



THE
GEOLOGICAL
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Register by **9 February 2009** for reduced rates!

South-Central

Plan your 2009 GSA Section Meeting attendance!

43rd Annual Meeting, Dallas (Richardson), Texas, USA
16–17 March 2009





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THREE INVITATIONS

We extend three invitations to entice you to come to the 2009 GSA South-Central Section meeting.

First, we invite you to come to the Dallas–Fort Worth Metroplex, the home of more than six million people—about a quarter of the Lone Star State’s population. Two great cities, Dallas (home of Southern Methodist University) and Fort Worth (home of Texas Christian University), anchor either end of the Metroplex, surrounded by many smaller cities, including Arlington (home of the University of Texas at Arlington) and Richardson (home of the University of Texas at Dallas); Baylor University, in Waco, is not far to the south. Benefiting from a resurgent energy industry, the Dallas–Fort Worth area is growing and changing rapidly. You’ll have numerous cultural attractions, sporting events, and world famous shopping centers to enjoy during your visit to the Metroplex.

Second, you are invited to spend a few days in Richardson, the home of the University of Texas at Dallas. Richardson blossomed on the prairie just north of Dallas in the 1960s when Texas Instruments first established the high-tech business base that transformed a sleepy little Texas town into a vibrant city with a culturally diverse population. Today, more than 90,000 people work in Richardson, and it’s the home of more than 600 telecommunications companies. Just to the north lies the bustling city of Plano, a suburb of more than a quarter million inhabitants.

Finally, you are invited to spend a few days at the University of Texas at Dallas (UTD), a young, dynamic university on the cutting edge of science, technology, medicine, business, and the arts. Since its inception in 1961 as the Graduate Research Center of the Southwest, the brainchild of technology giant Texas Instruments, UTD has fostered a strong tradition of academic excellence. Originally a graduate institution, the Graduate Research Center became part of the University of Texas system in 1969. UTD admitted its first freshman class in 1990. With a current enrollment of more than 15,000 students, UTD aims to provide Texas and the nation with the benefits of educational and research programs of the highest quality. The site of the meeting is the UTD Conference Center, easily accessible by car or courtesy shuttle. Because the meeting is scheduled over UTD’s spring break, there will be plenty of parking.

Many good hotels and restaurants are nearby, and we are sure that you will enjoy your stay in the Dallas-Richardson-Plano area. Please be sure to invite your students, colleagues, and family to join us at UTD for a great meeting!

John Ferguson and Bob Stern, Meeting Chairs



UTD Conference Center. Courtesy Melissa Fenton.

SPECIAL THANKS TO THESE GSA SOUTH-CENTRAL SPONSORS!

Pioneer Natural Resources, Inc.

XTO Energy, Inc.

The Dallas Geological Society

Denbury Resources Inc.

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Fort Worth Geological Society

LOCATION & CONTACT INFORMATION

We will meet in the conference center on the University of Texas at Dallas campus, 800 W. Campbell Road, Richardson, Texas 75080, USA. Check www.geosociety.org/meetings/ for updates. For further information, or if you have special requirements, please contact the meeting chairs: local committee chair **John Ferguson**, ferguson@utdallas.edu, or technical program chair **Bob Stern**, rjstern@utdallas.edu.

REGISTRATION

Early Registration Deadline: 9 February 2009

Cancellation Deadline: 17 February 2009

Please register at www.geosociety.org/meetings/. *Note:* **GSA will distribute all badges at the meeting;** badges will not be mailed.

On-Site Registration and Registration Packet Pickup Schedule

Conference Center, University of Texas at Dallas, Richardson, Texas, USA

Sunday, 15 March 4–7:30 p.m.

Monday, 16 March 7:30 a.m.–5 p.m.

Tuesday, 17 March 7:30 a.m.–noon

REGISTRATION FEES (ALL FEES ARE IN U.S. DOLLARS)

	Early	Standard	One-day
Professional Member*	\$120	\$140	\$90
Professional Nonmember*	\$130	\$150	\$100
Student Member*	\$50	\$60	\$40
Student Nonmember*	\$55	\$65	\$45
Professional Member 70+*	\$60	\$70	\$50
K–12 Teacher*	\$35	\$40	\$30
Guest or Spouse	\$30	\$35	N/A
Field Trip or Workshop only	\$20	\$25	N/A

*Includes box lunch for each day of registered attendance.

In recognition of the fact that the Mexican states of Coahuila, Nuevo León, Tabasco, Tamaulipas, and Veracruz have just been added to the GSA South-Central Section, registration fees will be waived for geoscientists and students either employed or enrolled in Mexico (as evidenced by passport and/or other official ID). Special arrangements also have been made to provide financial support for Mexican geoscientists who are first author and presenting a paper or poster. Please contact John Ferguson at ferguson@utdallas.edu, Bob Stern at rjstern@utdallas.edu, or Gabriel Chavez Cabello at Universidad Autónoma de Nuevo León, gabchave2001@yahoo.com.mx, for details.

Cancellations, Changes, and Refunds

Requests for additions, changes, and cancellations must be received at GSA Headquarters by **17 February 2009**. No refunds will be made on cancellation notices received after this date. Refunds will be mailed from GSA after the meeting; refunds for fees paid by credit card will be credited to the card identified on the registration form. GSA cannot provide refunds for on-site registration, *Abstracts with Programs*, or event ticket sales.

ACCOMMODATIONS

Hotel Registration Deadline: 21 February 2009

Please reference the “University of Texas at Dallas 2009 GSA South-Central Meeting” when making reservations. A courtesy shuttle service from the hotels to the conference center will be available.

Radisson Hotel Dallas North–Richardson, 1981 North Central Expressway, Richardson, TX 75080, USA. Make your reservations via the GSA Web site or by calling +1-800-333-3333. Single/double meeting rate per night: US\$85+tax.

Hampton Inn Dallas–Richardson, 1577 Gateway Blvd., Richardson, TX 75080, USA. Make your reservations by calling +1-972-234-5400. Meeting rate per night: US\$74+tax.

Hyatt Regency North Dallas, 701 E. Campbell Road, Richardson, TX 75081, USA. Call +1-972-231-9600 for reservations. Single/double meeting rate per night: US\$85+tax.



UTD Conference Center. Courtesy Melissa Fenton.

Theme Sessions

1. **Permian to Jurassic Tectonics, Magmatism, and Sedimentation in the NE Mexico and South-Central USA Region.** Rafael Barboza, Universidad Autónoma de San Luis Potosí, rbarboza@uaslp.mx; William R. Dickinson, Univ. of Arizona, wrdickin@dakotacom.net; Alexander Iriondo, Universidad Nacional Autónoma de México—Campus Juriquilla, iriondo@dragon.geociencias.unam.mx; Timothy F. Lawton, New Mexico State Univ., tlawton@nmsu.edu; Gabriel Chávez Cabello, Universidad Autónoma de Nuevo León, gabchave2001@yahoo.com.

Contributions (oral or poster) are encouraged on all aspects of these and related topics: outcrops and subcrops of Permian through Jurassic igneous and sedimentary assemblages in northeastern Mexico and adjacent Texas recording sequential geotectonic transitions related to the amalgamation of Laurentia and Gondwana along the Marathon suture; development of the Permian-Triassic East Mexico magmatic arc; deposition of the Zacatecas-Potosí subsea fan system; establishment of the Triassic-Jurassic Nazas segment of the Cordilleran magmatic arc; and/or opening of the Gulf of Mexico by continental rifting and seafloor spreading.

2. **Geology and Health Issues in Texas, Mexico, and Beyond.** Bob Finkelman, Univ. of Texas at Dallas, bobf@utdallas.edu; Joseph Oppong, Univ. of North Texas, oppong@unt.edu.

The large rural population, diverse geology, and varied climate of this region have resulted in a range of environmental health issues caused or exacerbated by geologic materials or processes. This session will bring geoscientists together with biomedical and public health researchers to discuss the causes of and potential solutions for these problems. This is a unique opportunity for scientists from varied disciplines and regions to discuss geology and health problems that impact tens to hundreds of thousands of people.

3. **Trans-Pecos Volcanic Province.** Elizabeth Anthony, Univ. of Texas at El Paso (UTEP), eanthony@utep.edu; Don Parker, Baylor Univ., don_parker@baylor.edu; Minghua Ren, UTEP, ren@geo.utep.edu; Dan Miggins, USGS/UTEP, dmiggins@usgs.gov.

This session will feature new data and interpretations for the igneous history of the Trans-Pecos Volcanic Province. This province experienced voluminous peralkaline felsic magmatism from 38 Ma to 28 Ma—a period when magmatism was in transition from Laramide subduction to Basin and Range extension throughout western North America. Participants are encouraged to attend the related field trip on Thurs.–Sun., 12–15 March (see trip no. 1), and then contribute to this session.

4. **Water Resource Challenges and Opportunities in North-Central Texas and Surrounding Regions.** Tom Brikowski, Univ. of Texas at Dallas, brikowski@utdallas.edu; Jack Sharp, Univ. of Texas at Austin, jmsharp@mail.utexas.edu.

The greater Dallas–Fort Worth Metroplex is one of the fastest growing regions in the United States, and it is projected to continue that growth for the foreseeable future. Imposing water quality and quantity challenges will accompany this development. Scientific perspectives on these issues are the foci of this session and will include (1) increased water demand by cities and municipalities; (2) water needed for energy resource production (petroleum, natural gas, and coal); (3) water needed for power generation and environmental protection; (4) water importation; (5) changing hydrogeology environments and climate (past, present, and future); and (6) the future of irrigated agriculture. This session precedes the Public Policy Forum.

6. **Shale Reservoirs—Giant Hydrocarbon Resources for the 21st Century.** John A. Breyer, Texas Christian University (TCU), j.breyer@tcu.edu; Daniel M. Jarvie, Worldwide Geochemistry and TCU Energy Institute, danjarvie@wwgeochem.com.

Shale gas and shale oil have revitalized the domestic oil and gas industry. Shales and related tight-gas sands are the subject of much new, and needed, research. The symposium will present the results of recent and ongoing research on unconventional resources from shales in the Fort Worth, Williston, and Appalachian basins and tight-gas sands in the southeastern United States and Canada.

7. **A View from the Craton Southward into the Gulf of Mexico: The Geology and Geophysics of Transitions: Celebrating the Career of R.E. (Tim) Denison.** G.R. Keller, Univ. of Oklahoma, grkeller@ou.edu; M. Cloos, Univ. of Texas at Austin, cloos@mail.utexas.edu.



The Dallas–Fort Worth metropolitan area is the largest in Texas. Astronaut photograph ISS010-E-24596 (taken 14 Apr. 2005) captures the northwestern portion of the metropolitan area, including Lake Lewisville and Grapevine Lake, highlighted by the sun's reflection. Photo courtesy the International Space Station Crew Earth Observations experiment and the Image Science & Analysis Group, Johnson Space Center.

The assembly of the North American craton was complete by ca. 1 Ga as a result of the Grenville orogeny. The suture formed by the Grenville collision is thus one major south-central U.S. transition. Soon thereafter, the resulting supercontinent began to break apart; this process carved out the early Cambrian Ouachita passive margin and the failed rift of the Southern Oklahoma aulacogen. This margin and rift, still clearly present in geophysical data, mark another major transition. The Ouachita orogeny not only produced a long, sinuous orogen but is also related to impressive intraplate deformation in the form of the Ancestral Rocky Mountains and thus more transitions. The final transition came about as the Gulf of Mexico was formed by several phases of rifting. The purpose of this session is to bring workers on these transitions together to help formulate a regional understanding of this complex series of events.

8. **Recent Advances in Geology, Geochemistry, and Biostratigraphy of the Permian Basin, Texas and New Mexico.** M.K. Nestell, Univ. of Texas at Arlington, nestell@uta.edu; P.J. Noble, Univ. of Nevada-Reno, noblepj@unr.edu.

This theme session is designed to provide a forum (posters and talks) for workers interested in the geology of the Permian basin. Emphasis will be on the recent developments and advances in the stratigraphy, geochemistry, and biostratigraphy of the Permian, but papers regarding other parts of the geologic column are welcome.

9. **Undergraduate Research (Posters).** *Sponsored by the Council on Undergraduate Research, Geosciences Division.* Mon., 16 March. Diane Smith, Trinity Univ., dsmith@trinity.edu, +1-210-999-7656.

FIELD TRIPS

Check www.geosociety.org/meetings/ for an updates and descriptions.

Premeeting

1. **Trans-Pecos (Big Bend) Volcanic Province Field Trip.** Thurs.–Sun., 12–15 March. Elizabeth Anthony, Univ. of Texas at El Paso (UTEP); Don Parker, Baylor Univ.; Minghua Ren, UTEP; Don Miggins, USGS/UTEP. This trip will stage from the El Paso airport for those traveling by air to Dallas after the field trip. Groups and individuals traveling by road can join the field trip in Alpine, Texas. No unofficial vehicles will be permitted on the trip beyond Alpine. Cost: US\$300 for professionals; US\$200 for students. Min: 15; max: 32.
2. **Sedimentology and Structure of Terrestrial to Shallow Marine Outcrop Reservoir Analogs, Pennsylvanian Mingus Formation, Mineral Wells, Texas.** Sat., 14 March. Janok Bhattacharya, Univ. of Houston; Russell Davies, RDR Inc.; Karen McGowen, ConocoPhillips. Cost: US\$100 for professionals; US\$50 for students. Min.: 15; max.: 45.
3. **Sedimentary Environments and Dinosaur Tracks, Woodbine Formation, Lake Grapevine (Dallas).** Sun., 15 March. John Holbrook, Univ. of Texas at Arlington (UTA); Derek Main, UTA. Cost: US\$60 for professionals; US\$30 for students and K–12 teachers. Min.: 15; max.: 45.

Postmeeting

4. **Field Work and Cyber-Mapping in the Arbuckle Mountains, Oklahoma.** Wed., 18 March. Mohammed Abdelsalam, Missouri Univ. of Science and Technology (MUST); Carlos Aiken, Univ. of Texas at Dallas; John Hogan, MUST. Cost: US\$100 for professionals; US\$50 for students. Min.: 15; max.: 30.

OPPORTUNITIES FOR STUDENTS

Mentor Luncheons

For additional information, go to www.geosociety.org/mentors/shlemon.htm and www.geosociety.org/mentors/mamm.htm, or contact Jennifer Nocerino at jnocerino@geosociety.org.

Roy J. Shlemon Mentor Program in Applied Geoscience

Mon., 16 March, 11:30 a.m.–1 p.m.

The Shlemon Mentor Programs are designed to extend the mentoring reach of individual professionals from applied geology to undergraduates and graduate students attending GSA Section Meetings. Over free lunches, mentors and students discuss the professional

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UTD Conference Center. Courtesy Melissa Fenton.



Photo courtesy Melissa Fenton.

opportunities and challenges that await students after graduation. Every student will receive a free ticket to the Shlemon Luncheon along with his/her badge; however, space is limited.

John Mann Mentors in Applied Hydrogeology Program

Tues., 17 March, 11:30 a.m.–1 p.m.

The Mann Mentors in Applied Hydrogeology Program presents mentoring opportunities for undergraduate and graduate students as well as recent graduates with a declared interest in applied hydrogeology as a career to interact and network with practicing hydrogeology professionals. This relaxed but focused small-scale event features a free lunch for students and mentors. Every student will receive a free ticket to the Mann Luncheon along with his/her badge; however, space is limited.

Outstanding Poster Program

One undergraduate and one graduate student poster will be selected for recognition. Awardees will be given a complimentary registration to the 2009 GSA Annual Meeting & Exposition, and the selected posters will be displayed at that meeting.

Travel Grants

Applications due: 17 February 2009

Travel grants are available from the South-Central Section in cooperation with the GSA Foundation for GSA Student Members making oral or poster presentations at the meeting. Information and applications are at www.geosociety.org/sectdiv/southc/.

Volunteering

Please volunteer by 1 February 2009.

We rely on student volunteers to help meetings run smoothly, and the local committee and officers of GSA's South-Central Section are pleased to offer student volunteers free registration for the meeting in return for ~6 hours of work. Contact student volunteer coordinator John Holbrook at the University of Texas at Arlington, holbrook@uta.edu, for more information.

OPPORTUNITIES FOR K–12 EDUCATORS

Please note the reduced rate for K–12 educators for field trip no. 3, “Sedimentary Environments and Dinosaur Tracks, Woodbine Formation, Lake Grapevine (Dallas).”

Continuing Education Credit (CEU)

CEUs can be accrued from participation in organized education experiences. One CEU equals 10 contact hours and applies to meeting field trips and short courses. There's no charge for a certificate; please contact Beth Engle at bengle@geosociety.org for more information.

SPECIAL EVENTS

Icebreaker Reception: Sun., 15 March, 5:30–7:30 p.m., UTD Conference Center.

South-Central Section Management Board Meeting: Mon., 16 March, 4:30–5:30 p.m., UTD Conference Center.

South-Central Section Business Meeting: Mon., 16 March, 5:30–6:30 p.m., UTD Conference Center.

Reception for GSA 50-Year Members: Mon., 16 March. Save the date—invitations will be sent! For more information, contact Jack Sharp, jmsharp@mail.utexas.edu, or Robert Rutford, rutford@utdallas.edu.

Geology and Public Policy Forum: Resource Planning and Geoscientific Input.

Date and time TBA. Wendi Williams, Univ. of Arkansas, wjwillia@uark.edu; Jack Sharp, Univ. of Texas at Austin, jmsharp@mail.utexas.edu; Tom Brikowski, Univ. of Texas at Dallas, brikowski@utdallas.edu. In conjunction with the GSA Committee on Geology and Public Policy, the South-Central Section will host a panel discussion concerning the role geoscientists can and should play in improving the scientific basis for water-resource, energy-resource, and related land-use decisions. This public policy forum will follow the theme session “Water Resource Challenges and Opportunities in North-Central Texas and Surrounding Regions” and will be free and open to the general public. Following short presentations (10–15 min. each) by invited panel members and an audience question and answer period, the panel, guided by a

moderator, will explore key issues confronting the sustainable development of water resources in the region.

GUEST PROGRAM

Tutankhamun and the Golden Age of the Pharaohs Exhibit at the Dallas Museum of Art:

Tues., 17 March, 9:30 a.m.–4 p.m. Cost: US\$75, includes lunch. Min.: 30; max.: 55.

Contact Judi Hensley jhensley@utdallas.edu with questions.

Travel by bus from the UTD Conference Center to spend a leisurely day in downtown Dallas, enjoying the Dallas Museum of Art, including the Tutankhamun exhibit; the Nasher Sculpture Garden; and the Crow Collection of Asian Art. Register for the tour at www.geosociety.org/sectdiv/southc/09mtg/ no later than **12 January 2008**.

Guests can also visit restaurants and shops along McKinney Avenue using the free McKinney Avenue Trolley, which stops right outside the Dallas Museum of Art.

EXHIBITS

This meeting will attract a wide array of applied and academic geoscientists, students, and teachers from throughout the region, providing exhibitors with an excellent opportunity to interact with potential customers, colleagues, and students. The exhibit area will be in a prime location, ensuring maximum exposure.

Booth Fees (all fees are in U.S. dollars)

	one booth	additional
For-profit Exhibitor	\$150	\$50
Non-profit Exhibitor	\$100	\$50
VIP Exhibitor	\$0	\$50

Booth reservation fees include a clothed and skirted 6-ft × 3-ft table, two chairs, electrical access, and two exhibit-only badges for booth staff. Please contact local committee chair John Ferguson, ferguson@utdallas.edu, for more information.

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Technical Program: 18–21 October 2009

Proposal Deadline: 6 January 2009

Submit Proposals at www.geosociety.org



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