CONNECT SPE GULF COAST SECTION

APRIL 2018

Optimization in Unconventional **Oil & Gas: How** Far Can We Go?

Countering Human Trafficking: Risks and Strategies for the **Oil and Gas Industry**

2018 Reservoir Technology **Symposium**

NORTHSIDE

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D2 CHAIR'S CORNER



A number of key activities are underway to renew the Board of Directors and address findings from an internal

Board Activity Update

TREY SHAFFER, 2017-2018 SPE-GCS CHAIR

audit conducted for the Gulf Coast Section by Grant Thornton. I've provided a brief summary of this work by the Board for the members of the Gulf Coast Section.

Election of Gulf Coast Section Board Members

We have begun our nomination process to elect several key Board positions. The Nominating Committee will be chaired by Deepak Gala, and members include Marise Mikulis, Karin Gonzalez, Mohammad Tabatabaei, Nils Kageson-Loe, Bill Davis, and Mike Redburn.

The Nominating Committee will proceed as follows:

- I. The Nominating Committee will prepare a slate of candidates for each office and the date and location of a vote for the following positions: one candidate each for the position of vice chair, secretary, vice treasurer, and three at-large directors. The Nominating Committee will also nominate one candidate for each director (key committee chair) position to be appointed by the chair.
- 2. The deadline to submit nominations will be April 15.
- 3. Please submit nominations to Deepak Gala at deepak.gala@shell.com and Taylor Wright at spe-gcs@spe.org
- 4. Slate of candidates will be presented at the May 17, 2018, Board of Directors meeting for approval.
- 5. The results will be published via e-mail or the newsletter following the Board meeting in June.

All nominees must meet the qualifications for section membership defined in Article IV of the Gulf Coast Section Bylaws.

Gulf Coast Section Audit

In support of the governance requirements of SPE and the Gulf Coast Section, Grant Thornton was retained to undertake an operational review of SPE-GCS from October 30-November 3, 2017. Prashant Sainani, Gulf Coast Section Treasurer, facilitated the audit with support from myself, Taylor Wright, and Vicki Rau. I thought it would be useful to share the following excerpt from the executive summary with members:

"The operational review focused on the Section's underlying governance and structure and the policies, procedures and operations within the financial management and communication business processes for FY 2018 as of November 2017. The review primarily focused on benchmarking current operating processes against leading practices for not-for-profit and trade organizations. Observations and recommendations are relative to a not-for-profit or trade organization with an already established set of procedures aligned with leading practices.

Grant Thornton identified several notable processes during the review:

- SPE–GCS has active membership and encourages both petroleum engineers and adjacent disciplines to join the Section.
- Despite the energy industry down cycle and subsequent decrease in membership and funding, SPE-GCS established the scholarship fund to support students in the profession.
- The annual budgeting process combines input from all levels, including committees, study groups, and the executive committee."

The auditors reviewed and assessed relevant documentation, including bylaws, organizational charts, roles and responsibilities, policies, financial data for 2016- 2017, and key presentations.

O3 CHAIR'S CORNER

Chair's Corner, Continued from page 2

During the review, process design and control procedures were tested on a limited basis to determine compliance with internal policies and procedures and industry leading practices.

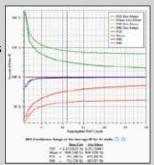
A number of potential operational improvements and opportunities were identified, including opportunities to improve accounting controls, policies, and procedures, as well as governance associated with the scholarship endowment fund. To address these findings, Sunil Lakshminarayanan has accepted the role of Audit Committee Chair. Sunil has developed an action plan and is working closely with the Board of Directors to address the findings.

The Gulf Coast Section has a long history, and the volunteers serving on the Board of Directors are doing great things on behalf of our section and industry. Please join me in thanking the dedicated members of the GCS Board of Directors: www.spegcs.org/ committees/board-of-directors/.



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APRIL CALENDAR

APRIL 2018



Upcoming Special Events

Mark Your Calendars

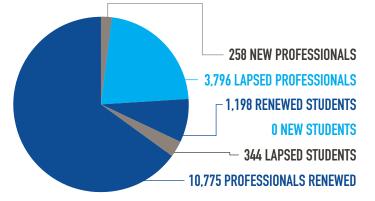
APRIL

- **12 PERMIAN BASIN SYMPOSIUM**
- **18** GEOMECHANICS CONGRESS 2018
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 - SYMPOSIUM

MAY 24 EMERGING ENGINEERS SYMPOSIUM



Membership Through February 2018



Current **Membership Trends**



WHEN WHERE	Apr 19, 7:30 — 10:30am SPE Houston Office: 10777 Westheimer Rd, Ste 1075
	Houston, TX 77042
R.S.V.P.	Taylor Wright T (713) 457–6821
	F (713) 779-4216
	spe-gcs@spe.org

Unless specified separately in the registration website:

Board of Directors

Study Group

Pricing

Meeting

\$40/\$55 Walk-in MEMBERS: NON-MEMBERS: \$55 STUDENTS/MiT/Retired SPE: \$15

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SCALEGUARD

JODY MAHONEY



Jody Mahoney got involved with SPE at the University of New South Wales in Australia, where she received her bachelor's in petroleum engineering. She then moved to Perth and became involved in the Western Australian Section of SPE. After five years in Perth, she moved to Houston and became involved in

events focused on unconventionals. In 2015, she reached out to Mohammad Tabatabaei, who welcomed her into the GCS Reservoir Study Group. She served as Vice Treasurer and is now Program Chair.

Jody is the Subsurface Manager for the Mad Dog Field at BHP Billiton. As a reservoir engineer, she has worked deepwater GOM, onshore unconventionals, and offshore Australia assets.

Volunteering with SPE allows Jody to meet talented, interesting people, all with a common interest. Conversations with these brilliant people keep her volunteering no matter how busy life and work become.

MOHAMMED DOOPLY



Mohammed Dooply has published technical papers, held technical committee memberships, and chaired sessions at SPE conferences. Since 2016, he has served on the Drilling Program Subcommittee for ATCE. He also serves as

Arrangement Chair for the Drilling Study Group.

Mohammed is a Deepwater Cementing Technical Specialist for Schlumberger, where he provides technical support for worldwide deepwater cementing operations. After earning a degree in mechanical engineering from the University of Indonesia, Mohammed joined Schlumberger in 1998 as Cementing Field Engineer in Indonesia. He has held cementing technical and managerial positions in Schlumberger operations. He is a member of AADE.

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WORTHWHILE CONVERSATIONS PROTECTING YOUR BLIND SIDE

HAROLD: Cyber fraud and identity theft are hitting the news repeatedly. How concerned should people be?

PHILLIP: Plenty. It is America's fastest-growing crime and Texas is one of the top 5 states in victims per 100,000 in population. Almost everyone at least knows someone personally who has been victimized. Our Wealth Management Committee - a group that includes attorneys, MBAs, CPAs, CFA® charterholders and CFP® practitioners has devoted increased discussion to this topic every year for the last four years. We consider it a critical area of our risk management conversations with clients.

HAROLD: "Risk management" is usually a code word for insurance. Is this an insurance issue?

PHILLIP: Insurance is really only on the fringe of cyber fraud risk. It's also fair to say that signing up for one of the credit fraud monitoring services, while possibly worthwhile, is certainly no panacea. You must take proactive steps to create an effective defense. That makes it a

standout compared to many other riskmanagement strategies, and therefore unique compared to most of what we have experienced in our 46 years of advising clients.

HAROLD: What are some of those "proactive steps?"

PHILLIP: Locking down your credit bureau files, creating a "deterrence" protocol with your credit card usage, and putting penetration "armor" on your major asset accounts - these are a few, but more than time permits detailing. The key is to invest the time, preferably with the help of someone qualified to give counsel, to develop a set of strategies that work efficiently for you and are relatively hassle-free to maintain. At Linscomb & Williams, our Wealth Advisors are prepared to invest that time with you as part of a client-centered wealth management conversation. We are ready to start that conversation on a no-cost, no-obligation, exploratory basis at our offices in the Houston Galleria or The Woodlands



Phillip Hamman discusses cyber fraud and what proactive measures clients can take with J. Harold Williams. (Left to right: Phillip Hamman, CFA, CFP[®] ; J. Harold Williams, CPA/ PFS. CFP®I

For more information, or a copy of our Form ADV, Part II, with all of our disclosures, call Harold Williams at 713 840 1000 or visit www.linscomb-williams.com.



1400 Post Oak Boulevard, Ste. 1000 Houston, Texas 77056 713 840 1000 www.linscomb-williams.com Linscomb & Williams is not an accounting firm



THEN & NOW

APRIL 1970

Russian oilmen are reportedly involved in exploration-development programs in more than 20 countries, while boasting of enormous new Siberian reserves, all of which are threatened by high production costs.

The infant organization of Arab Petroleum Exporting Countries (Oapec) reports five more Arab producing nations (Algeria, Bahrain, Qatar, Abu Dhabi, and Dubai) as seeking to be admitted, to join present members Kuwait, Saudi Arabia, and Libya.

US rig count: 927

APRIL 1985

London-based Scottish and Marine Oil plc and partners report strong hydrocarbon shows off Sicily in its first well in Italian waters (sure beats working in Muleshoe, TX!).

Conoco looks to install as many as three tension-leg well platforms (TLWP) to develop the deepwater Green Canyon in the Gulf of Mexico, and the three platforms would share a permanently moored tanker, which would contain the production equipment and personnel accommodations.

US rig count: 1,939

APRIL 2000

The movement toward the virtual oil company continues to gain momentum, as McMoRan Exploration and Halliburton announce the formation of an alliance in which Halliburton will take over the operation of McMoRan's Gulf of Mexico E&D program.

Nigeria creates a new police unit authorized to shoot vandals on sight to protect its oil pipelines, acknowledging that they have tried all other alternatives and now must resort to this extreme measure.

Light sweet crude oil: \$26.99/bbl Natural gas: \$2.92/MMbtu US rig count: 775

THE REST OF THE YARN

This month we continue our look back at the rise and fall of wildcatter Glenn McCarthy, as an unlikely financial partner for his hotel steps forward.

As World War II drew to a close, in the summer of 1945, a broker put McCarthy in touch with an officer at the Equitable Life Assurance Society of the United States. It was a fateful choice. Up and down Fifth Avenue, scores of New York lenders, keenly aware of the massive loans Sid Richardson and Clint Murchison had taken, were flocking to find oilmen of their own to fund. America's third-largest lender, Equitable, was late to the oil game but determined to catch up. Its executives had opened their oil lending office in Dallas just weeks before, in May 1945. Its first loan was for \$425,000. The second, to McCarthy, would be a jaw-dropping \$22 million, among the largest loans Equitable's board had ever approved. That was only the beginning.

To ascertain McCarthy's creditworthiness, Equitable first commissioned an analysis of his business. In February 1946, a petroleum engineer it had hired valued McCarthy's oil and gas reserves at \$45 million. On the strength of that report, Equitable advanced McCarthy the first \$22 million, all but \$3 million of which went to pay off existing debts. McCarthy knew that more would be coming, and in short order began to put his plans into motion. He moved his offices into the Shell building, taking up the entire sixth floor, and hired a public-relations man, a Houston radio veteran named Fred Nahas. If McCarthy so much as burped, Nahas made sure it got into the papers. Texas reporters quickly discovered that McCarthy, with his dashing mustache and good looks, was eminently quotable making him an entirely different animal from taciturn Hugh Roy Cullen or other press-shy Texas oilmen. So frenetic were McCarthy's preparations that year, and so effective Nahas at publicizing them, it sometimes seemed McCarthy was the only oilman in Houston in 1946.

Next month, McCarthy begins his promotional campaign.

APRIL 2018

HISTORY QUIZ

The majority of the earliest fracturing fluids were oil-based. By 1970 (and within 5%), what percentage of the fracturing fluids being employed were water-based?

If you would like to participate in this month's quiz, e-mail your answer to <u>contest@spe.org</u> by noon April 15. The winner, who will be chosen randomly from all correct answers, will receive a \$50 gift card to a nice restaurant (courtesy of the ProTechnics Division of Core Lab).

ANSWER TO MARCH'S QUIZ

In the early part of the 21st century, John Browne, Group Chief Executive with BP, was quoted as saying, "I believe the American people expect a company like BP, the largest single supplier of oil and gas in this country, to offer answers, not excuses."

Congratulations to February's winner – Jack Courtney



Email Taylor Wright today: SPE-GCS@SPE.ORG



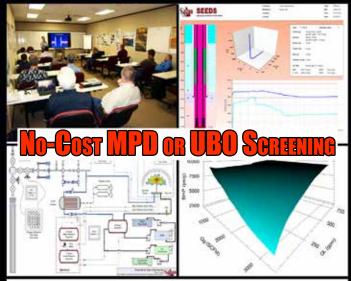
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DIGITAL TRANSFORMATION

Announcing the launch of the Digital Transformation Study Group!

Tentative Lunch & Learn subjects include:

- OMV Sucker Rod Pump Edge Analytics
- DCP Benefits of Analytics and Physics based IoT
- Transocean, IoT Deployment Lessons Learned

Check the webpage spegcs.org/study-groups/digitaltransformation/ for monthly Lunch & Learns Agenda. From that page use the link provided to review your preferences to receive email updates from our study group!

ENABLING DIGITAL TRANSFORMATION - DATA AS DIGITAL CAPITAL



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X

SHARE Use Case & Best Practices Promote Safety, Increase

Productivity, Reduce Costs, Minimize Environmental Impact



GUIDE The Industry

Towards understanding, leveraging, and protecting data a critical enterprise asset.

RESEARCH & DEVELOPMENT

Imaging P- and S-wave 9 Component Seismic Data

RARE is an exclusive, proprietary, state-of-the-art seismic processing algorithm.

• RARE's software extracts weak signals from complex noisy seismic data.

• RARE offers a novel method to extract S-wave information (SV-SV, SH-SH, P-SV and SV-P wavefields) from a Vertical Force Sources (VFS),

JOHN ROBINSON

traditionally considered to be a P-wave sources, from 2D (IC or 2C) seismic data or 3D multicomponent seismic data.

- RARE enhances P-P wave data and provides vastly improved velocity volumes and reflection imaging.
- R&D includes extraction of the SV-P wavefield from traditional/legacy P-wave datasets.

John Robinson has been active in seismic R&D for the past 14 years and is the inventor of RARE Technology (RARE). John holds 18 patents and patent applications in the United States and other countries for RARE Technology. John believed in his technology so much that he used it to successfully drill wells for his own O&G company, e-Wave Exploration, L.P.

EVENT INFO

WHEN

Wed, April 5, 2018 11:30am – 1:00pm

SPEAKER

John Robinson Incoming P- and S-wave 9 Component Seismic Data, Rare Technologies

LOCATION

Norris Center – Westchase 9990 Richmond Avenue – Suite 102 Houston, TX 77042

CONTACT

Mark Sokolow mtsokolow@yahoo.com



HSSE-SR

Countering Human Trafficking: Risks and Strategies for the Oil and Gas Industry

In the aftermaths of a disaster, such as Hurricane Harvey, a sudden demand for workers can lead to exploitation. Especially in remote areas where workers and services may be limited, there is a risk of illicit labor recruiters providing workers to contractors in their supply chain. There has been a precedent of legal cases related to Hurricane Katrina and the oil and gas industry. This presentation will discuss potential risks to the industry and provide recommendations for intervention and prevention of labor exploitation.

MINAL PATEL DAVIS

Minal Patel Davis serves as Houston Mayor Sylvester Turner's Special Advisor on Human Trafficking. She is charged with making a local impact on human trafficking from a policy-level perspective and by advancing systems change. She developed and is implementing Turner's Anti-Human Trafficking Strategic Plan. Davis received her JD and MBA from the University of Connecticut and a BA from NYU.

EVENT INFO

WHEN

Tuesday April 10, 2018 11:30am – 1:00pm

SPEAKER

Minal Patel Davis Special Advisor to the Mayor on Human Trafficking City of Houston

LOCATION

Marathon Oil Tower & Conference Center 5555 San Felipe Rd Houston, TX 77056

CONTACT

Angelo Pinheiro abpinheiro@marathonoil.com



NORTHSIDE

Optimization in Unconventional Oil & Gas: How Far Can We Go?

Unconventional oil and gas resource development in North America has benefited significantly from operators' relentless focus on cost reduction and optimization. A number of workflow improvements and new technologies have enabled operators reduce costs consistently over several years. Some cost reductions have also come from discounts provided by oilfield service and equipment players following the recession. This presentation will provide an overview of cost optimization in unconventionals over the past few years and key drivers along with identifying new opportunities for cost optimization.

UDAY TURAGA



Uday Turaga is Founder and CEO of ADI Analytics, a management consulting firm. Turaga has led ADI for the past nine years and through 300 projects for clients including ExxonMobil, Shell, Saudi Aramco, BASF, GE, Honeywell, and the US Department of Energy. Turaga holds a PhD in fuel science from Penn State and an MBA from UT-Austin. He has authored over 100 papers and patents.

GENERAL MEETING Beating the Competition – Deepwater vs. Shale

This presentation will examine the economic and technology metrics for deepwater and shale as they compete for asset dollars. The oil patch is getting healthy again, but in a vastly different world. Improving efficiencies, completion of "the great crew change," and emerging/alternative energy sources are keeping prices lower for longer. Deepwater prospects, once a big part of the oil patch's growth, face significant competitive headwinds, primarily from shale. Shale continues to improve production efficiencies and gain market share. For deepwater to compete, it will need to find new configurations and efficiencies other than just dropping the cost of equipment.

BRIAN SKEELS



At TechnipFMC, Brian Skeels serves as technical advocate and strategic planning specialist for new technologies, HPHT, riserless light well intervention, ROV interfaces, remote robotics, and hydrate remediation programs. Skeels has a BS in mechanical engineering from Cornell University and an MS in ocean engineering from the University of Rhode Island. He is an Adjunct Professor in subsea engineering at the University of Houston.

EVENT INFO

WHEN

Tues, April 10, 2018 11:30am – 1:00pm

SPEAKER

Uday Turaga Founder & CEO, ADI Analytics

LOCATION

SWN Campus 10000 Energy Dr, Spring, TX 77389

CONTACT

Jon Spencer – 281-291-7769 jon.Spencer@tracerco.com

Matt Boothe - 281-731-3140 matt_Boothe@swn.com

REGISTER ONLINE

EVENT INFO

WHEN

Thurs, April 12, 2018 11:30am – 1:00pm

SPEAKER

Brian Skeels Senior Technical Advisor, TechnipFMC

LOCATION

Petroleum Club of Houston 1201 Lousiana St, 35th Floor Houston, TX 77002

CONTACT

Barry Faulkner – 281-627-8792 barryf1944@gmail.com



WESTSIDE

Hydraulic Fracture Geometry Characterization Using Low-Frequency DAS Signal

Monitoring and diagnosing completions during hydraulic fracturing operations provides insights into the fracture geometry, interwell frac hits, and connectivity. This presentation will showcase examples using the low-frequency band of the DAS signal to constrain hydraulic fracture geometry. It will be shown that DAS data in the low-frequency band provide a powerful attribute to monitor small strain and temperature perturbations in or near the monitor wells.

DR. GE JIN



Dr. Ge Jin is a Senior Geophysicist in subsurface technology at ConocoPhillips. He developed a series of applications that utilize DAS signals in the low-frequency band to characterize unconventional reservoirs. Jin obtained his PhD in geophysics from Columbia University and holds BS degrees in geophysics and computer science from Peking University.

NORTHSIDE

Surfactant Chemistry and Its Impact on Oil and Gas Recovery in Shale Plays

This rescheduled Distinguished Lecturer presentation will give a concise overview on surfactant chemistry and its most relevant parameters to hydraulic fracturing. In particular, the key characteristics of surfactant additives will be discussed in terms of conventional wisdom and newer chemistry. Insights will also be provided into potential synergies between surfactant and other additives, such as friction reducer, scale inhibitor, biocides and proppant, thereby leading to a better fracturing fluids design. When properly selected, surfactant-containing fracturing fluids tend to lead to better well cleanup and higher ultimate oil recovery.

SPE DISTINGUISHED LECTURER – LIANG XU



Liang Xu is responsible for developing fracturing additives, including surfactant, friction reducer, and proppant transport. He was the recipient of the MVP award for surfactant technologies from Halliburton Academy, and his RockOn surfactant technology was voted the best production chemical in 2013 by World Oil. He has authored or co-authored over 15 SPE papers and several patents.

EVENT INFO

WHEN

Wed, April 18, 2018 11:30am – 1:00pm

SPEAKER

Ge Jin Senior Geophysicist, ConocoPhillips

LOCATION

Norris Center Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

CONTACT

Bharath Rajappa - 832-486-3122 bharath.rajappa@conocophillips.com

REGISTER ONLINE

EVENT INFO

WHEN

Thurs, April 19, 2018 11:30am – 1:00pm

SPEAKER

Liang Xu Technical Manager, Halliburton

LOCATION

SWN Campus 10000 Energy Dr, Spring, TX 77389

CONTACT

Jon Spencer – 281-291-7769 jon.Spencer@tracerco.com

Matt Boothe - 281-731-3140 matt_Boothe@swn.com



DRILLING

Operators' Group, Rig Contractors, and OEM/Service Company Work to Solve Rig Data Quality Issues

IADC/SPE-18962

MATT ISBELL



Matt Isbell graduated from the University of Texas with a BSME and has 27 years of experience optimizing drilling performance in fields around the world. He is a Drilling Optimization Advisor at Hess focused on developing and implementing a continuous improvement process to target and address value limiters during drilling and completion operations.

COMPLETIONS & PRODUCTION

Production Optimization With Artificial Lift and Why Should You Care

With more than 95% of US oil wells on artificial lift, significant lease operating costs are tied to artificial lift operations. By not paying attention to lift selection and operations, you may be missing opportunities. Ill-informed lift decisions may also cause unplanned shutdowns and loss of production. Dr. Rajan Chokshi will present observations on:

- How lift practitioners' perspectives have changed.
- you are focused on liquids or gas production.How operators are improving officiencies under lower pricing

• Why artificial lift matters whether

- efficiencies under lower pricing environments while extending the productive life of assets.
- How we are setting ourselves up to derive more benefits from technologies like data analytics, machine learning, and edge computing.

DR. RAJAN CHOKSHI



Dr. Rajan Chokshi is an Artificial Lift and Production Optimizer. With 34-plus years of global experience, he has worked in multi-phase flow, artificial lift optimization, and real-time production monitoring. He has co-authored over 15 SPE papers, delivered SPE webinars, and conducts workshops globally. He has been selected as an SPE Distinguished Lecturer twice.

EVENT INFO

WHEN

Thurs, April 19, 2018 11:30am – 1:00pm

SPEAKER

Matthew Isbell Drilling Optimization Advisor Hess Corporation

LOCATION

Petroleum Club of Houston

CONTACT Tom Wick – 713-806-2631

twick@hytorc.com

REGISTER ONLINE

EVENT INFO

WHEN

Wed, April 25, 2018 11:30am – 1:30pm

SPEAKER

Rajan Chokshi Artificial Lift and Production Optimizer Accutant Solutions

LOCATION

Norris Center, Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

CONTACT

Reza Safari - 346-804-8916 reza.safari@weatherford.com





BUSINESS DEVELOPMENT Tellurian – The LNG Export Race

Tellurian's Vice Chairman and cofounder, Martin Houston, will discuss how the growth in US natural gas production and increasing liquefied natural gas (LNG) exports have impacted the global gas markets – and what role Tellurian has to play.

Tellurian is developing an LNG production and export terminal on the

MARTIN HOUSTON

MARTIN HOUS

Martin Houston is co-founder and Vice Chairman of Tellurian. He retired from BG Group in 2014 as Chief Operating Officer and a member of the board of directors. Houston sits on the National Petroleum Council and is a Fellow of the Geological Society of London. He has a bachelor's degree in geology from Newcastle University and a master's in petroleum geology from Imperial College, London.

including Q&A.

west bank of the Calcasieu River, south of

Lake Charles, LA. The project is expected

to be sanctioned in 2019 and to ship

its first cargo by 2023. Tellurian is also

assets to support its LNG development.

be followed by an hour-long program,

A networking hour in the mezzanine will

developing upstream and midstream

EVENT INFO

WHEN

Wednesday April 25, 2018 5:00-7:00pm

SPEAKER

Martin Houston Vice Chairman and Co-Founder Tellurian

LOCATION

Four Seasons Hotel Houston 1300 Lamar St Houston, TX 77010

CONTACT

Heidi Epstein 832-679-7182 heidi.epstein@ihsmarkit.com

PERMIAN BASIN



SPE-GCS Permian Basin Study Group Presents 2018 Permian Basin Symposium: Permian Basin Challenges & Opportunities in a Cyclic Oil & Gas Industry

Annually, SPE-GCS hosts the Permian Basin Symposium, a one-day conference primarily focused on the most prolific and active basin in the US. In its 12th year, the event continues to provide a networking forum to discuss and disseminate the latest innovations and technological advances that drive the Permian Basin's resurgence despite the challenging market conditions. We expect over 300 engineers, scientists, academics, managers, and financial executives to attend.

Please visit www.spegcs.org/PBS for more information.

KEYNOTE SPEAKERS



MONTE DOBSON Senior Vice President of Development, XTO Energy



ALLEN GILMER Co-Founder and Executive Chairman, Drillinginfo

REGISTER ONLINE

SPEAKERS

- Abe Abraham and Amy Timmons
- George King Distinguished Engineering Advisor, Apache
- Kathy Ball *E&P Analytics and Data Science Manager, Devon Energy*
- Shauna Noonan Chief Production Officer, OXY
- Jim Rose Partner, Sidley Austin LLP

- Patrick Lissonnet Vice President, Kayne Capital
- Jon Grimmer Vice President, Quantum Energy Partners
- Joey Hall Executive VP of Permian Operations, Pioneer Natural Resources
- Dave Sobernheim Executive VP of Engineering & Technology, Keane Group

EVENT INFO

WHEN

Thursday April 12, 2018 8:00am – 4:20pm

LOCATION

Norris Center – Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

PRICE

Members: \$125 Non-Members: \$150 Students/MIT: \$40

Please also join us for happy hour after the event.

4:30-7:00pm

The General Public 797 Sorella Ct, Ste 118 Houston, TX 77024

GEOMECHANICS

Geomechanics Congress: Recent Advancement in Petroleum Geomechanics

The Geomechanics Congress is an effort from SPE-GCS to contribute and impart technical knowledge to members. Attendees can learn and discuss, with highly recognized speakers, the latest petroleum geomechanics topics and top technology developments. The event will discuss exploration, drilling, completion, and production geomechanics.

Gold Sponsors



Silver Sponsors





EVENT INFO

WHEN

Wed, Apr 18, 2018, 7:30am – 4:00pm

LOCATION Southwestern Energy

1000 Energy Dr, Spring, TX 77389 CONTACT

Reza Safari – 346-804-8916 reza.safari@weatherford.com

PRICE

Members: \$150, Non-Members: \$175 Students/MIT/Retired: \$75

REGISTER ONLINE

AGENDA

7:30am	Registration/Breakfast
8:20am	Welcome and safety briefing
8:30am	Keynote
9:15am	Using Geomechanics Earlier in the Life Cycle
9:40am	Salt Flow and Deformation of Reservoir Intervals Within Layered Evaporate Sequences Over Geological Time Scales: Insights From Geomechanical Forward Modeling
10:05am	Implications of New Stress Mapping for Oil and Gas Production in Tight Formations
10:30am	First break/networking
10:45am	Drill Bit Geomechanics: Providing the Data Needed for Mechanical Studies
11:10am	Pore Pressure Prediction and Wellbore Stability Analysis to Reduce Drilling Risks
11:35am	Lunch/networking
12:45pm	Mapping Reservoir Stress Conditions Using Hydraulic Fracturing Microseismicity

1:10pm	Geomechanical Effects on the Efficiency of Plug & Perf Completions in Unconventional Wells
1:35pm	How Much Do Proppants Contribute to Production in Unconventional Resources?
2:00pm	Geomechanical Modeling of Asymmetric Hydraulic Fracture Height Propagation in a Multilayered Rock Using Damage Mechanics and the Material Point Method
2:25pm	Second break/networking
2:45pm	Well Productivity Enhancement: From Reservoir Geomechanics to Near-Wellbore Geomechanics
3:10pm	Utilizing 3D Geomechanics Models to Evaluate and Influence Production and Injection Operations
3:35pm	Coupled Reservoir/Geomechanics/ Stimulation Modeling Workflow to Forecast and Mitigate Infill Degradation

DATA ANALYTICS

Data Analytics Study Group Presents the Data Science Convention Transforming the Upstream O&G Industry with Advanced Data Science Solutions

SPE-GCS will host a one-day Data Science Convention at the Norris Conference Center in Houston on Thursday April 19. The theme is "Transforming the Upstream O&G Industry with Advanced Data Science Solutions." The convention is intended for upstream oil and gas professionals, academics, and students with interests in emerging data science, machine learning, and artificial intelligence applications.

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AGENDA

7:30am	Registration and Reception
8:00am	Keynote: Greg Leveille, <i>CTO, ConocoPhillips</i> Session: Levering Emerging Technologies
8:30am	Kim Pham, Assoc. Partner, IBM Global Business Services
9:00am	Dr. Richard Baraniuk, Victor E. Cameron Professor, Rice University
9:30am	Pallav Sharma, Chief Scientist, Tachyus
10:00am	Break
10:30am	Session: Driving Oilfield Efficiencies and Productivity Pedro Esteves Aranha, <i>Technology Advisor, Petrobras</i>
11:00am	Patrick Rutty, Sr. Product Manager, DrillingInfo
11:30am	Barry Zhang, CEO Quantico Energy Solutions
12:00pm	Lunch
1:00pm	Keynote: Michael Rowley, <i>Director of Technology & Innovation BP</i> Session: Unlocking New Hydrocarbon Resources
1:30pm	Prashant Mehrotra, Senior Manager, Strategy, Accenture
2:00pm	Dr. Liz Percak-Dennett, Technology Director, Biota Technology
2:30pm	Break
3:00pm	Panel Session: Building Data Science Practices in Organizations Andy Flowers, Director, Advanced Analytics, Marathon Oil Pradeep Ashok, Senior Research Scientist, University of Texas, Austin Pat Kinder, Sr. Director, Pioneer Natural Resources Troy Ruths, CEO and Chief Data Scientist, Ruth Analytics and Innov.
4:15pm	Closing Remarks
4:30pm	Networking and Exhibition

EVENT INFO

WHEN

Thursday Apr 19, 2018 7:30am – 6:00pm

LOCATION

Norris Conference Center – Town & Country 816 Town and Country Blvd #210 Houston, TX 77024

EXHIBITION REGISTRATION

Supriya Gupta supriya026@gmail.com

Jeremy Vila jeremypvila@gmail.com

Tom Howes howestb@gmail.com

PRICE

Members: \$175 Non-Members: \$200 Students/MIT/Retired: \$75 Above pricing ends on 4/18/2018

RESERVOIR

2018 Reservoir Technology Symposium **Maximizing Our Resource**

The Reservoir Study Group annually hosts the Reservoir Technology Symposium to disseminate the knowledge and technology needed to achieve the many objectives of reservoir management, including understanding risk, increasing production and reserves, and maximizing resources.

AGENDA

SESSION 1 S1.01 S1.02 S1.03	Technology & Innovation: Emerging Technologies to Maximize Our Resources Andrew Oghena, Chevron Reza Rastegar, Occidental Petroleum Corporation Hani Elshahawi, Shell
SESSION 2 S2.01 S2.02	Production Forecasting & Reserves Estimation Dan Diluzio, Newfield Christine Ehlig-Economides, University of Houston
LUNCH	Keynote Luncheon: Oil Geopolitics and US-Mideast Relations Jim Krane, Rice University's Baker Institute
SESSION 3	Unconventional Reservoirs – A Service Company's Perspective
S3.01	Johannes Will, Dynardo
S3.02	Liz Percak-Dennett, Biota
S3.03	Chet Ozgen, Nitech
SESSION 4	Unconventional Reservoirs – An Operator's Perspective
04.01	Forma Line Company Dhilling
S4.01	Faye Liu, ConocoPhillips
S4.01 S4.02	Do Shin, Occidental Petroleum Corporation

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RESERVOIR



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Thursday | April 26, 2018

Early Registration	
Member	\$100
Non-Member	\$125
Late Registration	
Member	\$125
Non-Member	\$150
Walk-In	\$150

Registration Students/MIT/Retired \$50 *Limited spots. See website for details.

REGISTRATION **& PRICING FOR ONE-DAY** WORKSHOP

Friday | April 27, 2018 One-Day Workshop Sponsored by 3esi-Enersight

Early Registration Member/Non-Member \$300

Late Registration Member/Non-Member \$350

Registration Students/MIT/Retired \$125

EVENT INFO

WHEN

Thurs, Apr 26, 2018, 7:30am – 4:00pm

LOCATION

Anadarko Conference Center 1201 Lake Robbins Dr The Woodlands, TX 77380

REGISTRATION

APRIL 2018





MEMBERS IN TRANSITION (MiT) SPE MiT Initiative: 27th Seminar Series

The SPE Members in Transition Seminar Series features topics of interest to SPE members who are transitioning between jobs during the current industry downturn or who are looking for new opportunities. The agenda for the 27th seminar will include the following programs:

PROGRAM 1

What Type of Mentor Are You?

There are many opportunities to mentor, but you must first determine which mentoring capacity is best suited for you. This discussion will cover the following mentoring categories and the roles the mentor and mentee play in the relationship: technical, job, career, impact, or counseling. Everyday opportunities to give back in this way will also be shared.



CHUCK GREER

Chuck Greer was recently recognized as Chevron Mentor of the Year. His 40-plus-year career includes roles of increasing responsibility at Chevron, Production Management Industries, Growth Resources, and Schlumberger. He received MS and BS degrees in electrical

engineering from Virginia Tech.

PROGRAM 2

Data to Make Value-Driven Decisions

Cheng Zhang will demonstrate an effective visual analytical workflow utilizing pertinent geologic and engineering data to generate a type well profile. The type well profile provides an improved understanding of predicted well performance, critical to estimating the economic outcome and thereby reducing risk for value-driven decisions.



CHENG ZHANG

Cheng Zhang partners with OGRE Systems to grow their professional reserve-related brand, R₃. He received a BS in petroleum geology from SWPU in China and MS degrees in petroleum engineering from the University of Houston and the University of Wyoming.

PROGRAM 3

BetterSpeak: 3 Steps to Improving How You Say What You Say

Ever gotten irritated when people ask you to repeat something because they couldn't understand you? Ever thought that it may be because you don't speak well? Learn to improve how you speak so people won't keep interrupting you and making your life miserable.



DR. DAVID PELTON

Dr. David Pelton has been a professional communicator/presenter for 45 years and has taught courses in communication and communication-related subjects. He holds degrees from Cornell University, The New England Conservatory of Music, and the University of Cincinnati.

EVENT INFO

WHEN

Friday April 20, 2018 10:00am – 3:00pm

SPEAKERS

Chuck Greer Well Abandonment Advisor Chevron

Cheng Zhang Business Development Executive OGRE Systems

Dr. David Pelton President Pelton Communications, LLC

LOCATION

Houston Technology Center 410 Pierce St Houston, TX 77002

CONTACTS

Susan Howes 713-553-5020 c.susan.howes@gmail.com

Ashish Fatnani 832-415-6835 ashish.fatnani@halliburton.com

PRICE

Members: \$40/\$50 Walk-In Non-Members: \$50 Students/MIT/Retired: \$15

Registration Cap: 70



CONTINUING EDUCATION

Accelerated Learning Tutorial: Introduction to Petroleum Geology

This daylong tutorial will give attendees an overview of geological concepts in the context of petroleum exploration and production. Topics include petroleum generation and accumulation and the variables within depositional systems that impact reserve recovery. Attendees will receive a certificate for eight Professional Development Hours.

TOPICS

- Introduction
- Historical geology/geologic time
- Physical geology/depositional processes and stratigraphy
- Depositional basins
- Structural geology

DR. MAGGIE DALTHORP

Maggie Dalthorp most recently served as Exploration Manager for Murex Petroleum Corporation. Prior experiences include running her own company, Moorhouse Associates Inc. Dalthorp holds an MBA and a doctorate in coastal and marine system science from Texas A&M University-Corpus Christi and a bachelor's in geology from The University of Texas at Austin.

- Petroleum reservoirs/
- $conventional \ and \ unconventional$
- Reservoir characterization
- The petroleum prospect
- Reference information

EVENT INFO

WHEN

Friday April 20, 2018 8:30am – 4:30pm

SPEAKER

Dr. Margaret Dalthorp Exploration Manager Murex Petroleum Corporation

LOCATION

SPEI Houston Training Center 10777 Westheimer Rd Houston, TX 77042

CONTACT

Mike Redburn 281-754-8629 mredburn@newpark.com

PRICE

Members: \$350 Non-Members: \$375 Students/MIT/Retired: \$50





YOUNG PROFESSIONALS

Artificial Lift for Unconventionals

Artificial lift is a vital application in today's unconventional environment. Two common types of artificial lift are gas lift and hydraulic lift. During this discussion, attendees will learn the basic concepts of these lift systems and how they are being used.

For gas lift, discussion will center on:

- Gas lift's role in providing solutions to today's unconventional fields, where laterals are getting longer and IP targets are growing
- The basics, including its flexibility, which allows engineers to obtain higher initial rates while optimizing life-of-well production.

• Examples of how "conventional" design techniques may be limiting the effectiveness of a gas lift system, while outside-the-box completion options are expanding gas lift's normal operating window.

For hydraulic lift, attendees will learn about and discuss:

- The basics (how it works, its performance, system response, components, configurations, proper operation).
- Specific application topics, especially with regards to early production.

EVENT INFO

WHEN

Wednesday April 11, 2018 6:30 – 8:00pm

SPEAKERS

Corbin Moziske US Gas Lift Technical Advisor Liberty Lift Solutions

Osman A. Nunez-Pino Hydraulic Lift Applications Engineer Liberty Lift Solutions

LOCATION

Chevron Office 1400 Smith St Houston, TX 77002

CORBIN MOZISKE



Corbin Moziske is the US Gas Lift Technical Advisor for Liberty Lift Solutions. He provides clients with customized solutions to their specific gas lift programs. He began his career in the field and has over 11 years of experience focused mainly in gas lift. He holds a BS degree from The University of Houston.

OSMAN A. NUNEZ-PINO



Osman A. Nunez-Pino is a Hydraulic Lift Applications Engineer for Liberty Lift Solutions. He holds a BS in mechanical engineering from La Universidad del Zulia in Maracaibo, Venezuela. He has published technical papers with SPE, co-authored technical articles about hydraulic lift systems, and served as an instructor of hydraulic lift technology around the world.



YOUNG PROFESSIONALS

Volunteering at The Beacon



Please join SPE-GCS Young Professionals in their support of The Beacon, a nonprofit organization helping the poor and homeless populations of the Houston area. Since opening in 2007, the Beacon has grown from serving 80 clients per day to serving 600-800 clients daily in four core programs: The Beacon Day Center, Cathedral Clinic at The Beacon, Brigid's Hope at The Beacon, and Cathedral Justice Project at The Beacon. These four programs come together under one roof to provide meals, showers, laundry service, case management, medical and psychiatric care, pro bono legal services, and pastoral care.

Volunteers will prepare and serve meals and help with the laundry.

EVENT INFO

WHEN

Sun, April 15, 2018 10:30am – 2:00pm

LOCATION

The Beacon John S. Dunn Outreach Center 1212 Prairie St Houston, TX 77002

CONTACT

Mollie Garvey garvey906@gmail.com

REGISTER ONLINE

YOUNG PROFESSIONALS

The Digital Oilfield

BCG

THE BOSTON CONSULTING GROUP

The digital oilfield is a complex ecosystem of operators, oilfield service companies, and technology entrants, both startups and established industry titans. Digital is changing the way customers, suppliers and employees interact, creating new business models, attracting new players and increasing competition. Please join us to:

- Learn about BCG's view on the 12 digital domains reshaping the energy world.
- Deep dive into digital case studies from real BCG client engagements.
- Hear how BCG is contributing to the digital oilfield transformation.
- Discuss hot topics facing the digital oilfield today and into the future.

This event is sponsored by Boston Consulting Group.

EVENT INFO

WHEN

Thursday April 26, 2018 5:30 – 7:30pm

LOCATION

Boston Consulting Group 1221 McKinney St, Ste 3000 Houston, TX 77010

CONTACT

Eric Kinsey Regel 504-920-8392 eregel@gateinc.com

YOUNG PROFESSIONALS

Introduce a Girl to Engineering Day at Rice University



In partnership with the Society of Women Engineers Houston and Rice University chapters, SPE-GCS Young Professionals invite you to Introduce a Girl to Engineering Day at Rice University. We will be teaching oil and gas engineering through hands-on experiments and contests.

Volunteers will assist teams of seventh- to ninth-graders in activities that teach design, planning, the scientific method, and the application of energy and oil and gas principles like density, pressure and porosity.

The morning shift is 8:30am-12:00pm, and the afternoon shift is 12:00 to 4:00pm. Volunteers are encouraged to participate in both shifts if their schedule permits.

EVENT INFO

WHEN

Sat, May 5, 2018 8:30am – 12:00pm *and* 12:00pm – 4:00pm

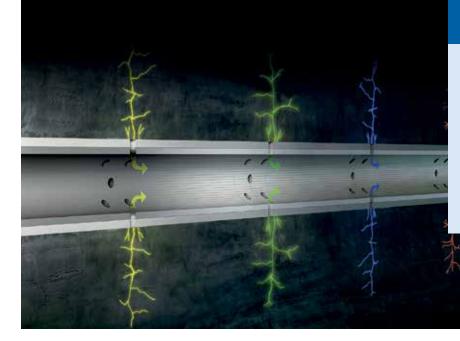
LOCATION

Rice University 6100 Main St, Houston, TX 77005

> **CONTACT** Mollie Garvey garvey906@gmail.com

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WHERE ARE THEY NOW?

Past Scholarship Winner: Scott Joyce

The Scholarship Committee conducted a survey of past recipients of the SPE-GCS scholarship. If you're considering donating to the SPE-GCS scholarship fund or hiring an SPE-GCS scholarship winner, you'll be glad to know that the program has enjoyed considerable success over the past six decades. Here is Scott Joyce's story:

"My favorite college memories include summer internships where I applied my new engineering knowledge in commercial, realworld settings."

As a roustabout for Conoco, based in Carlsbad, NM, I fell in love with the oil and gas industry. I had an opportunity after my daily responsibilities to spend time on a drilling rig, where I learned all about the drilling process (vertical wells back then!)

My junior summer was spent in Mont Belvieu, TX, at a gas fractionator owned by a subsidiary of Chevron. I helped fix some cooling tower problems, and I worked on startup preparations for a butane isomerization facility. Finally, I worked for BP in Prudhoe Bay, AK. I learned a lot about topside facilities and equipment that summer, and I enjoyed the great Alaskan outdoors!

After graduation, I worked outside of the oil and gas industry for several years and earned my MBA. After completion of my MBA, I went back to the industry I love in 2000 as an energy banker in Houston. I've worked for Bank of America, The Royal Bank of Scotland, and BNP Paribas. I current head Capital One's Energy Technical Services and Special Assets teams, as well as credit risk management for energy and other industries.

The SPE-GCS scholarship allowed me to finish my mechanical engineering degree without having to work as much during the school year. My advice to students is to keep your minds open. The current recovery in the commodity markets should open up opportunities. Those opportunities may not be exactly what you expect, but your career will likely take many twists and turns, and there are many paths to success in the oil



CAREER OVERVIEW

Credit Risk Executive at Energy, Capital One

- Katy Taylor High School 1990
- Texas A&M University College Station, BS in Mechanical Engineering
- University of California Berkeley, MBA

scott.joyce@capitalone.com

and gas business! You may not be able to do exactly what you want to do right out of school, but look for opportunities to learn and add value. For the first several years of your career, I recommend seeking opportunities that expand your future career options. It takes a while to really figure out "what you want to be when you grow up"!



CONTRIBUTE TO THE SPE-GCS SCHOLARSHIP FUND TODAY!

DONATE





2018 SPE Gulf Coast Section Awards and Scholarships Banquet



WHEN: Thurs, May 24, 2018 5:30pm – 10:00pm

WHERE:

HESS Club 5430 Westheimer Rd Houston, TX 77056

KEYNOTE SPEAKER:

Tom Blasingame, Texas A&M University Join the SPE Gulf Coast Section as we celebrate another year of student success, emerging professionals, established industry leaders, and longtime members and supporters!

REGISTER ONLINE

PROFESSIONAL REGISTRATION REVIEW COURSES FOR PETROLEUM ENGINEERING

The Courses cover topics on the Texas State Board Petroleum Engineering Professional Examination.

2018 HOUSTON COURSES

I August 20 - 24, 2018 II October 8 - 12, 2018

MORE INFORMATION:

PHONE:	405-822-6761
E-MAIL:	bingwines@cox.net
WEBSITE:	winrockengineering.com
WEBSITE E-MAIL:	winrockpe@gmail.com

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The certificate program in unconventional energy sources is a specialized certification to meet the oil industry's current demand for professionals with better understanding of the exploitation and performance of unconventional resources. Tailored for working engineers, courses can be viewed at students' convenience. Online meet-ups and discussions between students and professors provide additional guidance and interaction.

Why the University of Houston?

Located in the Energy Capital of the World, the University of Houston is arguably the best place to pursue a certificate or a degree in petroleum engineering. Houston is home to more energy professionals than any other city in the world. The UH petroleum engineering department is the largest program in the Cullen College of Engineering, underlining the ever-growing demand for a highly skilled petroleum engineering workforce in Houston and beyond.

Courses and Curriculum

Students take four required courses:

PETR 6332 Reserves Estimation I

PETR 6318 Special Topic: Horizontal Drilling

PETR 6330 Fundamentals of Hydraulic Fracturing

PETR 6397 Unconventional Reservoirs

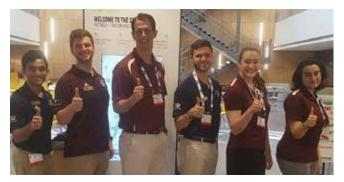
View descriptions of the courses listed above and all graduate petroleum engineering in the **UH Graduate Catalog**.

For more information on UH Engineering's certificate programs, please visit www.egr.uh.edu/certificate-programs.

APRIL 2018

TEXAS A&M UNIVERSITY.

North American Student Symposium



During the North America Student Symposium in February at LSU, all members in attendance gained great insight into Big Data technology. The symposium also hosted the regional PetroBowl competition, where the Texas A&M team competed against universities from across the nation. Our members extend a thank-you to all who helped organize this exciting event.

Another event we look forward to every year is Aggieland Saturday, which took place February 10. This is one of the largest recruiting events not only for petroleum engineering, but also for Texas A&M University as a whole. Our members gave tours and presentations to numerous prospective students and their families.

Pictured, Members of Texas A&M SPE at NASS 2018 (from left: Ravi Lad, Jordan Argamany, William Nelson, Kyle Soares, Meaghan Anderson, Magy Avedissian)

HOUSTON

North American Student Symposium

Our trip to the North American Student Symposium was a great opportunity for our members to gain practical knowledge through workshops and to meet members from other student chapters.

The following students placed in the symposium's paper contest:

PHD DIVISION

1st Clara Palencia 2nd Mohab Dessouki 3rd (tie) Huy Tran and Yuan-Yun Lin

MASTER'S DIVISION

1st Dutt Tripathi 2nd Sunit Mathur 3rd Jude Rodrigues

BACHELOR'S OF SCIENCE DIVISION

ıst Diego Barrera

Congratulations to everyone on their noteworthy efforts. Additionally, UHSPE thanks our host, the LSU student chapter, for providing a wonderful experience.

STUDENT CHAPTER DIRECTORY

HOUSTON COMMUNITY COLLEGE Aileen Lu: aileen.business.us@gmail.com

RICE UNIVERSITY

Eric Vavra: edvi@rice.edu

TEXAS A&M UNIVERSITY

Jordan Argamany: j.argamany@tamu.edu

UNIVERSITY OF HOUSTON Tony Nowak: president.uhspe@gmail.com

PRAIRIE VIEW A&M

Natalie Russell: natalie.russell789@gmail.com

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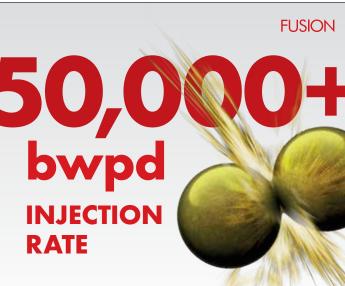
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