Co-sponsored by the SIPES National Organization & SIPES Fort Worth Chapter

HILTON HEAD ISLAND, SOUTH CAROLINA

April 27-30, 2009

46th Annual Meeting & 2009 Convention

Co-sponsored by the SIPES National Organization & SIPES Fort Worth Chapter

Five States Energy Capital works with independent producers to acquire, develop, exploit, and service producing properties. Mezzanine capital can be an attractive part of your project financing plan. Let us show you why Five States is your best business partner.

For more information:
capitalinfo@fivestates.com

www.fivestatesenergycapital.com

214.560.2571
SIPES 2009 Convention at a Glance

MONDAY
April 27

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

8:00-9:45 a.m.  
SIPES Foundation BOD Meeting & Continental Breakfast

10:00 a.m.-2:00 p.m.  
SIPES BOD Meeting

10:00 a.m.-12:00 Noon  
Chapter Chairmen’s Meeting

10:00 a.m.-12 Noon  
SIPES Presidents’ Council Meeting

12:00 Noon-1:00 p.m.  
Lunch for Board of Directors, Chapter Chairmen, & Past Presidents

1:30-5:00 p.m.  
Hospitality Suite Open

2:30-5:00 p.m.  
SIPES Foundation Seminar — “Advanced Lawsuit Protection, Tax Reduction, and Estate Planning Strategies”

6:00-8:00 p.m.  
Icebreaker

TUESDAY
April 28

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

8:30-11:45 a.m.  
Technical Sessions

9:00 a.m.-4:30 p.m.  
Hospitality Suite Open

9:30 a.m.-12:30 p.m.  
Beaufort Tour

9:30 a.m.-4:30 p.m.  
Downtown Savannah Tour with Shopping & Lunch

12:00 Noon-1:15 p.m.  
All-Convention Luncheon, Speaker & Annual Business Meeting

1:30-4:30 p.m.  
Technical Sessions

1:30-4:30 p.m.  
Nature Boat Cruise

6:30-9:30 p.m.  
SIPES Awards Banquet

WEDNESDAY
April 29

8:30 a.m.-12:00 Noon  
Registration

8:30 a.m.-12:00 Noon  
Technical Sessions

9:00 a.m.-4:30 p.m.  
Hospitality Suite Open

9:30 a.m.-12:30 p.m.  
Savannah House Museum Tour

1:30-4:30 p.m.  
Technical Sessions

1:30-4:30 p.m.  
Bluffton Tour with Tea at Rose Hill Mansion

6:30-9:00 p.m.  
Cornerstone Group Reception (by invitation only)

THURSDAY
April 30

9:30 a.m. - 6:30 p.m.  
Post-Convention Field Trip to Fort Pulaski and other Civil War sites

Cover photos courtesy of Hilton Head Chamber of Commerce.

Newark Energy LLC
Experts in Shale Gas Plays
Fort Worth Club Tower  
777 Taylor St., Suite 902  
Fort Worth, TX 76102
Tel 817.529.4500  
Fax 817.529.4504  
www.newarkenergy.net
COTTON BLEDSOE TIGHE & DAWSON, PC
Attorneys at Law

Legal Services to the Oil & Gas Industry
Serving Clients Throughout Texas and New Mexico

- Acquisitions/Divestitures
- Title Examination
- Complex Oil & Gas Litigation
- Private & Public Offerings
- Oil and Gas Contracts
- Commercial Litigation

- Labor & Employment
- Wealth Preservation
- Oil Field & Pipeline Accidents
- Business Entity Formation
- Access & Right-of-Way
- Energy Lending

(432) 684-5782 • (800) 725-7009
www.cottonbledsoe.com
Table of Contents

SIPES Foundation Seminar .............................................................. 5
Convention Schedule ................................................................. 6
Floor Plans/Area Map ................................................................. 9
Convention Activities - Registered Events ................................. 11
SIPES Post-Convention Field Trip ............................................... 12
SIPES 2009 Convention Committee ........................................... 13
SIPES Awards Banquet ............................................................... 15
Convention Tours & Events ......................................................... 16
SIPES 2009-10 Cornerstone Group ............................................. 20
Technical Program ..................................................................... 23
SIPES 2009 Convention Gold & Silver Sponsors ....................... 24
SIPES Chapter Chairmen ............................................................ 25
SIPES 2008-09 Board of Directors ............................................. 25
Advertiser Listing ..................................................................... 26
SIPES Foundation Donor Awards ............................................... 27
Golfing Information ................................................................. 29
Technical Session Speakers — Abstracts & Biographies ............... 31
Learn to structure your business for lawsuit protection and prevention, reduce your liability insurance costs, minimize your taxes, and create a successful estate and business succession plan.

Larry Oxenham is one of America's top asset protection experts, having helped thousands of professionals achieve financial peace of mind by teaching them how to properly structure their assets for lawsuit protection and tax reduction. He has authored and co-authored several articles and books on the subject including *The Asset Protection Bible*. Larry Oxenham is a nationally-recognized speaker who has trained thousands of professionals at conventions, conferences and seminars across the country.
## Convention Schedule

Unless otherwise noted, all meeting rooms are in the Harbour Town Conference Center. See floor plan on page 9.

### Monday, April 27

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 a.m. - 5:00 p.m.</td>
<td>Registration</td>
<td>Foyer A</td>
</tr>
<tr>
<td>8:00 - 9:45 a.m.</td>
<td>SIPES Foundation BOD Meeting &amp; Continental Breakfast</td>
<td>Palmer Room</td>
</tr>
<tr>
<td>10:00 a.m. - 2:00 p.m.</td>
<td>SIPES BOD Meeting</td>
<td>Watson Room</td>
</tr>
<tr>
<td>10:00 a.m. - 12:00 Noon</td>
<td>Chapter Chairmen’s Meeting</td>
<td>Palmer Room</td>
</tr>
<tr>
<td>10:00 a.m. - 12:00 Noon</td>
<td>SIPES Presidents’ Council Meeting</td>
<td>Irwin Room</td>
</tr>
<tr>
<td>12:00 Noon - 1:00 p.m.</td>
<td>Lunch for Board of Directors, Chapter Chairmen, &amp; Past Presidents</td>
<td>Heritage Room</td>
</tr>
<tr>
<td>1:30 - 4:30 p.m.</td>
<td>Hospitality Suite Open</td>
<td>Tartan Room A</td>
</tr>
<tr>
<td>2:30 - 5:00 p.m.</td>
<td>SIPES Foundation Seminar</td>
<td>Palmer/Irwin Rooms</td>
</tr>
<tr>
<td>6:00 - 8:00 p.m.</td>
<td>Icebreaker</td>
<td>Fountain Terrace</td>
</tr>
</tbody>
</table>

### Tuesday, April 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 a.m. - 4:30 p.m.</td>
<td>Registration</td>
<td>Foyer A</td>
</tr>
<tr>
<td>8:30 - 11:45 a.m.</td>
<td>Technical Sessions</td>
<td>Palmer/Irwin Rooms</td>
</tr>
<tr>
<td>9:00 a.m. - 4:30 p.m.</td>
<td>Hospitality Suite Open</td>
<td>Tartan Room A</td>
</tr>
<tr>
<td>9:30 a.m. - 12:30 p.m.</td>
<td>Historic Beaufort Tour</td>
<td>(Inn at Harbour Town)</td>
</tr>
<tr>
<td>9:30 a.m. - 4:30 p.m.</td>
<td>Savannah Tour with Shopping &amp; Lunch</td>
<td>(Inn at Harbour Town)</td>
</tr>
<tr>
<td>12:00 Noon - 1:15 p.m.</td>
<td>All-Convention Luncheon, Speaker &amp; Business Meeting</td>
<td>Stewart Room</td>
</tr>
<tr>
<td>1:30 - 4:30 p.m.</td>
<td>Technical Sessions</td>
<td>Palmer/Irwin Rooms</td>
</tr>
<tr>
<td>1:30 - 4:30 p.m.</td>
<td>Nature Boat Cruise</td>
<td>Stewart Room</td>
</tr>
<tr>
<td>6:30 - 9:30 p.m.</td>
<td>SIPES Awards Banquet</td>
<td>Stewart Room</td>
</tr>
</tbody>
</table>
Wednesday, April 29

8:30 a.m. - 12:00 Noon Registration Foyer A
8:30 a.m. - 12:00 Noon Technical Sessions Palmer/Irwin Rooms
9:00 a.m. - 4:30 p.m. Hospitality Suite Open Tartan Room A (Inn at Harbour Town)
9:30 a.m. - 12:30 p.m. Savannah House Museum Tour
9:30 a.m. - 3:30 p.m. Daufuskie Island Tour & Lunch
1:30-4:30 p.m. Technical Sessions Palmer/Irwin Rooms
1:30 - 4:30 p.m. Bluffton Tour with Tea at Rose Hill Mansion
6:30 - 9:00 p.m. Cornerstone Group Reception (by invitation only)

Thursday, April 30

9:30 a.m. - 6:30 p.m. Post-Convention Field Trip to Fort Pulaski and other Civil War sites

Arlen L. Edgar
OIL & GAS PROPERTIES
Gomez Remainder Trust

16603 Dundrennan Lane
Dallas, TX 75248
Workstation (972) 386-3433
Office (972) 233-6717
Cell (214) 797-2444
E-Mail: doodlebobb@aol.com

George N. May & Associates
Consulting Geologists and Paleontologists

William S. Grubb
201 Heymann Blvd.
P.O. Box 51838
Lafayette, LA 70505
Office (337) 234-3379
Fax (337) 234-3389
Home (337) 235-1923

COG, Inc.
Coppedge Oil & Gas, Inc.

Rex D. Coppedge
President
372 Southern Hills Dr.
Fairview, Texas 75069
MADDOX OIL PROPERTIES, INC.

OIL & GAS EXPLORATION AND INVESTMENTS

MARC MADDOX

203 West Wall Street
Suite 702
Midland, Texas 79701

P.O. Box 2986
Midland, Texas 79702
maddoxoil@netscape.net

BUS (432) 683-5015
FAX (432) 683-5468
RES (432) 697-2091

OIL INFORMATION LIBRARY
OF
FORT WORTH

500 W. 7th Street, Unit 7
Suite LL-150
Fort Worth, Texas 76102
(817) 332-4977
oilfw@swbell.net
http://www.oilfw.org
Librarian: Roy R. English

Please contact Roy for membership
information and research services.

Your source for historical well information
in the Fort Worth Basin and beyond!
Welcome to Hilton Head
American Shoreline, Inc.

Specializing in
Oil & Gas Exploration
& Wind Energy

Compliments of

Paul Strunk, President
Patrick Nye, VP Exploration

802 N. Carancahua
Frost Bank Plaza, Suite 1250
Corpus Christi, Texas 78470
(361) 888-4496

www.amshore.com
Entrance to Meeting Events
Entrance to all meeting events will be by convention name badge. You can purchase extra tickets for various convention activities. Tickets will be required for all spouse tours, the SIPES Foundation seminar, the awards banquet, and post-convention field trip.

Icebreaker
Monday, April 27
6:00-8:00 p.m.

Meet with friends and colleagues while enjoying outstanding hors d’oeuvres and drinks at the 2009 Convention Icebreaker. Each registrant will receive two complimentary drink tickets. A cash bar will also be available.

Hospitality Room
Monday, April 27, 1:30-5:00 p.m.
Tuesday, April 28, 9:00 a.m. - 4:30 p.m.
Wednesday, April 29, 9:00 a.m. - 4:30 p.m.

Welcome to Hilton Head! Here you will find a continental breakfast in the morning and light beverages during the day, along with general information on activities for registered members and spouses/guests. A special gift is available for registered spouses/guests.

All-Convention Luncheon & Annual Business Meeting
Tuesday, April 28
12:00-1:15 p.m.

“Salt Marsh, Water and Sand, Physical Features Overcome by Federal Engineers in the Department of the South 1861-1865”
by Dr. Stephen R. Wise
Director, U.S. Marine Corps Museum
Parris Island, South Carolina

Warfare occurs in all climates and terranes. When Federal forces occupied the Sea Islands around Port Royal they were faced with dealing with an environment that contained elements such as sand beaches, salt marsh and fresh water swamps. In carrying out their campaigns against Savannah and Charleston, the Union engineers had to construct unique fortifications in order to accomplish their goals. Our luncheon speaker will discuss some of these batteries, how and why they were built; the experiences of the men who built and manned them; and the fortifications used in two of the most fascinating campaigns of the Civil War: the bombardment and capture of Fort Pulaski in April 1862, and the attack on Charleston during the summer of 1863. Also mentioned will be the fate of some of the area’s fortifications and recent attempts to preserve them. (See Page 13 for speaker biography.)

This event is included in the registration fee for members and non-members, but not for spouses or guests. You may purchase additional lunch tickets for your spouse or guest on the registration form.
Thursday, April 30
9:30 a.m. — 6:30 p.m.
Cost: $125 per person ($150 after 3/26/09)

Fort Pulaski and Sherman’s March into South Carolina
Conducted by Dr. Stephen R. Wise, Director
U.S. Marine Corps Museum at Parris Island, South Carolina

Dr. Stephen Wise will expand on his All-Convention Luncheon presentation about the attack on Fort Pulaski. Participants will travel by bus to Fort Pulaski near Savannah; it is the finest surviving example of a Civil War era masonry fortification. You’ll learn about the fort’s construction on a mud island, and the attack that captured the fort in April 1862. Then our tour will follow the route of General William Tecumseh Sherman’s left wing - the Army of Georgia - on its initial foray into South Carolina. Sherman and his soldiers have long been considered villains, but their strike into South Carolina had to overcome physiographic challenges that we rarely hear about. You’ll learn about many examples of military ingenuity, and how it overcame physiographic features present during this march. These natural barriers, as employed by the Confederates in their defensive scheme, could have prevented Sherman from achieving his objective. But, by utilizing the resources at his disposal, his army was able to overcome these barriers and effect an outcome favorable to the Union cause.

We’ll follow the advance of the Federal soldiers through the low country swamps and into the coastal plan sand hills. A stop will also be made at the historic town of Robertville before going on to River’s Bridge State Park where the Confederates attempted to delay Sherman’s right wing - the Army of Tennessee - at the crossing of the Salkehatchie River. After a tour of the battlefield, the trip will follow, in reverse, the movement of Frank Blair’s 17th Corps from River’s Bridge to the railroad station of Yemassee, South Carolina. If time permits, you will also stop at the Sheldon Church ruins, the site of the first Greek Revival structure in the colonies. (See Page 13 for speaker biography.)

Tour will include round-trip bus transportation, entry fees, boxed lunch, soft drinks and bottled water.
Dr. Stephen R. Wise, who will speak at the All-Convention Luncheon and lead the Post-Convention Field Trip, is an historian who lives in Beaufort, South Carolina, is the director of the museum and the cultural resource manager for the Marine Corps Recruit Depot located at Parris Island, South Carolina. A native of Toledo, Ohio, Dr. Wise received his bachelor’s degree from Wittenberg University and a master’s degree from Bowling Green State University. He was drawn to the University of South Carolina to study under the direction of the late Thomas L. Connelly, the noted Civil war historian, under whom Wise earned his doctoral degree.

Dr. Wise’s first book, *Lifeline of the Confederacy: Blockade Running During the Civil War*, was highly acclaimed as a comprehensive account of the Confederate effort to deliver supplies through the northern blockade. A second book entitled *Gate of Hell: The Campaign for Charleston Harbor 1863*, covers the 1863 Campaign that found northern troops battling on Morris Island for the control of Charleston harbor, was published by the University of South Carolina Press in June 1994. *Gate of Hell* was given an award by the South Carolina Historical Society as the best book written in 1994 on South Carolina History.

A well-known lecturer, Dr. Wise has been the featured speaker on Cunard cruise liners and on Windspirit cruises. He has appeared on the A&E Channel, the History Channel and the Discovery Channel, as well as appearing in various South Carolina Education Television productions. He wrote the screen narrative for the Gilded Age Productions film *American Iliad: The Siege of Charleston*, a docufilm on the Civil War in the Charleston area.

He has received the Daughters of the American Revolution History Medal Award for his service in promoting the history of the United States, and in 1996 he was awarded the Department of the Navy's Cultural Resources Management Award for individual excellence. His cultural resources programs have won three Department of the Navy and one Department of Defense awards for excellence. He teaches history as an adjunct professor at the Beaufort campus of the University of South Carolina, and has three times received the adjunct faculty member of the year award. He also serves as an advisor to the South Carolina Battleground Preservation Trust, and is currently serving on the board of the Beaufort County Historical Society.
MacKenzie Land & Exploration, Ltd

Peter MacKenzie, CPG, SIPES #2991
Martin R. Shumway, PE, SIPES #3162

P.O. Box 166
660 High St., Suite 201
Worthington, OH 43085

orc.: 614-785-1682
cfax: 614-429-6851
pete@mackex.com
marty@mackex.com

Oro Quay Corporation

Satellite Data Processing and Analysis
Oil & Gas Exploration

Consulting
Photogeology
Expert Witness
Training & Seminars
www.davekoger.com

David G. Koger
3152 Waits Avenue
Ft Worth, TX 76109-2330
817-921-6825 (RITS)
dkoger@aol.com
SIPES Awards Banquet

Tuesday, April 28
6:30-9:30 p.m.
Cost: $75 per person

Meet new colleagues, and renew old acquaintances at the relaxing, fun-filled SIPES Awards Banquet. In addition to entertainment, you’ll have an opportunity to enjoy cocktails, followed by a delicious dinner, and an awards ceremony honoring members who have an outstanding history of service in the SIPES organization. Winning tickets will also be drawn in the SIPES Foundation’s No Hassle Raffle. You’ll enjoy this festive evening in Hilton Head.

Evelyn W. Moody, #600, a former Houston Chapter member, will be posthumously awarded SIPES Honorary Membership, the Society’s highest award. During the forty-six year history of SIPES, it has only been presented on twenty previous occasions.

Brian S. Calhoun, #1586, of Corpus Christi, Texas, will receive the SIPES Outstanding Service Award to recognize his many contributions to the SIPES National organization, and to his local chapter.

NAUMANN OIL AND GAS, INC.

“Oil and Gas Exploration and Production”

H. Jack Naumann, Jr.
President

P.O. Box 10159
Midland, TX  79702
E-mail: naumann1956@sbcglobal.net

Off.: 432-683-5051
Fax: 432-682-6818
Mobile: 432-638-5050
2009 Convention Tours & Events

Tuesday, April 28

Historic Downtown Savannah Tour with Shopping and Lunch
9:30 a.m.-4:30 p.m. — $200.00 per person

Depart Hilton Head Island for Savannah by bus. Upon arrival you will enjoy this leisurely tour that covers a lot of ground as you explore the city's architectural gems and historic landmarks. Included will be a stop at an elegantly-restored historic home museum, and the breathtaking 19th Century Gothic cathedral of St. John the Baptist.

Lunch will be served at Mrs. Wilkes Dining Room, a Savannah tradition starting in 1943. Enjoy a Southern-style lunch that includes homemade buttermilk biscuits, crispy fried chicken, squash casserole, butter beans and mashed potatoes; these are just a few of the many items you can expect to see on the table!

Then it’s on to Bull Street, Broughton Street, and the City Market to enjoy shopping in the many unique downtown boutiques. Savannah is sometimes explored best on foot, so be sure to wear your comfortable walking shoes!

Tour includes round-trip bus transportation, city tour, professional tour guide, admission to one house museum, lunch, bottled water, taxes, gratuities, and City of Savannah Preservation fee.

Nature Boat Cruise
1:30-4:30 p.m. — $260.00 per person

You will be picked up by bus at the Inn at Harbour Town and taken to the marina where we will board a climate-controlled boat for a two-hour tour of the Pinckney Island Wildlife Refuge. This fabulous tour circumnavigates one of the Lowcountry’s finest natural treasures. You’ll see dolphins, a wide variety of birds, and other wildlife. The tour is narrated, and is on calm water.

Tour includes round-trip bus transportation, exclusive use of the tour boat, professional tour guide, bottled water, taxes and gratuity.

Daufuskie Island Tour and Lunch
9:30 a.m.-3:30 p.m. — $300.00 per person

You will be picked up at the hotel and taken by bus to the marina for a boat ride to Daufuskie Island. The island’s recorded history traces back to Pre-Revolutionary War times. It was also home to a sizable population of Gullah inhabitants from the end of the Civil War until very recently. Gullah are the descendants of freed slaves. Sallie Ann Robinson will welcome you to this island that is only reachable by
boat. She is a native of Daufuskie Island, and an accomplished author of cookbooks focusing on Gullah cuisine. She is a treat to be with, and always a hit with visitors.

Daufuskie Island also has two historic lighthouses and a wide variety of nature and animal life including the fox squirrel and the American Bald Eagle. You will enjoy lunch at one of the local restaurants on the island.

Tour price includes round-trip transportation to the marina, exclusive use of the boat, professional tour guide on Daufuskie Island, island transportation, lunch, bottled water, taxes, and gratuities.

Savannah House Museum Tour
9:30 a.m.-12:30 p.m. — $175.00 per person

From our headquarters hotel on Hilton Head Island, this tour will travel by bus to Savannah to view two historic homes. The Andrew Low House, designed by New York architect John Norris, was built in 1847 and sits on beautiful Lafayette Square. Low was involved with cotton, and also had a shipping company that transported cotton between Savannah and Liverpool. When he moved into his new home in 1849, Low was considered to be the richest man in the city. After his death, the home transferred to his son who married Juliette Gordon Low, founder of the Girl Scouts of America.

Our second stop will be The Mercer House, also designed by John Norris for General Hugh W. Mercer, great-grandfather of lyricist, composer and singer Johnny Mercer. Construction began in 1860, was interrupted by the Civil War, and later completed circa 1868 by a new owner. In 1969, Jim Williams, one of Savannah’s earliest private restorationists, bought the then vacant house and began a two-year restoration. This house is one of fifty that Mr. Williams saved during his long career in historic restoration in the Savannah area. The Mercer House is now owned by Mr. Williams' sister and still contains Mr. Williams' extensive private art and antique collections.

You will be picked up at our hotel and travel by bus to Bluffton Township. Settled in 1825 as a summer resort for rice and cotton plantation owners, Bluffton features Antebellum homes, B&Bs, churches, quaint shops and restaurants.

You will visit the Heyward House Historic Center, a museum furnished with period pieces, exhibitions, and a research library dedicated to Bluffton’s rich and interesting heritage. The center was built as a summer home around 1840, and is an outstanding example of early Carolina farmhouse style.

We will continue on to Rose Hill Mansion. This fine Gothic Revival home has served as a backdrop to many faces and lives that tell the fascinating history of this area of South Carolina. Rose Hill Plantation, part of the Devils’s Elbow Barony, was granted to Sir John Colleton by King Charles II in 1718. Construction on the Rose Hill house was started in the late 1850s by planter and physician, Dr. John Kirk. Work was halted by the Civil War. Although the house was occupied after the war, the economy made it impossible to complete the interior.

After several owners, efforts of restoration and a house fire, Rose Hill Plantation House was purchased by the Middleton White Foundation in the mid 1990s and has been restored as a private home.

Historic Bluffton Tour with Tea at Rose Hill Mansion
1:30-4:30 p.m. — $175.00 per person

You will be picked up at our hotel and travel by bus to Bluffton Township. Settled in 1825 as a summer resort for rice and cotton plantation owners, Bluffton features Antebellum homes, B&Bs, churches, quaint shops and restaurants.

You will visit the Heyward House Historic Center, a museum furnished with period pieces, exhibitions, and a research library dedicated to Bluffton’s rich and interesting heritage. The center was built as a summer home around 1840, and is an outstanding example of early Carolina farmhouse style.

We will continue on to Rose Hill Mansion. This fine Gothic Revival home has served as a backdrop to many faces and lives that tell the fascinating history of this area of South Carolina. Rose Hill Plantation, part of the Devils’s Elbow Barony, was granted to Sir John Colleton by King Charles II in 1718. Construction on the Rose Hill house was started in the late 1850s by planter and physician, Dr. John Kirk. Work was halted by the Civil War. Although the house was occupied after the war, the economy made it impossible to complete the interior.

After several owners, efforts of restoration and a house fire, Rose Hill Plantation House was purchased by the Middleton White Foundation in the mid 1990s and has been restored as a private home.

Tour price includes round-trip bus transportation, professional tour guide, Heyward House Museum entrance fees, exclusive tour of Rose Hill Mansion, afternoon tea, bottled water, taxes, and gratuity.

Terms: There will be no tour refunds. All tours are non-transferable. Only a limited number of tour reservations are still available. Please check with the registration desk.
Xplore would appreciate the opportunity to review your available project(s). We take ground floor and promoted deals, operated or non-operated. Xplore prefers non-pipe, onshore, geophysically supported projects with drilling depths less than 12,000’.

Please contact Phil Carlisle, or Keith Vickers at 817.810.1244.

Xplore Oil & Gas, LLC
Xplore Operating, LLC
801 Cherry Street, Suite 2355, Unit 10
Fort Worth, TX 76102
817.810.1244 fax 817.810.1240
XOGLLC.COM
ENERGY CAPITAL - UPSTREAM & TECHNOLOGY
BUSINESS PLANS & PROJECT FUNDING

Reserve Assessment
- Volume
- Reservoir Allocation
- Composition
- Market
- Rec Optimization

Legal
- Concession Agreement
- Joint Operating Agreement
- Construction Agreement
- Offtake Agreement
- Funding Agreement

Drilling Plan
- Technology, Proven, Advanced
- Local Experience
- Domestic/Foreign Supplier
- Drilling Options/Cost
- Risk Assessment

Production Forecast
- Sensitivity
- Efficiency
- Economics
- Concession Agreement

Business Plan
- Project Reserves/Production
- Development Plan
- Capital and Operating Costs
- Crude Marketing
- Legal Structure
- Financing Plan
- Financial Analysis
- Risk Evaluation

Development Plan
- Facilities/Transport
- Conceptual -> Detailed
  - Schedule
  - Environment
  - Domestic/Foreign Sup
  - Capital vs Lease
- Operations Plan
  - Kickoff
  - Construction
  - Production
- Capital & Operations Cost

Market Demand
- Product Quality
- Market Capacity
- Purchase
- Location End User
- Product Value Hedge
- Currency Convertibility
- Offtake Contracts
- Transport/Storage

Financial Analysis
- Assumptions
- Stochastic
- Project
- Partners

Financing Plan
- Funding Availability/Cost
- Source/Cost
  - Onshore/Offshore
  i. Commercial
  ii. Mezzanine
  iii. Industry
  iv. Service/Supplier
  v. Purchaser
- Collateral, Pre, Post Comp.
- Project
- Partners - Several/Club

Project Risk Assessment
- Sale Price - Product
- Cost Overruns/Delays
- Operating Costs
- Reserves/Rate
- Engineering Design/Experience
- Environment
- Natural Hazards
- Abandonment
- Sponsor Credit Worthiness
- Political Risk
- Joint Operating Agreement
- Concession Agreement

Reserve Categorization
- Book Reserves
- Finance Reserves
- Managing the Result

MOYES & Co.

Chris Moyes
cmoyes@moyesco.com

Dee Patterson
dpatterson@moyesco.com

Chris Moore
cmoore@moyesco.com

Ian Cross
icross@moyesco.com

www.moyesco.com
Many thanks to the members listed below for their continuing support of our society

**Promoter – $2500**
- H. Jack Naumann, Jr. — Midland, TX

**Oil Finder – $1000**
- Wilbur C. Bradley — Wichita, KS
- William C. Burkett — Midland, TX
- Stewart Chuber — Schulenburg, TX
- Arlen L. Edgar — Midland, TX
- Scott G. Heape — Addison, TX
- Marcus D. Maddox — Midland, TX
- J. Phil Martin — Houston, TX
- Michael A. Pollok — Purcell, OK
- John E. Scherer — Midland, TX
- Paul M. Strunk — Corpus Christi, TX

**Driller – $600**
- Michael N. Austin — Broomfield, CO
- William D. Bennett — San Antonio, TX
- Donald C. Gifford — Dallas, TX
- Owen R. Hopkins — Corpus Christi, TX
- Kenneth J. Huffman — Metairie, LA
- Ralph O. Kehle — Durango, CO
- Harry Ptasynski — Casper, WY
- A. Scott Ritchie — Wichita, KS
- Eugene R. Sidwell — Amarillo, TX
- Gene Van Dyke — Houston, TX
- Clifford A. Walker — Dallas, TX

**Prospector – $300**
- Craig F. Anderson — Houston, TX
- Robert W. Anderson — Houston, TX
- James B. Bennett — Houston, TX
- Raymond N. Blackhall — Spring, TX
- Paul W. Britt — Houston, TX
- Johnnie B. Brown — Corpus Christi, TX
- Brian S. Calhoun — Corpus Christi, TX
- Alfred T. Carleton, Jr. — Midland, TX
- James S. Classen — Boise, ID
- Rex D. Coppege — Fairview, TX
- Michael G. Cruson — Golden, CO
- Ralph J. Daigle — Houston, TX
- Edward K. David — Roswell, NM
- William R. Dixon — Midland, TX
- C. Walter Dobie — Lafayette, LA
- Douglas A. Draves — San Antonio, TX
- Duncan D. Dubroff — Houston, TX
- Ralph C. Duchin — Tucson, AZ
- James P. Evans III — Franklin, LA
- David A. Eyler — Midland, TX
- Robert B. Ferguson — Lake Forest, CA
- William R. Finley — Lafayette, LA
- William T. Goff III — Littleton, CO
- David G. Griffin — Midland, TX
- James H. Henderson — Dallas, TX
- Albert R. Hensley — Rockwall, TX
- Dudley J. Hughes — Flowood, MS
- George S. Johnson — Amarillo, TX
- Larry L. Jones — Houston, TX
- Scott Laurent — Houston, TX
- Robert C. Leibrock — Midland, TX
- Peter MacKenzie — Worthington, OH
- Christophe G. Mazzini — Dallas, TX
- Marvin A. Munchrath — Lafayette, LA
- Robert B. Owen — Corpus Christi, TX
- Gary W. Palmer — San Antonio, TX
- Arthur J. Pansze, Jr. — Arvada, CO
- H. Rudy Parkison — Dallas, TX
- Lloyd K. Parrish, Jr. — Wichita, KS
- Hugh C. Penderly — Dallas, TX
- Lee M. Petersen — Weatherford, TX
- Edward B. Picou, Jr. — New Orleans, LA
- John M. Rakowski — Florissant, CO
- Julius M. Ridgway — Jackson, MS
- James D. Robertson — Fort Worth, TX
- Deborah K. Sacrey — Houston, TX
- C. Randall Schott — Houston, TX
- Jonathan B. Selby — Austin, TX
- D. Craig Smith — Midland, TX
- Daniel L. Smith — Houston, TX
- Thomas J. Smith — Oklahoma City, OK
- William M. Smith — Oklahoma City, OK
- John F. Sulik — Corpus Christi, TX
- C. G. Tyner — Houston, TX
- M. Robin Vasicek — Midland, TX
- H. Vaughan Watkins, Jr. — Madison, MS
- W. David Willig — Houston, TX

**Investor – $100**
- Donald I. Andrews — Metairie, LA
- Michael P. Arden — Navasota, TX
- Norman K. Barker — Midland, TX
- Teresa H. Becker — Houston, TX
- Raul F. Brito — Wichita, KS
- Garnet W. Brock — Midland, TX
- Wallace E. Brunson — Houston, TX
- Robert D. Dougherty — Great Bend, KS
- Marlan W. Downey — Dallas, TX
- Gene Durkee — Fort Worth, TX
- Michael N. Fein — Metairie, LA
- Cliff J. Fontenot — Brenham, TX
- John C. Goss — Houston, TX
- Peter G. Gray — Lafayette, LA
- Mark Gregg — Houston, TX
- William R. Guffey — Dallas, TX
- W. Kenneth Hall — Fort Worth, TX
- Harold W. Hanke — Oklahoma City, OK
- Nolan Hirsch — Midland, TX
- W. Ralph Holloway — Dallas, TX
- J. D. Hughes — Austin, TX
- Michael S. Johnson — Denver, CO
- George R. Jones — Wichita, KS
- William M. Kazmann — Richardson, TX
- Thomas C. Klekamp — Mandeville, LA
- William E. Laroche — Dallas, TX
- Jack P. Martin — Lafayette, LA
- Robert W. Maxwell, Jr. — Corpus Christi, TX
- Louis J. Mazzullo — Golden, CO
- Michael F. McKenzie — Lafayette, LA
- Eric L. Michaelson — Midland, TX
- Carl M. Padgett — Houston, TX
- M. Davis Payne — Midland, TX
- Sam H. Peppiatt — Houston, TX
- Ronald W. Pritchett — Centennial, CO
- John W. Raine III — Lafayette, LA
- Steven R. Russell — Amarillo, TX
- Wayland C. Savre — Houston, TX

(Continued)
Cornerstone Group Continued

Charles D. Schmidt — Valley Center, KS
John T. Schulz, Jr. — Portland, TX
Delmer L. Sloan — Midland, TX
William M. Smith — Houston, TX
Stephen A. Sonnenberg — Golden, CO
Marion E. Spitler — Carrollton, TX
M. R. Stipp — Midland, TX
James P. Talbot — Argyle, TX
Richard W. Thompson, Jr. — Plano, TX
James P. Walker — Oklahoma City, OK
William A. Walker — Austin, TX
Roy C. Walther — New Orleans, LA
William G. Watson — Midland, TX
I. Wayne Woolsey — Wichita, KS
John C. Worley — Rockport, TX

A Scout – $50
Cary N. Billingsley — Midland, TX
Foy W. Boyd, Jr. — Midland, TX
E. Bernard Brauer — Corpus Christi, TX
Herbert L. Brewer — Dallas, TX
David G. Campbell — Oklahoma City, OK
Gene A. Carter — Corpus Christi, TX
William L. Craig — Lafayette, LA
Kent A. Deutsch — Wichita, KS
Jacob D. Eisel — Boulder, CO
Toby Elster — Wichita, KS
Bruce W. Fields — Corpus Christi, TX
Leonard S. Fowler — Richardson, TX
William J. Furlong — New Orleans, LA
Clement E. George — Midland, TX
Eduardo Gonzales — Carrollton, TX
William F. Grauten — Midland, TX
David N. Grimes — Midland, TX
John C. Grunau — Shreveport, LA
Paul E. Habermas — Houston, TX
Stephen F. Hennigan — Lafayette, LA
Dick S. Horton — Edmond, OK
Steven R. Lockwood — Austin, TX
Jeffrey W. Lund — Houston, TX
William J. Malin — New Orleans, LA
W. George Nancarrow — Dallas, TX
Robert M. Owens — Houston, TX
W. Mark Rush — Houston, TX
Roy G. Sharrock — Dallas, TX
Jeffry A. Smith — Midland, TX
Steven R. Trudeau — Dallas, TX

PALUXYRIDGE
CONSULTING
TERRI MAYFIELD-COWAN
PETROLEUM GEOLOGIST/OWNER
SIPES #2858 TBPG #2883
237 COVERED BRIDGE DR.
FORT WORTH TX 76108
OFFICE/CELL: 817-624-7493
tmc@paluxyridge.com

EXPLOITATION/EXPLORATION/ACQUISITIONS
BASINS OF EXPERIENCE:

MIDLAND BASIN/EASTERN SHELF
CENTRAL BASIN PLATFORM
VALVERDE BASIN
DELWARE BASIN
EAST TEXAS BASIN
MIDDLE & LOWER TEXAS GULF COAST

H & L EXPLORATION COMPANY, LLC

GIB BROWN
Geologist - Owner
860/353-4331
860/353-4572 (FAX)
860/282-6647 (CELL)
gibbrown@hotmail.com
5500 MEADOWGREEN
P.O. BOX 7506
AMARILLO, TEXAS 79114

A. T. (TOBY) CARLETON
GEOLOGIST/RANCHER

414 W. Texas, Ste 308
Phone (432) 685-1209
Reply to P. O. Box 293
Midland, TX 79702
Fax (432) 685-1229
e-mail:toby@tocor-inv.com
Phelps Geoscience

Onshore Gulf of Mexico
Geology and Geophysics

Prospect Generation and Evaluation

Jeanne S. F. Phelps
Houston, Texas
SIPES #2509
281/398-5208
Jsfphelps@yahoo.com

We Buy Old Wells
Located in Texas and Oklahoma with potential to increase production through:

- Recompletions
- Waterfloods
- Moving more water, and
- Infield drilling with 3D seismic

George Todd, #2421
Petroleum Engineer
940-668-8100
encore@ntin.net

Bessero Oil Company

Field Supervision
Consulting
Property Acquisition
Drilling
Completion
Production

Robin Vasicek (PEN)

(432) 634-4455 office
(432) 634-4432 office fax
(432) 634-4455 cell
bessero@abcglobal.net

203 W. Wall St. Suite 800 Midland, TX 79701
Mail: P.O. BOX 10948 Midland, TX 79702-0948
Technical Program

Tuesday, April 28

8:30-9:10 a.m. — Rick Turner
Barrow-Shaver Resources Company, Tyler, TX
"The Uncertainty of Carbon Dioxide — Climate Driver or Climate Rider?"

9:10-9:50 a.m. — Dennis Gleason, #2995
Gleason Engineering, Fort Worth, TX
"Geostatistics and Reserve Estimates"

10:05-10:45 a.m. — Wayne Hoskins, #2661
The MapSnapper Group, Euless, TX
"Challenges of Urban Seismic"

10:45-11:45 a.m. — Stephen Henderson
Oxford College of Emory University, Oxford, GA
"Chattanooga to Atlanta: The Significance of Geology on the Atlanta Campaign During the Civil War"

1:30-2:10 p.m. — Jackie Reed
Consultant, Hilton Head, SC
"Devonian and Ordovician Shale Gas Potential in the Appalachian Basin"

2:10-2:50 p.m. — Richard Mason
The Land Rig Newsletter, Fort Worth, TX
"Oil and Gas Supply and Demand"

3:05-3:45 p.m. — Robert Cluff, #1832
The Discovery Group, Inc., Denver, CO
"Shale Gas: Opportunities and Challenges for Independents"

3:45-4:25 p.m. — Tony Weber
Natural Gas Partners, Irving, TX
"Equity Funding, Oil & Gas Business Trends"

Wednesday, April 29

8:30-9:10 a.m. — Andree Griffin
XTO Energy, Inc., Fort Worth, TX
"Urban Drilling in the Barnett Shale"

9:10-9:50 a.m. — Russell Hensley, #2870
Xplore Energy, Fort Worth, TX
"Wind Turbines on Our Land? A West Texas Family’s Experience"

10:05-10:45 a.m. — Bruce Langhus
ALL Consulting, Tulsa, OK
"Produced Water Management and Unconventional Natural Gas Development"

10:45-11:25 a.m. — David Koger
Koger Remote Sensing, Fort Worth, TX
"Low-Cost Prospecting and Logistical Planning with Remote Sensing Photogeology"

11:25 a.m.-12:10 p.m. — Richard Mason
The Land Rig Newsletter, Fort Worth, TX
"U.S. Land Drilling Dynamics"

1:15-1:55 p.m. — Phil Martin, #2390
New Century Exploration, Inc., Houston, TX
"Haynesville Shale Reveals its Secrets"

1:55-2:35 p.m. — Dan Smith, #1647
Sandalwood Oil & Gas, Inc., Houston, TX
"Send in the Clowns...Wait, They’re Already Here!"

2:50-3:30 p.m. — Jimmy Thomas, #2710
Nagual Exploration, LLC, Fort Worth, TX
"The Maturing of the Barnett Shale"

3:30-4:30 p.m. — Jeffrey Wendt
The Eagle Wing Group, Inc., Fort Worth, TX
"Delivering a Message to Garcia — Ethics at its Best"

Speakers and times are subject to change
OFFICERS

President ................................................................. H. Jack Naumann, Jr.
Vice-President ............................................................. Lee M. Petersen
Vice-President of Natural Resources..................................... William R. Finley
Secretary .................................................................... Marc D. Maddox
Treasurer .................................................................... Kenneth J. Huffman

DIRECTORS

Donna F. Balin.................................................................. San Antonio, TX
J.R. “Dick” Cleveland...................................................... Dallas, TX
Michael G. Cruson ............................................................ Denver, CO
Bobby M. Greenwood ..................................................... Dallas, TX
Owen R. Hopkins .......................................................... Corpus Christi, TX
George S. Johnson.......................................................... Amarillo, TX
Peter MacKenzie ............................................................ Worthington, OH
J. Phil Martin, Jr. ................................................................ Houston, TX
Jon B. Selby .................................................................. Austin, TX
Thomas J. Smith ............................................................ Oklahoma City, OK
AIPN — Christopher P. Moyes
Craig W. Adams — Newark Energy, LLC
Michael N. Austin ** — M&M Exploration, Inc.
Robert J. Bell
James B. Bennett — B&S Exploration, Inc.
Raul F. Brito
Gib Brown — H&L Exploration Company, LLC
A. T. Carleton
Philip H. Carlisle — Xplore
Classic Operating Co. LLC * — Rob Jacobs
Rex Coppedge
Cotton, Bledsoe, Tighe & Dawson — Drew Anderson
Arlen L. Edgar
Thomas E. Ewing — Frontera Exploration Consultants
David A. Eyler * — Milagro Resources, Inc.
James A. Gibbs — Five States Energy
Donald C. Gifford
Dennis M. Gleason *
Bobby M. Greenwood
Mark E. Gregg ** — Kiwi Energy
William S. Grubb — George N. May & Associates
Frank W. Harrison, Jr.
James H. Henderson — Geochem Data, Inc.
Owen Hopkins ** — Suemaur Exploration & Production
Kenneth J. Huffman ** — La Bay Exploration Co., LLC
George S. Johnson ** — Sunshine Exploration Co.
David G. Koger
Peter MacKenzie
Marc D. Maddox
J. Phil Martin — New Century Exploration, Inc.
Terri Mayfield-Cowan — Paluxy Ridge Consulting
W. N. McKinney, Jr.

McMoRan Exploration Co. ** — C. H. Murrish
Sally J. Meader-Roberts — Sonshine Exploration
Christopher P. Moyes — Moyes & Co., Inc.
H. Jack Naumann, Jr.
Oil Information Library of Ft. Worth — Roy English
Fred L. Oliver — Petroleum Ventures of Texas, Inc.
Gary W. Palmer — W. B. Osborn Oil & Gas
Lee M. Petersen — Oro Quay Corporation
Jeanne S.F. Phelps — Phelps Geoscience
Pioneer Natural Resources ** — David Sanders
Michael A. Pollok ** — MAP Exploration, Inc.
James D. Robertson — Rannoch Petroleum LLC
Steven R. Russell — S&R Energy, LLC
Schlumberger * — Mauricio Fernandez
Seismic Exchange, Inc. * — Rivie Cary
Seismic Micro-Technology *
Thomas J. Smith — Anvil Geosciences, Inc.
Paul M. Strunk — American Shoreline, Inc.
Al Taylor — Nomad Geosciences
George W. Todd
M. Robin Vasicek — Bessero Oil Company
Victor P. Smith Oil Company, LLC — Jeanne S.F. Phelps
Wagner & Brown, Ltd. — J. Michael Party
Scott A. Wainwright
Cliff Walker — BMNW Resources, LLC
Jeffrey Wendt
Roger West — AutoSol Automation Solutions, Inc.
James M. Zotkiewicz * — Zot Oil & Gas, LLC

* Silver Sponsor
** Gold Sponsor
The SIPES Foundation is pleased to honor donors who, in 2008, reached the following cumulative gift levels:

**EMERALD - $2,500**
- Thornton E. Anderson

**GOLD - $1,000**
- Craig W. Adams
- Michael P. Arden
- Raymond N. Blackhall
- Louis C. Bortz
- Bill D. Broughton
- Marshall C. Crouch III
- Lawrence H. Davis
- Robert T. Halpin
- Dean C. Hamilton
- Richard R. Lindsly

**SILVER - $500**
- David M. Pulling
- Marion E. Spitler
- Paul M. Strunk
- George R. White

- Owen R. Hopkins
- Charlie J. Kosarek
- Marcus D. Maddox
- Henry C. Magee
- Elwin M. Peacock
- Lee M. Petersen
- Wes B. Perry, Jr.
- Richard D. Rinehart
- James D. Robertson
- Roy G. Sharrock
- John D. Sistrunk, Jr.
- Thomas A. Smith
- Richard W. Thompson, Jr.
- Charles Weiner
Wagner & Brown, Ltd.

Oil & Gas Producers

Suite 1100 The Summit
300 North Marienfeld
P. O. Box 1714
Midland, Texas 79702

(915) 682-7936
Houston Office (713) 951-9200

President & Chief Executive Officer
PAUL L. MORRIS
Division Exploration Manager
J. MICHAEL PARTY
Vice President - Land
TED C. MEADE
Operations Superintendent
JERRY L. HAMILTON

Houston Personnel
Division Exploration Manager
JAMES J. OSBORN
Division Land Manager
MANDEL “MANDY” C. SELBER
<table>
<thead>
<tr>
<th>Golfing Information</th>
</tr>
</thead>
</table>
| **Arthur Hills Course**  
*Palmetto Hall*  
Rated 4 Stars *Fodor's Golf Digest*  
866-602-7121  
www.palmettohallclub.com  
Architect: Arthur Hills  
Green Fees: $97-$143  |
| **Hilton Head National**  
843-842-5900  
www.golfhiltonheadnational.com  
Architects: Gary Player & Bobby Weed  
Green Fees: $86-$96  |
| **Harbour Town Golf Links**  
*The Sea Pines Resort*  
Voted #15 Public Course in America by *Golf Digest*  
843-842-8484  
www.seapines.com  
Architect: Pete Dye  
Green Fees: $255  |
| **Heron Point**  
*The Sea Pines Resort*  
843-842-8484  
www.seapines.com  
Architect: Pete Dye  
Green Fees: $140  |
| **Ocean Course**  
*The Sea Pines Resort*  
Showcasing a panoramic ocean view, deep bunkers and lagoons  
843-842-8484  
www.seapines.com  
Architect: Pete Dye  
Green Fees: $120  |
| **Old South Golf Links**  
Top ten new public courses of 1992  
843-785-5353  
www.oldsouthgolf.com  
Architect: Clyde Johnston  
Green Fees: $80-$95  |
| **Oyster Reef Golf Club**  
*Hilton Head Plantation*  
4 Stars by 2008-2009 *Golf Digest*  
843-689-GOLF  
www.hiltonheadgolf.net  
Architect: Rees Jones  
Green Fees: $88-$109  |
| **Palmetto Dunes Resort**  
*George Fazio Course*  
Regarded by many as the most challenging course on Hilton Head Island  
866-310-6014  
www.playpalmettodunes.com  
Architect: George Fazio  
Green Fees: $59-$109  |
| **Palmetto Golf Course**  
*Port Royal*  
843-681-1760  
www.hiltonheadgolf.net  
Architect: George W. Cobb  
Green Fees: $93-$131  |
| **Country Club of Hilton Head**  
*Hilton Head Plantation*  
U.S. Open Qualifying Site - 2005  
Rated 4 Stars by *Golf Digest*  
843-681-2582  
www.hiltonheadclub.com  
Architect: Rees Jones  
Green Fees: $79-$109  |
| **Crescent Pointe**  
843-706-2600  
www.crescentpointegolf.com  
Architect: Arnold Palmer  
Green Fees: $65-$92  |
| **Crescent Pointe Course** & *Championship Course*  
912-966-0674  
www.crosswindsgolfsavannah.net  
Green Fees: $50-$60  |
| **Eagle's Point**  
843-757-5900  
www.eaglespointegolf.com  
Architect: Davis Love III  
Green Fees: $55-$79  |
| **Golden Bear Golf Club**  
*Indigo Run*  
843-689-2200  
www.goldenbear-indigorun.com  
Architect: Nicklaus Design  
Green Fees: $69-$99  |
| **Palmetto Dunes Resort**  
*Robert Trent Jones*  
*Oceanfront Course*  
843-689-GOLF  
www.hiltonheadgolf.net  
Architect: Willard Byrd  
Green Fees: $80-$99  |
| **Palmetto Dunes Resort**  
*Robert Cupp Course*  
*Palmetto Hall*  
Rated 4 Stars by *Fodor's Golf Digest*  
843-689-4100  
www.palmettohallclub.com  
Architect: Robert Cupp  
Green Fees: $99-$145  |
| **Palmetto Dunes Resort**  
*Robber's Row Course*  
*Port Royal*  
800-2-FIND-18  
www.hiltonheadgolf.net  
Architects: George Cobb & Pete Dye  
Green Fees: $80-$99  |
| **Shipyards Golf Club**  
*Shipyard*  
843-689-GOLF  
www.hiltonheadgolf.net  
Architects: George Cobb & Willard Byrd  
Green Fees: $62-$99  |

*All prices are subject to change*
Shale gas projects were one of the hottest, very likely the hottest, plays in North America in 2007 and 2008. Led by several large independent companies including Chesapeake Energy, Devon, Southwestern Energy, EOG, XTO and many others, activity was seen in almost every basin with thick, mature source rock shales. NAPE and other prospect expos have been dominated by shale gas deals for several years now. Major companies held back until relatively recently, with significant shale gas efforts announced by ExxonMobil, BP, and ConocoPhillips in 2008. Success has been limited to just a few of the many shale plays tested thus far, most importantly the Ft Worth basin Barnett Shale, the Arkoma basin Woodford and Fayetteville Shales, and more recently the Appalachian basin Marcellus Shale and Texas-Louisiana Haynesville Shale. Other shale plays seem to struggle to gain a footing, such as the Delaware basin Barnett-Woodford play, Black Warrior basin Floyd Shale, Illinois basin New Albany Shale, and most of the Cretaceous shales in the Rocky Mountain region.

Shale gas presents both opportunities and challenges for independent producers and prospect generators. Opportunities lie in the enormous lateral extent and continuity of the reservoirs, once the critical geological and completion parameters have been determined the production can usually be extended over huge areas. Local variations in structure and reservoir quality that commonly vex conventional prospecting take on a much reduced importance. Challenges lie in the often subtle, perhaps cryptic factors controlling gas content and deliverability. Many plays that pass simple industry screening criteria such as thickness, organic content, maturity, etc. have failed to stand up and deliver. Other challenges include the high level of drilling and completion technology (and capital) required to execute in these plays; difficulties in evaluating areas pre-drill from logs and samples; and what until recently has been a take-no-prisoners leasing environment in the most attractive areas. For small independents, the optimal business strategy appears to be to develop a play concept, identify and lease as much of the prime core area as possible, drill a limited number of "proof of concept" wells, then bundle and sell to a larger player.

Robert Cluff received his B.S. in geology and geochemistry from the University of California at Riverside (1974, high honors) and his M.S. in geology from the University of Wisconsin at Madison (1976). He completed additional graduate studies in geology at the University of Illinois at Urbana-Champaign (1976-1981), in mathematics at the University of Colorado at Denver and physics and mathematics at Metropolitan State College of Denver (1992-present). He was employed as a research geologist in the coal and oil and gas sections of the Illinois State Geological Survey from 1976 to 1981, where his research focused on Devonian shales and carbonate reservoirs of the Illinois basin. From 1981 to 1987 Mr. Cluff was an independent consulting geologist in the Denver area working for various major and independent producers. The Discovery Group was founded by Mr. Cluff in 1987 to focus on the integration of reservoir sedimentology and geologic data with geophysical logs, core petrophysics, and reservoir engineering data. Robert is an active member of AAPG (CPG #3168), SPE (Well Logging Committee), SPWLA (past Chairman Continuing Education Committee), SIPES (Chairman, Denver Chapter), RMAG (past Second Vice President), and the Denver Well Logging Society (past President). He is a registered professional geologist in the states of Wyoming (PG-313) and Illinois.

Dennis Gleason, #2995 — Gleason Engineering, Fort Worth, TX
"Geostatistics and Reserve Estimates"

Geostatistics is the application of the branch of mathematics known as statistical analysis to the science of geology. In this discussion, we will examine how geostatistics can be used as a tool to forecast an estimate of the range of oil and gas recovery for a drilling or development prospect. Selling prospects to investors usually involves answering questions about the likelihood and range of financial return. Inquiries like, "How much capital will be required?; When can I expect payout?; and What is the return on my investment?,” are some of the many questions that a prospector must answer in the course of marketing the drilling opportunity. The success of selling an investor on a drilling idea hinges on how well the prospector is able to support the science with financial facts and analysis. Ultimately, this necessitates a prediction of reserve recovery. Many good prospects never get drilled because the expectation of reserves may appear to be overstated, and frequently won’t stand up to scrutiny by a reservoir engineer. Using the tools of statistics and knowledge of the distri-
bution of natural phenomenon, a prospector can present an estimate of the range of possible reserve recovery that will both support the science and demonstrate the range of financial return to the investor, resulting in the successful conclusion of a transaction to develop the prospector’s idea.

**Dennis M. Gleason** is the president and owner of Gleason Engineering. He holds master of science degrees from the University of Missouri-Rolla, in geological engineering and petroleum engineering. He also holds a bachelor of science degree in geology from Wichita State University. His accumulated professional experience of more than 30 years includes: supervision of drilling and completion operations, oil and gas reservoir optimization studies, petrophysical evaluation and interpretation, fair market evaluation, secondary recovery evaluation, property acquisition and divestiture and business plan development.

Mr. Gleason is a registered professional engineer in the State of Texas. He is also a member of AAPG, SPE, and SIPES. He is also an associate member of AAPL.

**Andree Griffin — XTO Energy, Inc., Fort Worth, TX**

"Urban Drilling in the Barnett Shale"

The Barnett Shale has changed domestic drilling. A unique set of circumstances came together to generate natural gas in a very thick "reservoir" under a very cultured and urban setting. This presentation will take the participants through the depositional evolution of the Barnett and the production and drilling growth. It will address why development of resource play is critical for the United States as a future energy resource.

Technology created the opportunity; the presentation delves into the industry accommodations and technology advances that make drilling in an urban setting possible. Drilling density, unitization, and completion practices will be reviewed. The future of the play will be explored. In a stressed economy will these plays survive and contribute?

**Andree Griffin** is a native of Fort Worth. She graduated from Duke University in 1984 with a B.S. in geology. She received her master’s degree in geology from TCU in 1988. She went to work for Sun Co. in 1987 in Midland after having done an internship with them in Abilene. She worked her way across Texas working the Permian and Eastern Shelf while in Midland. She was transferred to Sun’s Exploration group in Dallas where she worked the Fort Worth Basin. In 1990 she was part of Sun’s Barnett Shale attempt - good idea, a little ahead of it’s time. After the Barnett, she worked the Texas Gulf of Mexico and served as the North American Planner for Sun/Oryx.

In 1994 she achieved one of her primary personal goals - moving back to Fort Worth when she went to work for UPR. She worked Gulf Coast and South Louisiana. From 1998 to 2000 she worked for Burnett Oil Company. She returned to South Louisiana exploration for Wagner Oil from 2000 to 2004.

She joined XTO Energy in 2004 and became the geological manager for the Fort Worth Basin. She is a member of AAPG, FWGS, serves on the Board of the TCU Energy Institute, is an advisor for the Energy Exhibit for the Fort Worth Museum of Science and History, and served as the first female chairman of the FW Wildcatters. She loves this career in geology.

**Stephen Henderson — Oxford College of Emory University, Oxford, GA**

“Chattanooga to Atlanta: The Significance of Geology on the Atlanta Campaign During the Civil War”

Beginning with the natural resources of Chattanooga and ending with the fall of Atlanta, the geological aspects of the Atlanta Campaign figured prominently in Civil War history. From the fall of 1863, when the Federal army broke out of Chattanooga, through the summer of 1864, the campaign through north Georgia was strongly influenced by the geologic structure of the Appalachian Mountains and encompassed all of the geologic provinces. It began in the Cumberland Plateau, continued through the Valley and Ridge, in the Blue Ridge, and terminated in the Piedmont at Atlanta. The nature of the Appalachians, combined with aspects of differential weathering and erosion produced the ridges and valleys that were so important for defensive positions and movement of armies.

Engagements at Lookout Mountain on the Cumberland Plateau and Missionary Ridge in the Valley and Ridge during November 1863 set the stage for Sherman’s move toward Atlanta in May 1864. The Atlanta campaign consisted of a series of strong Confederate defensive positions flanked by Sherman. General Johnston was able to preserve his army while Sherman found that frontal attacks on the Confederate positions failed. In the Valley and Ridge, the strong Confederate defensive position of Rocky Face Ridge in front of Dalton was flanked, causing the Confederates to move to Resaca. In the Blue Ridge, Johnston formed a new line in the rugged Allatoona Mountains, resistant metasandstones and pelites of the Ocoee Supergroup. Sherman chose not to attack this strong position, but to move southwest into the Piedmont. In late June 1864, Sherman, trying to destroy the Confederates, attacked at Kennesaw Mountain in
the Piedmont (underlain by resistant metamorphics) and was badly mauled. Johnston was forced to abandon Kennesaw Mountain when the Federals moved between him and the Chattahoochee River, the last major geographical barrier protecting Atlanta. On July 8 Sherman began crossing the river. Johnston was replaced by the rash General Hood who attacked the Federal army at the battle of Peachtree Creek on July 20 and lost. The battles of Atlanta and Ezra Church followed. After being in command of the Army of Tennessee just ten days, Hood had lost nearly one-third of his infantry. On September 2, 1864 Federal troops occupied Atlanta.

Stephen Henderson, associate professor of geology, was born and grew up in northern New Jersey where childhood fossil hunts and numerous trips to the American Museum of Natural History fueled his passion for paleontology. He attended Indiana University where he earned his B.S. and M.A. degrees in geology with emphasis on stratigraphy and ancient environmental reconstruction. After his master's program, Dr. Henderson worked as a petroleum geologist for Cities Service Oil in their Oklahoma City office.

He received his doctorate from the University of Georgia. His dissertation work on Sapelo Island involved the taphonomy of shell deposits, and he has published work on modern and Tertiary molluscs from the Georgia coast and the Cretaceous and Tertiary of Georgia and Alabama.

Dr. Henderson joined the faculty of Oxford College in 1985. In addition to courses taught during the standard semester, his field courses have become well-known. His Desert Geology course takes students to Big Bend National Park in West Texas. Modern and Ancient Tropical Environments is taught on San Salvador Island in the Bahamas; and Geology and Culture in Scotland explores the connections between geology, landscape, and literature for two weeks. The connections between geology and human endeavor fascinate Dr. Henderson. With the support of an Allen Grant award, he traveled to Britain in 1995 to investigate the relations of British geology to agriculture, cultural development, history, architecture, and literature. The Scotland course developed from this interest.

He has been working on the influence of geology on military history and has published on the French and Indian War, the American Revolution, and the Civil War. He has researched the role of geology in the construction of Forbes Road and the Battle of Bushy Run in western Pennsylvania during the French and Indian War and subsequent Pontiac's War. He has studied the influence of glacial geological landforms on the 1776 Battle of Brooklyn, NY and the role of the Valley and Ridge Province of the Appalachian Mountains on the Chattanooga and Atlanta Campaigns of the American Civil War. He led and wrote the guidebook for the Georgia Geological Society's 1999 field trip on this subject and has published on the Battle of Chickamauga. He currently is researching the role of geology on Harper's Ferry during the Civil War.

Russell Hensley, #2870 — Xplore Energy, Fort Worth, TX
"Wind Turbines on Our Land? A West Texas Family’s Experience"

Alternative energy is a common news topic, but when it comes to your land and its future use, decisions have to be made. The Hensley family has had various acreage blocks on the windy Caprock of the South Plains of West Texas for almost 100 years. This presentation will cover the learning curve from a land surface owner’s standpoint as a wind turbine project was competitively formulated in the area because of dependable wind currents. The main features of a surface lease for wind turbine installation and royalty payments will be discussed with comparisons made to oil and gas leases.

Sparely populated land regions, having historically known windy conditions, have become prime targets for companies interested in large wind turbine projects. Hundreds to thousands of wind turbines are to be connected to main power grids going to metropolitan areas hungry for clean electrical energy. The construction phase of a wind turbine project impacts the local community and the continuous maintenance requirements have a minor influence. The tax base of low populated areas is very much improved because of such an industry. Politically and economically, installations of wind turbines in parts of the country seem to be a practical component of the overall U.S. long-range energy equation. Hopefully, the audience will gain some insight as to the effects of such ventures then perhaps personally evaluate wind turbine projects for themselves.

Russ Hensley has over 40 years experience in petroleum engineering and business experience founded in both major and independent oil company environments. For the last 13 years, Russ has been consulting in the DFW metroplex for a client base of both private and public companies. These services have included property evaluations and acquisitions, technical studies for development and exploration, gas pipeline operations and expansions, and business management technical support.

After growing up in a West Texas “farming and ranching” community, Russ attended and graduated from Texas Tech University in 1968 with a BSME. He worked the first ten years of his career with Amoco as a petroleum engineer with various assignments in East and West Texas. Most of his activities were in field production, secondary recovery, drilling and reservoir performance analysis. Five years of his employment with Amoco was within the international off-shore oil and gas area with extensive operations including platform drilling, exploratory drilling and even an off-
shore waterflood platform. Before leaving Amoco in 1978, he was the sole staff engineering support for the president, the vice president and the production manager in the main office located in Port of Spain, Trinidad, West Indies.

In a shift to a domestic independent oil company, initially Russ worked three years for Texas Pacific Oil Company as the Midland Texas Regional Engineering Manager where both development and exploration drilling were emphasized. With an engineering staff of 25 people, he provided the technical basis for production, drilling and exploration activity associated with an annual $85 to $100 million budget. After Sun Oil Company purchased TP, in 1981 Russ joined American Oil Partners in Dallas were he became executive vice president. His role covered all aspects of oil and gas business including the broader infrastructure of accounting and banking relationships, land and legal, property acquisitions, operating agreements and gas contracts. During the 1980s to 1990, AOP experienced the atmosphere of intense "boom" to the tough financial restrictions and decisions necessary to survive in a declining economic environment.

During 1990 Russ Hensley joined CWF Energy, Inc. as the vice president of operations. In 1993, Russ became the president and chief executive of two companies; CWF Energy, Inc., the general partner of a private company partnership, and Superior Pipeline Corporation, formerly a public company traded on the Vancouver Stock Exchange. These companies eventually sold all their assets by 1996 and dissolved. At that time, Russ entered the consulting arena. Russ was one of the founding members of the Fort Worth Chapter of SIPES.

Wayne Hoskins, #2661 — The MapSnapper Group, Euless, TX

"Challenges of Urban Seismic"

Conducting a 3D seismic exploration program in a fully urban environment is often frustrating to both the operator and the land owners. Each has objectives specific to themselves that are often in conflict. So much time and effort are required to prepare and evaluate the project’s requirements and secure permits, that the participation of a third party consultant may be the most effective use of the operator's time and dollars.

Two methods have been typically used to conduct a 3-dimensional seismic survey. Neither procedure provides flexibility in the field, nor satisfies the operator's exploration objective. The first can be called the rigorous approach. This occurs when a project is designed with strict seismic technical requirements, but little consideration of the obstacles on the ground. The contractors are expected to adhere rigorously to the initial plan. Once those obstacles are encountered, the operator is expected to determine a way to live with it. This leads to conflicting objectives between the contractor and the operator, technically rigorous versus operational efficiency.

The second procedure can be called the serendipity approach. The various contractors are sent to the field with little coordination and simply wander around until a compromised solution develops. Typically, the technical results are degraded; revising the planned activity wastes much time and money; and a feeling of professional proficiency is never established by either party towards each other.

In urban environments the methods mentioned above can be particularly aggravating. As a result the authors propose an Advantage Triangle Model to execute the planning and permit approval process. The process involves five distinct steps:

- Planning the seismic project layout;
- Inventorying the project area for sensitive sites and hazards;
- Planning how to avoid or minimize effects to sensitive area;
- Implementing the protocol used by operational teams on the ground; and
- Monitoring the effectiveness of and adherence to the protocols.

The Triangle is formed between the Public, the Operator, and the Consultant. The advantage is that each party has an expert consultant to address specific requirements in the permitting process as well as the overall project. This paper will examine XTO Energy Inc's River Legacy Project in Tarrant County, Texas as an illustration of this model. In this case the Consultant leg of the triangle was composed of expert consultants representing the fields of permitting, surveying, mechanical vibration monitoring, and seismic design (Consultant). The other two legs of the triangle were completed by the various land owners, state, county, and local governmental entities (Public), and XTO Energy Inc of Fort Worth, Texas (Operator).

The River Legacy Project is located in the cities of Arlington, Euless, and Fort Worth, Texas. The Barnett Shale objective is 8,300 feet deep with an overlying unconformity and known to have significant faulting with possible karsting.

Wayne Hoskins is owner of The MapSnapper Group, a consultancy which specializes in modeling, design and execution of 3D seismic field projects with hundreds of 3D seismic projects over thousands of square miles for dozens of clients throughout the southern U.S. He is a member of SIPES, AAPG, SEG, FWGS and DGGS. He is a licensed professional geoscientist, Texas No. 656, and holds B.S. and M.S. degrees from the University of Texas at Arlington.
David Koger — Koger Remote Sensing, Fort Worth, TX
“Low-Cost Prospecting and Logistical Planning with Remote Sensing Photogeology”

- “Creekology” gets a major boost with space-borne scanners that detail drainages, structures, and tonal anomalies…which may result from the microseepage of hydrocarbons from buried reservoirs over geologic time.
- Very large, regional frameworks are created and firmed up; prospect leads come into focus.
- With the leads thus provided, a subsurface workup gains focus and the wide, open spaces — where your next find has to be — take on illumination to guide your time and other, more expensive tools.
- Digital elevation data, fused with airphotos or high-resolution satellite data, identifies which leases (that you might buy, or shouldn’t buy) coincide with gentle-enough slopes and sufficient area to permit well pads of any size.
- In shale gas areas, at local scales, stress-strain relationships visible at the surface reflect the orientation of fractures in the well bore. This helps to guide the orientation of laterals and maximize enormously expensive frac jobs.

As drilling activity pulls back, many explorationists are using this time to develop new prospects. Remote sensing provides low-cost prospect leads. The subsurface work that takes place then is more focused, and more expensive tools are applied with better care and cost efficiency. Every aspect of the exploration cycle is accelerated. You enjoy a significant edge over more well-funded competitors. Examples range from Romania to Paraguay, from small leases in Texas to the entire state of Nebraska. Application to the Marcellus, Fayetteville, and Barnett gas shales will be shown.

David G. Koger helps people select and use low-cost aerial tools. He began his consulting practice in 1984. His client base has grown from serving oil and gas explorationists to helium and CO₂, finding water, mapping habitat, expert witness (e.g. documenting surface damages, wildfire movement and damages extents, soil loss), and habitat mapping. Prior to 1984, he was a research associate at Texas Christian University and installed the remote sensing analysis system there. He processed underwater video that found the trail of detritus from The Titanic (the ship, not the movie), did Shroud of Turin analysis to determine how the image on the shroud came about, and applied satellite data to the search for Noah’s Ark. Before that, he trained users in many disciplines on several continents for the company that made the first digital image processing system, and before that he received a B.S. at Kansas State University on the GI Bill, in 1975.

He chaired the Geosat Committee, Inc., the non-profit applied research and development group that evaluated several designs of satellites that later provided exploration information. The group also perfected the ground (okay, water) –breaking research and development whereby satellite data are routinely used today to map naturally-occurring oil slicks above buried reservoirs undersea.

He contributes to the Oil and Gas Journal and other trade journals, conducts training seminars at numerous AAPG sectional meetings, and is a frequent guest speaker. Many U.S. government agencies have been clients, as well as several hundred oil and gas explorationists. He is a SIPES Fort Worth Chapter Affiliate.

Bruce Langhus — ALL Consulting, Tulsa, OK
"Produced Water Management and Unconventional Natural Gas Development"

Unconventional natural gas resources account for a large share of U.S. gas production. It can exist as coalbed methane, tite gas, or shale gas. As both a blessing and a curse, unconventional gas is often found in parts of the United States where conventional gas and oil have not been commonly found. The blessing is that royalty payments get to be spread out to new landowners and local governments. The curse is that few or no management sites exist for handling produced water. Of course not all unconventional gas wells produce associated water, but many wells do, and this water must be managed both safely and economically.

Produced water can sometimes be used beneficially to irrigate crops or water livestock. Sometimes it can be treated and used for human consumption. Most of the time, however, water produced with natural gas lacks a beneficial use and is too expensive to treat. This water can be discharged to surface streams or pumped into disposal wells where regulations allow. A receiving stream must contain enough base-flow to dilute the combined flow to locally acceptable environmental limits. A subsurface reservoir can be used as a disposal zone if it is suitably isolated from adjacent and overlying sources of drinking water. Both disposal options often require highly technical documentation and monitoring to make them permitable. Nevertheless, innovative strategies such as flow-based surface discharge and injection above fracture pressure can optimize water management.

Water management must be technically sound but must also be accurately described to the general public so that there is local buy-in from non-royalty owning neighbors, royalty owners, environmental advocates, and government regulators. Any development will cause local changes but water management options must be fully disclosed and explained so that change is made acceptable.
Bruce G. Langhus has forty-two years in the petroleum industry, working in most of the active areas of North America. His career highlights are:

- Contracted with PEMEX and Institute Nationale Ecologie to rewrite regulations covering the management of oil-field wastes.
- Investigator on a DOE project to delineate best management practices for coal bed methane production in the Great Plains.
- Directed a DOE-funded research effort to delineate best bioremediation techniques to be used on old oil and gas sites for the state of Kansas.
- Interpreted many hundreds of miles of seismic data in offshore and onshore North America and Latin America and correlated same to subsurface rock data in both the exploration and production settings.
- Worked for ten years as exploration geologist in Western Canada and the Canadian Arctic.
- Provided geology for several Barnett Shale projects in Central Texas.
- Developed deep Anadarko Basin prospects.
- Mapped surface and near-surface fractures and faults in bedrock of Western New York to steer Devonian Shale development.
- Directed and had final authority in permitting and enforcing compliance for the second largest Class II UIC program in the United States.
- Served as area exploration geologist for the Western Gulf of Mexico for Gulf Oil US with a annual budget up to $140 million.
- Supervised exploration basin analyses leading to wildcats and new in-fill drilling in the Appalachian Basin, Arkoma Basin, Anadarko Shelf, and Deep Anadarko Basin.

Phil Martin, #2390 — New Century Exploration, Inc., Houston, TX

"Haynesville Shale Reveals its Secrets"

If you believe the hype, the Haynesville Shale is the sleeping giant that emerged from its burial chamber after 170 million years to become the largest gas field in the U.S., and perhaps fourth largest in the world. Although it had been penetrated numerous times, the significance was unclear and the zone was previously known only for being the source rock that provided gas for most of the big producing sands in East Texas and North Louisiana. Only recently did technology attain the ability to economically extract gas directly from this organic rich mudstone. The Haynesville is not the first shale to produce in the U.S., but it may become the largest. Shales currently supply about 10% of U.S. production which is expected to increase to five times that over the next ten years.

The Haynesville play is a 200' thick gas-saturated mudstone sandwiched between the Cotton Valley and Smackover formations at an average 11,500' deep across a 3 million acre area straddling northeast Texas and northwest Louisiana. It was deposited in an inland basin during the Jurassic Period, otherwise known as the Age of Reptiles. Distinctive characteristics of the Haynesville are unusually high total organic content, depth, and pressure.

Commercial production was first widely announced in March 2008 and the play exploded into a gold rush with leases reaching as high as $30,000 per acre. Many transactions incurred with the largest being $3.2 billion in lease and development costs paid by Plains to Chesapeake for 20% in their existing 550,000 acre position.

The economic metrics of the Haynesville have steadily improved with current IP rates approaching 30,000 MCFD. Current EUR estimates are approximately 8 BCF per well on 80 acre spacing. Long laterals are most successful with 8-9 stage fracs using ceramic proppant. Current well costs of $7.5 million are falling, and the economic limits are half that of most other shales.

Infrastructure in the area is attractive regarding pipelines, services, rights-of-way, water, and the environment. The Haynesville has brought huge wealth to mineral and lease owners in the area and will be a boon to the U.S. economy. Energy price dips after the economic downturn have been partially offset by lower lease and drilling costs. The only thing preventing development from going all out is operators' reduced budgets resulting from low prices and lack of credit access.

Phil Martin is president of New Century Exploration, Inc., a Houston-based E&P company operating in the Tertiary and Mesozoic trends of Texas and Louisiana. Phil received a B.S. in geology from LSU, and a M.S. in geology from UL.

He is a Certified Petroleum Geologist, DPA No. 4333, Certified Earth Scientist, SIPES No. 2390, and a Licensed Professional Geoscientist, State of Texas, No. 5393. He is a member of AAPG, HGS, SEG, Onshore Exploration Independents, and Houston Producers Forum. He is on the Houston Board of SIPES and in 2009 will serve as secretary for SIPES National and president of the SIPES Foundation. He is chairman of Geological Data
Library and sits on the Board of the Houston Energy Council. Phil is also a member of the AAPG Trustees Foundation and the LSU Foundation.

Richard Mason — The Land Rig Newsletter, Fort Worth, TX
"U.S. Land Drilling Dynamics"

This presentation will examine the role of individual commodities on demand for drilling and field services; and explore evolving trends in unconventional oil and gas; and discuss various scenarios and timelines for potential recovery in demand for field services.

Richard Mason is publisher of The Land Rig Newsletter, a monthly publication that provides trends analysis for the land-based contract drilling sector of the oil and gas industry. He has been quoted (and occasionally misquoted) in major media, ranging from the Wall Street Journal to BBC International radio. He has published The Land Rig Newsletter since 1992. During that time, he has developed a series of industry metrics that provide greater resolution on land drilling dynamics. Various Land Rig Newsletter indices address regional utilization, rig pricing, trends in non-vertical drilling, change in unconventional/conventional oil and gas drilling, rig efficiency, technological evolution in drilling systems, and oil and gas operator rig employment patterns.

The Land Rig Newsletter publishes widely-quoted annual rankings of the most active individual drilling rigs, the top 125 U.S. contractors, and tracks drilling industry economic performance quarterly through the newsletter’s industry revenue model. Mr. Mason has conducted proprietary research for a broad-based international clientele on a variety of topics including rig component manufacturing, customer perceptions of new rig technology, and the well service market.

In addition to his duties as a publisher, Mr. Mason has authored articles for a variety of oil and gas trade publications over the last decade including World Oil, the American Oil and Gas Reporter, Drilling Contractor Magazine, Oil and Gas Investor, and Well Servicing Magazine. He previously worked for ten years as a field representative for the Texas Tech University archives, collecting historical materials on petroleum, agriculture, and irrigation development in the American Southwest. He also spent a year in Midland, Texas as director for the Nita Stewart Haley Memorial Library, a privately held historical archive. Mr. Mason has worked in various capacities for four West Texas newspapers, including the Midland Reporter Telegram, and the San Angelo Standard. He served as business editor for: Lubbock, City of Land and Sky, a coffee table book about the city of Lubbock published by the Lubbock Chamber of Commerce. He is a 1974 graduate of Ohio University with a bachelor of arts degree, with honors, in history.

Jackie Reed — Reed Geochemical Consulting, Hilton Head, SC
"Devonian and Ordovician Shale Gas Potential in the Appalachian Basin"

The Appalachian Basin contains a diversity of unconventional play types in both the Devonian and Ordovician making it an attractive target for shale and tight sand gas exploration. The Devonian is actually comprised of two gross shale units. The Middle Devonian Marcellus Shale which occurs primarily in New York, Pennsylvania, and part of West Virginia and the Upper Devonian Ohio Shale which is primarily present in West Virginia, Ohio, Kentucky, and Tennessee. The Ordovician shale occurs in the Upper Ordovician and is generally known as the Utica Shale.

Using ArcGIS and a geochemical database from GeoMark’s Appalachian Basin Petroleum System Study, maps of TOCo (original TOC), TOCpd (present day TOC), HIpd (present day hydrogen index), and Ro (vitrinite reflectance) have been constructed to illustrate the gas potential across the basin.

A new parameter, TOCgen, that represents the amount of organic carbon attributable to hydrocarbon generation, was calculated for the Marcellus. TOCgen represents carbon expelled as oil and gas during oil window maturities as well as carbon in oil and gas that remained in the shales. The remaining carbon, converted to gas at high levels of maturity constitutes the bulk of the unconventional shale gas resource. A map of the generated gas volume of the Marcellus resource was made using TOCgen, shale generation kinetics, expulsion efficiencies, and shale thicknesses. Based on these geochemical parameters, our map shows an area from central New York trending southwest into northern West Virginia as a most favorable Marcellus shale gas production fairway.

Maps of gas wetness and BTUs show the overall quality of thermogenic gas generated from the Devonian shales is good. Typically, these gases have BTU values greater than 1000. The values decrease somewhat to the east in the basin reflecting the drier gas associated with the increasing thermal maturity of the generating shales.

Jackie Reed is an exploration geochemist with over twenty-five years of industry experience. She started her career at Sun Oil Company in Dallas, but spent the bulk of it at ARCO Oil and Gas, first in research and then in ARCO International. While at ARCO, she worked in a geographically and geologically wide range of exploration
areas addressing petroleum systems issues. She was also exploration director for ARCO International in the Middle East. After leaving ARCO she worked as a consultant and then as a technical advisor for Hess in West Africa and the deepwater Gulf of Mexico. Currently Jackie is a consultant, working primarily West Africa, Gulf of Mexico, and domestic shale gas projects.

**Dan Smith, #1647 — Sandalwood Oil & Gas, Inc., Houston, TX**

"Send in the Clowns...Wait, They're Already Here!" (Musings on Washington D.C., our Energy Industry and Bringing Science to Government)

SIPES members across the country have been very active along with other professional society members, especially AAPG, representing the geological community in general, and independents in particular, regarding critical issues affecting their livelihood. While the current economic crisis has shifted attention away from energy, President Obama and the congress are planning to return to the topic. Putting political rhetoric aside, the challenges facing the United States in the realm of energy security, the environment, and other issues involving earth science deserve serious attention and careful policy solutions. These solutions must be based on science and fact, not wishful thinking.

In 2005, AAPG took deliberate action to bring science to our nation's policy makers by establishing the Geoscience and Energy Office - Washington D.C. (GEO-DC). The mission is to provide the scientific and energy expertise of AAPG members (many are also SIPES members) to the policy making process. There are two points of focus:

1. Advise and educate government officials and science and energy policy organizations; and
2. Communicate to the geological community timely information on relevant legislative and regulatory actions.

This talk will discuss current political realities, activities of GEO-DC, and the policy challenges facing the 111th Congress.

**Dan Smith** has over 50 years of oil and gas exploration and production experience. His background includes prospect generation, property evaluation, structural and stratigraphic interpretations, well log analysis, geophysics, and business and financial management. He is responsible for discovering numerous new fields. Mr. Smith started his career at Amoco after graduation from UT Austin with a degree in geology. He became executive vice president and part owner of Texoil after a period at Robetis and Whitson Petroleum. In 1992 he joined Meridian Resources Corporation as a consultant, accepting a position as vice president in 1996. He continued with Meridian until 1999, when he again became an independent. Mr. Smith joined Sandalwood Oil & Gas, Inc. as executive vice president in 2001. He also manages his own independent company.

Mr. Smith has served as the Houston SIPES Chairman, president of the SIPES Foundation and president of both the HGS and AAPG. He received the Distinguished Service and Honorary Life Membership Awards from HGS and GCAGS, and the HGS's highest honor, the Gerald A. Cooley Award. He also received the Distinguished Service and Honorary Member Awards from AAPG as well as the Honorary Member Award of the House of Delegates. Mr. Smith is currently the AAPG representative to the AGI Member Council and vice chairman of the AAPG Washington D.C. Office Governance Board. He has been the Political Affairs Chairman of the Houston SIPES Chapter for approximately 15 years.

**Jimmy Thomas, #2710 — Nagual Exploration, LLC, Fort Worth, TX**

"The Maturing of the Barnett Shale"

The Barnett Shale play has experienced an extensive period of growth over the past several years. However, the recent decline of natural gas prices has caused a reduction in exploration budgets leading to a drop in the drilling rate along with leasing activities. Evaluating the present lease position of companies in the Barnett Shale and the time remaining on the leases, it is predicted that the declining drilling rates will be unable to hold all the leased acreage. The economic conditions will cause some companies to leave the basin, especially in uneconomic areas. Future gas prices could remain low for several years by many estimates. Opportunities for farm-outs, production and lease sales will increase in the future. A combination of lower drilling and operating costs, along with using optimum technologies for the area can turn uneconomic areas into profitable projects.

Barnett Shale wells in south Parker County will be evaluated to see how changing completion techniques have evolved over the past several years. The personal drilling of over fifty vertical wells and ten horizontal wells provides an enormous amount of data from a limited area in the Barnett Shale. An understanding of gas price cycles and gas field business cycles are necessary to understand the economics of the basin's future development. Independents and consultants alike must adapt to changing economic conditions to remain competitive in this industry.
cover reveal that there are much stronger climate driving forces than carbon dioxide. The basic conclusion is that a much better historic correlation. Both astrophysical studies of cosmic ray flux and climatological studies of cloud and carbon dioxide concentration; the man-made contribution is volumetrically insignificant. The sun-climate link has been carbon dioxide following climate instead of leading climate; there are too many historic divergent trends of temperature small; the heat trapping capacity of limited to narrow wave bands of thermal radiation; ice core correlations show carbon dioxide volumes were eighteen times greater than today, yet glaciers existed; during the Eocene, the carbon dioxide concentration was six times higher than today and the temperature rose while carbon dioxide fell; global cooling occurred during the Oligocene with rising carbon dioxide; and carbon dioxide was decreasing during the warming of the Miocene Climate Optimum.

In the more recent past, carbon dioxide volumes and global temperatures have trended in opposite directions. At the end of the 1800s, carbon dioxide was 20% lower than today, but the climate still warmed from the Little Ice Age. Most of the warming of the twentieth century occurred between 1910 and 1940 when carbon dioxide levels were building up. Carbon dioxide, as a greenhouse gas, has the property of absorbing heat radiated from the earth’s surface and then re-radiating it into the atmosphere. But, carbon dioxide comprises only 0.035% of the atmosphere (380 ppmv), and the carbon dioxide contribution to the total greenhouse effect is only about 5%. Of that 5% only 0.28% is created by human activity. In addition, the greenhouse effect of carbon dioxide is small in comparison to water vapor which accounts for about 95% of greenhouse heat.

Other members of the climate community are focused on solar climate drivers and combinations of solar and celestial climate drivers that are modulated by greenhouse gases. Robust correlations of temperature and sunspot counts support their interpretations. The case for a sun driven climate is much stronger than the case for a carbon dioxide driven climate.

In the context of geologic history, the case for carbon dioxide as the primary climate driver is difficult to support because it has not driven climate trends in the past. The earth has undergone eight great climate cycles during the Phanerozoic. For more than 90% of the time, the earth was warmer than at present. During the Ordovician, carbon dioxide volumes were eighteen times greater than today, yet glaciers existed; during the Eocene, the carbon dioxide concentration was six times higher than today and the temperature rose while carbon dioxide fell; global cooling occurred during the Oligocene with rising carbon dioxide; and carbon dioxide was decreasing during the warming of the Miocene Climate Optimum.

In the past decade, the earth’s climate has undergone an episode of warming. About that fact, there is general agreement. However, the causes for the warming are open for considerable debate. Some members of the climate community are focused solely on carbon dioxide as the driver of climate change. Carbon dioxide, as a greenhouse gas, has the property of absorbing heat radiated from the earth's surface and then re-radiating it into the atmosphere. But, carbon dioxide comprises only 0.035% of the atmosphere (380 ppmv), and the carbon dioxide contribution to the total greenhouse effect is only about 5%. Of that 5% only 0.28% is created by human activity. In addition, the greenhouse effect of carbon dioxide is small in comparison to water vapor which accounts for about 95% of greenhouse heat.

Other members of the climate community are focused on solar climate drivers and combinations of solar and celestial climate drivers that are modulated by greenhouse gases. Robust correlations of temperature and sunspot counts support their interpretations. The case for a sun driven climate is much stronger than the case for a carbon dioxide driven climate.

In the context of geologic history, the case for carbon dioxide as the primary climate driver is difficult to support because it has not driven climate trends in the past. The earth has undergone eight great climate cycles during the Phanerozoic. For more than 90% of the time, the earth was warmer than at present. During the Ordovician, carbon dioxide volumes were eighteen times greater than today, yet glaciers existed; during the Eocene, the carbon dioxide concentration was six times higher than today and the temperature rose while carbon dioxide fell; global cooling occurred during the Oligocene with rising carbon dioxide; and carbon dioxide was decreasing during the warming of the Miocene Climate Optimum.

There is evidence that carbon dioxide follows global temperature instead of driving global temperature. Close examination of the Bostok ice core data reveals that the rise in carbon dioxide trails the temperature rise by about 800 years. The lag appears to represent the time that it takes for the oceans to respond to the temperature change and release dissolved carbon dioxide.

Of the climate driving theories, carbon dioxide has the weakest supporting evidence. The concentration levels are small; the heat trapping capacity of limited to narrow wave bands of thermal radiation; ice core correlations show carbon dioxide following climate instead of leading climate; there are too many historic divergent trends of temperature and carbon dioxide concentration; the man-made contribution is volumetrically insignificant. The sun-climate link has a much better historic correlation. Both astrophysical studies of cosmic ray flux and climatological studies of cloud cover reveal that there are much stronger climate driving forces than carbon dioxide. The basic conclusion is that atmospheric science must look beyond carbon dioxide and continue the search for the real climate drivers.

Jiminy Thomas entered the oil and gas industry in 1982, and in 1983 formed his first company developing Strawn gas in southwest Parker County, Texas just as the last gas cycle peaked. Thus he bought high and sold low learning his first lessons in the industry. He returned to college to wait out the lower gas prices of the eighties. Mr. Thomas earned a general studies degree in 1986, an MBA in 1988 and finally in 1993, a master’s of science in geology, all from TCU, and gas prices had yet to recover. He formed Castaneda Consulting in 1999 and continued to develop projects in the Fort Worth Basin earning override and working interest rather than “real” money. The Fort Worth Chapter of SIPES elected him chairman for 2001 and 2002. Mr. Thomas was awarded the Levorsen Award in 2003 for a presentation at the annual Southwest Section Convention of the AAPG on exploration in the basin. He recently formed an operating company, and is focusing his efforts in “geologic” exploration plays.
Transactions on numerous topics that include the environment of deposition of the Woodbine at Kurten Field in Brazos County, Texas; the petrophysical character of the Smackover at Bayou Middlefork in Claiborne Parish, Louisiana; a model for the creation of salt diapirs in the East Texas Basin; recognition of low resistivity production in the Travis Peak and Cotton Valley of East Texas; evidence for strike-slip faulting in Northeast Texas; and petrophysical answers for producibility in the Bossier Sandstone in East Texas. His talk entitled “The uncertainty of Carbon Dioxide - Climate Rider or Climate Driver” won the A.I. Levorsen Award at the 2008 convention of the Southwest Section of the AAPG.

**Tony Weber — Natural Gas Partners, Irving, TX**

"Equity Funding, Oil & Gas Business Trends"

Tony R. Weber joined NGP in 2004 and was promoted to Managing Director in 2006. Mr. Weber also holds the responsibility as NGP’s Director of Corporate Finance. He leads the firm's efforts to help its portfolio companies in sourcing, structuring and executing transactions that fulfill their external capital needs. Mr. Weber is an expert at evaluating and applying the full range of debt and equity products available today as well as with custom-tailoring structures to meet specific objectives. He also assists with NGP’s transaction evaluation, execution and monitoring efforts.

Prior to joining NGP, Mr. Weber was the Chief Financial Officer for Merit Energy Company where he raised in excess of $1 billion of equity commitments from institutional investors and oversaw Merit’s financial operations, which included the active management of the company's banking relationships.

Before he joined Merit, NGP enjoyed a strong relationship with Mr. Weber from his position as senior vice president and manager of Union Bank of California's Energy Division in Dallas. During his fourteen years as a commercial banker, Mr. Weber was involved in the arranging and financing of more than $14 billion in energy transactions, including senior debt facilities, mezzanine debt structures, project financing and direct equity investments.

Mr. Weber received a B.B.A. in Finance in 1984 from Texas A&M University, and was a founding member of the Mays School of Business Fellows Program.

**Jeffrey Wendt — The Eagle Wing Group, Inc., Fort Worth, TX**

"Delivering a Message to Garcia — Ethics at Its Best"

“In all this Cuban business there is one man stands out on the horizon of my memory like Mars at perihelion. When war broke out between Spain and the United States, it was very necessary to communicate quickly with the leader of the Insurgents. Garcia was somewhere in the mountain vastness of Cuba-no one knew where. No mail nor telegraph message could reach him. The President must secure his cooperation, and quickly.

What to do!

Someone said to the President, ‘There's a fellow by the name of Rowan who will find Garcia for you, if anybody can.’

Rowan was sent for and given a letter to be delivered to Garcia. . . The point I wish to make is this: McKinley gave Rowan a letter to be delivered to Garcia; Rowan took the letter and did not ask, ‘Where is he at?’ By the Eternal! There is a man whose form should be cast in deathless bronze and the statue placed in every college of the land. It is not book-learning young men need, nor instructions about this and that, but a stiffening of the vertebrae which will cause them to be loyal to a trust, to act promptly, concentrate their energies: do the thing - ‘Carry a message to Garcia!’”

This is an excerpt from Elbert Hubbard's “A Message to Garcia.” It was written in 1903 and provides the foundation of what ethics and ethical behavior are all about.

Jeffrey Wendt is president of The Eagle Wing Group, Incorporated, and performs consulting work as an operations engineer. He is also president of Career Life Counselors which specializes in helping companies cultivate exceptional leaders.

Jeff graduated from Auburn University in 1995 with a bachelor's of materials engineering degree, and then later returned to Auburn to complete an MBA in 2002. Prior to his opening The Eagle Wing Group, Jeff was an officer in the U.S. Navy submarine force. He ended his time in the navy as navigator and operations officer aboard USS Wyoming (SSBN - 742). He is a Fort Worth Chapter Affiliate.
Proud Supporters of SIPES

New Century Exploration, Inc.

Operations in Texas & Louisiana

17350 SH 249, Suite 300
Houston, Texas 77064
281 664-7000
www.newcenturyexp.com

Phil Martin
Duncan DuBroff
Ken Dunlap
& Associates