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# APRH.6.2019 <br> 11:00 am-3:00 pm 

 LOVISIANA


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## INHSISSE

## Regular Features:

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On The Cover.3
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From the Editor ..... 3
From the President .....  4
NOGS Officers / Contacts ..... 6
Upcoming Events \& Activities ..... 7
NOGS Luncheon Presentation .....  8
Calendar of Events: February 2019. ..... 10
Drill Bits ..... 12
NOGS Memorial Foundation \& FONO Fund ..... 17
Special Features:
Super Science Saturday ..... 2
GCAGS 2019 Convention ..... 8
Picture From Our Past ..... 10
NOGS January Luncheon. ..... 11
13th Annual LA Water Conference ..... 14
2018 Ad Rates ..... 15
Like Us on Facebook! ..... 16
2019 NOGS-PLANO-SPWLA Golf Tournament ..... 19

Published monthly by the New Orleans Geological
Society. This issue was sent to press on Jan. 29, 2019.
Interested in contributing to the NOGS LOG?
Please submit items by the 1st Friday of the month to nogseditor@gmail.com. Advertising requests should contact NO GS at admin@nogs.org.

## anthecorer

## Cover photo credit: Weazelwise.com

## Cathedral Caverns State Park - Alabama

Originally called Bat Cave, Cathedral Caverns was opened to the public by Jacob Gurley in the 1950's. The cave was renamed because of its cathedral-like appearance. Purchased by the state in 1987, it was opened as a State Park in the summer of 2000. The first feature most people notice about Cathedral Caverns is its massive entrance. The huge opening measures 126 feet wide and 25 feet high, a possible world record for commercial caves. The grand entrance is only the beginning. Inside the cavern are some of the most beautiful formations Mother Nature has ever created including "Goliath"- one of the largest stalagmites in the world measuring 45 feet tall and 243 feet in circumference.

Cathedral Caverns features many amazing sites: a "caveman" perched atop a flowstone wall, a "frozen" waterfall, a large stalagmite forest and a most improbable stone formation - a stalagmite that is 27 feet tall and 3 inches wide!

Information courtesy of Alabama State Parks website:
Cathedral Caverns State Park

F rom theE ditor

The government shutdown has been wreaking havoc with our lined-up monthly speakers. Some speakers are federal workers that have been furloughed. Hence, they are unable to present their scheduled talk. Although at this moment the shutdown is over until Feb. 15th, the planned February speaker was replaced by James Keay from TGS. The talk will be "Lower Paleozoic Reservoirs in the Delaware Basin: Gas and Liquids Distribution." The March speaker is also a federal employee, Mike Celata from BOEM. This talk will be a joint meeting with SPE. We will see what happens.

Also, Mardi Gras madness is upon us this month in New Orleans and other pseudo-civilized cities. Most of us know about Mardi Gras but, there's lots of craziness and strange events in our world and beyond. The giant spinning ice disc in the Presumpscot River in Westbrook, Maine, is most unusual, although it is not paranormal. Fast moving currents in the river can create a force called rotational shear that can break of a chunk of ice and cause it to spin.

Elsewhere in the universe, on Earth's moon, China planted cotton seeds that sprouted in a controlled environment. However, the little plants did not survive. They also sent fruit flies, and really, if anyone has had fruit flies in their kitchen, they know that this is cuckoo. This mission was a prelude to the preparation of sending Chinese astronauts to the moon. If they really wanted something to survive on the moon, they should have sent cockroaches.

Laissez les bon temps rouler!


New Orleans winters are short, and the occasional 70 -degree day always makes me feel like spring is just around the corner. This is quite unlike when I lived in Michigan where it might snow until May, and warm weather and waking from the winter slumber always felt months away. But for New Orleans, and for NOGS, it is already time to think about renewal. In just a few months we will consider candidates for the Board of Directors. If you are interested in serving on the Board, I encourage you to contact our Nominating Committee Chair, Brenda Reilly. Of immediate need is a new Editor for this publication, who can fill in right away as Editorelect on the Board. Grant Black, who was elected Editorelect last year, has moved to Oklahoma after a year and a half serving on the Board (for which I thank him). This leaves us with a vacancy for a good Editor who will maintain the quality of the NOGS LOG, and getting your feet wet by serving on the Board as Editor-elect for a few months is a good idea.

Speaking of Board changes, my own position as President will likely also come to an early end. In late November I resigned from my job at Shell after almost eight years as a production geologist. Much has been written about the generational changes in the American workforce. Gone are the days of spending your lifetime with a company, getting a retirement watch, and receiving a nice pension. Loyalty is out and changing careers, often without a choice, is in. But my change is driven more by another generational shift in America, which is that my partner, Rosalyn, found a job out-of-state. Like me, she earned a doctorate (hers in Applied Mathematics), and has been pursuing her own career, having found opportunities up until recently in New Orleans. When she was offered a long-term appointment at Los Alamos National Lab, back in her home state of New Mexico, it was hard to say no. It will be hard to leave New Orleans behind, but I have to admit I am looking forward to seeing geology on something other than a workstation. Once we sell our home here and I find employment in New Mexico, it will be time for me to move on and join Rosalyn for the next stage of our two careers.

In academic circles the difficulties faced by dual-career couples is sometimes called the two-body problem (a nerdy reference to a problem in classical mechanics).

Most universities are working towards accommodating couples in this position. Some employers do, although this is far from common. What this means is that young workers today are faced with uncertainty, changes, and complicated problems of work and life that require flexibility. What it likely means for NOGS is a more rapid turnover of membership, and a stronger need than ever to engage with young workers, to provide stability, career development, and professional connections that help them make transitions. It likely also means being flexible as an organization with more frequent career changes among members and leadership. We also should also be aware that according to the American Geosciences Institute, for some years now about $40 \%$ of geology students, at both undergraduate and graduate levels, have been women (both numbers have actually declined from a peak of just under $50 \%)^{1}$. This means that over time NOGS membership should grow to include a higher ratio of women. The current NOGS Board is $1 / 3$ female, which is a good sign. You will soon see a membership survey from us as well so we can try to understand the demographics of current NOGS membership, to help determine which, if any, members we are missing, and to ensure that we are meeting the needs of our current membership, of every demographic. Just as the seasons continuously change, so must we.

## References

1) Keane CM. 2016. Geoscience Currents. No. 110. June 2, 2016. (https://www.americangeosciences.org/sites/default/files/ currents/Currents-110-GenderEnrollments2015.pdf)


## Valentine's Day Fun Facts

Every year, more than 36 million heart-shaped boxes of chocolates are sold across the country.
The average man spends $\$ 130$ on Valentine's Day, while women spend about $\$ 70$.
Every year, around 9 million people buy their pets a Valentine's Day gift.
February 14th is the second largest card-giving day of the year, just after Christmas. This year, it's expected that one billion cards will be exchanged around the world.
Teachers receive the most Valentine's Day cards, followed by kids, mothers, wives and girlfriends.
Hallmark was one of the first to mass produce a Valentine's Day card, all the way back in 1913.
The only other day that beats Valentine's Day in floral sales is Mother's Day.

## Set your sights. Gulf of Mexico

TGS provides industry-leading offshore seismic data using an innovative mix of technologies and unmatched imaging capabilities. Through strategic partnerships, we provide a comprehensive collection of advanced marine acquisition technologies for enhanced reservoir delineation, characterization and monitoring. TGS delivers the E\&P industry unlimited potential with our collection of advanced offshore data including Declaration M-WAZ 3D survey, Fusion M-WAZ 3D, Otos Multibeam and Seep and Gigante 2D Multibeam and Seep programs. Explore the Gulf of




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## February 4 NOGS Luncheon Presentation



# Lower Paleozoic Reservoirs in the Delaware Basin: Gas and Liquids Distribution 

Presented by<br>James Keay

TGS • Houston, Texas


## ABSTRACT

We discuss early results of a project in the Delaware Basin aimed at providing a more comprehensive view of the distribution of gas and liquids. We focus on the lower Paleozoic section, which is well known for prolific dry gas production, and the study identifies an interesting area of deep gas liquids that may lead to similar play concepts.

A detailed basin-wide stratigraphic framework has been built and well perforations are correlated to specific zones and intervals, enabling accurate assignment of public production data and EUR analysis specific to the producing zones. A basin-wide temperature model offers some insight to the preservation of deep liquids and recent 3D seismic helps characterize these deep traps.

## BIOGRAPHY

Mr. James Keay has over 30 years experience in international oil and gas exploration and business development. His background is in structural and reservoir geology, and his experience includes exploration throughout North and South America, field development and operations in Canada, and reservoir studies in Colombia, Kuwait and Canada. He has also held senior management positions in international consulting and business development. James leads a team of geoscientists at TGS performing basin and prospect scale analysis in support of TGS's seismic project development. Along with technical evaluation of investment opportunities, the geoscience team contributes to seismic design and imaging, seismic attribute studies, well performance studies, and the development of new interpretation products.

## THEFEBRUARY LUNOHEONRESERVATION DEADLINEISFEBRUARY 1.

## "And Looking Ahead . . ."

The next luncheon will be held on March 12th. Our guest speaker will be Michael Celata, Gulf of Mexico Regional Director of BOEM. Reservations online at www.nogs.org or by email at admin@nogs.org or call 504-348-3500.
www.gcagshouston.com


# 69th Annual Gulf Coast Association of Geological Societies 2019 GCAGS Convention 

## October 23-25, Marriott Westchase, Houston

Hosted by the Houston Geological Society and the GCSSEPM
General Chair: Mike Erpenbeck, Vice Chair: Larry Bartell, GCAGS President: Deborah Sacrey
Submit an Oral or Poster Abstract by March 4, 2019


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If you know of upcoming seminars or academic events that may be of interest to our members, please email the event details to Fran Wiseman at nogseditor@ gmail.com to be included in the monthly calendar.

| 2019 | EVENT | LOCATION | CONTACT / INFO |
| :---: | :---: | :---: | :---: |
| 4 Feb | NOGS Luncheon Presentation Lower Paleozoic Reservoirs in the Delaware Basin: Gas and Liquids Distribution Speaker: James Keay • TGS - Houston, Texas | Holiday Inn Superdome | Reservations: www.nogs.org Email: admin@nogs.org Call: 504-348-3500 |
| 7 Feb | NOGA "Day at the Races" | New Orleans Fairgrounds | Contact Sue Baker |
| 4 Mar | CALL FOR PAPERS OR POSTERS - GCAGS Convention Oral or Poster Abstract by March 4th |  | See page 18 this issue |
| 12 Mar | SPE/NOGS Luncheon Presentation Speaker: Michael Celata • GOM Regional Director, BOEM | Holiday Inn Superdome | Reservations: www.nogs.org Email: admin@nogs.org Call: 504-348-3500 |
| 6 Apr | Super Science Saturday | LA Children's Museum | tom.bergeon@upstreamexp.com |
| 15-16 Apr | 13th Annual Louisiana Water Conference See page $\mathbf{1 7}$ for more information | Dalton Woods Auditorium LSU • Baton Rouge, LA | https://easychair.org/conferences/ ?conf=lawater2019 |
| 15 Apr | CALL FOR PAPERS Petroleum History Institute |  | Dr. William Brice wbrice@pitt.edu Marilyn Black 814-677-3152 mblack@oilregion.org |
| 3 May | NOGS - PLANO - SPWLA Golf Tournament | Bayou Oaks at City Park New Orleans, LA | Reservations: www.nogs.org Email: admin@nogs.org Call: 504-348-3500 |
| 19-22 May | AAPG 2019 Annual Convention \& Exhibition Henry B. Gonzalez Convention Center | San Antonio, Texas | https://ace.aapg.org/2019 |



In the photo, left to right: Carlo Christina, Bob Douglass, Ed Picou, Bob Ingham and George Severson

## NOGS JANUARY 2019 LUNCHEON

Speaker: Chris McLindon
"Update on the Coastal Geohazards Atlas"


## NEW LOCATIONS

Firststrike Energy will drill the \#1 Columbia Land \& Timber, SN 251455, a Wildcat, (A), in Beauregard Parish. The well will test Yegua sands at a depth of 10,700 feet, ( 9500 feet, TVD). It is located in Sec. 4, 7S-13W, $11 / 2$ miles south of production in South Bancroft Field.

In St. Charles Parish, Bayou Des Allemands Field, (B), LLOX is drilling its \#1 Sellers Heirs, SN 251479. It is located in Sec.13, 15S-20E on the west flank of the field. It will be drilled to a total depth of 12,340 feet to test Cib op sands. Bayou Des Allemands Field was discovered in 1937. To date, more than 250 wells have been drilled in the field.

Strand Energy will drill the \#1 Sibille in Port Barre Field, St. Landry Field, (C), to a depth of 9500 feet to test Frio sands. It will be drilled offsetting shallow production in Sec. 7, 6S-6E on the east flank of the field. The field, a shallow salt dome, was discovered in 1929. To date moiré than 700 wells have been drilled in the field.

## OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES by Al Baker

During December 2018, the BSEE approved 75 Gulf of Mexico drilling permits. Eighteen of these were for shelf wells, and 57 were for deepwater wells. Of the total number of permits, there were 6 new well permits; 2 were issued on the shelf and 4 in deepwater.

The shelf new well permits were for $\mathbf{1}$ exploration well and $\mathbf{1}$ development well. The exploration well permit was issued to Talos ERT for their Ship Shoal 359 \#1 well, and the development well permit was granted to Arena Offshore for their South Timbalier 52 \#CA-8 well.

South Louisiana and Offshore Gulf of Mexico Exploration and Production Activities

LAFAYETTE DISTRICT, ONSHORE AREA<br>By Carlo C. Christina and Kevin J. Trosclair

During the month of December 2018, the Louisiana Department of Conservation issued only 3 permits to drill for oil and gas in South Louisiana. These wells are reported below:

The 4 deepwater new well permits were for 2 exploration wells and 2 development wells. The exploration well permits were awarded to BP Exploration \& Production for their Mississippi Canyon 430 \#1 well and to Chevron for their Walker Ridge 759 \#PS-6 well. The development well permits were also given to BP Exploration \& Production for their Green Canyon 825 \#7 and 826 \#8 wells.

On December 31st, IHS-Petrodata reported that the Gulf of Mexico mobile offshore rig supply stood at 73, which is the same as last month. The marketed rig supply consisted of 43 rigs, of which 36 were under contract. The marketed rig supply number was also the same as last month, where as the contracted rig supply was $\mathbf{1}$ more than the previous month. The marketed contracted versus total rig supply utilization rate remained at $\mathbf{5 8 . 9 \%}$, and the marketed contracted versus marketed supply utilization rate stood at 83.7\%. By comparison, the December 2017 total fleet utilization rate stood at $37.2 \%$ (versus $49.3 \%$ today) with 35 out of the 95 rigs under contract.

As of December 31st, BakerHughes indicated that there were $\mathbf{2 4}$ active mobile offshore rigs in the Gulf of Mexico, which is $\mathbf{6 6 . 7 \%}$ of the rigs under contract mentioned above. This active rig number is $\mathbf{1}$ more than as reported last month. Of the 24 rigs, 7 are located on the shelf, and $\mathbf{1 7}$ are situated in deepwater. At the same time last year, there were 18 mobile offshore rigs operating in the Gulf of Mexico suggesting a 33.3\% increase.

As of December 31st, the BakerHughes total U.S. rig count stood at $\mathbf{1 0 8 3}$ rigs, which are $\mathbf{7}$ more rigs than reported at the end of November 2018. Of the 1083 rigs, 885 ( $81.7 \%$ ) are oil rigs and 198 ( $\mathbf{1 8 . 3 \%}$ ) are gas rigs. A year ago, there were 929 rigs working in the U.S. Thus, the current rig figure represents a $\mathbf{1 6 . 6 \%}$ increase in rigs. Texas had the largest number of rigs with 532 , which is slightly under half (49.1\%) of the total number of rigs in the U. S. Louisiana had a total of 67 rigs, up 2 rigs from last month.

## Onshore \& Offshore Activity Map for South Louisiana FEBRUARY 2019



## 13th Annual Louisiana Water Conference April 15-16, 2019

Dear Colleagues:
Louisiana Geological Survey (LGS), LSU Agricultural Center (AgCenter), and Louisiana Water Resources Research Institute (LWRRI) are co-hosting the 13th Annual Louisiana Water Conference, April 15-16, 2019 at Louisiana State University, Baton Rouge, Louisiana.

You are cordially invited to submit titles and abstracts to the Water Conference.
The Conference offers 1 PDH Ethics Lecture for Professional Geologists (PG) and Professional Engineers (PE) and certificates of Continuing Education Units (CEUs).
Conference announcement (LAWater 2019 CFP): https://easychair.org/cfp/lawater2019 Title/Abstract submission(LAWater 2019): https://easychair.org/conferences/?conf=lawater2019

## Important Dates:

Title and Abstract Submission Open: Now
Registration Open: January 2, 2019
Title Due: February 15, 2019
Abstract Due: March 15, 2019
Early Registration Deadline: March,15, 2019
Conference Days: April 15-16, 2019 Ethics Lecture for Geoscientists and Engineers (1 PDH): TBA

## Conference Location:

Dalton Woods Auditorium, Energy, Coast \& Environmental Building, Louisiana State University • Baton Rouge, Louisiana

## Program Committee:

Douglas Carlson, Louisiana Geological Survey (co-chair)
Ryan Clark, The Water Institute of the Gulf
Stacia Davis Conger, LSU AgCenter, Red River Research Station Mark Davis, Tulane University, Tulane Institute on Water Resources Law and Policy Mary Gentry, Louisiana Department of Environmental Quality

Emad Habib, ULL, Department of Civil Engineering Krishna Paudel, LSU AgCenter and LSU Agricultural Economics and Agribusiness (co-chair)

Frank Tsai, LSU Department of Civil and Environmental Engineering (co-chair) Thomas Van Biersel, Louisiana Department of Natural Resources Carol Wicks, LSU Department of Geology and Geophysics

Jun Xu, LSU School of Renewable Natural Resources

## NOTICE FOR POTENTIAL CANDIDATES TO APPLY FOR VACANCIES ON THE SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY EAST AND WEST LEVEE BOARDS.

The State contact person is Ms. Stephanie Aymond at Stephanie.Aymond@LA.GOV . Applicants need to complete the official application, which can be found at the following link: http://www.coastal.louisiana.gov/wpcontent/uploads/2013/09/SLFPAApplication1.pdf. Applicants are needed to fill the following Board vacancies:

The Nominating Committee will be seeking applicants for this year to fill the following vacancies for their term beginning in 2019 and ending in 2023.
A. Non-Resident:

1. SLFPA -East Board: One (1) Vacancy. A Non-Resident for the East Board means anyone who resides in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans Parish in that respective portion of these Parishes that is located on the East side of the Mississippi River or anyone who resides in St. Bernard or Tangipahoa Parishes.
2. SLFPA-West Board: One (1) Vacancy. A Non-Resident for the West Board means anyone who resides in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans Parish in that respective portion of these Parishes that is located on the West side of the Mississippi River.
A Non-Resident applicant can apply to both Board's or may choose to apply for only the East or West Board's, subject to the residency requirements.

## B. Resident:

1. SLFPA-East Board Tangipahoa Parish Resident: One (1) Vacancy. The applicant for this vacancy must reside within the boundaries of Tangipahoa Parish.
2. SLFPA-West Board Orleans Parish West Resident: One (1) Vacancy. The applicant for this vacancy must reside in that portion of Orleans Parish that is located on the West side of the Mississippi River.


The New Orleans Geological Society was formed in 1941, with an initial membership of only 55 . It has always been an active professional society and presently has a membership of 500 .

AD SIZE
Full Page (7.5"x10")
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Quarter Page (3.75"x5" or 7.5"x2.5")
Eighth Page (3.75"x2.5")
Twelfth Page (3.75"x1.65")
Note Size (3.75"x.75")

| 2015 RATE | NEW 2019 RATE! |
| :---: | :---: |
| $\$ 3500$ | $\$ 1750$ |
| $\$ 1850$ | $\$ 925$ |
| $\$ 1000$ | $\$ 500$ |
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| $\$ 375$ | $\$ 188$ |
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PREMIUM LOCATIONS
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Inside Back Cover.................................... $30 \%$
Outside Back Cover ................................. $+40 \%$

## Like us on Facebook!

Our Facebook page for the New Orleans Geological Society is a great way to connect with other geologists and keep up to date with the latest NOGS events, videos, updates, and fun geology tidbits.

Find us at https:/lwww.facebook.com/nogs.org/


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Mr. William M. Whiting
In Memory of Tom Klekamp
In Memory of Gene Cobb

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The FONO Fund accepts contributions that are invested and the income dedicated to assure sufficient financial resources will always be available to maintain the NOGS business office. Contributors are reminded that donations to the FONO Fund are not covered by the IRS 501(c)(3) tax exempt classification and should be reported as a business expense on your IRS tax report

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The funde from this event will benefit the Louisinna Chilidrants Museum and the Chillarents Museum of St. Tammany.

## NOCS-PLANO-SPWLA

## 2019 Annual Golf Tournament

Please register early! We are limited to only 100 players.

## Bayou Oaks at City Park New South Course

 City Park • New Orleans, LA Friday • May 3, 2019 Format: 4 -person scramblewith shotgun start at 8:30 a.m.
Post tournament lunch sponsored by Diversified Well Logging Registration opens at 7:00 a.m. with breakfast served until tee time (8:30 a.m.)

Price includes green fees, cart, range balls, food \& drinks, and prizes. What else could you possibly ask for?

## Costs:

\$150/individual •\$700/corporate - Hole sponsors are \$125
A portion of your tournament participation fee may be tax deductible under the NOGS Memorial Foundation 501(c)3.

## We need volunteers!

If you can help out, you will be treated to a day of fun, food, and be eligible for some door prizes.

NEW ORLEANS GEOLOGICAL SOCIETY
P.O. Box 58108

New Orleans, LA 70158


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