MISSISSIPPI GEOLOGICAL SOCIETY

# eBULLETIN

Volume 66 No. 5 January 2018

## THE CAUSE & CONSEQUENCES OF THE END-PERMIAN GLOBAL CRISIS

Dr. Ezat Heydari, Jackson State University

## RADON IN MISSISSIPPI

Dr. David T. Dockery III, RPG, Office of Geology

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# PRESIDENT'S LETTER

*David Hancock*

Christmas is over! Whew. It was a real whirlwind for me this year. I hope everyone had a great holiday season with full stockings and stomachs as well. It's now time to go on that New Year's diet.

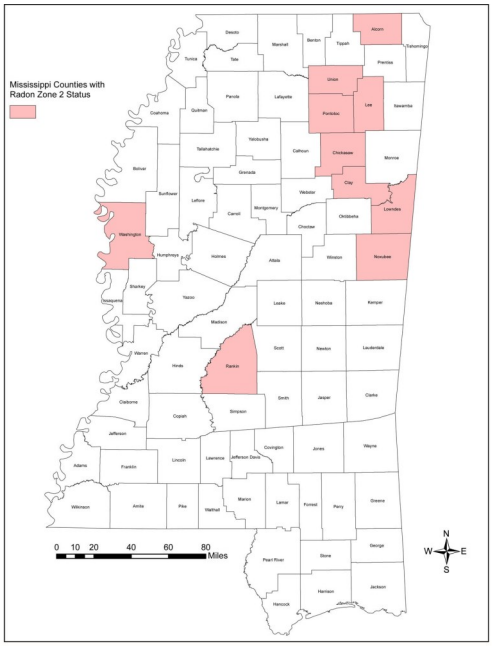
Though I have no crystal ball, oil fundamentals have apparently changed with a continued draining of the oil stock oversupply. Diminished budgets and record low reserve replacements may possibly set the stage for potential price shocks down the road. It still seems though that conventional oil and gas prospectors are struggling in a world that has gone resource play crazy. Hopefully, this recent price surge will hold and our niche in Mississippi can again thrive. I'm optimistic!

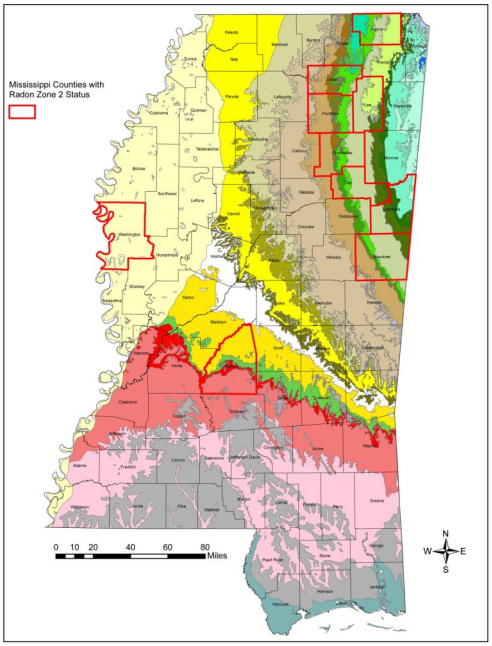
Ezat Heydari will again fulfill the role of speaker this month. His talk, "The Cause and Consequence of The End Permian Global Crisis" will, I'm sure be informative as always. The abstract alone is very interesting and will appeal to all geological disciplines. We will also be honoring Howard Patton of Seismic Exchange at our January meeting. Howard has served the Mississippi oil and gas community's seismic needs for 38 years. I'm sure you all will want to come and visit with Howard before he sails into retirement. Let's get a good crowd out to our first meeting of 2018.

I wish you all a happy and prosperous 2018.

# 2017-2018 MGS MEETING SCHEDULE

| When | What/Who | Where |
|---|---|---|
| September 14, 2017 | Fall BBQ | Jackson Yacht Club-5:30pm |
| October 12, 2017 | EZAT HEYDARI<br>The Last Delta on Mars | River Hills – 11:30am |
| November 7, 2017 | Todd Kiefer<br>Update: Energy & Power: Global Influences | River Hills – 11:30am |
| December 25, 2017 | Merry Christmas | |
| **January 11, 2018** | **EZAT HEYDARI**<br>**The Cause and Consequences of the End-Permian** | **River Hills – 11:30am** |
| February 8, 2018 | TBD | River Hills – 11:30am |
| March 8, 2018 | TBD | River Hills – 11:30am |
| April 12, 2018 | Boland Scholarship Awards | River Hills – 11:30am |
| May 10, 2017 | Spring Fling | Jackson Yacht Club– 5:30pm |




| OFFICERS MEETINGS |
|---|
| September 12, 2017 |
| October 10, 2017 |
| November 6, 2017 |
| **January 9, 2018** |
| February 6, 2018 |
| March 6, 2018 |
| April 10, 2018 |
| May 8, 2018 |

# MGS JANUARY SPEAKER

## *Dr. Ezat Heydari*

**The Cause and Consequences of the End-Permian Global Crisis**

**Dr. Ezat Heydari**
Jackson State University
Jackson, MS
E-mail: ezat.heydri@jsums.edu

The Earth experienced a major global crisis at the end of the Permian Period which led to the most severe biological mass extinction of the Phanerozoic Eon at about 252 million years ago. This catastrophe was accompanied by dramatic changes in geochemical composition of the atmosphere and ocean and resulted in the deposition of sedimentary features which had not occurred since the Precambrian time.

This presentation provides sedimentological and geochemical characteristics of several key sections that encompass the transition from the Permian to the Triassic periods. This is followed by a critical assessment of proposed hypotheses for this mass extinction. The talk suggests that an active mantle plume resulted in the release massive amounts of methane from various sources which put the Earth in a deadly positive feed-back loop. This condition initiated a series of processes which eventually led to an acidic ocean causing the marine mass mortality and an extremely hot climate producing mass killing on land.

# MGS QUIZ

## Who is this prominent MGS member?

Hint* Photo is from a Master's Thesis, taken in Independence Co., Arkansas in 1968.

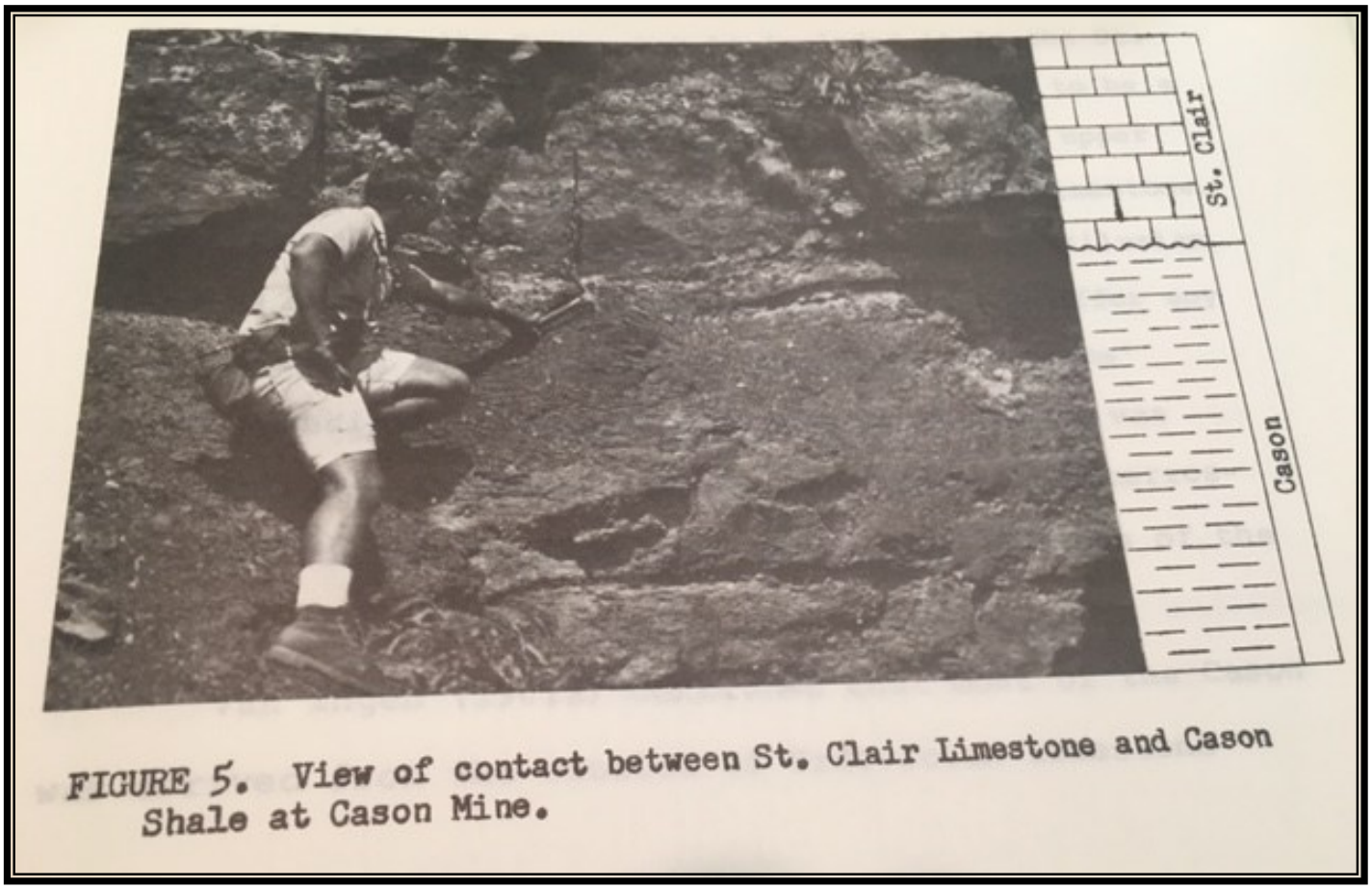



FIGURE 5. View of contact between St. Clair Limestone and Cason Shale at Cason Mine.

## Congratulations to Brian Sims

The Prominent MGS member in the photo is Larry Baria

MONTHLY POST

# RADON IN MISSISSIPPI

David T. Dockery III and David E. Thompson, Office of Geology

Radon is an odorless and colorless, naturally-occurring, radioactive gas derived from the decay of radioisotopes of uranium and thorium and is the heaviest of all the noble gases of the Periodic Table. All isotopes of radon are highly radioactive. If condensed to a liquid (at very low temperatures), radon glows in the dark due to its intense radiation. The most stable isotope of radon, $^{222}Rn$, has a half-life of only 3.8 days, thus radon levels diminish with time and distance from its source. Granite and shale generally contain the highest quantities of uranium and thorium and tend to produce the highest quantities of radon gas. Other rock types that are likely to produce radon are glauconite-bearing sandstones, certain kinds of fluvial sandstones and sediments, phosphorites, chalk, karst-producing carbonate rocks, certain kinds of glacial deposits, bauxite, and silica-rich volcanic rocks. Most of the radon produced in these rocks is trapped in the deep rock interior and ultimately decays in a number of steps to form the stable isotope of lead $^{206}Pb$. However, radon produced near the exterior, or along fractures of these rocks, may work its way to the surface. Mississippi has many near-surface deposits of shale and clay, but the state's granite sources are deeply buried.

Radon levels in the atmosphere (in the U.S.) are measured in picocuries per liter (pCi/L). The average random concentration of radon in American homes is about 1.3 pCi/L, while outdoor exposures are about one tenth as much. The U.S. Environmental Protection Agency has divided the United States, by counties, into Radon Zones 1-3, with Zone 1 having the highest radon potential with levels greater than 4 pCi/L, Zone 2 having moderate radon potential with levels between 2 and 4 pCi/L, and Zone 3 having low radon potential with levels less than 2 pCi/L (Figure 1).

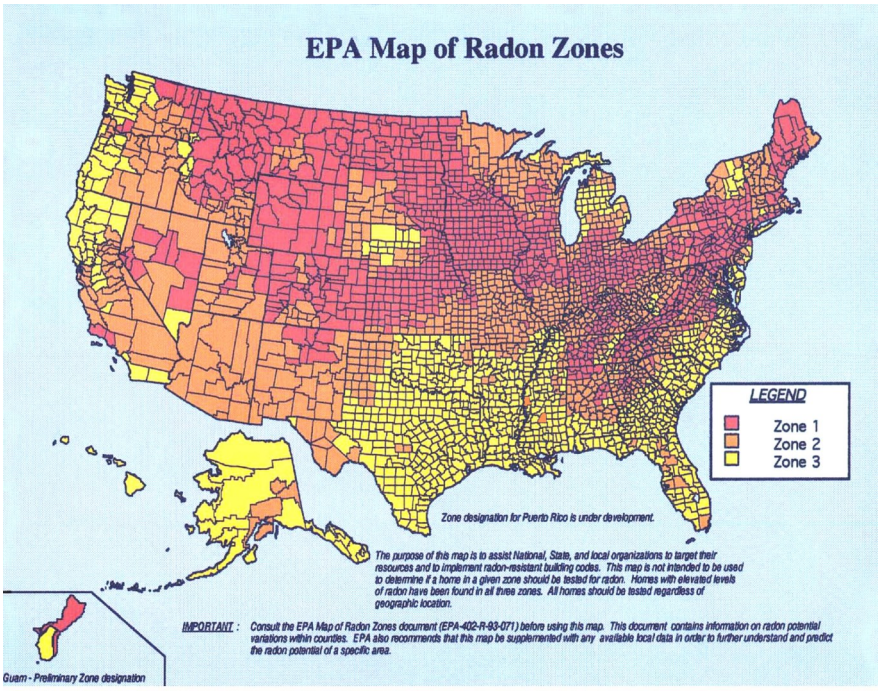



Figure 1. EPA radon zones for counties in the United States. The highest radon levels are in Zone 1 (red) and the lowest levels are in Zone 3.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

Of the eighty-two counties in Mississippi, seventy-two are in Zone 3, and ten are in Zone 2 (Figure 2). Eight of the ten counties in Zone 2 occur along the Cretaceous outcrop belt and include, from south to north, Noxubee, Lowndes, Clay, Chickasaw, Pontotoc, Lee, Union, and Alcorn counties. The remaining counties are in Zone 2 and include Rankin County on the mid-Tertiary outcrop belt and Washington County on the Mississippi River Alluvial Plain.

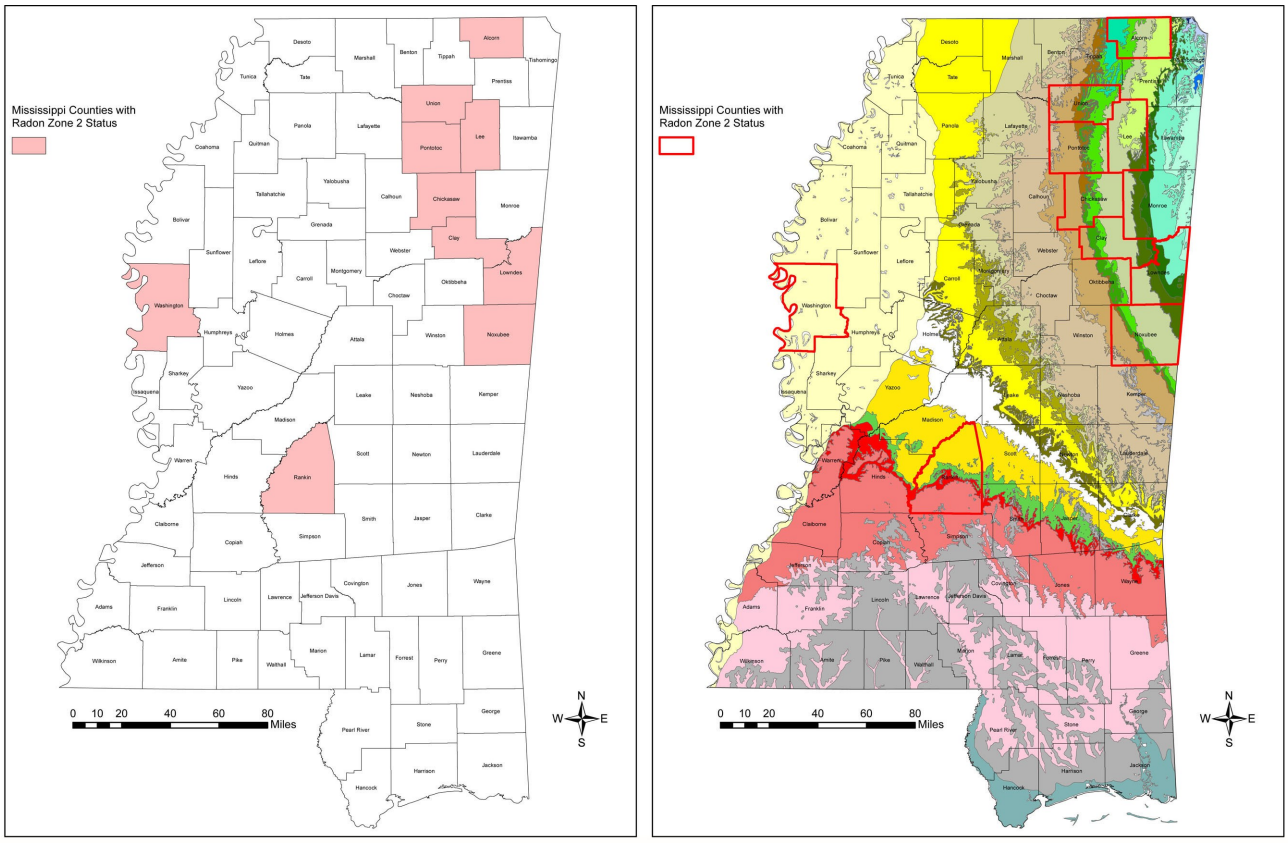



Figure 2. Radon Zone 2 counties in Mississippi (left) and their bedrock geology as shown on the state geologic map (right).

A county's placement in Zone 3 does not exclude homes in that county from problems with radon exposure. The NURE aeroradiometric thorium data map for the conterminous United States (Figure 3) and for the Mississippi area (Figure 4) indicate high levels of thorium in the Delta, the Loess Hills, and the Jackson Prairie, regions which include many of the state's Zone 3 counties.

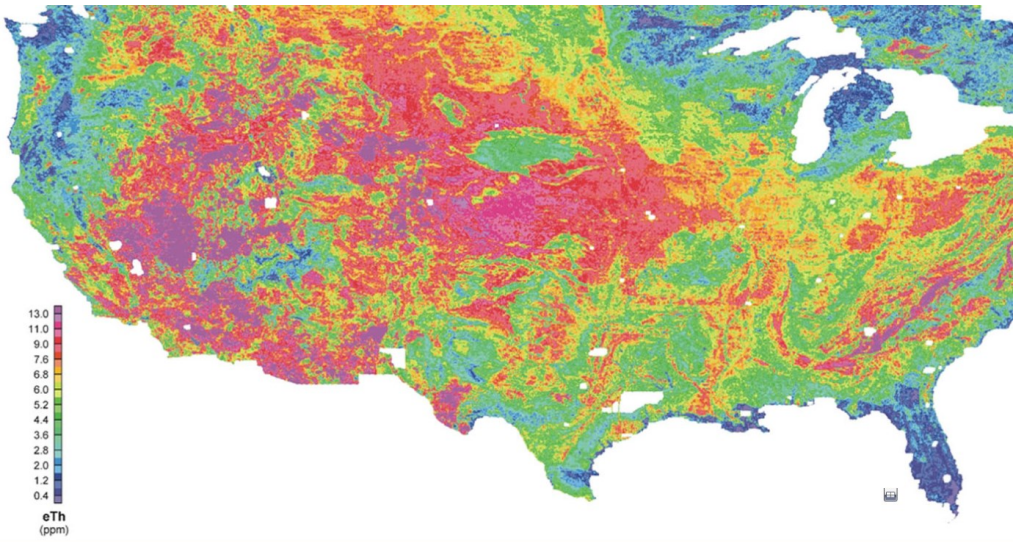



Figure 3. Aeroradiometric thorium data for the conterminous United States from the National Uranium Resource Evaluation (NURE) program of the U.S. Dept. of Energy. Data were collected by aircraft flying 400 feet above the ground surface and can provide an estimate of radon source strength over a region.

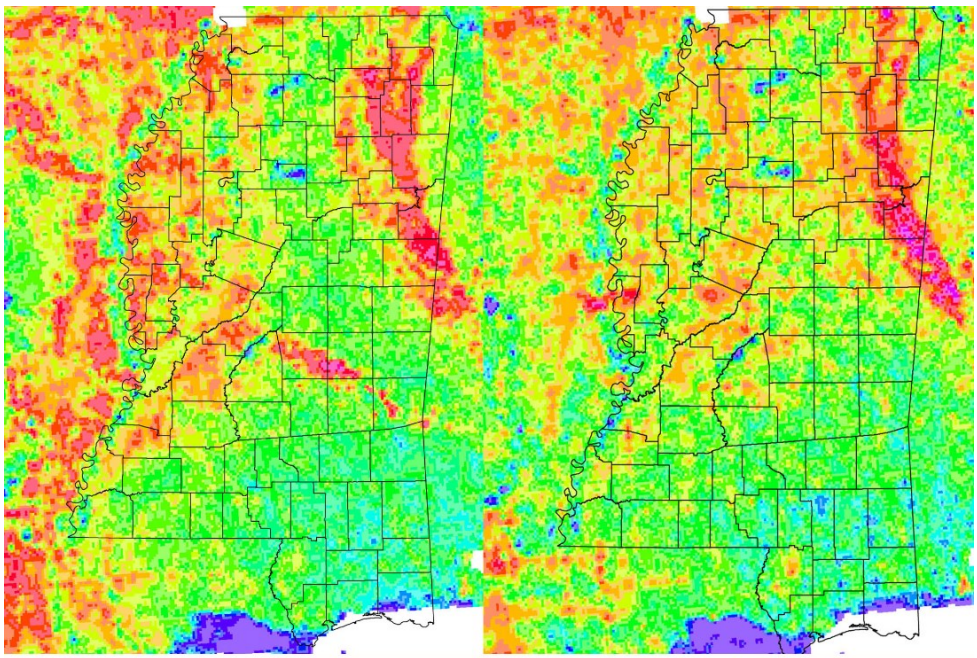


Figure 4. Enlargement of aeroradiometric thorium (left) and uranium (right) data maps for the Mississippi area. Red (on both maps) indicates high thorium and uranium concentrations in the Cretaceous outcrop belt of northeast Mississippi. High thorium concentrations (map at left) also occur in the alluvium of the Mississippi River Alluvial Plain, in the loess of the Loess Hills, and the Yazoo Clay of the Jackson Prairie.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

Elevated radon concentrations associated with the Cretaceous belt in Mississippi, Tennessee, Alabama, and Georgia (as shown in Figure 1) may be due to both the shale and chalk components of the Selma Chalk Group, which underlies the Black Prairie Physiographic Province. Additional sources may come from heavy mineral occurrences that include the uranium and thorium-bearing minerals monazite and zircon in sand-rich geologic units of the Upper Cretaceous section.

Higher levels of radon in Rankin County might be associated with the uplifted basement rocks and buried volcano of the Jackson Dome under the western part of the county (Figure 5) or from such near-surface formations as the mineral-rich Bucatunna Clay and the Yazoo Clay.

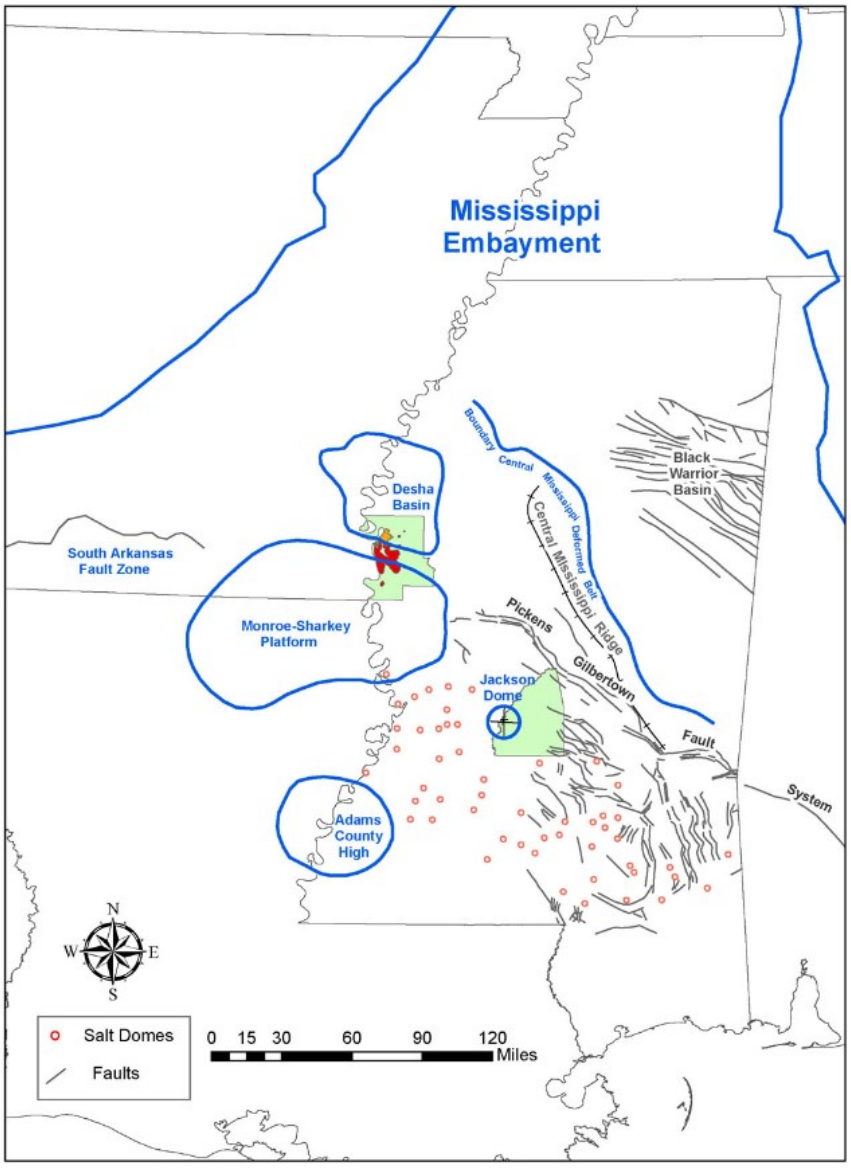



Figure 5. Structural map of the Mississippi Embayment, showing the location of Rankin and Washington counties.

According to the Agency of Toxic Substances and Disease Registry *ToxFAQs*, the average soil content of radioactive thorium is 6 parts per million (6 ppm). Laboratory tests on the Bucatunna Clay at the Easom Mine in Smith County (Figure 6) found thorium levels of 20.690 ppm, about 3.5 times the average level.

Figure 6. Leroy Strite (left) and Larry Strite (right) at the Easom Mine in the Bucatunna Clay in Smith County, Mississippi. Spring water draining off the top of the clay at left is blood red with minerals and/or with sulfur-reducing bacteria. Picture (digital) taken by Michael LaBelle on December 10, 2007.

Figure 7 shows an outcrop of the Bucatunna Clay on Highway 18 in Brandon.

Figure 7. Outcrop of Bucatunna Clay on the north side of Highway 18 across from Brandon High School. Picture was taken on July 27, 2011.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

In April of 2000, the Office of Geology was contacted concerning the reason for high levels of radon found in a Washington County school (2.3% of the schools initially tested in Mississippi had radon concentrations of 4 pCi/L or above). The office was asked if the source of the radon might be from a buried volcano in that county. Washington County straddles a hinge line or possibly a fault along the north margin of the Monroe-Sharkey Platform where it plunges into the Desha Basin (Figure 8). Pat Mason (Office of Land and Water Resources, Hydrologic Investigations Report 2001-1) documented saltwater intrusion into the freshwater zone of the Cockfield aquifer above this hinge line just south of Greenville. She noted that the Cockfield in this area had anomalously high gradients in heads, color, chlorides, and pH, which suggested "the presence of faulting." Faulting could also be an avenue for increased radon levels. Anomalous increases in radon concentrations have been noted to precede earthquakes.

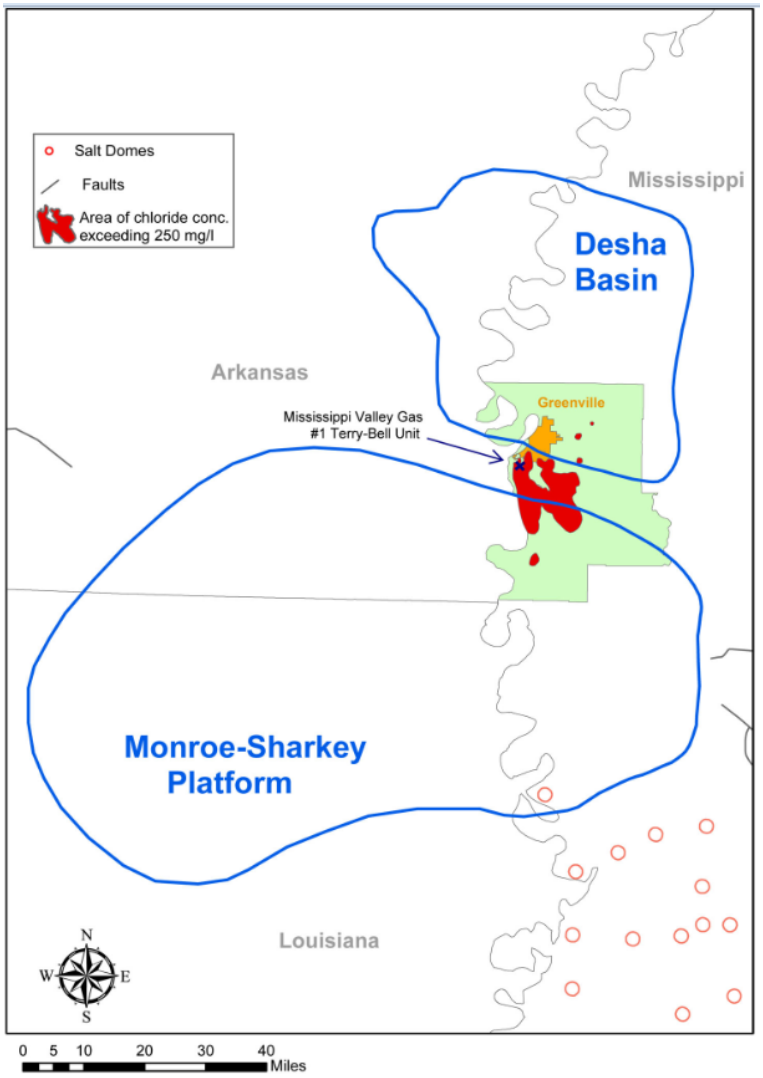



Figure 8. Location of Washington County, the Terry Bell well, and elevated chloride levels in the Cockfield aquifer in relation to the Monroe-Sharkey Platform and Desha Basin.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

To test basement rocks as a source of elevated radon levels, a core of a volcanic rock with the composition of phonolite from a depth of 4,024 feet in the Mississippi Valley Gas #1 Terry Bell well in Washington County (Figure 9) was checked for radioactivity at the Radiological Health division of the Mississippi Department of Health. Phonolite is the same volcanic rock type that buried Pompeii and Herculaneum under as much as 80 feet of molten ash when Vesuvius erupted in 79 A.D. Michael E. Gates of Radiological Health (on April 12, 2000) found the core to be "colder than a brick" (bricks emit radiation from a radioactive isotope of potassium they contain). Other buried volcanic rocks in the county may be more radioactive, but their depth at 4,000 feet would lessen their impact as a source of radium, unless the radon could hitch a ride up a fault on a plume of saltwater. Another possible source would be the granite gravel and cobbles in the lower part of the alluvium in the Mississippi River Alluvial Plain, which occur within a hundred feet of the surface.

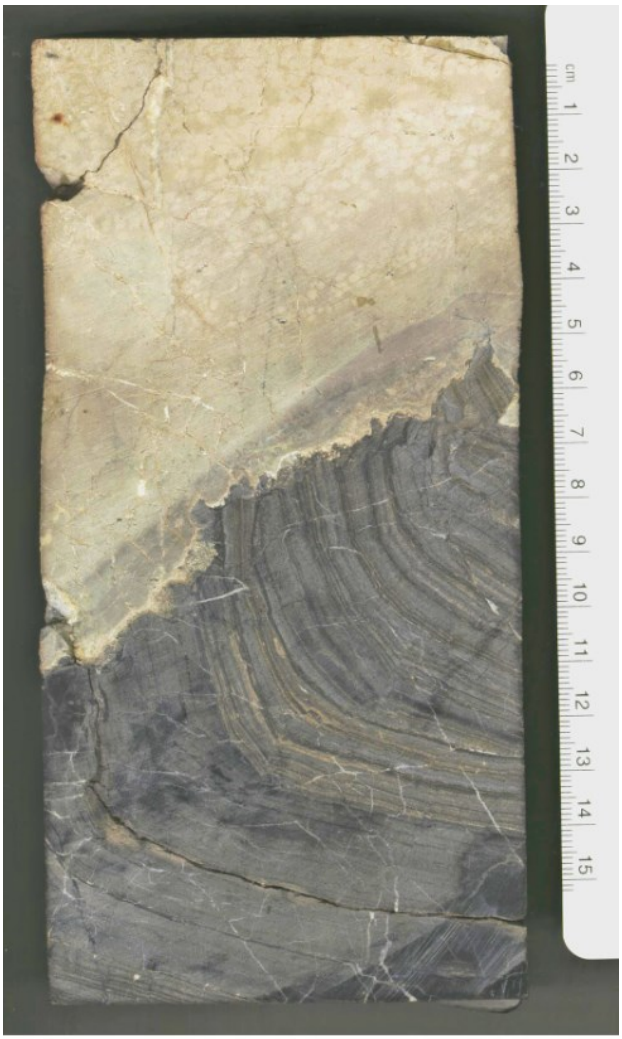



Figure 9. Deformed Smackover Limestone at the contact of a phonolite (71.6 Ma) intrusion in the Mississippi Valley Gas #1 Terry Bell in Washington County at a depth of 4,024 feet (MGS core box C-49.6). Picture made by James Starnes on a flatbed scanner; Image 813.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

One in ten pebbles of Mississippi River gravel is composed of granite (Figure 10). Similar glacially-derived materials, ground from granitic rocks of the Canadian Shield, underlie the farm lands of Iowa, where all the state's counties are zoned in Level 1 (see Figure 1). Radon levels are so high in that state that cities such as Iowa City have passed requirements for radon-resistant construction in new homes.


Figure 10. Granite pebble collected by Paul Parrish from the Mississippi River gravel bar at Rosedale, Mississippi. Picture (digital; Image 1778) taken on November 17, 2010; scale in inches.

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

Radon is a particularly dangerous source of radiation because it is taken into our lungs when we breathe. It is the second most frequent cause of lung cancer (after smoking) and is estimated to cause 21,000 lung cancer deaths per year in the United States (figures 11-12), some 2,900 of which occur among those who have never smoked. The Iowa Radon Lung Cancer Study (Field et al., 2000) found that a 15-year exposure (at home) at levels equivalent to EPA's action level of 4 pCi/L yielded a 50% increase in lung cancer risk. Radon exposure is especially damaging to smokers, due to the synergistic effects of radon and smoking, increasing their risk of cancer ten-fold over non-smokers. According to EPA estimates, at a radon level of 4 pCi/L over a lifetime for 1,000 smokers, 62 people could get lung cancer. Under the heading "What To Do," EPA says, "Stop smoking and fix your home."

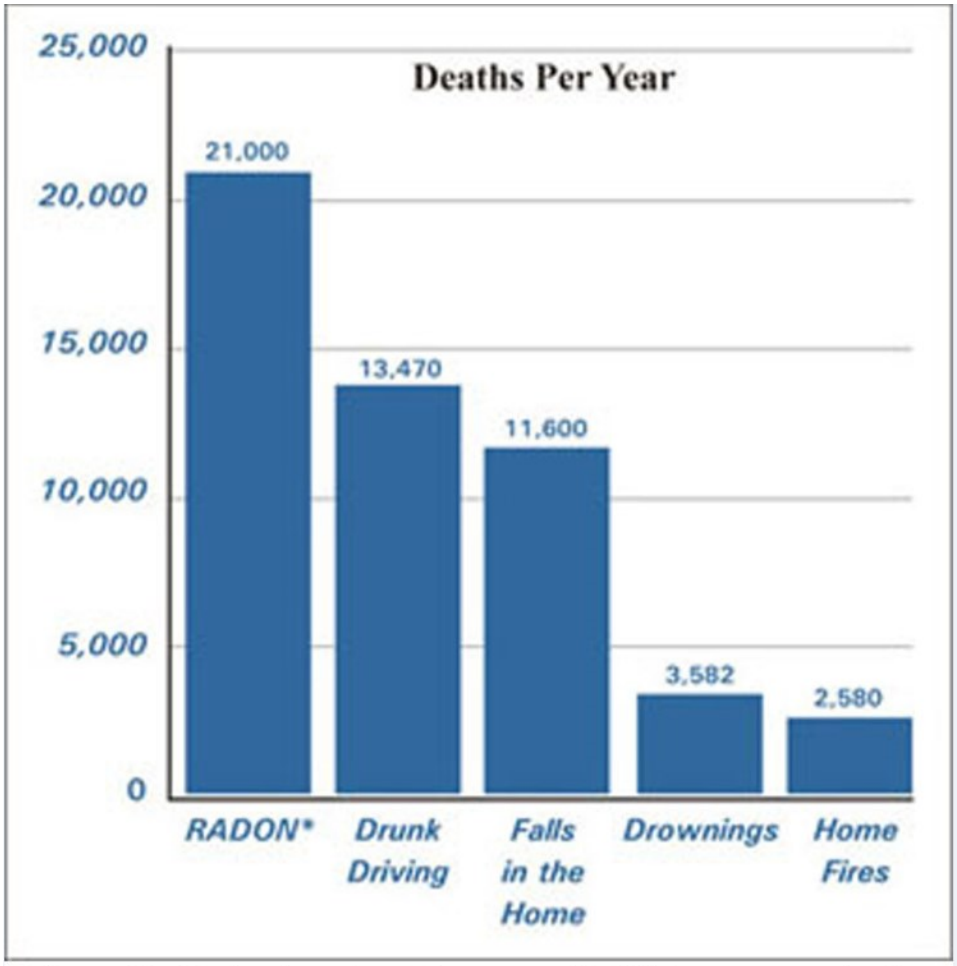



Figure 11. Radon is estimated to cause 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003). The number of deaths from other causes are from the Centers for Disease Control and Prevention's 2005-2006 National Center for Injury Prevention and Control Report and 2006 National Safety Council Reports.

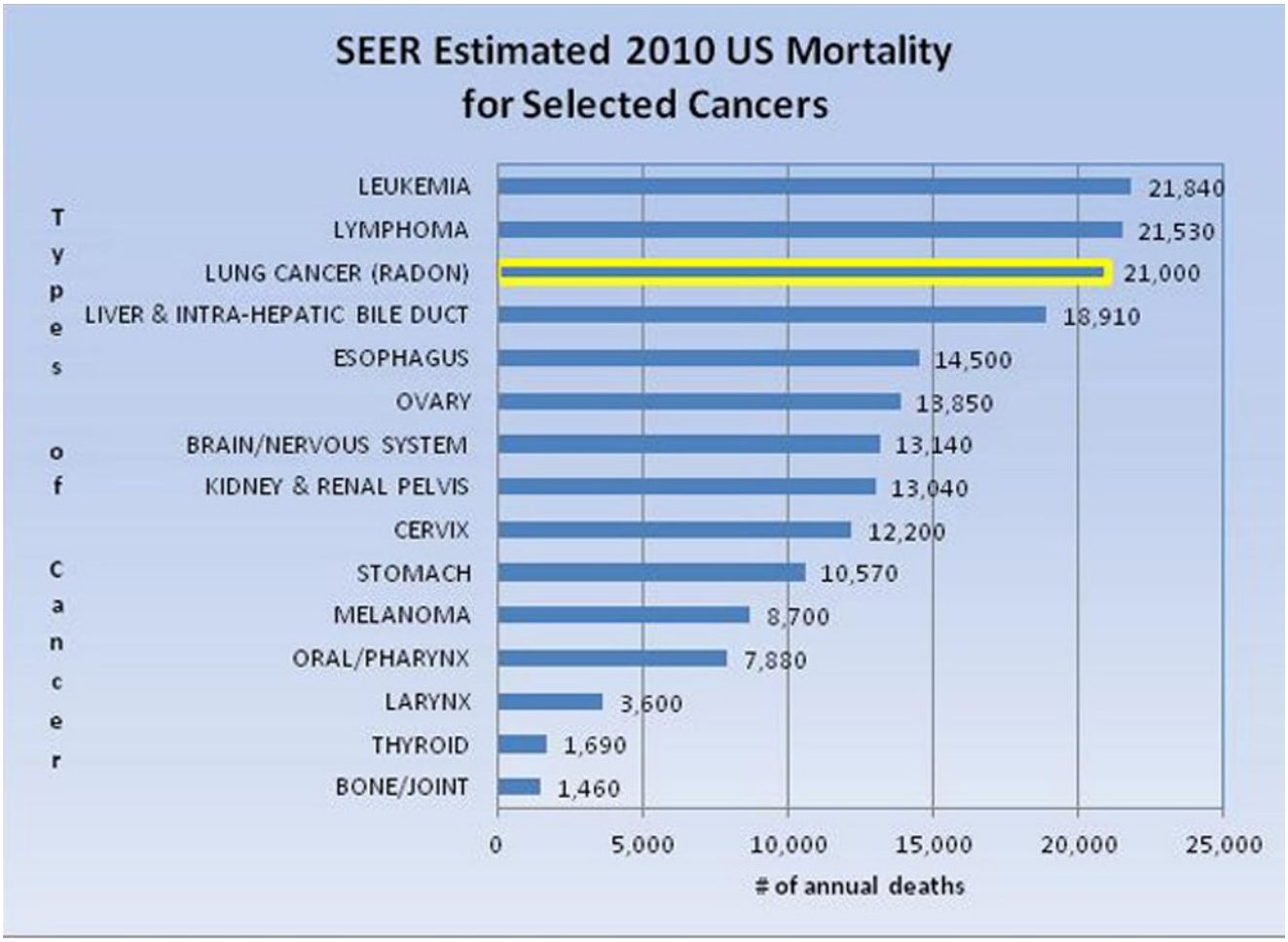



Figure 12. Number of deaths in 2010 from selected cancers as estimated by the National Cancer Institute, Surveillance Epidemiology and End Results (SEER).

# MONTHLY POST

## *Dr. David T. Dockery lll RPG*

Lung cancer caused by radon was first noticed as a wasting disease in miners in Europe as early as 1530. This condition was identified as lung cancer from an investigation of miners in Schneeberg, Germany, in 1879. In the United States, decades of health problems found in uranium miners in the Southwest (employed during the early Cold War) prompted the first federal establishment of limits on radon in mines in 1967. The most effective method found to control excess radon was the use of extensive ventilation systems with multiple vertical shafts and fans to supply fresh air.

Radon presence in indoor air was documented as early of 1950. Indoor radon became nationally publicized in 1984 when construction engineer Stanley Watras entered the Limerick nuclear power plant in Pottstown, Pennsylvania, on his way to work and set off the plant's radiation monitor alarms. As the plant was under construction, it had no nuclear fuel at the time. Further tests revealed that the radioactive substances on Watras were not from the plant, but were from the byproducts of high radon levels in his home. The daughter products of radon are radioactive solids that stick to dust particles in the air, which in turn can contaminate skin and clothing. Radiation measurements in the Watras home were 700 times higher than the maximum level considered safe for human exposure (the home tested at 2,700 pCi/L, far above the safe level at, or below, 4 pCi/L). Following this incident, Congress passed the Indoor Radon Abatement Act (IRAA), which directed EPA (in Sections 307 and 309) to identify high radon potential areas in the United States. A radon screening project in Mississippi in 1991 projected that 3% of the state's homes had radon levels higher than 4 pCi/L. In June of 1992, the Office of Geology reviewed a draft of the "Preliminary Geologic Radon Potential Assessment of Mississippi" by Linda Gundersen. This draft was published in *EPA's Map of Radon Zones in Mississippi* (September 1993). A slightly earlier report by the Mississippi State Department of Health's Division of Radiological Health (*Mississippi Residential Radon Survey Final Report*, May 20, 1993) contained a section on the radon potential of Geologic and Soil Formations.

Radon in soil moves along a pressure gradient from high pressure in the cold/cool soil to low pressure in a warm house. When it encounters a home foundation, radon seeps through: (1) spaces between basement walls and slab, (2) cracks in foundations and/or walls, (3) openings around sump pumps and drains, (4) construction joints, (5) crawl spaces, and (6) showers and water faucets using domestic well water containing radon. Since soil conditions tend to be variable, radon levels may be high in one house but not in the house next door. Also, the design of the house is important; a home with a basement or slab foundation can accumulate higher levels of radon than a house on a conventional foundation with a ventilated crawl space beneath the subfloor.

There is no known safe level of radon exposure, but the risk can be reduced by lowering the radon level in the home environment. Radon mitigation for homes with basements, or built on concrete slabs, consists of depressurizing the soil beneath the slab or basement and walls. The cost of a sub-slab system in Mississippi is generally less than $2,000 and consists of a vent pipe system and fan that pulls radon from beneath the house and vents it to the outside. For further information, check Indoor Radon at the Mississippi Department of Health website.

# CURRENT PRICES

## CRUDE OIL

OPEN

$61.90

▲ 0.17 0.28%

Last Updated: Jan 9, 2018 at 10:35 a.m. EST
- Delayed quote

SETTLEMENT PRICE 01/08/18

$61.73

166.56% VS AVG.

VOLUME: 308.2K

65 Day Avg. - 185.1K


LAST: 61.90

61.80 DAY LOW/HIGH 62.56

DAY RANGE

43.76 52 WEEK LOW/HIGH 62.56

## NATURAL GAS

OPEN

$2.784

▲ 0.012 0.43%

Last Updated: Jan 9, 2018 at 10:37 a.m. EST
- Delayed quote

SETTLEMENT PRICE 01/08/18

$2.772

69.04% VS AVG.

VOLUME: 36.6K

65 Day Avg. - 53K


OPEN: 2 LAST: 2.784

2.755 DAY LOW/HIGH 2.855

DAY RANGE

2.532 52 WEEK LOW/HIGH 3.63

**Source: MarketWatch**

# BOLAND SCHOLARSHIP WATCH

Faculty & Students,

This is a new year and the Mississippi Geological Society along with the Boland Scholarship Fund would like to remind you that we want to honor the most out-standing overall students for the 2017-2018 year.

Each year, the Boland Scholarship awards 1 student from each institution a check that rewards students for their hard work and dedication to the Geosciences and their community.

We look forward to a great year and hope to see you at our monthly meetings.

Best Regards,

Matt Caton
Editor

MISSISSIPPI STATE

The University of Mississippi

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

MILLSAPS COLLEGE

# GEOLOGY POST

## ARTICLES, PAPERS or NEWS?

**ATTENTION!!!!!** Industry, Professors and Students:

I am adding a dedicated section that includes more content from the industry and our schools.

Submissions can include anything from professional papers, thesis abstracts, job opportunities to pictures. Anything!!!!

If you have any information or news you would like to share with the Society **PLEASE** email them to the MGS Editor at:

mcaton@tellusoperating.com

Thanks & Regards,

Matt Caton
Editor

# 2017-2018 BOLAND FUND DONATIONS

**Maurice Birdwell**
**Joe White**
**Louis J Lyell**
**Larry Baria**
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**Tony Stuart**
**Dave Cate**

Thanks for your generous donations to the 2017-2018 Boland Fund

# GEO LINK POST

***USGS TAPESTRY OF TIME AND TERRAIN*** http://tapestry.usgs.gov The CCGS is donating to all of the 5th and 6th grade schools in the Coastal Bend. Check it out—it is a spectacular map. You might want a framed one for your own office. The one in my office has glass and a metal frame, and it cost $400 and it does not look as good as the ones we are giving to the schools. Call Owen 510-6224 if you want one for your office for $150. Duncan, Mike, Chris, Dave, Bob Randy, Seb., Kevin, Ken, Craig, Patrick, Robert.

***FREE TEXAS TOPO'S*** http://www.tnris.state.tx.us/digital.htm these are TIFF files from your state government that can be downloaded and printed. You can add them to SMT by converting them first in Globalmapper. Other digital data as well.

***FREE NATIONAL TOPO'S*** http://store.usgs.gov/b2c_usgs/b2c/start/(xcm=r3standardpitrex_prd)/.do go to this webpage and look on the extreme right side to the box titled TOPO MAPS DOWNLOAD TOPO MAPS FREE.

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http://www.spacimaging.com/gallery/ioweek/iow.htm Amazing satellite images. Check out the gallery.

http://www.ngdc.noaa.gov/seg/topo/globegal.shtml More great maps to share with kids and students.

www.geo.org Don't forget we have our own web page.

http://micro.magneet.fsu.edu/primer/java/scienceoptiscu/owersof10/

http://asterweb.jpl.nasa.gov/galery/default.htm Great satellite images of volcanoes

http://terra.nasa.gov/gallery/ More here

www.ermapper.com They have a great free downloadable viewer for TIFF and other graphic files called ER Viewer.

www.drillinginfo.com This is an incredible (subscription) well and completion data service for independents. Can be demo'ed for free.

http://terrasrver.com/ Go here to download free aerial photo images that can be plotted under your digital land and well data. Images down to 1 meter resolution, searchable by Lat Long coordinate. Useful for resolving well location questions.

http://www.fs.fed.us/gpnf/volcanocams/msh/ This is a live cam of Mt. St. Helens refreshed every 5 minutes. At the bottom are old videos of past eruptions in this cycle. It is worth a watch especially now.

# MGS HONORARY MEMBERS

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| **Walter P. Jones*** | **Harold Karges*** | **Wilbur H. Knight*** |
| **Winnie McGlammery*** | **Thomas McGlothin*** | **Frederic F. Mellen*** |
| **Maurice E. Miesse*** | **Emil Monsour*** | **William H. Moore*** |
| **Marvin E. Norman*** | **Marvin L. Oxley*** | **Richard R. Priddy*** |
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| **David Cate** | **Stanley King** | **Ralph Hines*** |

*** deceased**

**MEMBERSHIP APPLICATION / RENEWAL FORM**

**MISSISSIPPI GEOLOGICAL SOCIETY**

**P.O. BOX 422, JACKSON, MISSISSIPPI 39205-0422**

## 2017-2018

Membership year is June through May

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Degree(s) Obtained and Year(s) Awarded: _____

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### I. Bulletin Advertisements:

| Size | Rate/Year | Amt. Remitted |
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| Full Page Ad (6" x 8") | $500 | $_____ |
| 1/2 Page Ad (6" x 4") | $300 | $_____ |
| 1/4 Page Ad (3" x 4") | $200 | $_____ |
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| Front Page Sponsor (Banner Ad – limit of 5) | $500 | $_____ |
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(Note: Please contact Steve Walkinshaw at (601) 607-3227 or mail@visionexploration.com for details concerning placing your ad on the MGS web site.)

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Please make checks payable to the Mississippi Geological Society. If you have any questions, contact Matt Caton at (601) 898-7444 or mcaton@tellusoperating.com

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Neil Barnes
Tyler Berry
Maurice Birdwell
Randy Bissell
Chris Bowen
Keith Bowman
Matt Caton
Krista Clark
Jamie Crawford
Lee Day
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This list is updated monthly. Please contact Bill Bagnall if you have questions.

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**Maurice N. Birdwell**
Managing Partner
AAPG Certified Petroleum Geologist
Reg. Prof. Geol. Ark. La. Miss. Tex

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**601.936.6939**
mnbirdwell@comcast.net

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**Joe R. White, Jr.**
Petroleum Geologist

8505 Dogwood Trail
Haughton, LA 71037
Cell. 318-423-9828
Hm. 318-949-3539
Available for Consulting

AAPG CPG #5580
MS RPG #0097
LA CPG #345
Jwhite1362@aol.com
Joerjrw@gmail.com

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**dcate@pruet.com**

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**Joseph H. McDuff**
**Geologist**

351 Chapel Loop
Mandeville, LA 70471
985.845.9430
jhmcduff@charter.net

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| 1942-1943 | Dave C. Harrell |
| 1943-1944 | K. K. "Bob" Spooner |
| 1944-1945 | L. R. McFarland |
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| 1946-1947 | Frederic F. Mellen |
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| 1948-1949 | Robert D. Sprague |
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| 1950-1951 | J. Tate Clark |
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| 1953-1954 | Wilbur H. Knight |
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| 1955-1956 | Gilbert A. Talley |
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| 1957-1958 | Emil Monsour |
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| | Marvin Oxley |
| 1964-1965 | James F. Bollman |
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| 1987-1988 | Harry Spooner |
| 1988-1989 | Stanley King |
| 1989-1990 | Stan Galicki |
| 1990-1991 | E. James Files, Jr. |
| 1991-1992 | Stephen L. Ingram, Sr. |
| 1992-1993 | Michael Noone/Stanley King |
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| 1995-1996 | Lester Aultman |
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| 1997-1998 | George B. Vockroth |
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| 2000-2001 | John C. Marble |
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| 2003-2004 | John G. Cox |
| 2004-2005 | James E. Starnes |
| 2005-2006 | Todd Hines |
| 2006-2007 | Bob Schneeflock |
| 2007-2008 | Tony Stuart |
| 2008-2009 | Lisa Ivshin |
| 2009-2010 | Joe Johnson |
| 2010-2011 | Brian Sims |
| 2011-2012 | Stanley King |
| 2012-2013 | Jim Files |
| 2013-2014 | Neil Barnes |
| 2014-2015 | Ezat Heydari |
| 2015-2016 | Jack Moody |
| 2016-2017 | Cragin Knox |