his passion for creating new businesses was apparent. Vyssotski is the General Manager of Chevron's Carbon Sequestration and Storage Business Unit in Houston. The student audience was impressed that Chevron sees a long future in their CCUS business in the Gulf Coast and there are long-term needs for the hiring of geoscientists and open positions now. Vyssotski shared slides of the processes involved in underground CO<sub>2</sub> storage and the science and engineering involved.

The audience asked some interesting questions. Ms. Velaquez was asked about her favorite career moment and she replied it was discovering a large oil and gas field and how proud she was of the effort. Mr. Vyssotski was asked, "What skills does a geologist need to know to get a job working on CCUS?" He replied that hydrology and oil and gas mapping skills are needed, and added Chevron is willing to train new hires and does not expect them to have all the skills they need when they arrive on the job.

The entire program lasted three hours and there was tremendous applause at the end of the meeting from Fang Lin, as host and moderator, and the two speakers Monique Velasquez and Alexei Vyssotski. Fang asked the audience for ideas for Scholarship Night 2024.



# **HGS CONTINUING EDUCATION SHORT COURSE**

WEDNESDAY, MAY 24, 2023

CORELAB, 6316 WINDFERN, HOUSTON, TX 77040

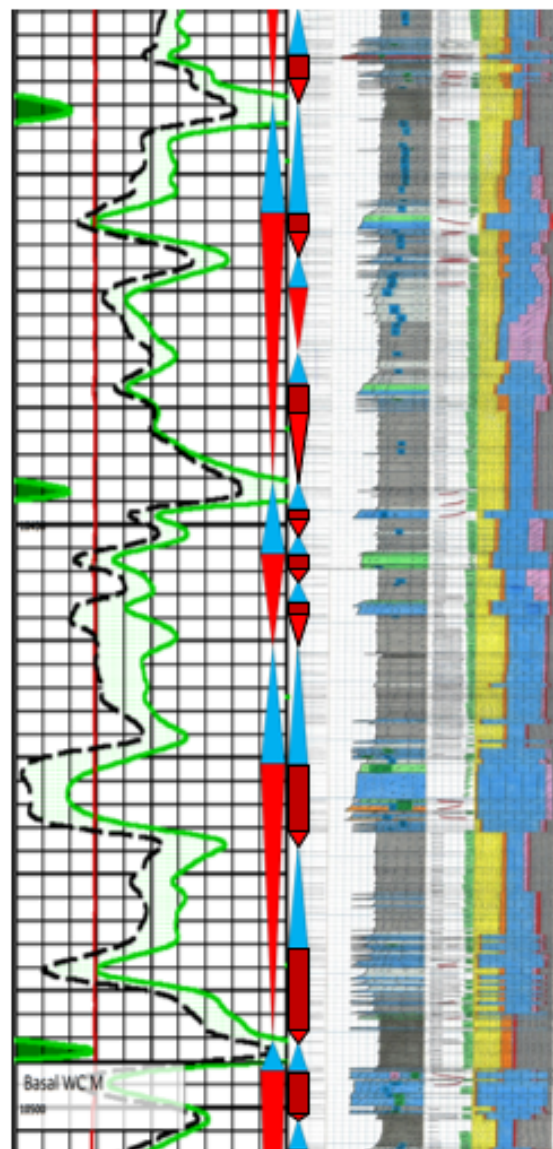
8:00 A M - 5:00 PM (one day class)

## **The Rocks Never Lie: Classic Permian Basin Conventional, Tight, and Unconventional Reservoir Cores**

**Presented by: Robert F. Lindsey  
Lindsay Consulting**

**Class will cover core  
description, analysis, and data  
integration**

Wolfcamp core



*Registration details coming soon to HGS web page*

**Venue donated by Core Laboratories, Houston**



# Science & Engineering Fair of Houston 2023

BY DORENE WEST, HGS SCIENCE FAIR COMMITTEE CHAIR



*HGS 2023 Special Award judges from left to right: David Risch, Sandy Rushworth, Jim Tucker, Patty Walker, Mike Erpenbeck, Dorene West.*

The Science & Engineer Fair Houston (SEFH) was held February 11, 2023, at the George R. Brown Convention Center in downtown Houston. HGS had six Special Award volunteer judges for Saturday afternoon Special Awarding Agency Judging at the Science Fair this year.

HGS members David Risch, Sandy Rushworth, and Marsha Bourque (and probably others whom I did not see) participated in the SEFH Place Award Judging session Saturday morning, Phase II and Special Awarding Agency Judging is from 1:15 PM – 4:15 PM Saturday afternoon. Some of the morning Place Award Session Judges get assigned to review projects that have advanced to Phase II on Saturday afternoon (which is why David, Sandy, and Marsha are not always available to participate in HGS Special Award Judging). Judging ends at 4:00 PM and the public is allowed to view the projects from 4:30 PM until 6:30 PM. This rest of this article describes HGS Special Awarding Agency Judging results for 2023.

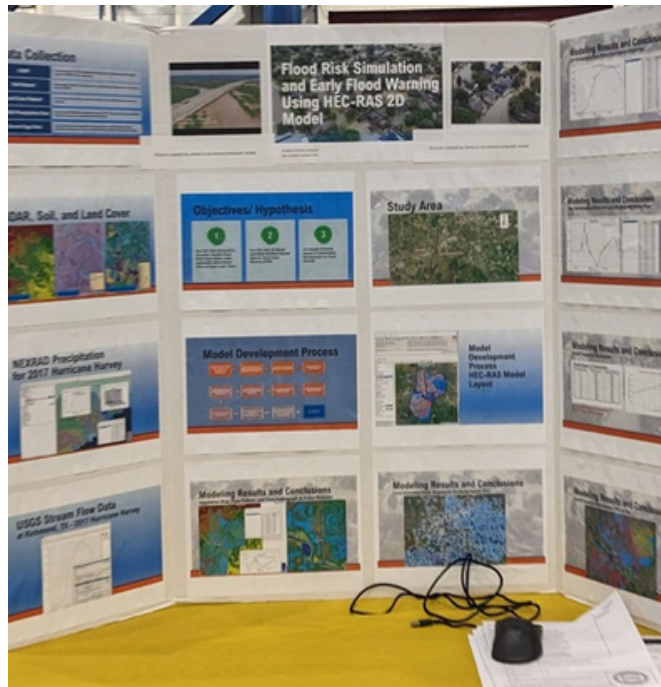
## Junior Division Special Award Winner

David Risch and Sandy Rushworth judged the Junior Division projects. The top Junior Division winner was titled “Flood Risk Simulation Using HEC-RAS Modeling”, by James Li and Niketa Pati from The Honor Roll School, Sugarland, TX. Their project incorporated flood risk simulation (flood inundation depth and extent) using maps of geospatial datasets (soil, land cover, rainfall, and gauged stream flows) as input to warn residents and initiate timely evacuation prior to catastrophic flooding events.

## Senior Division Special Award Winners

The Senior Division projects were judged by Jim Tucker, Patty Walker, Mike Erpenbeck, and Dorene West. The First Place Senior Division project was titled “Wandering Waves of Fury: Developing Hurricane Trajectory Predictions Using Ensemble-Based Machine Learning Models”, by Ada Wang and Olivia Ye from Academy of Science and Technology, The

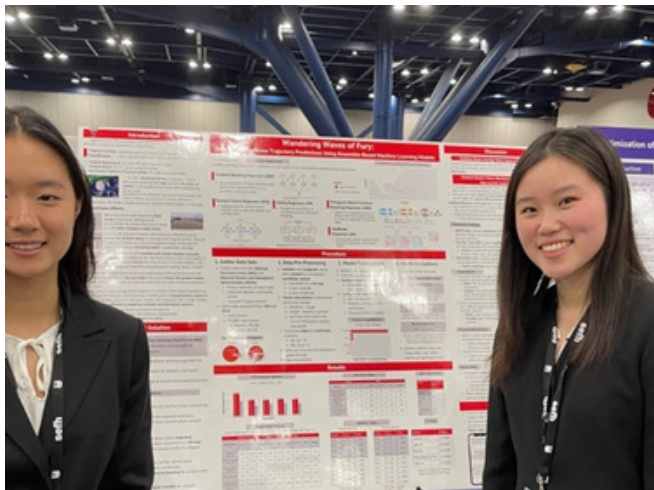
Woodlands, TX. Their mobile application to warn the public and direct them to the nearest shelter prior to catastrophic wind/flooding events is critical for public safety. They applied regression algorithms to four factors (maximum wind speeds, position, temperature, and previous length and direction) to train 15 different models on a 150-year span for two data sets (Atlantic and Pacific storms) and tested them in predicting hurricane trajectory.



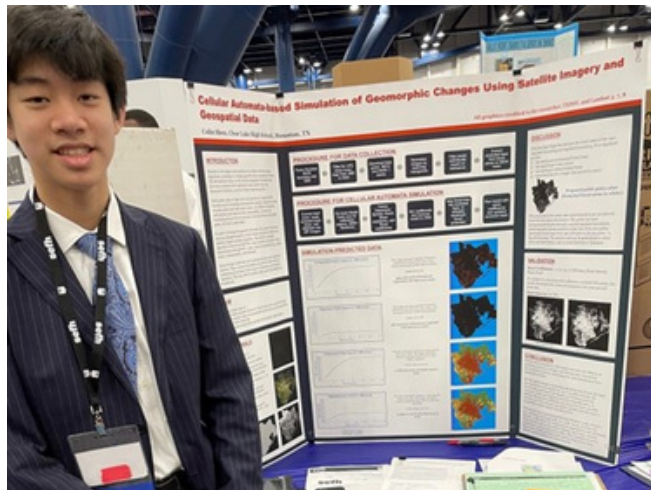
*Junior Division Special Award: Flood Risk Simulation Using HEC-RAS Modeling. Picture courtesy of Rajasree Nambron.*



# Science & Engineering Fair of Houston...continued

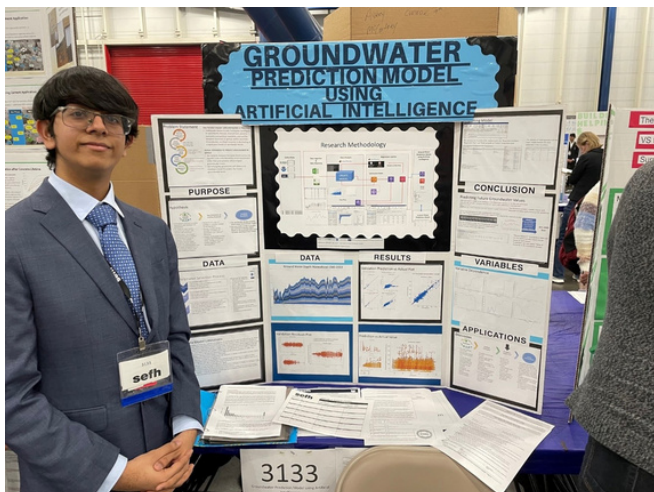


First Place, Senior Division: Wandering Waves of Fury: Developing Hurricane Trajectory Predictions Using Ensemble-Based Machine Learning Models.



Third Place, Senior Division: Cellular Automata-based Simulation of Geomorphic Changes Using Satellite Imagery & Geospatial.

The Second Place Senior Division winner was Vedant Sharma from Awty International School, Houston, TX. His project titled "Groundwater Prediction Model using Artificial Intelligence" investigates subsidence related to ground water usage and ground water management; and his research is critical for maintaining a safe and secure public water supply.



Second Place, Senior Division: Groundwater Prediction Model using Artificial Intelligence.

The Third Place Senior Division winner was Colin Shen from Clear Lake High School, Houston, TX. His project titled "Cellular Automata-based Simulation of Geomorphic Changes Using Satellite Imagery and geospatial Data" investigates human expansion/urban sprawl and the resulting effects on our environment (land cover changes/shrinking water supply). His change detection algorithm can help communities recognize and mitigate consequences of human expansion to insure the best possible living conditions for residents.

It is interesting that all our awardees had projects that use earth science studies to promote public safety and involved using geospatial images/data and computer modeling/analysis software. Last year our top Junior project used earth science related observations and computer programming to predict the optimum home energy source based on location/environment. This seems to be the trend for future earth science related science projects. HGS may want to focus on training and research conferences combining earth science knowledge with geospatial imaging/data sets and computer modeling to predict natural disasters and store or produce carbon/hydrocarbons.

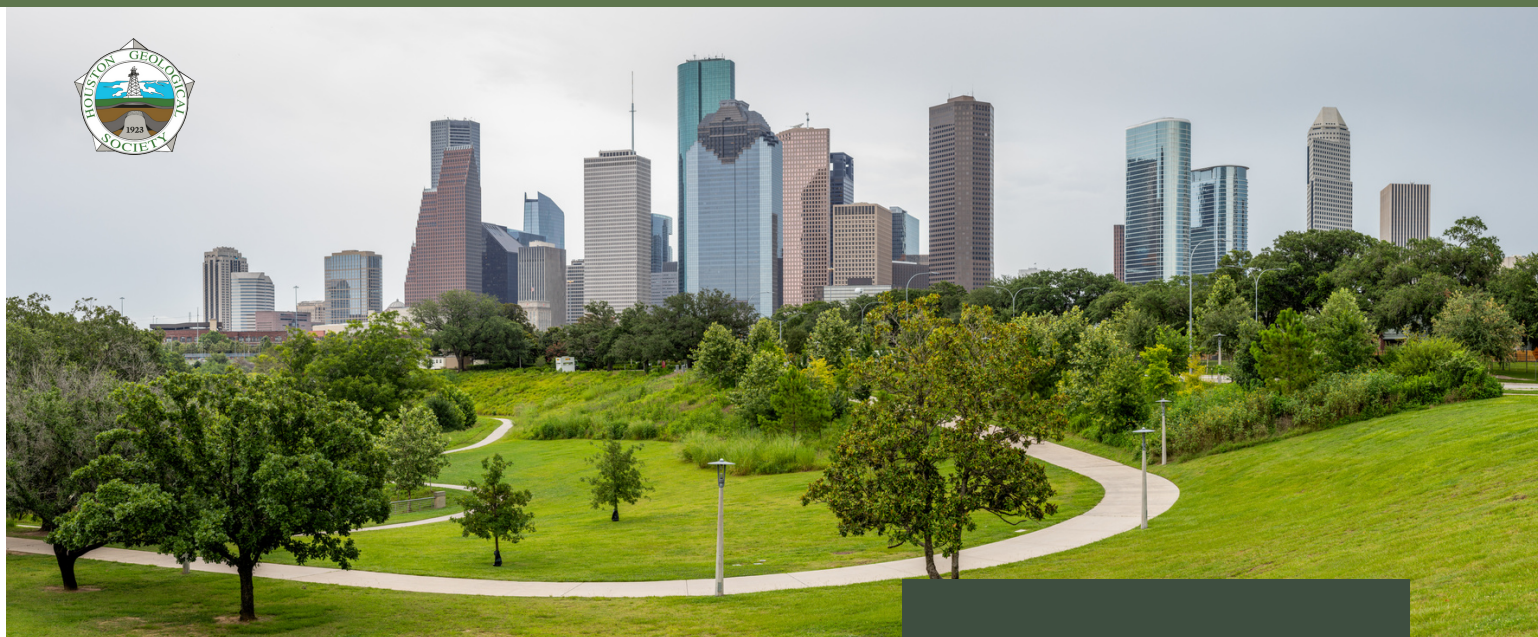
The 64th Science and Engineering Fair Awards Ceremony was held Saturday 2/18/23 and can be viewed at <https://www.youtube.com/watch?v=so3jYpNjw9c>. HGS was one of 35 Special Award Agencies at SEFH this year; 6071 students from Houston and the 22 surrounding counties (Southeast Regional Area) submitted projects; 993 students advanced to compete at SEFH; and 747 industry and academic volunteers judged the projects.

Four of the HGS Special Award for Earth Science-related project winners were able to attend. Chevron was the Presenting Sponsor and Liz Schwarze, VP Global Exploration, gave the keynote speech.





# Volunteer with HGS



## Annual Events

Every year the HGS has annual social events, and we need volunteers to help us organize and set up on the day of!

These include events such as:

- Golf Tournament
- Shrimp Peel & Crawfish Boil
- Skeet Shoot
- Tennis Tournament
- Field Trips



## Committees

HGS committees such as Educational Outreach and Continuing Education provide geoscience learning resources to students and the local geoscience community. These groups are always looking for volunteers! If you or someone you know is interested in lending a hand, please contact the HGS Office!



## Interested in Volunteering?

The HGS is always looking for energetic members to become volunteers for the society! As the largest local geological society in the country, we depend on the support of our members to help us organize and execute our many activities. Committees such as Educational Outreach, Continuing Education, and our annual social event committees are always looking for extra helping hands! Contact the HGS Office at [office@hgs.org](mailto:office@hgs.org) to learn more!



# 2023 Spring Symposium



Python & the  
Geosciences

## 19 APRIL

8:00 am – 5:00 pm  
Morning & Afternoon  
Sessions

6:00 pm – 8:00 pm  
Evening Networking Event,  
Cullen Hall of Gem & Mineral

## 20 APRIL

8:00 am – 5:00 pm  
Hackathon & SEG Challenge Bowl



**HOUSTON  
MUSEUM OF  
NATURAL  
SCIENCES**

For more information  
please contact: [office@gshtx.org](mailto:office@gshtx.org)



GEOPHYSICAL  
SOCIETY OF  
HOUSTON



**Matt Hall**  
Honoree

## TICKETS ON SALE

### Members



Both Days: \$350  
19th only: \$250 (includes  
evening event)  
20th only: \$150  
Evening Event only: \$50

### Non-members

Both Days: \$410  
19th only: \$310 (includes  
evening event)  
20th only: \$210  
Evening Event only: \$60

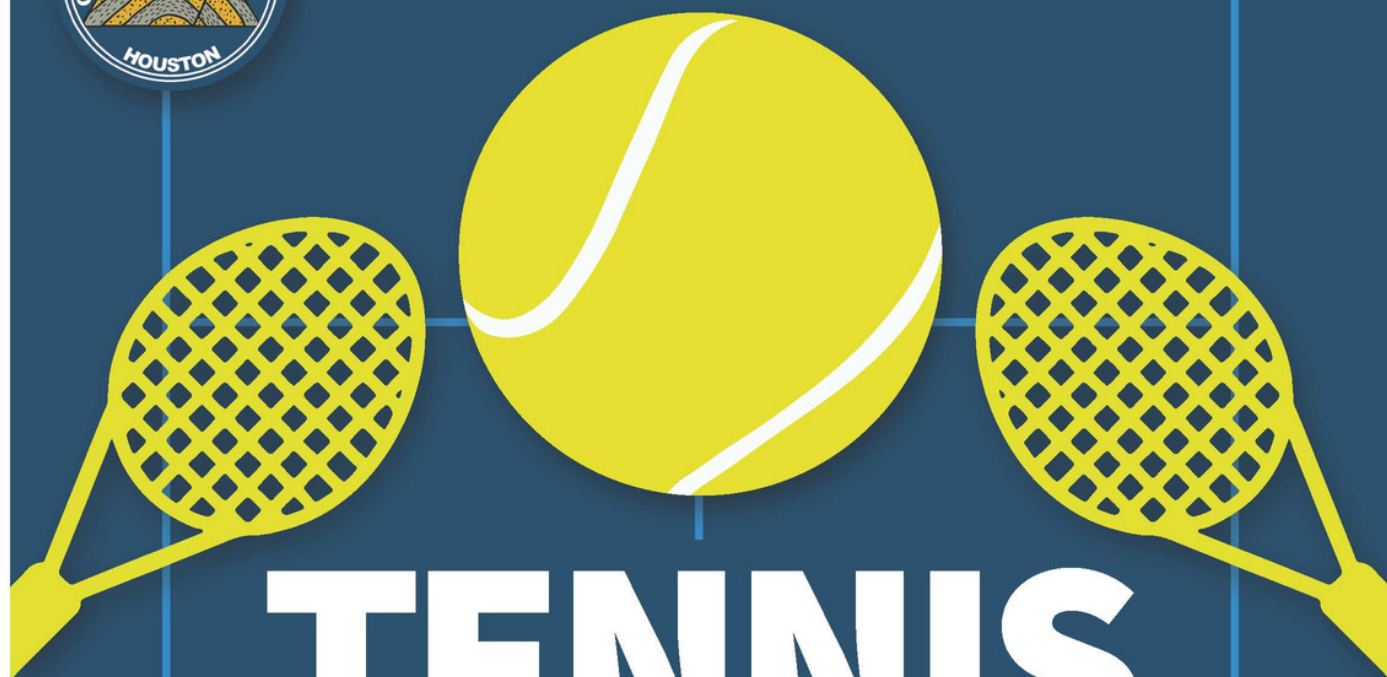
### Students

Both Days: \$100

Prices increase on April 12th



**GEOPHYSICAL SOCIETY OF HOUSTON**



# TENNIS

## T O U R N A M E N T

**12 - 5 PM FRIDAY APR 28, 2023**

- 12-1 PM: Lunch & Door Prizes
- 1-5 PM: Tennis Tournament

**Chancellors Family Center**  
6535 Dumfries Dr.

**\$80**  
Registration

Register at: [www.gshtx.org](http://www.gshtx.org)  
Chairperson: [rjones@seitel.com](mailto:rjones@seitel.com)  
GSH Office: [kathys@gshtx.org](mailto:kathys@gshtx.org)







Gulf Coast Section

## SPE Energy Professionals Hiring Event

Thursday, May 4, 2023 | 9:00am - 4:00pm  
Offshore Technology Conference - NRG Park

### DESCRIPTION

The SPE Energy Professionals Hiring Event for job seekers and employers is scheduled in-person on May 4, 2023 (SAVE THE DATE!) AT OTC 2023!!!



The Offshore Technology Conference is the premier technical conference for the global offshore industry, and is always one of Houston's biggest annual events, second only to the Rodeo!

- It provides **job seekers** with opportunities to meet with energy industry hiring companies in upstream, midstream oil and gas, & renewables.
- It provides **employers** a platform to meet and engage with experienced energy professionals, discuss career opportunities, and network.

For Job Seekers: Hiring Event registration is required, with **resume/CV uploaded** by **April 28, 2023**. Job Seeker Registration Opens **April 3, 2023**. QUALIFICATIONS:

- Be an active member of either SPE and/or the professional Collaborating Organization(s). Provide proof of active membership.
- And possess a 4-year bachelor's degree in engineering, applied sciences; or 4-year degree in a field other than science or engineering and technical experience working in the energy sector and / or projects.
- Or possess a 2-year science or engineering degree and technical experience working in the energy sector and / or projects.

Employers/recruiters have:

- Open positions (contract and/or full-time) at the time of the Hiring Event or in the near future in the disciplines of the Collaborating Organizations including transferable skills of energy professionals.

**CALL FOR VOLUNTEERS: Check the SPE EVENTS Page for the Next Members in Transition Meeting**

- This platform is intended to connect ALL INDUSTRIES with a vetted and diverse cross section of solution-driven ENERGY professionals on **May 04, 2023, 9am - 3pm Central Time**.
- If unable to attend the Hybrid or Virtual events, please support our local STEM scholarships by sponsoring this event (**email for info**), or make a donation to the **SPE-GCS Scholarship Endowment Fund**. SPE-GCS is a 501(c)(3) organization (tax ID 75-2001539).

Click [HERE](#) to read more

# GSH Annual Golf Tournament 2023

The Woodlands Country Club Tournament Course has been chosen to host this year's Geophysical Society of Houston's Annual Tournament. Winding through the village of Grogan's Mill, the overall design of the Tournament Course promotes the feeling of tranquility, with well-integrated ponds, lakes, natural trees, and pristine landscaping. The Tournament Course serves as host to The Insperity Invitational.



**\$200 Per Golfer**  
**Or \$800 Per Team**

**Scan the QR code to  
register!**



\*Space is limited to 130 Players - \*Sponsorships are still available

For more information contact: Fernando Verver {e} [fernando.verver@tgs.com](mailto:fernando.verver@tgs.com)

Or Kathy Sanvido {e} [kathys@gshtx.org](mailto:kathys@gshtx.org)



---

# Remembrance

GERALD GENE BURKETT  
1929 - 2023



Gerald Gene Burkett of Houston, known to family and friends as "Gerry", passed away on Tuesday, the 14th of February 2023, at his home with his wife and family by his side.

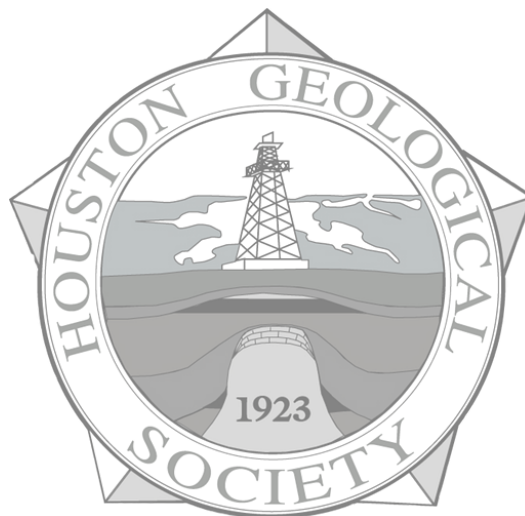
Gerry was born in Newcastle, Oklahoma, on the 22nd of December 1929, to Ed and Auda Burkett, the youngest of seven siblings. Gerry graduated from Newcastle High School and enrolled at Oklahoma University where he obtained an undergraduate degree in Geology. After graduation, Gerry applied for the Air Force Pilot training program. Gerry attained the rank of 1st Lt. in the Air Force and served four years, where he flew B-29s.

During his last assignment, he was stationed in Albany, Georgia, where he met the love of his life, Betty Adams. After dating for a year, they were engaged and married two weeks later in Morgan, Georgia. Gerry and Betty then moved back to Oklahoma where Gerry again enrolled at Oklahoma University and earned a Masters of Geology. He started his career with Atlantic Refining Company, moved to Midwest Oil, Tesoro Petroleum and finally McCormick Oil and Gas. Throughout his career he lived in Cody, Wyoming; Jackson, Mississippi; Lafayette, Louisiana; and finally Houston, where Gerry and Betty planted permanent roots.

Gerry's passions were God and church, his family, his friends and sports. Gerry's love for his family was unmatched. He adored Betty with all of his heart and embodied the spirit of a servant husband. He doted on his children and grandchildren and never missed a sporting or school event that someone was playing in. He coached his children in their little league sports and played recreational basketball and softball with them into his 60s. Gerry was so proud of his boys, and he would talk on and on about them to anyone who would listen. He loved planning annual trips with the family where he could spend more time with them. He was the kindest and most friendly man you had ever known and always offered words of wisdom for people who needed help. He served as an active member of Tallowood Church for almost 50 years. During that time, he taught and led many classes and was an active member of the deacons. Gerry was always true to his faith and was a man of integrity.

Gerry is survived by his loving wife of 66 years, Betty; sons, Greg Burkett and wife Janet of Katy, and Tim Burkett and wife Danna of Houston. He was affectionately known as "Papa" to his four grandchildren and four great-grandchildren: Brett Burkett, Blake and Erin Burkett and their three boys, Davis, Thomas and Beau; Parker and Mary Burkett, Preston and May Burkett and their daughter Hallie. He was preceded in death by his parents and his six brothers and sisters.

*Summarized from Life Tributes Section of the Houston Chronicle on Sunday February 19, 2023*



DOMESTIC &  
INTERNATIONAL



## BIOSTRATIGRAPHY

**ANYTIME.  
ANYWHERE.  
ANY FOSSIL.**

*Complete paleo services*

*Largest single-source GoM  
database*

*Custom projects & mapping*

*Multiple fossil disciplines*



**P A L E O**  
D A T A

**504-488-3711**  
**PALEODATA.COM**

**NEW ORLEANS, LA**



### THUNDER EXPLORATION, INC.

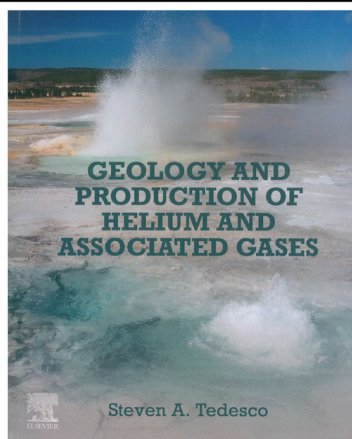
Celebrating 30+ years of prospect  
generation and exploration in the  
following South Texas plays and trends.

Frio	San Miguel	Edwards
Jackson	Austin Chalk	Pearsall
Yegua	Eagle Ford	Sligo
Wilcox	Buda	Cotton Valley
Olmos	Georgetown	Smackover

Thunder is currently seeking non-operated working  
interest participation in projects and prospects.

**Contact Walter S. Light Jr.**  
**President/Geologist**

713.823.8288  
EMAIL: wthunderx@aol.com



**Geology and Production of Helium and Associated Gases** brings together several different case histories, theories and models on how helium is generated, migrated to the reservoir, and trapped in various geologic rock types. Although the importance of this element in society has been well documented, helium is in significantly short supply. The association of CO<sub>2</sub> and N<sub>2</sub> gases with helium is also discussed. This book brings together a tremendous amount of data in geology, engineering, and production methods not available elsewhere in one source.

Full-color, 194 figures, 381 pages perfect-bond, also available digitally. Available at [www.Elsevier.com](http://www.Elsevier.com) or on Amazon.com

**THIS SPACE COULD BE  
YOURS!**

Promote your business  
with a 1/4 page ad.  
Contact [office@hgs.org](mailto:office@hgs.org)  
for more information.



## HGS Bulletin Instructions to Authors

**All materials are due by the 15th of the month, 6 weeks before issue publication.** Abstracts should be 500 words or less; extended abstracts up to 1000 words; articles can be any length but brevity is preferred as we have a physical page limit within our current publishing contract. All submissions are subject to editorial review and revision.

**Text** should be submitted by email as an attached text or Word file or on a clearly labeled CD in Word format with a hard copy printout to the Editor.

**Figures, maps, diagrams**, etc., should be digital files using Adobe Illustrator or Adobe Photoshop. Files should be saved and submitted in .ai, .eps, .tif or .jpg format. Send them as separate attachments via email or CD if they are larger than 5 MEGs each, accompanied by figure captions that include the file name of the desired image. DO NOT EMBED them into your text document; they must be sent as separate files from the text. DO NOT USE POWERPOINT, CLIP ART or Internet images (72-DPI resolution) as these do not have adequate resolution for the printed page and cannot be accepted. All digital files must have 300-DPI resolution or greater at the approximate size the figure will be printed.

**Photographs** may be digital or hard copy. Hard copies must be printed on glossy paper with the author's name, photo or figure number and caption on the back. Digital files must be submitted in .tif, .jpg, or .eps format with 300-DPI or greater resolution at the printing size and can be accompanied by figure captions that are linked by the file name of the image. The images should be submitted as individual email attachments (if less than 5 MB) or on CD or DVD.

### HGS Bulletin Advertising

The *Bulletin* is printed digitally using InDesign. Call the HGS office for availability of ad space and for digital guidelines and necessary forms or email [ads@hgs.org](mailto:ads@hgs.org). Advertising is accepted on a space-available basis. **Deadline for submitting material is 6 weeks prior to the first of the month in which the ad appears.**

Random Inside Ad Placement Black & White Prices Shown – Color add 30% to prices below					Specific Page Color Ad Placement					
No. of Issues	Random Eighth Page	Random Quarter Page	Random Half Page	Random Full Page	Inside Front Cover Full Page	Inside Back Cover Full Page	Page 2 Full Page	Outside Back Cover Half Page	Back of Calendar Full Page	Calendar Quarter Page
10	\$950	\$1,350	\$2,550	\$4,750	\$8,000	\$7,500	\$7,050	\$6,850	\$6,650	\$3,000
9	\$800	\$1,300	\$2,500	\$4,700						
8	\$750	\$1,250	\$2,250	\$4,300						
7	\$600	\$1,100	\$2,200	\$3,850						
6	\$550	\$950	\$1,800	\$3,500						\$2,000
5	\$500	\$800	\$1,600	\$3,000	\$4,700	\$4,500	\$4,350	\$4,000		
4	\$450	\$650	\$1,300	\$2,500						
3	\$300	\$550	\$950	\$2,000						\$1,000
2	\$250	\$400	\$700	\$1,500						
1	\$150	\$250	\$450	\$1,000	\$1,500	\$1,400	\$1,250	\$1,000	\$1,250	\$850
Professional Directory Section Business Card Ad: 10 Issues – \$160 (\$30 for each additional name on same card)										

### Website Advertising Opportunities

There are currently 5 opportunities to help spread the word about your business or event and generate traffic to your website or campaign. Please submit all ad materials five (5) days prior to the go-live date for testing.

Placement	Rate	Specifications/Description
HGS Website Home Page Banner Ad	\$800 – Monthly	275 x 875 pixels; home page top banner ad. All Home Page Banner Ads rotate every 10 seconds.
	\$1800 – 3 Months	
	\$2800 – 6 Months	
	\$3600 – 12 Months	
HGS Website Home Page Column Ad	\$700 – Monthly	200 x 400 pixels; home page right column ad
	\$1500 – 3 Months	
	\$2400 – 6 Months	
	\$3600 – 12 Months	
HGS Website Event Page Ad	\$600 – Monthly	200 x 400 pixels; calendar page left column ad. All Event Page Ads rotate every 10 seconds.
	\$1200 – 3 Months	
	\$1600 – 6 Months	
	\$2600 – 12 Months	
Geo-Jobs	\$50 – 14 days	Posting of job opportunities on HGS website. Click the Geo-Jobs tab to get started. Must be filled out completed and the dates set appropriately.
	\$100 – 30 days	
	\$300 – 3 Months	
	\$600 – 6 Months	
	\$1200 – 12 Months	
Vendor Corner	\$250 *4 Pack option with 1 FREE bonus event for \$1000.00 available. Send request to <a href="mailto:vendorcorner@hgs.org">vendorcorner@hgs.org</a> .	Company logo, company website, and company description will be highlighted on HGS Calendar website event. This is an opportunity to display company wares, gain personnel exposure and hand out product information at HGS dinner meetings.
Event/Short Course Calendar Ad	\$100 – Monthly	An event ad posted within the HGS website calendar under the Events tab.
Bundle & Save!	<ul style="list-style-type: none"> <li>• 30% off website ads when combined with print ads in all 10 HGS <i>Bulletin</i> issues.</li> <li>• 20% off website ads when combined with print ads in 5 HGS <i>Bulletin</i> issues.</li> <li>• 10% off website ads when combined with print ads in 3 <i>Bulletin</i> issues.</li> </ul>	



The Houston  
Geological  
Society

# Renew your membership

OR BECOME AN HGS  
MEMBER TODAY!



Renew or join by scanning the QR code above!

ACTIVE/ASSOCIATE MEMBERS: \$36 EMERITUS MEMBERS: \$18  
STUDENT MEMBERSHIPS FREE

VISIT OUR WEBSITE AT [WWW.HGS.ORG](http://WWW.HGS.ORG)





## APPLICATION TO BECOME A MEMBER OF THE HOUSTON GEOLOGICAL SOCIETY

### Qualifications for Active Membership

- Have a degree in geology or an allied geoscience from an accredited college or university; or
- Have a degree in science or engineering from an accredited college or university and have been engaged in the professional study or practice or earth science for at least five (5) years.

### Qualifications for Associate Membership (including students)

- Be involved in the application of the earth or allied sciences.
- Be a full-time student enrolled in geology or in the related sciences.

Apply online at [www.hgs.org](http://www.hgs.org) and click "Join HGS". Annual dues expire each June 30.

Annual dues are \$36; Emeritus members pay \$18; Students are free.

**To the Executive Board:** I hereby apply for membership in the Houston Geological Society and pledge to abide by its Constitution and Bylaws.

Full Name \_\_\_\_\_ Membership Type (choose one): Active Associate Student

Current Email (for digital Bulletin & email newsletter) \_\_\_\_\_

Phone \_\_\_\_\_

Preferred Address for HGS mail \_\_\_\_\_

Employer (required) \_\_\_\_\_ Job Title (required) \_\_\_\_\_

Will you volunteer? (Y/N) \_\_\_\_\_ Committee choice: \_\_\_\_\_

Active & Associate membership for one year (July 1st - June 30th) \$36.00 \_\_\_\_\_

Student membership \$0.00 \_\_\_\_\_

\*OPTIONAL\* Scholarship Contributions: Calvert/HGS Foundation-Undergraduate \$5.00 \_\_\_\_\_

**Total Remittance** \_\_\_\_\_

### Payment

Check # \_\_\_\_\_

Credit Card: V MC AE Discover Credit Card #: \_\_\_\_\_

CVC Code (required) \_\_\_\_\_ Expiration (mm/yy) \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Company \_\_\_\_\_ Company Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Postal Code \_\_\_\_\_

School (required) \_\_\_\_\_ Major (required) \_\_\_\_\_

Degree (required) \_\_\_\_\_ Year Graduated \_\_\_\_\_

School (optional) \_\_\_\_\_ Major (optional) \_\_\_\_\_

Degree (optional) \_\_\_\_\_ Year Graduated \_\_\_\_\_

Years Work Experience (required) \_\_\_\_\_

Please submit a brief statement regarding your work experience in the practice or application of earth science or an allied science.

AAPG Member Number \_\_\_\_\_ HGS Sponsor's Name \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Consulting, Evaluate Prospects:  
USA and International  
Seeking Prospects: Texas

**Victor H. Abadie III**  
Consulting Geologist

650.201.0528 • vic@montara.com  
Post Office Box 81, Montara CA 94037-0081  
AAPG/DPA, SIPES, Calif. Reg. Geologist, Tex. Reg. Geologist

**Paul W. Britt**  
Geologist, P.G., C.P.G.

Houston, Texas

**Geological & Geophysical Consulting**  
*Petra Consulting and Training*  
*Kingdom Seismic Interpretation*

713-651-0004  
www.petrauser.com

pbritt@texplyre.com  
www.texplyre.com

**COWBOY**  
EXPLORATION

*Utilizing 3-D seismic technology to identify, assemble,  
and drill conventional exploration prospects  
throughout the Texas Gulf Coast*

Cameron Goodwin - Head of Development

office: 512-717-4491 | cameron@cowboyexploration.com  
cell: 361-834-8519 | www.cowboyexploration.com

3800 N. Lamar Blvd, Suite 200, Austin, Texas 78756



**THUNDER EXPLORATION, INC.**

**WALTER S. LIGHT, JR.**  
PRESIDENT  
PETROLEUM GEOLOGIST

P.O. BOX 541674  
HOUSTON, TEXAS  
77254-1674

US MOBILE: +713 823 8288  
UK MOBILE: +44 (0)794 755 1693  
EMAIL: wthunderx@aol.com



**METAROCK**  
LABORATORIES

2703 Highway 6 S, Suite 280A  
Houston, TX 77082  
Tel 713-664-7916  
Cell 832-287-8320  
Fax 832-415-0358  
zach@metarocklab.com  
www.metarocklab.com

Zach Arasteh  
Business Manager

Website • Brochure  
Ad • Logo • Catalog  
Newsletter Design



**Lisa Krueger Design**

*Design and Art Direction for Print and Web*  
LisaKruegerDesign.com  
713.664.7267

**Mustafa Touati**

**Digital Rock Physics - Numerical Geology  
Geomodeling - Geostatistics and the Road  
To Geoexploration Robots.**

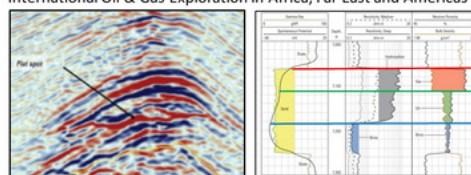
Mailing address: P.O. Box 3401  
Sterling, VA, 20167

E-mail: [mustafa\\_touati@yahoo.com](mailto:mustafa_touati@yahoo.com)

**Getz Exploration Consultants Inc.**

Geoscience Consultation Since 1982

*Seismic and Well Log Interpretation/Computer and Applications Work*  
Onshore and Offshore USA Gulf Coast Basins, Oil & Gas/**Geothermal**  
International Oil & Gas Exploration in Africa, Far East and Americas



Contact Steven L. Getz at

Address: 12102 Piping Rock Drive, Houston, Texas, USA, 77077

Email: Steven L. Getz @ [sjgetz@outlook.com](mailto:sjgetz@outlook.com)

Telephone: (713) 304-8503

**CERTIFIED PETROLEUM  
GEOLOGIST**

**EXPLORATION AND DEVELOPMENT  
PROSPECT EVALUATION  
ECONOMIC MINERAL EVALUATION**

**ANDREW W. HAMPF**  
GEOLOGICAL CONSULTANT

7121 QUAIL FIELD DRIVE  
HOUSTON, TEXAS 77095

CELL (832) 236-3464  
HOME/FAX (281) 463-8070

EMAIL: [hampf.aw@sbcglobal.net](mailto:hampf.aw@sbcglobal.net)



**Thomas E. Moon**  
President, Chief Geoscientist  
[moont@sbcglobal.net](mailto:moont@sbcglobal.net)

*Specializing in Latin America*

**MQUEST INTERNATIONAL, INC.**

6603 Ampton Drive, Spring TX 77379

Cell: 281-468-1151



# Come Rock With Us



The Houston Geological Society is a professional society for petroleum, energy and environmental geoscientists. The HGS supports continuing education, networking, outreach to students, student scholarships and young professional activities. HGS will celebrate its 100th year in 2023!

The objectives of the Houston Geological Society are to stimulate interest and promote advancement in geology for the Houston area, to disseminate and facilitate discussion of geological information, relationships among geologists in the area, and to aid and encourage academic training in the science of geology. The Society strives to achieve these goals through regularly scheduled technical meetings, publication of a monthly Bulletin, a continuing education program, field trips, the publication of timely books, and two student scholarship funds.

## Join the Houston Geological Society's wonderful group of volunteers!

The HGS is always looking for energetic members to become volunteers for the society. As the largest local geological society in the country, we depend on the support of our members to help us organize and execute our many activities.

### HOW YOU CAN HELP

**Field trips:** Do you have an idea for a fun field trip? We are always interested in planning exciting trips for adults and kids! Add your name to our list of future field trip guides!

**Monthly Technical Meetings:** Have you recently heard a great speaker that you think the HGS should host? Let us know! You can also volunteer to help at any of our monthly technical meetings, such as: *General Dinner, General Lunch, Environmental & Engineering Meeting, North American Dinner, International Dinner.*

**HGS Committees:** Committees such as Educational Outreach, Continuing Education, and NeoGeos are always looking for extra helping hands!

**Annual Events:** Every year the HGS has annual social events, and we need volunteers to help us organize and set up on the day of the events. They include: *Scholarship Night, Crawfish Boil, Skeet Shoot, Conferences, Golf Tournament.*

**If you are interested in adding your name to our list of volunteers, please contact the HGS Office at [office@hgs.org](mailto:office@hgs.org)**





# *Houston Geological Society*

14811 ST. MARY'S LANE, SUITE 250  
HOUSTON, TX 77079

Contact Us  
713.463.9476  
[office@hgs.org](mailto:office@hgs.org)



Connect with us on social media

[www.hgs.org](http://www.hgs.org)