Light, Tight Oil in the Permian Delaware Basin: Recent Developments

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High Performance Ceramics
Permian Basin P. 21

Data-Driven and Reduced Order Models in Reservoir Simulation
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Water & Waste Management P. 31

2014 Salary Survey Highlights
Petro-Tech P. 23
In March, we conducted a survey of members to better understand your opinions about what we have been doing as a Section and what you would like us to do. Thank you to all 1,748 members who completed the survey and offered comments. They were very informative. The results were presented to the Board in April and various Committees and Study Groups are now considering changes to better serve the membership. I would like to highlight a few of the key comments we received. More complete results and charts are included in this Newsletter.

1. **TECHNICAL TOPICS** – there was considerable interest in more information on shale, tight formations and fracturing. Many were happy with the current Study Group structure and offered several good topic ideas.

2. **“SOFT SKILLS” AND CAREER MANAGEMENT** – the skills it takes to be successful in the O&G industry go beyond technical engineering, and careers seem to be changing more than ever. Not surprisingly, there was a variety of opinions on our Section’s role, if any, in this area. The majority of responders felt there were topics that should be covered, but no clear definition emerged from the responses. Further discussion is underway.

3. **COMMUNITY SERVICE AND EDUCATION** – responses were supportive of serving the community where we live. Scholarships for future engineers rated very highly and they remain a key objective for the section. Our focus on Science, Technology, Engineering and Math (STEM) had many positive comments as well.

4. **COMMUNICATION** – members showed a preference for communication via email and print. There was not much appetite for the social media channels of Facebook, LinkedIn or Twitter. That was a bit of a surprise, but may reflect the demographics of the membership. The website is mainly used for event information and registration. There was interest in posting webinar recordings and Study Group presentations after the events.

Nearly 15% of the membership responded to the survey, which is very good. We take that as enthusiasm for the Section, so thank you! For those of you who shared opinions and ideas but are not currently active volunteers, I invite you to contribute your energy to help improve the services we deliver to you. At the end of my Chair’s Corner each month, I invite you to contact me directly if you want to help – that offer still remains.

Subash Kannan, Anadarko, will be the new Communication Director for the coming fiscal year 2014-2015. His biographic details are included in this Newsletter. Subash, thanks for your continued service to the Gulf Coast Section.

**THOUGHT YOU SHOULD KNOW…**

Faculty Grant Applications will be due May 15th, 2014. SPE supports faculty from around the world through grants, awards, and participation in our programs and activities. Through these programs, SPE hopes to aid faculty in educating the next generation of petroleum engineers and industry leaders. There are Research Grant and Travel Grant Programs. The latter also has a deadline of May 15th and provides financial support for attendance of university faculty at SPE conferences, workshops and forums. Students: here is an opportunity to help your professors attend an SPE event. They may not be aware of this program and you can make a friend for life and begin your networking career. Good luck.

We want you to be involved with the section’s activities – the GCS will be better with your active involvement. I personally welcome your comments and ideas to help the SPE Gulf Coast Section serve you and your career better. Please contact me at mike-strathman@att.net.

In May of each year the Gulf Coast Section has an Awards Banquet to recognize volunteers who have contributed to the many good projects that happened during the year. We welcome you to join us for the celebration the evening of May 27th, 2014 at the Rice Hotel. We are honored to have Ganesh Thakur, 2012 SPE President and Vice President, Global Advisor RM and Fellow of Chevron Energy as our featured speaker. We will be recognizing the young students who have received SPE scholarships to study in our industry, all the way up to Legion of Honor members who have been SPE members for 50+ years. This will be an inspirational and fun event. Please join us. Sign up on our website: www.SPEGCS.org.
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- Higher Efficiency
- Faster Speed
- Trusted Information

SPE-GCS MEMBERSHIP REPORT

March 2014

MARCH 2014

Total: 13,239
YP: 2,619

MARCH

FEBRUARY 2014

Total: 12,021
YP: 2,321

FEBRUARY

<table>
<thead>
<tr>
<th>SPE-GCS Members</th>
<th>Total</th>
<th>YP</th>
<th>Total</th>
<th>YP</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Members</td>
<td>3</td>
<td>1</td>
<td>308</td>
<td>140</td>
</tr>
<tr>
<td>Reinstated</td>
<td>N/A</td>
<td>N/A</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Transferred to Section</td>
<td>N/A</td>
<td>N/A</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Unpaid</td>
<td>4,353</td>
<td>1,519</td>
<td>5,282</td>
<td>1,703</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Members</th>
<th>Paid</th>
<th>Unpaid</th>
<th>Paid</th>
<th>Unpaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas A&amp;M</td>
<td>623</td>
<td>289</td>
<td>569</td>
<td>301</td>
</tr>
<tr>
<td>Rice</td>
<td>25</td>
<td>31</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>HCC</td>
<td>40</td>
<td>28</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>UH</td>
<td>241</td>
<td>219</td>
<td>215</td>
<td>226</td>
</tr>
<tr>
<td>Total</td>
<td>929</td>
<td>567</td>
<td>842</td>
<td>588</td>
</tr>
</tbody>
</table>

Total Paid/Unpaid: 14,168/4,920 (74.2%) 12,863/5,870 (68.7%)

VOLUNTEER SPOTLIGHT

David Pantoja Manzano
CREDIT AGRICOLE SECURITIES (USA) INC.

This month the SPE Gulf Coast Section would like to recognize the volunteer efforts of David Pantoja Manzano, the registration and publicity chair for the Business Development Study Group for the past two years. David has recently been involved in two big, new initiatives for his study group and has reported on their progress several times to the Section Board of Directors.

First, he is launching a Business Development Blog to share summaries of study group meetings, links to articles of interest, and all kinds of news and information about mergers, acquisitions and divestitures in our industry. This required the Section Board of Directors to have blog policies for privacy, cookies, and terms of use, which were developed with input from the SPE International lawyer. David made the business case for hosting the blog with Kindle Interactive, which saved our Section $6700. Look for this new blog to be launched soon!

Second, David and others initiated a streamlining effort at the Study Group’s registration desk that has optimized the process. As a continuation of this work, the Study Group team members who took over the committee came up with the idea to have a Season Pass for Business Development Study Group meetings, whereby members can pay a one-time fee to attend all eight meetings throughout the year. This saves members time and it has increased meeting attendance.

In his day job, David is Director of A&D Advisory at Credit Agricole Securities. Prior to that, he was an Associate Director at Scotia Waterous, working on international and domestic corporate and asset transactions. Before that role, he worked for Occidental Petroleum Corporation as a Reservoir Engineer Advisor in their International Business Development group, as well as their Permian EOR business unit and Mid Continent gas assets group.

David holds an MBA in Finance from Rice University, a Master of Science in Petroleum Engineering from the Colorado School of Mines, and a Master of Science and Bachelor of Science in Mining Engineering from the Universidad Politécnica de Madrid. He is also a member of the Association of International Petroleum Negotiators (AIPN) and the Houston Energy Finance Group.
## 2014 SPE-GCS MEMBER SURVEY RESULTS

### Q1: What additional technical topics should be covered by the SPE-GCS study groups?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shale/ Other Tight Resources</td>
<td>50.6%</td>
<td>846</td>
</tr>
<tr>
<td>Deepwater</td>
<td>38.9%</td>
<td>651</td>
</tr>
<tr>
<td>Fracturing</td>
<td>34.8%</td>
<td>582</td>
</tr>
<tr>
<td>Analytics</td>
<td>14.2%</td>
<td>237</td>
</tr>
<tr>
<td>Heavy Oil</td>
<td>10.1%</td>
<td>169</td>
</tr>
<tr>
<td>Flow Assurance</td>
<td>15.2%</td>
<td>254</td>
</tr>
<tr>
<td>No change necessary, satisfied with current study groups</td>
<td>17.3%</td>
<td>290</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>138</td>
</tr>
</tbody>
</table>

Answered Question: 1672  
Skipped Question: 86

### Q2: What soft skills topics would you like to see our SPE section provide workshops to cover?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiation / Persuasion</td>
<td>30.1%</td>
<td>509</td>
</tr>
<tr>
<td>Technical Writing</td>
<td>33.8%</td>
<td>571</td>
</tr>
<tr>
<td>Influential Presentations/Toastmasters</td>
<td>30.6%</td>
<td>516</td>
</tr>
<tr>
<td>Crucial Conversations / Conflict Management</td>
<td>27.5%</td>
<td>465</td>
</tr>
<tr>
<td>Social Media</td>
<td>15.3%</td>
<td>259</td>
</tr>
<tr>
<td>None of the above</td>
<td>21.3%</td>
<td>359</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>72</td>
</tr>
</tbody>
</table>

Answered Question: 1689  
Skipped Question: 69

### Q3: What career management workshops would you like to see our SPE section provide?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Financial Management</td>
<td>29.3%</td>
<td>494</td>
</tr>
<tr>
<td>Retirement Planning</td>
<td>32.9%</td>
<td>554</td>
</tr>
<tr>
<td>Running a Consulting Business</td>
<td>34.7%</td>
<td>585</td>
</tr>
<tr>
<td>Resume Writing and Interviewing</td>
<td>17.8%</td>
<td>300</td>
</tr>
<tr>
<td>How to Use LinkedIn to Find Jobs</td>
<td>17.9%</td>
<td>302</td>
</tr>
<tr>
<td>None of the above</td>
<td>25.8%</td>
<td>435</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

Answered Question: 1686  
Skipped Question: 72

### Q4: What community service activities would you like to participate in with fellow members?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat for Humanity / Building wheelchair ramps</td>
<td>34.4%</td>
<td>446</td>
</tr>
<tr>
<td>Making presentations to K-12 schools or SPE Student Chapters</td>
<td>46.2%</td>
<td>599</td>
</tr>
<tr>
<td>Science Fair / SPE Student Paper Contest judging / STEM programs</td>
<td>51.9%</td>
<td>673</td>
</tr>
<tr>
<td>MS 150 / March of Dimes / Race for the Cure</td>
<td>18.8%</td>
<td>244</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>

Answered Question: 1297  
Skipped Question: 461

### Q5: What new social activities would you like to participate in with fellow section members?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowling league / tournament</td>
<td>8.9%</td>
<td>144</td>
</tr>
<tr>
<td>Try a restaurant each month</td>
<td>21.9%</td>
<td>353</td>
</tr>
<tr>
<td>Watch or attend pro baseball (football, basketball, soccer, cricket)</td>
<td>22.2%</td>
<td>358</td>
</tr>
<tr>
<td>Play Intermural or League (football, basketball, soccer, cricket)</td>
<td>1.4%</td>
<td>184</td>
</tr>
<tr>
<td>Group tickets (ballet, opera, theater, symphony)</td>
<td>17.3%</td>
<td>279</td>
</tr>
<tr>
<td>Getting to know Houston (local points of interest tours)</td>
<td>26.6%</td>
<td>430</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

Answered Question: 1615  
Skipped Question: 143
Our Section used SurveyMonkey.com to send out a 9-question survey to our paid members to gather feedback on what services are desired so we can serve you better. Multiple answers could be selected for each question, and there was a place for “Other” comments and suggestions. Here are the results of the survey, with a table and chart for each question. The “Other” comments are being analyzed by the respective committee chairs so that new initiatives can be added to next year’s budget and popular topics can be included in next year’s Study Group programs. Thank you for your participation – your voices have been heard!

**Q6: WHICH IS YOUR PREFERRED MEANS OF FINDING OUT WHAT OUR SPE SECTION IS DOING?**

<table>
<thead>
<tr>
<th>ANSWER OPTIONS</th>
<th>RESPONSE PERCENT</th>
<th>RESPONSE COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect newsletter (Print)</td>
<td>43.9%</td>
<td>762</td>
</tr>
<tr>
<td><a href="http://www.spegecs.org">www.spegecs.org</a> website</td>
<td>25.9%</td>
<td>449</td>
</tr>
<tr>
<td>E-newsletter / email blasts</td>
<td>63.7%</td>
<td>1106</td>
</tr>
<tr>
<td>Twitter</td>
<td>1.3%</td>
<td>22</td>
</tr>
<tr>
<td>Facebook</td>
<td>3.3%</td>
<td>58</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>9.4%</td>
<td>163</td>
</tr>
<tr>
<td>Google+</td>
<td>0.9%</td>
<td>16</td>
</tr>
<tr>
<td>SPE-GCS YP app</td>
<td>2.6%</td>
<td>45</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td><strong>ANSWERED QUESTION</strong></td>
<td></td>
<td>1735</td>
</tr>
<tr>
<td><strong>SKIPPED QUESTION</strong></td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

**Q7: WHICH EDUCATIONAL INITIATIVES SHOULD OUR SPE SECTION SUPPORT FINANCIALLY?**

<table>
<thead>
<tr>
<th>ANSWER OPTIONS</th>
<th>RESPONSE PERCENT</th>
<th>RESPONSE COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarships for engineer majors</td>
<td>60.8%</td>
<td>1010</td>
</tr>
<tr>
<td>Archie Scholarship through the SPE Foundation</td>
<td>12.2%</td>
<td>203</td>
</tr>
<tr>
<td>Lone Star College and HCC Scholarships for Petro-Techs</td>
<td>29.8%</td>
<td>494</td>
</tr>
<tr>
<td>Communities in Schools Houston</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scholarships for disadvantaged students</td>
<td>22.0%</td>
<td>366</td>
</tr>
<tr>
<td>Scholarships for secondary school teachers (algebra)</td>
<td>17.9%</td>
<td>297</td>
</tr>
<tr>
<td>Science, Technology, Engineering, and Math Initiatives (STEM)</td>
<td>65.5%</td>
<td>1088</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td><strong>ANSWERED QUESTION</strong></td>
<td></td>
<td>1660</td>
</tr>
<tr>
<td><strong>SKIPPED QUESTION</strong></td>
<td></td>
<td>98</td>
</tr>
</tbody>
</table>

**Q8: WHAT WOULD YOU LIKE TO SEE MORE OF ON OUR SECTION WEBSITE?**

<table>
<thead>
<tr>
<th>ANSWER OPTIONS</th>
<th>RESPONSE PERCENT</th>
<th>RESPONSE COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photos of SPE events</td>
<td>20.8%</td>
<td>324</td>
</tr>
<tr>
<td>Section policies and procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Webinars / PowerPoint slides of meetings I couldn’t attend</td>
<td>67.3%</td>
<td>1046</td>
</tr>
<tr>
<td>Notices of events and meetings at other SPE Sections</td>
<td>25.7%</td>
<td>399</td>
</tr>
<tr>
<td>Job Listings</td>
<td>27.6%</td>
<td>429</td>
</tr>
<tr>
<td>Notices of other non-SPE local industry events</td>
<td>23.0%</td>
<td>358</td>
</tr>
<tr>
<td>List of future speaking opportunities at SPE-GCS luncheons</td>
<td>29.3%</td>
<td>455</td>
</tr>
<tr>
<td>List of future volunteer / community service opportunities at SPE-GCS</td>
<td>25.7%</td>
<td>400</td>
</tr>
<tr>
<td>Other</td>
<td>23.0%</td>
<td>358</td>
</tr>
<tr>
<td><strong>ANSWERED QUESTION</strong></td>
<td></td>
<td>1555</td>
</tr>
<tr>
<td><strong>SKIPPED QUESTION</strong></td>
<td></td>
<td>203</td>
</tr>
</tbody>
</table>

**Q9: WHAT DO YOU FIND HELPFUL ON OUR SPE-GCS WEBSITE?**

<table>
<thead>
<tr>
<th>ANSWER OPTIONS</th>
<th>RESPONSE PERCENT</th>
<th>RESPONSE COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>About SPE-GCS</td>
<td>25.4%</td>
<td>382</td>
</tr>
<tr>
<td>Access to Study Group Committee Information</td>
<td>25.4%</td>
<td>382</td>
</tr>
<tr>
<td>Past Issues of Connect Newsletter / e-Newsletter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding ways to get involved</td>
<td>15.5%</td>
<td>233</td>
</tr>
<tr>
<td>Calendar of events</td>
<td>75.3%</td>
<td>1130</td>
</tr>
<tr>
<td>Registering for events</td>
<td>43.9%</td>
<td>659</td>
</tr>
<tr>
<td>YP Activities</td>
<td>7.3%</td>
<td>109</td>
</tr>
<tr>
<td>Advertising</td>
<td>4.6%</td>
<td>69</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANSWERED QUESTION</strong></td>
<td></td>
<td>1501</td>
</tr>
<tr>
<td><strong>SKIPPED QUESTION</strong></td>
<td></td>
<td>257</td>
</tr>
</tbody>
</table>
A new oil story is making the rounds in the oilpatch. It goes something like this...An oilman died recently but couldn’t get into Heaven because the place was already crowded with oilmen (credibility of the story is immediately questioned). So he spread a rumor that oil had been discovered in Hades, and immediately there was a mass exodus of oilmen through the Pearly Gates bound for the nether regions. Saint Peter then welcomed the opportunistic oilman and offered him his choice of the newly vacated pink clouds, but upon further reflection, the oilman (who reportedly attended a college in central Texas) decided that there could be some truth to the rumor and thus refused the offer, choosing instead to go down below and join the crowd.

East Texas crude oil - $3.10/bbl; U.S. active rig count – 1,510

The U.S. monthly seismic crew count falls to its lowest point since the Society of Exploration Geophysicists began keeping the monthly count in 1974.

Tow-out of what is being called the biggest and heaviest structure moved by man, Statoil’s $2.4 billion Gullfaks C platform, starts with 11 tugs towing the 49,000-ton structure in a 6-day journey from Statfjord to Gullfaks.

Sun E&P changes its name to Oryx Energy, claiming that it is North America’s largest independent oil and gas producer (Remember that day, Bill, Dennis, Gerald, et al?).

Placid Oil and partners report plans to bring on stream their Green Canyon 31-6 satellite well in 2,243 ft of water, tying the world production water depth record, as part of their Green Canyon 29 floating drilling/production system, the first in the gulf.

WTI crude oil - $20.43/bbl; U.S. active rig count – 771

Political instability, escalating violence, and widespread anti-U.S. sentiment in the Middle East have oil traders predicting that crude oil futures prices would soon push past $40/bbl.

Saudi Arabia announces its first “intelligent well” installation and reports plans to have 4-5 such installations by year-end.

Escalating crude prices has Congress urging the White House to temporarily suspend filling the Strategic Petroleum Reserve until crude prices drop from record highs.

Oneok Inc., Tulsa and TXU Corp., Dallas are reportedly being investigated by the U.S. Commodity Futures Trading Commission regarding possible natural gas price manipulation that may have contributed to the high natural gas prices in late 2003 and early 2004. Natural gas storage statistics that were reported to the Energy Information Administration appear to be the key issues being investigated.

Light sweet crude oil - $40.44/bbl; Natural gas - $6.37/MMbtu; U.S. active rig count – 1,162

This month we continue our look back at the life and times of Henry Ford.

Henry’s growing egocentric nature was further illustrated by his claim that he knew why the international community had been plunged into the chaos surrounding World War I, and it was all reportedly detailed in a document that he called his “Facts.” The document turned out to be an attack on Jews that basically consisted of a concoction of ridiculous lies of the type Jews had long battled, having to do with supposed conspiracies of an “international Jewish banking power.”

In 1920 Ford began publishing the “Facts” in the pages of a newspaper that he owned, the Dearborn Independent, which eventually had a huge circulation. Anti-Semitic articles ran periodically in its pages for several years, written by Ford-paid hacks. Some of the articles were
If you would like to participate in this month’s quiz, e-mail your answer to contest@spe.org by noon, May 15th. The winner, who will be chosen randomly from all correct answers, will receive a $50 gift card to a nice restaurant.

Then in 1927, Ford stopped his attacks on Jews and apologized for his rhetoric, having been pressured to do so by a court case. He urged Americans in 1939 to welcome Jewish refugees, but he waited until 1942 to try to suppress publication of The International Jew. In the spring of 1945, near the end of his life, Ford watched an uncensored film of a Nazi death camp. What he saw stunned and seriously disturbed him. Perhaps it hit him that he may have helped create an environment in which one of the worst crimes of history could occur. One can only wonder.

Next month, two new figures arise in the Ford saga.

The formal recognition of the art of drilling (or earth boring) in the United States, as far as the Patent Office is concerned, involved two handwritten patents issued to whom?

The Red Fork field was the site of the first oil production in Oklahoma in 1901.

No winner for March

If you would like to participate in this month’s quiz, e-mail your answer to contest@spe.org by noon, May 15th. The winner, who will be chosen randomly from all correct answers, will receive a $50 gift card to a nice restaurant.

Increase production while saving water, proppant, and time.

The HiWAY* flow-channel hydraulic fracturing technique creates infinitely conductive pathways within the proppant pack, enhancing productivity and operational efficiency. On average, jobs using the HiWAY technique increase production 20%, use 40% less water, and consume 60% less proppant.

To date, the HiWAY technique has been used in more than 21,000 stages. It has helped
- conserve over 900 million gallons of water
- save 2.8 billion pounds of proppant
- prevent more than 1,000 screenouts
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Light, Tight Oil in the Permian Delaware Basin:
Recent Developments

Operators are relying more and more on horizontal drilling to unlock the Permian region’s shale and tight oil resources in West Texas and eastern New Mexico. This is particularly the case in the Delaware Basin, where operators are developing the Bone Spring and Wolfcamp formations, primarily through horizontal drilling techniques.

This presentation will begin with a brief overview of the state of Permian region’s unconventional activity in the province’s two main basins (i.e., the Midland and Delaware Basins), and then present information on how operators are approaching the task of drilling and completing wells in the Delaware Basin.

The presentation will examine:

- a) The geographical areas of the Delaware Basin in which operators are focusing their efforts,
- b) How key completion parameters (e.g. lateral length, proppant use) are evolving over time,
- c) What levels of initial production rates operators are achieving,
- d) What these initial production rates tell us about the economics of unconventional development, given current well costs.

Raphael Hudson

Raphael Hudson is Director of Upstream Research at Hart Energy, LLC, where he manages the production of the North American Shale Quarterly, a forward-looking analysis of 17 North American unconventional plays. Also at Hart Energy, Mr. Hudson performed conventional downstream, biofuels and emerging vehicle powertrain technology research prior to his current role managing NASQ. Previously, Mr. Hudson served at Toyota Motor North America analyzing Latin American automotive markets and component sourcing strategies. Mr. Hudson holds a B.A. from Johns Hopkins University and an M.A. from Columbia University.
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A&D Markets: Current Activity and Driving Themes

Join us at the Four Seasons Hotel as PLS Inc’s Brian Lidsky presents an in-depth review of the current US A&D markets. As the industry’s land grab for unconventional resources begins to wind down and many companies turn their focus to the exploitation of existing positions, the drivers of the A&D markets are shifting.

Mr. Lidsky will provide observations on current market trends, including valuations, deal types and structures and the depth of the inventory of deals for sale. You will also learn about the dynamics of the US markets, including what areas and what plays are in favor, and conversely, out of favor. Several examples regarding acreage valuations over time will provide insight as to how the A&D markets help to define the core of the unconventional plays. Additional analysis of buyers and sellers will help you understand the source of capital, strategy and motivation behind the deals.

Please join us for this informative discussion. The popular format of a Business & Social Networking hour, with complimentary hors d’oeuvres and a cash bar, followed by an hour and a half long program including a Q&A session, will begin at 5:00 pm in the Mezzanine.

To pre-register and assure your spot, please go to www.spegcs.org/events/2321

Brian Lidsky

Brian Lidsky is Managing Director of PLS Inc. in Houston. He has over 25 years of oil and gas experience with expertise in upstream investments, valuations, operations and management. Prior roles include EVP and Director of John S. Herold, Inc. (now IHS Herold), co-founder of Calgary-based private E&P Vigilant Exploration (sold to Tourmaline Exploration) and Managing Director of M1 Energy Capital. Throughout his career, he has advised global E&P and financial clients on capital structures, strategic and performance reviews, capital raising, valuations, acquisitions and divestitures. He holds a B.S. degree in Geology from Emory University and an M.B.A. from the Jesse H. Jones School of Administration at Rice University.
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The Geo-mechanics of a Clay Rich Formation in Southern Chile

Building a basis of design for completing and fracture stimulating conventional wells requires developing a profile with depth of in-situ stress, Young’s Modulus, and leak-off coefficient. In these reservoirs, it is fairly straightforward. For unconventional reservoirs, it requires additional knowledge of the rock, its mineralogy, geo-mechanics, and the state of stress as well.

This presentation provides insight into the development of the basis of fracture design for the Glauconite Formation in a remote and logistically challenged area of Southern Chile. This formation is comprised of an average of over 40 percent clay, 34 percent feldspar, and 23 percent quartz with some pyroclastic tuff mixed in. It is a truly unconventional reservoir where the use of dipole sonic logs to develop an in-situ stress and modulus profile hasn’t worked effectively. These logs indicate that the Glauconite Formation has a low Young’s Modulus and is a very “ductile” formation. As a result and because this data appeared inconsistent, a significant data collection effort was undertaken. This effort included an extensive core analysis program, including mineralogy, ultrasonic and tri-axial compression tests, un-propped crack tests, and embedment tests. Additionally, the data collection efforts included the use of Diagnostic Fracture Injection Tests (DFIT’s) and mini-frac tests on every well. These data collection efforts have shown the Glauconite to be a relatively high Young’s Modulus and “brittle” formation, totally refuting the dipole sonic log analysis and its use in developing a fracture design basis.

Larry K. Britt

Larry K. Britt is an engineering consultant with NSI Fracturing and President of Britt Rock Mechanics Laboratory at the University of Tulsa. Since joining NSI in early 1999, Larry has specialized in the development and application of tools for the post appraisal of hydraulic fracturing stimulations. Britt’s experience includes the optimization, design, and execution of fracture stimulations and integrated field studies throughout the world. Prior to joining NSI he worked for Amoco Production Company for nearly twenty years. During the last six years with Amoco, he was fracturing team leader at Amoco’s Technology Center in Tulsa, Oklahoma, where he was charged with managing the development and application of fracturing technology for Amoco’s worldwide operations. Larry is the co-author of the SPE book “Design and Appraisal of Hydraulic Fractures.” He has served twice as an SPE Distinguished Lecturer, as a JPT editor on “Hydraulic Fracturing” and on numerous SPE Forum Committees on Gas Reservoir Engineering and Hydraulic Fracturing. In addition, he has authored over thirty technical papers on reservoir management, pressure transient analysis, hydraulic fracturing, and horizontal well completion and stimulations.
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Business Ethics – A Different Look: Justice and Fairness

This 1-hour presentation is the third part of a three-part series that describes ethics from an academic and realistic standpoint. The talk includes interactive discussion, dialog and descriptions and examples of the five different types of justice: Distributive, Egalitarian, Capitalistic, Socialistic, and Libertarian types. It also reviews justice from retribution and compensation viewpoints. Then the presentation ties justice back to moral standards. One PDH will be earned through participation in this event to satisfy professional licensees’ ethics requirements.

James Pappas

James Pappas is Vice President of Ultra-Deepwater Programs for RPSEA, the Research Partnership to Secure Energy for America, in Sugar Land, TX. He has held the positions of Global Technology Coordinator, Facilities Engineer in the Deepwater & International Well Engineering & Facilities Division, Deepwater Project Coordinator for Devon Energy, as well as Production Engineer in the Gulf of Mexico Division for Devon, and Santa Fe Snyder. He has also held drilling, completions, production, operations, reservoir, and A&D positions with Fina, UPRC, and Amoco.

He has been involved with the Society of Petroleum Engineers for 34 years. He is both a past SPE International Production and Operations Technical Director and SPE Technical Programs and Meetings Committee Chair, and is a former chair of the SPE-Gulf Coast Section Scholarship Committee, General Meeting, Drilling Study Group, and SPE-Gulf Coast Section Board of Directors. He is a member of the GCS Scholarship and Awards/Nominating Committees, and he is past chair of the SPEI Production and Operations Award Committee. He has served on several technical program committees for the OTC, ATCE, LACPEC, SPE R&D Conference, and the SPE P&O Conference.

He is also a past Private Industry Practice Chair and Executive Committee member of the Texas Society of Professional Engineers. James has authored over 50 technical papers and spoken at conferences and interviews on various technical and professional topics. He is also advisor to the US Department of Energy’s Office of Fossil Energy. He earned a BS in Chemical Engineering and a BA in Chemistry from the University of Texas at Austin in 1979. He received a MBA with highest honors from the University of Texas at Tyler in 1993.
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Introduction to Shallow Geo-hazards in Deep Water, and Drilling Hazards Associated with Exploration Around Salt

Even though the Macondo incident in the Gulf of Mexico did not directly involve shallow drilling hazards, since Macondo, the oil and gas industry has focused increased attention on all possible hazards involved in deep water drilling. The new focus has followed a three-step approach to address various drilling hazards that may be encountered in deep water: Identification, Prevention, and Mitigation.

This presentation focuses on understanding the geologic origin of various hazards in deep water by reviewing the geologic origin, physical characteristics, and behaviors of the three main deep water geo-hazard types.

- Man-made surfaces
- Sea-floor geologic hazards, including pockmarks, mud volcanoes, unstable sea floor, unstable slopes, and mass sediment movements.
- Sub-surface geologic hazards, including shallow water or gas flows, reactivated faults to surface, gas chimneys, disassociating gas hydrates, and anomalous pore pressure effects.

In the past few years exploration below major salt canopies (allochthonous salt) and layered evaporites (autochthonous salt) has discovered significant accumulations of hydrocarbons in the GoM and along the Atlantic basin margin, but has also identified several types of drilling hazards that can significantly increase the risk and cost of exploration in salt basins. This presentation also examines potential drilling hazards often associated with massive salt and layered evaporates.

Examples are presented from the Gulf of Mexico, Brazil, Angola, and other Atlantic margin basins.

John Dribus

John Dribus is the Global Geosciences Advisor for Schlumberger Oil Field Services. He is a Reservoir Geologist with over 39 years of experience, and has worked all aspects of petroleum exploration, exploitation, and production geology. He worked for five years as a uranium field geologist, and 20 years for Mobil Oil as a petroleum geologist, including 14 years working the deep water Gulf of Mexico (GoM). For the past 14 years he has worked for Schlumberger as Northern GoM Operations Manager for Data and Consulting Services, and as Global Geologic Advisor working deep water basins in the GoM, Greenland, the Black Sea, the Red Sea, Ghana (Jubilee), Gabon, and the pre-salt of Angola and Brazil.

His expertise is in regional exploration geoscience and risk analysis, petroleum systems analysis, global deep water analogs and exploring in salt basins. He is the former Chairman of the Advisory Board of the American Petroleum Institute (API) Delta Chapter, serves on the Imperial Barrel Award Committee of the AAPG, and is a member of the AAPG (30 years) and SPE, New Orleans Geological Society NOGS, Houston Geological Society HGS, and the European Association of Geoscientists and Engineers EAGE.
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High Performance Ceramics

An investigation of the performance of a group of North Dakota Bakken wells was conducted for the purpose of assessing the relative benefit of premium ceramic proppants compared to 20/40 white sand and other ceramic proppants. The observed production histories of the wells, normalized for reservoir quality, severity of pressure drawdown and treatment type and size were used as the basis for the comparison.

The primary performance metrics employed were: apparent or effective fracture half-length normalized for the amount of placed proppant, sustainability of the reservoir/wellbore connectivity, an initial normalized productivity metric and average gross incremental value at the end of the normalized observed production histories. The two premium proppants had similar benefit, while the third ceramic proppant did not compare well, even with 20/40 white sand.

Dan Herndon

Dan Herndon has worked in the oil and gas industry for 38 years. His career includes about 23 years in various engineering and engineering management positions for a major service company, a year as a consultant, and over 14 years as technical representative and technology manager for Saint-Gobain Proppants. He received his bachelor’s degree in electrical engineering from the University of Texas.

Primary Author: Dr. Jim Crafton

Dr. Jim Crafton graduated from Missouri School of Mines in Mining Engineering, Petroleum Option, received his Masters Degree in Petroleum Engineering from the University of Oklahoma, and Ph.D. from the University of Tulsa. Most recently he has been recognized as a Society of Petroleum Engineers Distinguished Member. He has also received the SPE Production and Completions Engineering Award for his work in hydraulic fracturing technology. He holds several US and international patents, including letters of commendation from the US Patent Office for those patents. Dr. Crafton formed Performance Sciences in 1991, a consulting business focusing on analysis of production data to assess well operating problems. Prior to that he received the Outstanding Faculty Award at the Colorado School of Mines, where he taught for over ten years.
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2014 Salary Survey Highlights

Each year the Petro-Tech Study Group facilitates a salary survey for Techs in the Houston Metro area. Petro-Tech salary surveys are in very high demand by employers and department managers as well as the Study Group members. We compile the results and compare them to prior years, as well as other comparable industry survey results. We then compile a report based on the results and present it to our members, as well as industry leaders and organizations upon request.

Jessica Morgan

Jessica Morgan is the current Vice-Chair of the Petro-Tech Study Group, having been with the board since 2011. She has facilitated our salary survey for us for the last three years. She has twelve years of experience in the industry, moving from admin to tech to technologist in quick succession. She has extensive experience in data analysis, reserves reporting, database administration, corporate compliance and reporting, and software development/troubleshooting.

Morgan has been a member of SPE for five years and has been employed at Black Stone Minerals as a Senior Engineering Technologist for the last four years.
PF&C Third Session in the First Annual Spring Lecture Series: Lifting the Veil from Unconventional Production

The third presentation by Oil Field Development Engineering’s Bryan Margo will present the process configurations that support Unconventional Production as well as a good overview of the components within the process plant. His presentation will touch on the benefit of effective project planning and control through identification of the major milestones, risks and risk mitigation. By creating a detailed plan, the project execution can be assured to meet total project schedule. Margo is currently Facilities Engineering Manager at OFD and is a graduate of Texas A&M with a MS in Mechanical Engineering.
PF&C Fourth and Final Session in the First Annual Spring Lecture Series: Lifting the Veil from Unconventional Production

The final installation of this series will see Ken Burris, Vice President of Water Geosciences at Worley Parsons, broach the challenging issue of water management, including handling, cleaning and disposal in these unconventional plays. Burris has over 30+ years of professional experience in industrial water purification and industrial wastewater treatment, many integrating membrane separation. He has experience in brackish and seawater desalination, as well as industrial application using membranes. His experience includes the broad global issues related to industrial water purification, industrial wastewater treatment, water resource management, recycle/reuse and sustainability.

Event Info

SPEAKER
Ken Burris
Vice President of Water Geosciences
Worley Parsons

LOCATION
Worley Parsons
Energy Corridor II Bldg.
575 N. Dairy Ashford
Houston, TX 77079

EVENT CONTACT
Brad Nelson
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R&D and Technology Development Young Professionals Panel Discussion

This forum will provide a forum for open discussion about career paths, skills and other topics of interest to SPE Young Professionals in R&D and technology/product development. The panel will consist of 4 people. We plan on having a senior level technical person, a HR person, a technical manager and a person with a combination of industry/academic experience. The format will be for each panelist to speak for 5 minutes on their career paths. We will then kickoff the panel discussion with the following questions:

• What do you see as most important for YPs in terms of their career?
• What traits have you seen in successful R&D and technology/product development professionals?
• How would you coach YPs in terms of obtaining an advanced degree?

At the conclusion of the panel we will ask for feedback from the YPs in the audience about what the industry needs to do to equip them for success. Questions we will pose to the audience will include:

• What can the industry be doing differently to help you be successful?
• What do you see as missing in the current body of knowledge to help you progress?
• How much support in terms of career planning do you feel is required?

The meeting will run from 11:30 to 2:00. The panel discussion will start at 12:00 and end at 1:30. The questions posed to the YPs will run from 1:30 to 2:00. We look forward to seeing you at the session.
Data-Driven and Reduced Order Models in Reservoir Simulation

Real-time reservoir management, optimization and uncertainty assessment requires an effective assimilation of all available data into multiple reservoir models to be able to generate accurate forecasts and ultimately, fast and reliable decisions. As more data becomes available, more ambitious reservoir simulation problems can be addressed and innovative opportunities for understanding the reservoir behavior are now at our disposal. In particular, the extraction of knowledge and physical insights from vast amounts of data is providing powerful mechanisms to tailor the generation of non-intrusive reduced order models and specialized analytics to capture solution trends that may not be otherwise amenable to assimilate into current complex simulation systems. This presentation will provide a panoramic view of a few promising advances that have been taking place in data mining and machine learning to enable the development of non-intrusive data-driven surrogate models. Provided that there is a representative set of training reservoir scenarios, input parameters, and outputs can be projected into a much lower dimension that retains the main features contained in the simulation system. Once the complexity of the simulation is reduced, predictions can be efficiently carried out with the aid of neural or kernel models. Cases will be shown to illustrate the enormous potentials that this class of data-driven surrogate models offer to tackle current and forthcoming reservoir engineering challenges within the oil & gas business.

Dr. Hector Klie

Dr. Hector Klie holds the position of Staff Reservoir Engineer at Reservoir Performance Analysis, Geosciences & Reservoir Engineering Technology, at ConocoPhillips Company. He currently leads technical initiatives to develop data mining and surrogate modeling solutions for modeling, uncertainty quantification, forecasting and optimal control of reservoir assets and drilling operations. Dr. Klie completed a Ph.D. in Computational Science and Engineering at the Department of Computational and Applied Mathematics at Rice University in 1996 and a Master’s Degree in Computer Science at the Simon Bolivar University, Venezuela, 1991. Before joining ConocoPhillips in March of 2008, Dr. Klie was Associate Director and Senior Research Associate at the Center for Subsurface Modeling at The University of Texas at Austin. He also spent 14 years working for PDVSA-Intevep, the research and technological branch of the Venezuelan oil industry. His current interest lies in the development of efficient simulation, history matching, optimization, control and reservoir management, workflows for unconventional resources based on data mining, machine learning, surrogate modeling and high performance computing technologies.
Annual Reservoir Technology Forum

2014 SPE – GCS Reservoir Study Group - Reservoir Technology Forum

Please join the Reservoir Study Group for this one-day forum to review the latest topics in Reservoir Engineering. The event is designed to disseminate the knowledge and technology needed to achieve the many objectives of reservoir management, including understanding risk, increasing production and reserves, and maximizing recovery. This Forum also represents a great opportunity to network with oil and gas industry professionals in an engaging and dynamic environment.

Registration begins at 8:00 AM. Breakfast and lunch are included. Eight Professional Development hours will be awarded by the SPE GCS for participation and completion of the Forum.

Event Info

LOCATION
Anadarko Conference Center
1201 Lake Robbins Drive
The Woodlands, TX 77380

EVENT CONTACT
Miles Palke
713-750-5490
miles_palke@ryderscott.com

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Well Spacing Insights from Pilot Study in the Eagle Ford Shale

In order to determine the optimal well spacing in a black oil region, a pilot test was organized. An intense data acquisition program was conducted, including microseismic, fluid and proppant tracing, production logging, and interference testing. This presentation will discuss the various tests that were conducted during the course of this pilot study and demonstrate how the results of those tests were employed to guide the operator towards a decision regarding optimal well spacing.

Remy Basquet

Remy Basquet is currently the Reservoir Technology Group lead for the Eagle Ford asset at Statoil in Houston. His first 5 years in the industry were spent with Elf Exploration Production, including time spent working on his PhD in solid and fluid mechanics at the University of Bordeaux. At Elf his focus was on the productivity evaluation of complex wells. His next 5 years was spent at the French Institute of Petroleum working on carbonate / naturally fractured reservoirs. For the past 8 years, Remy has been working for Statoil, most recently focusing on the Eagle Ford shale.
NORM in Produced Waters: Basics of Problem Avoidance

Naturally Occurring Radioactive Material or NORM is present in all materials, but some areas have more of these materials than others. The primary route of NORM from oil and gas reservoirs is through produced water. This talk will focus on the basics of NORM: what it is, where it originates, how it accumulates and how proper handling can help to minimize problems.

George E. King

George E. King is a registered professional engineer in Texas and Oklahoma with 43 years of experience since joining Amoco Research Center in 1971. His technical work has provided advances in shale developments, environmental risk reduction in well construction and fracturing, sand control reliability and underbalanced perforating. He has a BS in Chemistry from Oklahoma State and a BS in Chemical Engineering and a MS in Petroleum Engineering from University of Tulsa, where he also taught Fracturing and completions courses for 11 years at night as an adjunct professor. He has written 68 technical papers, has served as a SPE Distinguished Lecturer, and was awarded the 2004 SPE Production Operations Award and the 2012 Professional Engineer’s Engineer of the Year award for the Houston area. He is Apache’s Distinguished Engineering Advisor.

Event Info

SPEAKER
George King
Apache

LOCATION
Petroleum Club
800 Bell Street, 43rd Floor
Houston, Texas 77002

EVENT CONTACT
Kira Jones
832-491-5118
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Event Info
LOCATION
TBD - Downtown area

EVENT CONTACT
Brittany Niles
281-782-8194
Brittany.niles@shell.com

LOCATION
Weatherford International
2000 St.James Place
Houston Texas 77056

EVENT CONTACT
Nii Ahele Nunoo
507-304 5416
nii.nunoo@nov.com

MEMBERS
$150

NON-MEMBERS
$175

REGISTRATION/UPDATES
www.spegcs.org/EEC2014

SAVE THE DATE
Roughneck Camp
The Oil And Gas Supply Chain: From the Ground to the Pump

LOCATION
Shell Woodcreek Complex

CONTACT
Glenn Harris
832-458-9801
Gharris@independenceoc.com

MEMBERS
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NON-MEMBERS
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Second+ Timers 53%
National Pass Rate 70% Est

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P: (713) 583-9400
RBarba75@gmail.com

www.integrated-energy-services.com
The annual SPE-GCS Awards Banquet recognizes the high school seniors and college students who have received an SPE-GCS scholarship for the 2014 academic year. This event also recognizes our Legion of Honor award recipients as well as our SPE Sectional and Regional award winners. Members of the Legion of Honor have served SPE for fifty years and will be honored for their long-standing commitment to our professional society.

Attire for the event is business. Street parking is available for free after 6pm and valet parking is also available at the hotel for $10/vehicle. You can find more information regarding this event at specgcs.org on the calendar.

DR. GANESH THAKUR

Dr. Ganesh Thakur is vice president, global advisor and fellow of Chevron Energy Technology Company. He served as the 2012 SPE Intl. President. Thakur is a world-recognized leader in reservoir engineering & simulation, secondary recovery, reservoir and well productivity improvement, heavy oil, horizontal well technology and EOR. He is also known for the emergence of reservoir management (RM) — in particular waterflooding — as a key interdisciplinary practice. He is an SPE Distinguished Member and has served as Technical Director – Reservoir for the Board of Directors, and as an SPE Distinguished Lecturer. Thakur has authored over 60 technical articles and presidential columns, three books, edited two SPE reprint series, and presented over 200 lectures/short courses around the world. He has been elected to represent the SPE on the National Petroleum Council (NPC), and he serves as a board member of AIME.

He received SPE’s 2005 Reservoir Description and Dynamics award, 2006 Penn State University’s outstanding alumni achievement award, and 1994 Orange County, California’s outstanding engineer of the year award. Thakur earned a B.S. degree in petroleum engineering from Indian School of Mines and M.S. and Ph.D. degrees in petroleum and natural gas engineering plus an M.A. degree in mathematics, all from Pennsylvania State University. In addition, he earned an executive MBA degree from Houston Baptist University. He has served as an adjunct professor at USC, University of Texas (Permian Basin), University of Houston, Houston Baptist University, and King Saud University in Riyadh, Saudi Arabia.

COMMITTEE AUXILIARY

The Houston SPE Auxiliary will not have a formal meeting in May 2014. We may have an informal gathering for a lunch with no program and separate checks. Please watch for further news or contact one of our board members.

If you know someone who is interested in joining us or our activities, please contact Nancy Giffhorn, 281-360-4631 or rgiffhorn@AOL.com

BOOK CLUB

Remarkable Creatures by Tract Chevalier

DISCUSSION LEADER

Lorie Coffelt

HOSTESS

Sally Pesce

CONTACT

Martha Lou Broussard
713-665-4428
14th Annual Sporting Clays Tournament

**Registration**

<table>
<thead>
<tr>
<th>Team Captain</th>
<th>City/State/Zip</th>
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**SPE Member Name /Number**

**Shooter No 2**

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**Shooter No 3**

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**Shooter No 4**

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**METHOD OF PAYMENT**

- Payment: [ ] Check [ ] Visa [ ] MC [ ] AMEX [ ] DISC

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<th>Expiration Date</th>
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</thead>
</table>

**Name as it appears on card**

**Signature**

**Email**

**Total to Charge Card**

(Make checks payable to SPE-GCS)

---

**COST**

$850 per 4-person team

Includes a 100-round course

**LOCATION**

Westside Sporting Ground
10120 Pattison Rd.
Katy, Texas 77493
www.wsg-clay.com

**REGISTRATION**

Yim Szeto
832-816-8966
361-798-3862 Fax
Yimlun@gmail.com

**REGISTRATION INFO**

Limited to first 700 shooters

At least one shooter must be a current SPE member

Shooters provide own ammo (No. 7 ½,8,9 shot ONLY)

Starting time and station sent to team captain only

Sponsors will receive first consideration

Station will be double caged

---

**EMAIL/MAIL ENTRY FORM WITH PAYMENTS TO:**

Yim Szeto
257 County Road 125
Hallettsville, Tx 77964
Tournament Sponsorship

○ Diamond Sponsor $7,500
  As a diamond sponsor, your company will be recognized as a Corporate Sponsor of the tournament and the company name will appear on the sponsor board. Your sponsorship entitles you to four (4) complimentary teams in the tournament and V.I.P. parking.

○ Platinum Sponsor $5,000
  As a platinum sponsor, your company name will appear on the sponsor board. Your sponsorship entitles you to two (2) complimentary teams in the tournament and V.I.P. Parking.

○ Gold Sponsor $3,500
  As a gold sponsor, your company name will appear on the sponsor board. Your sponsorship entitles you to one (1) complimentary team in the tournament and V.I.P. parking.

○ Silver Sponsor $2,000
  As a silver sponsor, your company name will appear on the sponsor board. Your sponsorship entitles you to V.I.P. parking.

○ Bronze Sponsor $1,500
  As a bronze sponsor, your company name will be on the sponsor board. Your sponsorship entitles you to V.I.P. parking.

○ Entry Gift Sponsor (limited to 3) $5,000
  As an entry gift sponsor, your company name will be on the sponsor board and on entry gifts (to be determined by committee) handed out to each shooter.

○ Shuttle Cart Sponsor (limited to 3) $2,000
  As a shuttle cart sponsor, your company name will appear on the sponsor board and on the shuttle carts used at the tournament.

○ Shotgun Sponsor $1,200
  As a shotgun sponsor, your company name will appear on the sponsor board. Your sponsorship entitles you to personally present the shotgun on stage at the tournament to the winner.

○ Shooter # Sponsor $1,000
  As a Shooter # Sponsor, your company name will appear on each competitor # that all participants will display.

○ Scorecard Sponsor $1,000
  As a scorecard sponsor, your company name will be on the sponsor board, competitor #, and on each scorecard.

○ Corporate Sponsor $500
  As a corporate sponsor, your company name will be on the sponsor board.

○ Hospitality Sponsor (limited to 5) $300
  As a hospitality sponsor, your company name will be on the sponsor board. As part of your sponsorship, you will be allowed to set up adjacent to the pavilion to provide food which can consist of: Breakfast food and/or lunch, drinks. There will be one gun cleaning service in this area- first come. Each entrant will be given two tickets to vote for best food and first and second place trophy will be awarded to the two with most tickets.

○ Station Sponsor $200
  As a station sponsor, your company name will appear on the sponsor board. As part of your sponsorship, you will be asked to set up a tent at an assigned station to provide refreshments and snacks for shooters throughout the day. Only two sponsors per course.

SEE BACK OF THIS PAGE FOR SPONSORSHIP FORM
In order to receive full advertisement benefit of your sponsorship, your sponsorship form and payment must be received by May 1st, 2014.
Sponsorship Form

PLEASE CHECK THE LEVEL OF SPONSORSHIP YOU WISH TO CHOOSE

All sponsorship levels will receive next year’s tournament information approximately one month before the general membership mail-out. All sponsors receive preference on shooting times when possible. All profits will be used for SPE scholarships, local charities, community service projects, and member services.

- Diamond Sponsor: $7,500
- Platinum Sponsor: $5,000
- Gold Sponsor: $3,500
- Silver Sponsor: $2,000
- Bronze Sponsor: $1,500
- Entry Gift Sponsor: $5,000
- Shuttle Cart Sponsor: $2,000
- Shotgun Sponsor: $1,200
- Shooter # Sponsor: $1,000
- Scorecard Sponsor: $1,000
- Corporate Sponsor: $500
- Hospitality Tent Sponsor: $300
- Station Sponsor: $200

Company ____________________________ Contact Name ____________________________
Mailing Address ____________________________ Phone ____________________________
City/State/Zip ____________________________ Fax ____________________________

METHOD OF PAYMENT

Payment: □ Check □ Visa □ MC □ AMEX □ DISC

Card Number ____________________________ Expiration Date ____________________________
Name as it appears on card ____________________________
Signature ____________________________

Email ____________________________
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Total to Charge Card ____________________________
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New Board Member
2014-2015

SUBASH K KANNAN
COMUNICATIONS CHAIR
Anadarko

Subash K Kannan is an optimization engineer with the engineering and technology global team at Anadarko in The Woodlands, Texas. Mr. Kannan’s primary focus is well performance and artificial lift life cycle of unconventional wells. He is the technical lead for well performance in Anadarko’s Integrated Asset Management project. Mr. Kannan holds a bachelor’s degree in Chemical Engineering from the University of Madras in India and a master’s degree in Petroleum Engineering from the University of Houston. Mr. Kannan is an active contributor to the varied committees of SPE GCS.

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Claude Cooke, SPE
Serving the Gulf Coast Region
A group of dedicated and passionate volunteers from a Turkic community working in the oil industry identified the need to provide a Turkic Professional Network within SPE. Discussions amongst the Turkic petroleum community developed into a decision to open an alliance that would bring all Turkic Petroleum Professionals to collaborate for various events. With strong support from various communities, including political officials, the group held their initial event to welcome professionals within the Turkic petroleum community. This event was held on March 19th, 2014 in Sugar Land, Texas.

Professionals for submitting their photos this month. If you would like your group to be recognized in the Connect with your wonderful photos, please send your photos by the 25th of every month to the Connect editor at editor@spegcs.org
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281-530-9711
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GCS ADMINISTRATIVE ASSISTANT
Sharon Harris | sharris@spe.org

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Houston, Texas 77042
P 713-779-9595
F 713-779-4216
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editor@spegcs.org

Change of Address

To report a change of address contact:
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Member Services Dept.
P.O. Box 833836
Richardson, Texas 75083-3836
1.800.456.6863
service@spe.org

Contact

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droseland@signa.net

**SOCIETY OF PETROLEUM ENGINEERS**
**GULF COAST SECTION**
10777 Westheimer Road
Suite 1075
Houston, TX 77042

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**CALENDAR**

**May 2014**

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