

OCTOBER 2023
Volume 64 No. 4

NCGS LOG



The Grand Canyon is a site most of us have visited, myself excluded. I've seen most of Europe, but I've never been west of Houston. It's always been one of the most beautiful, iconic, and geologically fascinating places in the US, and I hope one day to be able to see it for myself.

Photo by Morgan Tuohy.

Happy Halloween, everyone!



[Image Source](#)

From the Editor...

Greetings Everyone,

I hope everyone is enjoying this “cool” weather we’re having in Louisiana and is ready for the first real cool front of the fall season. I know I’ll be ready to finally turn my air conditioner down and hopefully save a little bit on electricity!

I would like to mention we are looking for volunteers to participate in Super Saurus Saturday on October 7th at the Louisiana Children’s Museum in City Park. Please see the flyer on page 21 for more details!

The temperatures may be getting lower, but so are water levels in the Mississippi River. As residents of the lower river parishes, we will need to brace ourselves for the encroaching saltwater intrusion into the river. I can’t help but think about how fast local governments will need to adapt to the possibility that this may be the new normal. For this month’s GeoNews article, I have put together a brief overview of the science behind salt wedges, and explore how several factors besides drought upriver have affected the possible drinking water disaster upon us.

As always, if you have any suggestions about content or would like to contribute to the Log, please reach out to me at editor@nog.org!



Brittany George
2023/2024 NOGS Log Editor

Brittany



MARK WOJNA

A MESSAGE FROM THE 2023/2024 NOGS PRESIDENT

I would like to thank all of our current members along with the new members who joined and guests who attended our two Fall Kickoff/Membership Drive parties this past September. I would also like to once again thank and acknowledge our two sponsors for these events, Stratagraph and Leaaf Environmental. Both the north shore and south shore parties were held at fun venues and were well attended. Having attended both parties myself, I see them as a reflection of the new normal as the New Orleans Geological Society evolves. For the past 20 to 40 years, most of our members worked in the oil and gas industry with most of the jobs being concentrated in downtown New Orleans. Today, what's left of the remaining oil and gas industry here in the New Orleans area has migrated to the north shore. The south shore is populated with geologists working as consultants in various fields, working in the environmental industry, working in regulatory agencies and academia.

This diaspora of geologists spread across the New Orleans metro area and southeast Louisiana certainly presents some challenges for NOGS. In the past, when most of us worked downtown, monthly luncheon meetings were held at The New Orleans Petroleum Club. After the Petroleum Club had shut down, NOGS moved to the Holiday Inn on Loyola where we met regularly for many years on the first Monday of every month. With the redistribution of members in the metro region and post-covid challenges we've become a bit nomadic. We appear to be settling on holding alternating meetings on the north shore and south shore to accommodate our membership. Our north shore meetings seem to be settling in at Zea's Restaurant in Covington. Finding a suitable location to meet on the south shore has been challenging. Inflation and worker shortages, especially in the service industry are real issues. As we've all experienced in our personal lives, dining costs have gone up. Many restaurants are operating on limited schedules, especially on Monday lunch times. The NOGS Board is evaluating all our options including costs, venue locations and days of the week in order to continue to provide cost effective and meaningful lunch meetings for our membership.

The Board is also working on providing a more professional virtual meeting option for those members and non-members who cannot attend a monthly lunch meeting but want to hear the speaker for educational purposes. For those of us who are licensed professional geologists in the State of Louisiana, any geologically relevant talk is worth one educational credit towards licensing requirements. We are planning on issuing educational certificates in the near future for those members who require the credits to maintain their licenses. We are also looking to diversify the topics of our monthly speakers in order to appeal to all geologists living and working in our region. In my previous monthly letter I was celebrating the fact that we were experiencing a quiet and calm hurricane season in the Gulf Coast. Instead of looking forward to cooler fall temperatures, we're now beginning to wonder what this salt wedge creeping up the Mississippi River has in store for us. Let's hope that this salt wedge doesn't become another chapter in New Orleans history of calamities. *Laissez les bons temps rouler*. As always, if you have any questions, issues that need to be resolved or suggestions feel free to reach out to me by email at markw@llox.com

Mark Wojna

UPCOMING EVENTS

NOV
2023

09
OCT

MONTHLY MEETING

Matt McShee
Shell Global Ops Geology
Hypercare Team

Walk-On's Sports Bistreaux
Clearview Center - Metairie
11:30 Networking
12:00 pm Lunch & Presentation

MONTHLY MEETING

Copeland Towers
11:30 Networking
12:00 pm Lunch & Presentation

02
NOV

for more information visit
www.nogs.org

OCTOBER MEETING

Monday, October 9, 2023
Walk-On's Sports Bistreaux
Clearview Center, Metairie

11:30 am Networking

12:00 pm Lunch & Presentation

Operations Geology Global Hypercare Team: From Fledgling Concept to Global Impact



MATTHEW JASON MCSHEE UPV/S/QH

In January 2023, Shell launched the Operations Geology Global Hypercare Team with two Centers of Excellence based in the USA (Houston/New Orleans) and the Netherlands (The Hague). This marked the latest step in a five-year effort to build a dedicated team focusing on Operations and Well Site Geology within Shell. The goal of this effort is to create a team of skilled Operations Geologists that can support Shell projects across the globe, as well as raise the corporate knowledge level through team interactions, STIA/MFA programmes and training opportunities.

REGISTER NOW

DRILL BITS

OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES BY AL BAKER



During August 2023, the **Bureau of Safety and Environmental Enforcement (BSEE)** approved 51 Gulf of Mexico (GoM) drilling permits. Fourteen of the permits were for shelf wells, and the remaining 43 permits were for deepwater wells. There were 2 new well permits issued in deep water.

The new deepwater well permits were for an exploration well and a development well. **Shell Offshore** received the exploratory well permit for their Walker Ridge 365 #1 well. **Talos Energy Ventures** obtained the development well permit for their Ewing Bank 874 #A-27 well in their Spruance Field.

On August 24th, **S&P Global Petrodata** indicated that the GoM mobile offshore rig supply stood at 49, which is the same as last month. The marketed rig supply consisted of 36 rigs, of which 30 were under contract. The marketed rig supply and the contracted rig supply numbers are also the same as last month. The marketed contracted versus total rig supply utilization rate stood at 73.5%, and the marketed contracted versus marketed supply utilization rate stood at 83.3%. By comparison, the August 2022 total fleet utilization rate stood at 73.9% with 34 rigs under contract out of the 46 rigs in the fleet.

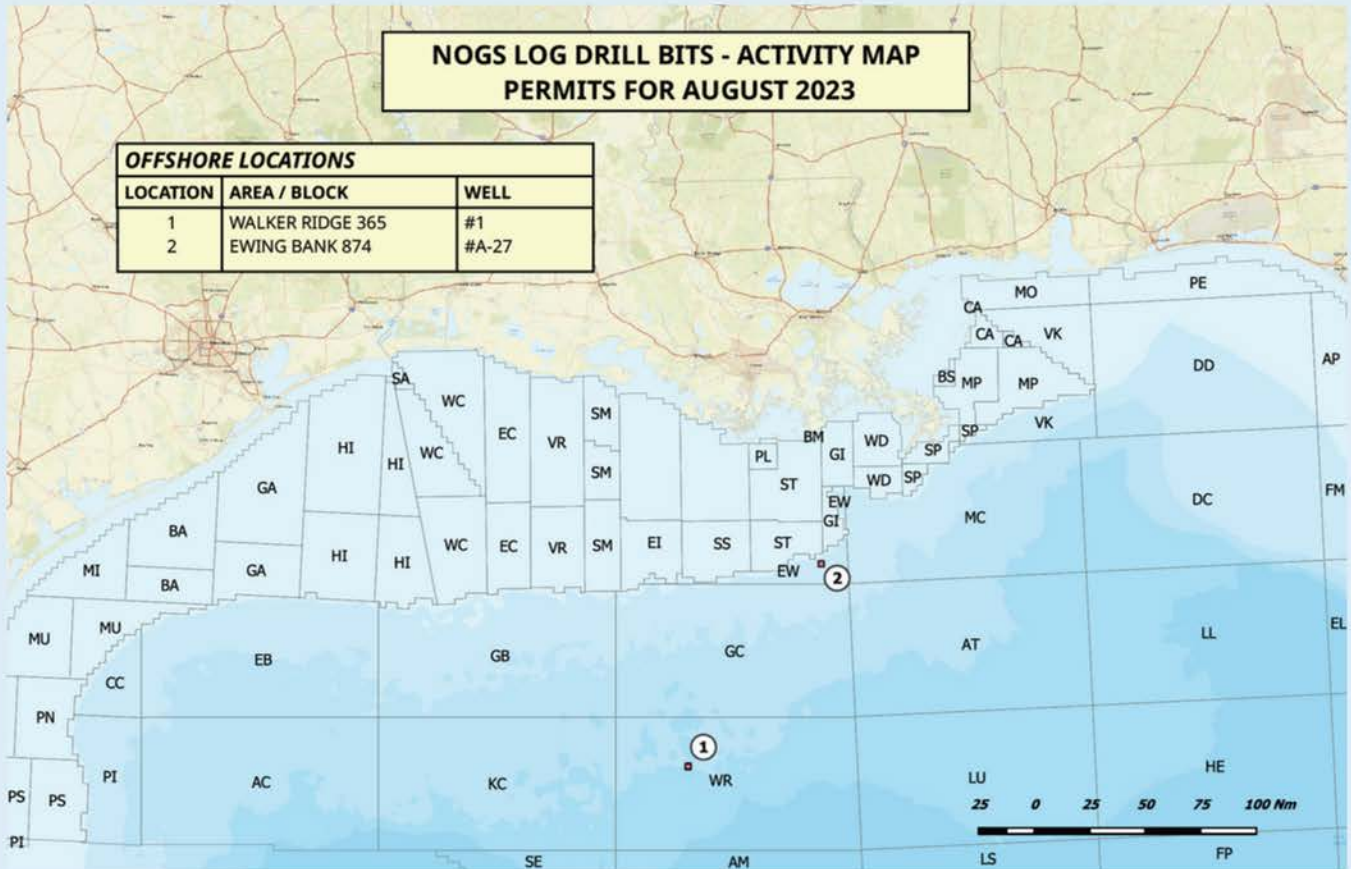
On August 25th, **Baker Hughes** reported that there are 15 active mobile offshore rigs in the GoM, which is 4 less than last month and 50% of the rigs under contract mentioned above. Currently, 1 rig is drilling on the shelf, and 14 rigs are drilling in deepwater. The one shelf rigs is located in the Eugene Island Area. The deepwater rigs include 6 rigs in the Mississippi Canyon Area, 3 rigs in the Keathley Canyon Area, 2 rigs in the Green Canyon Area and 1 rig each in the Garden Banks, Ewing Bank and Alaminos Canyon Areas.

On August 25th, the **Baker Hughes** total U.S. rig count stood at 632 rigs, which is 32 less than reported at the end of July 2023. Of the 632 rigs, 512 (81%) are oil rigs and 115 (18.2%) are gas rigs. Five rigs are listed as miscellaneous. A year ago, there were 765 rigs working in the U.S. inferring that the current rig figure represents an 17.4% decrease in rigs year over year. Presently, Texas continues to have the largest number of rigs with 307, which is 48.6% of the total number of rigs in the U. S. Louisiana currently has a total of 42 rigs, which are 9 less than last month. Louisiana ranks third behind New Mexico, which has 107 rigs.

DRILL BITS



NEW WELL PERMITS OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES MAP BY KEVIN TROSCLAIR



NOGS

Kick-Off Events 2023



Thanks to our Kick-Off Sponsors!



Have you renewed your NOGS Membership?

Thank you for your continued support as a member of NOGS! We greatly appreciate your dedication to our organization and the valuable contributions you have made to our community.

Your membership renewal plays a vital role in sustaining the work we do at NOGS. It enables us to organize events, provide educational resources, and promote the field of geology to a wider audience. By renewing your membership, you continue to be a part of our vibrant community and support our mission of advancing geological knowledge and fostering professional growth.

Alongside your membership renewal, we would like to invite you to consider making a donation to the NOGS Memorial Foundation. This foundation plays a crucial role in supporting the education of Geology and Earth Science students attending LSU, UNO, and Tulane Universities. Your generous donations directly contribute to the scholarships we provide to these students, helping them pursue their dreams and achieve academic success.

[To make your donation, please click here](#)

Every contribution, no matter the size, makes a meaningful difference and helps us continue this important work. Your support ensures that future generations of geologists and Earth scientists have the resources they need to succeed.

We deeply appreciate your commitment to NOGS and your dedication to the advancement of geology. Thank you for considering membership renewal and making a donation to the NOGS Memorial Foundation. Together, we can make a lasting impact on the geology community and the future of our field.

If you have any questions or require further assistance, please do not hesitate to reach out to us - admin@nogs.org

Thank you once again for your continued support and for being an invaluable part of NOGS.

Recent Energy Headlines

July 2023 Recap

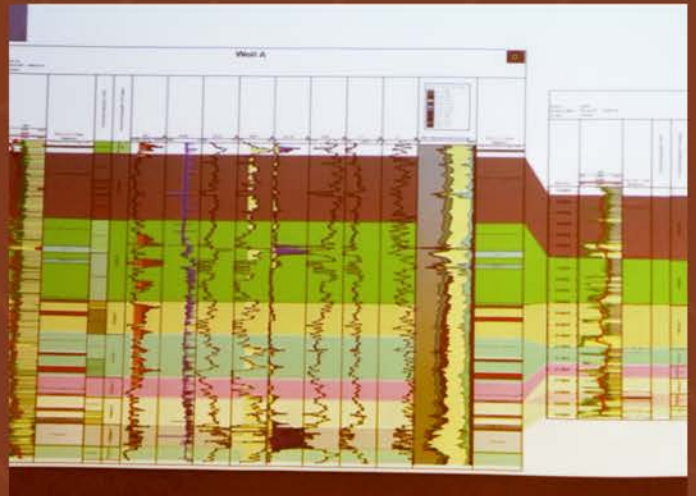
9/20/2023 - House Democrats cross party lines, demand new five-year leasing plan - A group of House Democrats penned a letter on Sept. 14 to several top Biden administration and White House officials, demanding the immediate continuance of uninterrupted offshore oil and gas leasing. As reported by Fox News, the Democrats — led by Rep. Vicente Gonzalez, D-Texas — called for the Department of the Interior (DOI) to immediately issue its legally mandated five-year plan for offshore fossil fuel lease sales, which the agency has delayed for more than 12 months. [Read Full Article](#)

9/19/2023 - Brent Oil Price Highly Likely to Move Above \$100 - We are highly likely to see Dated Brent moving above \$100 per barrel. That's what Bjarne Schieldrop, the Chief Commodity Analyst at SEB, said in a new report, which was sent to Rigzone on Monday. "It is now less than \$5 per barrel away from that level and only noise is needed to bring it above," Schieldrop said in the report. [Read Full Article](#)

9/14/2023 - Shell plans new headquarters in New Orleans River District - Energy giant Shell is already investing in the project by moving its New Orleans headquarters from Poydras St. to a new high-rise in the River District. "We are always looking for opportunities to grow our energy needs of our populations," Shell Senior VP for the Gulf of Mexico Colette Hirstius said. [Read Full Article](#)

9/6/2023 - Biden Administration Violates Oil and Natural Gas Provisions in Inflation Reduction Act - In a clear bid to mollify oil and natural gas opponents, the administration cut 6 million acres to protect endangered wildlife, while conceding the government has not identified a "reason to believe" this wildlife was at risk in this area. The Biden administration continues a pattern that began in its earliest days: Throwing up roadblock after roadblock to U.S. energy production and prioritizing a campaign promise to stop U.S. oil and natural gas development in federal waters over their duty to meet America's essential energy needs. [Read Full Article](#)

9/1/2023 - Upper Miocene age Zama prospect discovered in Mexico - The Zama oil field is expected to commence production in December 2025. The Zama oil discovery is located in Block 7 of the Sureste Basin off the shore of Mexico, at a water depth of approximately 165m. Pemex serves as the operator of the field with 50.43% working interest. The other partners in the field are Wintershall Dea (19.83%), Talos Energy (17.35%) and Harbour Energy (12.39%). The field area was extended up to the nearby offshore block owned by Pemex, following the completion of a three-well appraisal programme in June 2019. Secretaría de Energía, the Mexican Ministry of Energy, suggested the unification of the field in July 2020, and Pemex became the operator of the field in July 2021. [Read Full Article](#)



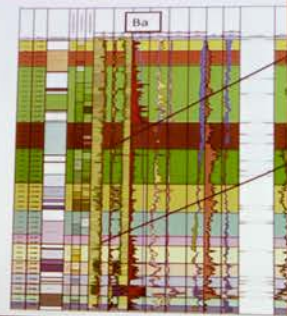
September NOGS Luncheon Photos

Thank you to Simon Hughes of Diversified Well Logging for coming to talk to us about chemostratigraphy applications in the Gulf of Mexico!



Type Log - Well A

- Sample Quality**
 - Samples > 10 yrs. old
 - High Ba (up to 60,000 ppm)
 - Elemental GR (EGR) – lack of character ***
 - Is data representative?
- Chemostratigraphic Zonation**
 - 14 Packages
 - 28 Units
 - 15 Sub-Units (Th & P2O5)
 - Is zonation driven by variation in Ba



In Loving Memory of Longtime NOGS Member

Louis O. Vidrine



October 18, 1975 – June 20, 2019

Louis O. Vidrine passed from this world to his heavenly reward on September 1, 2023 at the ripe old age of 94. Louis was born in Washington, Louisiana to Emar and Emma Vidrine. He grew up in Ville Platte, then moved to the greater New Orleans, Northshore and Baton Rouge areas, always calling Ville Platte home.

Louis was preceded in death by his loving wife of 35 years, the mother of his children, Ruth Margaret Birou Vidrine, and his parents, Emar and Emma Fontenot Vidrine, along with 8 siblings; Archille, Pauline, Azalie, Capell, Joseph, Isabel, Rosamond (Joe), and Una Mae. Louis was also preceded in death by a second wife of 12 years, Betty.

Louis served our country in the US Air Force, and graduated from Tulane University in 1954 with a Bachelors of Science degree with a major in Geology. Louis had a strong work ethic that served him well in his career as a Geologist. In 1971, Louis wrote an article for The American Association of Petroleum Geologists titled "Production Potential of Deep Miocene Rocks in Southeastern Louisiana." It was Louis's belief that the greatest potential lay in the deep rocks in unexplored areas. Louis's innovative thinking resulted in numerous deep discoveries of which his greatest discovery was Sunrise in 1979. Louis was frequently published in Letters to the Editor sections in numerous newspaper publications. He also authored his unpublished book, The Offshore.

Louis was actively involved in Conservative politics and he was an openly fierce opponent of the Communist party. He was an avid reader and thought everyone else should be too. He loved a good debate, a stiff drink, and was a huge fan of all things Tulane, especially Tulane football. Louis was a donor to Tulane student athlete scholarships. Not one to miss a game; he and Ruth even arranged their wedding around the Tulane football schedule. In his younger years he played golf regularly with his friends, created the "Vidrine Open" for them, and together they created their idea of a trophy being the "Bonk, Donk, Zonque" award.

Louis was an admired and accomplished man, but his real legacy was his commitment to his family and friends, and his generous spirit.

Louis is survived by four children; Jeanne, Mark (Jordan), Barbara (Steven) and Suzanne, as well as 10 grandchildren; Jared, Jonathan, Erica, Ariana, Jude, Gene, Stephanie, Paige, Justin and Cole, and 10 great grandchildren. Louis is also survived by many beloved nieces and nephews.



AAPG



Calling for donations for the upcoming **AAPG Caughey-Zimmermann Energy Library**

LSU AAPG is developing a library that will provide a **wealth of valuable resources** to students. Our goal is to foster a **collaborative environment** where students can **explore** topics in petroleum geology, **empowering** them to **pursue careers** in the energy sector... ***BUT WE NEED YOUR HELP!***

How can you support us?

- ✓ Physical book donations
- ✓ Digital book donations
- ✓ Monetary donations

ALL donors will receive **recognition** in the library!

Donations over **\$150** will receive an **award!**

Follow the link to
learn how to
donate!

<https://bit.ly/3WfLuGa>



PICTURE FROM THE PAST



NOGS Officers 1986-87

Front Row: Dick Edmund, President; Carlo Christina, Vice President;
Terri Witherton, Secretary; Bob Douglass, President-Elect
Back Row: Charlie Corona, Director 1988; Bob Branson, Director
1987; Jack Langford, Treasurer; O.R. Carter, Director 1989.

Submitted by
Christy Himel, NOGS Administrator



LOUISIANA SALT WEDGE: BEYOND THE DROUGHT

by Brittany George

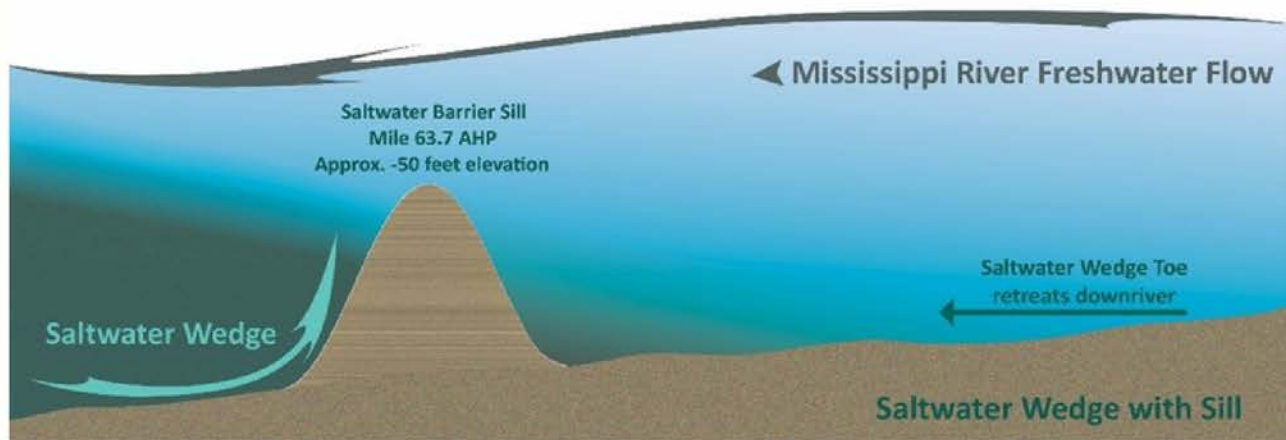


Image Source: [USACE](#)

For the past few weeks, news outlets have been trying to prepare local residents for a wedge of saltwater that may eventually affect municipal water supplies. Not only are chloride levels expected to exceed the 250 mg/L EPA threshold for safe drinking water, but aging pipeline infrastructure in New Orleans could turn the situation into one akin to Flint, Michigan. If the saltwater encounters lead pipes, it could leach heavy metals into the water supply.

Saltwater intrusion is not unknown in southeastern Louisiana. Low river flow lessens the amount of fresh water that is able to reach coastal areas, causing saline Gulf waters to enter areas that are normally fresh to brackish. Under even lower river

flow conditions Gulf water can travel up the river, threatening the drinking water of communities along the river.

Drought conditions within the Mississippi River valley are largely responsible for low river flow conditions, but liability for the saltwater remaining in the river for so long lies with recent dredging of the river to allow navigation of larger cargo ships as well as climate change.

The thalweg of the river is currently deeper than the water surface of the Gulf of Mexico up to River Mile 350, or 15 miles downriver from Natchez, Mississippi. This allows the more dense saline Gulf water to enter the river and flow underneath the river's fresh





Louisiana GeoNews

A New Orleans Geological Society Publication

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water. Deepening projects not only create more accommodation space for this salt water to flow, but can also decrease the natural slope of the river that aids flow back into the Gulf.

Finally, we should begin thinking about this new climate change dilemma. Rising sea levels will increase the Gulf of Mexico water surface level. Any sills created to mitigate salt wedges in the future will need to be higher, and more force from the river will be

required to push all of that saltwater out.

It should also be noted that while the last time a salt wedge reached metro New Orleans was in 1988, they have generally occurred once every decade: 1988, 1999, 2012, 2022, and now in 2023. Back-to-back years of saltwater intrusion were previously unheard of, but it will remain to be seen whether this alarming trend is the new normal for communities in Louisiana that rely on the river for potable water.



Per the **USACE**, the current position of the toe of the saltwater wedge as of September 27.



Image Source: **USACE**



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The New Orleans Geological Society was organized on October 3, 1941, as a non-profit organization for the purpose of facilitating the development of the profession and science of Geology, with specific emphasis to exploration and production of petroleum and natural gas. Secondary related objectives include the dissemination of pertinent geological and environmental technological data, and the maintenance of a high standard of professional conduct of its members. The full history of the Society can be found at nogs.org.

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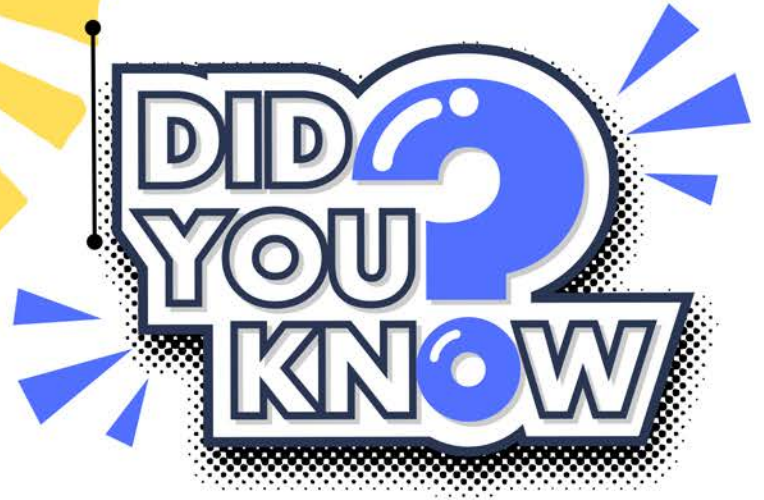
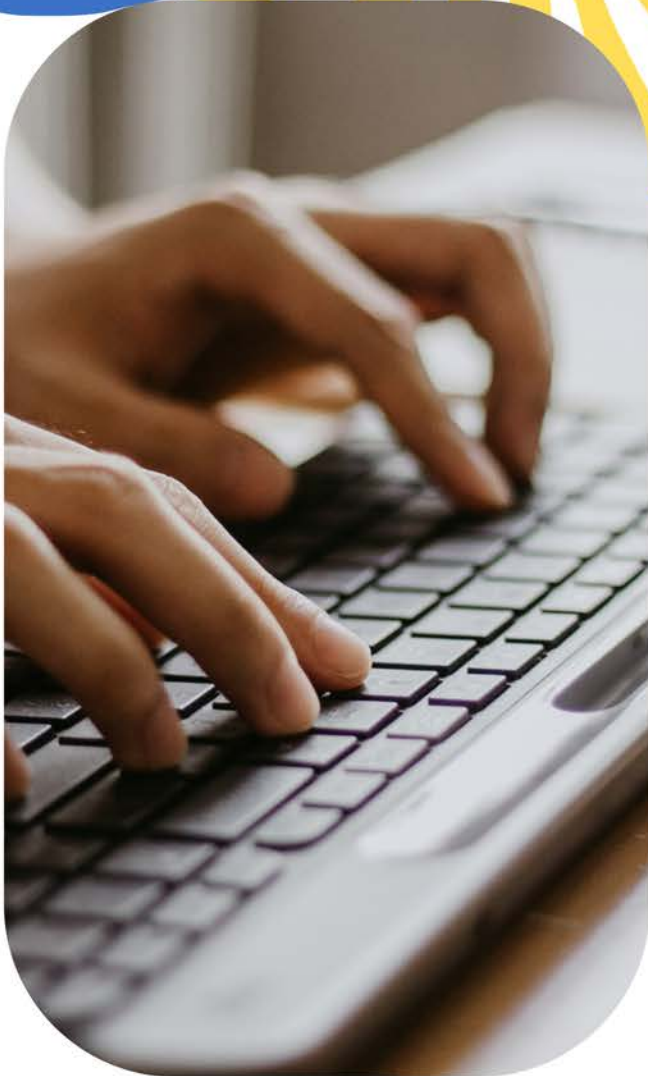


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Arthur F. Christensen

arthur_shalimar@yahoo.com

985-893-2013



GEOLOGY
ENVIRONMENTAL
MANAGEMENT

GEM Consulting, LTD

Emmitt Lockard
emlockard@yahoo.com

Michael Louis Merritt
admin@gemconsultingltd.com

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Founded March 14, 1978, the mission of the New Orleans Geological Society Memorial Foundation is to promote earth-science related educational or scientific purpose by granting of scholarships to outstanding Geology students at the universities in Southeast Louisiana offering a degree in Geology. The Bill Craig Memorial Fund provides for any earth science related educational or scientific purpose that is a direct benefit to grades K-12 teacher or teachers within the Greater New Orleans Area. This area encompasses New Orleans, Jefferson, Plaquemines, St. Bernard and St. Tammany Parishes.

THE MEMORIAL FOUNDATION IS AN IRS TAX EXEMPT CODE #501(C)(3) ORGANIZATION. THE FEDERAL ID IS 72-1220999. PLEASE CONSIDER MAKING A DONATION TO THE FOUNDATION. YOUR INDIVIDUAL SUPPORT IN ANY AMOUNT WILL HELP MEET THE IRS GUIDELINES FOR OUR FOUNDATION. THANKS!

Thank you!

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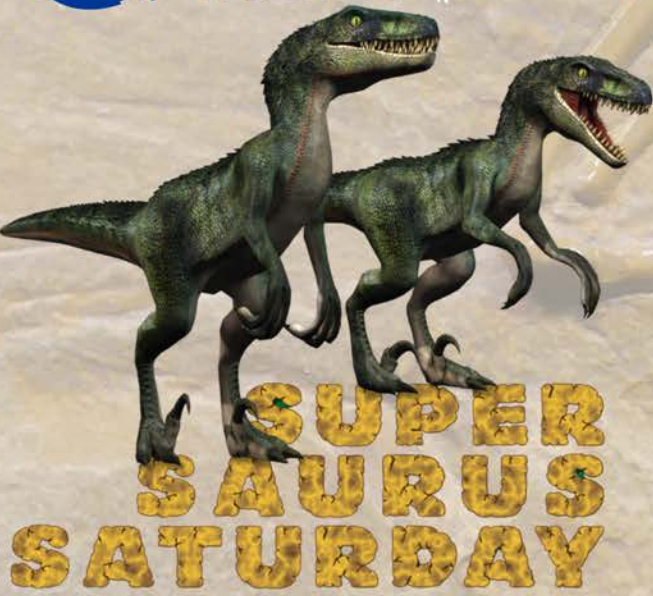
in memory of James R. Strahan

Robert Meltz

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CALL *for* VOLUNTEERS



October 7, 2023
11:00 am - 3:00 pm



Volunteers needed for Super Saurus Saturday

October 7th 11 am -3 pm

The dinosaurs will roam the

Louisiana Children's Museum in City Park.

Join in on this fun-filled event!



To volunteer contact
Tom Bergeon

Tombergeon.geo@gmail.com





Energy Transition Research Symposium

Sponsored by the Louisiana Board of Regents and hosted by the LSU Center for Energy Studies, the inaugural Energy Transition Research Symposium aims to bring together energy researchers from across the state and across disciplines. Participating organizations include Louisiana Department of Natural Resources, Louisiana Legislative Auditor, Louisiana State University, Louisiana Tech University, McNeese State University, Southern University, Tulane University, University of Louisiana at Lafayette, and University of New Orleans. Representatives from all academic disciplines are welcome and encouraged to attend. Government and industry, as well as out-of-state researchers whose work focuses on Louisiana energy issues, are also invited to participate.

Call for papers!

Researchers are invited to submit an abstract or full working paper to be included in the program.

A [template](#) is available for use but not required.

Deadline for submissions: August 18

Agenda finalized: September 8

Date of Symposium: October 6



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**Advance registration is
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