



Four Corners Petroleum
Section

Society of Petroleum Engineers Four Corners Petroleum Section

April 2017 Newsletter

www.spe.org

2016 – 2017 Board of Directors

Section Chair, Olivia Bommarito, *BP*
Olivia.Bommarito@bp.com

Program Chair, Philip Ouellette, *ConocoPhillips*
Philip.J.Ouellette@conocophillips.com

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Sebastian.Pivnicka@conocophillips.com

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Sara.Work@bp.com

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Aliph@duganproduction.com

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Catherine.Finley@bp.com

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Gavin.Tweedie@bp.com

Past Chair, Forest Bommarito, *Red Willow*
Fbommarito@rwpc.us

Contact Us At:



spe4corners@spemail.org

Four Corners SPE
P.O. Box 1526
Farmington, NM 87499

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

SPE Training Opportunities

Online – More info in the links below

- [Free Online On-Demand Webinars](#)
- [Free Upcoming Scheduled Webinars](#)
- [4/20/17 - Flow Assurance Principles Applied to Unconventional Gas Well Deliquification](#)
- [5/16/17 - Distributed Fiber Optic Sensing: The Current State of Oil & Gas Applications and their Value](#)

Board of Directors Update

We have one more Lunch and Lecture this spring season (April 25th), and our friends from FCGS will be welcome guests. Bryan McDowell from CSM will discuss his work on helium reservoirs in the Rocky Mountains. We don't have anything planned for May, but we will welcome any great ideas for lectures (please contact our Program Chair, Philip Ouellette).

We will kick off summer break with our SPE Shootout Fundraiser, June 9-10. This is our big fundraiser for the year, helping to support our student scholarship program. Mark your calendars and choose your teams! We also have plenty of opportunities for sponsorships. See pg. 4 for details.

Given the fact that budgets for training and professional development are tight, we have decided to offer a scholarship for an engineer in the oil and gas industry who would like to take a preparatory course for the PE exam. Only one will be selected, and the deadline is April 30th. Please review the information on page 5 for application info and details.



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 Gavin Tweedie with BP at 505-320-3359.

SPE 4 Corners Meeting

Lunch & Lecture – April 25

Please join us for the sixth meeting of this year.

Who: Bryan McDowell, Colorado School of Mines “Inert Gases in the Rocky Mountains: Implications for Risk, Opportunity, and New Understanding in Natural Gas Reservoirs”

When: Tuesday, April 25, 2017 11:30AM-1:00PM

Where: Merrion Room – San Juan School of Energy
5301 College Blvd, Farmington, NM 87402

Cost: \$20 with RSVP, \$25 at the door

Please RSVP through the event at the Four Corners Section website. Early registration deadline is Sunday, April 16, 2017; any RSVP made after or apart from the SPE website will be charged \$25. Student members now have the option to attend, with lunch provided for free.

NOTE: Some may have registration issues if their browser is outdated. Please update, or try Firefox. Please contact our program chair, Philip.J.Ouellette@conocophillips.com with your RSVP questions.

Please find the speaker's abstract and biography on Page 3.

Meeting Venue

San Juan College School of Energy Merrion Room

5301 College Blvd, Farmington, NM 87402



2016 – 17 Meeting & Event Schedule

Save the Date!

Tuesday, 25 April 2017

Bryan McDowell, Colorado School of Mines:
Inert Gases in the Rocky Mountains: Implications for Risk, Opportunity, and New Understanding in Natural Gas Reservoirs
San Juan College School of Energy, Farmington

Saturday, June 10 2017 (Friday practice)

SPE Shootout, San Juan Wildlife Federation
See page 4 for flyer and additional details.

*Denotes SPE International 2016-17 Distinguished Lecturer Series

2016-2017

SPE FOUR CORNERS SPEAKER

Bryan McDowell, Colorado School of Mines

Bryan McDowell is a graduate student at Colorado School of Mines currently pursuing a Master's degree in Petroleum Engineering as well as a Ph.D. in Geology. His research focuses on high-field nuclear magnetic resonance in the Eagle Ford Shale and basin-to reservoir-scale fluvial stratigraphy in western Colorado. He is currently the SPE President for the Colorado School of Mines Student Chapter and the incoming President for the AAPG Student Chapter. He received his Bachelor's degree in Engineering Geology from Texas A&M University in 2010 and plans to graduate from Mines in Summer 2018

Inert Gases in the Rocky Mountains: Implications for Risk, Opportunity, and New Understanding in Natural Gas Reservoirs

Abstract

The Helium System: A Modification of the Petroleum System for Inert Gases

Bryan McDowell, Donna Anderson, Alexei Milkov

Helium is a naturally occurring inert gas commonly associated with oil and gas accumulations. Although it generally constitutes less than two percent of the total gas stream, its occurrence within specific stratigraphic intervals and geographic areas can shed light on gas migration pathways within a basin. Moreover, the recent rise in helium prices and contemporaneous drop in oil and gas commodities has piqued commercial interests where oil and gas infrastructure, insight, and expertise is readily available. Most petroleum explorationists are not familiar with helium exploration; however, a widespread and common method may be easily modified for our purposes: the petroleum system. The petroleum system concept has been used successfully for decades to high-grade plays and de-risk oil and gas prospects around the world. We propose a modification of the petroleum system approach to aid exploration for helium resources and other inert gases.

Like a petroleum system, the helium system is identified by its source rock, reservoir, trap, seal, and migration pathway. Two helium systems are identified and tentatively called the Uncompahgre and Uinta systems; named after their interpreted source rock intervals. The helium gas, as well as nitrogen and carbon dioxide, are believed to migrate through basinal brine systems until trapped in conventional petroleum traps. These gases are found primarily in formations directly below the Mancos Shale which provides a basin-wide seal for both helium systems and prevents significant leakage to the younger Mesa Verde, Wasatch, and Green River gas-productive intervals. A case study was undertaken in the Uinta Basin of eastern Utah and Piceance Basin of northwestern Colorado to provide a proof-of-concept. These basins produce nearly three percent of the total natural gas in the United States and contribute appreciable amounts of helium from various geologic formations. We also used a common risk segment (CRS) approach to map areas of low, moderate, or high risk for the occurrence of pools with significant helium content.

2017 SPE Shootout Fundraiser

- **What:** Fundraiser for SPE Scholarship Program
- **When:** Practice Friday 09 June; Shootout Sat 10 June
- **Where:** San Juan Wildlife Federation
- **Cost:** \$350 per team
- **Sponsorships:** Platinum, Gold, Silver, Raffle, & Meal
- **Additional info:** contact Forest Bommarito
 - 970.563.5153
 - fbommarito@rwpc.us



Team,

After a one-year hiatus, the SPE Scholarship Shootout Fundraiser is back this spring at the San Juan Wildlife Federation on **Saturday, 10 June 2017!** The local section raises funds to provide annual college scholarships for students of the Four Corners area studying petroleum engineering, other engineering disciplines and fields of study that relate to the petroleum industry. In 2016, the Four Corners SPE Section awarded a total of **\$15,500 in scholarships to eight students** in engineering and science fields. Funding for the scholarship program comes from the sponsorship of local area producers and service companies and in a large part from the Shootout.

We are looking forward to another excellent turn out at the Shootout. This year, we are seeking sponsorships at multiple levels, including Platinum sponsors for the five ranges (\$1,000, headline range sponsor, includes one team entry) Gold (\$500), Silver (\$250), Raffle Sponsor (Shotgun), as well as companies to cook breakfast and/or lunch at the shoot. The cost to participate this year will be \$350 per team. **All entry fees and range sponsorships are due by 31 May 2017.** Please complete the attached entry/sponsorship form if you wish to participate in this event.

For questions feel free to contact **Forest Bommarito** at **970.563.5153** or **fbommarito@rwpc.us**.

Please e-mail entry forms to spe4corners@spemail.org

Thanks again and have a great day!

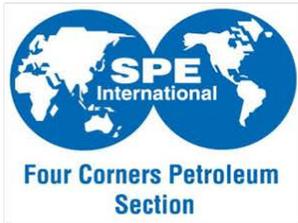
FOREST BOMMARITO

**Download Entry
Form Here!**



2017 4-Corners SPE
Shootout Fundraise

2017 SPE Scholarship for Professional Certification Prep Course



Requirements/Info

- You must be an active member of the 4 Corners SPE Section
- 1 scholarship available to support a 2017 PE prep course (in-person or web-based) up to \$2000 in cost
- Deadline: April 30, 2017

How to Apply

- Submit the following to spe4corners@spemail.org
 - Resume
 - Statement of why you are deserving of this scholarship, inclusive of confirmation of intent to take PE Exam Fall 2017.

Advertisements:

PROFESSIONAL REGISTRATION REVIEW COURSE FOR PETROLEUM ENGINEERING

COURSE DESCRIPTION: The Course covers most topics that are found on the State Board Petroleum Engineering Professional Examination.

WHO SHOULD ATTEND: Engineers who are planning on taking the PE Examination in Petroleum Engineering this fall. **INSTRUCTOR:** Bing Wines, PE

DENVER COURSE (8:00 AM - 5:00 PM)
Monday thru Friday
September 18 – 22, 2017

For More Information: 405-822-6761
E Mail: bingwines@cox.net
Web Site: winrockengineering.com
WINROCK ENGINEERING, INC.
P. O. BOX 42296 OKLAHOMA CITY, OK, 73123

60% Pass 2016 Petroleum PE Exam

NCEES and the State Engineering Boards released their 2016 Professional Engineering Exam results. Nationwide, the Petroleum Engineering Exam recorded a 60% pass rate. The Petroleum first time takers passed at a 66% rate. The pass rates for a few other engineering disciplines were:

Chemical	64%	Agricultural	71%
Civil	62%	Fire Protection	55%
Electrical	58%	Industrial	67%
Environmental	54%	Metallurgical	65%
Mechanical	69%	Mining	58%
Nuclear	71%	Control Systems	73%

The Petroleum pass rates in 2016 for a few states:

Alaska (4/5)	80%	Louisiana (9/15)	60%
California (0/3)	0%	Oklahoma (14/17)	82%
Colorado (4/5)	80%	Texas (92/158)	58%

What are the requirements to take the Petroleum PE Exam? Today, Colorado requires that you have:

1. An engineering, math or science degree.
2. Passed the Fundamentals, or FE Exam.
3. At least four years of professional experience.

Interested? Contact the Colorado State Engineering Board at (303) 894-7800 for application forms. State web sites are also available at: www.ncees.org/licensure/licensing_boards. The Colorado application deadline to take this years PE Exam is June 1, 2017. This year's PE Exam will be given on Friday, October 27, 2017.

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 Olivia 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 Olivia.bommarito@bp.com

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.

Update Your SPE Membership Profile Today!



Society of Petroleum Engineers



Welcome,

[My profile](#)

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.

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.