

# SHALE-GAS DEVELOPMENT AND WATER ISSUES

**Conference to showcase water use and treatment technologies. Learn about the latest resource development & operational protocols that can reduce costs and avoid environmental risk by minimizing water use and maximizing the effectiveness of on-site treatment**

**Austin, Texas – Tuesday March 19 and Wednesday March 20, 2013**  
**Conference Venue: Hilton Hotel Austin Airport, 9515 Hotel Drive, Austin, TX 78719**

*The shale-gas revolution is changing America's perspective on energy. While the benefits of energy independence are evident from economic and strategic perspectives there are concerns that calculations of benefits of self sufficiency of energy must be carefully weighed against the maintenance of safe and sustainable water resources.*



*The development of shale-gas is controversial. Much of the opposition is related to water concerns. Public opposition can often be traced to lack of information and in some cases to misinformation. Recent trends in the energy development industry show that many water quality concerns can be addressed by innovations in on-site treatment and disposal technologies. More sophisticated drilling protocols and fluid management techniques are also providing even greater reductions in potential environmental risks.*



*As with most public policy controversies ignorance is the worst enemy for the development of acceptable policy solutions and reasonable regulations. The best solutions will come from informed awareness that is based on science and facts. This conference on shale-gas and water issues is the second one convened in Texas by AIPG and AGWT. It will bring both water and energy professionals as presenters. Their informed knowledge and familiarity with the industry and the issues will provide an information exchange opportunity among citizens, communities and water and energy professionals. The 2012 event was recognized as great source of technical and scientific information presented in an objective and easy-to-understand format.*

**Program jointly organized by:**  
**American Institute of Professional Geologists and American Ground Water Trust**  
**In cooperation with:**

American Geosciences Institute  
Energy Institute – University of Texas at Austin  
Society of Independent Professional Earth Scientists  
International Association of Hydrogeologists Commission on Groundwater for Decision Makers



Register at  
[www.aipg.org](http://www.aipg.org)



With Special Thanks to the SIPES Houston Chapter



**PRESENTATIONS FROM TOP EXPERTS ABOUT CURRENT ISSUES**  
**THE TRUTH ABOUT "FRACKING" TECHNOLOGY AND WELL INTEGRITY**  
**LATEST INDUSTRY TECHNOLOGIES ON WATER TREATMENT AND MANAGEMENT**  
**PERSPECTIVES FROM WATER PROVIDERS AND END-USERS**

**9:45 - 10:00 – WELCOME AND INTRODUCTION**

Wendy Davidson, Assistant Director, American Institute of Professional Geologists, Thornton, CO  
Kevin McGinnis, Chairman, American Ground Water Trust Board of Directors, Lubbock, TX

**10:00 – 10:15 Public opinion and “truth” about groundwater aquifers and shale-gas development**

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

**10:15 – 10:45 CONFERENCE OPENING KEYNOTE**



**Induced Seismicity Potential in Energy Technologies: National Research Council of the National Academies Report, 2012 (Shale-gas, hydraulic fracturing and injection for the disposal of waste water)**

**Don Clarke**, Member, National Academies Panel, geological consultant, Los Angeles, CA

Don Clarke is a consulting petroleum geologist. He has worked for the California State Lands Commission, City of Long Beach, Department of Oil Properties (Unit Operator for the super giant Wilmington oil field) for 24 years. He taught geology at Compton Community College for 14 years and currently teaches petroleum geology at the University of Southern California. He is a past president of Pacific Section AAPG. Don was a member of the National Academies Panel on Induced Seismicity Potential in Energy Technologies.

**SESSION 1 – HYDRAULIC FRACTURING QUESTIONS**

**10:45 – 11:15 Hydraulic fracturing and water resources in Texas**

J.P. Nicot, Research Scientist, Bureau of Economic Geology, Jackson School of Geosciences

**11:15 – 11:45 Overview of litigation regarding hydraulic fracturing and source rock gas plays**

Corey F. Wehmeyer, Attorney, Partner, COX SMITH, San Antonio, TX

**11:45 – 12:15 An overview of ASTM Committee D18.26, (Hydraulic Fracturing) its scope and how it will operate**

Bob Morgan, Director Technical Committee Operations, ASTM International, West Conshohocken, PA

**12:15 – 1:30 LUNCH**

**SESSION 2 – ASSESSING AQUIFERS AND WATER QUALITY INDICES**

**1:30 – 2:00 Advanced methods of aquifer characterization and monitoring design: The application of borehole geophysics, hydrophysics and hydrogeologic methods**

William H. Pedler, President, RAS, Inc., Denver, CO

**2:00 – 2:30 The case for uniform and detailed testing parameters to identify shale-gas origins with more certainty**

John Oneacre, President, Ground Water Solutions Ltd. Houston, TX

**2:30 – 3:00 Geochemical data, methane and impacts on water wells**

Lisa Molofsky, Geologist, GSI Environmental, Houston, TX

**3:00 - 3:15 BREAK**

**SESSION 3 – SHALE-GAS: WATER AND ENVIRONMENTAL ISSUES**

**3:15 – 3:45 Current and potential future water issues related to Texas shale-gas development**

Robert Mace, Deputy Executive Administrator, Water Science & Conservation, TX Water Development Board, Austin, TX

**3:45 – 4:15 Environmental issues related to shale-gas development in Texas**

Representative from, US Environmental Protection Agency, Region Six, Dallas, TX

**4:15 – 4:45 Environment Texas: Our perspective on the state’s shale-gas operations and water issues**

Luke Metzger, Director, Environment Texas, Austin, TX

**4:45 – 5:15 DAY ONE CLOSING KEYNOTE**



**Replacing perception with reality: Actual data on ground water risk levels from well construction and fracturing. What industry, regulators, environmental organizations and neighbors need to know**

**George E. King**, Apache Corporation Distinguished Engineering Advisor, Houston, TX

George E. King is a registered professional engineer with over 40 years of experience since joining Amoco Research Center in 1971. His technical work has provided advances in foam fracturing, production from unstable chalk, underbalanced perforating, sand control reliability, gas shale completions and fracturing. Currently, he is working with new technologies for Apache Corporation. He holds degrees in Chemistry from Oklahoma State University, as well as Chemical Engineering and Petroleum Engineering from the University of Tulsa where he also taught completions and workovers for 11 years as an adjunct professor. He has written 65 technical papers and was awarded the 2004 SPE Production Operations Award and the 2012 Engineer of the Year award from the Houston Region of the Texas Society of Professional Engineers.

5:15 – 6:45 RECEPTION (Cash bar)



Wednesday March 20<sup>th</sup>

**SESSION 4 - AQUIFER INTEGRITY**

**8:30 – 9:00 Hydraulic fracturing and groundwater protection**

Robert Traylor, CPG, Geologist, Texas Rail Road Commission, Austin, TX

**9:00 – 9:30 Halliburton Chemistry Scoring Index – What it can tell about frac additives**

Denise Tuck, Global Manager, Chemical Compliance, Halliburton, Houston, TX

**9:30 – 10:00 Hydraulic fracturing: Separating myth from reality**

Steve Leifer, Attorney, Baker Botts LLP, Washington, DC

**10:00 – 10:15 BREAK**

**SESSION 5 – WATER MANAGEMENT FOR SHALE-GAS OPERATIONS**

**10:15 – 10:45 Water, water everywhere...finding what's not fit to drink**

Hughbert Collier, CPG, Hydrogeologist, Collier Consulting, Inc., Stephenville, TX

**10:45 – 11:15 Comprehensive water balance for shale gas operations**

Richard Bowers, Environmental Engineer, GSI Environmental, Houston, TX

**11:15 – 11:45 Total water management solutions**

John Williams, Director of Engineering and Research & Development, TERRA Services LLC, Irving, TX

**11:45 – 12:15 CONFERENCE CLOSING KEYNOTE**



**Shale operators must follow best practices**

Stephen Holditch, S. A. Holditch & Associates, Bryan, TX

Stephen A. Holditch is the Head of the Petroleum Engineering Department at Texas A&M University. From 1999-2003, Dr. Holditch was a Schlumberger Fellow where he was a Production and Reservoir Engineering advisor to the top managers within Schlumberger. Holditch was President of S. A. Holditch & Associates, Inc. from 1977 to 1999. Dr. Holditch was SPE President 2002, and he was SPE Vice President of Finance from 1998-2000. As an SPE Officer, Holditch served on the SPE Board of Directors from 1998-2003. In addition, Dr. Holditch served as an AIME Trustee from 1997-1998. In 1995, Dr. Holditch was elected to the U.S. National Academy of Engineering (NAE). In 2006, he was elected as an SPE Honorary Member. He has published over 150 technical papers.



**CONTINUING EDUCATION**

Geologists: AIPG will award 1 CEU or 10 PDH's to conference attendees

Other participants: Certificates of attendance from the AGWT will be available for all attendees who complete sign-in and sign-out forms



**CONFERENCE HOTEL INFORMATION**

Hilton Austin Airport Hotel, 9515 Hotel Drive, Austin, Texas 78719 (512) 385-6767 A block of rooms has been reserved for March 18, 2013 - March 20, 2013. The special room rate of \$119 will be available until March 4th or until the group block is sold-out, whichever comes first.

The hotel offers a free shuttle from the airport passenger terminal. The hotel is off of highway 71, two miles east of Highway 183, three miles west of 130 Toll Road, and minutes from I-35 and MoPac Expressway.



**Technical information-exchange conference for professionals involved with water issues, energy development and hydraulic fracture technology**

# Shale-gas development and water issues



**Two-day conference program Austin, TX**  
 Hilton Austin Airport Hotel, 9515 Hotel Drive  
 Austin, Texas 78719



**American Ground Water Trust**  
**American Institute of Professional Geologists**

- ◆ WATER SUPPLY ◆ ENVIRONMENT ◆ REGIONAL IMPACTS
- ◆ REGULATIONS ◆ LITIGATION ◆ LEGISLATION
- ◆ SOURCE PROTECTION ◆ BEST PRACTICES
- ◆ INFORMATION EXCHANGE ◆
- ◆ JUST THE FACTS! ◆

## REGISTRATION FORM – SHALE-GAS DEVELOPMENT AND WATER ISSUES – AUSTIN, TX – MARCH, 2013

*Registration includes networking reception, handouts, breaks and lunch*

	Two Day March 19 <u>and</u> 20	One Day March 19 <u>or</u> March 20
YOU MUST CHECK ONE: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> or <input type="checkbox"/>
General Conference Registration	<input type="checkbox"/> \$390	<input type="checkbox"/> \$210
Members of AIPG, AGWT, AEG and SIPES	<input type="checkbox"/> \$340	<input type="checkbox"/> \$170
Government Employee (Municipal, County, State, Federal)	<input type="checkbox"/> \$340	<input type="checkbox"/> \$170
Full-Time Student (ID required at Registration)	<input type="checkbox"/> \$100	<input type="checkbox"/> \$ 60
Exhibit Table (You must also register to attend.)		<input type="checkbox"/> \$300
	Total for all checked boxes \$ .....	

**PAYMENT** TOTAL \$ \_\_\_\_\_  CHECK [Made payable to: AIPG]

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**REGISTRATION**

**ON-LINE: Secure payment**  
[www.aipg.org](http://www.aipg.org)

**FAX:**  
**(303) 253-9220,**

**SCAN & E-MAIL:**  
[cld@aipg.org](mailto:cld@aipg.org)

**MAIL:**  
**AIPG, Suite 285**  
 12000 N. Washington St  
 Thornton, CO 80241

**OR CALL:**  
**(303) 412-6205**