

# SEE THE ENERGY WITH TGS' DATA INTEGRATION SOLUTION

See and access all of your G&G data with Volant, TGS' geoscience data and application integration solution that:

- Interconnects well and seismic data between geoscience databases and applications
- Reduces data duplication and maverick data purchasing
- Improves data governance by routing vendor data to corporate data stores.

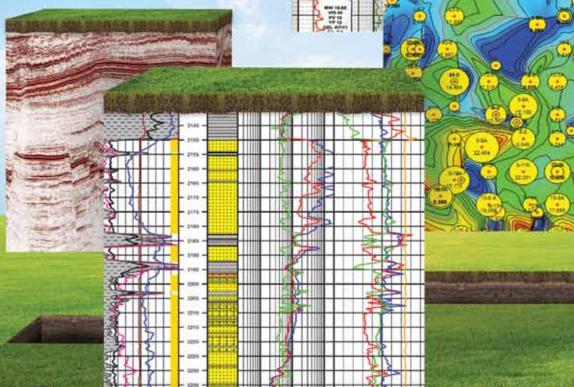
Visit the TGS website to learn more and to see a complete list of supported databases and applications.

For more information, contact TGS at: Tel: +1 713 860 2100

Email: Info@tgs.com









Published monthly by the New Orleans Geological Society. This issue was sent to press on July 24, 2013.

Interested in contributing to the NOGS LOG? Please submit items by the 1st Friday of the month to no gseditor@gmail.com. Advertising request should contact the NOGS office at info@nogs.org.

# IN THIS ISSUE

#### **Regular Features:** From the President......5 NOGS Officers / Contacts ......6 Upcoming Events & Activities .......7 NOGS Luncheon Presentation ......9 August & September Calendars......12 Drill Bits ......24 Info-Tidbits ......30 NOGS Memorial Foundation......33 **Special Features:** AAPG Announcement .......16 FETCH! Oil and Energy Saturday ...... 17 July Luncheon & Awards .......18 Kick Off Party ......28

On the Lighter Side ......32

## ON THE COVER:

Cover Photo Submitted by: Philip J. Richardson

#### Avery Island LiDAR Topography and Top of Salt Contours

Image shows the elevated topography produced by the Avery Island salt dome above the surrounding wetlands. Currently, salt mining is being conducted by Cargill Corporation. Oil was discovered in 1942 by Humble Oil and Refining with the Petit Anse Company Well No. 2. The field is still actively producing oil, and is currently being operated by Texas Petroleum Investments Company. Of course, Avery Island is probably most recognized as the original source of the world famous Tabasco pepper sauce, manufactured by the McIlhenny Company. In the processed LiDAR image, the pepper fields appear prominently as terraced slopes (colluvium apron derived from Peoria Loess) along the eastern boundary of the "island". The distinctive geomorphology of Avery Island is the result of a complex Quaternary geologic history. and the interested reader is directed to Autin, W.J. et al, 1986, Quaternary Geology of Avery Island, Louisiana, Gulf Coast Association of Geologic Societies Transactions, Volume XXXVI, pp. 379-390.

Image Description: Elevation contours (thin black not labeled) range from 30 feet to 160 feet. The top of salt subsurface contours are shown in thicker black (labeled) and dashed (salt overhang).

Data Sources: Well data sourced from IHS and processed in ArcGIS 10.1. LiDAR point data, breaklines and topographic contours were downloaded from the LSU Atlas website (http://atlas.lsu.edu) and processed to a DEM in ArcGIS 10.1. Further enhancement of the DEM was performed to separate the topographic characteristics of the water bodies, marsh, terraced slopes, and island. The top of salt contours were digitized from Bates, F.W. et al, 1959, Geology of Avery Island Salt Dome, Iberia Parish, Louisiana: American Association of Petroleum Geologist Bulletin, v. 43, no. 5, p.949.

# From the Editor

Well it's that time of year again . . . the beginning of the school year. For some of us that means tighter schedules, homework and studying, or just more traffic on the roads. For me, it means my three-year- old son is moving from nursery to "Big School" as he enters Pre-K3. Yikes!

For a select group of local college students, this school year is one that they've been looking forward to for a long time. The University of New Orleans is offering a petroleum geology class for the first time in five years. The students have been very proactive in making this class become a reality. An article that was posted on the UNO website appears on page 20. Funding for the class has come from the NOGS Memorial Foundation and several NOGS members. Toby Roesler, of Stone Energy, has volunteered to teach the class. Congratulations and good luck students!

Thanks.

Sheri Richardson - NOGS LOG Editor

# These nodes change everything.

With absolutely no cables, there's absolutely no stopping you.



True cable-free seismic

Dealing with tons of cable will hinder any seismic acquisition, land or marine. That's why our exclusive, true cable-free ZNodal® systems pay such huge dividends in any environment.

Our lightweight, compact ZLand® system lets your crews work faster and much more safely while recording high-resolution data, even in the most challenging terrain.

Our ZMarine® system, also completely self-contained, deploys easily and safely, even in congested areas, to water depths of 3000m, which makes it ideal for 4D reservoir monitoring.

Welcome to a new world of seismic acquisition.



FairfieldNodal.com

SYSTEMS ACQUISITION LICENSING PROCESSING IMAGING

AUGUST 2013 4 NOGS LOG





August will be an active month for NOGS, as two special events will take place.

Fetch! Oil and Energy Saturday will be from 11 am to 3 pm on Saturday, August 3rd, at the Louisiana Children's Museum on Julia Street in New Orleans. This event is jointly sponsored by volunteers from NOGS, SPE Delta Section, SPWLA, and API. Volunteers will show children where oil comes from, how we find it,

and how we produce it. Favorite exhibits are the oil finder game and the rock and fossil collection. To volunteer at this great event, contact Tom Bergeon, tom.bergeon@centuryx.com.

Another event jointly sponsored by the AADE, SPE Delta Section, and NOGS in August is the 17th Annual Deepwater Symposium at the Hilton Hotel on August 21st and 22nd. The technical section will include sessions on geoscience, reservoirs and economics, drilling, completions, and intervention technology. Now that shelf exploration is targeting fans and channel sands, the geoscience sessions are especially relevant.

Our August Luncheon speakers will be Bill Schramm and "Dutch" Donlon from the Louisiana Department of Environmental Quality and their topic will be "Salt Dome Storage and Brine Production Facilities: Geological, Environmental, and Safety Issues." This topic should be of special interest to the geological community as a whole in light of the sinkhole that formed in the Napoleonville Salt Dome, when an abandoned salt cavern collapsed. Since the initial collapse in August 2012, the sinkhole has grown, has emitted oil and gas, and has become a hazard to nearby residences and businesses.

Another item of interest to the NOGS membership is the Louisiana Geoscience Practices Act (Act 974) which becomes effective on August 1, 2013. Tom Klekamp, NOGS President 2009-2010, in his letter to the NOGS membership, which appeared in the July *NOGS LOG* summarized Act 974 as to the requirements and fees for certification as a Professional Geoscientist in the State of Louisiana. In particular, if one wants to be exempt from taking the qualifying test and be "grandfathered" as a Professional Geoscientist, one must apply to the Board before January 1, 2014. See Tom's letter for the details and watch the NOGS website and the *NOGS LOG* for further updates regarding certification.

Next, I would like to call out to the NOGS membership on an important matter that came to my attention through Annette Hudson, our Office Manager, and Bill Whiting, one of our AAPG delegates. NOGS has lost a voting member in the AAPG House of Delegates. We have gone from four voting delegates down to three due to a decline in NOGS members who are also full AAPG members. We need at least 11 more NOGS members to join AAPG or renew their AAPG membership. Please see page 16 for more details.

August is that time of year when it gets really difficult to live in New Orleans...not because it is hot, because it has already been hot for two months. No, it's because it seems like August is when things start to heat up hurricane-wise. It's the time of year when waves start coming off the Sahara Desert into the Atlantic, pick up moisture, and grow to depression, tropical storm, and then hurricane. They chug along across the Atlantic or they wobble around waiting for a steering current, and we glue ourselves to the weather forecast or the National Hurricane Center website (www.nhc.noaa.gov) waiting to see which way they are going. Then we become experts in "spaghetti" models and "Cones of Depression," I mean "uncertainty," which have them going all over the place, one to the Lesser Antilles and the Caribbean, another to Puerto Rico and the East Coast, another to the Gulf. All we really want is for the "damn thing" to make up its mind and decide where it's going to go so we can either continue our lives the way they are or get out of the way. It all seems like a bad dream of a song by the Clash (the only band that really matters).

Should I stay or should I go now? Should I stay or should I go now? If I go there will be trouble and if I stay it will be double. So come on and let me know Should I stay or should I go?

#### Chuck

Member-at-Large

Jean Jones

#### **NOGS Office**

Office Manager: Annette Hudson

Phone: 504-561-8980 • Email: info@nogs.org • Website: www.nogs.org
The office is located at 810 Union Street, Suite 300, New Orleans, LA 70112.
Correspondence and all luncheon reservations should be sent to the above address.



خال					OCIETY.
TAT	BOARD OF DIREC	TORS	Company	Phone	E-mail
25 🗸	President	Chuck Holman	Saratoga Resources Inc.	985-809-9292	charleswholman@bellsouth.net
B	Vice President	Fran Wiseman	Retired	504-831-8343	snowde.fran@gmail.com
	Secretary	Margaret McKinney	TGS	504-524-3450	margaret.mckinney@tgs.com
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Treasurer	Robert Clark	UNO	504-610-6861	rbclark@uno.edu
	President-Elect	Kelli Hardesty	Environmental Resources M	Mgmt. 504-831-6700	kelli.hardesty@erm.com
	Editor	Sheri Richardson	LaBay Exploration Co. LL		nogseditor@gmail.com
	Director 2014	Michael N. Fein	W & T Offshore	504-210-8148	mikef@wtoffshore.com
	Director 2015	William M. Whiting	Consultant	504-947-8495	bootscon@aol.com
R	Director 2016	Jim Zotkiewicz	Zot Oil & Gas	504-267-9131	jimzot38@zotoil.com
	COMMITTEE	Chairperson			
	AAPG Delegates	William M. Whiting	Consultant	504-947-8495	bootscon@aol.com
B	AAPG Student Chapter	Hunter Berch	LSU	662-312-1300	hberch1@tigers.lsu.edu
	AAPG Student Chapter	Michael Hopkins	Tulane University	228-209-2262	mhopkins@tulane.edu
A	AAPG Student Chapter	Drew Boudreaux	UNO	504-319-2537	apboudr1@uno.edu
	Advertising-Log	Kimberly Maginnis	LLOG Exploration	985-801-4761	kimberlym@llog.com
N	Auditing	Kelli Hardesty	Environmental Resources N		kelli.hardesty@erm.com
	Awards	Michael N. Fein	W & T Offshore	504-210-8148	mikef@wtoffshore.com
S	Ballot	Robert Clark	UNO	504-610-6861	rbclark@uno.edu
	Best Paper	Bay Salmeron	Chevron	832-854-6431	bay.salmeron@chevron.com
	Entertainment	Kelli Hardesty	Environmental Resources N		kelli.hardesty@erm.com
((竹)	Environmental	Daisy Pate	Pontchartrain Partners	504-862-1775	daisy.pate@gmail.com
	External Affairs	Michael A. Fogarty	Sylvan Energy, LLC	603-523-4808	mike.a.fogarty@gmail.com
R	Finance and Investment	Robert Clark	UNO	504-610-6861	rbclark@uno.edu
	Historical	Edward B. Picou, Jr.	Consultant	504-529-5155	epicou@bellsouth.net
	Membership/Directory	TBA			1
	Nominating	Edward B. Picou, Jr.	Consultant	504-529-5155	epicou@bellsouth.net
	Non-Technical Education	Duncan Goldthwaite	Consultant	504-887-4377	DGldthwt@aol.com
	Office Operations	Will Jorgensen	Shell	504-728-6339	william.r.jorgensen@shell.com
	Publications Sales	Edward B. Picou, Jr.	Consultant	504-529-5155	epicou@bellsouth.net
G	School Outreach	Thomas C. Bergeon	Century Exploration	504-832-3772	Tom.bergeon@centuryx.com
U	Scouting	Carol Rooney	Consultant Geologist	504-835-1909	carolbrooney@aol.com
$\prod$	Special Projects	Larissa Cupp		978-621-5074	Larissacupp@gmail.com
	NOGS LOG STAFF				
	Editor	Sheri Richardson	LaBay Exploration Co LLC	504-371-5967	nogseditor@gmail.com
	Editor-Elect	Tavia Prouhet	Chevron	985-773-6737	tavia.prouhet@chevron.com
کے۔	Auxiliary	Peggy Rogers	NOGA	504-392-6323	lrogers79@cox.net
	Drill Bits	Al Baker	Beacon Exploration, LLC	504-836-2710	ABaker1006@aol.com
	Drill Bits	Carlo C. Christina	Retired (C & R Expl. Inc)	201 030 2710	drillbits81@yahoo.com
	Drill Bits	Kevin Trosclair	UNO Graduate Student	504-202-7997	kjtroscl@uno.edu
	Staff Photographer	Arthur Christensen	Shalimar Consulting	985-893-2013	arthur_shalimar@yahoo.com
	Layout	Kristee Brown	Creative Graphics & Printing		kpbrown@bellsouth.net
	Co-Webmaster	Edward B. Picou, Jr.	Consultant	504-529-5155	epicou@bellsouth.net
	Co-Webmaster	Kevin Trosclair	UNO Graduate Student	504-202-7997	kjtroscl@uno.edu
\$ 0 C					<b>3</b>
9	<b>NOGS AUXILIARY</b>				
I	Officers		Phone	Directors	Year Phone
	President	Mary Walther	504-392-9332	Beverly Kastler	2012-14 504-286-0879
B	Vice-President	Camille Yeldell	504-835-7467	Linda Peirce	2012-14 504-393-7365
	Secretary	Beverly Christina	504-835-2383	June Perret	2012-14 504-664-0651
T	Treasurer	Judy Lemarié	504-393-8659	Trudy Corona	2013-15 504-737-6101
72	Parliamentarian	Alma Dunlap	504-737-2678	Debra Fein	2013-15 504-831-0358
>2	Mambar at Larga	Ioon Ionas	504 729 9001		

504-738-8091



# **UPGOMING** Events & Activities



# **August 5 • NOGS Luncheon**

#### **Holiday Inn Downtown Superdome**

\$2.00 validated parking in hotel garage

#### **Presentation:**

Salt Dome Gas Storage and Brine Production Facilities: Geological, Environmental, and Safety Issues

#### **Guest Speakers:**

William "Bill" Schramm and Lewis "Dutch" Donlon

Louisiana Department of Environmental Quality Baton Rouge, Louisiana

See page 9 for Abstract and Biography

#### HOLIDAY INN DOWNTOWN SUPERDOME

Check with concierge or front desk for location. Lunch served at 11:30 am

#### ADMISSION:

With reservation	\$30.00
Without reservation	\$35.00
Student Member with reservations	FREE

#### **August 3**

**FETCH Energy Saturday** Louisiana Children's Museum • New Orleans, LA For more information, www.nogs.org

#### **August 14-16**

**Summer NAPE** 

Brown Convention Center • Houston, TX For more information, www.napeexpo.com

#### **August 12-14**

**Unconventional Resources Technology Conference** Colorado Convention Center • Denver, CO For more information, www.urtec.org

#### August 21-22

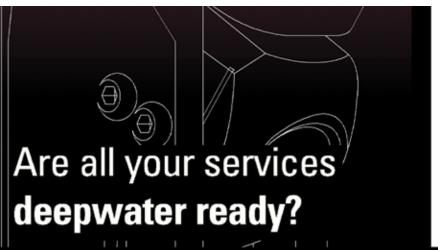
17th Annual Deepwater Symposium and Exhibition Hilton New Orleans Riverside • New Orleans, LA For more information, www.deepwaternola.org

#### NOGS CONTACT LIST

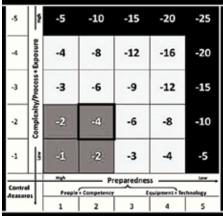
Continued from previous page

#### **MEMORIAL FOUNDATION**

BOAR	D OF TRUSTEES		Company	Phone	E-mail
2013-20	014 Chairman	Will Jorgensen	Shell	504-728-6339	william.r.jorgensen@shell.com
2013-20	014 Secretary	Chuck Holman	Saratoga Resources Inc.	985-809-9292	charleswholman@bellsouth.net
2013-20	014 Trustee	J.David Cope	Rising Natural Resources LLC	504-214-6754	
2013-20	014 Trustee	Tom Klekamp	Amber Resources LLC	985-845-4046	klekamp@bellsouth.net
2014-20	015 Trustee	Rick Kear	Schlumberger Oil Field Services	504-858-2444	kear1@slb.com
2014-2	015 Trustee	TBA			
2015-20	016 Trustee	William M. Whiting	Consultant	504-947-8495	bootscon@aol.com
2015-20	016 Trustee	David E. Reiter	Stone Energy Corporation	504-593-3623	reiterde@stoneenergy.com
AAP	G DELEGATES				
Term I	Ends				
2014		Arthur H. Johnson	Hydrate Energy International	504-464-6208	artjohnson51@hotmail.com
2014		Brenda Reilly	AMROMCO Management LLC	504-430-4240	reillybe@yahoo.com
2014(a)	)	Elizabeth C. McDade	McMoRan Exploration Co.	504-582-4510	ecmcdade@bellsouth.net
2014(a)	)	Frances A. Wiseman	BOEM (retired)	504-831-8343	snowde.fran@gmail.com
2015		Susan A. Waters	Shell	504-728-0229	susan.waters@shell.com
2015		William M. Whiting	Consultant	504-947-8495	bootscon@aol.com
2015(a)	)	David E. Balcer	Chevron	985-773-6725	dbalcer@chevron.com
2015(a)	)	Earl W. Cumming	Reservoir Frameworks LLC	985-630-6898	earlcumming@bellsouth.net
NEW	MEMBERS				
Dougla	s "Russ" Andress	Geophysicist	Nexen USA	832-372-6172	randress7@flash.net
John "J	ack" Baldwin	Geologist	Stone Energy	281-423-0512	baldwinj@stoneenergy.com
Philip I	E. Fox	Technical Advisor	Halliburton	504-390-4770	philip.fox@halliburton.com
Jeremy	J. 1 U.1		1141110411011		

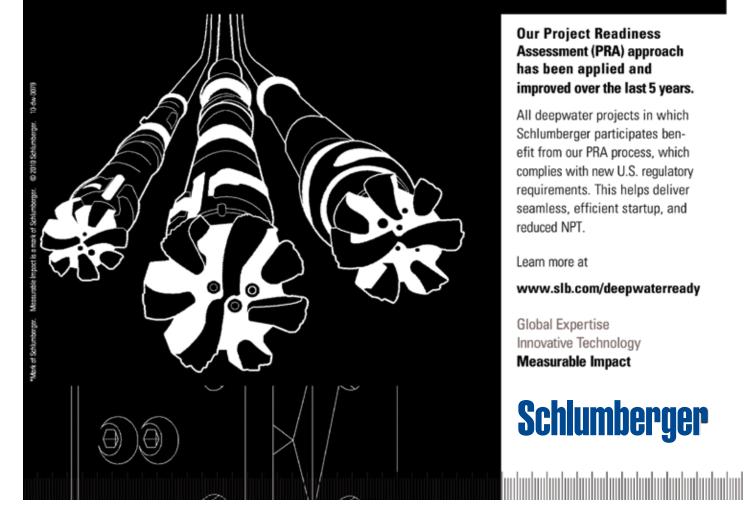


# Deep Water









#### **Our Project Readiness** Assessment (PRA) approach has been applied and improved over the last 5 years.

All deepwater projects in which Schlumberger participates benefit from our PRA process, which complies with new U.S. regulatory requirements. This helps deliver seamless, efficient startup, and reduced NPT.

Learn more at

www.slb.com/deepwaterready

Global Expertise Innovative Technology

Measurable Impact

# Schlumberger



## **August 5 NOGS Luncheon Presentation**

☆ ☆ ☆ at the Holiday Inn Superdome ☆ ☆ ☆



## Salt Dome Gas Storage and Brine Production Facilities: Geological, Environmental, and Safety Issues



Presented by

# William "Bill" Schramm and Lewis "Dutch" Donlon

Louisiana Department of Environmental Quality New Orleans, Louisiana



#### **ABSTRACT**

Louisiana hosts numerous salt domes both on land and offshore. Many of these domes have been evaluated for oil and gas potential as well as sources for salt/brine/sulfur and provide underground storage for a variety of petroleum based products.

Critical events arising from the use of salt domes for brine production and storage purposes include the 1980 collapse of the salt mine on Jefferson Island and the closure of the Strategic Petroleum Reserve at Weeks Island due to sinkhole development. More recent events including the collapse of a brine cavern on the Napoleonville dome and the proposed cavern storage of natural gas adjacent to an active salt mine at Cote Blanche.

This presentation examines operations and concerns at Napoleonville and Cote Blanche and the Eminence Storage Field near Seminary, Mississippi. The Napoleonville dome is used for brine production and storage of both natural gas and liquid petroleum gas. Underground mining of salt at Cote Blanche presents different concerns with proposed cavern construction and storage situated adjacent to mining operations. These operations emphasize the importance of understanding all aspects of safety and technical feasibility of using salt caverns for these purposes. Most critical is the need for accurate geological understanding of salt boundary and anomalous zones locations.

#### **BIOGRAPHY**

William H. Schramm is a 20 year veteran of the Louisiana Department of Environmental Quality. As a Geologist III he has worked closely with industry, consultants and private citizens to investigate and/or remediate over 3000 contaminated sites. His main focus is on groundwater issues throughout Louisiana. Since 2005 he has been an Adjunct Instructor on the staff of the Department of Geology at the University of Louisiana-Lafayette and served on numerous Graduate Thesis Committees. Mr. Schramm holds a BA and MS in Geology and a Teaching Certification for K-12 in Science and Earth Science. He is a member and past Director, twice past Vice-President/President of the Baton Rouge Geological Society. He also serves on the Board of Directors of the Louisiana Environmental Health Association, and ComForCare Senior Services. Mr. Schramm serves as Delegate to the AAPG, representing the Baton Rouge Geological Society AAPG members. He has participated in numerous conferences, conventions and seminars as organizer, committee chair, session chair, judge, presenter and author/coauthor with over 35 papers or abstracts in publication. His off time is spent raising foster children, doing carpentry and trying to find time to travel with his wife Mary.

**Lewis A. "Dutch" Donlon** received a B.S. in Geology from the University of Southwestern Louisiana in 1985. After working four years in petroleum exploration in Lafayette, Louisiana, he began his career in environmental geology in 1989 with the Louisiana Department of Environmental Quality where he has been employed for the past 24 years. His areas of expertise are groundwater hydrology and contaminant hydrogeology.

#### THE LUNCHEON RESERVATION DEADLINE IS AUGUST 1 - CONTACT THE NOGS OFFICE

#### "And Looking Ahead . . . "

The next luncheon will be held on September 9th. Our guest speaker, Jeffrey Nunn of Louisiana State University, will present "Bubble, Bubble, Tremors and Trouble: The Bayou Corne Sinkhole." Contact the NOGS office at 561-8980 or use the PayPal link on the NOGS website (www.nogs.org) to make your reservation.

# **Well Log Printing Solutions**



- · Purpose built well log printers
- · Automated paper handling
- · Top of form log prints
- · Printing software included
- · One year warranty included

For More Information Visit Us Summer NAPE www.Neuralog.com



© 2013 Neuralog • www.neuralog.com • sales@neuralog.com • 1.281.240.2525 • 1.800.364.8728

# Seismic Exchange, Inc.

Strategic Speculative Surveys
Geophysical Data Marketing & Management

YOUR
Full Service
National
Seismic Data
Marketing Firm



DALLAS DENVER HOUSTON MIDLAND NEW ORLEANS OKLAHOMA CITY CORPUS CHRISTI TULSA 201 St Charles Avenue, Suite 4300, New Orleans, Louisiana 70170-4300 504-581-7153 FAX 504-581-9591

seismicexchange.com



# Drill with confidence.

Diversified Well Logging, LLC brings the accuracy and expertise only a company with over sixty years in the oil and gas industry can deliver. We are your eyes and ears in the field, especially when it comes to deep water or high pressure, high temperature areas.

DWL offers 24-hour formation evaluation. We provide secure and customized real-time data communication, in-house research and development, and 24/7 on-call support for our equipment and our engineers.

Whether you have a 10-day job or a 110-day job, we provide the specialized attention you require. Our experience means you can be confident in the safety and performance of your well.



- Formation Evaluation
- Geosteering
- Drilling Optimization
- Real-time Data Transmission
- Early Kick Detection







Serving the Oil and Gas Industry for Over 60 Years

August						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3 FETCH Energy Saturday 11:00 - 3:00
4	5 NOGS Luncheon Holiday Inn 11:30 AM	6	7	8	9	10
11	12	13	14	15	16	17
			Sumi	ner NAPE - Houston,	TX	
	U	RTEC - Denver, CO				
18	19	NOGS Board	21	22	23	24
		Meeting	GOM Deepwater	Tech Symposium		
25	26	27	28 Western Gulf Lease Sale 233	29 ONRIS to Sunset Confe	30	31
			LA OII & Gas: 50	inkis to sunset come	lence - NO, LA	

September						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Labor Day	3	4	5	6	7
AARC Internation	NOGS Luncheon Holiday Inn	10  Exhibition - Cartage	NOGA Luncheon Trudy Corona	12	NOGS Kick Off Party Lafreniere Park	14
15		17	18	19	20	21
15	16	17	NOGS Board Meeting	19	20	21
22	23	24	25	26	27	28
SEG Convention & Exhibition - Houston, TX						
29		cal Conformed 2 Ev	hibition			
	SPE Technical Conference & Exhibition					

# New Orleans Geological Auxiliary News

"The objective of the Auxiliary is to promote fellowship among the wives of the members of New Orleans Geological Society and to render assistance to NOGS upon request."

A very efficient planning committee has come up with another exciting year for NOGA members. Be sure to be in that number as 2013-2014 unfolds. The plans for next year are:

#### Luncheon, September 11, 2013

Home of Trudy Corona

#### Luncheon, November 13, 2013

**Ormond Plantation** 

#### Luncheon, February 12, 2014

Porter and Luke Restaurant

#### Spring Social, April 5, 2014

Home of Ann & Louis Gilbert

#### Installation Luncheon, May 7, 2014

**New Orleans Country Club** 

The September luncheon will be at the home of Trudy Corona with Alma Dunlap and Peggy Rogers planning a delicious menu catered by Karen Lowry. Potential new members are invited. Everyone is anxious to hear about the summer adventures of existing members and to make some new acquaintances. It will be a fun and lovely day. Don't miss out!

The GCAGS convention will be held in New Orleans on October 6-8, 2013. The Auxiliary will be called on to assist NOGS. President Mary Walther is the NOGA representative. Call her at (504) 392-9332 or contact her at mwalther@earthlink.net to volunteer.

Peggy Rogers, NOGS LOG

New Orleans Geological Auxiliary Membership Application				
Name	Spouse's Name			
Address	Home Phone			
City, State, Zip	Email			
Spouse's Company <b>DUES: \$25.00</b>				
Please send \$25 check payable to NOGA to Judy Lemarié, Treasurer, #2 Yosemite Dr., New Orleans, LA 70131				

# **Countdown:** We are **67** days from the convention!

Check out the GCAGS 2013 website at www.gcags2013.com and take advantage of the discounted early registration rates. In addition, we have an "Emeritus" rate for those over 65. The short courses and field trips are likely to fill up quickly, so be sure to sign up soon.

We are still lining up volunteers for on-site registration and other functions, so if you can help (even for half a day), let Bill Whiting know (Bootscon@aol.com).

#### **Art Johnson**

General Chairman Artjohnson51@hotmail.com 504-464-6208



GCAGS 2013 - New Orleans

October 6-8, 2013

How do we ensure that every Weatherford mudlogger performs at the same high standards around the globe?



EXCELLENCE FROM THE GROUND UP™ Weatherford is passionate about training, and that's where Wayland comes in. His mudlogging training program begins with hands-on classroom instruction and ends with rigorous tests at the wellsite. We call it Competency-Based Training. You'll call it another benefit of working with Weatherford. With courses for basic and advanced mudlogging, as well as for specialized services, Wayland's program helps mitigate hazards and enhance data accuracy. It's just one more way Weatherford Mudlogging is committed to Excellence from the Ground Up.

#### **SURFACE LOGGING SYSTEMS**

www.weatherford.com/surfacelogging mudlogging.services@weatherford.com





# NOGS has lost a voting member in the AAPG House of Delegates!

Effective July 1, 2013, NOGS no longer has four AAPG voting delegates. We have lost one of our voting delegates due to a decline in AAPG voting members.

As of November 30, 2012, NOGS had in its membership 235 AAPG voting members. AAPG bylaws state that local sections with 176 to 245 voting members shall have three delegates and those local sections with 246 to 315 voting members shall have four delegates to represent them before the AAPG House of Delegates. While we still have four delegates on the roster, only three of these members can vote.

This fiscal year (July 1, 2013 through June 30, 2014) we will only have 3 delegates sit in the voting section of the House. To regain the fourth seat we need to add 11 AAPG voting members and retain our current members from this fiscal year. A tally will be done at the end of November 2013.

Please renew your AAPG membership if it has lapsed or, if you are not a member, join AAPG so we can have a greater voice within AAPG. A voting member need only have one year of professional geological practice or the teaching of geology and be current in dues.

To join AAPG, http://www.aapg.org/join/

To upgrade your AAPG membership to Member, https://appmanager.aapg.org/site/account/default.asp and then click on Transfer to Member Application

For more information email Jan Dorman at jdorman@aapg.org.



# YOU'RE INVITED!

What: FETCH! Oil and Energy Saturday

Saturday, August 3rd When:

11:00 am to 3:00 pm

Where: Louisiana Children's Museum

Who: You!

#### Volunteers are needed!

Please contact either:

#### Jahnette deBlanc

jahnette.deblanc@shell.com 504-728-6098

#### Tom Bergeon

tom.bergeon@centuryx.com 504-832-3772







201 Heymann Blvd., Suite 33 • Lafayette, LA 70503 Tel: 337-233-8197 • Fax: 337-233-8177

#### Coverage:

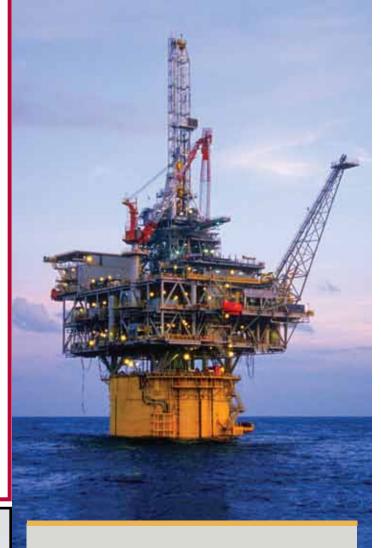
Louisiana / Federal / State Offshore • Multi State Geo Tech Services • Completion Data Production Data • Well Logs • Maps

> ~ Memberships Available ~ The Industry's Premier • Well Data Center

orders@lafayettegrc.com

CALL OR EMAIL TODAY FOR MORE INFORMATION!

# Freeport-McMoRan is now RESOURCE RICHER.



#### Freeport-McMoRan Copper & Gold Inc. provides resources to fuel global growth.

With the acquisitions of Plains Exploration & Production Company and McMoRan Exploration Co., FCX's diverse portfolio of minerals assets now includes high-quality oil and gas resources in the United States. Matched with bright prospects for success in the global minerals industry. this expanded scope of operations provides exciting new opportunities for profitable growth to benefit shareholders, employees and communities. FCX is pleased to announce its new subsidiary Freeport-McMoRan Oil & Gas.





FREEPORT-MCMORAN OIL & GAS

# July 2013 Luncheon and Awards Presentation

At the July 1st NOGS luncheon, awards were presented to the outgoing officers and for those members who contributed exceptional service to NOGS for the 2012-2013 year. Mike Fein, NOGS Director and Awards Chairman, and Will Jorgensen presented awards to the following individuals:

#### Bruce Bahlinger, Secretary,

for keeping accurate notes and being consistent in his delivery to the board.

#### Kelli Hardesty, Treasurer,

for getting the books balanced and to the board, even though she was out in the field more often than not.

#### Kevin McVey, Vice President,

for presenting a balanced selection of guest speakers at the monthly luncheons.

#### Jordan Heltz, Editor,

for building upon the work of his predecessors with color, consistency, and class.

#### Will Jorgensen, President,

for professional leadership and running efficient board meetings, as well as serving NOGS for the last three years as Treasurer, President-elect, and President.

#### Ed Picou, outgoing Director,

chose not receive another plaque, but NOGS thanks him for stepping in for an elected director who could not fulfill his obligation, and performing with his customary grace, aplomb, and sage nature.

The President's Award was presented to the following four individuals; Bay Salmeron for continuing his duties as Best Paper and Entertainment Chair even after he moved to Houston and for a seamless transition with Chuck Holman; Kevin Trosclair for his assistance with upgrading and bettering the NOGS website and for



producing colored activity maps for the *NOGS LOG;* **Robert Clark** for helping with IT issues and creating slideshows before the monthly luncheons; **Sheri Richardson** for using resources and new ideas for the betterment of NOGS Membership, for picking up the editorship and being a significant contributor to NOGS board meetings.

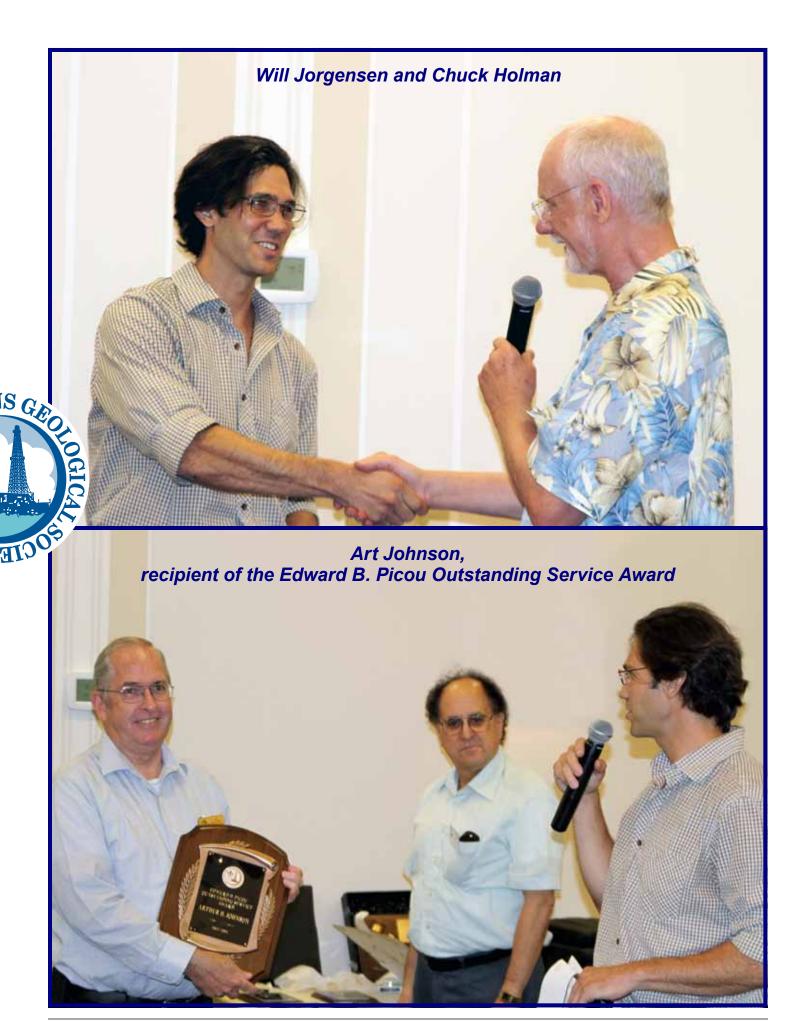
The Edward B. Picou Outstanding Service Award is named for a true gentleman who is the epitome of service to his company, his professional memberships, and his community. Ed has always been a sage to our NOGS members, an eye of calm in a storm of change. Our 2012-2013 recipient of this award is also emblematic of someone who has a problem

saying "No." He is a past president and Memorial Foundation Chairman. He is Chairman of the GCAGS Convention which is coming to New Orleans in October. He is a tireless speaker for and in our local schools. He is also President of Chevron Alumni. He is, who else, **Art Johnson.** 

**Rick Kear** was awarded **Honorary Life Member** for continuing his duties beyond the presidency, beyond the term of Memorial Foundation Chairman and beyond the boundaries of the State of Louisiana, since moving to Arkansas.

NOGS appreciates the work of all its volunteers, members, and especially its advertisers and sponsors.







# Petroleum Geology Course Returns to the Earth and Environmental Sciences Department at the University of New Orleans

The following article is reprinted with permission from Drew Boudreaux, the author. Drew is a graduate student in the Department of Earth and Environmental Sciences at UNO. This article is featured on the Department's website at www.uno.edu/cos/departments/ees/featured.aspx.

The Department of Earth and Environmental Sciences is excited to offer a course in petroleum geology to its students this fall. The last time the course was offered was Fall 2008, and demand for the course has grown with each successive year during the hiatus. With no petroleum-specific professors, and a general lack of funding to hire a full-time or adjunct instructor, the EES Department has had to make-do without the course for the last 5 years.

This past spring, AAPG (American Association of Petroleum Geologists) Student-Chapter President Leah Grassi took matters into her own hands and reached out for funding to bring the course back. She succeeded.

The course this fall has been made possible through a generous contribution by the New Orleans Geological Society (NOGS) to the Department for the hiring of an adjunct professor. "I'm very happy that UNO students will have the opportunity to learn about an industry that is so important to Louisiana," says Leah.

The course will be taught by Toby Roesler, a Geophysicist and Deepwater Exploration Manager at Stone Energy and UNO alumnus. Toby has also been involved with UNO's IBA (Imperial Barrel Award) team in the past. The IBA is an international exploration geology competition put on by the AAPG each year, and participants can receive course credit.

Petroleum Geology is listed as a special topics course in WebSTAR, offered as a combined undergraduate/graduate section [EES 4096(G)]. The class has been full since the beginning of the summer and is currently 3 seats above capacity! If you are still interested in taking the course, you must contact the main office for permission to enroll.

In addition to the general Petroleum Geology course and the IBA competition, students can take other petroleum-related classes such as Earth Structure, Stratigraphy, Sequence Stratigraphy, and Geophysics. The College of Engineering also offers courses in Petroleum Engineering, and Chevron conducts interviews annually for summer internship positions. We hope that interest in petroleum geology will continue to grow at UNO, enough so that the course will again be offered regularly.

Finally, a BIG THANK YOU to NOGS for all you do to support our department. Go Privateers!



# YOU TACKLE TOUGH PROBLEMS YOUR GEOSCIENCE SOFTWARE DOESN'T HAVE TO BE ONE OF THEM

IHS GEOSCIENCE: sophisticated science that's simple to use and simple to manage



# SURFACE TO SUBSURFACE

ONLY ONE ENERGY EXPERT PROVIDES SO MUCH TO SO MANY

From big picture to critical detail, proven capabilities to superior results, IHS geoscience does it all—backed by the world's most respected forecasting, analysis, and play-specific geological and geophysical data.

# NOW GET THE POWER OF KINGDOM® AND PETRA®

Only IHS geoscience simply yet scientifically links engineering, economics and interpretation software suites to give you a definitive edge. Spearheaded by industry-leading Kingdom® and Petra® software solutions IHS gives you the best in geophysics and geology.

Learn more at IHS.com/NOGS

**IHS** GEOSCIENCE



Simply **Scientific**™



This Changes Everything. **SAVE THE DATE:** 12-14 AUGUST 2013







# UNCONVENTIONAL RESOURCES TECHNOLOGY CONFERENCE FUELED BY SPE • AAPG • SEG

12-14 August 2013 • Colorado Convention Center • Denver

## www.URTeC.org



Shell has worked in partnership with the NOGS for many years, and is proud to count the society among its closest business associates.

The New Orleans Geological Society was organized in 1941 to foster scientific research and advance the science of geology. Particular emphasis is laid on the exploration for and production of petroleum and natural gas. Related objectives include encouraging the adoption of improved methods of exploration, disseminating pertinent geological and technological data, and maintaining a high standard of professional conduct among its members.

www.shell.com/us.sepco



#### Offshore & South Louisiana Experts

- **CORE ANALYSIS**
- PVT FLUID EVALUATION
- **GEOLOGIC SERVICES**

New Orleans: 504-733-6583 Broussard: 337-837-8616 Houston: 713-328-2673 www.corelab.com



## South Louisiana and Offshore Gulf of Mexico Exploration and Production Activities

LAFAYETTE DISTRICT, ONSHORE AREA By Carlo C. Christina

The Office of Conservation, Lafayette District, Onshore Area, issued 44 permits during the month of June, 2013. Following are the most significant locations:

#### **NEW LOCATIONS**

Midstates Petroleum is drilling another **Wilcox horizontal well** in Beauregard Parish, **South Bear Head Creek Field**, (A), with the bottom hole location in Sec. 27, 6S-11W. The #1 Musser-Davis 27 H will be drilled on the northeast flank of the field to 18,000 feet with a lateral leg of 5,488 feet. (246558)

In Lafourche Parish, **Rousseau Field**, (B), Phanalx Petroleum will drill its #1 Alltmont in Sec. 12, 15S-17E, located 1½ miles southeast of nearest production. The well will be drilled to a projected depth of 14,609 feet. (246548)

Also in Lafourche Parish, **Larose Field**, (C), Badger Energy will drill the #1 SL 21069 in 16S-21E to a depth of 13,783 feet to test the Cris I section. Although permitted in Larose Field, the well is located 3 miles from production in Larose Field. The closest Cris I production is 3 miles to the north in West Lake Salvador Field. (246572)

Badger Energy will drill its #1 SL 20984 on the west flank of **Lake Washington Field**, (D), in Sec. 32, 19S-26E, Plaquemines Parish. The well will be drilled to 14,100 feet, offsetting a depleted oil well which had produced 249,000 barrels of oil. (246571)

In St. Mary Parish, **Point Chevreuil Field**, (E), Cathexis Oil & Gas will drill to 11,105 feet to attempt to confirm production with the #2 SL 20878. This well is located 1 mile southeast of its recently completed #1 SL 20878. As reported in the May Drill Bits, the well restored production to the field flowing 456 barrels of oil through perforations 11,520 to 11,530 feet. (246555)

Contango Operators will drill a **rank wildcat**, (F), in South Timbalier, Block 17. The #1 SL 21096 is located several miles south of the nearest production in Caillou Island Field. It will be drilled to a proposed depth of 12,200 feet. (246549)

In St. Mary Parish, Castex Energy will drill 2 significant wells which are permitted in **Eugene Island Block 18 Field**, (G), but are located in Block 13. The Castex #1 SL 20533 will be drilled to a depth of **20,000 feet**, and is located 1 mile west of Castex's recently completed #1 SL 20534. The well was completed flowing 9,032 MCFD and 317 BOPD in the Cib op reservoir at 14,600 feet. (246614).

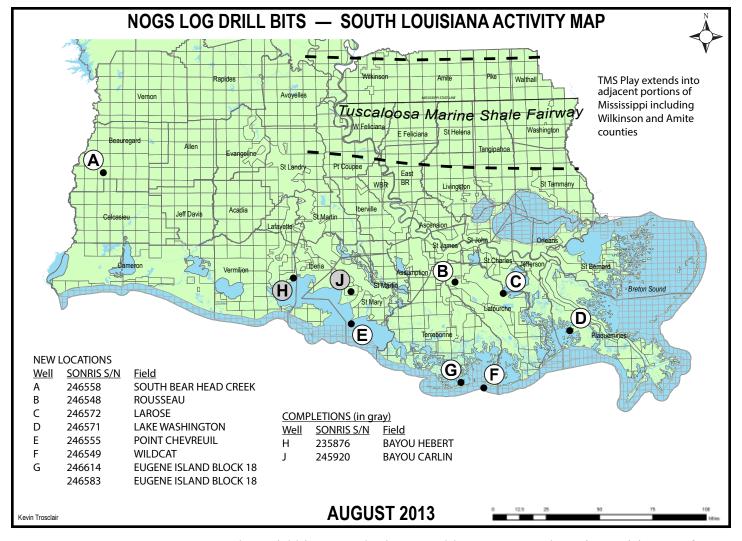
Castex will drill the #1 SL 21123 to a projected depth of 15,500 feet at a location 1½ miles southeast of the recent completion. (246583).

#### **COMPLETIONS**

In Vermilion Parish, **Bayou Hebert Field**, (H), Petroquest Energy has completed an excellent gas well flowing **27,367 MCFD** and 477 BCPD through perforations 17,840 to 17,895 feet in the Cris R Sand. The #1 Broussard is located in Sec. 17, 14S-5E, and was drilled as the La Cantera Prospect. This completion is the third high-volume gas well in the field.

Bayou Hebert Field had been off production since 2005 until Petroquest completed its #1 Thibodeaux, followed by the completion of the #2 Broussard in 2012. Each well has produced more than 31 million cubic feet of gas per day. Total production in March, 2013 was 2.15





billion cubic feet of gas. Bayou Hebert Field is currently the second largest gas producer in Louisiana, Lafayette District, Onshore Area. (235876)

In St. Mary Parish, **Bayou Carlin Field**, (J), Energy XXI plugged the #1 Duplantis in Sec. 18, 15S-9E, which was drilled to a depth of 20,229 feet. The well was drilled as a field wildcat, projected to test the MA-14 sand series.

Bayou Carlin Field is currently producing from the MA-7 Sand. (245920).

#### OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES

by Al Baker

During June 2013, the BOEM approved 97 Gulf of Mexico drilling permits. Of these, 46 were for shelf wells, and 51 were for deepwater wells. There were 3 shelf (1 exploratory and 2 development) and 4 deepwater (3 exploratory and 1 development) new well permits issued. To date, permitting activity in the Gulf has maintained the same pace as that occurring last year.

On the shelf, **Energy XXI** obtained a new well permit for their **Vermilion 179 #2** well. **Stone Energy** was awarded a new well permit for their **Ship Shoal 93 #66** development well. **GOM Shelf** received a new well permit for their **#B-19** development well on **Main Pass 302**.

In deepwater, permitting activity also included three operators. **Anadarko Petroleum** received 2 new well exploratory permits to drill their **Keathley Canyon Block 875** #SS-3 well and their **Green Canyon 768** #SS-4 well. **Chevron** was granted a permit for their **Garden Banks 973** #1 exploratory well. In addition, **BP** was issued a permit for their #K-4 development well on **Mississippi Canyon 383**.

Through the end of May 2013, a total of **156** wells have been started in the Gulf. This compares to 114 wells begun during the same time period of 2012, representing a **33.3% increase** in year-to-year activity. Of the 156 wells, **33** were classified as exploratory or new field wildcats, whereas **123** were considered to be development wells. During 2013, in **Offshore Louisiana** there were **90** wells started versus 77 in 2012. **Offshore Texas** saw 7 wells begun versus none during 2012. The **Northern Gulf** (deepwater) had **59** wells begun compared to 37 in 2012. In **Offshore Louisiana**, the 90 wells included **11 exploratory** and **79 development** wells. In **Offshore Texas**, the 7 wells were comprised of **2 exploratory** and **5 development** wells. In the **Northern Gulf**, the 59 wells were subdivided into **20 exploratory** and **39 development** wells.

On June 28th, IHS-Petrodata reported that the Gulf of Mexico mobile offshore rig supply totaled **109**, and the contracted rig count stood at **76** for a fleet utilization rate at **69.7%**. The rig supply is **1** less than reported last month, and the rig count is **3** less than reported in May. This compares to 75 out of the 112 rigs available during the same period in 2012 for a 67.0% fleet utilization rate.

In addition, there were 28 platform rigs under contract out of the 53 total in the rig fleet for a fleet utilization rate of 52.8%. The current number of platform rigs under contract in the Gulf is 2 less than reported last month.

On June 28th, the BakerHughes Rig Counts indicated that there were **55** active mobile offshore rigs in the Gulf, which represents **72.3%** of the total rigs under contract. The total number is the same as reported last month. The current active rig count compares to 48 active rigs during the same period last year representing a **14.6%** increase in yearly activity. Additionally, of the 28 platform rigs that are under contract, **18** (or **64.3%**) are currently working. This is **3** less than the total number of working platform rigs reported last month.

On June 18th, the BOEM announced that it was extending the post-sale evaluation period for **Central Gulf of Mexico Sale 227** through July 18, 2013. This action was necessary due to resource limitations resulting from the sequestration imposed by the Obama administration. The BOEM is unable to pay overtime to expedite the bid review process, including the incorporation of increased volumes of reprocessed datasets used by bidders to formulate their bid submittals. As of June 21st, the BOEM had awarded leases on **253 tracts** of the **320 tracts** receiving high bids in the March 20, 2013 sale. Of these, **42 tracts** were deemed acceptable in the **Phase 1** review, and the remaining **211 tracts** were deemed acceptable in the current **Phase 2** bid evaluation review. A total of **67** tracts remain under evaluation by the BOEM.

On June 17th, **Noble Energy** announced that its second **Gunflint** appraisal well in the deepwater Gulf of Mexico confirmed an estimated gross resource potential of 65 to 90 MBOE. Their **Mississippi Canyon 992** #1 well was drilled to a total depth of 32,800 feet in 6,100 feet of water, approximately 1 mile southwest of the discovery well. The appraisal well found 109 feet of net pay in the primary reservoir targets. A deeper objective was found non-hydrocarbon-bearing. The appraisal drilling program confirms the company's plans for a subsea tieback development at Gunflint with the final sanctioning expected later this year. The Gunflint discovery well on Mississippi Canyon 948 was drilled by BP in 2008 to a total depth of 29,280 feet and encountered more than 550 feet of hydrocarbon-bearing sands in Middle and Lower Miocene reservoirs. Noble Energy has since taken over as operator. The company anticipates first production by the end of 2015 for both its Gunflint and Big Bend discoveries.



An independent gulf coast exploration, development and operating company

Three Lakeway Center, Suite 2800 3838 North Causeway Blvd. Metairie, LA. 70002

Office: 504.832.3750 Fax: 504.832.3760 www.centuryx.com



**Douglas "Russ" Andress** is a geophysicist working for Nexen USA in Houston, Texas. He has had experience working for both major and independent oil exploration companies focusing on the Gulf Coast, shelf and deepwater exploration. Russ received his BS (1980) from the University of Texas at Austin in Geophysics.

**John "Jack" S. Baldwin** is a geologist for Stone Energy in Houston, Texas. He received his BS (1979) in Earth Science from Duke University and an MS (1983) in Earth Science from the University of New Orleans. He is a member of AAPG, GSA, AAAS, and the Houston Geological Society. Jack has been working in Oil and Gas for over 35 years and has worked the Gulf Coast, Mid Continent, and Appalachian basins.

**Philip E. Fox** is a technical advisor for Halliburton in New Orleans. He received his BSME (1981) in Mechanical Engineering from the University of Colorado. He has worked as a field engineer for open and cased hole, log analyst and has provided technical support focusing on job designs and interpretation. He is a member of SPWLA, AAPG, and SPE.

**Jeremy N. Prouhet** is working as a development geologist for Chevron in Covington, Louisiana. Jeremy received his BS (2003) in Marine Science from Texas A&M University at Galveston and an MS (2011) in Marine Science from the University of Southern Mississippi. Jeremy and his wife Tavia have two young children, Olivia age 2, and Charlie age 4. He is a member of AAPG, AGU, and GSA. As a new member of NOGS, Jeremy is interested in the New Geoscientists and Technical Projects committees and is serving as a session chair for the upcoming GCAGS meeting.



100 Northpark Blvd. Covington, LA 70433

(985) 773-6000



111 Veterans Memorial Blvd. Suite 1550 Metairie, Louisiana 70005

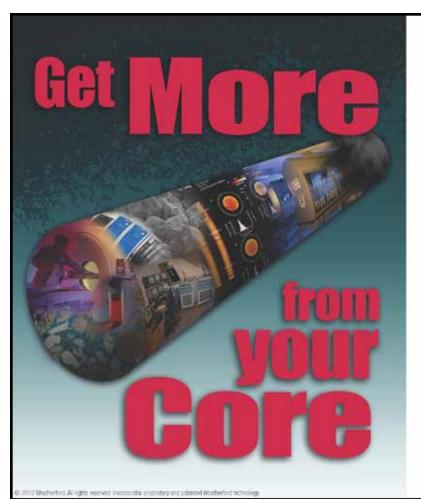
Office (504) 371-5967 Fax (504) 371-5969

www.labayexploration.com



# wA Remembrance &

Former NOGS president, James A. Seglund, died in early July. "Jim" served as NOGS president 46 years ago, 1967-68. Although he lived in Diamondhead, Mississippi, and in his beloved upper peninsula of Michigan, he frequently attended annual past presidents of NOGS luncheons. Seglund was born in Munising, Michigan; he was a WWII veteran, having served in Italy. He held an MS degree in Geology from the University of Michigan, which he received in 1949. Jim initially worked for Texaco in New Orleans and later in Shreveport and Lafayette. He left Texaco in 1967 and joined the firm of Rogers, Seglund and Shaw Associates. In 1967, he established the firm of J.A. Seglund Inc. He was a true oil finder and shared his expertise by publishing numerous articles in trade journals. Jim was an activist in many areas. He participated in several Mardi Gras krewes, was a rabid Saints fan, traveled the world on vacations, was a Founder of the New Orleans City Club, and was an accomplished piano player and golfer. A Memorial service was held for him on July 10 at the Diamondhead Community Church.



With reservoirs becoming increasingly complex, you need the most accurate information you can get to better understand your reservoir.

Weatherford Labs helps you get more from your core by combining an unsurpassed global team of geoscientists, engineers, technicians and researchers with the industry's most comprehensive, integrated laboratory services worldwide. From core analysis, sorption, geochemistry and isotopic composition to detailed basin modeling and comprehensive data packages, we provide you with real reservoir rock and fluid information that hasn't been distilled by a simulator or iterated by software.

We call it "The Ground Truth" – giving you the accurate answers you need for better reservoir understanding. You'll call it a better return on your reservoir investment. To learn more, contact TheGroundTruth@weatherfordlabs.com.









#### Submitted by Sheri Richardson

#### LiveScience - Tia Ghose

#### "Primeval Underwater Forest Discovered in Gulf of Mexico" July 8, 2013

http://www.livescience.com/37977-underwater-cypress-forest-discovered.html

Scuba divers have discovered a primeval underwater forest off the coast of Alabama.

The Bald Cypress forest was buried under ocean sediments, protected in an oxygen-free environment for more than 50,000 years, but was likely uncovered by Hurricane Katrina in 2005, said Ben Raines, one of the first divers to explore the underwater forest and the executive director of the nonprofit Weeks Bay Foundation, which researches estuaries.

The forest contains trees so well-preserved that when they are cut, they still smell like fresh Cypress sap, Raines said.

Despite its discovery only recently, the underwater landscape has just a few years to be explored, before wood-burrowing marine animals destroy the ancient forest.

Raines was talking with a friend who owned a dive shop about a year after Hurricane Katrina. The dive shop owner confided that a local fisherman had found a site teeming with fish and wildlife and suspected that something big was hidden below. The diver went down to explore and found a forest of trees, then told Raines about his stunning find.

In 2012, the owner finally revealed the site's location after swearing Raines to secrecy. Raines then did his own dive and discovered a primeval Cypress swamp in pristine condition. The forest had become an artificial reef, attracting fish, crustaceans, sea anemones and other underwater life burrowing between the roots of dislodged stumps.

Raines reached out to several scientists to learn more about the forest. One of those scientists was Grant Harley, a dendrochronologist (someone who studies tree rings) at the University of Southern Mississippi.

Harley was intrigued, and together with geographer Kristine DeLong of Louisiana State University, set out to discover the site's secrets.

The research team created a sonar map of the area and analyzed two samples Raines took from trees. DeLong is planning her own dive at the site later this year. Because of the forest depth, scuba divers can only stay below for about 40 minutes before coming up.

The trees' growth rings could reveal secrets about the climate of the Gulf of Mexico thousands of years ago, during a period known as the Wisconsin Glacial period, when sea levels were much lower than they are today.

The team, which has not yet published their results in a peer-reviewed journal, is currently applying for grants to explore the site more thoroughly.

#### USGS - Jessica Kershaw and A.B. Wade

"Interior Releases First-Ever Comprehensive National Assessment of Geologic Carbon Dioxide Storage Potential" June 26, 2013

http://www.usgs.gov/newsroom/article.asp?ID=3628#.UeQbZZ0o59M

The United States has the potential to store a mean of 3,000 metric gigatons of carbon dioxide (CO2) in geologic basins throughout the country, according to the first-ever detailed national geologic carbon sequestration assessment released today by the U.S. Geological Survey. The assessment comes on the heels of a national plan to combat climate change announced by President Obama yesterday.

"This USGS research is ground-breaking because it is the first realistic view of technically accessible carbon storage capacity in these basins," said Secretary of the Interior Sally Jewell. "If enough of this capacity also proves to be environmentally and economically viable, then geologic carbon sequestration could help us reduce carbon dioxide emissions that contribute to climate change."

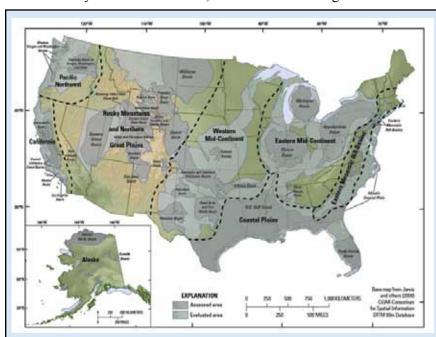
Based on present-day geologic and hydrologic knowledge of the subsurface and current engineering practices, this assessment looked at the potential for CO2 storage in 36 basins in the United States. The largest potential by far is in the Coastal Plains region, which accounts for 2,000 metric gigatons, or 65 percent, of the storage potential. Two other regions with significant storage capacity include the Alaska region and the Rocky Mountains and Northern Great Plains region.

Technically accessible storage resources are those that can be accessed using today's technology and pressurization and injection techniques. The most common method of geologic carbon storage involves pressurizing CO2 gas into a liquid, and then injecting it into subsurface rock layers for long-term storage.

"Today's assessment from the USGS is just the latest example of how the Department of the Interior is applying rigorous, peer-reviewed science to some of our nation's most complex land- and resource-management challenges," said Deputy Secretary David J. Hayes. "Nowhere is this more important than the issue of climate change, and today's new research adds to the USGS's groundbreaking work in biological carbon sequestration to better inform our carbon reduction efforts."

This assessment goes further than all previous assessments in considering the viability of sequestration. For example, all areas with groundwater sources that are considered freshwater by U.S. Environmental Protection Agency (EPA) standards were eliminated from consideration for carbon storage resource potential in this assessment. In addition, the rock layers included in the assessment were limited to those determined to have sufficient natural seals to prevent CO2 from escaping. This assessment also focused only on rock layers located at depths at which CO2 would stay under sufficient pressure to remain liquid.

"Today's climate challenges require new, scientifically supported solutions like storing the carbon dioxide created by use of fossil fuels, rather than releasing it into the atmosphere," said Assistant Secretary for



Map of the conterminous United States and Alaska showing 8 regions (separated by bold dashed lines), evaluated areas (bluish gray) that were not assessed, and 36 areas (pattern) that were assessed by the U.S. Geological Survey for carbon dioxide (CO2) storage. Resources in federally owned offshore areas were not assessed, and Hawaii was considered unlikely to have significant storage resources. Regions and study areas are plotted over a shaded-relief image showing higher elevations in brown and tan and lower elevations in green.

Water and Science Anne Castle. "This new study provides the scientific underpinning needed to better manage options related to reducing emissions that contribute to climate change."

Although the scope of sequestration included in this assessment is unprecedented, injecting CO2 into geologic formations is not a new process or technology. Carbon dioxide injection has been one method of enhanced oil recovery since the 1980s. The process works by flooding the oil reservoir with liquid CO2, which reduces the viscosity of the hydrocarbons and allows them to flow to the well more easily.

The USGS project results announced today represent an assessment of storage capacity on a regional and national basis, and results are not intended for use in the evaluation of specific sites for potential CO2 storage.



# Geoconsulting, Inc.

Geological and Geophysical Consulting 3-D Seismic Interpretation

Ben D. Sydboten, Jr. CPG

2 Flagg Pl., Suite 1 Lafayette, LA 70508 www.saigeoconsulting.com

Office (337) 504-3670 Cell (337) 456-8948

## **NORTHCOAST OIL COMPANY**

610 E. Rutland St. Covington, LA 70433 (985) 898-3577 (985) 898-3585 Fax Jack M. Thorson Eric C. Broadbridge J. Daryl Gambrell Raymond W. Stephens



Geological Geophysical Land

Drafting & Graphics

3349 Ridgelake Drive • Suite 202 Metairie, LA 70002 Office: (504) 836-2882 Fax: (504) 836-2877 Cell: (504) 481-7291 E-Mail: geodraft@bellsouth.net Website: www.geodraftinc.com



**ETROA Resources LLC** 

Join us in pursuing gulf coast production, acquisitions and low-risk drilling opportunities

John C. Ebert Kevin McVev 128 Northpark Blvd. Covington, LA 70433 (985) 809-3808

www.etroa.com

**Anthony Catalanotto** 

President

BROOEREBIONPDAJOES IESOEYRAITRETUIRMN ENECOG Ι LORNRTIOAC E Q OATSCAMBRIAN T A C Ε 0 USPZDNETA CORR US PAOADT PALEOZO ICPVVEEUIR CZOT C H P ILINVAAU ONIOS C CYCAEONSL I S S Ι S SIMCNRSI PHANEROZOIC EZINENNRBLCAEAECM TNOOGREOMCEPCLNNIM IAZRHONANO SC I P EENECOLOHECPCURP

OMNCESNAHRCAEEDAT

IRERLORAACCNNNESA

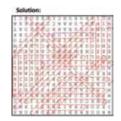
RCIPRORUNCLEEEOECI

# ON THE LIGHTER SIDE

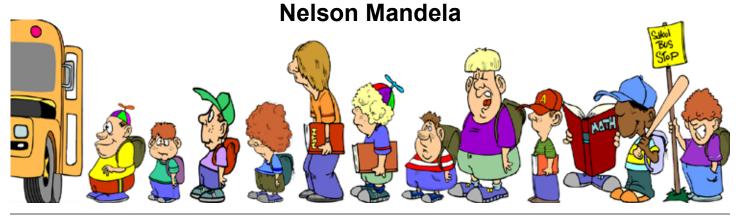
# Word Search: GEOLOGIC TIME SCALE

**ARCHEAN MISSISSIPPIAN CAMBRIAN OBIGOCENE CENOZOIC ORDOVICIAN CRETACEOUS PALEOCENE DEVONIAN PALEOZOIC EOCENE PENNSYLVANIAN PHANEROZOIC HOLOCENE JURASSIC PLEISTOCENE MESOZOIC PLIOCENE MIOCENE PRECAMBRIAN** 

PROTEROZOIC QUATERNARY SILURIAN TERTIARY TRIASSIC



"Education is the most powerful weapon which you can use to change the world."



#### THE NEW ORLEANS GEOLOGICAL SOCIETY MEMORIAL FOUNDATION, INC.

The Memorial Foundation is an IRS Tax Exempt Code #501(c)(3) organization. The Federal I.D. 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!

#### \$15,000 AND ABOVE

#### Gibbet Hill Foundation

In Memory of Steve & Marion Millendorf, William J. Prutzman, Roger G. Vincent, Ron Youngblood and Uno Numella

#### \$5,000

#### **NOGS Golf Tournament April 2013**

In Memory of Bill Craig

#### \$500

#### Mr. Reuben J. Klibert, Jr.

In Memory of Reuben S. Klibert, Sr. and Jame Wade Klibert

#### Mr. Foster E. Voelker

In Memory of Gene Rogas

#### Mr. Armour C. Winslow

In Memory of Rita Menzel Winslow and Lawrence C. Menconi

#### \$250 to \$499

#### Mr. Thomas C. Bergeon

In Memory of Erik Mason and Brian O'Neill

#### Mr. Marc Cooper

Through the Marathon Oil Co MEPAC Program

## FONO FUND

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.

#### \$250 to \$499

Mr. Reuben J. Klibert, Jr.

#### **UP TO \$249**

Mr. Donald I. Andrews Mr. Louis Lemarié Mr. Alfred H. Baker, Jr. Mr. David E. Balcer Mr. Joseph E. Boudreaux Ms. J. Sybil Callaway Mr. Anthony Carollo, Jr. Mr. John Dombrowski Mr. Merle J. Duplantis Mr. Richard A. Edmund Mr. Michael N. Fein Mr. William J. Furlong Mr. David Garner Mr. Bernard L. Hill, Jr. Mr. Kenneth Huffman Mr. Arthur H. Johnson Mr. William M. Whiting Mr. Paul Jurik Mr. Tom Klekamp Ms. Frances A. Wiseman

Mr. H. David Lynch Ms. Jeannie F. Mallick Mr. George M. Markey, Jr. Ms. Margaret M. McKinney Mr. Paul C. McWilliams Mr. Luther Franklin Rogers, Jr. Mr. C. R. Rondeau Mr. Bay Salmeron Mr. George D. Severson Mr. Rudolf B. Siegert Mr. Bryan P. Stephens Mr. Raymond Stephens Mr. Robert K. Sylvester Mr. Roy C. Walther

#### **UP TO \$249**

#### Mr. Woods W. Allen, Jr.

In Memory of William C. Ward

#### Mr. Robert J. Ardell

In Memory of L. David Collier

#### Mr. R. H. Baillio, Jr.

In Memory of T. Wayne Campbell & Jack Dunlap

#### Mr. Maurice N. Birdwell

Mr. Hilary James Brook

Ms. Robin A. Broussard

Mr. Rob Burnett

Ms. J. Sybil Callaway

**Chevron Humankind Matching Funds** 

Mr. Arthur F. Christensen

Mr. Merle J. Duplantis

Mr. Michael N. Fein

Mr. Arthur J. Garden

Mr. Bernard L. Hill, Jr.

Mr. Robert M. Jemison, Jr.

Mr. Paul Jurik

#### Mr. Tom Klekamp

In Memory of Kenneth J. Fulton

Mr. Reuben J. Klibert, Jr.

Mr. John C. "Jack" Langford

Mr. Cyril F. Lobo

Ms. Jeannie F. Mallick

Ms. Margaret M. McKinney

Mr. Paul C. McWilliams

#### **New Orleans Geological Auxiliary**

In Memory of Sybil Barton and Ruth Grimes

Mrs. Teresa O'Neill

In Memory of Brian O'Neill

#### Mr. Edward B. Picou, Jr.

In Memory of Lawrence C. Menconi In Memory of Clarence F. Conrad

#### Mr. George W. Schneider, Jr.

In Memory of George W. Schneider, Sr.

#### Mr. Robert T. Sellars, Jr.

In Memory of Robert G. Williamson

Mr. George D. Severson

**Shell Matching Funds** 

Mr. Robert C. Shoup

Mr. Rudolf B. Siegert

Dr. J. O. Snowden

Mr. James M. Sothern

Mr. Raymond O. Steinhoff

In Memory of Anne M. Steinhoff & Harold E. Vokes

Mr. Louis O. Vidrine

Mr. Arthur S. Waterman

In Memory of T. Wayne Campbell

Mr. William M. Whiting

Ms. Frances A. Wiseman

In Memory of John S. Bousfield In Memory of Steve Widdicombe

#### **BILL CRAIG FUND**

Mr. Bernard L. Hill, Jr.

Mr. Bay Salmeron

Mr. John C. Scheldt

In Memory of William C. Ward

Ms. Candace V. Strahan

In Memory of James R. Strahan

Mr. William M. Whiting

Contributions for both funds through July 11, 2013. Donations are listed for one year.

AUGUST 2013 33 NOGS LOG **ANSYTHE** 

Donald I. Andrews

504-887-3432



#### **CLASSEN EXPLORATION, INC.**

James S. Classen

P.O. Box 140637 Boise, ID 83714 Looking for close in deals classenllc@msn.com Bus. (208) 854-1037 Fax (208) 854-1029

#### **D-O-R ENGINEERING, INC.**

3-D and Geoscience Services

6161 Perkins Rd. Bus: (225) 765-1914 P.O. Box 80812 Baton Rouge, LA 70898

#### **BOO-KER OIL & GAS CORP.**

THE BOEBEL COMPANY

Oil and Gas Investments

**Gray S. Parker** 

826 Union, Suite 300 Bus. (504) 581-2430

New Orleans, LA 70112 Fax (504) 566-4785

#### **EDWARD B. PICOU, JR.**

**Consulting Micropaleontologist - Retired** 

228 St. Charles Ave., Suite 1330 C Bus. (504) 529-5155 New Orleans, LA 70130 Res. (504) 282-3096

#### **C & R EXPLORATION, INC.**

Carlo C. Christina

New Orleans, LA 70153

Lawrence G. Ringham

(504) 866-4313

#### GEOLOGY ENVIRONMENTAL MANAGEMENT

#### **GEM Consulting, LTD**

**Michael Louis Merritt** 

admin@gemconsultingltd.com

#### C. R. RONDEAU

**Petroleum Geologist** 

119 W. Southland Ave. Ironwood, MI 49938

Res. (906) 932-4692 Hou

#### H. WARREN BELL

Oil and Gas Exploration

2500 Tanglewilde, Suite 485 Houston, TX 77063-2126 Bus. (713) 266-7297 Fax (713) 266-7298

#### **Explore the ENTIRE Gulf of Mexico**



Alvin Rowbatham 832-372-2366 • alvin.rowbatham@iongeo.com

Ashley Garcia
281-781-1005 • ashley.garcia@iongeo.com

#### TONY CAROLLO

Consulting Geologist
Unitization • Geosteering • Field Studies

 1701 Peach Street
 Bus. (504) 885-0004

 Metairie, LA 70001
 Res. (504) 885-6829

Thanks our sponsors

for their support!

Special Thanks to

#### PHELPS GEOSCIENCE LLC

Onshore Gulf of Mexico Geology and Geophysics Prospect Generation and Evaluation

Houston, TX jsfphelps@yahoo.com (281) 398-5208

#### RAFIDI OIL AND GAS, INC.

Jaser N. Rafidi, President

4415 Shore Dr., Suite 202 Metairie, LA 70006

Bus (504) 453-8580 Fax (504) 888-5539 Res (504) 888-1661

# ROY C. WALTHER Petroleum Geologist

2421 Prancer Street

New Orleans, LA 70131

Bus. (504) 392-8513 Res. (504) 392-9332



625 E. Kaliste Saloom Lafayette, LA 70508

16800 Greenspoint Dr., Suite 225-S Houston, TX 77060 1100 Poydras St., Suite 1050

New Orleans, LA 70163

#### ZOT OIL & GAS, LLC

Jim Zotkiewicz

**Prospect Generation and Evaluation** 

3909 Metairie Court Metairie, LA 70002 Bus. 504.267.9131 Email: jimzotoil.com

#### Collarini Energy Staffing, Inc.

Facilities • Drilling • Production • Reservoir Engineering Land and Legal • Geosciences • Information Technology Health and Safety • Management • Supply Chain Accounting • Administrative Support



#### Full-Time and Temporary Personnel

Energy Trading • Civil Engineering • Executives Human Resources • Instrument and Electrical Engineering • Marine Engineering • Project Management Technical Writing • Sales and Marketing

10497 Town and Country Way, Suite 950, Houston, Texas 77024 Telephone: (832) 251-0553

VERSIFIED

ELL LOGGING, LLC

www.collarini.com



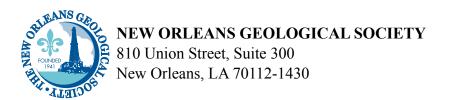
#### PGS MultiClient GULF OF MEXICO

# Revolutionary technology reveals Garden Banks/Keathley Canyon like never before.

SEE IT ALL. SEE IT NOW. With the clearest seismic data to-date in the Gulf of Mexico's most promising region, it's nothing less than a game changer.

- hyperTomo™ increases velocity conformity to geology with more detailed and accurate modeling
- · Dramatically improved subsalt imaging via TTI RTM
- Best of all, it's AVAILABLE NOW

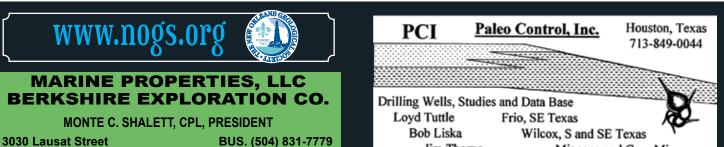




Metairie, LA 70001-5924

PRESORT STANDARD US POSTAGE PAID MAIL TECH

Miocene and Cam-Miogyp



FAX (504) 831-8315

Jim Thorpe

# THIS AD SPACE AVAILABLE

Contact: annette@nogs.org