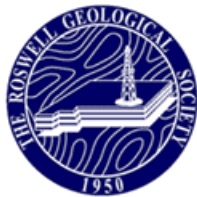
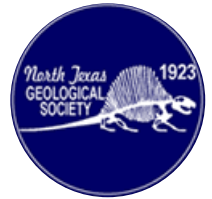
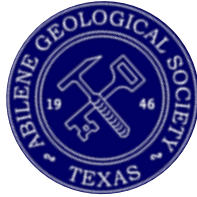


# Survivors: Rediscovery in a Mature Area

AAPG Southwest Section 2008 Convention  
Golden Anniversary  
Abilene, Texas  
February 24-27



## GENERAL SCHEDULE OF EVENTS

### **Saturday, February 23**

9:00 a.m. - 4:00 p.m.

"Rocks in Your Head" Registration at Region 14 Service Center  
*Sponsored by the Abilene Geological Society  
And the  
American Association of Petroleum Geologists*

### **Sunday, February 24**

7:30 a.m. - 8:30 a.m.

8:30 a.m. - 5:00 p.m.

Registration for field trip at the Abilene Civic Center  
Field trip led by Dr. Earl Harrison, David Morris & Darrell Mauldin  
*The Cyclic Deposition of Pennsylvanian and Permian  
Sediments on the Eastern Shelf*

### **Monday, February 25**

7:30 a.m. - 5:00 p.m.

8:00 a.m. - 5:00 p.m.

8:30 a.m. - 4:30 p.m.

11:30 a.m. - 2:00 p.m.

6:00 p.m. - 9:00 p.m.

Registration  
Exhibit Setup  
Short Course – Robert Hardage, Instructor  
*Seismic Technologies for Exploiting  
Strat Traps and Unconventional Reservoirs*  
Board Meeting  
Ice Breaker

### **Tuesday, February 26**

7:00 a.m. - 8:00 a.m.

7:00 a.m. - 8:00 a.m.

7:30 a.m. - 5:00 p.m.

8:00 a.m. - 5:00 p.m.

8:00 a.m. - 5:00 p.m.

10:30 a.m. - 1:30'ish

9:00 a.m. - 10:30 a.m.

10:30 a.m. - 5:00 p.m.

12:00 noon - 1:15 p.m.

6:00 p.m. - 9:00 p.m.

Judges, Moderators & Speakers Breakfast  
House of Delegates Breakfast  
Registration  
Exhibit Hall  
Ladies Hospitality Room  
Ladies Tour - *A Truly Texas Experience*  
Opening Session –  
*Highlights of the First Fifty Years of the  
Southwest Section AAPG*  
Technical Sessions  
All Convention Luncheon - Scott Tinker, BEG Director  
*Energy Myths & Current Realities*  
Dinner & Dance

### **Wednesday, February 27**

8:00 a.m. - 12:00 noon

8:00 a.m. - 3:00 p.m.

8:00 a.m. - 1:00 p.m.

8:30 a.m. - 5:00 p.m.

12:00 noon - 1:30 p.m.

Registration  
Exhibit Hall  
Ladies Hospitality Room  
Technical Sessions  
All Division Luncheon - Patricia Dickerson, NASA Consultant  
*Exploring a Planet - Know Before You Go*

## **The Chairman's Welcome**

Happy Golden Anniversary! The Southwest Section AAPG is celebrating its 50<sup>th</sup> year. The Abilene Geological Society welcomes you to Abilene for the Annual Southwest Section AAPG Convention.

Welcome to our humble hamlet of Abilene, where geological wizards of old drilled their magic and found their fortune. At this 50<sup>th</sup> anniversary of the AAPG Southwest Section we honor and celebrate them, even as we struggle to redefine and rediscover the area they pioneered.

The theme of our convention is “Survivors,” because there have been some lean times for petroleum geologists over the past twenty years. But, most have “Survived” and now they are ready to “Thrive.”

The convention will be held at the Abilene Civic Center and will offer a 2 day technical program. Evening events and spouse tours are scheduled. The “Rocks in Your Head” program to instruct school teachers about the science of geology will be held on Saturday, February 23.

The Opening Session will feature a Power Point presentation of Highlights/History of the societies within the Southwest Section. AAPG President Will Green will give the keynote address, with particular emphasis on the Southwest Section Golden Anniversary.

A field trip of the Cyclic Deposition of the Pennsylvanian & Permian Sediments on the Eastern Shelf will be led by Dr. Earl Harrison on Sunday, February 24. The free short course will be Monday, February 25, taught by Bob Hardage on the topic of Seismic Technologies for Exploiting Strat Traps and Unconventional Reservoirs. Scheduled luncheon speakers are Scott Tinker (Bureau of Economic Geology Director) and Patricia Wood Dickerson (geological consultant to NASA).

Darrell Mauldin - General Chair

## **The President's Welcome**

Welcome to Abilene and the 50<sup>th</sup> Anniversary meeting hosted by the Southwest Section of the AAPG. As 60% of our membership is over 55 years old, most of us have attended over 30 such meetings. Quite an investment any way one looks at it.

The return on this investment over the past 50 years is huge and it parallels both the financial outcome and processes that generated (the outcome) for the oil and gas industry. At the root of this process is our individual imagination, inspiration and ambition to take action. Without exception, none of these occur in a vacuum. In fact, throughout history, all accomplishments of significance are an outcome of people working together for a purpose.

From the perspective of the SWS, such a setting is where like-minded individuals can exchange ideas and refresh relationships, which are the building blocks of future projects. These are accomplished several ways: through Sunday’s field trip, Monday’s short course and technical sessions on Tuesday and Wednesday. Not insignificant in this age of email, text messages and cell phones, are moments spent socializing at the various luncheons, social events, officers’ meetings and vendors’ booths. It’s also an opportunity for our profession to engage the host community. We make significant inroads here by hosting the “Rocks in Your Head” program for the local Region of the Public School System.

Last but not least we want everyone to have fun. Recognizing the enormous amount of energy the local society expends to host these events we especially owe this year’s General Convention Chair Darrell Mauldin a huge measure of thanks and congratulations for a job very well done. “Thanks Darrell”.

SWS AAPG President 2007 – 2008 Jeff Jones

*“A good life is a series of joyful meetings and joyful moments” Francis Bacon*

## All Convention Luncheon Scott Tinker, Director – Bureau of Economic Geology

### Energy Myths and Current Realities

The American public and much of the industrialized world, is under-informed about energy. A few energy myths:

- The U.S. can be energy independent in the next 50 years.
- “Renewable energy” can reduce dependence on fossil fuels significantly in the next 25 years.
- The economy will adapt easily to a rapid, federally imposed energy transition.
- The environment will survive a major recession.
- Energy efficiency and savings (alone) will solve the problem.
- There is plenty of low-cost (conventional) oil ready to be found.
- “Big Oil” controls the price of oil and gasoline and makes “obscene” profits.
- Cutting oil imports will stabilize and lower gasoline prices.
- We are running out of fossil energy.
- All coal is dirty.
- The cost of energy is increasing.

A few energy realities:

- America is energy interdependent for the foreseeable future—and that reality is not a bad thing; policies should be made accordingly. Talk about energy interdependence is misleading.
- Some sources of motion (wind and water), light (solar), and fuel (corn) seem “continuous” on a human time scale, but perhaps only the sun qualifies as “renewable.”
- Combined wind, solar, and geothermal supply around 1% of the world’s energy; add hydro (dams) and biomass (wood and emerging biofuels), and this number approaches 10%. The cost to transition the transportation infrastructure to a nonliquid form is in the trillions of dollars and will take many decades, even if we started a full-scale commitment today.
- Big Oil companies—combined—control less than 10% of the world’s conventional oil reserves; as a result, they don’t control much of anything, including gasoline price.
- Big Oil companies, even in the past few “obscene-profit years,” have typically made less than 15% profit annually; for every year of solid profit in the past 30 years, there have been as many or more years of low profit or loss with associated layoffs and continued mergers.
- The world has abundant reserves of coal; converting it into clean electricity by gasification and CO<sub>2</sub> sequestration will make electricity more expensive, and the consumer will pay for that. China will build hundreds of pulverized coal plants in the next few years; China must participate in any global strategy for carbon reduction.
- The world has considerable shale oil, oil sand, and unconventional natural gas resources; these unconventional forms of oil and natural gas are more expensive to extract because they are harder to access than “easy oil” and require greater environmental protection (overall a good thing) and technology.
- Since the dawn of commodity energy, people have made energy choices largely on the basis of price, and there is little sign that it will change, regardless of how we respond to clean-energy polls.
- Combustion of any fuel produces emissions; everyone who drives a car, turns on a light, or heats and cools a home is most likely combusting fuel. Emissions standards have and should continue to improve dramatically. Oil- and gas-drilling practices and coal-mining practices have improved and can improve further. Katrina and Rita were an environmental success story.
- We can and must become more efficient in how we use and save energy. But global demand will continue to grow; there are simply too many people consuming and modernizing to solve it all with efficiency and conservation alone.

During the next 50 years, we will most likely transition from cars that run on liquid fuels to cars that run on something else—perhaps electricity or hydrogen. Research on solar energy makes eminent sense and should be embraced; it will be needed later this century. Nuclear energy is a viable, scalable, clean alternative for power generation. Wind makes sense as a regional supplement. Biofuels need work; the cost in soil, water, and energy to convert a carbohydrate to a hydrocarbon is great. Other sources—geothermal, tidal, and hydro—are regional supplements. Policy that attempts to elicit a desired energy portfolio response—and runs counter to science, technology, and economic realities—will probably cause more harm than good.

## **All Division Luncheon**

### **Patricia Wood Dickerson - American Geological Institute & Jackson School of Geosciences Exploring a Planet – Know Before You Go**

Exploration of an extraterrestrial body should progress from INTEGRATIVE INTERROGATION: Satellite observations, imaging, mapping, systematic scientific comparison with terrestrial and known lunar/martian sites, to ENLIGHTENED RECONNAISSANCE: Testing complex robotic (with/without humans) systems on the Moon before going to an asteroid or Mars, to TIGHTLY TARGETED INQUIRY: Applying the investigative/integrative power of human explorers in concert with intelligent robots.

Earth's solitary Moon preserves billions of years of Solar System history, unsullied by plate tectonic and climatic forces that continually reshape the surface of Terra semi-Firma. The lunar surface has, however, been modified by magmatism and impacts – chronostrati-graphic event markers for telescope-based geologic mapping of the Moon. Apollo surface investigations confirmed many of those interpretations and produced significant surprises as well.

Mars is about half the size of Earth and lacks oceans, but on the Martian surface are features analogous to those on Earth: polar caps, volcanoes, canyons, impact craters, dunes, drainage channels, clouds, dust storms. Orbital (Mars Global Surveyor, Mars Express) and robotic (Mars Exploration Rovers) missions are yielding abundant new data and stimulating insights.

Those results are integrated into astronaut training: 1) Analogous planetary features and processes, image and map analysis; 2) Geological/astrobiological surface and subsurface sampling techniques, sample analysis; 3) Geophysical methods; 4) Developing predictive criteria (water, past or present biotic material). Whether on this planet or another, fortune favors the prepared mind.

## **Ladies Tour**

### ***A Truly Texas Experience***



Meet with other guests attending the conference in the Hospitality Suite for tasty muffins, fresh coffee and conversation. Afterwards, enjoy a morning in downtown Abilene filled with quaint shops, art museums and galleries.

The historic Grace Museum's loggia and courtyard will provide the perfect setting for some “Real Texas Food” by the world-famous cowboy cook and author Tom Perini. Known for his mesquite grilled beef tenderloin, Tom has cooked for President and Mrs. Bush, Robert Duvall, Fess Parker, and is also mentioned in February's edition of InStyle magazine. Tom's father, V.C. Perini, was a geologist and the first president of the Abilene Geological Society in 1947. Guests will be treated to many of his cowboy cooking specialties. After lunch, feel free to wander through the museum and view its outstanding collection of art. You won't want to miss the Malouf Boot Shop on the third floor, and if you're feeling like a kid, the Children's Museum on the second floor will be just the cure!



## 2008 Southwest Section – AAPG - Field Trip

The Cyclic Deposition of Pennsylvanian & Permian Sediments on the Easter Shelf

Price - \$85.00

Sunday, February 24, 2008

Our field trip will be led by Dr. Earl Harrison who did extensive work in the Cisco, Texas area while writing his 1973 PhD dissertation entitled *Depositional history of Cisco-Wolfcamp Strata, Bend Arch, North-Central Texas*. We will visit type localities and outcrops in the Brazos River drainage basin from which numerous formation names were designated.



We will be visiting outcrops of Pennsylvanian and Permian strata that conform to the concept of sequence stratigraphy and exhibit the controlling influence of changes in sea level during late Pennsylvanian and early Permian time. The outcrop area is located on the Eastern Shelf of the Midland Basin, and is bound on the east by the stable Bend Arch. The Eastern Shelf developed as a carbonate platform dipping generally westward into the

Permian Basin of West Texas and plunges gently northward from the central mineral region of Central Texas.

The shelf platform experienced many successive transgressive-regressive cycles as the result of sea level change. Orientation of the paleo shoreline was generally northeast to southwest. With this framework, the depositional environments of the sediments become readily apparent.

Outcrops will include fluvial/deltaic deposits, shelf limestones and examples of ancient subaerial exposure. These outcrops can be correlated with subsurface formations of the Eastern Shelf and Bend Arch.

The Cisco, Texas area is the type locality for many of the fossil types that will be readily observed on outcrops of



this field trip. We will observe fracture spacing and orientation in joints of a Permian limestone. Of added interest at one of our stops will be the partially exposed skeletal remains of a bison which were common in the Abilene area well over one hundred years ago. Bring your rock hammer, sample bags, camera, and hand lens. Lunch will be provided by McCarty Equipment at the Moran Community Center. The trip is limited to 40 people. Breakfast burritos will be provided.

**FREE SHORT COURSE – (Meal - \$15)**

**Seismic Technologies for Exploiting Stratigraphic Traps and Unconventional Reservoirs**

**Instructor: Bob A. Hardage**  
**Bureau of Economic Geology**  
**Austin, TX**

Much of the remaining onshore U.S. oil and gas resource is located in stratigraphic traps, various fractured rock facies, and unconventional reservoirs such as shales, mudstones, and tight sands. As an industry, we are facing a problem because many explorationists are finding it difficult to image and analyze these resources with conventional seismic technology. In this course, we will broaden our thought process and consider the value and application of all seismic wave modes, not just the standard P-wave mode, for exploiting these challenging oil and gas targets.

Class material will illustrate how combinations of different seismic wave modes allow optimal evaluation of fractured facies and will demonstrate that in situations where a target is invisible to one wave mode, that target is often boldly imaged with a different wave mode. Data examples will show that P-wave seismic sequences differ from S-wave seismic sequences, yet both wave-mode images are correct descriptions of the geology. This concept is transforming conventional seismic stratigraphy (based on P-wave seismic data) to elastic wavefield seismic stratigraphy (based on both P-wave and S-wave seismic data). Examples will confirm that integration of P and S seismic sequences and P and S seismic facies provides expanded rock and fluid information. Numerous examples will be offered to support the thesis that elastic wavefield seismic stratigraphy is preferred over conventional seismic stratigraphy for optimal evaluation of geologic targets.

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**Please sign and return with your registration**

The Southwest Section of the American Association of Petroleum Geologists 2008 Annual Convention is to be held in Abilene, Texas. The Abilene Geological Society will host the event, which convenes on Sunday, February 24, 2008 and will conclude on Wednesday, February 27, 2008. The Abilene Convention Center will serve as our convention site.

By exhibiting and registering for the AAPG Southwest Section 2008 Convention, I release and agree to indemnify the AAPG Southwest Section, and the Abilene Geological Society, and the agents, officers, servants, and employees or each, from all liability for any loss, damage or injury sustained by our employees while involved in any way with the Conference except that each of the AAPG Southwest Section and the Abilene Geological Society are not released from such liability to the extent the same is caused by its actual negligence or willful misconduct.

Company: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

# Exhibitors

*Geofrontiers Corporation*

*International Sample Library*

*Core Lab*

*American Association of Petroleum Geologists*

*West Texas Geological Society*

*Riley Geological Consultant's, Inc.*

*GeoSearch Logging*

*Halliburton Energy Services, Inc.*

*AGIA Insurance Services/Geocare Benefits Insurance Program*

*Suttles Logging, Inc.*

*TGS Geological Products & Services*

*Horizontal Solutions International*

*GRC and Midland Map Company*

*University Lands*

*Knowledge Reservoir LLC*

*IHS Energy*

*Schlumberger*

*Abilene Geological Society/Desk and Derrick*

*CoreCraft, etc*

*Drillinginfo.com*

*Neuralog*

*Seismic Micro-Technology, Inc.*

*Petroleum Technology Transfer Council*

*OMNI Laboratories*

*Oil States Trading, LLC*

## Technical Talks and Authors

**Successfully Searching for Spraberry Reservoirs by Integrating Old and New Exploration Techniques, Dawson County, Texas** by *Glenn Winters & Stonnie Pollock*

**Permian Basin – Why So Prolific?** By *Donald P. Mcgooney*

**Reservoir Architecture – Does it Make a Difference When Water Flooding? Parks (Caddo) Field, Stephens County, Texas** by *David J. Entzminger, Lyn Canter, Mark Sonnenfeld, Steve Gardner & David Green*

**Expanding Plays – A Creative Approach: The Barnett Shale West of the Viola Pinchout; The King Sand Play in Concho & Menard Counties; The Tannehill Sand Play in Stonewall & King Counties; And Others** by *Robert Miller*

**The Lower Barnett Shale in the T.U. Blakely #1 & Mitchell T.P. Sims #2 Well, Wise County, Texas: A Moderately Mature Source Rock** by *Geoffrey S. Bayliss, Karl W. Schwab, Michael A. Smith, Gordon D. Wood & Nelson B. Yoder*

**Syn-Organic Slope & Basin Depositional Systems, Ozona Sandstone, Val Verde Basin, Southwest Texas** by *H. Scott Hamlin*

**When Good Logs Lie: Pitfalls of Using Log Correlation in Reservoir Mapping** by *Louis J. Mazzullo*

**Development History & Reservoir Characterization of the “Would Have Limestone”:** A Leonardian Toe of Slope Debris Flow Complex by *Mark D. Sonnenfeld, George Anderson, Cynthia Black, David J. Entzminger, Lyn Canter, Gary L. Feast, Stephen P. Gardner, David T. Green, J. Stephen Harrell & Sue T. Reid*

**The Tobosa & Marathon Basins & The Great American Carbonate Bank Robbery** by *Patricia Wood Dickerson*

**Challenges of Urban Seismic (Barnett Play, Tarrant County, Texas)** by *B. Wayne Hoskins*

**Prediction of the Effect of Diagenetic Alteration on Two Phase Flow Properties in Tight Gas Sands** by *Maryam A. Mousavi & Steven L. Bryant*

**Keep the Basics in Mind** by *Edward L. Dillon*

**Do We Really Have An Oil Problem?** By *Douglas Swift Sr. & Richard Erdlac Jr.*

**Profitability & Optimization of Data Management** by *M. Boussa*

**Exploration in Mature Basin With Satellite Photo Geology** by *Dave Koger*

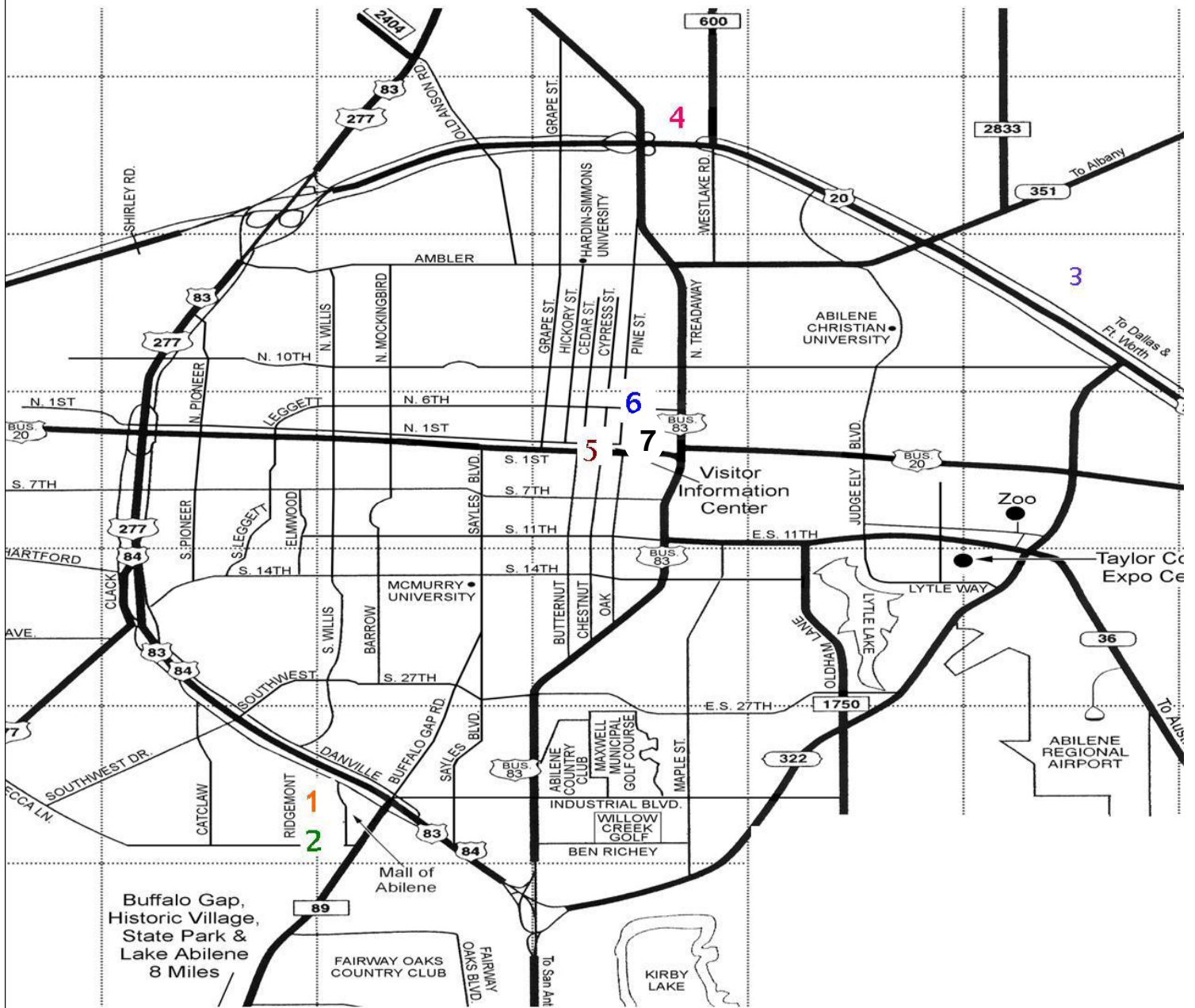
**Thinking Outside the Box (Deep Permeable Strata Geothermal Energy; Solar Augmented Geothermal Energy)** by *Douglas Swift Sr., Richard Erdlac Jr. & Anthony Swift*

**Intelligent Design – A Report** by *Jeffrey A. Jones*

**CO2 And Tertiary Recovery** by *Michael A. Raines*

**Shale Play Economics 101** by *J.M. Party & R.A. Wipf*

*This is a partial listing of talks that will be presented.*



## Accommodations & Convention Locations

Host Hotels for the SW Section Convention 2008 – American Association of Petroleum Geologists

- \* 1 MCM Elegante Suites, 4250 Ridgemont Dr. – 325.698.1234 \$94 / night  
www.mcmelegantesuites.com
- \* 2 Courtyard by Marriot, 4350 Ridgemont Dr. – 325.695.9600 \$94 / night  
www.marriott.com
- \* 3 Holiday Inn Express Hotels & Suites, 1802 E. IH-20 – 325.672.5501 \$89 / night  
www.holidayinn.com
- \* 4 Hampton Inn & Suites, 3526 W. Lake Rd., - 325.673.4400 \$89 / night  
www.abilenesuiteshamptoninn.com
- \* 5 Grace Museum, 102 Cypress St. – 325.673.4587
- \* 6 Abilene Civic Center – site of all meetings, 1100 N. 6<sup>th</sup> St. - 325.676.6211
- \* 7 T&P Event Center – site of dinner/dance, 901 N. 1<sup>st</sup> St. – 325.670.0061

Transportation will **NOT** be provided to & from these locations

**2008 Southwest Section AAPG Convention Registration Form**

February 24 - 27, 2008 Abilene, Texas

Please Print  
NAME

FIRST NAME M. I. LAST NAME

Name for badge \_\_\_\_\_

AAPG Member Yes / No Check Division that you are a member of: \_\_\_DPA \_\_\_EMD \_\_\_DEG

Company Name: \_\_\_\_\_ Title \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_ E-Mail: \_\_\_\_\_

Guest's Name: \_\_\_\_\_ Name for badge \_\_\_\_\_

**Please check as appropriate:** \_\_\_ Speaker \_\_\_ Exhibitor \_\_\_ Sponsor

What I would like to Judge \_\_\_Oral \_\_\_Poster \_\_\_Either

Day I would like to Judge \_\_\_Tuesday \_\_\_Wednesday \_\_\_Either

	By Feb. 15, 2008	After Feb. 15, 2008	Total
Professional Registration	\$145.00	\$170.00	\$
<i>*Registration includes 1 ticket to the Icebreaker</i>			
Single Day professional Registration ___Tuesday ___Wednesday	\$90.00	\$100.00	\$
<i>*Single day registrants can only attend the technical talks and the exhibits for that day</i>			
Spouse/Guest Registration <i>(includes 1 ticket to the Icebreaker)</i>	\$40.00	\$50.00	\$
Student Registration College Attending _____	\$15.00	\$20.00	\$

**Registration for Activities**

	# of Tickets	Fee	Total
Field Trip "Cyclic Deposition of Pennsylvanian and Permian Sediments on the Eastern Shelf" <b>(Limit 40)</b> (Feb. 24)	_____	\$85.00	\$
Short Course <i>(free - meal \$15.00 per)</i>			
Robert Hardage, Instructor <b>(Limit 100)</b> (Feb 25)	_____	\$15.00	\$
Seismic Technologies for Exploiting Strat Traps and Unconventional Reservoirs	_____	\$20.00	\$
Icebreaker <i>(Monday evening in the Exhibit area)</i>	_____	\$20.00	\$
Convention Luncheon - Scott Tinker, BEG Director (Feb. 26)	_____	\$25.00	\$
Tuesday evening dinner-dance	_____	\$20.00	\$
All Division Luncheon - <i>Patricia Wood Dickerson, NASA Consultant</i> (Feb. 27)	_____	\$35.00	\$
Ladies Tuesday Morning Tour "A Truly Texas Experience"	_____		
	Total Amount enclosed		\$

*Exhibitor participation by fee, includes 1 complimentary registration to a designated exhibitor, non-transferrable, 1 complimentary ticket to the icebreaker and 1 complimentary ticket to the Tuesday evening dinner-dance. Additional icebreaker tickets and Tuesday evening dinner-dance available as listed above.*

Exhibitor (Company Name): \_\_\_\_\_

Name of Company Representative: \_\_\_\_\_

Number of exhibitor ribbons needed to access only the exhibitor area: \_\_\_\_\_

Make check payable to: Abilene Geological Society SWS Convention 2008

Mail to: Geological Research Center  
Audra Horton  
1157 North 5th  
Abilene, TX. 79601

**PAYMENT MUST ACCOMPANY REGISTRATION FORM** *No refunds after February 19, 2008*

# Survivors: Rediscovery in a Mature Area

AAPG Southwest Section 2008 Convention

Golden Anniversary

Abilene, Texas

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*ABILENE GEOLOGICAL SOCIETY*

P. O. Box 974

Abilene, Texas 79604

