



**Four Corners Petroleum
Section**

Society of Petroleum Engineers Four Corners Petroleum Section

November 2015 Newsletter

www.spe.org

2015 – 2016 Board of Directors

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<http://connect.spe.org/FourCornersPetroleum>

ASU Student Chapter

SPE Activities and Opportunities

Recently, geoscientist/petroleum engineer Anchor Holm with the New Mexico State Land Office was able to give a presentation to a large group of ASU petrotechnical students, including the SPE, Geology Club, and AIChE. The presentation was very well received and the Chapter is grateful for any time that our members can spend down there, especially since they are a bit geographically disconnected from industry. Next time you are heading to Phoenix on business or personal travel, consider giving a presentation to the newly formed ASU SPE Student Chapter. Contact Student Chapter President [Justin Bessant](#) with any questions or to schedule a presentation.



The Four Corners Petroleum section of the Society of Petroleum Engineers is offering the **energy4me** program to anyone requesting good and defensible information about energy issues. We will tailor our presentation to meet the needs and concerns of you and your audience.

To schedule a presentation please contact Philip Ouellette with ConocoPhillips at 505-599-4088 or Gavin Tweedie with BP at 505-326-9225.

SPE 4 Corners Meeting

Lunch & Lecture with Four Corners Geological Society – December 14th

Who: Dr. Peter R. Rose, AAPG Distinguished Lecturer (Rose & Associates, LLP) will be discussing how cognitive bias influences petroleum geoscience.

When: Monday, 14 December 2015
11:30 am – 1:00 pm

Where: Red Lion Hotel
700 Scott Ave Farmington, NM

Cost: \$20 with RSVP

Please RSVP [here](#) by December 9th. Registration cost is \$20, through the event at the FCGS website (instructions in link).

Please find the abstract and biography for the speaker on Page 3.

2015 – 2016 Meeting & Events

Save the Date!

Jan-March 2016

Spring Training Course
TBD

Monday, April 18th, 2016

Pete Naylor*, BG Group: *Making Better Appraisal and Development Decisions: Using Decision Risk & Analysis & Value of Information*
TBD

May 11th-12th, 2016

Four Corners Oil & Gas Conference
McGee Park, Farmington, NM

Monday, June 16th, 2016

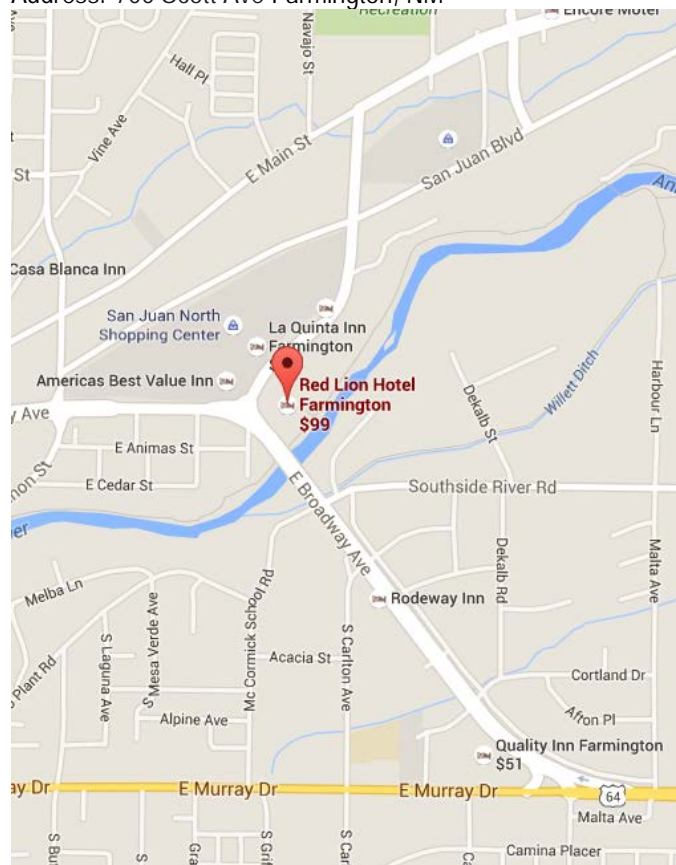
Robert Sutton*, Sutton Consulting:
Understanding Liquid Loading Will Improve Well Performance
TBD

*denotes SPE International 2015-16 Distinguished Lecturer Series

Meeting Venue

Red Lion Hotel

Address: 700 Scott Ave Farmington, NM



2015-2016

SPE FOUR CORNERS SPEAKER

***Dr. Peter R. Rose, Rose and Associates,
LLC***

Peter R. Rose (BS, MA, PhD, Geology, University of Texas at Austin) is a certified petroleum geologist who was Staff Geologist with Shell Oil Company; Chief, Oil and Gas Branch of the U.S. Geological Survey; and Chief Geologist and Director of Frontier Exploration for Energy Reserves Group, Inc. (now BHP Petroleum (Americas), Inc.). In 1980, he established his own independent oil and gas consulting firm, Telegraph Exploration, Inc. His clients include most major U.S. companies and many prominent independents as well as many international firms and state oil companies. Dr. Rose has explored for oil and gas in most North American geological provinces and has published and lectured widely on U.S. resource assessment, basin analysis, play development, prospect evaluation, and risk and uncertainty in exploration. He has taught extensively at the professional level and was a 1985/1986 AAPG Distinguished Lecturer. Since 1989 he has been deeply involved in design and implementation of comprehensive exploration risk analysis systems for executive management of many major and independent oil companies, operating in both the Domestic and International theaters. His courses emphasize the link between geoscience and making money in the business of petroleum exploration. He is a Senior Associate in the consulting firm, Rose & Associates, LLP (R&A), which he founded in 2000. The firm is a recognized international leader in risk analysis of exploration and development petroleum ventures. Dr. Rose was the 1996/1997 President of the American Association of Petroleum Geologist's Division of Professional Affairs. He received the coveted Parker Memorial Medal from the American Institute of Professional Geologists in 1998 and was awarded Honorary Membership in AAPG in 2002.

Cognitive Bias, The Elephant in the Living Room of Science and Professionalism

Abstract

Cognitive bias, in its many manifestations, is the major cause of geotechnical overestimation and faulty probability forecasts in petroleum geoscience. The five most prevalent cognitive biases in petroleum E&P are: Confirmation Bias; Overconfidence; False Analogs; Anchoring; and Motivational Bias. They are caused by premature selection of theory, personal hubris, lack of perspective, lack of imagination, laziness, and excessive self-interest. Important influences include the existing organizational reward system, economic pressure for objective geotechnical results, and the anticipated consequences of project reviews and evaluations. In fact, the field of E&P Risk Analysis emerged during the 1980s to help identify and reduce bias in assessing the value of new plays and prospects. Companies that routinely utilize disciplined methods of Risk Analysis tend to deliver on their E&P promises.

Pioneering work by Nobel laureate Daniel Kahneman, his late colleague Amos Tversky, and others since the 1970s has made scientists much more aware of the dangers that Cognitive Bias pose for the practice of objective, reliable science. Even so, increasing awareness of obvious agenda-serving scientific publications, slanted peer review ("pal-review"), withholding of codes and formulae, unreproducible experimental results, and scientific fraud indicate that procedures to identify and limit Cognitive Bias are not being appropriately utilized throughout the scientific community. This is probably because many of the organizational and economic pressures routinely experienced by E&P geoscientists are not as intensely or widely operative within academic and governmental organizations. The late physicist and Nobel laureate Richard Feynman recognized (1974) the danger of Cognitive Bias: "the first principle is that you must not fool yourself – and you are the easiest person to fool." Feynman knew that dedicated practice of the Scientific Method is the key to elimination of Cognitive Bias, recommending "a kind of scientific integrity, a principle of scientific thought that corresponds to a kind of utter honesty – a kind of leaning over backwards." A practical research approach familiar to many geoscientists is T. C. Chamberlain's "Method of Multiple Working Hypotheses", introduced in 1890. Also important is the separation of E&P activity into two essential and complementary components – 1) play and prospect generation; and 2) play and prospect risk assessment. Professionalism constitutes the conscious honoring of such principles. Sound and objective science is essential to the continued progress of Society. Is it possible that methods widely applied by Petroleum Geoscience to identify and counter Cognitive Bias might also be useful to other branches of Science?

SPE Four Corners Sponsorship

There is now an opportunity for non-profit groups seeking sponsorship to apply for funding through Four Corners SPE. As an example of sponsorship opportunities, last year, SPE Four Corners sponsored a Lego League Team, a global program created to get kids excited about science and technology.

Please find the necessary documentation [here](#) and submit to Forest Bommarito. The donation form can also be found on the Four Corners SPE home page.

Donation Request Form

SPE Four Corners

Date of Application:	
Organization Name and Address:	
Contact Person and contact information (phone & email):	
Amount Requested:	
Intended Use:	
How does funding need align with SPE Four Corners objectives? (see below)	
Date Deadline for Funding:	
Have you received previous SPE funding? (please provide detail)	
SPE Reference Contacts:	

Form Instructions: Complete form as indicated and email to fbommarito@rwpc.us

SPE Four Corners Objectives:

To collect, disseminate, and exchange technical knowledge concerning the exploration, development, and production of oil and gas resources, and related technologies for the public benefit; and to provide opportunities for professionals to enhance their technical and professional competence. The secondary purpose of the Section shall include the promotion of engineering education through scholarships and community outreach.

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Society of Petroleum Engineers



If you have moved, changed jobs, shifted job focus, or found new technical interests, we want to know!

Simply [log in](#) to your SPE membership account and update your membership profile. It takes less than 5 minutes, and will help us serve you better.

[Tell us what's new today.](#)

P.S. Don't forget to update your communication preferences, too. We are now offering you more options in your Communication Preferences to make our emails better targeted to your interests.

PayPal System

Starting in January 2013, the early registration discount for meetings will require registration and payment before the RSVP deadline. We will be using payment services via PayPal. This requires the ability to access your SPE account online as well as creating a PayPal account (or you can pay as a PayPal Guest). Please use the following instructions on how to RSVP to our monthly events:

Instructions:

1. Go to the Four Corners website at <http://connect.spe.org/FourCornersPetroleum/Home/>
2. Click the hyperlink for the Luncheon under "Upcoming Events" on the Home Page
3. Review luncheon details, select the "Register Now" hyperlink
4. Login to your SPE account
5. Answer questions for "Select Registrants," select Next
6. Confirm order, select Confirm Registration
7. Sign in to PayPal account (need to create if you don't already have one) OR pay as a PayPal Guest.
8. Review/update PayPal information, select Pay Now
9. Registration complete, receipt will be emailed to your PayPal email address on file

The screenshot shows a web browser window displaying the SPE Four Corners Petroleum Section website. The browser's address bar shows the URL <http://connect.spe.org/FourCornersPetroleum/Home/>. The website header features the SPE International logo and the text "Society of Petroleum Engineers Four Corners Petroleum Section". A navigation menu includes links for HOME, ABOUT US, EVENTS, RESOURCES, JOIN SPE, and PARTICIPATE. A prominent banner for "ATCE 2012" (SPE Annual Technical Conference and Exhibition) is scheduled for 8-10 October 2012 in San Antonio, Texas, USA. Below the banner, the "UPCOMING EVENTS" section is highlighted with a red oval, listing the "SPE Luncheon Meeting : Mr. Eric Penner Presenting on 'Linear Rod Pumps'" on Oct 17, 11:30 AM - 1:00 PM (Mountain Standard Time) in Farmington, NM, United States. Other sections include "ANNOUNCEMENTS", "SPE INTERNATIONAL" with a message about updating member profiles, "RECENT SHARED FILES", "RECENT BLOGS", "STUDENT SUPPORT", and "QUICK LINKS" with buttons for "Renew membership", "Scholarships", "JPT Online", and "OnePetro".