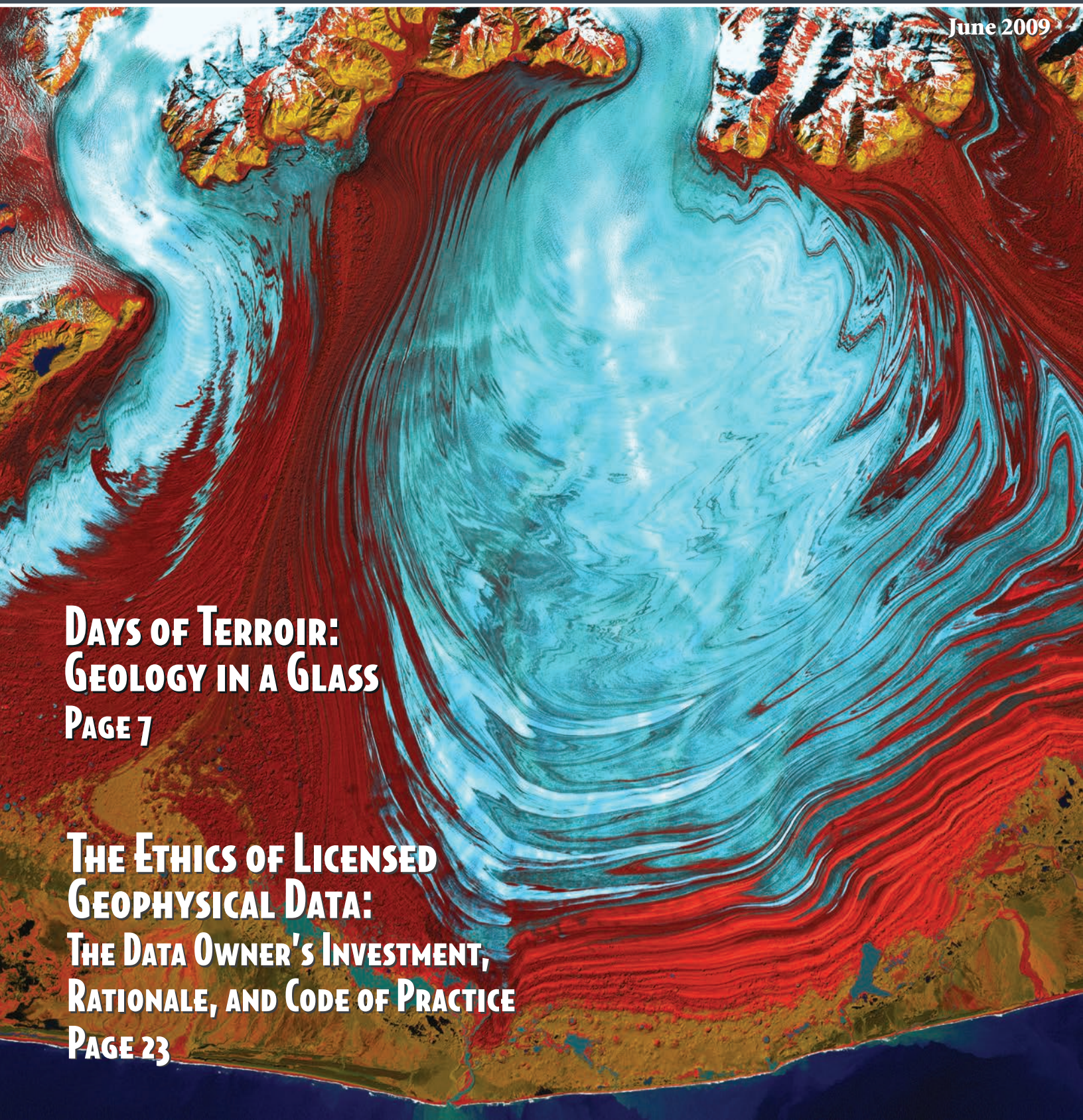
HGS Bulletin
Houston Geological Society
Volume 51 Number 10
June 2009

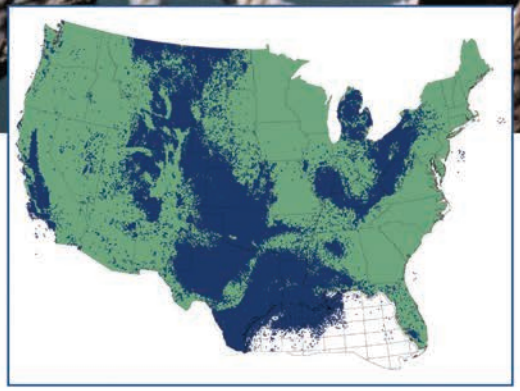


Days of Terroir: Geology in a Glass

Page 7

The Ethics of Licensed Geophysical Data: The Data Owner's Investment, Rationale, and Code of Practice

Page 23



With LASSO, lock in TGS' program rates on digital LAS well data from our US collection, growing at an unprecedented pace to more than 500,000 wells over the next several months. LASSO strengthens your exploration projects with the higher-order capabilities of increased digital well log use. LASSO digital data from TGS, the industry's well log data leader, is quality controlled and available online for immediate downloads.

For more information about LASSO, contact your TGS account representative or call 1- (888) LOG-LINE.

TGS

Geophysical Products | Geological Products | Imaging Services

www.tgsnopec.com

NORWAY +47 66 76 99 00 | USA +1 713 860 2100 | UK +44 (0) 1234 272122 | AUSTRALIA +61 8 9480 0000

The Bulletin
Houston Geological Society

Volume 51, Number 10 June 2009

In Every Issue

The Houston Geological Society Bulletin (ISSN-018-6686) is published monthly except for July and August by the Houston Geological Society, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916. Phone: 713-463-9476; fax: 281-679-5504

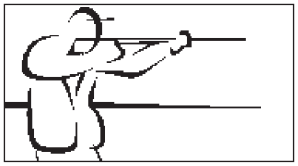
Editorial correspondence and material submitted for publication should be addressed to the Editor, Houston Geological Society *Bulletin*, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916 or to hgs.forlenza@gmail.com

Subscriptions: Subscription to this publication is included in the membership dues ($24.00 annually). Subscription price for non-members within the contiguous U.S. is $30.00 per year. For those outside the contiguous U.S. the subscription price is $46.00 per year. Single-copy price is $3.00. Periodicals postage paid in Houston, Texas.

POSTMASTER: Send address changes to Houston Geological Society Bulletin, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079-2916

Technical Meetings

Other Features



page 6

page 7

page 8

page 23

page 29

About the Cover: *Malaspina Glacier. The tongue of the Malaspina Glacier, the largest glacier in Alaska, fills most of this image. The Malaspina lies west of Yakutat Bay and covers approximately 1,500 square miles (3,880 square kilometers).*
Landsat 7 satellite imagery acquired August, 31, 2000.
Source: U.S. Department of the Interior, U.S. Geological Survey. Earth as Art images were created by the USGS National Center for EROS. http://earthasart.gsfc.nasa.gov/malaspina.html

Board of Directors 2008–09

http://www.hgs.org/about_hgs/leadership.asp

President (P)	Kara Bennett	Consultant	832-452-3747	kcbhgs@gmail.com
President-elect (PE)	Gary Coburn	Murphy Oil	281-675-9210	garycoburn.hgs@gmail.com
Vice President (VP)	Art Berman	Labyrinth Consulting Services	713-557-9076	bermanae@gmail.com
Secretary (S)	Mike Jones	Scout Petroleum	713-654-0080	mike@scoutpetroleum.com
Treasurer (T)	John Tubb	INEXS	713-805-5649	jbtjr@sbcglobal.net
Treasurer-elect (TE)	Matt Boyd	Southwest Energy	281-618-7379	matt_boyd@swn.com
Editor (E)	Michael Forlenza	Malcolm Pirnie Inc.	713-960-7421	hgs.forlenza@gmail.com
Editor-elect (EE)	Gordon Shields	Fugro Gravity and Magnetics Services	713-369-6132	gshields@fugro.com
Director 07-09 (D1)	Alison Henning	H2B, Inc. / Rice University	832-203-5016	alison@henning.com
Director 07-09 (D2)	Richard Howe	Terrain Solutions	713-467-2900	hgs.howe@gmail.com
Director 08-10 (D3)	Ianthe Sarrazin	Petrobras America	713-808-2775	ianthe.hgs@gmail.com
Director 08-10 (D4)	Walter Light	Thunder Exploration	712-823-8288	wthunderx@aol.com

Committee	Chairperson	Phone	Email	Board Rep.
AAPG HOD Foreman	Sharie Sartain	281-382-9855	smsartain1@comcast.net	P
Academic Liaison	Brad Hoge		hogeb@uhd.edu	D3
Ad Hoc Constitution & Bylaws	Steve Earle	713-328-1069	steve.hgseditor@gmail.com	P
Advertising	Lilly Hargrave	713-463-9476	ads@hgs.org	E
Arrangements	Matt Boyd	281-618-7379	matt_boyd@swn.com	TE
Awards	Mike Deming	281-925-7239	michael.deming@deepwater.com	VP
Ballot	Paul Hoffman	713-783-7880	phoffman@jlaev.com	S
Calvert Memorial Scholarship	Carl Norman	713-461-7420	dod895@aol.com	PE
Community Outreach	Walter Light	713-529-2233	wthunderx@aol.com	D1
Continuing Education	Ken Schwartz	281-690-0995	kenschwartz@mail.com	D1
Directory	Michael S. Benrud	713-785-8700 x104	mbenrud@sbres.com	EE
Earth Science Week	Martha McRae	713-869-2045	mcrae_1125@comcast.net	D1
	Jennifer Burton		jlbgeo@comcast.net	D1
Engineering Council	Claudia Ludwig	713-723-2511	petra@hal-pc.org	D4
Environmental & Eng Geologists	Matthew Cowan	713-777-0534	wrcowan1@hal-pc.org	VP
Exhibits	Mac Mckinney	281-353-0661	wnmckinney@comcsat.net	D3
Field Trips	Gary Moore	713-466-8960	gmoore@wellhub.com	D4
Finance	Joe Lynch	281-496-9898 x134	jly@sptgroup.com	T
Foundation Fund	John Adamick	713-860-2114	jada@tgsnopec.com	PE
General Meetings	Art Berman	713-557-9076	bermanae@gmail.com	VP
Golf Tournament	Mark Dennis	281-494-2522	mdennis@petrolog.com	D1
Government Affairs	Arlin Howles	281-808-8629	tidenv@sbcglobal.net	D4
	Henry Wise	281-242-7190	hmwise@yahoo.com	D4
Guest Night	Bill Osten	281-293-3160	bill.w.osten@conocophillips.com	D2
Houston Energy Council	Sandi Barber	713-935-7830	sbarber@seismicmicro.com	D4
HPAC	Winona Labrant Smith	713-952-2007	wlbrant@hal-pc.org	S
International Explorationists	Justin Vandenbrink	281-448-6188	vandenbrinkj@rpsgroup.com	VP
Ad Hoc Int'l Year of Planet Earth	Sandi Barber	713-935-7830	sbarber@seismicmicro.com	D3
Membership	Steve Levine	713-624-9723	steve.d.levine@conocophillips.com	S
Membership Growth	Linda Sternbach	281-679-7333	linda.sternbach@gmail.com	D2
Museum of Natural Science	Inda Immega	713-661-3494	immega@swbell.net	D3
NeoGeos	Cecelia Baum	713-268-5238	cecelia.baum@maersk.com	S
	Rachael Czechowskyj	713-609-4406	sea2stars@gmail.com	
New Publications	Bill Rizer	281-392-0613	rizerwd@gmail.com	D1
Nominations	Linda Sternbach	281-679-7333	linda.sternbach@gmail.com	P
North American Explorationists	Steve Getz	713-871-2346	sgetz@jlaev.com	VP
Northsiders	Tony D'Agostino	832-237-400	tony.dagostino@weatherfordlabs.com	VP
	David Tonner	713-516-6894	dtonner@comcast.com	VP
Office	Ken Nemeth	713-689-7605	knemeth@houston.oilfieldl.slb.com	PE
Personnel Placement	Peter Welch	713-862-2287	peter-welch@sbcglobal.net	PE
Publication Sales	Tom Mather	281-556-9539	geomather@aol.com	
Remembrances				EE
Shrimp Peel	Lee Shelton	713-595-5116	lshelton@knowledge-reservoir.com	D1
Skeet Shoot	Tom McCarroll	713-353-4728	tom_mccarroll@yahoo.com	D1
Technofest	Deborah Sacrey	713-468-3260	dsacrey@auburnenergy.com	D3
Tennis Tournament	Ross Davis	713-659-3131	rossdavis@davisbros.com	D1
Vendor's Corner	Paul Babcock	713-859-0316	pebabcock@aol.com	TE
Web Site Manager	Tarek Ghazi	713-432-4562	hgs.webmanager@yahoo.com	PE
Web Master	Lilly Hargrave	713-463-9476	webmaster@hgs.org	PE
HGS Office Manager	Sandra Babcock	713-463-9476	sandra@hgs.org	

It's Time to Renew Your HGS Membership

Your membership expires June 30, 2009

Annual dues are only $24.00
Full-time students and Emeritus members pay $12.00

Check your email for a reminder notice and renew online at *www.hgs.org*

Alternately, you may fill out this form and return with your remittance—include your CURRENT EMAIL (important)

Full-time students enrolled in a qualified geology program may be eligible to have their $12.00 membership fee subsidized; details will be available on the HGS website soon.

Name: _____

Member No.: _____ Type: Active__ Associate__ Emeritus__ Full-time Student__

Current Email: _____

Preferred Address for HGS mail and *Bulletin*:

_____

City: _____ State: _____ Zip Code: _____

Phone: _____

This is my home address _____ business address _____

Annual dues ($24) for the 2009–2010 year: _____

Scholarship Contributions — Calvert: _____

HGS Foundation — Undergraduate: _____

TOTAL REMITTANCE: _____

Send check and form to: HGS Office, HGS Membership Renewal, 14811 St. Mary's Lane, Suite 250, Houston, Texas 77079
or fax this form with credit card number to 281-679-5504

PAYMENT

Check # _____

Credit Card number and type: _____

_____ **Expiration Date (required):** _____CVV code (req'd): _____

Name on Credit Card: _____

Daytime Phone number of Card Holder: _____

Billing Address for Card: _____

City, State and Zip: _____

Kara Bennett
kcbhgs@gmail.com

Many Thanks For a Great Year!

We've come to the end of another HGS year, and it has been a good one. The HGS runs on volunteers, and I would like to thank everyone who has worked with us this year for being part of it.

The HGS Board this year has worked tirelessly behind the scenes to make the organization work. Special thanks go to Michael Forlenza, Editor, whose calm patience I've tried more than once. The Editor has by far the most demanding job in the HGS, and Michael has done it beautifully. He's been ably supported by Editor-elect Gordon Shields, associate editors Jim Ragsdale and Charles Revilla. Lilly Hargrave has handled advertising, and Lisa Krueger has designed and laid out the publication. Thanks to them all for a superb *Bulletin*.

I am delighted to leave the HGS in such capable hands, and I hope they enjoy their year as much as I have enjoyed mine.

Special thanks also go to the diligent John Tubb and Matt Boyd who have handled our finances, and Joe Lynch, who has organized our budget and overseen our reserve funds. Sandra Babcock handles the day-to-day accounting and gracefully got us through a multi-year audit. Our office accounting and financial control system is much more streamlined than in previous years and should be easier to maintain from here on. Additional thanks go to Ken Nemeth who has overseen the office committee for several years now.

We've had an excellent technical program this year, thanks to VP Art Berman and his committee chairs, Justin Vandenbrink, Steve Getz, Matthew Cowan, Tony D'Agostino and Dave Tonner, and their committees. The technical program is the lifeblood of the HGS and we are grateful to them for consistently finding great speakers. Frank Walles and Dave Tonner organized the very successful Mudstones Conference and Deborah Sacrey produced a terrific Technofest last summer (and has another great one in store for August). Paul Babcock put together Vendor's Corners at many of our technical events, raising funds for our scholarship programs, and Dianna Phu stepped up to help with hotel contracting arrangements.

Thanks go to Gary Moore, Richard Howe, Cecelia Baum, Dave Lazor, Dee Ann Cooper, and Tom Miskelly for putting together a great series of field trips this year. Tom Tucker, Ken Schwartz, and Cheryl Desforges organized excellent short courses. Cecelia Baum and Rachel Czechowskyj ran a successful NeoGeos program.

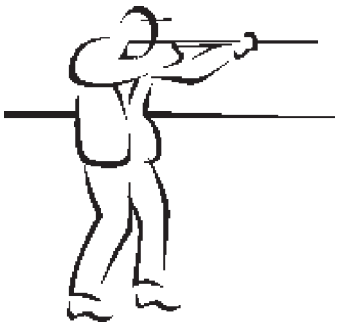
Tarek Ghazi did a terrific job taking over the HGS website from long-time web manager Bill Osten with help from Webmaster Lilly Hargrave. He has also put together a great newsletter notification system and streamlined the website for better usability. Peter Welch maintains the HGS Jobs Hotline, a valuable member service for which he is rarely thanked but is very much appreciated.

Alison Henning was a member of the State of Texas Board of Education committee to develop the earth science high school curriculum and fought valiantly to keep valid earth science in our schools. Matthew Cowan and Dave Rensink traveled to Austin to testify before the Texas Senate and House about the Texas Board of Professional Geology.

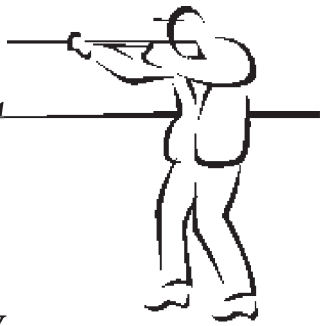
Bill Osten, Chuck Caughey, and Bonnie Milne-Andrews organized Guest Night at the downtown aquarium. It was different and a lot of fun. Kudos also go to Mark Dennis, who had to deal with canceling and re-scheduling the HGS Golf Tournament due to Hurricane Ike, and to Ross Davis for the Tennis Tournament and Tom McCarroll for the Skeet Shoot.

Special thanks to Tom Mather and John Tubb for sorting and cleaning out the HGS storage room after it was flooded in April. This was a nasty job, but Tom managed to save our history by

From the President *continued on page 19*



26th Annual HGS SKEET SHOOT



Saturday, June 27, 2009

Greater Houston Gun Club
6702 McHard Road, Missouri City

This tournament is a 50 target event. Shells are provided, however **you must bring eye and ear protection.** Greater Houston Gun Club and National Skeet Shooting Association safety rules will be in effect. Winning shooters will be determined by the Lewis class system. Door prizes will be awarded by blind drawing after the conclusion of shooting. All competitors are automatically entered into the door prize drawing, but you must be present at the time of the drawing to win.

BBQ lunch will be provided from 11:30 a.m. until 1:30 p.m.
Refreshments will be available throughout the day.

IMPORTANT!!

WE ARE LIMITED TO 160 SHOOTERS IN FOUR ROTATIONS. ENTRY FEE IS $65 PER SHOOTER FOR REGISTRATIONS RECEIVED BY FRIDAY, JUNE 19. AFTER THAT, REGISTRATION WILL BE STRICTLY ON A "SPACE AVAILABLE" BASIS AND THE ENTRY FEE WILL BE $80 PER SHOOTER. REGISTER EARLY!!

For more information, contact: Tom McCarroll at (713)419.9414 or tom_mccarroll@yahoo.com.

****

HGS SKEET SHOOT REGISTRATION FORM

Name: _____ Company: _____

Email: _____ Phone: _____

Preferred shooting time: (circle one) 9:00 10:00 11:00 12:00

Indicate ammunition required: (circle one) 12 gauge 20 gauge

Please return form(s) with check for $65.00 per shooter, payable to:
Houston Geological Society

★ New Address ★ Mail to: ***Tom McCarroll • 2668 Hwy 36 S, #329 • Brenham, TX 77833*** ★ New Address ★

Registration Fee: $_____ + Sponsor contribution: $_____ = Total: $_____

If you wish to shoot with a specific squad (5 shooters max.), please submit all forms together.

****

ALL SHOOTERS WILL BE REQUIRED TO SIGN A DISCLAIMER OF RESPONSIBILTY BEFORE THEY WILL BE ALLOWED TO SHOOT!

Michael F. Forlenza, P.G.
hgs.forlenza@gmail.com

Days of Terroir: Geology in a Glass

The cabernet sauvignon shimmers garnet-red in the glass. The grapes for this wine were grown on vines rooted in the calcareous loamy soils formed on the Quarternary alluvium on the Texas High Plains. The taste of ripe red and black fruit is lush and distinct with hints of licorice and tobacco and a bite of tannins. But there are other tastes in the glass as well, something else. Is that something else a taste of the earth, maybe a taste of geology?

Wine is the most civilized thing in the world.

Ernest Hemmingway

In the oldest wine-grape-growing regions in Europe, oenophiles speak of something called *terroir*, pronounced "teh-RWAHR." The term has its roots in the Latin word terratorium, from terra meaning land or earth. The same root used for the words terrain and territory. The French often use the phrase *goût de terroir* (taste of the soil) to refer to the earthy flavor of some wines.

In 1831, Dr. Denis Morelot, a wealthy landowner in Burgundy, observed in his *Statistique de la Vigne Dans le Département de la Côte-d'Or* that nearly all of the producers in the area made wine essentially the same way, so the reason that some tasted better than others must be due to the terroir — specifically, the substrata underneath the topsoil of a vineyard. Wine, Dr. Morelot claimed, derived its flavor from the site's geology: in essence, from rocks.

When viniculture experts use the term terroir, it not only includes reference to the type of soil (chalky, claylike, gravelly, sandy), but also to other geographic factors that might influence the quality of the finished wine like altitude, position relative to the sun, angle of incline, water drainage, prevailing wind direction, and climate. The concept of terroir embodies a sense of place and a connection to the land and to the geology. In the United States, wine producers use the term microclimate to encompass the same considerations.

In Bordeaux and Burgundy, the top wine growing regions of France, premium wines from the well-respected domains (estate vineyards) sell for hundreds or even thousands of dollars per bottle, while nearby vineyards, often less than a mile away, produce wine categorized as *vin ordinare* that sells for less than five dollars per bottle. Decades of research by French geologists and other scientists, such as American James Wilson, author of the classic 1998 book *Terroir: The Role of Geology, Climate, and Culture in the Making of French Wines*, has shown that vineyard boundaries, in many cases dating back centuries, mirror underlying faults, facies changes, and other variations in geological properties.

Wine enthusiasts will say the characteristic minerality of wines produced in the Chablis region in France comes from the limestone beds underlying the vineyards. Eric Asimov, wine critic for the *New York Times*, describes wines from Chablis as having a

From the Editor *continued on page 9*

9th ANNUAL GSH/HGS SALTWATER FISHING TOURNAMENT

Saturday, June 20, 2009

Tackle Box Storage & Fish Spot Marina • 4009 20th Street North • Texas City, Texas

Galveston Bay Complex and Offshore

This year's Saltwater Fishing Tournament will include an Offshore Division to be held on Saturday, June 20 at the Tackle Box Storage & Fish Spot Marina, Texas City, Texas. We are looking forward to a big event this summer and we encourage full family participation.

Galveston Bay Complex Division

Trophies will be awarded for the heaviest individual Redfish (Non-Tagged), Speckled Trout and Flounder. Trophies will also be awarded for the heaviest individual Stringer-1 Redfish, 3 Speckled Trout, and 1 Flounder.

Galveston Offshore Division

Trophies will be awarded for the heaviest individual Red Snapper, King Mackerel, and Mahi-mahi.

Registration fee includes: Launch Fee, GSH/HGS Fishing Cap, Fish Fry Meal after weigh-in, Refreshments, Trophies, and DOOR PRIZES.

For more information, please contact:

Bobby Perez (HGS & GSH) • 281-240-1234 ext. 219 Office • 281-240-4997 Fax • 281-787-2106 Cell • 281-495-8695 Home
E-mail addresses: rdphtx@aol.com or r_perez@seismicventures.com

The Geophysical Society of Houston and the Houston Geological Society are non-profit organizations serving the Geoscience Community. Corporate and individual contributions are appreciated and will be acknowledged on several sponsor boards and banners at the Weigh-In Station and Marina. All contributors will be recognized in the GSH newsletter and HGS *Bulletin* following the tournament. This is a great way to entertain friends, family, business associates and clients. So spread the word!

GSH/HGS SALTWATER TOURNAMENT

NAME: _____ COMPANY: _____

ADDRESS: _____

PHONES: (H) _____ (B) _____ (C) _____

E-MAIL ADDRESS: _____

Upon receipt of the registration form, each participant will be provided with a copy of the specific tournament itinerary and rules sheet by e-mail. Please register **EARLY.**

Please return this form with your check for $60.00 per contestant payable to:
GSH/HGS SALTWATER TOURNAMENT and Mail to:
Geophysical Society of Houston, 14811 Saint Mary's Lane, Suite 250 • Houston, Texas 77079

Registration Fee: $ _____ + Sponsor Contribution: $ _____ = TOTAL $ _____

DISCLAIMER:
I acknowledge that neither the Geophysical Society of Houston nor the Houston Geological Society will be held responsible for injury or accidents during this event. PRACTICE SAFETY!!!!!

Signature: _____ Date _____

From the Editor continued from page 7

taste and aroma of "crushed rocks" and "fossilized oyster shells" in a May 5, 2009 article.

Wines grown in the Champagne province owe their desirable characteristics to the Cretaceous chalk underlying northeastern France writes the Pulitzer Prize-winning author John McPhee in his article *Season of the Chalk* in the March 2, 2007 issue of *The New Yorker* magazine. The Cretaceous period gets its name for the French word for chalky. McPhee notes that the Cretaceous is the only geologic period named for a rock (with the debatable exception of the Carboniferous). The deep fertile chalk soils of Champagne are a natural moisture regulator for the chardonnay and pinot noir vineyards which are the source of the grapes used in the *méthode champagnoise*. The chalky soil absorbs an amount of water equal to up to 40 percent of its volume yet remains sufficiently well drained for good vine health. The soft chalk has also allowed vintners to excavate hundreds of miles of tunnels where more than a billion bottles of champagne are cellared.

Coarse glacial deposits and outwash gravels are the setting for some of the finest wine-producing vineyards of the world found in California, Oregon, Washington, New York, New Zealand, and France. In France, sediments from periods of glaciation in the Pyrenees Mountains and the Massif Central overloaded the Garonne and Dordogne rivers producing a series of gravel terraces where the best vineyards (so-called First Growth) occupy the same type of gravel. The well-known estates Chateau Lafite Rothschild, Haut-Brion, and Latour are located on a particular stratigraphic unit identified as the Günz gravel.

The Rise of the "Terroirists"

The general topic of terroir is of growing international interest among viticulturists and wine lovers as shown by the numerous recent publications and symposia. Earth scientists are no less smitten with the concept devoting sections of academic conferences to the topic such as at the 2003 Geological Society of America meeting in Seattle, the 2004 Geological Association of Canada meeting in Ontario, and the 2004 meeting of the International Geological Congress in Florence, Italy.

The allure of terroir has been lovingly embraced of wine writers, distributors, marketers, and sommeliers. Some of the language related to this new-found passion has become quite poetic: "Wines express their source with exquisite definition," asserts Matt Kramer in his 1989 book *Making Sense of Wine*. "They allow us to eavesdrop on the murmurings of the earth." Of a California vineyard's highly regarded chardonnays, he writes, there is "a powerful flavor of the soil: the limestone speaks." In his monthly newsletter, Kermit Lynch, one of the most respected importers of French wine, returns repeatedly to the stony flavors in various white wines from a "terroirist" winemaker in Alsace: "When he speaks of a granitic soil, the wine in your glass tastes of it."

Grapes – True Berries

Grapes belong to the family *Vitaceae* and the genus *Vitis*. All *Vitis* are "lianas" or woody, climbing vines. *Vitis* is split into two subgenera: *Euvitis* or true grapes and *Muscadinia* or muscadine grapes. The most important species for wine production is *Vitis vinifera*, the European, noble, or "Old World" grape. There are at least 5,000 cultivars of vinifera grapes grown worldwide, and some estimates put the number of known cultivars as high as 14,000. However, less than 100 are used to make vast majority of wine.

Vitis vinifera is thought to be native to the area near the Caspian Sea, in southwestern Asia, the same region native to apple, cherry, pear, and many other fruits. Seeds of grapes have been found in excavated Bronze-age dwellings in south-central Europe dating to approximately 3500 to 1000 BC. These discoveries attest to the early use of grapes beyond its native range. Egyptian hieroglyphics dating to 2440 BC detail the cultivation of grapes and wine making. The Phoenicians carried wine cultivars across the Mediterranean before 600 BC and Romans spread the grape throughout Europe. Grapes moved to the Far East via traders from Persia and India and came to the New World with early settlers and missionaries.

Grape growing regions are broadly distributed in the temperate zones around the globe. Vinifera grapes can be characterized as requiring Mediterranean climates and are adapted to a wide variety of soil conditions, from high pH and slightly saline, to

From the Editor *continued on page 11*

From the Editor continued from page 9

acidic and clayey. Deep, well-drained, light textured soils are best for wine grapes. Highly-fertile soils are unsuited to high-quality wine production, since the vigor and yield of the vines must be controlled and managed.

With an annual production exceeding 12 billion pounds at an estimate worth of more than $3 billion, grapes are the highest-value fruit crop in the United States. Today, United States grape and wine production is dominated by California; however, production is increasing is many other states.

GO TEXAN.
www.gotexanwine.org

Texas Viniculture

Some of the oldest wine-growing areas in the United States are found in Texas. In the 1650s, Franciscan missionaries planted vines in West Texas near El Paso. Some vineyards in Texas pre-date the vineyards planted in California by more than one hundred years.

Texas is America's fifth largest grape and wine-producing state according to a 2007 study by industry analysts in conjunction with the Texas Wine and Grape Growers Association. Texas has more than 220 family-owned vineyards with 3,100 acres producing more than 2.4 million gallons of wine each year.

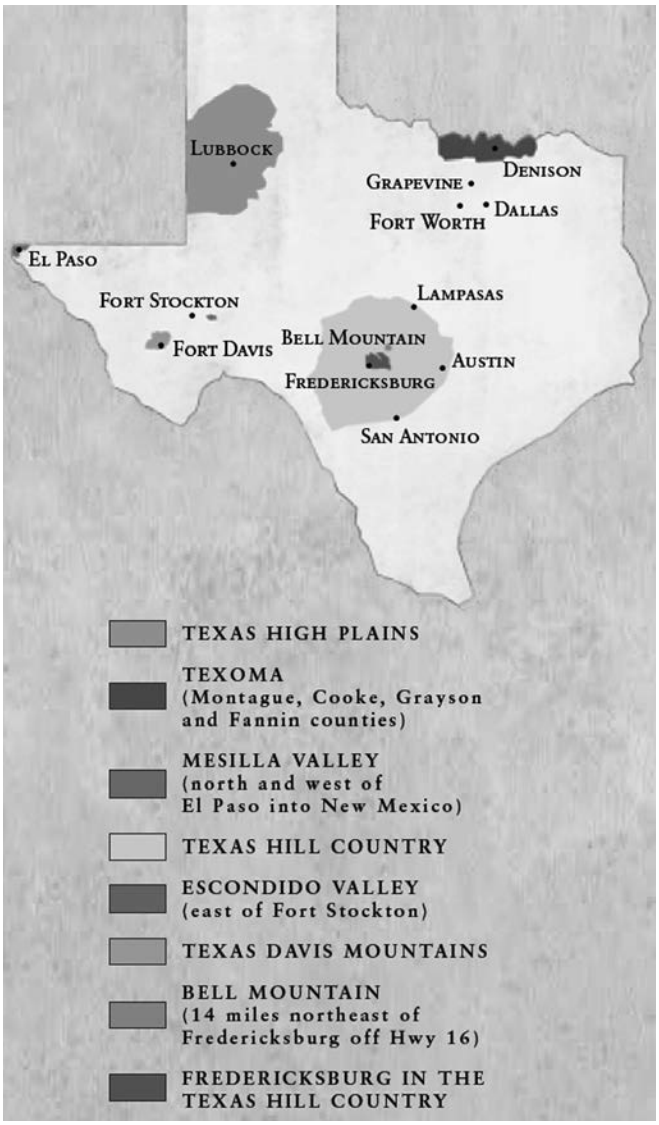
The University of Texas System is the largest wine producer in the state with over 1,000 acres planted near Fort Stockton. First established as an experimental vineyard in 1987, the university leases the land to a group of Bordeaux wine makers who produce under two labels - Sainte Genevieve and Escondido Valley.

Texas is roughly divided into three main wine growing regions spanning a diverse range of geology and microclimates that allows many different types of grapevines to grow. The North-Central Region spans the northern third of the state from the New Mexico border across the Texas Panhandle and towards Dallas. This includes the Texas High Plains which has the highest concentration of grape growers in the state. The eastern third of the state makes up the South-Eastern Region which encompasses the area around Austin, San Antonio, and Houston. The high humidity at the northern end of this area makes it difficult to grow vinifera grapes, while vines of the native muscadine family flourish. At the far south end of this region, along the Mexico–United States border is the state's oldest winery, Val Verde, which has been in operation for over a century. The Trans-Pecos Region encompasses the central-western third of the state where about 40 percent of the state's grapes are grown in some of the highest altitude vineyards. More than two thirds of the wine produced in Texas comes from this area.

Terroir of the Texas High Plains

The Texas High Plains have become a major wine grape production region and have been officially recognized as an American Viticultural Area since 1993. The distinctive characteristics of the High Plains are derived from its unique terroir - a semi-arid climate with hot summers and mild winters, high elevation, sedimentary and eolian geology, and suitable soils found nowhere else in the state.

Texas High Plains vineyards are planted primarily on three similar reddish calcareous soil series (tiera roja) widely distributed in the region. These are very deep, well drained, moderately permeable soils derived from sandy (Patricia and Brownfield series) or loamy (Amarillo series) eolian sediments from the Pleistocene-age Blackwater Draw Formation. These soils are

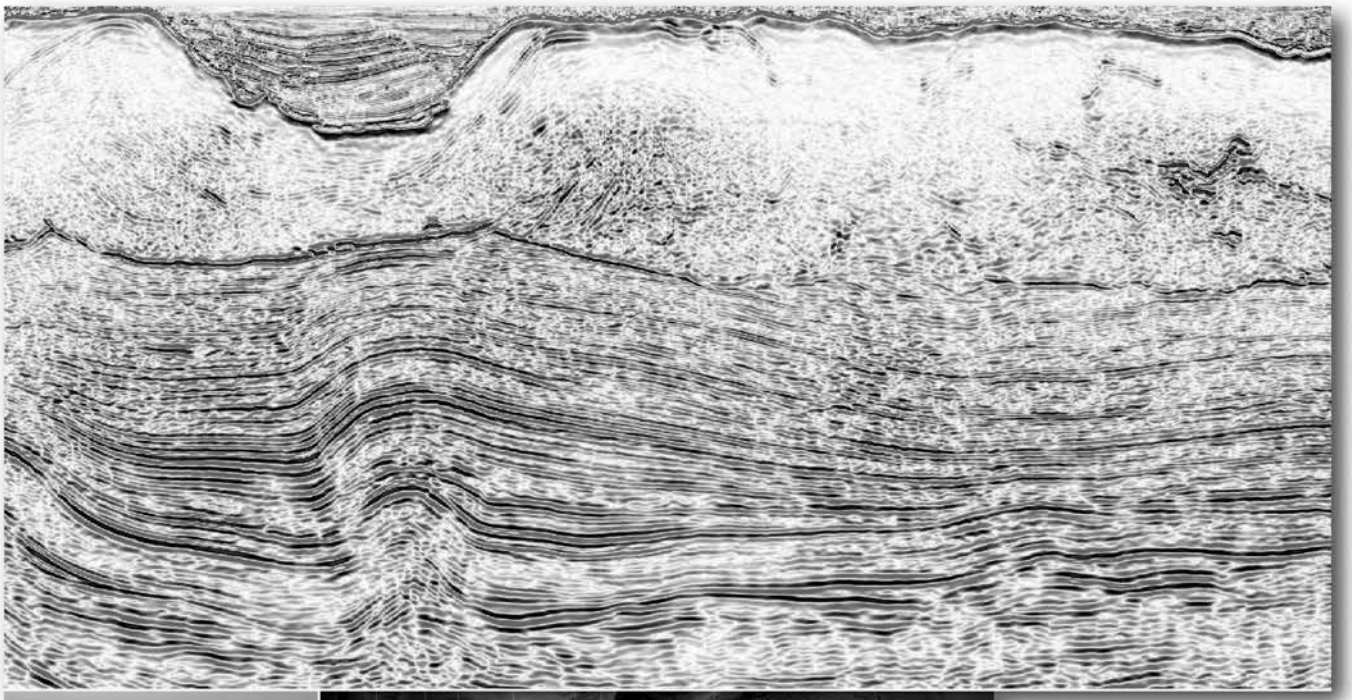


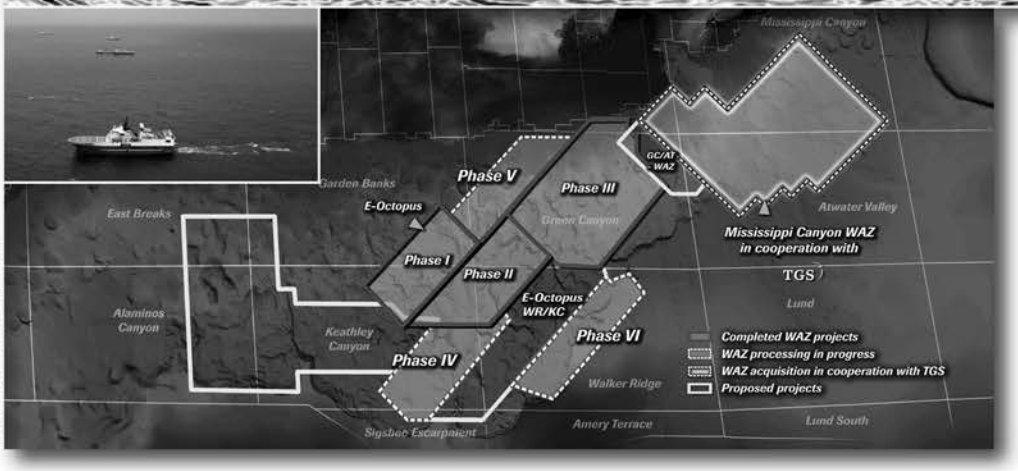
Areas drawn according to the Federal Register section that established the American Viticultural Areas.

From the Editor *continued on page 13*

E-Octopus
Wide-Azimuth Survey

MulticlientE





*Mark of Schlumberger © 2009 Schlumberger 09-SE-0054

WesternGeco E-Octopus wide-azimuth surveys, and our wide-azimuth cooperation with TGS in Mississippi Canyon, utilize industry-leading Q-Marine* technology, survey design, and advanced processing, to provide greatly improved confidence in imaging beneath complex salt formations.

E-Octopus III - Final product available now.

E-Octopus IV - Salt flood available now.

E-Octopus V - Sediment flood available now.

E-Octopus VI - Preliminary fast-track volume available now.

To learn more about wide-azimuth and our new acquisition projects, call +1 713 689 1000.

www.multiclient.westerngeco.com

Multiclient to the power of E

WesternGeco

From the Editor continued from page 11

well-suited for grape production with a low to moderate fertility and good drainage, yet adequate water-holding capacity.

Climatic conditions are also conducive to high-quality grape production; relatively low annual precipitation and low relative humidity provide an environment that inhibits most fungal diseases of grapes. Although the region is considered a hot climate for grape production, temperatures become favorably moderate at night during the fruit ripening period owing to the high elevation (more than 3,500 feet above mean sea level) and the low relative humidity. High solar radiation contributes to vine fruitfulness and good color development in red wine grapes.

The most notable wineries on the Texas High Plains are Llano Estacado, Caprock, and Pheasant Ridge. Pheasant Ridge, ten miles north of Lubbock, has been owned and operated for more than 15 years by geologist and former HGS member Bill Gipson. Gipson graduated with a degree in geology from the University of Texas in 1949, worked as a petroleum geologist for Pennzoil starting in the 1960s, and later was president of POGO Resources in the early 1990s. While working for Pennzoil and traveling frequently to California, he developed a great interest in wine and an appreciation for terroir. Seeking to become involved in viniculture in Texas, Gipson's knowledge of geology and terroir led him the High Plains where the permeable calcareous loamy soils and the microclimate are similar to the classic wine-making regions in France. He purchased a share of the existing 50-acre Pheasant Ridge Winery in the 1980s and became the owner in 1993. Despite the threat of hail storms and late freezes, Pheasant Ridge now produces about 6000 cases annually and the winery's cabernet sauvignon and chardonnay have won in national competitions.

Behold the rain which descends from heaven upon our vineyards, there it enters the roots of the vines, to be changed into wine, a constant proof that God loves us, and loves to see us happy.

Benjamin Franklin in a letter to Andre Morellet in 1779

While the High Plains may not be as scenic as the terraced slopes of the Bordeaux countryside, Gipson says, they do offer a similar environment for grapes. "Wine from the Texas High Plains tastes more French than the California wines grown in the volcanic soils of the Napa and Sonoma valleys," he noted. "The limestone gives the wine structure and more aging potential."

Earth or Yeast?

The idea of geology imparting its essence to wine, that one can taste the earth in a glass, is appealing, a welcome link to nature and a place in a delocalized world. "The trouble is, it's not true," write Harold McGee and Daniel Patterson in a May 2007 *New York Times* article titled *Talk Dirt to Me*. The authors contend that the skills of the winemakers and the biological interactions of yeast and the grape during fermentation are responsible for the range of tastes and textures, even minerality, that are found in wines.

"Plants don't really interact with rocks," explains Mark Matthews, a plant physiologist at the University of California, Davis who studies vines. "They interact with the soil, which is a mixture of broken-down rock and organic matter. And plant roots are selective. They don't absorb whatever's there in the soil and send it to the fruit. If they did, fruits would taste like dirt." He continues, "Any minerals from the solid rock that vine roots do absorb — sodium, potassium, calcium, magnesium, iron, a handful of others — have to be dissolved first in the soil moisture. Most of them are essential nutrients, and they mainly affect how well the plant as a whole grows."

The fermentation process metabolizes grape sugars into alcohol coincidentally producing dozens of aromatic chemicals that make wine more than just alcoholic grape juice. McGee and Patterson write, "It's because of the yeasts that we can catch whiffs of tropical fruits, grilled meats, toasted bread, and other things that have never been anywhere near the grapes or the wine. The list of evocative fermentation products includes an organic sulfur molecule that can give some wines a 'flinty' aroma. And there are minor yeasts that create molecules called volatile phenols, whose earthy, smoky flavors have nothing to do with the soil but are suggestive of it."

From the Editor *continued on page 15*

From the Editor continued from page 13

So, if vines absorb only select elements from rock that are dissolved in soil moisture, if grape and wine components are not a reflection of the rocks' minerals, and if earthy aromas in wine come from microbes and not from the earth, do soil minerals have any real role in wine flavor?

Maybe. Hildegarde Heymann, a sensory scientist at the University of California, Davis, is skeptical about the usefulness of the terms "terroir" and "minerality." "People who talk about minerality are describing something they perceive that's hard to grab on to," she says. "We do know that mineral ions can affect wine flavor by affecting acidity, chemical reaction rates and the volatility of aromas. And we're just now looking at whether they can affect the body of wine, its 'mouth feel.' They might." It is possible, then, that soil minerals may affect wine flavor indirectly, by reacting with other grape and yeast substances that produce flavor and tactile sensations, or by altering the production of flavor compounds as the grape matures on the vine.

The place where grapes are grown clearly affects the wine that is made from them, but it is not a straightforward matter of tasting the earth. If the earth "speaks" through wine, it is only after its murmurings have been translated by the chemistry of the living grape and microbe, write McGee and Patterson. We do not taste a place in a wine. We taste a wine from a place — the special qualities that a place enables grapes and yeasts to express, aided and abetted by the grower and winemaker.

The Other Geologic Beverage

Geologists may taste the earth in their wine, but a beverage with perhaps greater appeal to geologists may have an even closer connection to rocks. Beer and geology are closely entwined asserts Dr. Alex Maltman, a professor of earth sciences at the University of Wales. Dr. Maltman (yes, his real name) presented his view at a seminar on geology and beer at the annual Geological Society of America meeting in 2003. This intimate connection between geology and beer was also described in the December 2004 *New York Times* article W*ith Great Beer, It's All in the Rocks* by Kenneth Chang.

Beer of various varieties has been consumed for thousands of years dating back to at least the third millennium BC. Beer is alcohol fermented from grain, and most beer today is fermented from barley that is partially germinated, or malted. Hops, a type of flower, is added to give a bitter, fruity taste to the beer.

But it is the water used to make beer that provides the direct connection to geology, writes Chang. Beer is more than 90 percent water, and because almost all brewers use water from wells, not from surface water sources, the mineral content of the product is strongly affected by the underlying geology. Thus, local geology has had a strong influence on the style of the traditional beers brewed in different regions.

Early commercial brewers in the 1800s encountered the problem that beer spoiled quickly and did not travel well. However, beers from the 30 or so breweries in the small town of Burton-on-Trent in England were the exception. Decades later it was demonstrated that groundwater from the sandstone formations underlying Burton-on-Trent were ideal for making the traditional regional style of beer called pale ale or English bitter. Some of these beers traveled so well they were carried to far-off British colonies as India pale ale. The groundwater was rich in minerals like gypsum and sulfates and was slightly acidic in the pH in the range of 5 to 5.5 that is necessary for the proper extraction of malts. The sulfates in the groundwater acted as a preservative.

Brewers in the town of Pilsen, Czech Republic draw groundwater from underlying aquifers composed of fractured metamorphic rocks. This groundwater water has a very low mineral content and moderate acidity producing the light, clean taste of the traditional regional lager-style beer known as Pilsner.

Brewers with access to only alkaline groundwater faced special challenges. These brewers discovered that by roasting the grains the proper acidic balance to the alkaline groundwater could be achieved to allow for the extraction of the malt. Dublin, Ireland overlies a Paleozoic limestone aquifer with strongly alkaline groundwater. This alkaline groundwater had to be counterbalanced by a thorough pre-roasting of the grain prior to fermentation. This pre-roasting produced a very dark brew, almost black, with a distinctive taste and texture popularized the world over by Arthur Guinness.

Summary

Wine and beer are natural products of the earth. Their taste may, in part, result from interactions with the unique characteristics of the local geology, the terroir. However, the connection is not a direct one. More research and sampling is needed to discover the extent of this connection. Fortunately, there is no shortage of geologists willing to lend their trained faculties and discerning palates to this worthwhile study. ■

From the Editor *continued on page 17*

The Year That Was and Grateful Acknowledgement

It has been a tumultuous year for Houston and the Houston Geological Society. It was a year that saw wild swings in energy prices, a powerful hurricane, an economic collapse, and a historic and often rancorous presidential election.

When the HGS's administrative year kicked off in July 2008, the price of a barrel of oil was riding high, surging to a record price of more than $147. There seemed to be no stopping the upward trend. Record oil company profits and boom times were here again. Raise your hand if you thought we would see $200 per barrel oil by the end of 2008. I see a few hands, but the rest of you who did not raise your hand are just in denial. See the Editor's column in the September 2008 HGS *Bulletin* for some perspective on the price of energy from the distant historical viewpoint of nearly a year ago.

Since those bygone giddy days of last summer, the price of oil fell to less than $35 per barrel by the end of 2008. It turns out that the spike in the price of oil in 2008 really was due to speculation after all. By May 2009, the price of oil had recovered somewhat to around $54 per barrel. Forecasts for future prices are now more moderate, but likely more realistic.

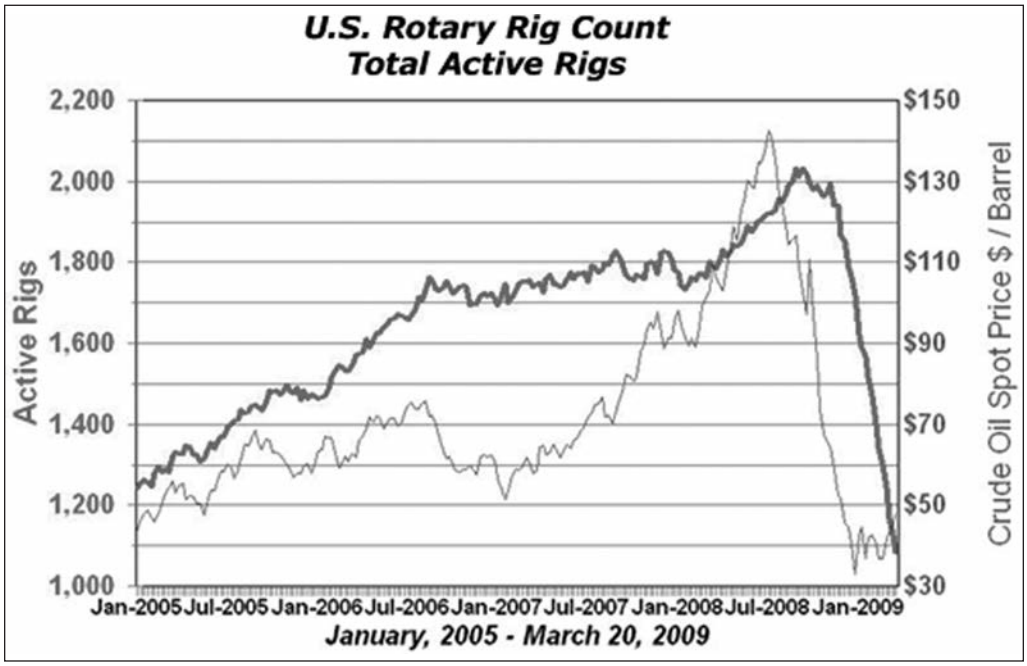
The slide in the price of oil has had a predictable impact on petroleum exploration and production activities. The North American drilling rig count was cut in half in the past year. In April 2009, Apache Corporation announced the layoffs of 200 workers or about six percent of the company's 3,600-person workforce. "When you are not as active, you don't need as many people," said Apache spokesman Bill Mintz. ConocoPhillips, El Paso Corporation, and oilfield services companies Baker Hughes, Halliburton, and Schlumberger also announced layoffs in April. ConocoPhilips eliminated 1,350 jobs and Schlumberger cut 5,000 jobs worldwide.

There have been other oil booms, notably during the period between 1982 and 1985 when workers from around the United States surged into a burgeoning Houston. These heady times are inevitably followed by a downturn. The mid-1980s downturn lasted many years. In retrospect, the year 2008 may be notable for having one of the briefest oil boom-bust cycles.

As summer slid towards autumn, the Gulf of Mexico turned violent, unleashing Hurricane Ike. On September 13, 2009, Hurricane Ike roared across the Texas coastline and raked Houston and neighboring municipalities. While life returned to normal for most Houstonians shortly after power was restored, coastal communities were devastated and may take many years or decades to recover, if ever. See the Editor's column in the December 2008 HGS *Bulletin* for a discussion of the merits of the Galveston seawall.

The autumn and winter tumble in the price of oil coincided with the slide in the stock market and the disintegration of the global economy. The real estate market in many parts of the country crumbled leading to record foreclosures and toxic debt. We are now facing the worst economic situation at any time since the great depression. The federal government has had to provide tens of billions of dollars in TARP and stimulus funds to prop up profligate banks and financial institutions.

A full economic recovery may be years away, but there are hopeful signs that the crisis is ebbing. Houston has fared better through



Source: WTRG Economics and The Market Oracle http://www.marketoracle.co.uk/Article9653.html)

From the Editor *continued on page 19*

From the Editor continued from page 15

this economic whirlwind than many parts of the country. Because Houston real estate prices did not rocket they way they did in Florida, Arizona, and California from 2001 to 2007, the fall here has been less severe.

At the end of 2008 and the beginning of 2009, America participated in the ideals of founding fathers by electing a president and witnessing the peaceful transition of our government to a new administration, a new administration with a stated goal of restoring "science to its rightful place." Science and politics have not always been companionable. See the Editor's column in the November 2008 HGS *Bulletin* about this sometimes contentious relationship.

With this issue of the HGS *Bulletin*, my term as Editor draws to a close. Hopefully, you found some worthwhile reading in these pages. It has been a great experience and I have learned a lot. I have had the pleasure of meeting many dynamic people who donate their time to make the HGS a great organization. I encourage all members to get involved with some part of the society even if you just come out to the technical meetings.

My thanks go to the fine HGS editorial board of Charles Revilla, James Ragsdale, and editor-elect Gordon Shields. Their insightful and timely editorial reviews and comments kept me on the right path often through some tough sledding. Good luck to Mr. Shields as he dons the editor's mantle for 2009 - 2010.

Thanks also to Lisa Kruger for her patience and skill each month assembling the *Bulletin* and producing a great looking publication. Prime Source Office Solutions did a fine job as the *Bulletin* printer and mailer. Gratefully acknowledgement also goes to Lily Hargrave in the HGS office who managed the flow of advertisements from diverse sources and the financial aspects of the *Bulletin*.

Thank you to our advertisers for your support throughout the year and to the authors who contributed the items presented in the *Bulletin*.

Be well, do good work, and stay in touch.
Happy trails. ■

From the President continued from page 5

drying out Board minutes and annual reports from the pre-90s years which we will scan and preserve so this won't happen again. Board member Walter Light organized community service events and has been a great asset to the board with his common sense ideas. Board members Ianthe Sarrazin and Mike Jones have contributed many hours and ideas.

I also want to personally thank past-president Linda Sternbach for her work on nominations and her reminders to me of what needed to be done next, and to past-presidents Charles Sternbach, Dave Rensink, Steve Levine, Steve Brachman, Craig Moore, Jim Ragsdale, and Sandi Barber for always being available to provide advice when I asked for it.

Please help me welcome the 2009-2010 Board of Directors: Gary Coburn, President, John Tubb, President-elect, Art Donovan, Vice-president, Amy Sullivan, Secretary, Matt Boyd, Treasurer, David Meaux, Treasurer-elect, and Directors Walter Light, Ianthe Sarrazin, Robert Pledger, and Tarek Ghazi. I am delighted to leave the HGS in such capable hands, and I hope they enjoy their year as much as I have enjoyed mine.

Thank you all for making this a great year for HGS, and a memorable year for me. ■

May 6, 2009

Mr. Forlenza,

Just to let you know I really enjoyed your article "Peak Water? The Limits of a Resource."

Very good, very informative and something I have been concerned about for a long time. I am not sure of the business opportunities relating to it however. Possibly consulting and modeling, etc. Buying water rights will not work if things get nasty – government would just take over everything.

Congratulations on a good article.

Jeff Swanson
GrailQuest Corp.

May 6, 2009

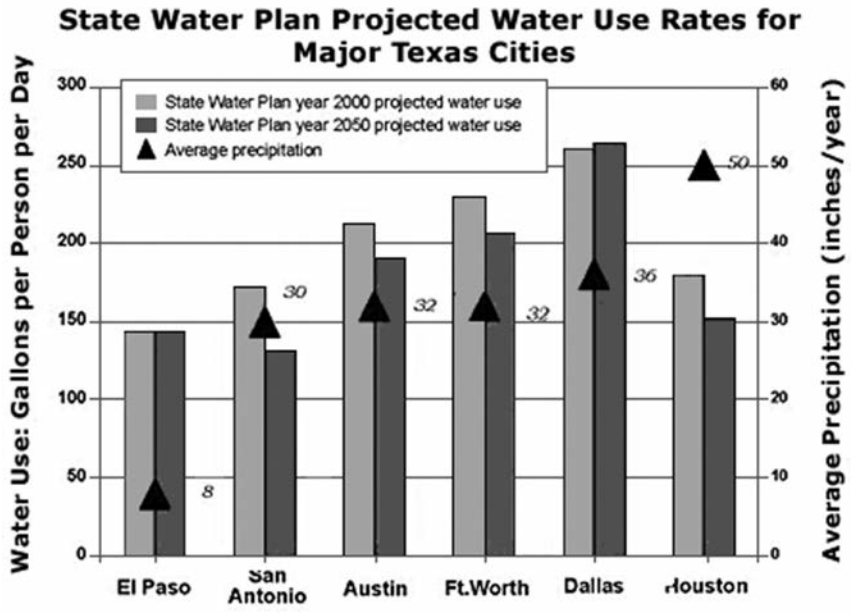
Michael,

Do you realize that the HGS *Bulletin* with your water article landed in people's mailboxes on the very day that Municipal Water Conservation Plans were due to be turned into the state?? http://www.twdb.state.tx.us/assistance/conservation/municipal/plans/Cplans.asp

Your article was a good opener but it really didn't get into the local (i.e., state) situation. I suspect that the issues in north Texas are really going to be crucial in setting future statewide precedent, especially with respect to the Neches. That in itself would easily warrant another full article. The book *Paddling the Wild Neches* (Texas A&M Nature Guides) gives an excellent perspective from the conservation side, and a glance at the DFW per capita water consumption statistics relative to other major cities in Texas is quite revealing.

Thanks,

Alison Steele Mandadi, P.G.
Principal
Steele Environmental Services, LLC
www.EnviroSteele.com

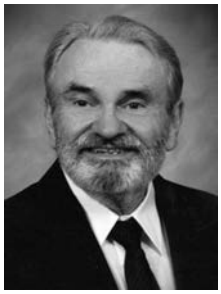


Source: www.texaswatermatters.org

Remembrances

Dr. H. E. "Ed" Eveland

Dr. H.E. Eveland, 85, of Beaumont, Texas died Saturday, May 9, 2009. Dr. Eveland was born February 9, 1924 in Urbana, Illinois. He served two years in the Army Air Corps during World War II and earned his PhD in geology from the University of Illinois. After teaching one year at the University of Tennessee, he founded the Department of Geology at Lamar University in 1951. He was chairman of the department until his retirement in 1983 and was subsequently honored with the title Professor Emeritus.



Ed is survived by his wife of sixty-five years, Doris Eveland of Beaumont and their four sons. A memorial service was held May 12, 2009 in Beaumont. In lieu of flowers, memorial contributions may be made in Dr. Eveland's memory to Lamar University, Department of Geology, P.O. Box 10011, Beaumont, Texas 77710 or to the charity of your choice.

Thursday, June 18, 2009

Petroleum Club • 800 Bell (downtown)
Social 11:15 AM, Luncheon 11:30 AM

Cost: $30 pre-registered members; $35 for non-members & walk-ups; Emeritus/Life/Honorary: $15; Students: FREE

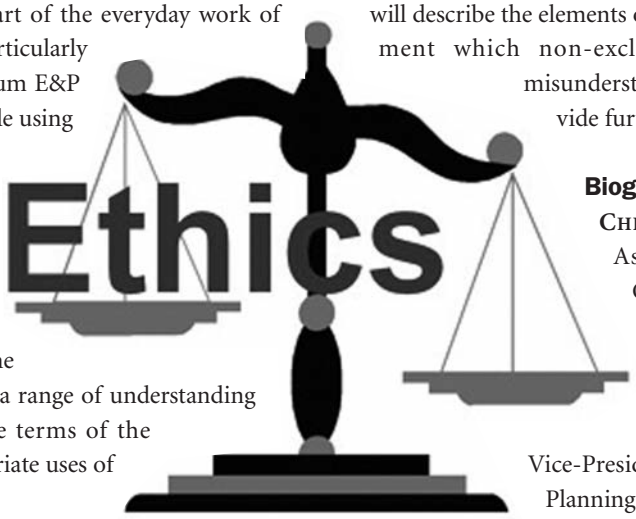
To guarantee a seat, you must pre-register on the HGS website (www.hgs.org) and pre-pay with a credit card.
Pre-registration without payment will not be accepted.
You may still walk up and pay at the door, if extra seats are available.

Chip Gill
President, International Association of Geophysical Contractors

The Ethics of Licensed Geophysical Data:
The Data Owner's Investment, Rationale, and Code of Practice

This presentation has been approved by the Texas Board of Professional Geoscientists for accreditation toward the annual ethics requirement for licensed geoscientists

Seismic data are increasingly part of the everyday work of geologists and geophysicists, particularly for those who work in the petroleum E&P industry. These data, often accessible using company servers and personal computers, are easily copied into PowerPoint™ presentations and e-mail documents or saved as screen captures or raster image files. Most scientists have never read the contracts that underlie the licensing of seismic data and have a range of understanding and misunderstanding about the terms of the ownership agreements and appropriate uses of these data.



This presentation will focus on the ethics of using, reproducing, and presenting non-exclusive geophysical data. The types and uses of these data their ownership and licensing, history, and inherent risk-reward trade-offs will be explained. Specific attention will be given to the ethical obligations of users of non-exclusive geophysical data. Namely, what may users do with the data and what are they not free to do. When must permission be requested to present and reproduce the data? The intent of this discussion is to avoid misunderstandings in the use of geophysical data and potential ethical conflicts.

Most scientists have never read the contracts that underlie the licensing of seismic data and have a range of understanding and misunderstanding about the terms of the ownership agreements and appropriate uses of these data.

In this presentation, I will describe an industry code of practice for the use of licensed geophysical data, including specific practical guidance for users to help them ensure that common license terms and conditions are met. The presentation will describe the elements of the typical data use license agreement which non-exclusive data owners commonly misunderstand. Presented examples will provide further clarification. ■

Biographical Sketch

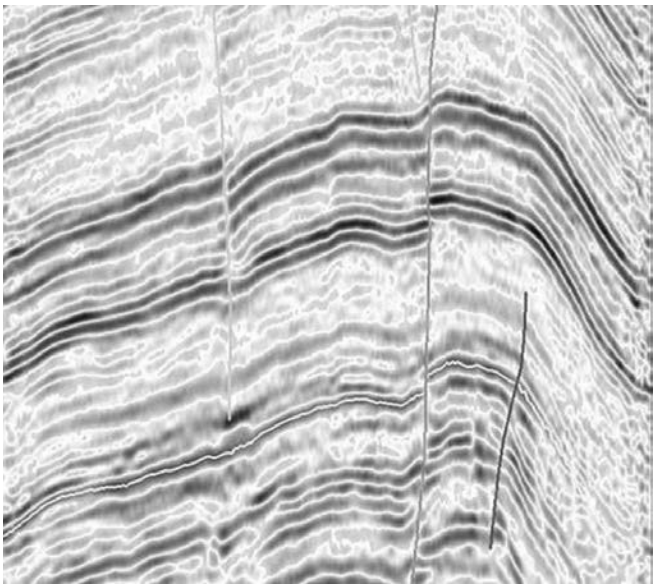
Chip Gill became International Association of Geophysical Contractors (IAGC) President in September 2001. He came to IAGC from International Petroleum Association of America (IPAA) where he served as Vice-President of Membership and Strategic Planning from the fall of 2000 until September 2001. As the vice president, he managed all membership activities and the staff responsibility for IPAA's NAPE relationship and involvement, including the development of an international exposition.

Previously, Mr. Gill has been Manager of Government Relations for Vastar Resources, Inc. in Houston, Texas for seven year and Director of State Government Relations for four years with Atlantic Richfield Company. He started his career as a rig hand for Ard Drilling Company in 1977 and two years later became a Senior Landman for ARCO Oil and Gas Company.

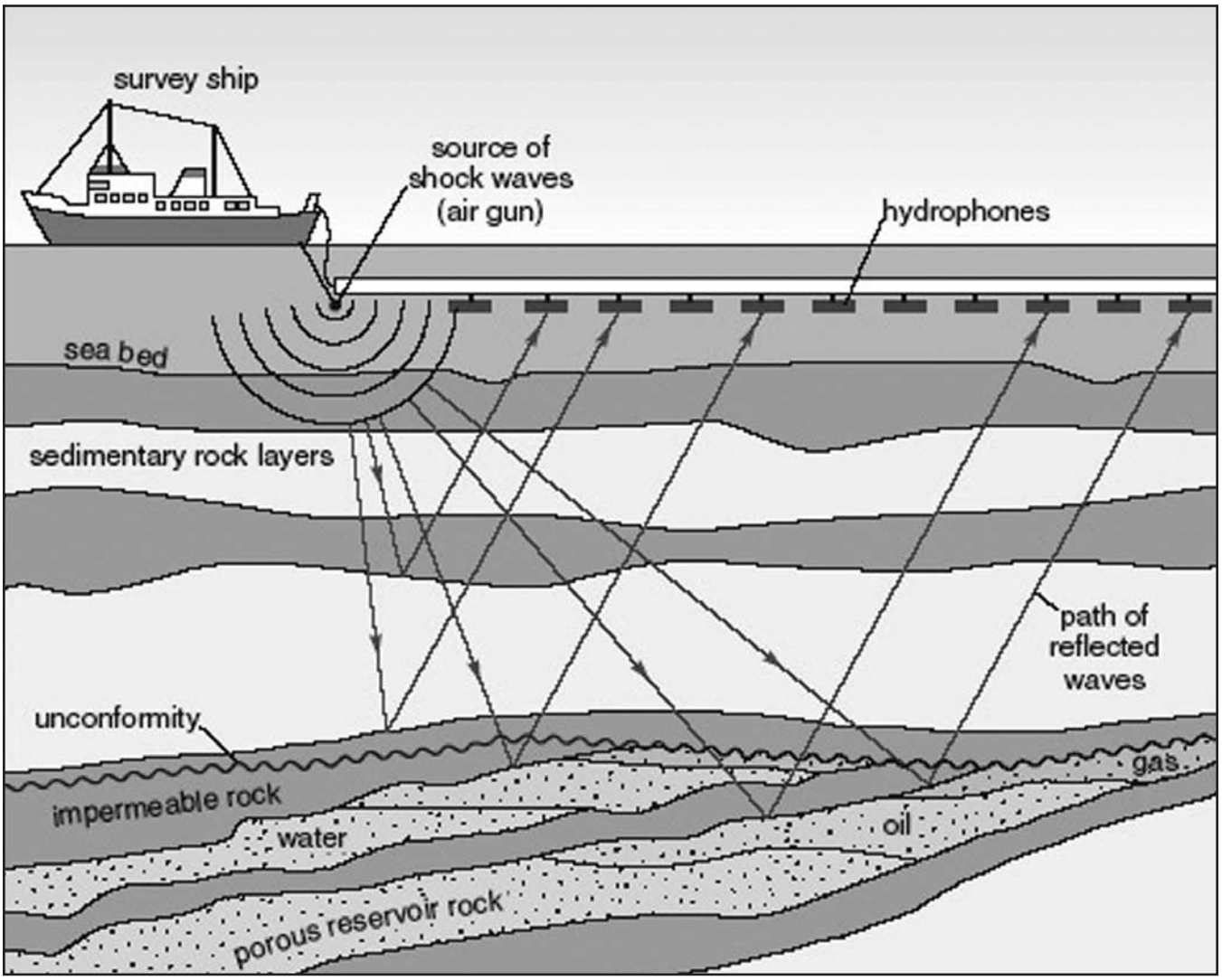
HGS General Luncheon *continued on page 25*

Joint HGS General and SIPES Luncheon *continued from page 23*

Mr. Gill holds a bachelor of business administration in petroleum land management with an emphasis in geology from the University of Texas at Austin. He is a member of the American Petroleum Institute, American Association of Petroleum Landmen, Arkansas Petroleum Council, Center for Legislative Energy and Environmental Research, Domestic Petroleum Council (Chairman), Florida Alliance for Lower Electric Rates Today, Gas/Oil PAC, IPAA, Louisiana State University Center for Energy Studies, Louisiana Mid-Continent Oil and Gas Association (Board of Directors), Louisiana Independent Oil and Gas Association, Natural Gas Supply Association, Oklahoma Energy Resources Board, Oklahoma Independent Petroleum Association, Oklahoma Mid-Continent Oil and Gas Association, Oklahoma Most Active Operators Group (founding member), Public Affairs Council, Public Affairs Research Council of Louisiana, Texas Independent Producers and Royalty Owners Association, Texas Large Independent Group (founding member), and Texas Oil and Gas Association



Typical seismic data.



Marine seismic data acquistion.

School Outreach Earth Science Education

Michael F. Forlenza, P.G.

The Houston Geological Society strongly encourages our members to share their knowledge of earth science with students and the general public. This sharing can inform non-scientists about the valuable work that geologists perform and may inspire a child to pursue studies in the geosciences. One of the best ways to do this is to visit a school and make a presentation to the students.

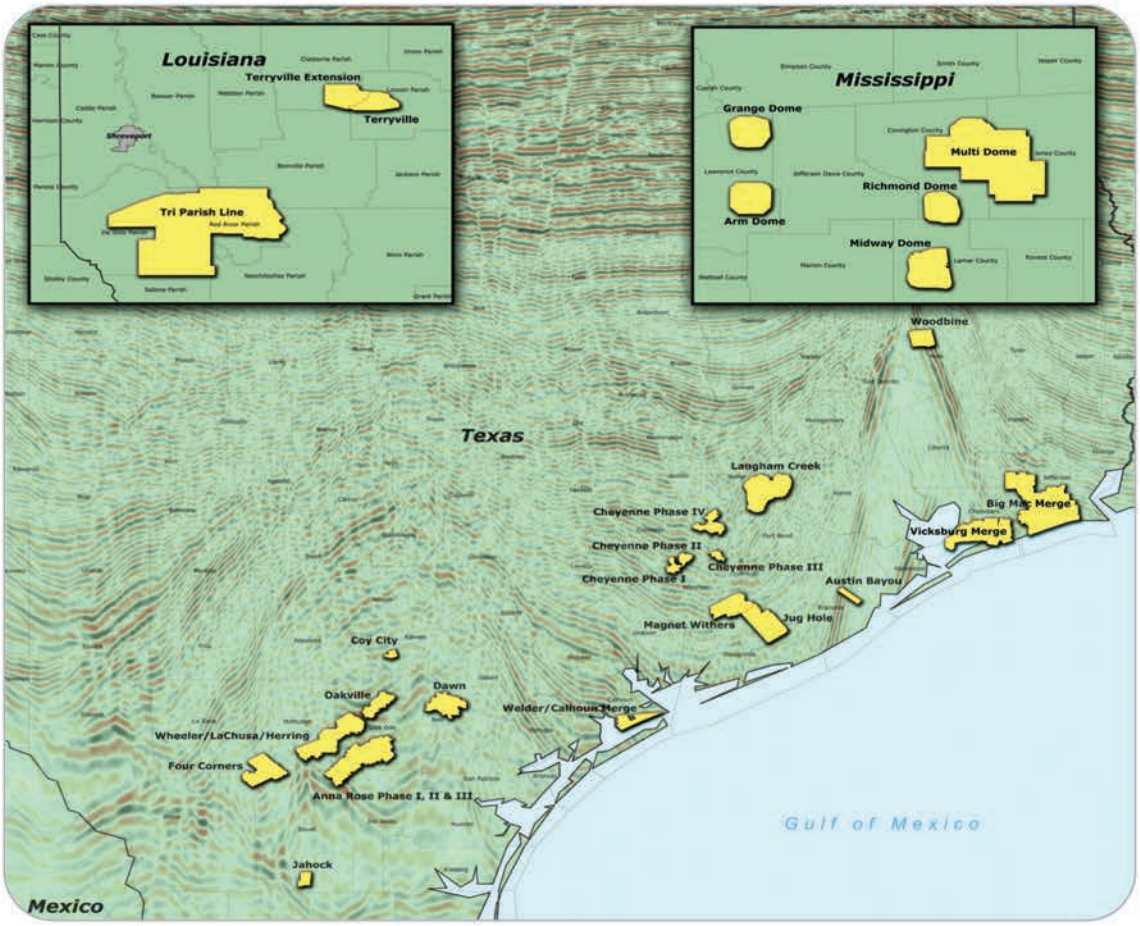
On March 26, 2009, HGS President-Elect Gary Coburn visited J. E. Williams Elementary School in Cinco Ranch (Katy ISD) where his step-daughter Abby is enrolled, to give a talk on geology. He was invited by Abby's teacher, Ms. Walker, to talk to the entire third grade. Because there are eight classes of third grade students, Ms. Walker arranged for two one-hour presentations consisting of four third grade classes each.

In preparation for the talks, Mr. Coburn went to the Houston Gem & Mineral Society and obtained three mineral sets and two fossil sets. He gratefully acknowledges the use of Murphy Oil's reproduction facilities to print out a set of large paleo-geographic maps for time periods from the Cambrian to the present showing reconstructions of the shifting continents. The title of his talk was "Our Changing World." Mr. Coburn reported that the teachers had done an excellent job with the children, as many of the students knew terms such as "plate tectonics" and "Pangea."

The students were curious about Madagascar and its isolation from India and Africa, perhaps because of the recently-released animated feature films titled "Madagascar." Later, Ms Walker and Mr. Coburn set up desks to display the mineral and fossil sets. The students went row by row to look at the displays while asking many questions.

Mr. Coburn reported that he was impressed by how many minerals, such as quartz and native copper, the students could identify. The teachers were thrilled to receive the mineral and fossil sets as well as all the maps including the USGS Tapestry of Time and Terrain map presented as part of the HGS's Maps in School initiative.

Mr. Coburn stated that his visit to the school was a great experience and "strongly encouraged all geologists to offer their expertise to talk to the kids." This spring, call the school where your children are enrolled or the school closest to you to see if you can share your knowledge and inspire the next generation of earth scientists. However, Mr. Coburn warned potential speakers to "brush up on the dinosaurs; they can ask some great questions about them and their extinction!" ■



Explore the promise of the Gulf Coast

CGGVeritas develops and maintains an extensive library of 3D multi-client seismic data shot in the most promising regions of the United States and Canada. The US key areas include: Gulf Coast, West Texas, Mid-Continent, and Western US. Let CGGVeritas give you the edge you need to make informed drilling decisions.

DATA LIBRARY WITH A DIFFERENCE

Gulf Coast
Scott Tinley
+1 832 351 8544
scott.tinley@cggveritas.com

Cheryl Oxsheer
+1 832 351 8463
cheryl.oxsheer@cggveritas.com

Western US
Rick Trevino
+1 832 351 1051
rick.trevino@cggveritas.com

Mid-Continent
Dennis Langlois
+1 832 351 1052
dennis.langlois@cggveritas.com

Contact:
Houston +1 832 351 8300

CGGVERITAS

cggveritas.com

British Geological Survey
www.bgs.ac.uk

Michael F. Forlenza, P.G.

The modern study of geology was founded in Britain based on the work of James Hutton, Charles Lyell, Charles Darwin, William Smith, and others. One of the places where this legacy can be appreciated is at Siccar Point. Siccar Point is one of the world's most famous geological sites, yet it lies hidden at the foot of a remote sea cliff in Berwickshire, Scotland. It was here in 1788 that James Hutton, the 'father of modern geology,' accompanied by John Playfair and Sir James Hall, recognized the vast extent of geological time that went far beyond the then accepted age of the earth of 6000 years. He saw that the near-vertical greywackes of the Silurian Gala Group were unconformably overlain by the younger, gently-dipping sandstones of the Devono-Carboniferous Stratheden Group (Upper Old Red Sandstone). He reasoned that the vertical layers were originally laid down as horizontal beds of sediment on an ocean floor, and that it must have taken a very long time — perhaps millions of years — for these sediments to be lithified, folded, uplifted, and then eroded by earth processes before the younger sandstones could be laid down on top.

Siccar Point is just one of the ten 'Secret' geology places featured on the website [www.bgs.ac.uk/education/secretGeology/home.html] of the British Geological Society (BGS). The website of the BGS has the familiar "newspaper" format of a banner

Geologic Website of the Month *continued on page 31*

Geologic Website of the Month continued from page 29

above several columns of items. The left column has links to sections about the BGS and what types and areas of research they conduct. The center two columns provide graphics, links, photographs, and capsule summaries to recent or ongoing areas of research and investigation. A series of larger photographs and illustrations are rotated through the primary space at the top of the center columns pertaining to the featured items. The right column is a list of links to news items, feature items, and related geoscience websites.

Founded in 1835, the BGS is the world's oldest national geological survey and is the United Kingdom's premier center for earth science information and expertise. According to the website, the BGS is the nation's principal supplier of objective, impartial, and up-to-date geological expertise and information for decision making by governmental, commercial, academic, and public users. The BGS carries out research in strategically-important areas including energy and natural resources, vulnerability to environmental change and hazards, and earth system science. This work is often conducted in collaboration with the national and international scientific academic community. The BGS maintains and develops understanding of earth sciences to improve policy-making, enhance national wealth, and reduce risk. The BGS is part of the Natural Environment Research Council (NERC), which is the United Kingdom's primary agency for funding and managing research, training, and knowledge exchange in the environmental sciences.

William Smith 1769 – 1834.
Mr. Smith is credited with creating the first nationwide geologic map.

Geologic Website of the Month *continued on page 33*

Geologic Website of the Month continued from page 31

The BGS website strikes a good balance between content for a general, non-technical audience and content for a professional, technical audience. Topics on the website that might be of interest to a non-technical audience can be found by clicking on the links labeled 'Homeowners,' 'Popular geology,' 'Teachers & students,' and 'For everyone.' The Homeowners page has a nifty link where property owners or prospective buyers can order a "GeoReport' for any postal address or grid reference location. GeoReports are custom reports for which the user can request pertinent information on the assessment of on-site building stone, radon protection, ground stability and subsidence potential, and groundwater availability.

For the casual visitor, the Popular geology link offers some interesting areas for browsing. These include: "Britain beneath our feet,' an interactive atlas of geology; "Fossil focus,' a primer on common fossils; 'Holiday Geology Guides,' information on the geology of popular tourist areas of England; and 'Secret' geology places.

The Popular geology webpage also features a selection of historic documents and photographs from the BGS archives. These documents include the National Archive of Geologic Photographs with more than 100,000 fully-described images. The BGS archive is where you can learn about William Smith. William Smith was the subject of Simon Winchester's 2002 book titled *The Map that Changed the World.*

William Smith was born in Oxfordshire in 1769, the son of the village blacksmith. As a boy he developed an interest in the exposures of rock and the fossils which were to be found locally. Later as a surveyor, his work for canal construction and for the sources of building stone and coal led to a great increase in his knowledge and awareness of various geological features. As he travelled, he observed that the familiar strata he recognized from the south of England were repeated in other areas, with some outcrops stretching right across the country.

Coal miners were already aware of the occurrences of regular successions of workable coal seams. But on a larger scale, Mr. Smith began to recognize that sedimentary rocks could be identified by the fossils they contained, and that these rocks were always arranged in the same sequence. His discovery that strata can be distinguished by fossil assemblages was a concept virtually unrecognized by geologists of that period. Working on this principle, Mr. Smith was able to draw up a table of successive strata which could be applied in any other locality—an early version of the geological column.

By 1799, Mr. Smith, using both his skills as a surveyor and the knowledge gained from his field observations, developed a

Geologic Website of the Month *continued on page 35*

William Smith's 1815 Map. Original Map Title: A Delineation of the Strata of England and Wales with part of Scotland; exhibiting the collieries and mines, the marshes and fen lands originally overflowed by the sea, and the Varieties of Soil according to the variations in the Substrata, illustrated by the most Descriptive Names by W Smith.

Geologic Website of the Month continued from page 33

geological map. His first geologic map was circular in form covering the area around Bath and was exhibited at the Bath Agricultural Society. In 1801, Mr. Smith produced a small geological map of England and Wales which illustrated the outcrops of seven geological formations. He prepared other maps for exhibition at various meetings, but it was not until 1815, with input and support from the enterprising map publisher John Cary, that Mr. Smith's first major geologic map was produced. His 1815 map and the subsequent 1820 edition were the first ever large-scale geological maps of a country.

Founded in 1835, the BGS is the world's oldest national geological survey and is the United Kingdom's premier center for earth science information and expertise.

Sections of the BGS website that might be of interest to a professional or technical audience are found by clicking on the links labeled 'Academics & researchers,' 'Businesses & consultants,' and 'Governments & agencies.' The Academics & researchers page provides an overview of the resources and facilities available for use by researchers and universities such as geologic data in GIS format, a library of reports and books, and collections of borehole core, paleontological, and petrological samples and data. The Business & consultants page provides data licensing and 'bespoke' consultancy services for industries such as construction, minerals extraction, insurance, power and energy, water supply, and oil and gas.

As one would expect from a governmental agency website, there are no advertisements, but there is an online store. From the Quick links on the homepage, click on 'Online shops' to be directed to a listing of the various publications available for purchase. The publications include books, maps, guides, borehole records, and geoscience reports. Items are priced in British pounds.

The BGS website has a wealth of geologic information related to the United Kingdom. The website has an orderly appearance with a light blue and white palette and straightforward navigation featuring duplicate links. There are areas of interesting browsing for both the casual visitor and the professional geologist. Whether you are considering a journey to a secret geological place to contemplate Hutton's unconformity or concerned about the ground stability around your country estates in Hertfordshire and in the Cotswolds, the website of the British Geological Society is the place to start. ■

Houston Geological Society Awards

2008–2009 Honorary Life Membership

Honorary Life Membership is bestowed upon persons who have distinguished themselves in the science of geology or have contributed outstanding service to the success and welfare of this organization.

Honorary Life Membership Award

W. N. "Mac" McKinney, Jr.

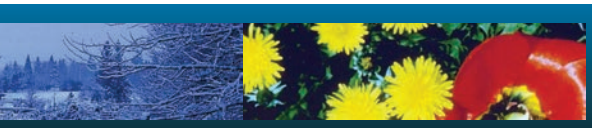
W. N. "Mac" McKinney, Jr. began his career in the oil and gas business in Shreveport in 1962. He joined the HGS when he moved to Houston in 1972. He served as HGS President in 1985-86 and is proud that the society's membership peaked at more than 5,000 members during his tenure. His term also saw layoffs in the oil industry and he helped organize a seminar on survival in hard times. He served as recording secretary for the AAPG in 1986. Since that time, he has remained active in the HGS, most recently representing the society at our booth in conventions and exhibitions. For his long-time service and dedication, the HGS is pleased to present Mr. McKinney with the Honorary Life Membership Award.

Mr. McKinney worked the offshore Gulf of Mexico for much of his career first for Aminoil and later as Offshore Exploration Manager for Sonat. He took early retirement in 1995 and, after working for a while as a high school science teacher, he began a career as a geological consultant. He had great success with a field extension discovery in the Granite Wash of the Texas Panhandle that resulted in nearly 50 development wells. He continues to consult and remains active in the HGS. ■

Houston Geological Society Awards *continued on page 41*

June 2009

Sunday	Monday	Tuesday	Wednesday
	1	2	3
7 **AAPG Annual Convention** *Denver, Colorado*	8	9	10
14	15	16	17
21 **HGS Grand Canyon Field Trip**	22	23	24
28	29	30	**Members Pre-registered Prices:** General Dinner Meeting .....$28 Nonmembers walk-ups..... $35 Env. & Eng. .....$25 Luncheon Meeting .....$30 Nonmembers walk-ups..... $35 International Explorationists .....$28 North American Expl. .....$28 Emerging Technology $25



GeoEvents

Thursday Friday Saturday

4	5	6
11	12	13
18 **Joint HGS-GSH-SIPES Ethics Luncheon** *"The Ethics of Licensed Geophysical Data: The Data Owner's Investment, Rationale and Code of Practice"* *Chip Gill, President, International Association of Geophysical Contractors* *Petroleum Club* Page 23	19	20 **9th Annual GSH / HGS Saltwater Tournament** *Tackle Box Storage & Fish Spot Marina* *Texas City* Page 8
25	26	27 **26th Annual HGS Skeet Shoot** *Greater Houston Gun Club* *Missouri City* Page 6

Reservations:

The HGS prefers that you make your reservations on-line through the HGS website at www.hgs.org. If you have no Internet access, you can e-mail reservations@hgs.org, or call the office at 713-463-9476. **Reservations for HGS meetings must be made or cancelled by the date shown on the HGS Website calendar, normally that is 24 hours before hand or on the last business day before the event.** If you make your reservation on the Website or by email, an email confirmation will be sent to you. If you do not receive a confirmation, check with the Webmaster@hgs.org. Once the meals are ordered and name tags and lists are prepared, no more reservations can be added even if they are sent. **No shows will be billed.**

NOW you can make your reservations on-line at www.hgs.org

Upcoming GeoEvents

July 17
SIPES Independent's Day Celebration
Shrimp Boil at Big Woodrow's
Page 60

August 13
HGS Technofest
Westin Galleria, Page 66

August 27 – 28
Summer NAPE Expo
Houston, Texas

September 9 – 10
PESGB / HGS Africa Conference 2009
London, Page 54

September 21-22, 2009
12th Annual AAPG / SEG Fall Student Expo
George R. Brown Convention Center
Houston, Texas

September 27 -29
59th Annual GCAGS-GCSSEPM Convention
Shreveport, Louisiana

October 25–30
SEG International Exposition and 79th Annual Meeting
Houston, Texas

December 6 – 9, 2009
Unconventional Energy Resources: Making the Unconventional Conventional
Bob F. Perkins Research Conference
Houston, Texas

The Claudia Petra Ludwig HMNS Summer Internship

Claudia Petra Ludwig

The HGS Board of Directors has voted to recognize and honor Claudia Petra Ludwig by naming one of the two HGS-sponsored summer internship positions after her. This honor acknowledges Ms. Ludwig's continued long-time participation in the Engineering, Science, & Technology Council of Houston (ECH) on behalf of HGS, her long-time involvement with the Science Engineering Fair of Houston (SEFH), and her continuing support and oversight of the HGS Summer Internship program at the Houston Museum of Natural Science (HMNS).

Working with HGS Board member Clint Moore and with the HGS' Museum of Natural Science Committee, Ms. Ludwig was the originator of summer internship program in 1995. Since its inception, she has been an integral part of the internship program where she has both overseen the program and helped with candidate selections. In 2003, Ms. Ludwig and Richard G. Howe asked the HGS Board for a second summer internship and this additional position was first awarded in 2004. The summer Museum internships are sponsored by the HGS through the ECH and are selected from SEFH's Senior Division students.

In addition to her work with the internship program, Ms. Ludwig has assisted with HGS' Special Award selections at the SEFH for the last 10 years. She has toiled each year to collect appropriate gifts for the internship and HGS Special Award winners at the SEFH.

Ms. Ludwig has been an HGS representative to the ECH since 1981, acting as ECH Treasurer in 1990–91, and ECH President from 2000 to 2001. She was President of the SEFH for the following year. She conceived and co-authored with Mr. Howe, ECH's "Houston in the 21st Century" Seminar Series. Currently, she serves as an ECH Vice President.

During her 30 years of HGS membership, she has donated her time and energy to many committees and served in many roles including the Field Trip Committee, Chair of the Advertising Committee, and supporting the ticket desk at all regular HGS meetings. Ms. Ludwig's long record of service to HGS and the geoscience profession has been previously recognized. In 2008, she received HGS' highest honor, the Gerry Cooley Award. She received the HGS Distinguished Service Award in 1994, HGS President's Award in 1989, and the HGS Honorary Life Award in 2003-2004.

Ms. Ludwig earned a B.S. in geology from Lamar University and an M.S. in geological oceanography from Texas A&M University at College Station. She began her career while in graduate school working as a research scientist with subsequent positions as Staff Geologist for Michigan Wisconsin Pipeline Company, Exploration Geologist with Worldwide Energy Corporation and with Phillips Petroleum Company. Since 1982, she has worked as an independent geologist generating prospects and has worked on contract to geoscientists and engineers. She is currently also involved in environmental geological consulting. ■

2008–2009 Distinguished Service Awards

This award was created to honor members who have rendered long-term valuable service to the Society.

Distinguished Service

Paul Hoffman

Paul Hoffman has provided many years of service to the HGS serving on the Executive Board in roles as Secretary (1989-90), Director (1996-98) during which time he chaired an Ad Hoc committee to revise the society's Constitution and By-laws, Vice President (1999-2000), President-Elect (2000-01), and President (2001-02). He was a strong advocate for the initiation of the AAPG Prospect and Property Expo (APPEX) in Houston and served as its vice-chairman in 2001 and 2002 and as general co-chair in 2003.

Mr. Hoffman continues to serve as chair of the HGS Ballot Committee and on the board of the Houston Geology Society Foundation which financially manages the foundation endowment and selects students for undergraduate scholarships. Also, this is his sixth term as an HGS delegate for the AAPG House of Delegates. Through it all, Paul has always provided level-headed and common-sense advice along with a wry wit and self-deprecating manner. For his dedication and years of service, the HGS is pleased to present Paul Hoffman with the Distinguished Service Award.

Mr. Hoffman earned a BS with special honors in geological science from the University of Texas at Austin in 1975. He began his professional career with Cities Service in Houston where he worked in both development and exploration assignments, principally in the federal waters of Texas and Louisiana, and in onshore Alaska. He joined Intercomp in 1979 where he conducted detailed reservoir mapping for 3D reservoir simulation in several fields in the Middle East and onshore and offshore California, Texas, and Louisiana. From 1981 to 1990, he was employed in the Gulf Coast region of Ladd Petroleum where he progressed through assignments as Exploration Geologist, Manager of Geology, General Manager of Exploration, and Vice President - Exploration & Production. In 1991, he joined Duncan Energy, eventually attaining the position of Executive Vice President and Chief Operating Officer. In 2003, he joined Cox & Perkins Exploration, becoming its Chief Operating Officer. Mr. Hoffman accepted the position of president of the Allen-Hoffman Exploration Company in 2008 where he directs exploration activities in the Gulf Coast and beyond. He is a member of the HGS and the AAPG. He is a Certified Petroleum Geologist and a licensed Professional Geologist in the state of Texas.

2008–2009 Distinguished Service Awards

This award was created to honor members who have rendered long-term valuable service to the Society.

Distinguished Service

Frank Walles

As founder of the HGS' Northsiders' Committee, Frank Walles began a technical program from scratch and has built a solid, functional committee. The HGS has greatly benefited from his enthusiasm and organization skills with the Northsiders where he continues to act as technical advisor. Subsequently, Mr. Walles initiated and organized the annual HGS Mudstones Conferences which have been very successful drawing attendees from all over the world while presenting a program that remained affordable for local members. For his exemplary service to HGS, we are pleased to present the Distinguished Service Award to Mr. Walles.

Mr. Walles holds a masters degree in petroleum geology from Michigan State University. He has held international and domestic petroleum exploration positions ranging from conventional target - exploration and development geoscientist, to independent petroleum systems consultant, to unconventional target (CBM, shale gas/oil, tight sands) geoscientist advisor. He has worked with Tenneco Oil & Gas, British Gas Plc., Union Pacific Resources (UPR), Anadarko Petroleum, Kerr McGee International, and currently Devon Energy Corporation. He is currently president-elect 2009-10 of the Energy Minerals Division of the AAPG. He holds active membership with the SPE, EAGE, AAPG: DPA & EMD, HGS. He is a Certified Petroleum Geologist and a state of Texas licensed Professional Geoscientist. ■

New Officers – HGS Board of Directors for 2009-2010

President Gary Coburn

President-elect John Tubb

Vice president Art Donovan

Treasurer Matt Boyd

Treasurer-elect David Meaux

Secretary Amy Sullivan

Editor Gordon Shields

Editor-Elect Barry Katz

Directors Walter Light (year 2)

Ianthe Sarrazin (year 2)

Robert Pledger (year 1)

Tarek Ghazi (year 1)

2008–2009 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

President's Award

Bonnie Milne-Andrews

Bonnie Milne-Andrews is a tireless volunteer and organizer for the HGS and is particularly good at obtaining interesting speakers for HGS events. She has worked with the International Explorationists' group, Guest Night, and was a co-organizer for Legends Night III. She has also served many years on the HGS delegation of the AAPG House of Delegates and as a director of the HGS. For her years of exemplary service, the HGS is pleased to present Ms. Milne-Andrews with the President's Award.

Ms. Milne-Andrews earned a BA in anthropology and MS in geology at the University of Iowa. She began her career at Amoco Production Co., where she worked in basins all over the world, including the Permian Basin, Arabian Basin, offshore W. Africa, Bolivia, Argentina, Russia, and Kazakhstan. She continued her international work at Swift Energy, where she worked Australia, New Zealand, and international New Ventures. She is currently working as the manager of Geoscience Consultancies and Integration and Exploration Lead for South Texas at Swift Energy. ■

President's Award

Matthew Cowan

Matthew Cowan is the chairman of the HGS Environmental and Engineering group and has worked with the Continuing Education committee on projects oriented towards the environmental and engineering geologists including the 2005 Subsidence Conference. Most recently, he has been very actively involved with the HGS' Governmental Affairs Committee. He has been tracking and providing key input into issues dealing with professional licensing. Mr. Cowan has represented the interests of Professional Geoscientists before the both the Texas Board of Professional Geoscience and the Texas legislature. For his enthusiasm and determination, the HGS is pleased to present Mr. Cowan with the President's Award.

Mr. Cowan graduated from Texas A&I University in 1993 with a BS in geology with a minor in mathematics. He received his master's degree in geology in 2000 from Texas A&M University – Kingsville. In 2003, he became a licensed Profession Geoscientist in the state of Texas. Mr. Cowan's primary field of practice is in environmental geology and is currently a consultant for Lone Star Environmental. Mr. Cowan is a Certified Public School Teacher who at times works as a substitute teacher for the Fort Bend Independent School District. ■

2008–2009 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

President's Award

Donna Davis

Donna Davis is one of those people you can depend on to help out on just about any HGS committee. She began volunteering with the HGS on the Bulletin editorial committee and worked for several years on the Continuing Education committee where was responsible for organizing and securing speakers for a number of short courses and symposia. She has also helped out with Earth Science Week and related functions at the Houston Museum of Natural Science and volunteered with GCAGS, AAPG, and OTC. Currently, Ms. Davis is active in the Continuing Education committee, International Explorationists group and acts as treasurer for the North American group.

Ms. Davis received her B.S. in geology from Ohio State and did graduate work at U. South Carolina, Arizona State, and the University of Houston. She began her career mudlogging and she has worked as a consultant in the oil industry in various capacities since then. She discovered that she loved "the excitement, adventure and romance of the oil patch," and she feels it is important to give a return to your profession and to make a contribution. For her many years of dedicated service, the HGS is pleased to present Donna Davis with the President's Award. ■

President's Award

Dave Lazor

Dave Lazor has organized and led the HGS Grand Canyon Field Trip for 15 years, since 1994. He also organized and began the annual HGS Trap and Skeet Shoot and was entertainment chairman for three years in the 1980s. For his long and faithful service, and for running an excellent field trip, the HGS is pleased to honor Dr. Lazor with the President's Award.

Dr. Lazor earned his bachelor's degree at the College of Wooster, followed by an M.S. and Ph.D at Indiana University. He began his career as an assistant professor at the College of William and Mary and Indiana University and then worked in the oil industry for Texaco, Cities Service, Beaumont Energy, and Valero. Since 1984, he has been an independent and prospect generator. He is a member of the HGS, AAPG, Northwest Geological Society, and SIPES, and a charter member of the Tobacco Root Geological Society. ■

2008–2009 President's Awards

This award has been established to honor members whose extraordinary efforts or unique contributions deserve special recognition.

President's Award

Joe Lynch

As the chair of the HGS Finance Committee, Joe Lynch has two main responsibilities. The first is to administer the society's investments and the second is to coordinate the HGS budgeting process. With an annual budget of nearly one million dollars, the HGS financial and budgeting activities require a great deal of time and patience. Mr. Lynch has been chair of the Finance Committee since 2006 and done an outstanding job. Prior to that, he was chair of the Vendor Corner committee from 2003-2006.

Mr. Lynch is the vice president for Reservoir Optimization division of SPT Group in Houston, where he is responsible for the division's business and operations in North & South America. He has a geology degree from Nottingham University and an MBA from Warwick University, both in the UK. Most of his technical experience has been in production and operations geology, with a focus on geological modeling and geostatistics. Prior to coming to Houston, he gained experience working in Europe, Africa, and Russia. It is with great deal of pleasure that the HGS is honoring Mr.Lynch with this award. ■

2008–2009 Rising Star Award

This Award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

Rising Star

Cecelia Baum

Cecelia Baum is recognized as a rising star within the HGS community. Ms. Baum started her science education as a pre-med major but quickly became interested in geology after a field trip to Fire Island, New York. After graduating from Columbia University in 2007 with a BS in geology, she became a member of the HGS and has been an ardent volunteer and supporter of the society since 2007.

Her love of the profession is evident in her volunteer activities. She is the current chair of the NeoGeos group, is active in the planning committee for Geoscience Day sponsored by GSH, and is involved with Energy Venture. Energy Venture is a summer camp for middle school students fostering a general interest in science and specifically an appreciation of earth science. She started her career with Maersk Oil in Houston as a part of the Gulf of Mexico exploration team and is currently a member of the Brazil exploration team at Maersk Oil. ■

2008–2009 Rising Star Award

This Award has been established to honor individuals who are relative newcomers to the Houston Geological Society who have made significant and promising contributions to the enhancement and success of the HGS.

Rising Star

Professor Tom Miskelly

Tom Miskelly joined HGS early in his career and immediately took a leadership position as Committee Chair of the NeoGeos group. For the last two years, he has organized and run the very successful HGS Central Texas Field Trips. Mr. Miskelly has a special interest in students and early career geologists and the field trips have attracted participants new to geology or new to the area. His enthusiastic teaching style not only educated them, but in some cases drew them towards pursuing a degree and/or career in geology. For his leadership in organizing the Central Texas Field Trips, the HGS is pleased to present the Rising Star Award to Mr. Miskelly.

Mr. Miskelly graduated from the University of Texas at Austin in 2002 where he earned his master's degree in geology. After a stint at Anadarko Petroleum, he decided to follow his true calling and began teaching at San Jacinto College in Pearland, Texas. We appreciate him sharing his gift with us and hope he will lead many more field trips. Many thanks! ■

Rising Star

Justin Vandenbrink

Justin Vandenbrink has been selected to receive the HGS Rising Star Award. During the last year, Mr. Vandenbrink served as the chairperson of the International Explorationists' Group. He was also the primary organizer of the fun and successful HGS holiday party held last December at Sullivan's Steakhouse. Starting his professional geologic career in Canada in 1994, Mr. Vandenbrink moved to Houston from Calgary a little over a year ago. Previously employed as an exploration and well site geologist, he now works for RPS Group as a Geological Operations Manager. ■

THIRD ANNOUNCEMENT
THE 8TH PESGB / HGS CONFERENCE ON AFRICAN E & P

Africa: New Concepts for the Oldest Continent

QE II Conference Centre, London, 9 - 10 September 2009

Alternating between London and Houston, this annual conference has established itself as the primary technical E & P conference on Africa for Operators, Consultants, Governments and Academics.

Oral programme to include about 25 high quality presentations with an associated large poster display. A preliminary programme will be on the PESGB website from April onwards. A few poster slots may be available, please send abstracts asap to duncan.macgregor@neftex.com

Papers on this preliminary programme (subject to permissions) include: * Deepwater Plays in Gulf of Sirt (BP) * New Plays in Sirt Basin (Shell) * Ghana Discoveries (Kosmos) * Albert Basin (Tullow, Heritage) * South Atlantic Conjugate Margin and Turbidite Play Prediction Studies (Consultants) * New Plate Tectonic Models and Regional Tectonics (Academics) * East African Regional Petroleum Systems and New Plays *

Pre-Registration is now available at an Early Bird discounted rate of £250 for PESGB/HGS/Geol Soc. Members and £300 for Non-Members.

Please complete the Registration Form and return to the PESGB Office or register Online.

To book an Exhibition Booth please complete the Booth Application Form and return to the PESGB Office.

For Sponsorship Opportunities please contact Rebecca at the PESGB Office on 020 7408 2000 or email rebecca@pesgb.org.uk.

Early Sponsors

FUGRO GLOBAL EXPLORATION SERVICES MacGeology SASOL reaching new frontiers

Image courtesy of Fugro NPA and Surestream Petroleum : Lake Tanganyika, Neogene rift basin exploiting Permian rift trends and PanAfrican lineaments, composite topographic and satellite gravity image

PESGB

2009 Conference Committee: Ray Bate (Chairman), Duncan MacGregor & Richard Dixon (Technical Co-ordinators), Kevin Dale (London) and Al Danforth and Ian Poyntz (HGS, Houston).

HOUSTON GEOLOGICAL SOCIETY 1923

2008–2009 Corporate Star Awards

The Houston Geological Society is pleased to present these companies with the Corporate Star Award for 2008 – 2009 in grateful appreciation for their support and special contributions to our events and programs during the year.

Corporate Star Award

Seismic Micro-Technology (SMT)

Sponsor of Guest Night, NeoGeo's Picnic, Technofest (Platinum Sponsor), and multiple Vendor's Corners. ■

Corporate Star Award

TGS-NOPEC Geophysical

Continuing sponsor of Guest Night, Africa conference (Silver Sponsor) and supporter of the HGS Foundation for undergraduate scholarships through the donation of the proceeds from the charity golf tournament. ■

Corporate Star Award

Fugro Gravity and Magnetics Services, Inc.

Sponsor of multiple Vendor's Corners, the Africa Conference (Gold sponsor) and underwriter of the proceedings CD. ■

Corporate Star Award

Aramco

Sponsor of Guest Night, Vendor's Corner, and Technofest (Gold Sponsor). ■

Corporate Star Award

BHP-Billiton

Continuing sponsor of Guest Night. ■

Corporate Star Award

BP

Sponsor of Guest Night and the student internship party at Technofest. ■

PESGB

8th PESGB/HGS Conference on African E&P

Timetable

5th Floor, 9 Berkeley Street, London, W1J 8DW • Tel: +44 (0)20 7408 2000 • Fax: +44(0)20 7408 2050 • pesgb@pesgb.org.uk • www.pesgb.org.uk

Africa: New Concepts for the Oldest Continent

Wednesday & Thursday, 9-10 September 2009

Queen Elizabeth II Conference Centre, London

Wednesday 9th September

8.30	***Registration & Coffee***	
9.20	Welcome and Introduction	Ray Bate - Chairman
	Session 1: Tectonics and Sediment Hinterland Studies	
9.30	Re-examining the evidence from plate-tectonics for the initiation of Africa's passive margins.	*Reeves, Earthmoves*
9.55	Thermochronology and Landscape Development in Southern Africa	*Green, Geotrack*
10.20	Evidence for post-rift uplift around the North and South Atlantic	*Japsen, GEUS*
10.45	***Coffee & Poster Presentations***	
11.15	Prediction of Hidden Cretaceous Turbidite Systems	*Durtnell, Neftex*
11.40	The Late Miocene to Recent Drainage Systems of Libya	*Drake, Imperial*
12.05	The "Hercynian" Unconformity in North Africa : It's Nature & Significance ; A case study from the Ghadames / Illizi Basin (Algeria, Tunisia & Libya)	*Dixon, BP*
12.30	***Lunch & Poster Presentations***	
	Session 2: North Africa	
13.45	North Africa Palaeozoic Plays ; General Setting and Geometrical Features	*Serafini, ENI*
14.10	Ice & Oil : Glaciations and Hydrocarbons in N Africa and the Middle East	*Le Heron, Royal Holloway*
14.35	Gravity-induced deep-water carbonate deposits: Potential new plays in the Eocene of the Sirte Basin, Libya	*Baaske, Shell*
15.00	***Coffee & Poster Presentations***	
15.30	Petroleum Systems and Prospectivity of the Gulf Of Hammamet, Tunisia	*Craig, Cooper Energy*
15.55	Structural & Stratigraphic Evolution of the Offshore Sirt Basin, Libya	*Bourne, BP*
16.20	Messinian seismic facies in offshore Libya and implications for sub-Messinian seismic imaging	*Iliffe, BP*
16.45	Deepwater play types of NW Egypt	*Tari, OMV*
17.10	Emerging Sub-Salt Giants in the Eastern Mediterranean	*Peace, Medoil*
17.40	***Evening Reception***	

PESGB

8th PESGB/HGS Conference on African E&P

Timetable

5th Floor, 9 Berkeley Street, London, W1J 8DW • Tel: +44 (0)20 7408 2000 • Fax: +44(0)20 7408 2050 • pesgb@pesgb.org.uk • www.pesgb.org.uk

Africa: New Concepts for the Oldest Continent

Wednesday & Thursday, 9-10 September 2009

Queen Elizabeth II Conference Centre, London

Thursday 10th September

8.30	***Registration & Coffee***	
	Session 3: The East African and Earlier Rift Systems	
9.00	Tectonic evolution of the Tanganyika-Rukwa-Malawi segment of the East African Rift	*Delvaux, Royal Museum of Central Africa*
9.25	Western Rift Evolution and Mountain Formation in Uganda	*Glasbacher, Heidelberg Univ*
9.50	Elephant Hunting in the Pakwach Basin, Block 1, Uganda	*Logan, Heritage*
10.15	Upper Pliocene Fluvio-Alluvial and Lacustrine-Deltaic reservoirs of the Victoria Nile/Butiaba Play, Albert Rift, Western Uganda.	*Ovington, Tullow*
10.40	Coffee & Poster Presentations	
11.10	Interfering Cretaceous and Tertiary rift systems - update on the exploration of the Turkana Depression (Sudan-Ethiopia-Kenya).	*Hutchinson, RPS*
11.35	African Interior Basins – Integrating Potential Fields Data and Geology to Extrapolate from Known to Unknown Basins	*Taylor, GeoInternational*
12.00	The newly recognised Jurassic Petroleum System in the onshore Majunga Basin , Madagascar	*Willette, Wilton*
12.25	***Lunch & Poster Presentations***	
	Session 4: West and East African Margins	
13.45	Active and Palaeo-Petroleum Systems of the East African Coastal Basins	*Boote*
14.10	The Songo Songo Gas Field, Tanzania: Increasing Reserves and Expanding Gas Distribution	*Williams, PanAfrican*
14.35	The Congo deep-sea fan: how far and for how long?	*Anka, GFZ*
15.00	***Coffee & Poster Presentations***	
15.30	Exploration of the Tano Basin and Discovery of the Jubilee Field, Ghana	*Lowry, Kosmos*
15.55	Jubilee Field – A Step-Change for Ghana	*Hanley, Tullow*
16.20	Prospectivity of the Deep Water Clastic System of the Ivorian Basin	*Hlatwayo, Tullow*
16.45	Prospectivity of Offshore Sierra Leone from the interpretation of a new 3D survey	*Grand, TGS-Nopec*
17.10	***Closing Address***	

	Poster Session : Stratigraphic Studies, Reservoirs and Reserves	
	South Atlantic Deepwater Reservoirs : Responses to Tectonic, Climatic and Eustatic Controls on two not-so-Passive Margins	*Macgregor, Neftex*
	Tectono-stratigraphic evolution of the offshore Sierra Leone Basin	*Elenwa, Univ. Of Portsmouth*
	Best Practices for Exploring and Producing Oil and Gas from Basement	*Koning*
	The Okoro Field – a successful development case study	*Afren*
	Rock-based regional geology analysis reveals how structural architecture played a key role in controlling the location, thickness and quality of key reservoir intervals in the Tanzanian Coastal Basins.	*McAfee, CoreLabs*
	A new look at the Carboniferous Marar Fm, Murzuk/GhadamesBasin, Libya: implications for sequence stratigraphic framework, reservoir characterisation and distribution	*Petitpierre, NARG*
	Assessment of regional control on Early Cretaceous reservoirs in Libya: Preliminary results from the Messak Formation (Murzuq Basin)	*Wood, NARG*
	Depositional model and allostratigraphic architecture of Late Ordovician syn-glacial strata from the Tiguentourine Field (Illizi Basin, Algeria)	*Rousse, Beicip/BP/Statoil*
	A New Approach to Stratigraphic Analysis in the Pre-Upper Cretaceous of the Sirt Basin, Libya	*Woolam, CoreLabs*
	Seismic Sequence Stratigraphic Analysis and Source Rock Geochemical Analysis of the Chellif Basin, Offshore NE Algeria	*Wornardt, Micro-Strat*
	Gas Accumulations, Reserves and Future Potential in Libya	*Barsoum*
	North Africa, a keystone of European gas supply	*Veron, IHS*

	Poster Session : Petroleum Systems	
	Source Rocks of the Lake Albert Sediments, Albert Rift, Western Uganda	*Grobbler, Tullow*
	Source Rock Deposition in East African Rifts: Past and Present	*Saunders, Neftex*
	Prospectivity of Block D, Burundi, Lake Tanganyika	*Macgregor, Surestream*
	East Africa: unrealistic hopes or unrealised potential	*Gill, Getech*
	The Seychelles and their place in the break up of Gondwana based by recourse to oils geochemistry and source rock analysis	*Matchette-Downes, East African Exploration*
	Seychelles Petroleum Systems and relation to conjugate margins of India's Bombay High and Madagascar investigated with new PSDM Seismic.	*Danforth, GX*
	Modelling Basin Evolution and Assessing Source Rock Potential within the Orange Basin, Offshore South Africa	*Adams, Univ. of Western Cape*
	Geology and Petroleum Potential of the Taoudenni Basin	*Raddadi, Getech*

	Poster Session : Structural Geology	
	Pre-EARS (East African Rift System) Interior basins of Sub-Saharan Africa – what's the potential?	*Pather, RPS*
	Structural development of the Niger Delta outer fold and thrust belt.	*Jones, PGS*
	Listric faulting and salt tectonics in offshore Angola	*Jones, PGS*
	Africa's 'oblique margins' – what's special about them?	*Lawrence, Darnoc*
	Paleo-tweezers: Extracting continental splinters from the West Africa margin	*Dickson,*
	Diachronous Rifting : A New Model for the Campos and Santos Basins, Offshore Brazil	*Henry, Rift Institute*

PST Regulatory Change: The TCEQ Reverts to the TAC Chapter 334 Rules

Ross Doctoroff, P.G., *Phase Engineering, Inc.*

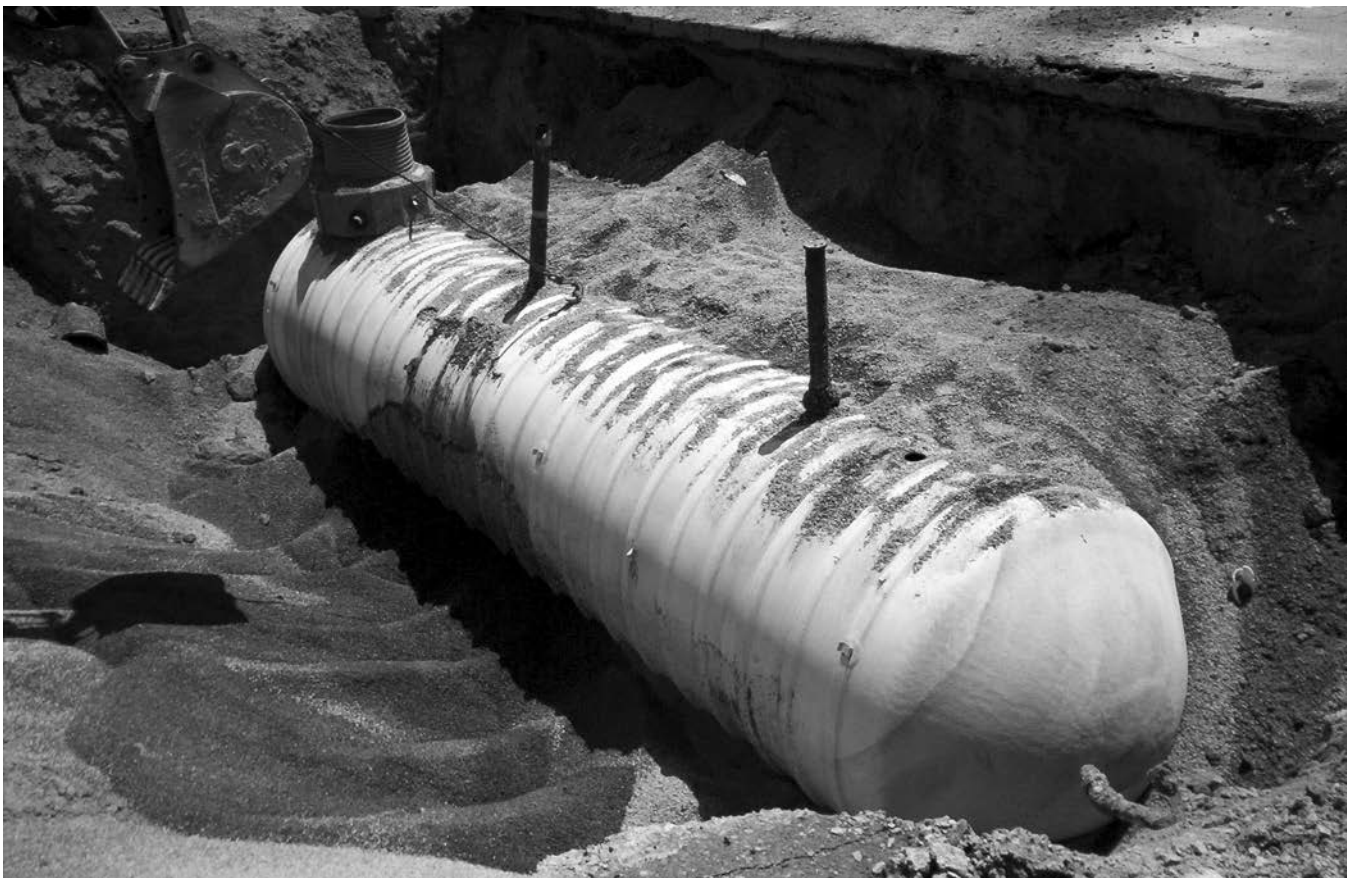
The Texas Commission on Environmental Quality (TCEQ) has reverted to its previous requirements related to reporting, investigation, and response actions for contaminant releases at petroleum storage tank (PST) facilities. At the inception of the PST Responsible Party Remediation Program, reporting requirements for such releases were covered under Texas Administrative Code (TAC) Chapter 334 regulations. The TCEQ subsequently amended the reporting requirements for sites with reportable releases that occurred after September 1, 2003. This amendment required investigation and response actions using the Texas Risk Reduction Program (TRRP)(TAC Chapter 350).

Typically, TAC Chapter 334 investigation and response actions are more cost-effective and less time-consuming than those under TRRP.

On March 19, 2009, the TCEQ reverted to using the previous TAC Chapter 334 regulations for current and active leaking petroleum storage tank (LPST) site as well as newly-reported LPST sites. The major differences between the two regulations include the investigation requirements, groundwater classification definitions, response action requirements, and initial reporting levels of contaminant concentration. These major differences are described more fully below.

• **Investigation Requirements - PCLs and Action Levels.** TRRP defined contamination action levels as Protective Concentration Levels (PCLs) for affected media including surface soil, sub-surface soil, groundwater, air, surface water, and sediment. The PCLs are used to determine if the release is subject to additional actions under TRRP. If no chemicals of concern (COCs) were observed having concentrations exceeding the generic Tier 1 PCLs, then no further action was required at the PST facility. If the concentrations of the COCs were determined to exceed Tier 1 PCLs, then the release was subject to additional actions defined under TRRP. TAC Chapter 334's reporting regulations listed COCs associated with gasoline or diesel releases and defined the reporting levels as "TCEQ PST Program Action Levels."

PST Regulatory Change *continued on page 61*



SIPES Independent's Day Celebration

Looking to Leave the Cubicle?

Looking to Profit from YOUR Success?

Come to the SIPES Shrimp Boil on Friday July 17th (5:30-8:30 PM) at Big Woodrow's (Chimney Rock at Richmond) and see what being an Independent is all about.

***RSVP Required:* RSVP to corey@kiwienergy.com by July 4th and the first two drinks and shrimp are on us!**

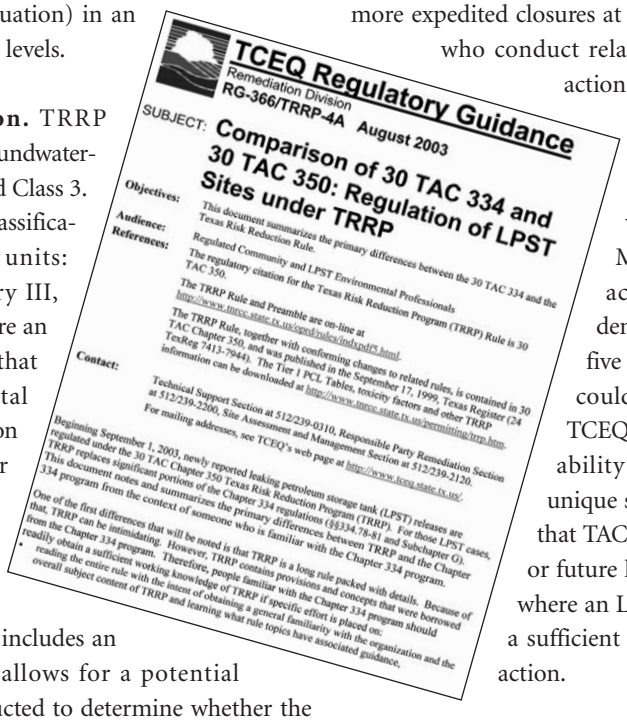
Society of Independent Professional Earth Scientists

Sponsored By

KiwiEnergy

PST Regulatory Change continued from page 59

TAC Chapter 334 regulations required additional action and investigation if the COC concentrations exceeded the PST Program Action Levels. PCLs are derived from toxicity and fate and transport models. PST Program Action Levels are risk-based. Groundwater PCLs cannot be altered to meet site-specific conditions. TAC Chapter 334 allows action levels to be altered using a risk model known as a "Plan B" assessment. Site-specific soil and groundwater-bearing zone conditions (for example, seepage velocity) compared with the exposure pathway distance to the nearest potential receptor can be introduced in the Plan B model (Domenico Equation) in an effort to derive site-specific action levels.


TCEQ Regulatory Guidance
Remediation Division
RG-366/TRRP-4A August 2003
SUBJECT: Comparison of 30 TAC 334 and 30 TAC 350: Regulation of LPST Sites under TRRP
Objectives: This document summarizes the primary differences between the 30 TAC 334 and the Texas Risk Reduction Rule.
Audience: Regulated Community and LPST Environmental Professionals
References: The regulatory citation for the Texas Risk Reduction Program (TRRP) Rule is 30 TAC 350.
The TRRP Rule and Preamble are on-line at http://www.tnrcc.state.tx.us/oprd/rules/indxpdf5.html.
The TRRP Rule, together with conforming changes to related rules, is contained in 30 TAC Chapter 350, and was published in the September 17, 1999, Texas Register (24 TexReg 7413-7944). The Tier 1 PCL Tables, toxicity factors and other TRRP information can be downloaded at http://www.tnrcc.state.tx.us/permitting/trrp.htm.
Contact: Technical Support Section at 512/239-0310, Responsible Party Remediation Section at 512/239-2200, Site Assessment and Management Section at 512/239-2120.
For mailing addresses, see TCEQ's web page at http://www.tceq.state.tx.us/.
Beginning September 1, 2003, newly reported leaking petroleum storage tank (LPST) releases are regulated under the 30 TAC Chapter 350 Texas Risk Reduction Program (TRRP). For those LPST cases, TRRP replaces significant portions of the Chapter 334 regulations (§§334.78-81 and Subchapter G). This document notes and summarizes the primary differences between TRRP and the Chapter 334 program from the context of someone who is familiar with the Chapter 334 program.
One of the first differences that will be noted is that TRRP is a long rule packed with details. Because of that, TRRP can be intimidating. However, TRRP contains provisions and concepts that were borrowed from the Chapter 334 program. Therefore, people familiar with the Chapter 334 program should readily obtain a sufficient working knowledge of TRRP if specific effort is placed on:
- reading the entire rule with the intent of obtaining a general familiarity with the organization and the overall subject content of TRRP and learning what rule topics have associated guidance,

• **Groundwater Classification.** TRRP includes three classifications of groundwater-bearing units: Class 1, Class 2, and Class 3. TAC Chapter 334 includes four classifications of groundwater-bearing units: Category I, Category II, Category III, and Category IV. Both rules require an assessment of the groundwater that includes the analysis of the total dissolved solids (TDS) concentration and the identification of any water wells within a defined distance from the release that have screened intervals within the known depth of the affected groundwater-bearing unit. TRRP includes an additional requirement which allows for a potential well-yield assessment to be conducted to determine whether the groundwater-bearing unit can produce a sufficient amount of water to be classified as a potential drinking water source. TAC Chapter 334 does not have any provisions allowing groundwater category selection based on maximum daily yield from the affected groundwater-bearing unit.

• **Response Action Requirements.** Response action requirements are more narrowly defined under TRRP than by TAC Chapter 334. For example, under TRRP, if groundwater is affected above Tier 1 PCLs and no active remediation is desired by the responsible party, owner, operator, or lender to complete closure requirements (i.e. the contamination is to be left in place), then a formal Monitored Natural Attenuation (MNA) demonstration would be the typical response action and an institutional control such as a plume management zone would be implemented.

A similar situation under TAC Chapter 334 would require a groundwater monitoring program including a minimum of four groundwater monitoring events to establish contaminant concentration stability or decrease. Under TRRP, MNA requires analysis of the primary indicators (specific contaminants) and secondary indicators (geochemical parameters) to demonstrate that the contaminant plume will eventually decrease to concentrations less than their applicable PCLs. Groundwater monitoring under TAC Chapter 334 requires analysis for primary indicators only and does not require a demonstration that the contaminant plume concentrations will eventually decrease to levels below their respective action levels.

These major differences between the two rules should allow for more expedited closures at open or new LPST sites. Consultants who conduct related PST investigation and response action services both agree and disagree with the changes. The major agreement is that use of TRRP rules was costly, time consuming, and potentially would not allow for case closure if MNA or a related type of response action was not successful. An MNA demonstration could potentially last for five or more years and a final site closure could not be issued without conditions. TCEQ project coordinators do not have the ability to amend TRRP requirements for unique situations. The major disagreement is that TAC Chapter 334 may not protect current or future landowners or operators in situations where an LPST site has received closure without a sufficient amount of investigation or response action.

PST facility owners, operators, and real-estate related entities (financial institutions, brokers and/or real-estate agents) agree with the amendments based on the timeframe, cost, and certainty of closure under TAC Chapter 334. Typically, TAC Chapter 334 investigation and response actions are more cost-effective and less time-consuming than those under TRRP. Additionally, costs and timeframe estimations made by the applicable consulting agencies are more accurate, allowing for real-estate transaction closings. Uncertainties related to cost and timeframe are typically lessened by using TAC Chapter 334 regulations. ■

Biographical Sketch

Ross Doctoroff, P.G. is currently employed by Phase Engineering, Inc. and has been involved in leaking petroleum storage tank-related casework for approximately eight years. Mr. Doctoroff received a Bachelor of Science degree in geography-resource and environmental studies from Southwest Texas State University in 2000. The author is a member of the Houston Geological Society and the Texas Association of Professional Geoscientists.

Vendor Corner Recognition and Thanks

The Houston Geological Society would like to recognize and thank its many vendors who demonstrated their financial support of the HGS by providing "Vendor Corners" for our 2008-2009 evening technical meetings. These are the folks who present poster session displays of their company's products, studies or services. They provided a great focal point during the social hour for the attendees to the meeting. The cost to the companies participating is not cheap and the fees that they pay are donated 100% to the HGS Scholarship Fund (undergraduate) and the HGS Student Membership Initiative.

The HGS would like to thank the following:

Aramco Services Company
Dicksen International Geosciences (DIGS)
***Fugro Gravity & Magnetic Services**
***Fugro Robertson Inc.**
Geochemical Solutions International (GSI)
***Headwave, Inc.**
Intermap Technology
ION Geophysical
Petroleum Geological Analysis (PGA)
ROC Oil
Seismic Micro-Technology (SMT)*

**Hosted more than one vendor corner*

If you would like to host a Vendor Corner during the upcoming 2009-2010 HGS year, please contact Paul Babcock at (832) 242 9650 or paul.babcock@nfrenergy.com

Remembrances

Robert S. Petty

Robert S. "Bob" Petty, a petroleum geologist who lived many years in Houston, died December 1, 2008 at his home in Boston, Massachusetts after a long illness. Born in Pittsburg, Pennsylvania on August 24, 1928, he grew up in Pittsburg and Newton, a Boston suburb, where he enjoyed scouting and rose to Eagle Scout. He combined his last two years of high school with the first two years of college in an experimental program at the University of Chicago, graduating with a degree in geology in 1947.

After graduation, Mr. Petty joined the Gulf Oil Corporation. Throughout his long career he managed exploration and production in various countries, including Venezuela, Costa Rica, Bolivia, Great Britain, Ecuador, and Singapore, as well as closer to his home in Houston. He was elected vice-president of Gulf Oil in 1977.

Upon retirement, Mr. Petty returned to the northeast, residing in Maine and Boston. He enjoyed swimming and boating, anything by the water in sight of seagulls. He is survived by his wife, Janice, and his daughter, Gail, both of Boston, and by his son Rob and his wife, Susan, and their sons Sam and Simon. A remembrance gathering was held at the Houston home of his son on March 28, 2009. ■

Government Update

Henry M. Wise, P.G. *and* ***Arlin Howles, P.G.***

The Government Update provides information on rules, regulations, policy, and meetings of interest to professional geoscientists. If you would like the most up-to-date information, refer to the HGS website to review the Wise Report. *The* Wise Report *is posted as needed, but not more often than once a week.*

AGI Government Affairs Monthly Review (March 2009),

Public Lands Omnibus Signed by President Obama

After failing in the Senate last year and the House earlier this month, the Public Lands Omnibus (introduced to the 111th Congress as S. 22, but passed as H.R. 146) was signed into law by President Obama on March 30, 2009 (Public Law 111-11). The omnibus contains over 160 bills authorizing many conservation measures. Beyond expanding national parks and protecting two million acres of federal lands, the bill contains many programs to address ocean research, water and climate change, fossils on public lands, and geologic mapping. The passage marks "one of the most significant protections for our treasured landscapes in a generation," according to Interior Secretary Ken Salazar.

Bills such as the Federal Oceanic Acidification Research and Monitoring (FOARAM) Act of 2009, the Ocean and Coastal Mapping Integration Act, and the Integrated Coastal and Ocean Observation System Act of 2009 passed as part of the package. FOARAM authorizes $150 million over the next five years for federal agencies to monitor the effects of ocean acidification. The Interagency Committee on Ocean and Coastal Mapping will establish a plan for mapping the Great Lakes and U.S. coastal waters, territorial sea, exclusive economic zones, and the continental shelf in order to advance marine science. The National Ocean Research Leadership Council will create an observing system to protect key coastal areas. Programs at the Bureau of Reclamation, U.S. Geological Survey, the Department of Energy, and the National Oceanic and Atmospheric Administration will be coordinated to address potential water shortages, conflicts, and hazards due to climate change.

The National Geologic Mapping Reauthorization Act included in the omnibus package provides funding to the National Cooperative Geologic Mapping Program to continue work on a national geologic map database and increases the allocation for state and educational components through fiscal year 2018. Also included is the Paleontological Resources Preservation Act, which prohibits taking fossils from public land without a permit having an amendment allowing casual, or unknowing, collecting of common fossils.

To help the omnibus through the House after failing by two votes in early March, the Senate employed a procedural strategy allowing a previously passed bill, the Revolutionary War Battlefields Protection Act (H.R. 146), to be a vehicle for the Public Lands Omnibus. Since H.R. 146 had already passed in the House, the ensuing vote would just require a simple majority to approve the single albeit all-encompassing amendment. There was hesitation in the House when some members tried to add an additional amendment allowing concealed weapons in national parks, but the bill passed without amendments on a 285-140 vote on March 25, 2009.

The full text of H.R 146 is available from Thomas: http://thomas.loc.gov/cgibin/bdquery/z?d111:HR00146.

House Unveils Climate Change Bill

On March 31, 2009, Henry Waxman (D-CA), Edward Markey (D-MA) and other senior Democrats unveiled a 648-page draft of climate change legislation. The American Clean Energy and Security Act of 2009 or the Waxman-Markey draft has four titles: 1. Promotes renewable energy, carbon capture and sequestration technologies, low-carbon transportation fuels, electric vehicles and smart grids; 2. Increases energy efficiency; 3. Limits emissions of greenhouse gases; and 4. Protects consumers and promotes green jobs. Title 3 attempts to limit emissions through a market-based program of tradable federal permits (allowances) for each ton of emitted carbon dioxide for all entities that emit more than 25,000 tons of carbon dioxide per year. The goal is to reduce carbon dioxide emissions to 83 percent of 2005 levels by 2050.

House Energy and Commerce Committee Republicans met with committee chairman Waxman and Markey on April 2, 2009 to discuss the draft. Afterwards, many Republican committee members told the media they are opposed to the cap-and-trade scheme in Title 3. The bill is ambitiously scheduled for a full committee markup on May 11, 2009 and while discussions and debates are likely to be contentious and significant, some version of the measure is expected to be approved by the committee. Democratic House leadership has promised to have a climate change bill vote by the full House by Memorial Day.

Details of the draft as well as summaries and comments of both parties are available from the House Energy and Commerce Committee web site at: http://energycommerce.house.gov/

Water and Mining Legislation Makes Its Way through Committees

The Water Use Efficiency and Conservation Research Act (H.R. 631) passed the House on February 11, 2009 and moved onto the Senate Committee on Environment and Public Works (EPW). The bill requires the Environmental Protection Agency (EPA) to establish a program promoting water efficiency and conservation.

Government Update *continued on page 65*

Guest Night

HGS Guest Night 2009 was held April 4 at the downtown aquarium. A scuba diver greeted the arriving guests. Pictured left to right: Al Danforth and his wife, Carolota, HGS President Kara Bennett, Daniel Pratt, and Bonnie Milne-Andrews.

Government Update continued from page 63

The program will look at technology to better store, treat, and distribute water as well as the sociological and economic challenges to water use efficiency. The Senate EPW Subcommittee on Wildlife and Water held a hearing on March 30 to discuss the EPA's role in promoting water use efficiency.

The full text of H.R. 631 is available from Thomas:
http://thomas.loc.gov/cgi-bin/bdquery/z?d111:HR631:/

The Subcommittee on Energy and Mineral Resources of the House Committee on Natural Resources held a hearing February 26, 2009 on the Hardrock Mining and Reclamation Act of 2009 (H.R. 699). This measure would amend the Hardrock Mining Act of 1872, allowing for various royalties, wilderness sanctuaries, and regulations, to prevent degradation of public lands, and petitions to withdraw specific federal land from possible mining. A similar mining bill passed the House in 2007 but failed to reach the Senate floor.

The full text of H.R. 699 is available from Thomas:
http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.r.00699:

On April 2, 2009, Senator Jeff Bingaman introduced a mining reform bill that is similar to the House version. The Hardrock Mining and Reclamation Act of 2009 (S. 796) would eliminate patents, increase fees, collect royalties, require permits, ensure water reclamation, limit forest system land degradation, review future mining claims on certain public lands and establish a program for abandoned mine reclamation.

The full text of S.796 is available from Thomas:
http://thomas.loc.gov/cgi-bin/query/z?c111:S.796:

Legislation to Promote Women in Science

Women are a large proportion of the undergraduates in science and engineering, yet only 20 percent of the bachelor degrees awarded in those fields are given to women. Women make up only a small percentage of the science and engineering faculty at research universities, and receive less funding and resources than their male counterparts.

In order to fully utilize the innovative capacity of all our scientists and remain competitive Representative Eddie Bernice Johnson (D-TX) introduced the Fulfilling the Potential of Women in Academic Science and Engineering Act (H.R. 1144) at the end of February. The legislation aims to overcome the gender bias in science and engineering by requiring workshops to educate federally funded researchers on ways to better conduct impartial evaluations of grants and to extend grant support for researchers with care-giving responsibilities. The Office of Science and Technology Policy would develop the policy that would be carried out by major science and engineering programs within the federal agencies.

The full text of the bill is available from Thomas:
http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.r.01144:

Bill Is Pulled After EPA Announces Coal Ash Regulation

The House's first proposed legislation for new standards in coal ash impoundment facilities following the 2008 Kingston power plant spill in Roane County, Tennessee was pulled from mark-up on March 9, 2009 after the EPA announced plans to start regulating such structures. House Natural Resources Committee Chairman Nick Rahall (D-WV) announced he was pulling the Coal Ash Reclamation, Environment, and Safety Act of 2009 (H.R. 493) after the EPA's announcement. He felt this would remove potential delays and allow the EPA to move forward immediately. "I am pleased that the Obama administration has acted so quickly to overcome 29 years of bureaucratic inertia at the EPA," commented Rahall in a statement concerning the EPA's planned regulation. EPA Administrator Lisa Jackson stated on March 9, 2009 that the agency will have its proposed regulations on coal ash impoundments available by the end of the year.

The full text of H.R. 493 is available from Thomas:
http://www.thomas.gov/cgi-bin/bdquery/z?d111:h.r.00493:

EPA Fast-Tracks GHG Decision and Proposes Mandatory Reporting

The EPA is slated to release its final decision on whether greenhouse gas (GHG) emissions are threatening public health and welfare in mid to late April according to a draft review leaked to Greenwire. The EPA supposedly began interagency reviews of the proposal at the end of March, with a very quick turnaround time proposed. Part of the reason for the rush is that EPA Administrator Lisa Jackson is refraining from any new emissions mandates until a final decision is reached.

Another speculated reason was the supposed goal to release the review by April 2, 2009 the second anniversary of the Supreme Court decision that started this process. Jackson has since made it clear that April 2, 2009 is too soon for a decision and that she only wanted to be mindful of that date. So far, the decision is planned to show that GHGs affect human welfare through changes to temperature, air quality, crops, and the spread of diseases. It will also lump together the six primary GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) into one group following the strategy of the International Panel on Climate Change (IPCC) for creating a "common currency."

Government Update continued on page 67

Technofest is Back!

Westin Galleria—August 13, 2009—2:00p–8:30p

A few years back, the Houston Geological Society came up with an idea for a summertime event that would gather the best of new technologies and a crowd of interested geoscientists. That event was Technofest! Originally held at the Westchase Hilton, it was an instant hit. As such, it maxed out the parking, air-conditioning and space at the Hilton.

Now Technofest is to be held in the Westin Galleria. The Woodway Hall at the Westin is over 21,000 square feet of carpeted, air-conditioned space just waiting for Vendors, Companies and Deal Sellers to share their information! In addition, because it is part of the Galleria, there are 8500 FREE parking spaces in close proximity.

There is going to be 58 - 10' x 10' spaces. Booth rental is only $400 and includes two admissions to the event. Ticket prices for the event are $10 for HGS Members and $15 for non-members, and will be the same at the door. The admission also includes one free drink ticket! We are anticipating booth spaces will sell out quickly – so it is first come-first served! A layout plan is included in this Bulletin. Vendors are allowed to set up between 8:00a and Noon, and tear-down will be after 8:30p to 11:00p.

Of course Sponsorship opportunities are available for food and beverages. This year we have lowered the cost of sponsorship so that more companies can participate and it won't hurt the pocketbook as much! Sponsorships can be made at the PLATINUM LEVEL - $1000, GOLD LEVEL - $500, SILVER LEVEL - $250 AND BRONZE LEVEL - $100. Sponsors will be give top billing at all refreshment stations and in the registration area of the Woodway Hall. Finger foods and cash bars will be scattered around the Hall, so there should be no long lines! There is also an opportunity for a Sponsor to host the Popcorn Machine. They could have their logos or names on the popcorn bags! The cost for the Popcorn Sponsorship is approximately $1000 (rental and popcorn – does not include bag printing).

Also needed are volunteers! The HGS is expecting a huge turnout for this event, and help will be needed with registration and vendor setup. Volunteers get free admission!

For more information, please contact Deborah Sacrey at 713-468-3260 or dsacrey@auburnenergy.com. Other members of the committee are Bonnie Milne – bonnie.milne@swiftenergy.com and Jim Grubb – jamesmgrubb@yahoo.com ■

CALLING ALL VENDORS!

HGS Technofest-2009

Thursday, August 13th, 2009
Vendor setup starts at 8:00a

Technofest is from 2:30p-8:30p

Sponsorship opportunities available!

If you have software/hardware to show – or if you want to get a jump on Summer NAPE!

We have booth space for you at the Westin Galleria! 21,000 square feet of space, with 8500 FREE Parking spaces!

Call/email Deborah Sacrey for information at 713-468-3260 or dsacrey@auburnenergy.com

Government Update continued from page 65

On March 10, 2009, the EPA also proposed a rule requiring large, industrial GHG emitters to report emissions under the Clean Air Act. The goal is to start a national system to obtain comprehensive and accurate data on the amount of GHGs emitted by both upstream (by suppliers of the fuels) and direct emitters. Although indirect emissions and small businesses will not be counted, the ruling will cover 85 to 90 percent of U.S. emissions. The first annual report will be submitted to the EPA in 2011 for calendar year 2010 with an estimated annual cost to industry of $127 million, after an initial $160 million the first year. There will be a public hearing in Sacramento, CA and Arlington, VA to discuss this proposed ruling in early April. The ruling is also open to public comment

For more information and to submit comments, go to the EPA GHG Emissions website:
http://epa.gov/climatechange/emissions/ghgrulemaking.html

USGS Congressional Briefing on Well Water Quality

On March 27, 2009, the United States Geological Survey (USGS) held a briefing on Capitol Hill on the status of private water well quality across the nation. Presented at the briefing were findings from a 13-year USGS study that indicated that water from 1 in 5 wells contains a contaminant that exceeds benchmark levels for human health and safety, although most of the contaminants in these wells were naturally occurring. Also presented was an update from the National Cancer Institute on a continuing investigation of the relationship between arsenic in private water wells and the occurrence of bladder cancer in New England. The final presentation by National Ground Water Association Executive Director Kevin McCray discussed the results of the USGS study and how the information presented further highlighted the importance of proper well maintenance and stewardship for private well owners.

A full summary of the briefing is available at: http://www.agiweb.org/gap/legis111/wateroceans.html

ACS Briefing on Understanding the U.S. Energy Profile

On March 27, 2009, the American Chemical Society (ACS) conducted a briefing with four expert panelists on U.S. energy issues. Topics of discussion included the role of energy policy in national security, the current sources and trends in energy use, the state of fossil fuels in the nation's energy portfolio, the current state of renewable energies, and a forecast for renewable energy potential in the coming decades. Regarding national security and energy policy, Dr. Robert Fri of the National Research Council indicated that "energy independence isn't going to happen" but that by lessening dependence on foreign fuel sources, the nation's economy can be less at risk from global politics and market volatility.

Also stressed was the importance of weighing the cost-benefit factors of fuel sources when considering climate change mitigation, as some fuel choices can help reduce greenhouse gas emissions but they also stress other natural resources. Dr. Scott Tinker, President of the American Association of Petroleum Geologists (AAPG), indicated that although overall world consumption of oil has been decreasing since 1979, it will still play a vital role in the world's economy and is necessary to bridge today's economy to emerging technologies that are still decades away. Dr. Allan Bard, University of Texas-Austin, indicated that under optimal conditions of implementation, renewable energies will still comprise only 15 to 20 percent of the nation's total energy profile by 2030. However, he indicated that percentage could increase if "game-changing" technologies are developed and marketed at prices palatable for American industry and consumers.

A full summary of the briefing is available at: http://www.agiweb.org/gap/legis111/energy.html

Setback for Science Education in Texas

The Texas Board of Education voted on March 27, 2009 to modify both Earth and space sciences (ESS) and biology standards to allow creationists to further scrutinize and question evolutionary science in public schools. Despite receiving petitions against these amendments from 54 scientific and educational societies across the nation, the board passed the measure that many feel will not only set back science in Texas, but could affect science education nationally.

Dr. Eugenie Scott, executive director of the National Center for Science Education (NCSE) and an opponent to the amendments stated, "Let's be clear about this, it is a setback for science education in Texas, not a draw, not a victory. The revised wording opens the door to creationism in the classroom and in the textbooks. The decisions will not only affect Texas students for the next ten years, but could result in watered-down science textbooks across the U.S. There's a reason creationists are claiming victory." As a result of the amendments, creationist claims of the inability of cells to evolve, the question of the age of the universe, and gaps in the fossil record can now be part of scientific textbooks. ■

The 59th Annual Convention of the
Gulf Coast Association of Geological Societies
and the Gulf Coast Section of SEPM
September 27-29, 2009
www.gcags2009.com

The Annual Convention of The GCAGS is fast approaching. Please make your plans to attend this outstanding event.

We will be presenting an unequaled scientific program along with social events which will keep all who come to Shreveport busy and glad they came.

There will be 79 oral presentations and 12 poster sessions. The session titles are as follows:

Sunday, September 27, 2009

Symposium on the Haynesville Shale and other Shale Plays

Monday, September 28, 2009

The Wilcox-Outcrop to the Abyss
Visualization, Geochemistry, and Interpretation of Geologic Systems
Structure and Lithostratigraphy: Old Fields and New Plays
Gulf Coast Sedimentation and Coastal Subsidence
Stratigraphy, Correlation and Sedimentary Processes

Tuesday, September 29, 2009

Water Resources and Environmental Geology
Seismic Applications and Salt Tectonics in the Gulf Coast
Geology and Education- A Natural
The Geology and Evaluation of Shale Resource Plays

The Schedule of fees for the convention is as follows:

Pre-Convention Registration	$150
Pre-Convention Registration Includes Shale Symposium	$200
On-Site Registration Does not include Shale Symposium	$200
On-Site Haynesville Shale Symposium	$100
Academia	$ 75
Student	$ 25
Spouse/Guest	$ 50
Icebreaker Only	$ 50
All-Convention Luncheon	$ 40
Hard Copy of *Transactions*	$ 50

GCAGS 2009 CONVENTION GENERAL CHAIRMAN
Ralph Richardson
Sartor-Richardson
318-869-4100
r_g_richardson@yahoo.com

GCAGS 2009 BOARD:
President
Will Downs
St. Mary Land & Exploration
318-424-0804
wdowns@stmaryland.com

Treasurer
John Grunau
Pride Exploration, Inc.
318-226-1300
explorewithpride@aol.com

Secretary
David Benscoter
Long Petroleum, LLC
318-221-3516
david@longpetro.com

GCAGS 2009 COMMITTEES:
Technical Program
Gary Hanson
LSUS, Red River Watershed Management Institute
318-797-5041
ghanson@pilot.lsus.edu

Transactions General Coordinator
William R. "Bill" Meaney
Anderson Oil and Gas, Inc.
318-227-2000
bmeaney@andersonoilandgas.com

Transactions Editor
Michael T. Roberts
Palmer Petroleum, Inc.
318-222-0517
mroberts@palmerpetro.com

Contributions\Sponsorship
Robert L. "Bob" Williamson
Williamson Oil and Gas, Inc.
318-221-2923
bob@williamsonogi.com

Convention Consultant
Bruce Lemmon
GEM Global Events Management, LLC
918-585-1004
blemmon@jurisystems.com

SHREVEPORT GEOLOGICAL SOCIETY
P. O. BOX 750
SHREVEPORT, LA 71162

Remembrances

John "Jack" Hall Howard

John "Jack" Hall Howard, age 74, passed away March 18, 2009 at the Methodist Hospital Houston from complications of acute leukemia. He was a kind, generous, and gentle man who endeavored to enrich the lives of all who knew him, and he will forever remain in the hearts of those who loved him. Born August 14, 1934 in Norwalk, Connecticut, he grew up in Norwalk and Baltimore, Maryland. He received his A.B. degree cum laude from Harvard College in 1956, completed graduate studies at Johns Hopkins University, and received his Ph.D. in structural geology from Columbia University in 1961.

Mr. Howard began his geologic career with Shell Development Company in 1957, studying faulting and fracture mechanics while in the company's Ventura, California offices, and later contributing to several aspects of the then developing theory of Plate Tectonics. In 1970, he moved to Lawrence Livermore National Laboratory as a member of the Plowshare Program to study the uses of nuclear energy for peaceful applications, such as stimulating reservoirs via fracturing. Later, he worked on geothermal energy resources at Lawrence Berkeley and Livermore National Laboratories. He was named a NATO Fellow and studied geothermal installations in Iceland and Italy. In 1982, he returned to the oil business and was Structural Geology Manager at Cities Service Company in Tulsa, Oklahoma. Later, through the mergers in the petroleum sector, he worked successively at SOHIO, BP, and Mobil.

After his retirement, Mr. Howard became interested in technical writing, editing, and publishing, and was named Editor in Chief, Publications at Halliburton Energy Services. He was a member of the Geological Society of America, Certified Petroleum Geologist with the American Association of Petroleum Geologists, a member of Society of Petrophysicists and Well Log Analysts, Society of Petroleum Engineers, and Houston Geological Society.

In 1957, he married Nancy Woodside of El Paso, Texas after meeting in geology classes at Harvard. They had three children: Thomas, of Spring, Texas; Katharine Crawford (husband Mark) of Orinda, California; and John (wife Amy) of Frisco, Texas. Mr. Howard will be especially missed by his grandchildren Jack and Cole Crawford and Natalie and Hunter Howard, all of whom he loved dearly and who were devoted to him. He and Nancy loved to travel and in recent years had taken several cruises to beautiful locations around the world, enjoying the local geology and cultures.

A memorial celebration was held March 28th, 2009 at Emerson Unitarian Church in Houston. The family requests that you consider a blood donation to your local blood center in Mr. Howard's honor, alternatively, contributions to may be made to the Emerson Church or to the Houston Symphony. ■

Stanley M. Leventhal

Stanley M. Leventhal of Houston passed away on March 21, 2009 with his family by his side after a short but courageous battle with cancer. He graduated from Texas A&M with a B.S. in geology and went to work for Geophysical Service, Inc. for six years which included a two-year period as a Lieutenant in the U.S. Army Corps of Engineers helping with the rebuilding Germany. Mr. Leventhal then started his own company Indexgeo Geophysical Surveys Corp. that was a geophysical contractor for the oil industry providing seismic interpretation using cutting edge technology around the world. The name of company was eventually changed to Indexgeo & Associates, Inc.

He was is a member of Houston Geological Society, American Association of Petroleum Geologists, Society of Exploration Geophysicists, Geophysical Society of Houston, and Association of Professional Geological Scientists. He was a registered geophysicist in the State of California and a licensed Geoscientist in the State of Texas.

Mr. Leventhal loved being with his family and friends, travelling, and dancing but most of all he loved playing golf and being on the course with his friends. He was preceded in death by his wife of 46 years Carolyn Mitz Leventhal. He is survived by his son Mark and daughter Randa. For those wishing to honor Mr. Leventhal, please make donations to Seven Acres [www.sevenacres.org] or the charity of your choice. Services were held on March 23, 2009 at the Kagen-Rudy Chapel at Emanu El Memorial Park. ■

Full Color Ads Now Available!

HGS *Bulletin* Instructions to Authors

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

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

Figures, maps, diagrams, etc., should be digital files using Adobe Illustrator, Canvas or CorelDraw. Files should be saved and submitted in .eps (Adobe Illustrator) format. Send them as separate attachments via email or CD if they are larger than 1 MEG each, accompanied by figure captions that include the file name of the desired image. DO NOT EMBED them into your text document; they must be sent as separate files from the text. DO NOT USE POWERPOINT, CLIP ART or Internet images (72-DPI resolution) as these do not have adequate resolution for the printed page and cannot be accepted. All digital files must have 300-DPI resolution or greater at the approximate size the figure will be printed.

Photographs may be digital or hard copy. Hard copies must be printed on glossy paper with the author's name, photo or figure number and caption on the back. Digital files must be submitted in .jpg or .eps format with 300-DPI or greater resolution at the printing size and be accompanied by figure captions that are linked by the file name of the image. The images should be submitted as individual email attachments (if less than 1 MB) or on CD or zip disk.

Advertising

The *Bulletin* is printed digitally using QuarkXPress. We no longer use negatives or camera-ready advertising material. Call the HGS office for availability of ad space and for digital guidelines and necessary forms or email to ads@hgs.org. Advertising is accepted on a space-available basis. **Deadline for submitting material is 6 weeks prior to the first of the month in which the ad appears.**

Random Inside (Black & White)					Page 2 (B&W)	Inside Front Cover (Full Color)	Inside Back Cover (Full Color)	Outside Back Cover (Full Color)	Calendar Back (Full Color)	Calendar Page (Full Color)
No. of Issues	Random* Eighth	Random* Quarter	Random* Half	Random* Full	Full	Full	Full	Half	Full	Quarter
10	$823	$1,387	$2,488	$4,734	$5,680	$7,830	$7,560	$6,858	$6,750	$2,700
9	$823	$1,387	$2,488	$4,734	$5,680					
8	$750	$1,260	$2,242	$4,307	$5,169					
7	$665	$1,123	$2,014	$3,834	$4,600					
6	$590	$990	$1,782	$3,392	$4,069					$1,890
5	$497	$837	$1,503	$2,860	$3,432	$4,698	$4,536	$4,104		
4	$405	$683	$1,223	$2,326	$2,792					
3	$327	$550	$990	$1,886	$2,262					$1,080
2	$232	$392	$704	$1,339	$1,607					
1	$146	$246	$443	$842	$1,010	$1,404	$1,296	$1,080		$810

FULL COLOR AD
* add 30% to B&W charge for full (4) color ad

BUSINESS CARD
$135 per 10 Issues – Send two cards
($30 for each additional name on same card)

Be a web page Sponsor

Effective May 4, 2008 you can now have your company logo picture posted on every page (including Calendar, Articles, Events, JobBank, etc.) of the Website and not just the Entry page like it was before the redesign. To have an ad posted, you must provide us with the graphic and give us the URL it should link to when clicked.

All ads appear in the "Our Sponsors" box in the upper left of the page. Each ad is displayed for a short time and replaced by the next ad in the list. Each ad will be randomly displayed on each page.

All Sponsor logo images must be 55 x 166 pixels and be no more than 8 bits per pixel with a maximum of 256 colors. The format can be either GIF or JPG, preferably interlaced or progressive. It is important to make the image file size as small as possible so that it will transfer to the users' browser quickly.

	Home Page Logo 165x55	Website Business Card (with link)	Web and Bulletin Business Card	Newsletter Sponsor Banner Ad (with link)	Personal Resumes (Members only)	GeoJobBank Posting
One year	$1000.00	Free to members	$135.00	$2000.00	$2,000.00	
6 months	$525.00	Free to members	NA	$1200.00	$1,150.00	
3 months	$270.00	Free to members	NA	$650.00	$600.00	
1 month	NA	Free to members	NA	$250.00	Free	$100.00

Application to Become a Member of the Houston Geological Society

Qualifications for Active Membership

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

Qualifications for Associate Membership (including students)

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

Apply online at www.hgs.org and click on Join HGS

Annual Dues Expire Each June 30. (Late renewals – $5 re-instatement fee)
Annual dues are $24.00; full-time students and emeritus members pay $12.00.

Mail this application and payment to:
Houston Geological Society
14811 St. Mary's Lane, Suite 250 • Houston, TX 77079-2916
Telephone: 713-463-9476 Fax: 281-679-5504

Payment method:

□ Check, □ VISA, □ MasterCard, □ American Express, □ Discover

Card # _____

Expiration Date: _____ Card I.D. _____

(Card I.D. – 3 or 4 digit number on front or back of card)

To the Executive Board: I hereby apply for ❑ Active or ❑ Associate membership in the Houston Geological Society and pledge to abide by its Constitution and Bylaws. ❑ Check here if a full-time student.

Name: _____

Address: _____

_____

Home Phone: _____ *Spouse's Name:* _____

Email: _____

Job Title: _____

Company: _____

Company Address: _____

_____

Work Phone: _____ *Fax Number:* _____

Circle Preferred Mailing Address: Home Office

Professional Affiliations: _____

❑ AAPG member No.: _____

Professional Interest:

❑ Environmental Geology ❑ North American E&P (other than Gulf Coast)

❑ International E&P ❑ Gulf Coast E&P (onshore & offshore)

School _____

Degree _____ *Major* _____ *Year* _____

_____

School _____

Degree _____ *Major* _____ *Year* _____

_____

Earth Science Work Experience _____

_____

_____

_____

Applicant's Signature _____ *Date* _____

Endorsement by HGS member (not required if active AAPG member)

Name: _____

Signature _____ *Date* _____

Membership Chairman _____ *HGS Secretary* _____

rev.08/11/2008

Houston Petroleum Auxiliary Council News

Norma Jean Jones, HGS Liaison

The final HPAC event for 2008-2009 was a luncheon held at the Houston Racquet Club on May 15 and included the annual business meeting, installation of officers and a style show by Coldwater Creek. Some very lovely HPAC members modeled the latest spring fashions. Thanks to Co-Chairs, Shirley Gordon and Norma Jean Bacho, and their committee for a lovely event.

HPAC officers for 2009-2010 are:

President	Millie Tonn
First Vice President (Programs)	Edie Bishop
Second Vice President (Membership)	Carol Gafford
Secretary	Sheri McQuinn
Treasurer	Kathi Hilterman
Editor	Lois Matuszak
Parliamentarian	Phyllis Carter
Courtesy	Shirley Gordon & Mary Harle
Notification	Sally Blackhall & Norma Jean Jones
HGS Liaison	Winona LaBrant Smith

Our second year as HPAC will resume in September 2009. Four exciting events are being planned by our First Vice President, Edie Bishop, for your pleasure.

For your convenience, an HPAC membership form is included below. If you have any questions, please contact Winona LaBrant Smith at 713-952-2007.

Geo-Wives officers for 2009-2010 are:

President	Lois Matszak
First Vice President	Jacqueline Smith
Second Vice President	Daisy Wood
Secretary	Linnie Edwards
Treasurer	Ruth Harrison
Parliamentarian/Historian	Pat Burkman

Geo-Wives was formed when HGA membership was at its peak of approximately 800 members to provide a stepping stone to help new members get acquainted and build friendships in a smaller setting. We still meet September through May, normally on the months that HPAC does not meet. Our social activities range from going to the museum to having lunch in one of our members' homes. The highlight of our year is our annual field trip, led by our own Martha Lou Broussard. If you have never attended, and love Texas history, don't let another year go by without joining us. For more information about Geo-Wives, please contact Daisy Wood at 713-977-7319.

Remember Flag Day is June 14. We Americans are proud of our nation, our culture, our people and our flag that represents all of those things. So, raise your flag on Flag Day and show that American Spirit. ■

See you at something geological! Norma Jean

You are invited to become a member of

HPAC

2008–2009 dues are $20.00

Mail dues payment along with the completed yearbook information to Carol Gafford, 13323 Misty Hills Drive, Cypress, TX 77429

YEARBOOK INFORMATION

Last Name	First Name	Name Tag
Spouse Name	Name Tag	HGS Member's Company
Home Phone	Business Phone	Business Fax
Street Address	City	Zip
Email Address	Home Fax	

Please choose a committee assignment if you are interested.

☐ Fall Event	☐ Yearbook	☐ SOS	☐ Membership
☐ Christmas Event	☐ Spring Event	☐ Notification	☐ Game Day
	☐ May Luncheon	☐ Courtesy	

Professional **Directory**

Learning is not a Spectator Sport

sign up for

SCA's Geoscience "BOOT CAMP"

Geoscience Subsurface Interpretation & Mapping

Certification Program

Visit us at The AAPG Convention in Denver! Booth #1126

Learn Fundamentals of Geology & Geophysics
Generate High Quality, Professional Interpretations & Maps

Read about SCA's Boot Camp in the AAPG Explorer, February 2009 issue
www.aapg.org/explorer/2009/02feb

TWELVE (12) WEEK TRAINING PROGRAM TO RAPIDLY RAISE SKILLS LEVEL OF GEOLOGISTS, GEOPHYSICISTS & JUMP-START FOR NEW HIRES

Properly Trained People - Not Workstations - FIND OIL & GAS

	COURSES	FALL
WEEK 1	Structural Styles in Petroleum Exploration and Production	August 24 - 28
WEEK 2	Sequence Stratigraphy of Clastic Rock / Reservoirs: Well Logs / Core / Outcrop & Seismic	August 31 - September 4
WEEK 3	Open Hole Log Analysis (Practical Interpretation of Open Hole Logs)	September 8 - 11
WEEK 4	Overview of Seismic Exploration: Seismic Acquisition and Processing, AVO and Attributes and 2-D / 3-D Interpretation	September 14 - 18
WEEK 5	Applied Subsurface Geological Mapping	September 21 - 25
WEEK 6	Seismic Interpretation Workshop	September 28 - 30
	Basic Reservoir Engineering for Non-Engineers	October 1 - 2

	PROJECT	FALL
WEEK 7	**Phase I** Initial Exploration - Delineate Prospects - Drill Exploration Wells	October 5 - 9
WEEK 8	**Phase II** Assess Discovery - Refine Interpretation	October 12 - 16
WEEK 9	**Phase III-A** Field Development - Drill Development Wells	October 19 - 23
WEEK 10	**Phase III-A** Field Development Continued	October 26 - 30
WEEK 11	**Phase III-B** Explore for Additional Prospects	November 2 - 6
WEEK 12	**Phase IV** Field Performance Analysis - Results of Other Exploration Prospects	November 9 - 11
	Phase V Present Report and Project Results	November 12 - 13
	Graduation Celebration	November 13

FOR COMPLETE DETAILS GO TO:
www.scacompanies.com
***Training Services* & select**
Geoscience Certification Program
Space is Limited !
Call us TODAY or register online.

Subsurface Consultants & Associates, LLC.

10255 Richmond Avenue, Suite 300W, Houston, Texas 77042
Phone: +1.713.789.2444 Fax: +1.713.789.4449 www.scacompanies.com
General Inquiries: info@scacompanies.com
Training Course Registration & Information: training@scacompanies.com
Consultants & Direct Hire Recruitment Services: consulting@scacompanies.com

HOUSTON
GEOLOGICAL SOCIETY
14811 St. Mary's Lane, Suite 250 • Houston, TX 77079

Periodicals
U.S. Postage
PAID
Houston, Texas