Welcome to the first edition of The Bridge! This publication marks the beginning of SPWLA’s young professionals (YP) group. As our industry grows and changes, our society does as well. More young professionals are entering the industry, and the demographics of SPWLA are changing. According to the information given by 95% of the active members of SPWLA (see the below pie chart), the majority of the society is still between the ages of 35 and 65, and these members have a significant amount of collective knowledge and experience that can benefit the younger petrophysicists. This knowledge will become more and more inaccessible as senior petrophysicists leave the industry without having sufficient opportunities to interact with the younger generation.

Fortunately, SPWLA is in a unique position to facilitate these interactions. Transfer of technical knowledge requires many months or years of mentorship and training, but leadership, creativity and management experiences can be learned through participation in communities such as SPWLA. The SPWLA YP group seeks to provide a platform for the younger generation to interact with each other and with senior members while taking on new and challenging responsibilities.

There are many avenues within SPWLA for technical participation and advancement, but we saw an opportunity to carve out a space for young professionals, regardless of background, degree and job position, to network and grow in our society. We want to ensure that young professionals are engaged and that they can develop into the future leaders of SPWLA. Our mission is to “Provide an avenue for young professionals to lead, integrate and network within the present and future SPWLA.” This group will also assist in supporting the development of student chapters and encouraging their participation in the greater society. SPWLA can only get stronger as participation of students and young professionals increases. With each young professional’s help, we aim to reach the following goals in our journey:

- Provide a venue for the young professionals and students to network and improve the leadership and participation for SPWLA in the future
- Promote the development of student chapters and their participation in SPWLA
- Provide an avenue of integration of YP to other organizations

You can look forward to a bimonthly publication of The Bridge and fun networking activities. We also hope to facilitate a mentoring program between young professionals and more experienced members of our society, and we would like to plan joint activities with the YP groups of our sister societies.

We encourage you to send us your articles, photos, and stories to be published in future issues of The Bridge. Please join our SPWLA YP group and help us grow our society!

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**SPWLA Young Professionals Newsletter**

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**Student Corner**

**SPWLA – Louisiana State University Student Chapter**

The Louisiana State University (LSU) Student Chapter was established in April 2015 under the supervision of Dr. Mehdi Zeidouni. The chapter kicked off with 20+ members, which included undergraduate and graduate students with a great interest in formation evaluation. Currently, our website is a work in progress. In the meantime, SPWLA at LSU uses Facebook as its main source of recruiting new members and educating students about petrophysics and well logging in the oil and gas industry: [https://www.facebook.com/SPWLALSU](https://www.facebook.com/SPWLALSU)

The board comprises the following officers: Mohammad F Haeri as the president, Mohammad Izadi as the vice president, Shrey Dalal as the secretary, and Negar Dahi as the treasurer. Giles Numkam and Dawood Munawar are graduate representatives and Branum Stephanand and Shrey Dalal are undergraduate representatives. Daniel Barreca is the event coordinator and Mark Weber is the web master. The inaugural meeting of the chapter was conducted on Wednesday, April 15th of 2015. Our first guest was the current SPWLA President-Elect, Dr. Luis Quintero from Halliburton. His presentation was entitled “Petrophysics and Well Log Analysis: Core of the Oil Industry.” Around 27 students and faculty attended the meeting, demonstrating the rising interest in SPWLA at LSU. The following are some pictures of the event:
Back at school (not long ago), I had a fancy touch calculator that pretty much did everything: plotting, coding, calculations, even saving PDF files and notes. What I loved the most about it was its box! Wonder why? There was a quote on the box that said “Brain is for thinking, not for storing information!” I liked the quote, and at that point I decided not to memorize anything ever again!!! As engineers we always look back at books, notes and references to make sure we get the equations, constant coefficients, and correlations right. This is a habit because we are never sure. Nowadays we do not bother to open a book, so we just GOOGLE it or simply ask Siri or Cortana to find it for us (wondering who Cortana is? upgrade your Windows and you’ll find out.) As a petrophysicist, no matter what you search online related to the field, one website always shows up: Crain's Petrophysical Handbook. I personally have used it very often, both back at school and also now at work. Have you ever wondered who Crain is and why he bothered putting together this massive amount of information for us with absolutely no charge? Read the following article and you will know why. This is not an interview because simply interviews are too formal and oftentimes boring, and that is not our objective at “The Bridge.” We asked him to tell us his story the way he wanted.

How “Crain’s Petrophysical Handbook” Came To Be Written

When I graduated as an Electrical Engineer in 1962, the word “Petrophysics” was only 12 years old and practitioners performed log analysis calculations in the logging truck or in the office, using pencil and paper, charts, and slide rules. We needed only two equations – Wyllie’s time average for porosity and Archie’s for water saturation. Pretty simple, or so it seemed then.

But as time-and-a-half moved along, the equations reproduced faster than rabbits in Australia. Multiple versions of shale corrected porosity and water saturation, complex lithology models, permeability and productivity estimates, elastic properties of rocks – all this before we had easy access to calculators or computers. Who could remember all this stuff? Not me!

So I started keeping notes. These progressed to course notes and much later into a textbook and a number of software packages. For the book, I used “computer-ready math” instead of the “classic” presentation used in scientific textbooks. The publisher was reluctant, but finally agreed. That was 1986. It was easy to see that a second edition would need two volumes to cover more topics. This didn't seem to me to be economically practical for a typical petrophysicist.

This fact led me, starting in 2004, to develop a shareware website version of the textbook that could be updated daily if needed and could grow endlessly. The site now averages 35,000 unique visitors from 140 countries every month. In contrast, only 2000 copies of the original textbook were ever published. One purist asked why the equations were not in “textbook” format. In this era of ubiquitous PCs, calculators, and smart phones, the answer was a resounding “Duh?”

Client diversity proliferated too. Originally we dealt mostly with a geologist. Now six engineering specialties, three or four species of geologists, and any number of wild-eyed geophysicists use our results. Lesser known disciplines also get involved: economists, lawyers, judges, government regulators, stock market analysts, bankers, even dentists and ranchers trying to find a good investment. What answers do these disparate groups really need? And how soon?

To find out, I worked in a number of these disciplines, and after going consulting, I worked for all of them, including the dentist and the rancher. The rancher refused to pay the bill because he “didn't like the answers”, but the collection agency collected the full amount plus costs – about the value of two of his Hereford cows. The only other bad debt after 43 years of consulting was a lawyer in Toronto. Maybe he didn't like my answers either, but I think he was just a slimeball.

All that experience led to a much expanded set of “notes”, including reservoir engineering, core analysis, dipmeters, use of logs in structural and stratigraphic analysis, and seismic petrophysics. Today, of course, unconventional reservoirs are the “play du jour”, so more research, more notes on the special cases for special situations were developed.

The website is mine alone, flaws and all– I researched, typed, edited, and scanned everything you see – 350 webpages, 3000+ printed pages if you were foolish enough to print it. On average, it takes 40 hours to build a new page – keeping “notes” is hard work but really worth it. Check it out at www.spec2000.net.

But of course, many others have contributed: every author whose work has been paraphrased, every client who contributed ideas and background about their projects, all the service company reps who contributed examples and technical literature, the 3000+ students who tested my skills and theirs in my courses, and many more in all walks of life who made my life easier, Special thanks to James Everett who maintains the training products delivery system, Sonja McEwing for proofreading, and Dorian Holgate who prepared many of the more recent log analysis depth plots.
Introducing....

2016 SPWLA YP Board of Directors and “The Bridge” Editorial Committee

The editorial committee of our newborn SPWLA YP Newsletters is formed by a group of young dynamic individuals spread-out in the first (and a bit of the second) slice of the pie (see pie chart on page 1). Even though all its members are based in the United States of America, they come from different places in the world with different cultural backgrounds, from California and Texas all the way to South America, the Middle East, and the Far East. This is a true representation of the global environment in which we live in the 21st century. Our committee is excited to bring you interesting articles and anecdotes and to keep you informed of the technical and social events the YP community will have throughout the year.

Chairman and Editor: Javier Miranda is a Petrophysicist at BP America Inc. in Houston, TX working on the GoM Region. Javier has B.S. and M.S. degrees in Petroleum Engineering from Universidad del Zulia and the University of Texas at Austin respectively. His interests include reservoir description, operations, core-log integration, SPWLA and SPE activities. Outside of work, he enjoys traveling and reading.

Treasurer and Editor: Haijing Wang is a Petrophysicist at Chevron in Houston, TX. After obtaining his Ph.D. in physics from University of North Carolina at Chapel Hill in 2011 he became a postdoc at Lawrence Berkeley National Lab. With broad interests in chemical physics and soft matter, he focused on NMR and dielectric log interpretation and core analysis in formation evaluation.

Member at Large and Editor: Matt Boyce is a Petrophysicist and Geologist at SWN in Houston, TX working in the Business Development group. His undergraduate and masters are from the University of Arkansas and Ph.D. from West Virginia University. He has been Chairman of the UR SIG for the past two years and is passionate about integrating petrophysics and geology.

Secretary and Editor: Milad Saidian is a Petrophysicist at BP America Inc. in Houston, TX. He has B.Sc. and M.Sc. in Petroleum Engineering from Petroleum University of Technology and Sharif University of Technology, respectively. He received his Ph.D. from Colorado School of Mines in 2015. His interests include rock characterization, porosity and pore size distribution measurement using various techniques especially Nuclear Magnetic Resonance.

Member at Large and Editor: Abbie Morgan is a petrophysicist at Aera Energy LLC in Bakersfield, CA. She studied physics at Cornell University and then joined the industry as a wireline field engineer. Her interests include logging tool physics, dielectric logging in heavy oil, and integrating geological and petrophysical modeling. Outside of work, she enjoys traveling, writing, baking, and playing the oboe.

Senior Editor: Jesus M. Salazar is a Petrophysicist with ConocoPhillips in Houston working for the Technology Center. Jesus has a B.S. degree in physics and M.S. and Ph.D. degrees in Petroleum Engineering from UT Austin. His interest includes integrated reservoir characterization, log modeling/inversion, traveling, and keeping fit.

Contact us: SPWLAYP@SPWLA.ORG

We encourage you to contact us with any suggestions for improving our group and/or if interested in participating in our activities.

Send us your articles, stories, fun moments, photos, etc. to be published in The Bridge.

The SPWLA YP board of directors and The Bridge editors would like to thank Thaimar Ramirez, Katerina Yared, and Zhipeng “Z” Liu for their help and support to make this happen.