



spwla today



NEWSLETTER

On the Road to Dubai

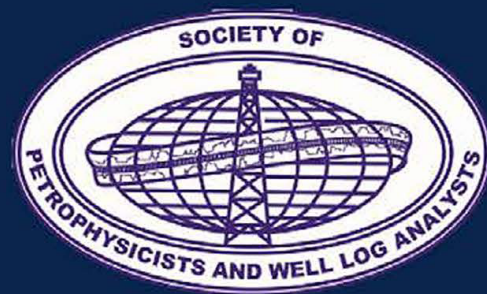
Petrophysics Journal

PAPERS

- PAPERS ACCEPTED FOR REVIEW THROUGHOUT THE YEAR
- SPWLA CONFERENCE PROCEEDINGS ARE ELIGIBLE FOR SUBMISSION
- PUBLISHED PAPERS AVAILABLE ON SPWLA AND ONEPETRO DIGITAL LIBRARIES



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The Society of Petrophysicists and Well Log Analysts
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CALENDAR OF EVENTS

January 28, 2025

SPWLA Special Edition Series – January 2025
Theme “Magnetic Resonance and Magnetic Resonance Imaging of Fluids in Porous Media”
Speaker: Bruce J. Balcom,
University of New Brunswick
www.spwla.org

May 17–21, 2025

SPWLA 66th Annual Symposium
Dubai, UAE
www.spwla.org

About the Cover

Make your plans today to attend the SPWLA 66th Annual Symposium in Dubai, UAE, on May 17–21, 2025. For more information, go to: <https://www.spwla.org/Symposium/Symposium/Default.aspx>.

Notice: Articles published in *SPWLA Today* are not subject to formal peer review but are subject to editorial review and are verified for technical consistency and relevance.



S. Mark Ma
2024–2026
Vice President Publications

Dear SPWLA community,

Time flies fast, especially when you enjoy it! A memorable 2024 has passed quickly, and we welcome 2025!

With this first *SPWLA Today* newsletter in 2025, I would like to share lessons learned from the last topical workshop organized by the SPWLA Saudi Arabia Chapter focused on water—a driving force in situ but a challenge upon breakthrough.

It is estimated that, globally, for every barrel of oil produced, the cost to handle the associated water is about \$1.50. The market for oilfield water management is approaching about \$10 billion and growing! To properly address this oilfield water issue, a good approach may be something like CAD, which stands for characterize, avoid, diagnose and deal with it.

Characterize: It requires detailed geoscience and reservoir engineering studies, as described in detail by some of the speakers.

Avoid: Once we have good formation water characterization, we should try our best to avoid placing producers too close to water to delay water breakthrough. There were several talks about this by Aramco, SLB, Baker Hughes, and Halliburton. Basically, deep and ultradeep azimuthal resistivity is the commercial tool that has been used for this purpose. Acoustic technologies are still under development and not practically available in real time for geosteering yet. Once water breaks through, dealing with it requires reservoir surveillance to understand the problem and mechanical/chemical operations to minimize water production.

Deal With It: Reservoir Surveillance: To know where the water broke through, several technologies are being used in operations:

- Slim openhole resistivity
- Slim casedhole resistivity
- Pulsed neutron
- Crosswell EM
- Borehole to surface EM
- Production logging
- Formation water salinity characterization

Deal With It: Water Shutoff to Minimize Its Production: Once the water breakthrough is well understood, water shutoff operations can be deployed to minimize water production. There are several methods to achieve that objective:

- Mechanical plugs
- Sidetracking
- Smart completions
- Chemical shutoffs, such as using relative permeability (k_r) modifier polymer to reduce k_{rw} while maintaining k_{ro}
- ICD shifting and autonomous ICD are being developed to replace the expensive manual shift to turn ICD

Other Methods: There are some additional subsurface water management technologies used to ensure sustainable operations:

- **Subsea Processing:** This technology includes subsea separation, boosting, and injection systems. It allows for processing produced fluids directly on the seabed, reducing the need for topside facilities and improving recovery rates.
- **Membrane Filtration and Electrocoagulation:** Membrane filtration uses semipermeable membranes to separate water from hydrocarbons and other contaminants. It's effective for treating produced water and making it suitable for reuse or safe disposal. Electrocoagulation uses electrical currents to remove contaminants from produced water. It's an efficient method for treating water with high levels of suspended solids and dissolved contaminants.
- **Nanotechnology:** Advanced nanomaterials are used to improve the efficiency of water treatment processes. Nanotechnology can enhance the removal of contaminants and improve the overall quality of treated water.

Let's work together to apply best practices in oilfield water management for a sustainable future! Enjoy learning in 2025 and beyond!

Happy New Year!
S. Mark Ma
VP Publications



Robert H (Bob) Gales
2024–2025
President-Elect

It was great to hear about the progress made by Harry Xie, Robin Slocombe, and the Technical Committee on abstract review and notice. Like the last few years, the competition is high, and there is a fine line between those in and those out. Sharon has been working closely with the Dubai Symposium Committee for another outstanding event. I look forward to visiting with everyone in Dubai in May.

As noted last time, I have been visiting with the SIGs to see how we leverage their passion for specific topics to the broader SPWLA community and utilize the SPWLA to provide support for consistency in structure, events, and sharing of information. For example, the Borehole Imaging SIG created a YouTube channel for their workshop talks. Thanks to the NMR SIG for stepping forward to review bylaws and officer elections. We will be sharing our recommendations with the other SIGs for feedback shortly.

The fall season featured several SIG events. We encourage all SIGs to post their events on the SPWLA website. Additionally, we can assist in sharing them on SPWLA social media to reach beyond the usual SIG channels.

- November 7 – Resistivity SIG Meeting
- November 18–19 – PDDA SIG Topical Conference – A great series of talks and programming challenges to improve autodip picks
- December 5 – Formation Testing SIG Webinar Series

We encourage all chapters to update events (monthly meetings and special events) on the SPWLA website. It not only gives ideas to other chapters, but when hybrid, it also allows global geoscientists to join. We can support getting the word out on social media. Here are a couple of examples loaded with excellent talks (I apologize for the many I missed):

- SPWLA Bangkok – Asia Pacific Regional Conference 2024 – October 6–9: **“Traditional and Transitional Petrophysics, Enhancing and Integrating Petrophysics into the Challenges of Today and Tomorrow”**
- Saudi Arabia Chapter – SPWLA November 11–12: **“15th Workshop – Water: A Driving Force In Situ and a Challenge Upon Breakthrough”**
- Norwegian Formation Evaluation Society (with NORCE) – November 12: **“Geosteering and Formation Evaluation Workshop”**
- Formation Evaluation Society of Malaysia – November 12: **“2024 FESM Topical Conference, Petrophysical Insights: Key to Unleashing Potential in Mature & Marginal Fields”**
- London Petrophysical Society – December 5: **“Everything Formation Testing”**

I look forward to continued engagement with the SIGs and chapters. Reach out at any time. Please forward me any suggestions (President-Elect@spwla.org) on how we can add value to our SIGs and support our local and student chapters.

One initiative we are evaluating is corporate membership. The goal is to make it easy for companies to pay one fee per year, effectively giving access to more geoscientists. For some companies, this may not work because of the way they do accounting. Others have expressed interest. I’d appreciate your thoughts on this and how we can make it work with more companies.

Regards,
Robert H (Bob) Gales
2024–2025 President-Elect



Harry Xie
2024–2025 Vice President
Technology

Dear colleagues,

By the time you read this article, the abstract review process for the 2025 SPWLA Symposium in Dubai will be complete, and all authors will have been notified. We take this opportunity to thank all authors for their contributions. We also thank our Technology Committee members for their precious time in reviewing all the 389 abstracts. Here is the summary of the review process.

In all 389 abstracts, there is a duplicate submission plus a ChatGPT-generated abstract, but the reviewers were not informed about it. A total number of 53 Technology Committee members participated in the review. In the selection process, committee members evaluated and assigned a grade to the anonymized abstracts based primarily on relevance and technical content. Each abstract received at least seven reviews. The gradings were based on the following six categories with an emphasis on technical contribution:

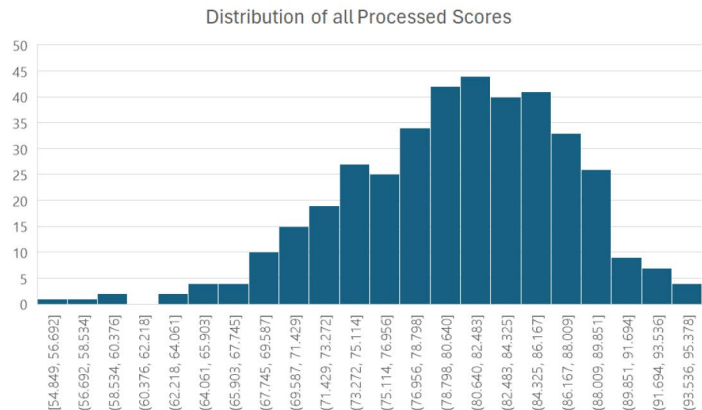
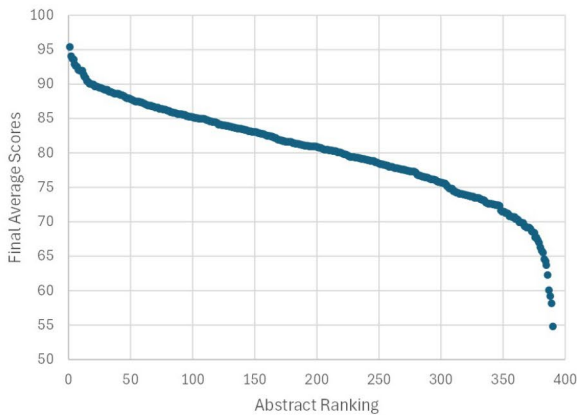
- Relevance and significance
- Key technical contribution
- Conclusions and key learnings
- Illustration and effective/clear written communication
- Structure and organization
- Conscience of non-commercialism

All scores from the reviewers were further processed to ensure uniform contributions from all reviewers.

- Each reviewer’s scores were calculated according to the weight factors of each category.
- Each reviewer’s scores were then **Normalized** and **Standardized**.
- All scores were converted to have the mean values of 80 and standard deviation of 20.
- The maximum and minimum values were removed (trimmed) from each abstract score to keep the middle six scores for average calculations.
- The abstract ranking was then determined.



Robin Slocombe
2024–2025 VP
Technology-Elect



The top 108 abstracts were selected for **Oral** presentations, and the next 52 abstracts were selected for **Poster** presentations in which 16 abstracts with high scores will be participating in a newly introduced **Fast Oral** presentation, where each presenter will be given 10 minutes to present their work to accommodate more oral presentations at the symposium. With such an arrangement, we anticipate that it will shape up to be a very technically intense symposium program that will hopefully be a great experience for our members.

As we can see from the above plot, it is always a very difficult and thorough exercise for the committee members because of the large number of quality submissions for the presentations available. The Technical Committee did an outstanding job providing fair evaluations. The quality of the review is extremely good. For example, the duplicated abstracts were assigned to two groups of reviewers but got very similar scores or rankings. The ChatGPT-generated abstract got a very low score.

Although extensive efforts have been made to instruct authors on how to submit their abstract proposals, we still received a number of submissions that did not meet the requirements. We had 15 submissions that were missing summary figures or images. Some abstracts included information about authors or their affiliation in the figures or abstract text or information about tools from service companies. We are constantly trying to improve the submission software to minimize such errors. For those whose abstracts were not selected, we urge you not to consider this a judgment on the absolute merit of your work. We would encourage you to resubmit this abstract to other venues, including as a peer-reviewed article to *Petrophysics*, which arguably reaches a wider audience than the Symposium Transactions. The members of the Technology Committee and we look forward to your participation as an attendee at the 66th Annual SPWLA Symposium in May 2025.

In the meantime, the preparation for the workshops is progressing smoothly. Thank you to all who have already proposed titles for workshops at the symposium. The deadline for workshop proposals is approaching, so if you are interested in organizing a workshop in Dubai, please let us know as soon as possible. And for those who have indicated interest already, we look forward to receiving the detailed workshop proposals in the coming weeks before the end of the first week in January.

Title	Proposer / SIG / Sponsor
Around the Topic of Casedhole Measurements and Petrophysics (title to be confirmed)	Ahmed Badruzzaman, Dale Fitz, Nuclear SIG
Formation Testing and Sampling (title to be confirmed)	Gibran Hashim and FT SIG
NMR Advances (title to be confirmed)	Nate Bachman and NMR SIG
The Importance of Petrophysics in Resources, Reserves and Storage Estimation and Overview of PRMS and SRMS	Javier Miranda and Hydrocarbon Reserves SIG
Borehole Imaging Data Application (title to be confirmed)	Christian Rambousek and BHI SIG
CCS / Energy Transition (title to be confirmed)	Rob Laronga (SLB)
Core Analysis (title to be confirmed)	Kris Farmer (Corelab), Jean-Valery Garcia, Christophe Germa (Epslog), Oniel Wint (SLB)
MENA-Specific Petrophysical Topic (title to be confirmed)	Russel Farmer (ADNOC); Muhammad Gibrata (DXB)
Petrophysics Intelligence and Automation With Python	Chicheng Xu (Saudi Aramco), Oriyomi Raheem (UT Austin), Nader Gergers (ADNOC)
Mud Logging (title to be confirmed)	Tao Yang (Equinor)

We encourage you to get involved in our society activities and attend the potentially exciting symposium in May 2025. Hope to see you in Dubai!

Yours sincerely,

Harry Xie
2024–2025 VP Technology
VP-Technology@spwla.org

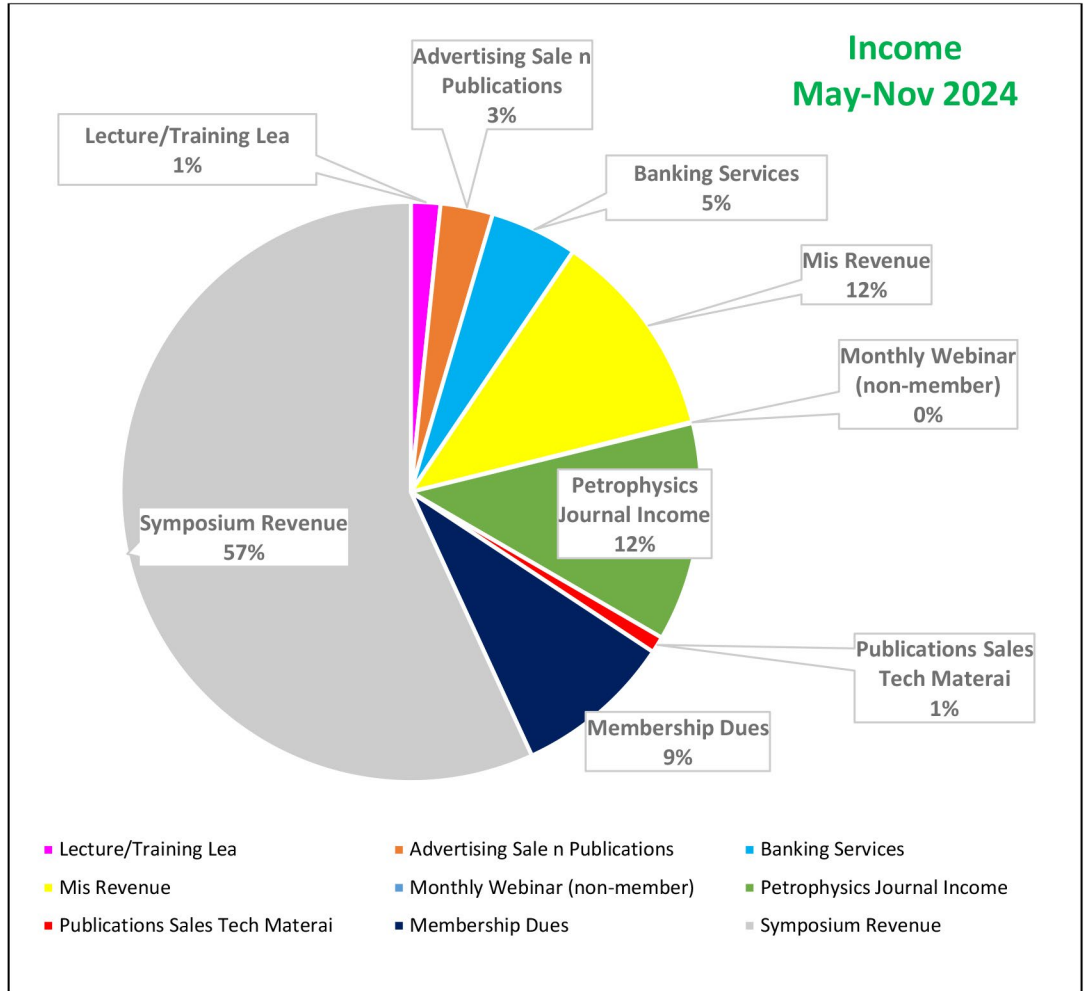
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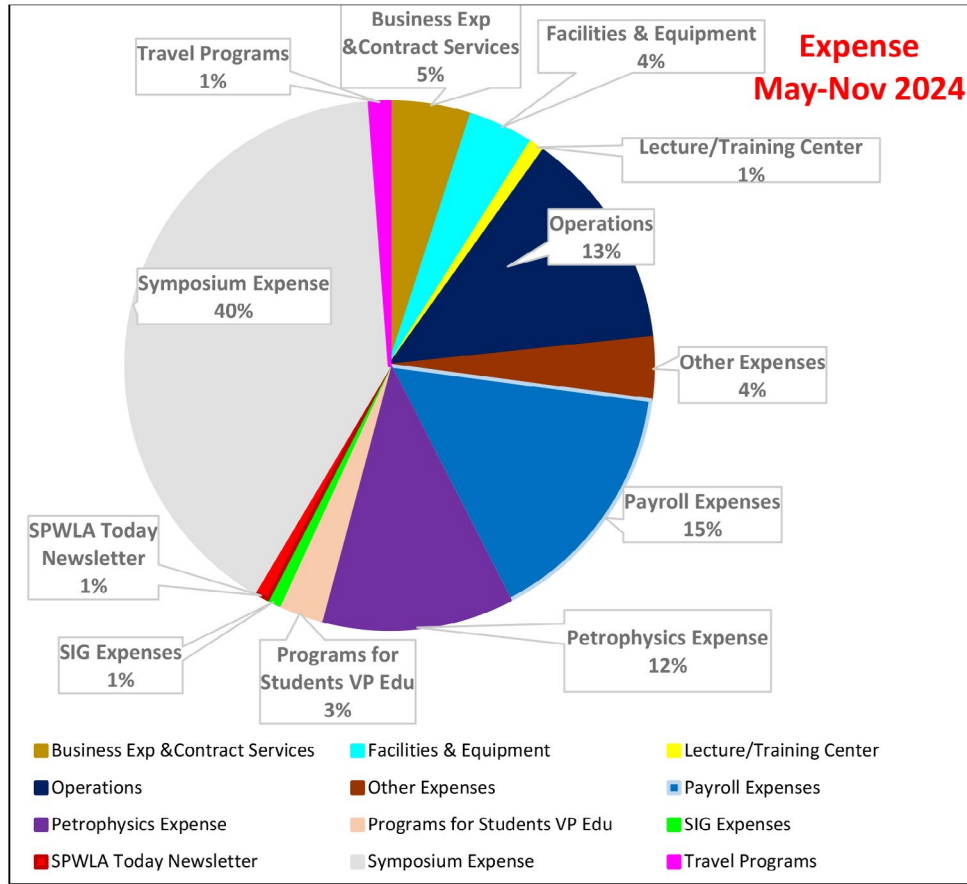


Jing Li
2023–2025 VP Finance,
Secretary, and
Administration

Dear SPWLA colleagues,

The financial status of the SPWLA indicates consistent and robust growth. Below are the pie charts displaying percentages of revenue and expenses for May–November 2024. The total revenue and expenses are reasonable, and the net profit remains healthy.





The advertising rate for the *SPWLA Today* newsletter was reduced in 2019 and has remained unchanged since, as shown in the figure below:

Advertising Rates: Pricing includes color rate, per issue.

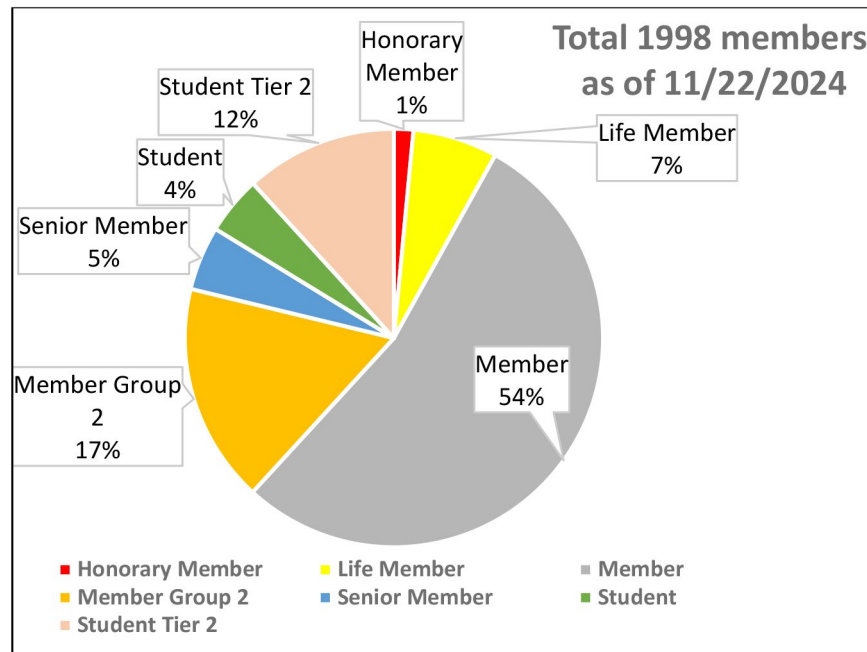
Frequency	1x	3x consecutive	6x consecutive
Full Page	\$1200	\$1100	\$1000
1/2 Page	\$1000	\$900	\$800
1/4 Page	\$600	\$550	\$500
Business Card	\$150	\$125	\$100

The new pricing structure beginning January 2025 is shown in the figure below:

	1*	3*consecutive	6*consecutive
Full page	\$1,300	\$1,200	\$1,100
1/2 page	\$1,100	\$1,000	\$900
1/4 page	\$700	\$650	\$600
BC	\$200	\$175	\$150

Financial Times

As of November 22, 2024, the society had sold 35 copies of printed *Petrophysics* journals and had 1,998 members. Below are the percentages for different member categories.



We have updated the profit-sharing model for the host chapter. The net profit is now calculated as the difference between the symposium's revenue and expenses, with the host chapter receiving 8.5% of the net profit. Additionally, any expenses incurred by the host chapter for the event will be reimbursed. It was approved by a majority vote of the board of directors' vote.

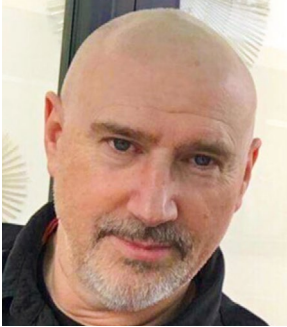
We appreciate your input and encourage everyone to keep supporting our workshops, topical conferences, annual symposiums, and other SPWLA initiatives. We would greatly value your ideas for new revenue sources for the society.

Thank you for your continued support.

Sincerely,

Jing Li

2023–2025 VP of Finance, Secretary, and Administration



Tegwyn JP Perkins
2024–2025 VP Information
Technology

Happy New Year, everyone, and welcome to the latest *Informative Technology* column.

The Annual Symposium is only 5 months away! Things are moving...

One of the duties of the immediate Past President (and Nominations Committee) is to determine the slate of candidates for the Annual Board Elections. At the end of last year, **Sharon Johnson** emailed the membership and wrote on social media inviting any individuals who wish to self-nominate or nominate a colleague. Thank you for your responses. We have received the names of several capable potential candidates. There are still several open positions on the electoral slate, and the Committee will look to fill them shortly. I would encourage anyone interested in serving on the SPWLA International Board of Directors to contact **Jennifer Market** (past-president@spwla.org) or Sharon (sharon@spwla.org) if you are interested in running.

However, I have some words of warning. The SPWLA Board of Directors is a board of **action**. Every position carries a significant workload that needs to be completed in a timely fashion. If you cannot attend to these tasks, I would advise you not to throw your name into the hat.

With respect to the VP Information Technology board position, we are looking for candidates with a strong background in IT who can assist with updating the website, managing the email system, and maintaining and advancing the Application Submissions platform, OpenWater. A more detailed description of all tasks associated with the position can be found on the [website](#).

The first two of our new OpenWater application programs are now open. They are the International Student Paper Contest and the Award Nominations. Three others are ready to be released: Scholarships and Grants for Faculty and Students. If you are curious about how the new site works, please consider logging in. Just follow one of the links on the website (like this one: [OpenWater](#)) and log in with your SPWLA login credentials. The new site is linked to spwla.org through a Single Sign-On (SSO). This means you can log in to the new platform using your spwla.org credentials, and you won't need to retype your personal information when submitting applications.

Dr. Tegwyn JP Perkins
SPWLA 64th President
2024–2025 VP Information Technology
vp-infotech@spwla.org



Matt Blyth
2024–2026
VP Education

Dear SPWLA community,

Hello, and Happy New Year! By the time you read this, we will be halfway through our 2024–25 season. We have had great talks from four of our Global Distinguished Speakers, two additional webinars from the “Highlights from Rio” series, and we are headed into the second half of our season with talks scheduled from January to June, with hopefully a few unique additional webinars in fields not normally covered by our Distinguished Speakers (stay tuned!). Additionally, we have launched the International Student Paper Competition (ISPC) in the run up to the Annual Symposium in Dubai. This competition is a chance for the members of our student chapters to compete against each other to win a cash prize that will be awarded to the winners in three categories (Undergraduate, Master’s, and PhD) at the ISPC Final on May 18. The first rounds of the ISPC are conducted at the student chapter level, with the winners of the local competitions being invited to submit their talks for consideration at the ISPC Final. I would like to extend a big thank you to Tegwyn, our VP IT, for all his help in getting the ISPC abstract submission and grading system online.

Now that our Global and Regional Distinguished Speaker programs are up and running and the ISPC is in progress, we can now turn our attention to the rest of the educational opportunities that the SPWLA offers its members, and for this, we need volunteers in any of the following areas.

- **Short Courses:** We are in need of people willing to teach short courses on any relevant topics. These courses can be as long or as short as needed and are usually taught online, with half days each day, to allow attendees to balance work and training.
- **On-demand Training Classes:** These courses are available over an extended period, with attendees being able to access prerecorded training modules online and then attend scheduled Q&A sessions with the course instructor. This is a great opportunity to deliver a training course that is perhaps too long to do in a single week.
- **Nuggets of Wisdom:** This is a series of online talks by industry experts on particular topics that interest them most.

So, if you have a passion for a particular subject and would like to teach a course or class or just record your thoughts as an online information archive, then please contact me at VP-Education@spwla.org!

Take care!
Matt Blyth



Chelsea Newgord
2023–2025
VP Communications

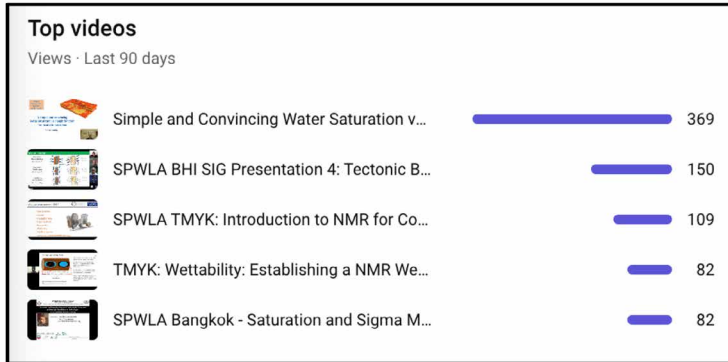
Hello SPWLA colleagues,

Happy Holidays and Happy New Year!

Recently, a few SIGs and trainings have provided permission for SPWLA to post their content on our YouTube channel! Search for SPWLA International on YouTube, and you can find the content.

Thanks to these additions, we now have over 1,000 subscribers.

The top five videos in the past 3 months are these:



This covers videos from a year ago (Water Saturation vs. Height Function) to a recent borehole imaging meeting and a contribution from the Bangkok Chapter.

Several other chapters also have their own channels, which can be additional sources for learning (see figure to the right).

If you have content to share on the main SPWLA channel or want help creating or promoting your local content, reach out!

~Chelsea Newgord
2023–2025 VP Communications
VP-Communications@spwla.org



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SPWLA Chapters with YouTube channels

Regional Understandings–North America 1



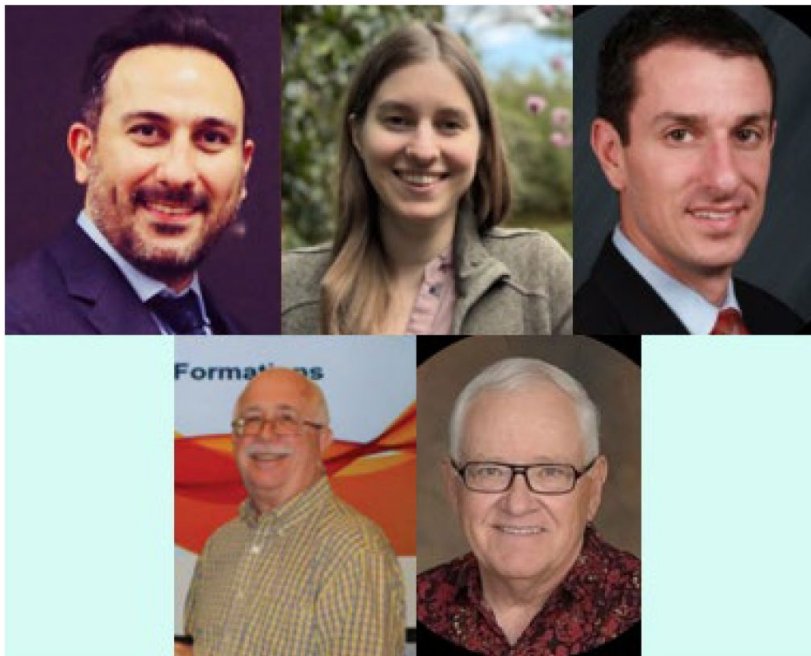
Amer Hanif
2024–2026 NA1 Regional
Director

Dear SPWLA members,

This is everybody’s favorite time of the year. Even as our members get busy trying to complete projects and meet target dates before the holidays, the NA1 region chapters have done commendably well in keeping up their rhythm of activities.

In the last column, I hinted at our efforts to revive the **Dallas Chapter**. We have made progress towards the formation of a new board. A very good group is coming together, volunteering to serve the board positions, with new members **Behzad Ghanbarian** (UT at Arlington), **Nadine Igonin** (UT at Dallas), and **Tom Thompson** (Baker Hughes), along with experienced SPWLA campaigners in **Jim Lewis** (GCC) and **Ray Wydrinski** (Ret, Pioneer Natural). The team is targeting the first quarter of next year to start activities. The initial focus will be on in-person events, bringing in and reconnecting the formation evaluation professionals in the area. A LinkedIn page for the chapter is now live. We encourage our DFW members to follow the page, reach out to the new team with their valuable suggestions and support, and check for news and updates starting in early 2025 (<https://www.linkedin.com/company/spwla-dallas-chapter/>).

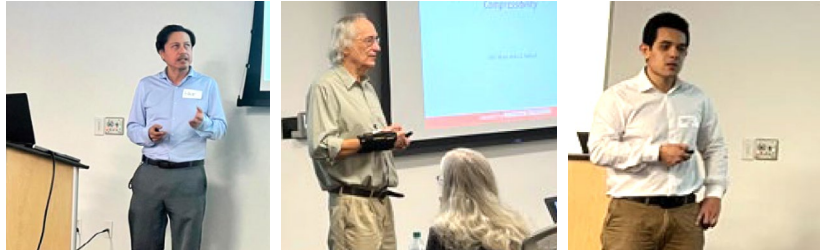
The **Houston Chapter** also welcomes two new board members. **Ali Eghbali** (Baker Hughes) has filled in the VP Northside position vacated by me, and **Zeyad Ramadan** (SLB) has accepted to serve out the term of Treasurer left open by Shikha Prasad, who has voluntarily stepped down owing to a career transition. Shikha remains an avid supporter of SPWLA Houston. Both Ali and Zayed are accomplished petrophysicists motivated to engage with the Houston community and promote the SPWLA vision.



Ali Eghbali (left) and Zeyad Ramadan (right) join Houston Chapter Board for the remaining 2024–2026 term.

New Dallas team getting together to restart chapter activities in DFW area. (Clockwise from top left) Behzad Ghanbarian, Nadine Igonin, Tom Thompson, Jim Lewis, Ray Wydrinski.

Regional Understandings—North America 1



The Houston Chapter technical lunch events: A full house (top), including two past presidents, listens with full attention as Edgar Velez (middle left) develops concepts in geomechanics using mouthwatering stacks of cream-filled cookies. Dr. Mike Myers and Dr. Lori Hathon (middle right) inspire us to look at rocks as we develop models for permeability and compressibility. Tarek Mohamed (bottom left) untangles dynamic processes of reservoir charge fluids over geologic time.

The SPWLA Student Chapter, University of Texas at Austin, accompanied by **Dr. Carlos Torres-Verdin**, drove down to Houston for a couple of guided tours, first to the Baker Hughes Education Center and then to the Technology Center. During these tours, they got to go up a rig floor and see components of a drilling rig, check out a wireline logging unit and a crew performing a wireline job rig-up, go over LWD and wireline logging tools on display, and learn more about the research and engineering processes behind the development of these technologies. The visit ended with a meeting with young geoscientists who shared their experience with openhole and casedhole log analysis and interpretation.



The University of Texas at Austin had a fun-filled day visiting Baker Hughes Training and Technology Centers, in Houston, Texas. They got to see well logging from field acquisition to post-acquisition analysis and new technology development.

Regional Understandings–North America 1



The University of Louisiana at Lafayette (ULL) kicks off their year with a visit and a talk from Distinguished Speaker Zach Liu. The talk, “Navigating Challenges and Uncovering Opportunities in Launching CCS Projects,” resonated strongly with attendees and received excellent feedback from both students and faculty.

The University of Texas at Austin and the **University of Houston** are on schedule with their respective plans for their International Student Chapter Paper Contests (ISPCPC). These contests allow the students to highlight their research and innovative work and prepare winners to represent the chapter at the Annual Symposium. UT Austin plans to hold the event in the first half of December, whereas U of H is working for a late January timeframe.

Going into 2025, the industry is cautiously optimistic in the region. Despite challenges, oil and gas remain integral to US economic activity, and our region is vital to meeting energy demands. An interesting fact affirming the impact of technology and innovation is the growth in regional production, even as the utilization of active rigs trends downward.

Wishing you and your family Happy Holidays, Merry Christmas, and a joyful start to New Year.

Amer Hanif
2024–2026 NA1 Regional Director

Regional Understandings–Latin America



Marta Inés D'Angiola
2024–2026 Latin America
Regional Director

Dear colleagues and friends,

With the arrival of spring, Latin America blossoms not only in its landscapes but also in the enthusiasm and commitment of its student and professional geoscience communities. From Argentina to Suriname, local and regional chapters are solidifying their roles as key spaces for training, knowledge exchange, and collaboration.

Student chapters in the region are the beating heart of innovation. Groups in Argentina, Brazil, Colombia, and beyond are leading initiatives ranging from specialized webinars to research projects on topics such as energy transition and environmental geology. Their efforts embody “Transformative Youthful Energy.” One standout

event is the “SPWLA Fest: Driving the Future of Geosciences,” a special gathering to celebrate the anniversary of our SPWLA Argentine Student Chapter.



CICLO DE ENTREVISTAS
“UN RECORRIDO PETROFÍSICO: DESCIFRANDO LOS SECRETOS DE LA ROCA”
EN ESTA OCASIÓN ESTAREMOS CHARLANDO CON...
CARLOS OLLIER
Co Founder Petrolier
SPWLA CAPÍTULO ARGENTINO
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20:00 HS (UCT-3)
LIVE INSTAGRAM

A Tribute to Teachers: Honoring Argentina’s Legacy is the motto of a local chapter event dedicated to those who have paved the way in petrophysics. Through special Instagram Live interviews, recognition was given to outstanding educators who have dedicated their lives to shaping professionals and advancing knowledge in the region. This heartfelt tribute celebrates the past and inspires new generations to uphold and expand this invaluable legacy.

CICLO DE ENTREVISTAS
“PASIÓN POR LAS ROCAS: UN VIAJE A TRAVÉS DE LA GEOLOGÍA DEL PETRÓLEO”
EN ESTA OCASIÓN ESTAREMOS CHARLANDO CON...
DR. MARIO SCHIUMA
Geólogo Consultor
SPWLA CAPÍTULO ARGENTINO
MIÉRCOLES 9 DE OCTUBRE
20:00 HS (UCT-3)
LIVE INSTAGRAM

The Colombia and Brazil Chapters are taking the lead in the virtual realm. This season, they have planned a series of webinars exploring topics such as reservoir characterization and the impact of artificial intelligence on the oil and gas

industry. Open to professionals across the region, these events highlight the chapters’ ability to adapt and lead amidst current challenges. Colombia’s professional and student chapters are connecting minds globally.

SPWLA
Brazil chapter
26/11 | 16:00h | YouTube SPWLA Brazil
“Classificação faciológica à partir de perfis de imagem acústica analisados por aprendizado profundo”
LENITA DE SOUZA FIORITI
Geóloga Sênior

CONFERENCIA
SPWLA Colombia
Capítulo Profesional
“Evaluation of petrophysical and geomechanical properties of the Illinois Basin Decatur Project reservoir for Safe CO2 Storage”
21/11/2024
Inicia 5:00 pm
SPEAKER
Angy Roman
First Place Award
SPWLA International Student
Paper Contest in Brazil
UNIVERSIDAD DE AMÉRICA
SEDE NORTE CL 106 #19-18/2 PISO
Inscríbete en el enlace

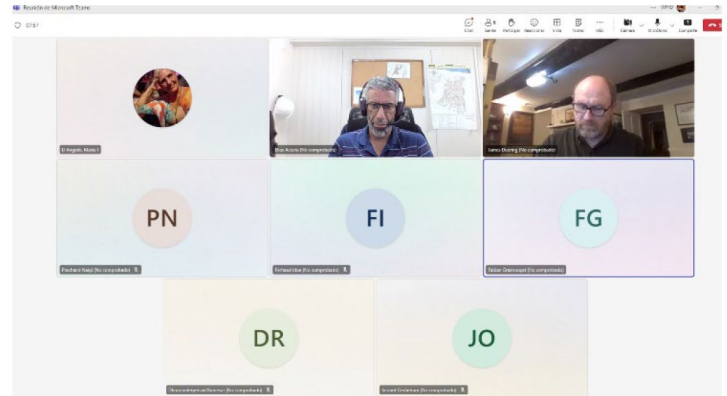
Regional Understandings–Latin America

In the Caribbean, collaboration transcends borders. The newly established professional chapter in Suriname has begun planning joint activities for 2025 with Guyana and French Guiana. These initiatives include binational conferences and workshops on offshore exploration, showcasing the transformative potential of regional cooperation. The accompanying photo captures their inaugural meeting held last month with the Suriname Chapter Board, marking the beginning of this exciting collaboration.

As 2024 ends, we look forward to meeting again in 2025. My best wishes to you and your families for a year filled with success, health, and happiness.

Let us remember the power of three simple yet magical words that I will share in my own language: ***Por favor, perdón, y gracias!***

Warm regards!
Marta Inés D'Angiola
2024–2026 Latin America
Regional Director



Regional Understandings—Europe



Mathias Horstmann
2023–2025 Europe
Regional Director

Dear SPWLA community,

Winter has taken over in Europe. The days are short, but all the local chapters mingle in technical and social gatherings, concluding another successful year! Many of you enjoyed one of these happenings around Europe, celebrating in a mix of technical, fun, and charity events.

First in the spotlight, the **Aberdeen Formation Evaluation Society (AFES)** traditionally closed the year with an Annual Quiz Night, which took place for the 21st time(!) just before St Nicholas' Day at the Castlegate Brew Dog. A great evening on the iconic Union Street with a generous buffet and a fun quiz – but most importantly, the funds raised are donated to the Aberdeen Children's Hospital Archie Foundation. Over the years, AFES has raised over £26,000! This is an incredible amount, and the picture shows AFES President Damien Dennison and former President Greg Blower presenting the fundraising from the past year's quiz – a fantastic achievement, AFES!

The **Norwegian Formation Evaluation Society (NFES)** closed the technical year also on a high note with their biannual "Geosteering and Formation Evaluation Workshop." For the third time, the local Norwegian Chapter of SPWLA hosted this 2-day seminar with the Norwegian Research Centre NORCE, attracting more than 100 enthusiastic local and global subject matter experts. I gladly participated in the opening session, representing the SPWLA mother organization and emphasizing the importance of our nonprofit organizations and all the volunteers to set up such local events. In December, their last technical meeting of 2024 was held, and two SPWLA Distinguished Speakers, Alexandra Cely and Brice Fortier, both with Equinor, presented their recognized talks from the Rio symposium to a large crowd. The year ended with the traditional Jule Lunsj at the Solastranden Gard.



AFES past president Greg Blower (left) and current president Damien Dennison present the fundraising to the Aberdeen Children's Hospital Archie Foundation.

The **London Petrophysical Society (LPS)** organized another of their high-quality all-day seminars, titled "Everything Formation Testing," on December 5. It was a fantastic lineup in a hybrid in-person/online event held at London's iconic Burlington House, home of the Geological Society. As usual, they concluded the year socializing and having fun during the President's Evening at the King's Head, where Jack Willies handed his presidency over to Phil Gibbons. I want to thank Jack on behalf of SPWLA for all his contributions during his tenure and welcome Phil for taking the lead of this flourishing chapter in London – tusen takk!

The **France Chapter of SPWLA** closed its year in December with a seminar on "The Future of Formation Evaluation." I planned to attend this seminar in person, but unfortunately, because of the risk of one of the "famous" general strikes in France, it was changed to an online event. Nonetheless, this seminar explored various aspects of the future of formation evaluation, providing valuable insights and discussions through technical presentations. Following a keynote speech titled "Métaux, le Nouvel or Noir (Metals, the New Black Gold)" by Benjamin Louvet of OFI Invest, a talk on "Sustainable Lithium Production – From Pore-to-Product" was presented by Sharad Dubey, working for SLB on critical minerals. Then, the



More than 100 delegates enjoyed the third International Geosteering and Formation Evaluation Workshop early November in Stavanger (top left), where Mathias Horstmann welcomed the participants on behalf of SPWLA (top right). The December technical luncheon with two SPWLA Distinguished Speakers, Alexandra Cely and Brice Fortier, both of Equinor, attracted a great crowd to conclude a successful year for the Norwegian Formation Evaluation Society (bottom).

Regional Understandings—Europe

already-mentioned “SPWLA-Distinguished-Speaker-duo” of Equinor, Alexandra Cely and Brice Fortier, presented their work on “Reservoir Fluid Properties From Cuttings: An Innovative Synergy of Gel Permeation Chromatography and Data Analytics” and “Obtaining Remaining Oil Saturation for the Johan Sverdrup Field From a Variety of Logging Data,” respectively. The seminar was concluded with a presentation on “Wellbore Evaluation for Well Decommissioning” by Pierre Chuilon of TotalEnergies—an impressive mix, assuring petrophysics stays relevant and increases its visibility in our evolving energy framework.

Looking ahead in general, after some chats with European presidents, we feel confident we can increase in 2024 the awareness of our chapters and SPWLA in Europe. I was really pleased to hear participation is more than steady but increasing during the events around Europe. This emphasizes how important our community is, be it virtual or in person. Seeing such a variety of topics in the seminars, workshops, and events, we utilized the energy transition opportunities and made our organizations more relevant. SPWLA is the right place, and with the *Petrophysics* journal and the annual symposium, it remains the voice of shared interests of scientists and engineers in the energy industry. I am confident that the SPWLA will continue to be a first-class forum for knowledge exchange, a foundation for innovative ideas needed to master the challenges of the developing exploitation and capture industries.

Finally, I’d like to thank all the European chapter committees, all the presenters, and members for their voluntary work and commitment this year. Only your efforts made all of this possible!

Keep well and stay tuned – have a great Season’s break, and like we say here in the Nordics: God Jul!

~Mathias

Mathias Horstmann
2023–2025 Europe Regional Director
Director-Europe@spwla.org



The London Petrophysical Society (LPS) organized a full day seminar on “Everything Formation Testing” on December 5 and concluded the year with the President’s Evening at the King’s Head to network and socialize.



Yuki Maehara
2023–2025 Asia Pacific
Regional Director

Dear SPWLA members,

As we embrace the winter season, I am delighted to share some exciting updates and accomplishments from the Asia Pacific region. It has been an eventful period, marked by significant participation in key events that underscore our commitment to advancing petrophysics and logging technology.

On November 9, 2024, I was honored to represent the SPWLA at the 1st Unconventional Reservoir Petrophysics and Logging Technology Innovation Yangtze International Forum. This landmark event, co-sponsored by the SPWLA SW China Chapter, provided a vital platform for discussing cutting-edge advancements in our field. During the forum, I had the pleasure of presenting SPWLA's vision and mission, reaffirming our dedication to fostering innovation and collaboration within the petrophysical community. Additionally, I delivered a technical talk focusing on the burgeoning areas of geothermal energy and carbon capture and storage (CCS), highlighting their critical role in our sustainable energy future.



The 1st Unconventional Reservoir Petrophysics and Logging Technology Innovation Yangtze International Forum.

Moreover, I was privileged to participate in the Data Deep Dive of SPWLA workshop, meticulously organized by the BatStateU Student Chapter. This workshop was a testament to the enthusiasm and talent of our emerging professionals. My presentation encompassed SPWLA's mission and vision, alongside recent updates shaping our organization's direction. Furthermore, I delved into the fascinating realm of machine-learning applications in formation evaluation, sharing insightful case studies that demonstrated the transformative potential of these technologies. The reception from the attendees was overwhelmingly positive, and the feedback underscored the value of these engagements.



Regional Understandings–Asia Pacific/Australia

The enthusiasm and support from our Southwest China and BatStateU Chapters have been truly inspiring. Through such collaborative efforts, we continue to advance our knowledge, share innovative solutions, and strengthen our professional community.

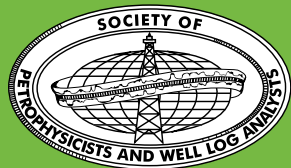
As we look ahead, I am excited about the opportunities that await us in the coming months. Let us continue to work together, leveraging our collective expertise to drive progress and make impactful contributions to the field of petrophysics.

Thank you for your ongoing support and dedication to SPWLA. Wishing you all a warm and productive winter season.

Yuki Maehara
Asia Pacific Regional Director
Director-Asiapacific@spwla.org

Upcoming Events in Asia-Pacific:

Event	Location	Date
VNFES Symposium	Hanoi	February, 2025
JFES Symposium	Tokyo	8-10, October, 2025



January 2025

2025 Steering
Committee

Editors

Ishank Gupta

Issa Haddad

Javier Miranda

Clara Palencia

Senior Editor

Nelson Suarez Arcano

SPWLAYP@SPWLA.ORG

In this edition:

SPWLA Papers of
the Quarter Series

SPWLA Papers of the Quarter Series

The SPWLA Papers of the Quarter Series highlights relevant and impactful papers published by the SPWLA. We encourage readers to nominate any papers they have enjoyed and would like to see summarized in the next issue. Nominations should be sent to SPWLAYP@spwla.org.

Title: Wettability Quantification in Rock Components via Water Adsorption Isotherms

Authors: Isa Silveira de Araujo and Zoya Heidari

Summary: The paper investigates a novel approach to quantify wettability, a key rock-fluid property that influences subsurface multiphase flow and reservoir production.

Key Points:

1. Objectives:

- o Develop a Reliable Method: Address the challenges in quantifying wettability in mixed-wet and complex mineral rocks using water adsorption isotherms.
- o Compare Techniques: Validate the proposed method against conventional contact angle measurements.
- o Explore Sensitivity: Analyze how mineral types, wettability levels, and mineral concentrations affect water adsorption behavior.

2. Methodology:

- o The Materials: Experiments utilized pure minerals (quartz, calcite, various clays) and kerogen.
- o Techniques:
 1. Water Adsorption Isotherms: Measured using a dynamic vapor sorption analyzer to understand the affinity between rock surfaces and water.
 2. Contact Angle Measurement: Used to verify wettability changes due to chemical treatments.
 3. Sample Preparation: Included grinding, sieving, drying, and creating mixtures of minerals with varying compositions.

3. Results:

- o Effectiveness of Water Adsorption Isotherms:
 1. More sensitive to wettability variations than contact angle measurements.
 2. Capable of capturing subtle differences in water-wetness levels among minerals.
- o Wettability Variations:
 1. Quartz treated to be oil-wet exhibited reduced water adsorption, validating the technique's sensitivity.
 2. Montmorillonite and kerogen showed significantly higher water adsorption compared to quartz (Fig. 1). These findings indicate that rock components such as clay minerals and kerogen play crucial roles in controlling the wetting behavior of organic-rich mudrocks.
- o Mixture Analysis:
 1. The wettability of mixtures reflected the properties of individual components, demonstrating the method's reliability in complex compositions.
- o Advantages Over Conventional Methods:
 1. Conventional contact angle measurements fail to capture the full spectrum of wettability and are limited by surface contamination and heterogeneity.
 2. Adsorption isotherms provide richer, more detailed insights into interfacial interactions.

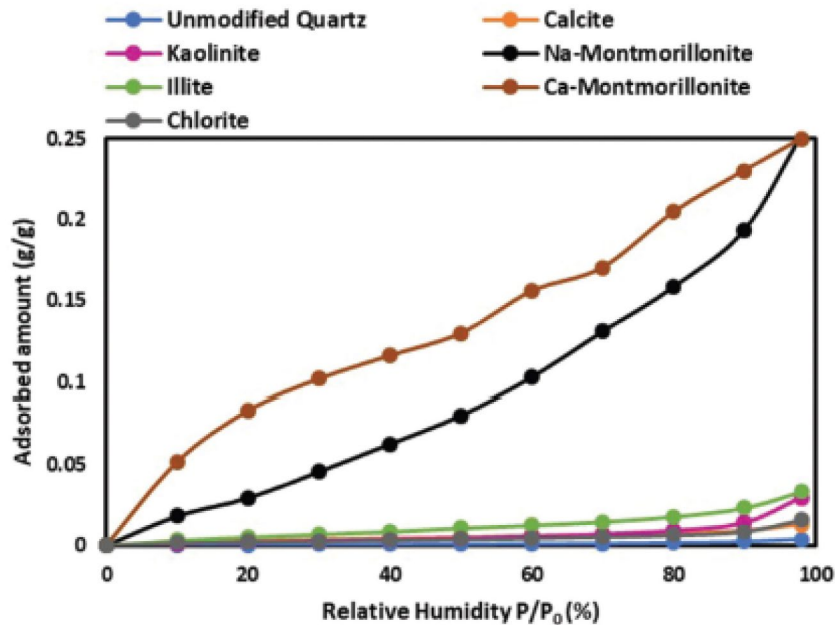


Fig. 1—Water adsorption isotherms measured for Na-montmorillonite, illite, kaolinite, chlorite, quartz, and calcite.

4. Conclusions:

- o Water adsorption isotherms offer a robust and precise technique for assessing wettability, outperforming traditional methods. The approach is particularly effective for rocks with complex compositions, such as organic-rich mudrocks, and has potential applications in enhanced oil recovery and reservoir characterization.

Reference:

Silveira de Araujo, I., and Heidari, Z., 2024, Wettability Quantification in Rock Components via Water Adsorption Isotherms, *Petrophysics*, 65(6), 983–994. DOI: 10.30632/PJV65N6-2024a11.

Title: Research and Application of Fracability Evaluation Method for Tight Sandstone Reservoirs Based on Logging and Experimental Data

Authors: Yuping Qian, Wenwen Wang, and Huizhuo Xie

Summary: The paper presents a comprehensive approach to evaluate the fracability of tight sandstone reservoirs. This is critical for optimizing hydraulic fracturing in low-porosity, low-permeability formations.

Key Points:

1. Objectives:

- o Develop a Comprehensive Method: To evaluate fracability in tight sandstone reservoirs, incorporating logging data, laboratory experiments, and advanced modeling techniques.
- o Address Complexity: Analyze hydraulic fracture generation, vertical expansion, radial extension, and fracture network complexity.

2. Methodology:

- o Study Area: Focus on tight sandstone gas reservoirs in the Ordos Basin.
- o Data Utilized:
 1. Well-logging data (dynamic Young’s modulus, Poisson’s ratio).
 2. Core experiments for static mechanical properties and compressive strength.
 3. Stress sensitivity and velocity anisotropy experiments to analyze microcracks and bedding development.

- o Brittleness Evaluation:
 1. Mineral Composition: Calculated brittleness based on brittle mineral content (e.g., quartz, feldspar).
 2. Acoustic Modulus: Derived brittleness from Young’s modulus and Poisson’s ratio.
 3. Comprehensive Index: Combined mineral brittleness and microcracks to provide a more realistic estimate.

- 3. **Results:**
 - o Hydraulic Fracture Analysis:
 1. Rocks with high brittleness but low compressive strength are easier to fracture.
 2. Barrier formations with high strength and thickness effectively confine fractures.
 - o Directional Analysis:
 1. The radial extension direction of fractures aligns with maximum horizontal stress, determined via acoustic anisotropy and imaging data (Fig. 2).
 - o Fracture Network Complexity:
 1. Brittleness, stress differences, microcracks, and bedding all impact fracture complexity.
 2. High Young’s modulus correlates with more complex fracture networks, whereas higher stress differences lead to simpler fractures.
 - o Validation via Field Application:
 1. The methodology was applied to Well XX-6 in the He4 zone, demonstrating:
 1. Hydraulic fractures concentrated within target sandstone intervals.
 2. Fractures aligned with predicted azimuths.
 3. Significant post-fracturing gas production (20,880 m³/day), validating the fracability model.

Reference:

Qian, Y., Wang, W., and Xie, H., 2024, Research and Application of Fracability Evaluation Method for Tight Sandstone Reservoirs Based on Logging and Experimental Data, *Petrophysics*, 65(6), 995–1009. DOI: 10.30632/PJV65N6-2024a12.

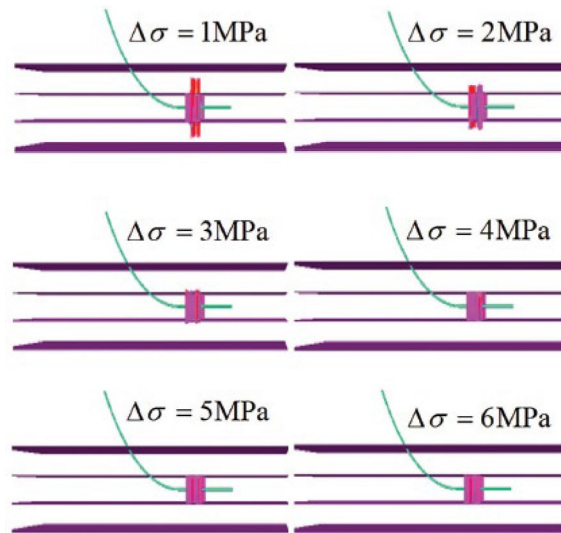


Fig. 2—Influence of stress difference ($\Delta\sigma$) between the reservoir and the barrier formation on the vertical expansion ability of hydraulic fractures. $\Delta\sigma$ are 1, 2, 3, 4, 5, and 6 MPa, respectively. The green line represents the trajectory of the well; the purple lines represent the barrier formations, and the reservoir is located between the barrier formations; the red and the pink parts represent hydraulic fractures. The direction perpendicular to the formation downwards is the direction of increasing vertical depth.

- 4. **Conclusions:**
 - o The proposed method accurately evaluates the fracability of tight sandstone reservoirs, enhancing prefracturing analysis.
 - o By integrating brittleness, stress profiles, and microcrack analysis, the study provides a reliable basis for hydraulic fracturing design, maximizing productivity.

Title: Applications of a New Multiphysics Inversion Technique: Optimized Petrophysical Evaluation of Advanced Dielectric and Spectroscopy Logs in Unconventional Reservoirs

Authors: Andrew Johnson, Laurent Mosse, Yevgeny Karpekin, Ulises Bustos, Violeta Lujan, and Akinlolu Williams

Summary: The paper discusses the integration of advanced well-logging methods and multiphysics inversion techniques to enhance the petrophysical characterization of unconventional reservoirs.

Key Points:

1. **Multiphysics Approach in Well-Log Analysis:** Traditional well-log analysis relies on deterministic models, which are useful but limited for complex formations. Multimineral models can integrate multiple well logs but still struggle with incorporating modern petrophysical technologies like geochemical spectroscopy and dielectric measurements. The paper emphasizes the need for a more integrated and rigorous approach for managing the complexities of unconventional reservoirs.
2. **Advanced Logging Methods:**
 - o **Dielectric Dispersion Measurements:** These measure electromagnetic phase shift and attenuation, providing insights into water-filled porosity, water salinity, and pore texture. However, dielectric data are often processed separately, which can lead to inconsistent results. The paper advocates for a more integrated approach, combining dielectric measurements with other well-log data.
 - o **Geochemical Measurements:** Specifically, chlorine measurements are used to resolve ambiguities in water salinity and saturation, a critical challenge in unconventional reservoirs. The paper discusses how dielectric and chlorine data can be used to improve salinity and saturation models.
 - o **Mineralogy With Machine Learning:** The use of a variational autoencoder model for advanced mineralogy allows for improved quantification of mineral components from geochemical logs, facilitating better petrophysical modeling.
 - o **Thermal Maturity-Adjusted Log Interpretation:** This approach accounts for the effects of kerogen by adjusting log interpretation based on kerogen’s thermal maturity.
3. **Multiphysics Inversion:** The paper introduces a multiphysics inversion workflow that combines various data sources to estimate key formation properties such as kerogen volume, hydrocarbon content, water saturation, and salinity. This method uses optimization algorithms to minimize discrepancies between modeled and observed data, considering the uncertainties in log measurements. The inversion technique improves the robustness and accuracy of estimates, especially in complex formations.
4. **Challenges and Benefits:** While the integration of advanced logs presents challenges in terms of data processing and interpretation, multiphysics inversion offers a significant improvement over traditional methods. It allows for a more flexible and comprehensive analysis, maximizing the use of available data and accounting for the inherent uncertainties in well-log measurements.

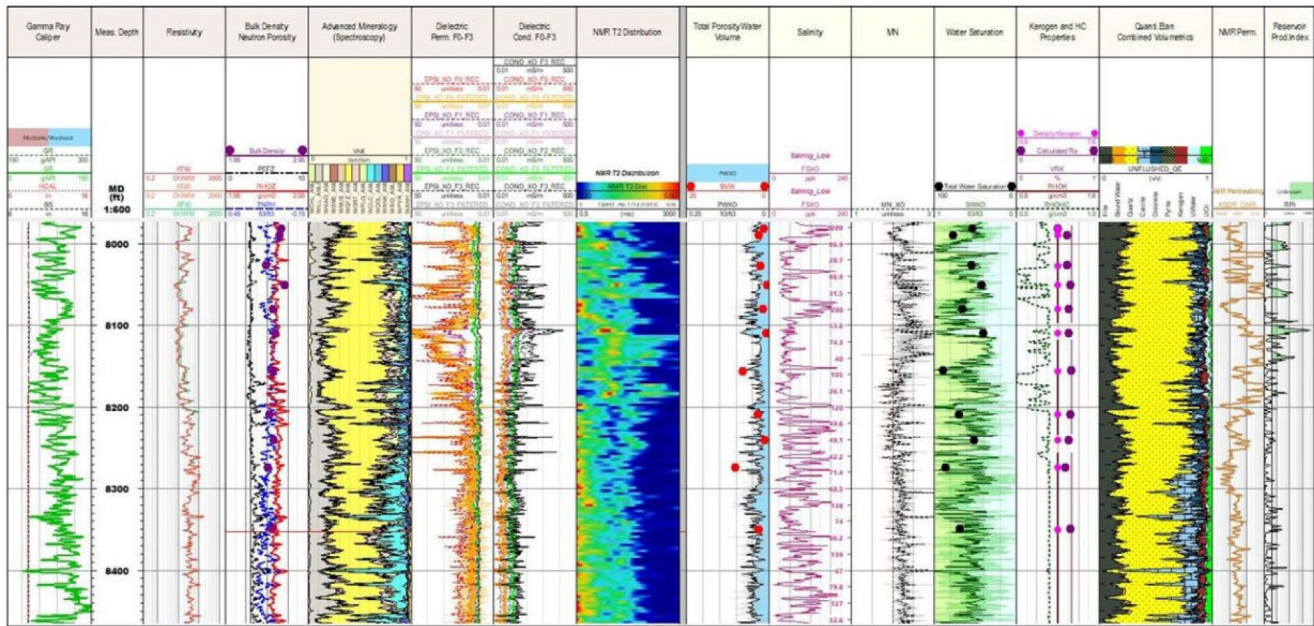


Fig. 1—Petrophysical interpretation for Case Study 2 in the Midland Basin using multiphysics inversion results.

- Conclusion:** The paper highlights the importance of modernizing well-log integration through novel multiphysics inversion, which can provide more accurate and reliable petrophysical property estimates, particularly in unconventional reservoirs where traditional methods fall short, providing five case studies in several unconventional plays.

Reference:

Johnson, A., Mosse, L., Karpekin, Y., Bustos, U., Lujan, V., and Williams, A., 2024, Applications of a New Multiphysics Inversion Technique: Optimized Petrophysical Evaluation of Advanced Dielectric and Spectroscopy Logs in Unconventional Reservoirs, Paper 42, *Transactions, SPWLA 65th Annual Logging Symposium*, Rio de Janeiro, Brazil, 18–22 May. DOI: 10.30632/SPWLA-2024-0042.

Well Integrity Special Issue Call for Papers

Dear Colleagues,

We are pleased to announce a call for papers for a special issue of *Petrophysics* dedicated to the essential topic of **Well Integrity**, a cornerstone for maintaining operational health, safety, environmental protection (HSE), and economic efficiency in the petroleum industry, as well as in the businesses of storage of gases including CO₂, natural gas, and H₂.

As the oil and gas industry navigates the demands of energy transition and addition, ensuring well integrity has become more crucial than ever and is a regulatory requirement. Reliable well integrity is important for securing current and future energy resources while mitigating potential environmental risks. With increasing regulatory standards and industry focused on reducing emissions and enhancing sustainability, well integrity is at the forefront of adapting traditional practices to new expectations.

This special issue, focusing on the development, impact, and application of well integrity practices and technologies that drive safety, sustainability, and performance, may include, but is not limited to, the following topics:

- New technology developments in well integrity
- Multiple barrier detection technologies – static and dynamic
- Cementing practice advancements
- Real-time monitoring and predictive modeling
- Applications of ML/AI and other digital technologies in well integrity evaluation
- Well integrity challenges in geothermal and gas storage wells (CO₂, natural gas, and H₂)
- Best practices in well integrity management and risk assessment methodologies
- Case studies

When submitting your manuscript, please note the following guidelines:

1. Previously published conference proceedings and peer-reviewed articles are allowed, either reworked or reprinted.
2. Copyright transfer from the journal/other venues must be obtained by the author(s) before submission, except for SPWLA publications, where copyright transfer comes from the author(s).
3. Original material is encouraged, provided that all necessary vetting and publication approvals are obtained before submission.

SUBMISSION GUIDELINES

Articles should be submitted to Editorial Manager (<https://bit.ly/3FpOoAI>) by **January 17, 2025**.

Please refer to the SPWLA Instructions for Authors for more information about submission requirements and associated publication fees (<https://bit.ly/46Ahlpv>).

Make sure to select “**Well Integrity Special Issue**” for the “**Article Type**” when submitting your manuscript. Also, we encourage you to forward this message to all interested parties.

We look forward to your innovative studies and insights that will drive forward the understanding and application of well integrity technologies and practices.

Best regards,

QinShan Yang, PhD, Editor of Well Integrity

Abdulaziz Bazaid, Guest Editor

Rehan Jawed, Guest Editor

Mohammed Alatigue, Guest Editor

SPWLA BOARD OF DIRECTORS MEETING

REMOTE

November 15, 2024

President Iulian Hulea called the meeting to order at 7:00 am CST. In attendance, President-Elect, Robert “Bob” Gales, Vice President Education, Matt Blyth, Vice President Finance, Secretary and Admin, Jing Li, Vice President Communications, Chelsea Newgord, Vice President Technology, Harry Xie, Vice President, Publications, S. Mark Ma, Vice President Information Technology, Tegwyn Perkins, Vice President Technology-Elect, Robin Slocombe, Regional Director Middle East/Africa, Elsa Maalouf, Regional Director Asia Pacific/Australia, Yuki Maehara, Regional Director Europe, Mathias Horstmann, Regional Director N. America 1, Amer Hanif, Regional Director N. America 2, Clara Palencia, Regional Director Latin America, Marta D’Angiola, and Executive Director, Sharon Johnson.

A motion was made by President-Elect Robert “Bob” Gales to waive the reading of the minutes from the September Board of Directors (BOD) meeting. The motion was seconded by the Vice President of Technology Harry Xie and passed by majority vote.

A motion was made by the Regional Director of Europe Mathias Horstmann to approve the annual symposium host compensation model. The proposal, presented by the Vice President of Finance, Secretary, and Admin Jing Li on behalf of the Finance Committee, outlined the updated profit share based on event performance. The model calculates the Net Profit as the difference between symposium revenue and expenses, with the host chapter receiving 8.5% of the net profit. Additionally, expenses incurred by the host chapter for the event are reimbursed. This motion was seconded by the President-Elect Robert “Bob” Gales and passed by majority vote.

A motion made by Regional Director Asia Pacific/Australia Yuki Maehara to approve the TFES Chapter Bylaws presented on behalf of the petitioning members was seconded by Vice President Education Matt Blyth and passed by majority vote.

Action Item: President-Elect Robert “Bob” Gales was tasked with forming a committee to research corporate memberships in SPWLA, focusing on value, policy, and effectiveness.

Action item: Regional Director Asia Pacific/Australia Yuki Maehara at your earliest, please notify and welcome the TFES SPWLA Chapter leadership of the results.

A motion to adjourn the meeting was made by President-Elect Robert “Bob” Gales and seconded by the Vice President of Communications Chelsea Newgord. The meeting was adjourned at 10:25 am.

Respectively Submitted by
Sharon Johnson
Executive Director

NEXT MEETING: January 10, 2024

Chapter News

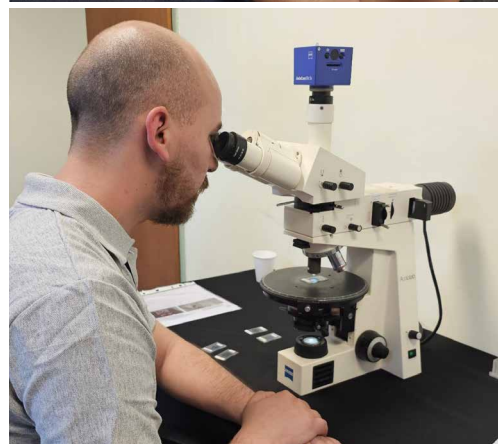
ARGENTINE STUDENT CHAPTER

Recent Events

30 September 2024—Franchino Bernabé Roberto spoke on “Reserve Analysis Based on the Probabilistic Method.” During the talk, the following topics were addressed: volumetric estimation from probabilistic and deterministic approaches, key uncertainties affecting in-situ volume, and how geometry and geological features influence oil recovery efficiency.



Event Flyer – “Reserve Analysis Based on the Probabilistic Method: A Case Study.”



23 October 2024—At LCV, learning and innovation go hand in hand. We had the pleasure of participating in their “Interactive Workshop: Facies and Microfacies Analysis in the Vaca Muerta Formation,” and we were amazed by the quality of the content and the dedication of the instructors. The LCV Group offers specialized services in geology and engineering, carrying out studies for exploration and development companies of oil and gas reservoirs, both conventional and unconventional. It also provides its services to sectors such as construction, pharmaceutical and environmental, among others.

24 October 2024—We thank the Halliburton team for receiving us at their base and giving us an enriching talk. It was a unique opportunity to learn about how they carry out their work, the tools they use, and the assembly and preparation procedures before sending the tools to the different fields. In addition, it was very valuable to hear about the work culture and growth opportunities within Halliburton, which further motivated us to continue on this career path. Thank you again for sharing your knowledge and experience with us, and we look forward to future collaborations with you!



24 October 2024—We had the pleasure of being present at Argentina Oil & Gas Patagonia 2024. During the event, we connected with industry professionals, explored the latest technologies in exploration and production, and discovered the trends that are shaping the future of the industry. We thank everyone who shared their time and knowledge with us. We left motivated and ready to continue to delve deeper into this exciting field.



17 November 2024—We celebrated our first face-to-face event: “SPWLA Fest: Driving the Future of Geosciences,” a very special meeting for the anniversary of our SPWLA student chapter. The day included two thematic blocks: (1) “Upstream, Challenges and Perspectives in a Context of Technological and Environmental Change” and (2) “Oil

& Gas Challenges for Young Professionals.” We would like to deeply thank the speakers Marta D’Angiola, Ángela Melli, Nuria V, and Julián Gómez, who shared their time and knowledge, enriching the experience of all attendees. We also thank the SPWLA Argentina Professional Chapter for the donation of the breakfast we enjoyed together. In addition, this event was a unique opportunity to share space, exchange ideas, and enrich learning among students and professionals in a collaborative environment. This event not only celebrates one more year of our chapter but also the effort, commitment, and enthusiasm of our community.



2 December 2024—We were proud to participate in the XXII Argentine Geological Congress, an event that brought together students, professionals, and geoscience leaders from all over the country. The congress provided a space to learn, debate, and explore a wide variety of topics. Highlights included innovations in the petroleum industry, featuring a talk by the President of the AAPG, and hands-on workshops, such as one on geo-radar, showcasing the potential of technology applied to geology. The event also featured geotechnical talks led by Y-TEC specialists, advanced studies on facies and microfacies interpretation, and much more! This congress was a unique opportunity to discover new ideas, connect with colleagues, and strengthen our geoscientific community.



ABU DHABI CHAPTER

Recent Events

6 November 2024—The local chapter board members had the pleasure of meeting with Elsa Maalouf, the Middle East/Africa SPWLA Director, during her visit to the UAE capital for the Abu Dhabi Petroleum and Exhibition Conference (ADIPEC). During our gathering, we had the opportunity to discuss the upcoming prospect regional event and the role of our local chapter in promoting global events.

Moreover, we talked about the highly anticipated global symposium scheduled to take place in Dubai in 2025. It was a fruitful meeting, and we are looking forward to contributing to these significant events.



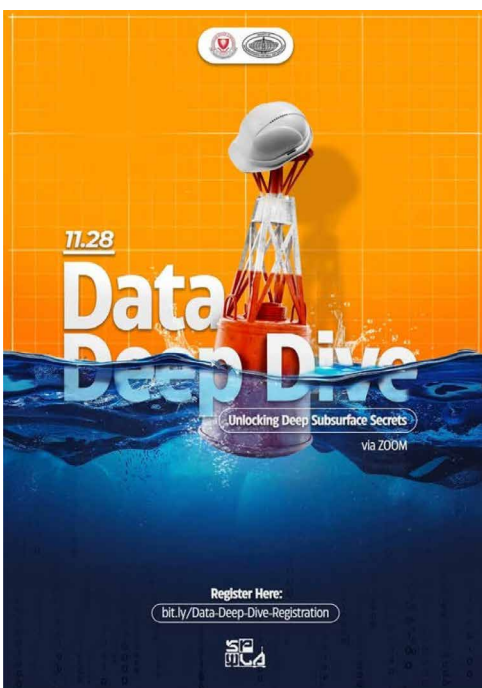
(From left to right) Shaima Al Eissae (Abu Dhabi Chapter Secretary), Aita Bijaripour (former Dubai Chapter Board Member, Nelson Suarez, (former Dubai Chapter President), Elsa Maalouf (ME/Africa Director center), Amr Serry (Chapter President), and Nader Gerges (Abu Dhabi Chapter VP).

BATANGAS STATE UNIVERSITY STUDENT CHAPTER

General News

Data Deep Dive—On November 28, 2024, the Batangas State University Student Chapter held their last event for the semester entitled “Data Deep Dive,” in which student members and other invited student organizations (Society of Petroleum Engineers – BatStateU SC), Society of Petroleum Engineers – PSU SC, and Society of Petroleum Engineers – AdU SC were introduced to the world of data analytics. This event was well attended. The student chapter was lucky enough to feature one of our esteemed guests, Mr. Yuki Maehara, the current Vice President of Technology for JFES-SPWLA and the SPWLA Asia-Pacific Regional Director. His 30-minute discourse on “Well-Log Analysis With Class-Based Machine Learning for Petrophysics” featured its limitations and advantages. Mr. Yuki Maehara also introduced the organization to the participants to gauge what and why they reach a diverse set of future industry professionals across the globe. According to him, SPWLA is not all about hydrocarbon; instead, the organization embraces mining, alternative subsurface, and energy transition. He outlined the organizational structure of

SPWLA International as well as key contact persons for any future events. We were also blessed by the presence of Engr. Gabriel Malasique, a BS petroleum engineering graduate of Batangas State University, as he tackled and demonstrated the utilization of TNavigator for dynamic modeling and reservoir analysis. As Engr. Malasique demonstrated how to use TNavigator, he also tackled the economics of the industry. According to him, the oil and gas industry is a business.



Data Deep Dive Poster.

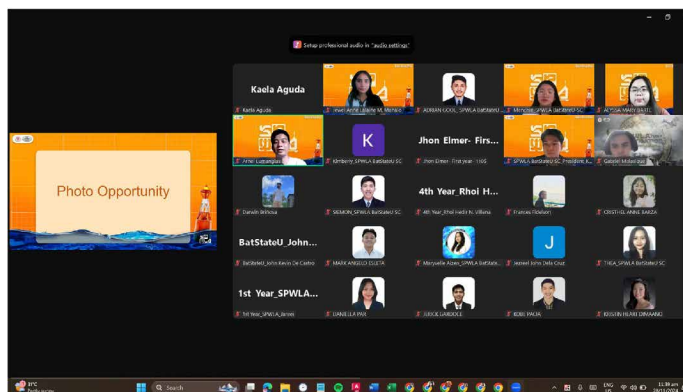


Photo-Op with Engr. Gabriel Malasique.

SPWLA BatStateU Powers Forward With New Leadership After Global Recognition

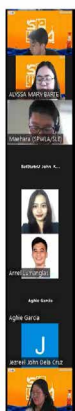
Batangas City, Philippines – The Society of Petrophysicists and Well Log Analysts (SPWLA) Batangas State University (BatStateU) Student Chapter announces its new set of officers for the academic year, marking the beginning of another promising chapter in the organization’s history. This announcement follows its recent achievement of being recognized by the Society of Petrophysicists and Well Log Analysts International as the Outstanding Student Chapter of the Year 2023–2024, a testament to its dedication to excellence in petrophysics and well-log analysis.

John Kenneth S. Navarro serves as President, while John Carlo M. Doria takes on the role of Vice President, leading the organization into this new era. Together, they uphold and build upon the chapter’s legacy of excellence. Supporting them are Frances Anne E. Fidelson, Secretary General, and Russel Vincent V. Manalo, Assistant Secretary, who oversee administrative and communication tasks essential to the chapter’s success.

Niel Allen M. Delos Reyes, as Treasurer General, and Arnel M. Lumanglas, as Assistant Treasurer, manage the chapter’s financial stability. Mary Jane A. Diasanta, Membership Chairperson, drives membership growth and engagement, ensuring a thriving community of aspiring petrophysicists.

Krystal Chelsy R. Cataga, Director of Internal Affairs, and Jules Andrei Florendo, Director of External Affairs, focus on strengthening internal operations and external partnerships. Rhoi Hedric N. Villena and Mark Angelo R. Esleta serve as Liaison Officers, with Janrei V. Fajilan assisting in external communications to enhance industry connections.

Thank you for your attention



Question and Answer Session with Mr. Yuki Maehara.

The chapter’s technical initiatives are spearheaded by Ricardo Carlos Miguel R. Perez, Director of Technical Affairs. They work alongside the technical team, which includes Ethan John A. Advincula, Janine Mariane Bague, Jonizey Hanna S. De Vera, Jeus Manalo, and Nicolaus Siemon Chavez, to oversee the implementation of technical projects and events.

Creative efforts are led by Prince Angelo Dalisay, Graphical Designer, and Vryiell Chled C. Sorebillo, Social Media Manager, ensuring a strong digital presence.

Other key officers include Jewel Anne Lalaine M. Manalo as Auditor, Mickel Louise R. Dimapilis as DRRM Chairperson, Alyssa Mary P. Barte as Writer, Menchie P. Virtusio as Live Admin, and Janaih Ryka D. Budy as Documenter, all contributing to the chapter’s operational excellence.

President Navarro emphasizes the chapter’s commitment to sustaining its award-winning performance: “After being named the Outstanding Student Chapter of the Year, our mission is to maintain this momentum, exude our best efforts, and continue this legacy of excellence. We aim to inspire our members and significantly contribute to the academic and professional communities.”

The SPWLA BatStateU Student Chapter continues its tradition of organizing impactful seminars, technical workshops, and outreach programs, further solidifying its role as a leader in the field and a valuable bridge between academia and industry.

BHI SIG

General News

The BHI SIG is growing fast. We now have more than 500 members.

Upcoming Events

Due to the high interest in our geomechanics workshop on October 15, we will organize a second Geomechanics – BHI workshop in early 2025. The date for this second workshop will be distributed at the earliest.

SPWLA BRAZIL CHAPTER

General News

Our monthly meetings are being held online, predominantly every third Tuesday of the month, at 4 pm BRT (UTC-03), throughout our YouTube channel (<https://www.youtube.com/@spwlabrazil>). Please consider subscribing to the channel and turning on notifications to stay updated on our latest videos. Anyone wishing to participate is welcome. Meetings are held in Portuguese or English, depending on the preference of the speaker. Even if it is held in Portuguese, questions in English are also welcomed!

Please consider subscribing to our LinkedIn page (SPWLA Brazil Chapter – <https://www.linkedin.com/company/spwlabrazil/>), where we post chapter updates and meeting links.

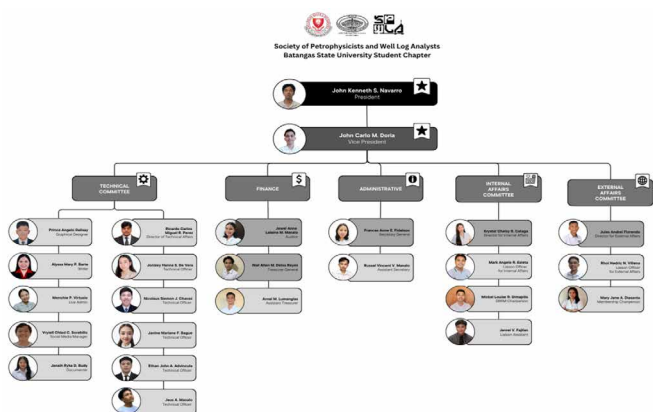
For further information about the chapter, please contact our secretary, David Xavier (dx@equinor.com).

Membership to our chapter is free and can be claimed by filling out the form available at <https://lnkd.in/g4KQjYf>.

We’re excited to announce we have launched! Visit and check the statistics of all registered monthly meetings delivered by our chapter at our monthly meetings dashboard: (<https://SPWLABRChapterdashboard>).

Recent Events

27 August 2024—We had Rodrigo Surmas (<https://www.linkedin.com/in/rodrigo-surmas>) presenting “Digital Rock Physics Applications.” Rodrigo Surmas has been working since 2001 on flow studies using numerical simulation, with applications to porous media and at Petrobras since 2008, focusing on the development of methods and processes for the characterization of porous media and determination of petrophysical properties based on imaging, numerical simulation, and artificial intelligence.



Organizational Structure of the SPWLA Batangas State University Student Chapter.

As the first semester comes to a conclusion, we wrap it up with academic pursuits and with prospects of a more socially inclined second semester. Coming up is *Virtual Vision: Benchmarking and Bridging with Global Student Chapters* next January. Stay tuned!

17 September 2024—We had Isa Silveira de Araujo (<https://www.linkedin.com/in/isa-silveira-de-araujo->) presenting “Wettability Quantification in Rock Components via Water Adsorption Isotherms.” Isa is a PhD candidate at the University of Texas at Austin, was honored with the SPWLA Distinguished Speaker Award in 2022, and is also the recipient of the Osmar, Mercedes, and Roberto Abib Memorial Endowed Presidential Scholarship in Petroleum Engineering from the Cockrell School of Engineering.

22 October 2024—We had Rodrigo Cesar Teixeira de Gouvea (<https://www.linkedin.com/in/rodrigo-gouvea>) presenting “Construction of a Database for the Creation of a Well Log Signature Synthesis Based on Space-Filling Curves and Self-Organizing Maps.” Rodrigo César Teixeira de Gouvêa is a doctoral candidate at the Polytechnic School of the University of São Paulo (USP) and a researcher at the Integrated Technology for Rock and Fluid Analysis (InTRA) and at the Technological Characterization Laboratory (LCT) of the Polytechnic School of the University of São Paulo.

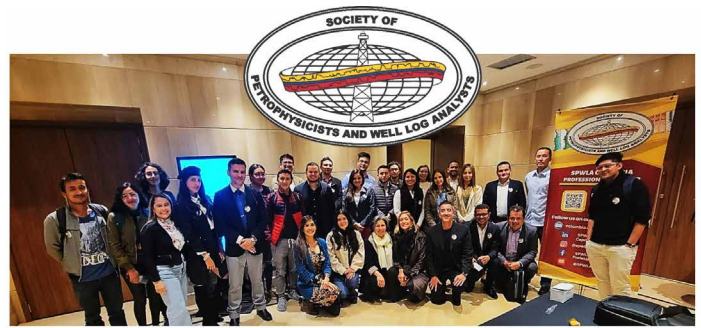
17 November 2024—We had Lenita Fioriti (<https://www.linkedin.com/in/lenita-fioriti>) presenting “Facies Classification From Acoustic Image Logs Analyzed Using Deep Learning.” Lenita is a geologist/petrophysicist at Petrobras, with expertise in borehole image logs, who is pursuing a PhD at the University of São Paulo and served as President (2018–2020) and later as Director of Publications (2020–2022) of the SPWLA Brazil Chapter.

The webinars are available on our YouTube channel (<https://www.youtube.com/@spwlabrazil>).

9–12 December 2024—The Brazil Chapter offered a course on “Nuclear Magnetic Resonance for Formation Evaluation,” led by PhD Willian Andrightto Trevizan, Petrobras consultant. The course was held at the Brazilian Center for Research in Physics (Centro Brasileiro de Pesquisas Físicas, CBPF), located in the Urca neighborhood, Rio de Janeiro – RJ. Over the 3 days, participants covered key topics such as NMR fundamentals, logging tools, lab measurements, and NMR-based reservoir evaluation. The course included practical sessions on interpreting NMR logs for porosity, permeability, and fluid saturation.

The SPWLA Brazil Chapter is planning next year’s presentation calendar, so stay tuned to our LinkedIn page and YouTube channel to stay up to date with our schedule.

COLOMBIA CHAPTER



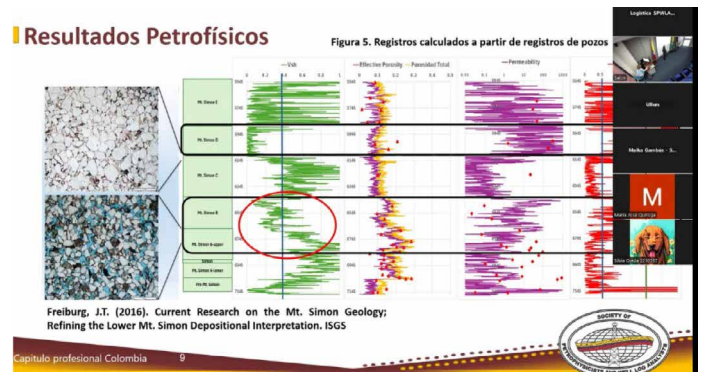
Board of Directors

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Victoria Mousalli	Vocal2	UIS	https://www.linkedin.com/in/victoria-mousalli-26171655/

Recent Events

21 November 2024—The SPWLA Colombia team held a hybrid event entitled “Evaluation of Petrophysical and Geomechanical Properties of the Illinois Basin Decatur Project Reservoir for Safe CO₂ Storage” by our speaker Anngy Román (first place ISPC in Brazil 2024). The event was held at the Universidad de America in Bogota, Colombia.

Resultados Petrofísicos



Freiburg, J.T. (2016). Current Research on the Mt. Simon Geology; Refining the Lower Mt. Simon Depositional Interpretation. ISGS

Capítulo profesional Colombia 9



CONFERENCIA

SPWLA Colombia
Capítulo Profesional

“Evaluation of petrophysical and geomechanical properties of the Illinois Basin Decatur Project reservoir for Safe CO2 Storage”

21/11/2024
Inicia 5:00 pm

SPEAKER
Anngy Roman
First Place Award
SPWLA International Student Paper Contest in Brazil



UNIVERSIDAD DE AMÉRICA
SEDE NORTE CL 106 #19-18/2 PISO

Inscríbete en el enlace 

Upcoming Events

The team will hold an upcoming virtual event with Marta D’Angiola, SPWLA Latin America Regional Director, starting in 2025.

The team is preparing to organize upcoming events in collaboration with the academic community within the agreement context and in the facilities at the Universidad de America in Bogota-Colombia, as well as with prospective O&G companies and possible Distinguished Speakers.

Recorded online events: <https://www.youtube.com/@spwla colombia5994>

Follow us on social networks:



SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

SPWLA COLOMBIA PROFESSIONAL CHAPTER

Get Membership Here!

Follow us on our social networks:

- colombia.chapter@spwla.org
- SPWLA COLOMBIA Capítulo Profesional @spwla_cap_colombia
- SPWLA COLOMBIA Professional Chapter @SPWLA Colombia

December 2024—We are meeting to plan for the upcoming transition of our Board of Directors and planning new events.



DENVER CHAPTER

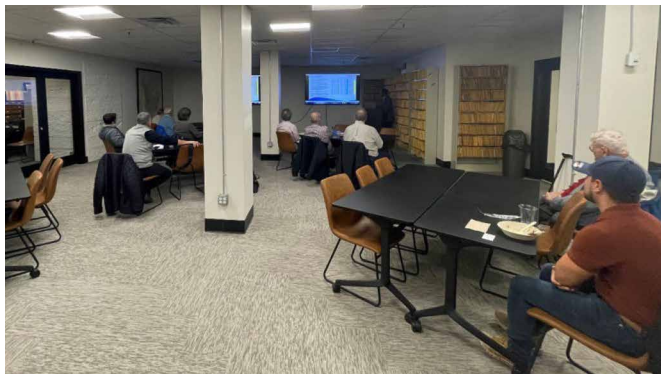
Recent Events

In November, we had an excellent turnout for our Quarterly Lunch and Learn event. This month’s talk was brought to us by John Omovie (Goshey Energy), who presented “A Novel Method for Estimating Water Saturation in Hydrocarbon Reservoirs Using Sonic Logs.”

John discussed how higher-resolution sonic logs can be used to estimate water saturation, moving beyond the traditional use of the bulk modulus for fluid identification. His presentation shed light on innovative techniques for evaluating water saturation, particularly in challenging reservoir conditions, and sparked engaging discussions among attendees.

We'd like to thank John for sharing his insights and the DWLS board for organizing this fantastic event. Your continued efforts ensure these gatherings remain both insightful and impactful.

As the holiday season approaches, we wish everyone a safe and joyous time with loved ones. We look forward to welcoming you to more events in the new year!



**FEDERAL UNIVERSITY OF RIO DE JANEIRO
STUDENT CHAPTER**

General News

Our chapter maintains normal activities, now with 18 active members and a professor advisor, organized below:

Board Members

- President: Vittor Cambria
- Vice President: Renan Camillo
- Secretary and Treasurer: Marina Alfradique
- Professor Advisor: Jorge Picanço

Advisor Members

- Rodrigo Azambuja
- Sarah Aleixo
- Sophia d’Orsi
- Amanda Bezerra

Marketing Members

- Gabriel Ferraz
- Luís Henrique Trianon
- Antonia Barbosa
- Iago da Costa

Logistic Members

- Alexandre Nobre
- Pedro Van Boekel
- Manuela Braga
- Gabriel Amon

HR (Human Resources)

- Julianna Machado
- Lívia Isabor
- Luciano Barros

Recent News

The chapter is directed by President Vittor Cambria and Vice President Renan Camilo. Additionally, Marina Alfradique now occupies the position of Treasurer and Secretary, replacing a former member. The chapter opened a communication channel with **Marta D’Angiola**, who was very helpful in putting us in touch with other professionals. In addition, we had a class with Luis Rojas, who talked about petrophysics in the current job market.

Goals	October	November	December
Update post of Instagram page			
Webinar one – Professor Advisor: or internal other member UFRJ			
Visit of Prio company			
Geoscience event with SPWLA – UFC			
Visit to the digital petrophysics laboratory			

Stage completed

Stage in process

Future stage

As a way to promote and publicize the student chapter, we had the idea of posting monthly on the Instagram page so that new students could become interested and also increase the visibility of our chapter within the university.

For the webinars, we had the idea of holding one webinar per month, the first of which was with Professor Advisor

Jorge Picanço on the topic of reservoirs and the application of sequence stratigraphy. For the second webinar, we would like to count on the presence of other professionals in the field of petrophysics.

Our members, such as Gabirel Amon and Pedro Van Boekel, have been trying to get some mini-courses for the chapter with Petrobrás and Lagesed for 2025.

Additionally, the communication with Marta has been very appreciated and has helped our chapter.

Currently, the University Federal of Ceará has created a new chapter of SPWLA – UFC. In this sense, our chapter from Rio de Janeiro participated in some activities with them.

FORMATION TESTING SIG

Recent Events

August 2024—FT SIG Webinar Series continued with another webinar titled “A Review of Recent Formation Testing Activities From South China Sea, the Success, Challenge and Future” and was delivered by Guowen Lei (Baker Hughes).

19 September 2024—FT SIG Annual Meeting and Technical Conference was held in Houston. The event comprised multiple talks from different companies regarding advancements in the field of formation testing. It also hosted a panel of experts from the industry to talk about the different challenges the industry is facing. Some photos from the event and the panel are included.



Attendees at the FT SIG Annual Meeting 2024.





19 September 2024—A social meet and greet was held at Blue Agave Cantina in Houston, TX, after the annual conference on September 19. It was well attended and was well received. A few pictures are included.



5 December 2024—Another webinar was hosted with the title of “Enlightening Reservoir Fluid Distribution and Derisking Brownfield Development With the Combination of Downhole and Surface Fluid Mapping Services.” It was delivered by Aldrick Garcia-Mayans (SLB).

Upcoming Events

FT SIG Webinar Series will continue with a webinar in the new year. The title, date, and timing will be announced on the SPWLA website soon. If you have questions about any of our events, you can contact us at formation.testing.sig@spwla.org.

HOUSTON CHAPTER



President’s Corner

Only now do I realize that I have never properly introduced myself to the Houston SPWLA community and the community at large. Allow me to repeat the brief bio that was on the ballot:

Ron J.M. Bonnie retired on June 1 from his 14-year tenure as petrophysical advisor in ConocoPhillips’ Geoscience organization. Before, Ron worked for more than 15 years for Shell E&P in The Netherlands and Houston, doing a multitude of research, petrophysics, geophysics, and operations assignments. He also has 6+ years with Halliburton in the USA with positions in R&D for Numar and as Global Product Champion MRILWD for Sperry-Sun. Ron is an industry expert on NMR technology and provides support for high-profile NMR projects in ConocoPhillips globally, plus guidance, support, and evaluation of petrophysically challenging projects in traditional and unconventional reservoirs. Ron is very well-published and is a holder of several patents. He has BSc and MSc degrees in nuclear physics from the University of Amsterdam and a PhD in laser physics from Twente University (both in The Netherlands). Ron is a founding Board Member, Vice President, and former Secretary of the SPWLA Nuclear Magnetic Resonance (NMR) Special Interest Group and 2024–2026 President of the SPWLA Houston Chapter.

Fun Facts:

1. I would always bring my running gear on business trips and have run in 26 different countries on five continents.
2. The first SPWLA Annual Symposium I attended was #32 (1991) in Midland, Texas, where I participated in the 5K Log Jog (running behind a logging truck) and presented my first oil-industry paper with the title, “Evaluation of Various Pulsed Neutron Capture Logging Tools Under Well-Defined Laboratory Conditions.”

President’s Message to the Houston SPWLA Community

This is the spot where the Chapter President shares profound words of wisdom. With the year almost done, I could do a look-back or a look-ahead. I will do neither. I could share some of my musings on a variety of relevant (and not so) topics, but I won’t do that either, as I feel said musings haven’t properly matured yet and are, therefore, not yet ready for prime time. What I will do is wish each and every one of you—and yours—a happy and festive holiday season and leave you with the best wishes – good health, happiness, and prosperity – for the New Year 2025. Many of you still have (much) unused time off: use it, enjoy it, spend it with loved ones, rest, relax, recharge, and be safe when you travel. And those loved ones... hug them a little tighter this season. ~Ron

Current Sponsors



General News



Changes to 24–25 SPWLA Houston Chapter Executive Board

We would like to announce two changes to the chapter’s Executive Board membership:

Incoming:

- **VP Northside** – Ali Eghbali, Baker Hughes
- **Treasurer** – Zeyad J. Ramadan, SLB

Outgoing:

- **VP Northside** – Amer Hanif, Baker Hughes
- **Treasurer** – Shikha Prasad, SLB

Amer Hanif has accepted the position of Director North America 1 for SPWLA International. With changes in job/responsibilities, Shikha Prasad can no longer commit her time and energy to the board.

We want to thank Shikha and Amer for all that you have done for the SPWLA Houston Chapter and for being great fellow board members. At the same time, we extend a warm welcome to Ali and Zeyad. We are looking forward to working with you.

2024–2026 SPWLA Houston Chapter Executive Board Members



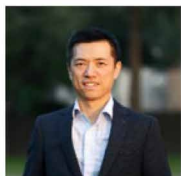
Ron J.M. Bonnie
President



Ali Eghbali
V. President Northside



Artur Posenato Garcia
V. President Downtown



QinShan "Shan" Yang
V. President Westside



Zeyad J. Ramadan
Treasurer



Ronke Olutola
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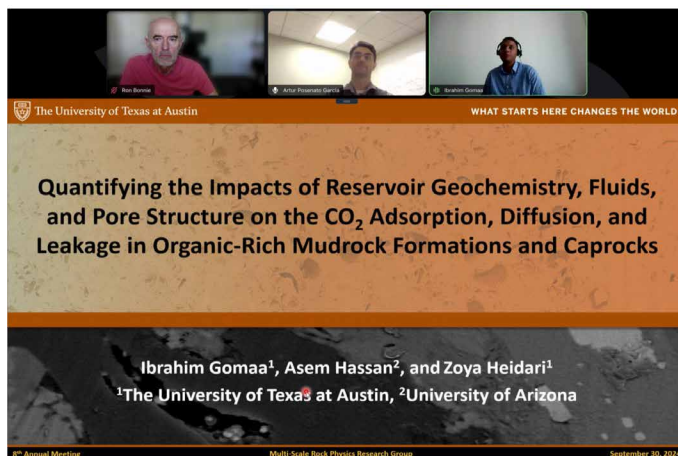
Here is a condensed summary of recent SPWLA Houston Chapter events:

- 27 June 2024—SPWLA Houston Networking Event:** A casual networking event for SPWLA members and board officers.
- 24 July 2024—Seminar on Open Petrophysics Data & Utilities Platform:** Chicheng Xu and Iulian N. Hulea discuss bridging data and algorithms in petrophysics with a cloud-based platform for enhanced public data management and sharing.
- 18 August 2024—Seminar on Effective Transport Properties of Microstructures:** Professor Carl Fredrik Berg explored the evolution of microstructures and their impact on transport properties in reservoirs.
- 21 August 2024—Seminar on Wettability Quantification:** Isa Silveira de Araujo discussed water adsorption isotherms for wettability assessment in rock components.
- 28 August 2024—Seminar on CCUS Monitoring With Electromagnetic Methods:** Trevor Pugh (Baker Hughes) presented "Innovative Methods for Monitoring Carbon Capture, Utilization, and Storage (CCUS) and Ensuring Containment Using Electromagnetic Techniques."

- 26 September 2024—SPWLA Houston Networking Event:** Another casual networking opportunity for SPWLA members.
- 10 October 2024—Seminar on CO₂ Diffusion and Leakage in Mudrock Formations:** Ibrahim Gomaa discussed how reservoir geochemistry and pore structure influence CO₂ storage and leakage.
- 24 October 2024—Seminar on Anisotropic Mechanical Properties in Reservoirs:** The seminar explored advancements in digital sonic processing for evaluating anisotropic mechanical properties in unconventional reservoirs.
- 14 November 2024—Seminar on Reservoir Charge Simulation for Fluid Composition:** This session will be focused on simulating reservoir charges to predict fluid properties and improve reservoir models.
- 20 November 2024—Seminar on Modeling Rock Properties: Resistivity, Permeability, Velocity, Compressibility:** The seminar covered imaging and modeling rock properties based on pore structure, focusing on resistivity, permeability, velocity, and compressibility.
- 21 November 2024—SPWLA Houston Networking Event:** An informal networking event for petrophysics professionals. Future events are also planned for 2025.



Networking event and gathering for SPWLA members and board officers during Thursday Happy Hours.



We're also excited to announce our next event on Jan. 30, 2025, at the same time and location! SPWLA Houston is committed to hosting engaging and enjoyable activities for our members. If you're interested in sponsorship opportunities, feel free to reach out. We look forward to seeing you there!



HYDROCARBON RESOURCES SIG

General News

Our SIG is currently working on details of an upcoming Hydrocarbon Resources SIG seminar in spring 2025. It will be a follow up of topics related to porosity and water saturation, the two main topics to be updated in the upcoming Petroleum Resources Management System (PRMS) edition to be published in 2029. It might seem far, but we have already started discussions, internal meetings, and inter-society meetings within the PRMS committee to prepare such an update. Figure 1 shows the PRMS update coordination update timeline. Part of the main tasks for 2025 will be to engage subject matter experts (SME) as required to provide input on the current document and how it can be improved and

updated, as well as its implementation via the application guidelines, most recently published in 2022. The Oil and Gas Reserves Committee (OGRC) developed the application guidelines (AG) to provide practical examples for applying and interpreting the principles of the PRMS. The 2022 AG corresponds with the most current PRMS published in 2018. The application guidelines released in 2022 (Fig. 2) contain one chapter solely dedicated to petrophysics, which was included in the guidelines for the first time. Such a chapter was entirely prepared by members of our SPWLA Hydrocarbon Resources SIG (Fig. 3), resulting in SPWLA being considered a sponsoring professional society. The new Chapter 5 covers different key elements to be considered in volumetric assessments. This chapter discusses:

- What Involves a Petrophysical Evaluation
- Sources of Petrophysical Data
- What is “Net Pay” and Pay Cutoffs
- Core Analysis and Review of Selected Properties Obtained From Them

Further updates are mainly focused on the pending properties used as input in hydrocarbon volumetric estimates (porosity and hydrocarbon saturation). Feel free to reach out to our SIG if you have any questions or would like to provide feedback on the current document and what can be improved.

This SIG seminar will most probably be scheduled to happen around March. As you might know, we are currently in the reserves season, and most of us are busy with several parallel projects related to reserves updates, certifications, and audits.

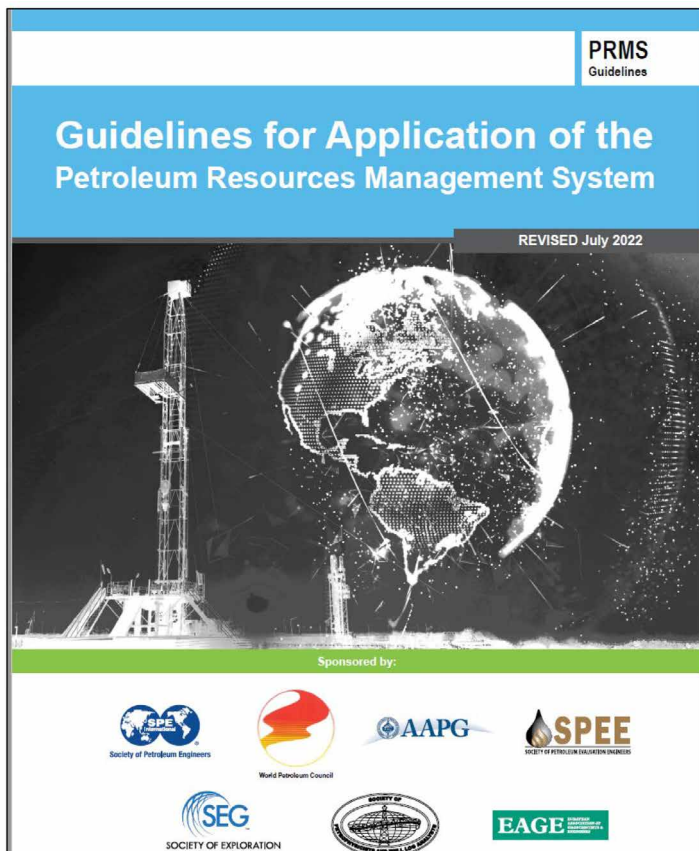


Fig. 2—PRMS Application Guidelines (AG) released in 2022, including the Petrophysics chapter for the first time.

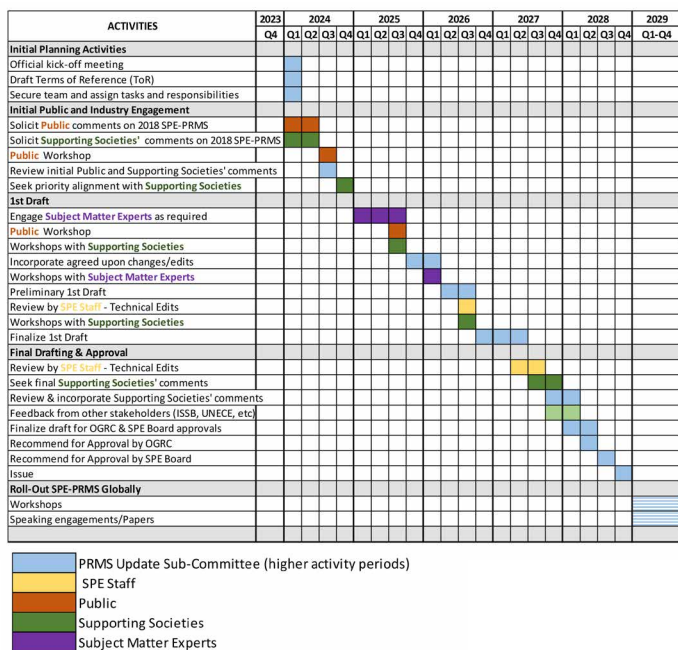


Fig. 1—PRMS Update Coordination Update Timeline.

The *Petroleum Resources Management System* (PRMS) and the *Guidelines for Application of the PRMS* (the Guidelines Document) are administered by the Society of Petroleum Engineers (SPE). All references to PRMS are made herein as a non-commercial reference by the authors. The authors do not represent themselves as the sole authority of PRMS and only present any elements thereof as a standard professional society reference necessary for the implementation of an international standard for reserves and resources evaluation.

A copy of the PRMS can be obtained at this address (Public Domain): <https://www.spe.org/en/industry/reserves/>

Chapter 5

Petrophysics

Luis Quintero (Chair)
 Javier Miranda, Joshua Oletu, Cecilia Flores, George Dames, and Philip Gibbons

5.1 Introduction
 Petrophysics (from the Greek πέτρος, petros, "rock" and φυσική, physikē, "nature") may be defined as the study of rock properties (physical, electrical, chemical, and mechanical) and their interaction with fluids (gases, liquid hydrocarbons, and aqueous solutions) (Archie 1950, 1967; Tubb and Donaldson 1988; ...)

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Fig. 3—PRMS Chapter 5 authored by the steering committee of SPWLA Hydrocarbon Resources SIG.

meetings three to four times a year, in an online format so far for the general meetings, although sometimes in person with the inaugural board members located in the US. As we diversify our membership and board, now with board members on three continents and general membership in four continents, it will most likely be online with possible in-person meetings during the annual meeting. We also represent the main hydrocarbon resources auditing and certification firms in the world, with additional representatives from operating and service companies.

We are glad to extend an open invitation to our meetings and activities and welcome any member interested in joining our steering board. Come exchange experiences and socialize through technical discussions, workshops, and social activities to discuss good practices, industry standardizations, and the evolution of measurements on key parameters as technology evolves. The group is open to all current SPWLA members, and interested colleagues are encouraged to become SPWLA members.

Are you a professional in petrophysics who is excited about resources quantification and characterization and wants to share your ideas and experiences? Our group is always looking for volunteers to help shape content and keep the conversation going on our subject.

Contact: Email us at reserves_sig@spwla.org

Our Vision

“Be the reference for petrophysicists and log analysts in the definition and estimation of hydrocarbon resources while providing minimum standards, norms, and guidelines for the analysis of petrophysics-related data used as an input in the reserves and resources estimation.”

Our Mission

“To promote the fundamental value that the science of petrophysics and log analysis delivers to the approved methods of quantitative estimation of hydrocarbon resources and provide guidance for definition of rock properties in the assessment of hydrocarbon resources and future updates of reserves and resources.”

Since its inception in 2020, the SIG has worked with the SPE OGRC in the update of the Guidelines for Application of the Petroleum Resources Management System (PRMS Application Guidelines). In particular, the SIG created Chapter 5 on Petrophysics, published in 2022 in the PRMS Application Guidelines document:

(https://store.spe.org/Guidelines-for-Application-of-the-Petroleum-Resources-Management-System-PRMS-P1221.aspx?ItemId=2078561&Options=2899&_ga=2.71002070.730520363.1667833216-575030064.1599587895)

Current updates and discussions about expanding this chapter with other topics are in progress among our SIG, coordinated with SPE OGRC. This has been one of the most important topics discussed in our regularly scheduled

SPWLA Hydrocarbon Resources Board



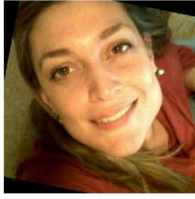
President: Javier Miranda (DeGolyer and MacNaughton)



Vice President: Philip Gibbons (Gaffney Cline)



Secretary: Brett Gray (Ryder Scott)



VP Communications: Maria Florencia Segovia (SierraCol)



Advisor and Past SIG President: Joshua Oletu (Gaffney Cline)



Advisor and Past SIG President: Luis Quintero (Halliburton)

INDIA CHAPTER

Recent Events

SPWLA INDIA Chapter Shines at GeoIndia 2024! The SPWLA INDIA Chapter proudly participated in **GeoIndia 2024**, the 6th South Asian Geoscience Conference and Exhibition, held from **November 15–17, 2024**, at the India Expo Mart (IEM), Greater Noida. Organized by APG, the conference brought together geoscientists, students, and industry professionals for insightful discussions and knowledge sharing on the latest advancements in geoscience.

As part of the event, the SPWLA INDIA team set up an exhibition stall, showcasing its initiatives, membership benefits, and contributions to the field of petrophysics and logging technologies. The stall attracted participants from both industry and academia, fostering engaging discussions on subsurface data interpretation and innovative technologies shaping the future of reservoir characterization.

One of the key highlights was the **SPWLA INDIA Petrophysics Quiz**, an interactive event hosted at our stall. The quiz saw enthusiastic participation from professionals and students, and we are pleased to announce the winners:

- **Quiz 1 Winner:** Mr. Sumeet Harshad Manavi, senior geophysicist (S), ONGC
- **Quiz 2 Winner:** Ms. Akshita Singh, post-graduate student, Graphic Era University
- **Quiz 3 Winner:** Ms. Akankshya Nayak, petrophysicist, OilMax
- **Quiz 4 Winner:** Mr. Binoy Sannyashi, Suptg. Geologist, Oil India Limited

We look forward to continuing our engagement with geoscientists worldwide and advancing the field of petrophysics through meaningful interactions and initiatives.

Glimpses of SPWLA INDIA Stall at Geo-India 2024



Spotlight on Excellence: SPWLA India Chapter's Impactful Workshop on Petrophysics! The SPWLA India Chapter recently organized a **Technical Workshop on Log Data Acquisition, Processing, and Interpretation on 30 November 2024**, showcasing its commitment to advancing petrophysics knowledge and fostering collaboration between industry and academia.

This highly engaging workshop featured **Distinguished Speakers** who shared their expertise on key aspects of subsurface exploration:

- **Log Data Acquisition Operations** by **Mr. Joji Abraham**, general manager (Wells), Corporate Logging Services – ONGC, Mumbai.
- **Log Data Interpretation** by **Mr. Manas Mishra**, senior petrophysicist, Analysis and Interpretation Team – Schlumberger (SLB) India.

The event was hosted with the support of the **Department of Earth Sciences, IIT Bombay**, marking yet another milestone in the chapter's efforts to bridge the gap between theoretical learning and practical applications in petrophysics.



Mr. Manas Mishra presented on log data Interpretation.



Mr. Radhakrishna, HoD Earth Science, IIT Bombay, presented on Department activities.



One for the photo album with students and speakers.



Mr. Pramod Kumar, Vice President (Membership), gave opening remarks.



The audience engaged in a technical session.



Mr. Joji Abraham presented on log data acquisition.



Mr. Anand Singh, associate professor, IIT Bombay, hosting a session.

JAPAN FORMATION EVALUATION SOCIETY

Recent Events

125th JFES Chapter Meeting

The 125th JFES Chapter Meeting was held on December 19, 2024, as an online event.

Presentation 1

<Title> Laboratory Experiments on Hydraulically Driven Shear Slip of Granite Fractures Under Stress States in EGS Development: A Reconsideration of Shear Dilation

<Speaker> Dr. Takuya Ishibashi, Geothermal Energy Team, Renewable Energy Research Center, National Institute of Advanced Industrial Science and Technology (AIST)

Presentation 2

<Title> Estimation of Fluid Behavior Based on High-Resolution Seismic Attenuation Tomography: Application to Water Recharge Tests in the Okuaizu Geothermal Field

<Speaker> Dr. Kyosuke Okamoto, Geothermal Energy Team, Renewable Energy Research Center, National Institute of Advanced Industrial Science and Technology (AIST)

Upcoming Events

30th JFES Annual Symposium

We are organizing the 30th JFES Annual Symposium, scheduled to take place from October 8 to 10, 2025. We are seeking enthusiastic Technical Committee Members willing to volunteer their time to review technical papers and participate in discussions about conference operations.

If you are interested, please contact us at: info@spwla-jfes.org

KAUST SPWLA STUDENT CHAPTER

Chapter Officers

President: Samuel David Fontalvo (samuel.fontalvoguzman@kaust.edu.sa)

Vice President: Zhilei Han (zhilei.han@kaust.edu.sa)

Secretary: Kania Saffanah (kania.safannah@kaust.edu.sa)

Treasurer: Arman Kudbanov (arman.kudbanov@kaust.edu.sa)

Public Relations: Jialing Dai (jialing.dai@kaust.edu.sa)

Recent Fall Events

21 August 2024—Our chapter participated in the Orientation expo where new KAUST students are exposed to the university chapters and societies. It was a good time to share some of what SPWLA represents. The booth was well attended by the new students, who showed interest in our society.



KAUST SPWLA Student Chapter booth at the Orientation expo, King Abdullah University of Science and Technology, Kingdom of Saudi Arabia.

29 August 2024—Wardana’s Seminar: We had the first SPWLA KAUST Student Chapter seminar of the fall 2024 semester, given by Dr. Wardana Saputra (a KAUST alumni). The seminar’s title was “Ultradeep Azimuthal Resistivity: Modeling and Inversion,” and Dr. Saputra introduced us to his cutting-edge research. Moreover, Dr. Wardana shared his experience as a researcher at The University of Texas at Austin and advised graduate students at KAUST from an alumni perspective. This session was the first in a series of educational seminars during the fall 2024 proudly organized by the KAUST Student Chapter in collaboration with the Society of Petroleum Engineers (SPE) KAUST Student Chapter.



KAUST SPWLA August 2024 seminar: “Ultradeep Azimuthal Resistivity: Modeling and Inversion” by Dr. Wardana Saputra.

22 October 2024—The SPWLA and SPE KAUST student chapters hosted Prof. Tadeusz Patzek as a special presenter in their seminar series. Professor Patzek’s presentation, “The Beauty of Fractals,” was thought-provoking and was followed by insightful questions from the audience. This session was the second in a series of educational seminars during fall 2024 proudly organized by the KAUST (SPWLA) Student Chapter in collaboration with the Society of Petroleum Engineers (SPE) KAUST Student Chapter.



KAUST SPWLA November 2024 seminar.



KAUST SPWLA October 2024 seminar: “The Beauty of Fractals” by Prof. Tadeusz Patzek.

19 November 2024—The SPWLA and DGIS KAUST Student Chapters were honored to host a technical seminar by Dr. S. Mark Ma (a senior petrophysics consultant at Saudi Aramco). Dr. Ma delivered an insightful and thought-provoking presentation on petrophysics, with a particular focus on reservoir wettability. He also provided an overview of the SPWLA and its Saudi chapter, highlighting their pivotal role in advancing the field of petrophysics and fostering knowledge exchange. This wonderful seminar, led by an industry expert, was a valuable platform to bridge the gap between academic research and practical industrial applications. It promises to deepen KAUST researchers’ understanding of petrophysics and inspire new directions for future studies. This seminar was proudly organized by the KAUST SPWLA Student Chapter in collaboration with the Dhahran Geoscience Society (DGS) KAUST Student Chapter. Stay tuned for future events.

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS (KFUPM)

General News

We conducted multiple meetings with the student chapter to discuss our recent and upcoming events. Highlights include technical talks, a competition, a workshop, a field trip, the membership campaign, and finally, a closure dinner as an appreciation for the previous members and our mentors.

Recent Events

Several events and activities have been presented by the SPWLA-KFUPM Chapter, which are the following:

17 October 2024—Carbonate Rock Physics Technical Seminar: The SPWLA-KFUPM Student Chapter, in collaboration with the EAGE Student Chapter, successfully hosted a highly informative technical seminar titled “Carbonate Rock Physics: Curse and Blessing of Pore Types.” The event featured Dr. Gregor Baechle (lead petrophysicist at Saudi Aramco) as the Distinguished Speaker. Dr. Baechle, a leading expert with over two decades of experience in carbonate rock physics from both industry and academia, provided invaluable insights into the unique characteristics of carbonate rocks and their implications for reservoir engineering. The seminar explored the challenges and opportunities associated with carbonate pore types, offering attendees a deeper understanding of this critical aspect of petrophysics. The seminar attracted a large audience of students and professionals eager to enhance their knowledge and engage in discussions with Dr. Baechle. His ability to connect theoretical concepts with practical applications made the session highly impactful. The event was a great opportunity for attendees to gain a comprehensive understanding of carbonate rock physics and its significance in academic

and industry contexts, further enriching their educational and professional journeys.

29 October 2024—Production Logging Tool Technical Seminar: The SPWLA-KFUPM Student Chapter hosted an engaging technical seminar featuring Mr. Hassan Alismail (a senior log analyst at NESR), who delivered a presentation on the topic of “Production Logging Tool” (PLT). The seminar provided a comprehensive overview of PLT, an essential tool in oil and gas wells used to understand reservoir dynamics. Mr. Alismail explained how PLT calculates volumetric flow rates from wireline logs, offering valuable insights into reservoir behavior, fluid movement, and production optimization. Attendees gained a deeper understanding of how production logging plays a crucial role in reservoir engineering. The seminar not only enhanced their theoretical knowledge but also provided practical insights into applying production logging to optimize oil and gas production. The event was well-received and contributed significantly to the students’ academic and professional development.

18 November 2024—Back-to-Back Challenge: A Resounding Success: The “Back-to-Back Challenge: Simplifying Complex Topics,” hosted by SPWLA in collaboration with SPE, marked a milestone event in the College of Petroleum and Geosciences (CPG). With 19 participants presenting diverse and fascinating topics across petroleum engineering, geology, geophysics, environmental sciences, and applications of machine learning, the event demonstrated the brilliance and depth of knowledge within our student community. The challenge, centered on simplifying complex topics into concise, 3-minute presentations, was judged by a distinguished panel of nine professors from the geoscience and petroleum engineering departments. With creativity, clarity, and technical excellence as benchmarks, the event produced five outstanding winners who impressed both judges and audience members alike. Professors and students highly appreciated this initiative, with many expressing their enthusiasm for making this challenge a recurring event in upcoming semesters. As the first-ever Back-to-Back Challenge held at CPG, it has set a high standard for future competitions, fostering communication skills, technical knowledge, and interdisciplinary collaboration.

Congratulations to the Winners:

1. First Place

Name: GOODLUCK ARCHIBONG

Topic: Quantum Enhanced Machine Learning

2. Second Place

Name: MAHMOUD ADAM MAHMOUD JUMAA

Topic: Zipper Fracturing Technique

3. Third Place

Name: ABDELAZIZ ELYASA

Topic: Enhancing Hydrocarbons Productivity of Organic Rich-Shale by Kerogen Maturation Acceleration

4. Fourth Place

Name: JAWAD RAFIQ

Topic: Geothermal Insights Through Remote Sensing & Aeromagnetic Data

5. Fifth Place

Name: OSE DIMAS BUDIMAN

Topic: Advancing Sustainable Oilfield Operations: Chelating Agent as Effective Scale Inhibitor

We extend our heartfelt thanks to all participants, judges, and organizers for their efforts in making this event a success. We look forward to seeing even greater participation and innovation in the semesters to come!

19 and 21 November—Collaborative Workshop – “Writing From the Reader’s Perspective”:

The EAGE Student Chapter, in collaboration with the SPE KFUPM, ARMA KFUPM, and SPWLA KFUPM Student Chapters, hosted a workshop titled “Writing from the Reader’s Perspective” at CPG-KFUPM. Led by Dr. Umair bin Waheed, associate professor of geophysics at KFUPM, the sessions focused on improving scientific writing by emphasizing clarity, structure, and tailoring content for the audience. Held in E-Learning Room 1226, the workshop attracted a diverse group of students from geoscience and engineering disciplines, featuring interactive exercises, practical tips, and personalized feedback. Participants praised the workshop for its relevance and Dr. Umair’s engaging delivery, with many expressing interest in similar events in the future. The collaborative effort of the student chapters made the event a resounding success in promoting academic and professional development.

21 November 2024—SADA Rig Visit:

The SPWLA-KFUPM Student Chapter, in collaboration with the IADC-KFUPM Student Chapter, successfully organized a rig visit to the Saudi Arabian Drilling Academy (SADA) in Abqaiq. This event was tailored for undergraduate students, offering them an invaluable opportunity to gain hands-on exposure to drilling operations and interact with industry professionals in a real-world setting. Participants explored various aspects of drilling equipment, operational

techniques, and safety protocols, bridging the gap between classroom knowledge and field applications. Industry experts provided valuable insights into the innovation and safety measures that drive the petroleum sector, leaving students inspired and better informed about career opportunities in the field. Given the success of this initiative, plans are already underway to organize a similar rig visit for graduate students, ensuring that all academic levels benefit from this enriching experience. This collaboration between SPWLA and IADC student chapters highlights the shared commitment to fostering professional development and practical learning opportunities for KFUPM students. Such initiatives play a critical role in preparing the next generation of energy professionals to meet the challenges of the industry with confidence and competence.

27 November 2024—SWPLA Membership Campaign: The SPWLA KFUPM Student Chapter successfully hosted its Membership Campaign Drive in the lobby of Building 76. The event attracted a diverse group of students, promoting the benefits of joining a global network dedicated to advancing petrophysics. Attendees engaged with committee members explored professional development opportunities, and learned about SPWLA's role in knowledge-sharing, networking, and international exposure. The campaign resulted in significant membership growth and received positive feedback from students and faculty, with strong encouragement to continue such initiatives in the future. The event was a resounding success, strengthening the SPWLA community at KFUPM.

30 December 2024—Dinner Ceremony: The SPWLA-KFUPM Student Chapter hosted a memorable Dinner Ceremony at Damascus Narang Restaurant to celebrate and recognize the exceptional contributions of its members and mentors. The event was organized as an appreciation for the previous SPWLA members, whose hard work and dedication have been instrumental in the chapter's success over the past year. Certificates of appreciation were presented to these members, acknowledging their efforts in advancing the chapter's goals and fostering a vibrant, collaborative community. Special recognition was also given to our esteemed mentor and advisor, Dr. Ahmed Farid, and co-advisor, Dr. Amjed Hassan, for their unwavering support and guidance. To express our gratitude, the chapter presented both mentors with thoughtful tokens of appreciation, highlighting their pivotal role in our achievements. The dinner provided an excellent platform for networking and celebrating shared

accomplishments in a warm and friendly atmosphere. It also served as an inspiration for current and future members to continue the legacy of excellence within the SPWLA-KFUPM Student Chapter. This event reflects the chapter's commitment to fostering a sense of community and recognizing the collective efforts that contribute to its growth and success.

Upcoming Events

The **SPWLA-KFUPM Student Chapter** is excited to announce a series of upcoming events planned for the next semester, providing diverse opportunities for learning, networking, and engagement within the petrophysics and energy sectors. Below is an overview of the key events and activities to look forward to:

1. SPWLA Local Paper Contest – January 2025

We are thrilled to kick off the SPWLA Local Paper Contest for students at KFUPM, inviting abstract submissions from undergraduate (BSc), master's (MSc), and doctoral (PhD) students. This contest encourages participation from students across all academic levels. Selected participants will present their research to a panel of judges during a university-wide event. Winners from each category and academic level, representing various universities such as KFUPM, KAUST, and KSU, will then have the opportunity to present their research to Aramco judges. The winners will be recognized at the next SPWLA Saudi Chapter event and nominated for the international paper contest, offering a global platform to showcase their work and gain further exposure in the field of petrophysics.

2. Technical Talks and Training Sessions

A series of technical talks focusing on cutting-edge topics within the petrophysics domain will be hosted throughout the semester. These sessions will feature expert speakers from academia and industry, providing valuable insights into the latest trends and developments in petrophysics. Additionally, Techlog training will be organized to offer hands-on experience with industry-standard petrophysical software, further enhancing the technical expertise of our members.

3. Industry Visit

An industry visit will be arranged to provide students with real-world exposure to the operations and practices in the energy sector. This visit will facilitate networking with professionals, deepen understanding of the practical applications of petrophysics, and offer valuable career insights.

4. Arabic Competition for Non-Arabic Speakers

In an effort to promote inclusivity, the chapter will host an Arabic competition aimed at encouraging non-Arabic-speaking students to improve their Arabic language skills. This fun and engaging competition will provide participants with the opportunity to enhance their communication abilities while fostering cross-cultural connections.

5. Football Cup

The Football Cup will bring together students from all college student chapters and professors for an exciting and competitive event. This annual tournament will foster teamwork and camaraderie, allowing participants to build strong relationships and enhance their collaboration skills in a fun, energetic setting.

These events reflect our commitment to providing a comprehensive and enriching experience for all members, promoting both professional development and personal growth. We look forward to your active participation and to another successful semester!



Back to Back Challenge.



Carbonates Rock Physics Seminar.



Production Logging Tool Seminar.



Writing From the Reader's Perspective Workshop.



SPWLA Membership Campaign.



Dinner Ceremony.



SADA rig visit.

LONDON PETROPHYSICAL SOCIETY (LPS)

The London Petrophysical Society (LPS) has had a productive second half of the year. First, we would like to extend our sincere gratitude to our sponsors for their continued generosity and support. These contributions are essential in enabling us to fulfill our mission of advancing the field of petrophysics and fostering a strong professional community. Below are our sponsors for 2024/25:



Recent Events

The London Petrophysical Society (LPS) hosted several notable events over the last few months.

26 September 2024—LPS presented a hybrid seminar titled “Old Data, New Tricks” at The Geological Society in Burlington House, Piccadilly. This event focused on innovative methods to reinterpret and utilize legacy data. The agenda included a range of stimulating presentations and discussions. We would like to highlight a presentation by LPS committee member Kirsty Hitchen (BP), who presented a session entitled “Leveraging 60 Years’ Worth

of Legacy Well Data for CCS Site Characterization.” We also note a presentation by Emily Collett (Halliburton), who presented a modern approach for analyzing legacy data: “A Cloud-Based Machine Learning Approach for Well Interpretation.” We thank all our presenters in this seminar for their valuable contributions.



LPS President Jack Willis opening the LPS All-Day September Seminar: Old Data, New Tricks.

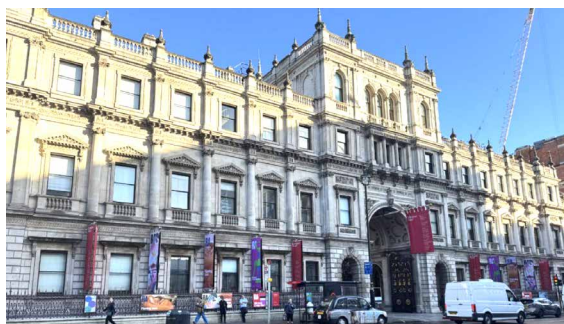
10 October 2024—LPS held an evening lecture at the same venue, where Matt Simmons (Lilac Solutions, Inc.) presented “Petrophysical Insights into Salars and Subsurface Brines.”

7 November 2024—The society conducted its Annual General Meeting (AGM) in the evening at The Geological Society, Burlington House. We welcome Martin Leonard (Pertomac) and Dhiman Majumder (CalEnergy) and say thank you to Kirsty Hitchen (BP), who is leaving the committee. This meeting provided organizational updates and facilitated discussions pertinent to LPS members. After the AGM, Tom Lees presented an engaging off-topic lecture entitled “Drilling for Subglacial Rock Samples in Antarctica.”



Tom Lees presented an off-topic lecture after the LPS November AGM.

5 December 2024—LPS organized a hybrid all-day seminar titled “Everything Formation Testing,” also held at The Geological Society. The seminar featured a comprehensive lineup of expert presentations. Shyam Ramaswami (Shell) discussed the role of formation testing in life cycle decision-making, followed by Mike Millar (Independent), reviewing the fundamentals of pressure acquisition and quality control. Yon Blanco (SLB) presented on asphaltene characterization using downhole fluid mapping, while John Babadimas (Woodside Energy) addressed mercury contaminant quantification in reservoirs. Ansgar Cartellieri (Baker Hughes) covered real-time fluid property prediction, and Iain Whyte (Islay Subsurface & Engineering Ltd.) shared practical tips for optimizing LWD and Eline formation testing. Afternoon talks included Javier A. Franquet (Baker Hughes) on in-situ stress calibration, François-Xavier Dubost (SLB) on geomechanics advancements, and William Dawson (BP) on hydrocarbon sampling in tight formations. Richard Jackson (SLB) detailed dual-flowline fluid property measurements, and Martin Leonard (Petromac Wireline Express) highlighted challenges in formation testing using innovative conveyance systems. The seminar concluded with remarks by LPS President Jack Willis and the President’s Evening.



The Geological Society in Burlington House, Piccadilly, the historic London venue where the December seminar and other LPS events were hosted in 2024.

**MALAYSIA CHAPTER
Formation Evaluation Society of Malaysia (FESM)**

FESM, a local chapter of the Formation Evaluation Society of Malaysia, is based in Kuala Lumpur. Technical meetings are held monthly. For meeting information, please visit our chapter website at www.fesmkl.com.

General News

FESM held a meeting on November 28, 2024, to discuss recent updates of the society, including sponsorship, conference in 2025, and the way forward for next year’s events.

Recent Events

FESM has successfully organized the 2024 Topical Conference at Mandarin Oriental, Kuala Lumpur, on 12 November 2024 with 101 participants. The conference successfully brought together professionals from the petrophysics and oil & gas industries to discuss new technological advancements and approaches in formation evaluation. The main objectives of the conference are:

- To serve as a platform for networking and sharing of case studies, innovations, enhanced methodologies, and novel technologies in maximizing the potential of mature and marginal fields
- To provide excellent opportunities to exchange ideas and gain knowledge from industry experts about the new methodologies and latest technologies to address related challenges

FESM received 101 registrations from various companies, including PETRONAS, Beicip-Franlab Asia, KPOC, Ikon Science, Hibiscus Petroleum, EMEPMI, and SLB. Petrophysicists from various experiences, ranging from lab analysts and well engineers to managers, attended the event. The event welcomed a full house, and it was well received among the industry players.

A key highlight of the event was a dedicated session focusing on potential in mature and marginal fields, presented by Mr. Asari Ramli. The events also include technical sessions consisting of eight presenters from PETRONAS, EMEPMI, Core Laboratories, Baker Hughes, and Shell. The topics covered innovations in petrophysics, where discussions centered on the integration of emerging technologies into formation evaluation techniques. Notably, several new case studies were presented, showcasing the challenges and improvements performed to increase the efficiency of reservoir evaluation.

The session also explored how new technologies could be integrated into existing workflows to enhance data collection and interpretation.

Most of the participants rated the conference with 4 to 5 stars. Participants agreed that the objective of this project to provide a platform for petrophysics discussion has been achieved. Overall, the participants were satisfied with the event, and no major discontent was reported. The main feedback received is to increase the duration of the conference to 2 to 3 days.

Upcoming Events

The committee is preparing for a meeting on 18 December to discuss the plan for next year’s activities.



The committee members with the head of PETRONAS Petrophysics during the 2024 FESM Topical Conference.

NORWEGIAN FORMATION EVALUATION SOCIETY (NFES)

General News

Month	Title	Presenter
jan.23	Looking through pipes, how do we use CT scans in the Oil and Gas industry?	Olivier Lopez
feb.23	Holistic Evaluation of Reservoir Oil Viscosity in Breidablikk Field – Including Mud Gas Logging Approach	Alexandra Cely
mar.23	OPEN-HOLE WIRELINE CONVEYANCE RISK MANAGEMENT (NEW MODELS, TECHNOLOGIES & INSIGHTS)	Guy Wheeler
apr.23	HALITE CEMENT	Richard Bootle
mai.23	Downhole Evaluation of Integrity Challenges using High Resolution 3D Ultrasonic Imaging	Vishal Sharma
jun.23	Using the 'entire' acoustic waveform to quantify formation properties beyond just velocity	Philip Tracadas
sep.23	Integrated application of advanced logging-while-drilling for understanding altered basement rocks: A case study from the Norwegian North Sea	Sayyid Ahmad
okt.23	Logging-While-Drilling Oil Base Mud Electrical Imager Using Advanced Radar Technology	Inge Bye
nov.23	NFES-Norve: Formation Evaluation and Geosteering workshop	

Affiliation	Attendance (incl speaker) at the Gård	Attendance (incl speaker) via Teams	Attendance (incl speaker) Total
Leading researcher at Equinor	27	3	30
Principal reservoir engineer, Equinor	22	1	23
Wireline specialist, Gaia Earth Group	28	3	31
Advanced Petrophysicist at Aker BP	27	2	29
Sales Director for Darkvision's Scandinavian Business	16	2	18
Geoscientist subject matter expert for borehole acoustics	15	2	17
Geoscientist and image log analyst	25	3	28
Business Development Manager in WELL ID	32	2	34
Workshop			100+

Recent News

11–13 November 2024—Formation Evaluation and Geosteering Workshop: The NORCE/NFES joint workshop broke records on attendance, sponsorship, and, most importantly, participant satisfaction! Sergey Alyaev, Nazanin Jahani, Annette Larsen, and Venkat Jambunathan successfully organized the Geosteering and Formation Evaluation Workshop, held at the Sola Strand Hotel in Stavanger, Norway. The event brought together over a hundred participants, including students, researchers, and professionals from energy companies and service providers. Supported by sponsors Equinor, Halliburton, SLB, Vår Energi, Logtek AS, and ROGII, the workshop provided a forum for learning, collaboration, and innovation in geosteering and formation evaluation.



The workshop opening had addresses from NFES President Dier Mirza and SPWLA Director Europe Mathias Horstmann. The program featured 22 technical presentations with sessions highlighting case studies, advancements in ultradeep azimuthal resistivity (UDAR), innovative reservoir mapping techniques, and well-placement strategies.



The audience gave a warm welcome to the invited speaker, Francesco Di Credico (FDC), and his presentation about the status of geothermal drilling in the context of formation evaluation and geosteering.



The green shift accelerates the number growth of geothermal projects. The industry projections show that geothermal electricity and heat production will increase by about 60% over the next 5 years. Given that most geothermal project failures are related to poor subsurface understanding, formation evaluation and geosteering will play an essential role in the growth and maturation of geothermal drilling.



NFES continues to stimulate Norwegian students by offering travel grants. During the workshop, Hibat Errahmen Djecta and Yasaman Cheraghi (both from the University of Stavanger) received a grant for their presentation on “Automated Geosteering Using Reinforcement Learning.” Dier Mirza also presented a travel grant to Durra Saputera from the University of Bergen for the past SPWLA Symposium in Rio.



A highlight of the workshop was the engaging panel discussion, “Where is Geosteering Going in the Next 10 Years?” which featured lively audience interaction and expert insights. The international panel included David Holbrough (Baker Hughes), Frank Antonsen (Equinor), Michael Rabinovich (BP), Karol Riofrio (Halliburton), and Igor Kuvav (ROGII), with moderation by Sergey Alyaev and Nigel Clegg. This session offered a forward-looking perspective on the evolving challenges and opportunities in geosteering, inspiring participants to address the challenges and explore opportunities in the field.



We thank all the participants, especially the speakers and panelists, session chairs and reviewers, sponsors and supporters of NORCE Norwegian Research Centre projects, and Sola Strand staff for making the event a success.

NFES 2024 Sponsors



OKLAHOMA CITY CHAPTER

General News

SPWLA OKC Technical luncheons are held at Vast on the second Tuesday of the month from 11:30 am to 1 pm.

Recent Events

- 17 September 2024**—John Rasmus presented “The Fundamental Flaws of the Waxman-Smiths and Dual Water Formulations, Attempted Remedies, and New Revelations From Recent Laboratory Complex Conductivity Measurements.”
- 12 November 2024**—Issa Haddad (SLB) spoke about “Characterizing the Vertical Heterogeneity and Optimizing the Horizontal Well Landing Window in Shale Oil Reservoirs: Case Studies in Jiyang Depression.”
- 11 December 2024**—The OCGS, SPWLA & GSOC Christmas Pickleball Celebration

Upcoming Events

- 14 January 2025**—John Savage (Halliburton) will present “Geochemistry and Saturation Applications Utilizing a New Slim Pulsed-Neutron Technology.”
- 11 February 2025**—Dirk Valstar (SLB) will present “Importance of Well Integrity Measurements Throughout the CCS Project Life Cycle.”

PDDA SIG

PDDA SIG’s 4th Annual Topical Conference

The recent SPWLA PDDA Topical Conference, held on November 18–19, 2024, at the Halliburton North Campus in Houston, TX, was a resounding success. With over 70 participants in attendance, the event featured four engaging technical sessions, two insightful panel discussions, and two dynamic roundtable discussions. The conference provided an excellent platform for knowledge exchange, networking, and collaboration among industry professionals and academics. A special thanks to our sponsors—Halliburton, ConocoPhillips, and SLB—whose generous support made this event possible and contributed to its outstanding outcomes.

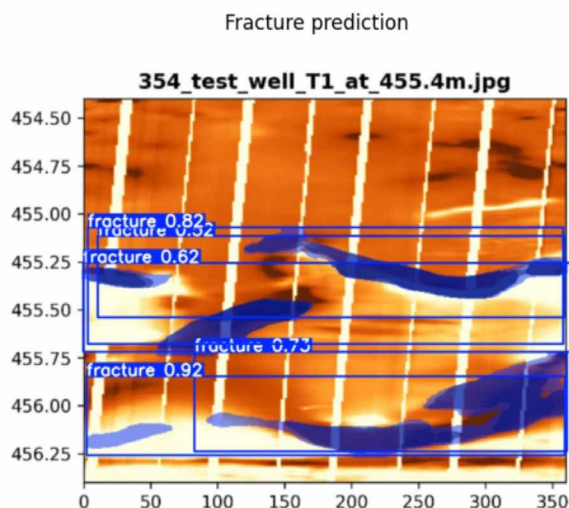


SPWLA PDDA SIG 4th Annual Machine-Learning Competition – Join the Challenge!

Join the excitement of the 4th Annual SPWLA Machine-Learning Competition on fracture identification, already in full swing and running until January 23, 2025! This competition offers participants the chance to tackle a real-world geoscience challenge using innovative machine-learning techniques. With valuable prizes and professional recognition on the line, it's a fantastic opportunity to showcase your skills, learn from peers, and make a meaningful impact in the field. Whether you're a seasoned expert or exploring ML applications in geoscience, there's still time to join and make your mark. Don't miss your chance to be part of this thrilling journey—register now and dive in!

Thanks to ConocoPhillips Canada, we are providing a rich well-log data set with hundreds of fractures from 10 wells (8 training wells and 2 test wells). Participants will have access to these data and are tasked with developing machine-learning models that can accurately identify fractures from image logs. A draft Jupyter notebook is available to help you get started—it successfully identifies some fractures and provides a confidence level, offering a strong foundation upon which to build.

This competition is open to all students, petrophysicists, researchers, and geoscientists. Whether you are new to machine learning or an experienced professional, we encourage you to participate and showcase your skills.



Key details:

- **Start Date:** October 17, 2024
- **End Date:** January 23, 2025
- **Duration:** 14 weeks

- **Focus:** Identifying fractures in image logs from well-log data
- **Data Set:** Provided by ConocoPhillips Canada, featuring fractures from 10 wells
- **Link:** <https://github.com/pddasig/Machine-Learning-Competition-2024>

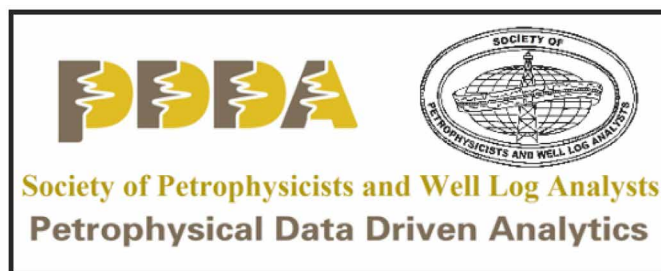
We encourage novel solutions and innovations, and we invite all participants to share their findings at our upcoming Topical Conference in Houston. The top five winners of the competition will also be recognized and awarded for their contributions.

For more information and to sign up, visit our official competition page. We look forward to your participation!

Sponsorship Opportunities

There are multiple interesting sponsorship opportunities announced there. Contact our board if you have an interesting data set or a presentation you would like to share or if you would like to become a sponsor for the PDDA SIG or annual machine-learning competition.

Please stay tuned and check it out for upcoming news! As always, feel free to contact any of the board members if you have any questions or comments using our contacts, which are included below.



More details are available on the PDDA SIG website
https://www.spwla.org/SPWLA/Chapters_SIGs/SIGs/PDDA/PDDA.aspx
 and the PDDA SIG LinkedIn profile
<https://www.linkedin.com/groups/13605420>
Stay tuned!

RESISTIVITY SIG

General News

The SPWLA Resistivity SIG 2024 Fall Meeting was hosted by Oliden Technology at Hyatt Place Sugar Land on November 7, 2024. There were a total of 37 attendees and 10 presentations from nine presenters. Technical topics for geosteering, LWD resistivity, dielectric measurements, dual water model, resistivity modeling, and rock conductivity model were presented and discussed during the meeting.



SEG and SPWLA SAC, Seismic Petrophysics Symposium, October 2024.

SAUDI ARABIA CHAPTER (SAC)

The SPWLA Saudi Chapter (SPWLA SAC) had an eventful quarter, organizing and conducting two impactful workshops that highlighted industry collaboration, innovation, and knowledge sharing.

In October, SPWLA, represented by SPWLA SAC, collaborated with the Society of Exploration Geophysicists (SEG) to host the “Seismic Petrophysics Symposium” from October 6–8, 2024. This groundbreaking event aimed to bridge the gap between seismic interpretation and petrophysical analysis, empowering geoscientists, engineers, and professionals with tools to foster collaboration and innovation.

The symposium provided a platform for in-depth discussions on advancements in acoustics technology, petrophysical modeling, data conditioning, digital transformation, rock physics, quantitative analysis, and integrated studies. Opening remarks by Aiman Bakhorji and Khalid Zainalabedin (Saudi Aramco) and Matt Blyth (SPWLA VP Education) set the tone for the event, while keynote speakers Anastasia Poole, Adam Donald (SLB), Ammar El-Husseiny (KFUPM), Behzad Alaei (Earth Science Analytics), Christophe Darous (SLB), Pierre Bettinelli (SLB), and Simon Payne (Ikon Sciences) shared their insights on cutting-edge methodologies driving the field forward. Followed by great technical presentations and sessions.

Interactive poster presentations by students and engaging discussions enriched the symposium, while generous sponsorship from Aramco, NESR, SLB, Baker Hughes, Weatherford, and Halliburton, along with the efforts of the organizing committees, ensured the event’s success. This collaborative platform marked a significant step forward in advancing seismic petrophysics.

Following this, on November 11–12, 2024, the chapter conducted its 15th Topical Workshop with the theme: “Water: A Drive Force In-Situ and a Challenge Upon Breakthrough.” This two-day event focused on innovative strategies for managing water in oil and gas operations, emphasizing downhole water avoidance, effective well surveillance, and advanced techniques like geosteering, downhole fluid identification, and smart completions.

The workshop also explored predictive corrosion management and the use of chemical and mechanical methods in water production, examining their impact on reservoir dynamics and production efficiency. The six-session event featured 20 Distinguished Speakers and began with opening remarks by Faisal Enezi (Saudi Aramco), Tala AlMousa (Saudi Aramco), Herman Nieuwoudt (Baker Hughes), and Robert Gales (SPWLA President-Elect, Halliburton). S. Mark Ma (Saudi Aramco) concluded the workshop with insightful closing remarks. The well-attended sessions fostered engaging discussions, underscoring the industry’s commitment to addressing water management challenges. Special thanks to Baker Hughes for sponsoring this event, and thanks for the technical and organizing SPWLA SAC committee.



SPWLA Saudi Arabia Chapter SAC, 15th Topical Workshop, November 2024.

As 2024 draws to a close, SPWLA SAC reflects on a successful year filled with impactful events and industry collaboration. The chapter looks forward to building on this momentum in 2025, with more opportunities to drive innovation and excellence in the petrophysics world. SPWLA Saudi Arabia Chapter wishes you a happy new year and a successful year 2025!

SOUTHWEST CHINA CHAPTER

Recent Events

12 October 2024—The “First Geophysical Big Data Graduate Forum 2024” was successfully held at Yangtze University, co-hosted by the SPWLA Yangtze University Student Chapter and the School of Geophysics and Petroleum Resources. The forum, chaired by Associate Dean Zhao Bin, featured presentations by doctoral and master’s students, covering a range of innovative topics. These included shale pore and fracture recognition through multiscale digital core data (Zhou Ying), the impact of particle size on NMR porosity (Ma Yingying), physical modeling and sweet spot prediction of shale reservoirs (Huang Can), and an improved electromagnetic forward modeling method considering galvanic effects for fractured media (Dai Boshuai). The event was held with both in-person and livestreamed sessions, drawing significant participation from experts, faculty, and students across multiple institutions. Dr. Zhou Ying was awarded the first prize for an outstanding presentation.



Academic exchange venue during the First Geophysical Big Data.

Graduate Forum

16 October 2024—At the invitation of Chairperson Wang Hua, Professor Li Fangyu from Beijing University of Technology delivered an online academic report. The theme of the academic report was “Federated Learning and Analysis for Distributed System Modeling and Monitoring.” Professor Li presented research in federated graph learning, emphasizing data processing capabilities and communication efficiency in complex network structures. Professor Li particularly discussed the impact of domain and dataset migration on the analysis of complex systems, proposing an invariant representation extraction method based on information bottleneck theory. The session concluded with a forward-looking perspective on the future development of federated learning paradigms.



Professor Li Fangyu gave an academic presentation.

17 October 2024—Invited by Chairperson Wang Hua, Dr. Li Yingping (a researcher at BlueSkyDas LLC and adjunct professor at the University of Houston) visited the University of Electronic Science and Technology to deliver a report on “Distributed Acoustic Wave Monitoring Technology and Its Geophysical Applications.” Dr. Li provided a comprehensive explanation of fiber-optic communication fundamentals and the working principles of distributed fiber-optic sensing (DFOS), particularly focusing on distributed acoustic sensing (DAS) technology. Dr. Li discussed DAS’s applications across oil, gas, minerals, geothermal energy, and carbon capture, utilization, and storage (CCUS). The academic report also included a detailed comparison of DAS with traditional geophone systems, covering DAS-VSP data acquisition, well-dynamic monitoring methods, and DAS applications in pipeline safety and geological disaster mitigation. Dr. Li concluded with a discussion on the future trends and challenges of DAS technology in geophysics.



Dr. Li explains distributed acoustic wave monitoring technology and its geophysical applications.

18 October 2024—At the invitation of Chairperson Wang Hua, Associate Professor Tong Ping (Department of Mathematics at Nanyang Technological University, Singapore, and a researcher at the Singapore Earth Observatory) delivered a report on “Computing Imaging and Intelligence: Theoretical Foundations and Practical Applications in Medical Imaging, Seismic Imaging, and Electrical Resistivity Tomography.” Professor Tong delved into the broad applications of computational imaging in medical diagnosis, seismic exploration, and environmental monitoring, with a special focus on geothermal resource exploration through noise-based imaging methods.



Associate Professor Tong shares the theoretical foundations of computational imaging.

9 November 2024—The inaugural “Unconventional Reservoir Rock Physics and Logging Technology Innovation Yangtze International Forum” commenced in Wuhan. The SPWLA Southwest Chapter, as a co-organizer, partnered with the Key Laboratory of Oil and Gas Resources and Exploration Technology of the Ministry of Education, the School of Geophysics and Petroleum Resources at Yangtze

University, and the School of Resources and Environment at the University of Electronic Science and Technology to host the event. The forum covered a range of themes, including rock physics and artificial intelligence, logging methods and reservoir evaluation, production logging and reservoir dynamics, a youth academic salon, and the SPWLA Yangtze University Student Chapter Graduate Academic Salon. At the opening ceremony, speeches were delivered by Wang Bijin (member of the Party Committee and vice general manager of Sinopec Jiangnan Oilfield Company, and executive vice chairman of the Hubei Petroleum Society), Jiang Houshun (Member of the Party Committee and Vice President of Yangtze University), and Chairperson Wang Hua of the SPWLA Southwest Chapter. Chairperson Wang Hua, in the address, provided an overview of the recent achievements of the SPWLA Southwest Chapter, recognizing the significant contributions made by Yangtze University in advancing the chapter’s development. Chairperson Wang also extended congratulations on the establishment of the SPWLA Yangtze University Student Chapter, highlighting its crucial role in fostering academic exchanges and cultivating the next generation of professionals in geophysics and petroleum resources.



Chairperson Wang Hua delivered a speech at the opening ceremony.

A series of keynote speeches were delivered by distinguished experts after the opening ceremony, including Li Ning (academician of the Chinese Academy of Engineering from the PetroChina Exploration and Development Research Institute) and Christoph Arns (professor at the University of New South Wales).

Academician Li Ning presented the keynote address titled “Insight into Subsurface Oil and Gas Reservoirs: The Ultimate Goal of Geophysical Well Logging” (“Insight” Logging Brand’s First Tool for Supporting Shale Oil and Gas Exploration and Development). Academician Li shared the development journey of CoreLog1.0, a mobile wellsite rock sample

integration, and continuous measurement imaging system, highlighting the overcoming of three technical bottlenecks and the successful development of five core technologies.



Academician Li delivered the keynote speech.

Professor Christoph Arns delivered the keynote titled “NMR Relaxometry Modelling of Digital Shale: A Dual-Scale Approach.” Professor Christoph Arns combined multiscale digital core analysis, numerical simulations, and physical experiments to explore the relaxation mechanisms of NMR under different clay distributions.



Professor Christoph Arns delivered the keynote on NMR relaxometry modeling of digital shale.

The afternoon marked the beginning of the various sessions at the inaugural “Unconventional Reservoir Rock Physics and Logging Technology Innovation Yangtze International Forum.” The Rock Physics and Artificial Intelligence session focused on rock physics and logging technology, particularly the analysis of rock physical properties in unconventional reservoirs and the application of new logging technologies. Experts shared the research findings during the session.



The Rock Physics and Artificial Intelligence Session.

The Young Scholars session provided a valuable platform for young researchers to showcase innovative research outcomes. Young researchers presented the latest findings in rock physics and logging technology.



Young Scholars Session Group.

The Logging Methods and Reservoir Evaluation Session focused on oil and gas exploration and development technologies, particularly the applications in unconventional oil and gas resources. Experts presented the latest research on leveraging artificial intelligence and big data to enhance exploration efficiency.



Academic Exchange Session on Logging Methods and Reservoir Evaluation.

The Production Logging and Reservoir Dynamics Monitoring session concentrated on the application of reservoir dynamics and production logging technologies. Experts engaged in in-depth discussions on how high-precision production logging technologies can be used to monitor reservoir changes and enhance the efficiency of oil and gas field development.



Production Logging and Reservoir Dynamics Session Group.

Additionally, on November 10, as an important part of the forum, the SPWLA Yangtze University Student Chapter Academic Exchange Session took place in the Petroleum Technology Building Conference Room at Yangtze University. The session was co-chaired by Chairperson Wang Hua and Professor Guan Wei (Harbin Institute of Technology), among other experts. During the exchange, 14 master’s students and one undergraduate delivered impressive oral presentations on cutting-edge topics, including unconventional reservoir rock physics analysis and the application of new logging technologies. Additionally, during the conference, Chairperson Wang Hua presented appointment certificates to the newly appointed members of the SPWLA-SW Chapter Executive Committee: Professor Guan Wei, Associate Professor Nie Xin, and Senior Engineer He Jiahua.



Yangtze University SPWLA Student Chapter Graduate Academic Salon.



Chairperson Wang Hua presented the appointment certificate to Professor Guan Wei.



Chairperson Wang Hua presented the appointment certificate to Associate Professor Nie Xin.



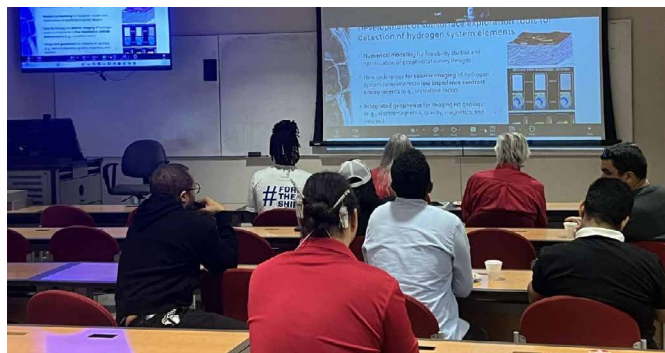
Chairperson Wang Hua presented the appointment certificate to Senior Engineer He Jiahua.

The inaugural “Unconventional Reservoir Rock Physics and Logging Technology Innovation Yangtze International Forum” concluded on November 10. The forum attracted prominent experts from both academia and industry, fostering in-depth academic exchanges.

UNIVERSITY OF HOUSTON STUDENT CHAPTER

General News

Distinguished Lecture Titled: “Natural Hydrogen: An Overlooked”: The SPWLA-University of Houston Chapter hosted a Distinguished Lecture featuring Dr. Geoffrey Ellis (a research geologist from the US Geological Survey) on the topic “Natural Hydrogen: An Overlooked Potential Energy Resource.” Dr. Ellis shared insights into natural hydrogen as a promising energy source, discussing its formation, extraction potential, and role in a sustainable energy future. The audience gained valuable knowledge on this emerging field.



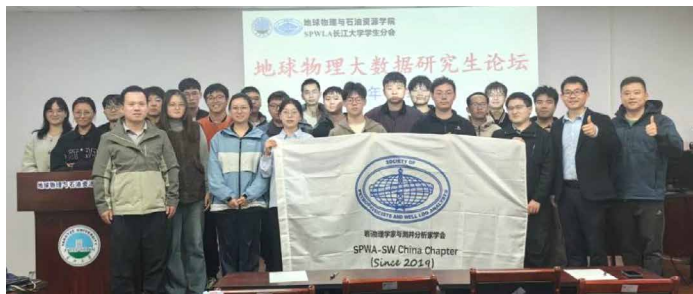
Session on “Borehole Imaging”

We invited Mr. Zeyad Ramadan (principal petrophysicist at SLB), who presented on “Borehole Imaging as a Tool for Identifying Wellbore Failures and Improving Log Quality.” His expertise shed light on how advanced borehole imaging technologies play a crucial role in understanding wellbore integrity, identifying potential failures, and enhancing the quality of petrophysical logs. This session was both educational and engaging, packed with practical knowledge that’s invaluable for those of us in the field of petrophysics and well-log analysis.



Group of experts and scholars at the inaugural “Unconventional Reservoir Rock Physics and Logging Technology Innovation Yangtze International Forum.”

17 November 2024—The second “Geophysical Big Data Graduate Forum” was held in the Petroleum Technology Building at Yangtze University. The event was jointly organized by the SPWLA Yangtze University Student Chapter and the School of Geophysics and Petroleum Resources. The session was hosted by Professor Chen Wei and Associate Professor Yuan Rui. The forum focused on the fields of geophysics and big data, with four graduate students presenting impressive reports. Dr. Yang Huazhong introduced a deep-learning-based intelligent restoration method for electrical imaging well-log images. Wu Zhiwei shared a new method for the comprehensive interpretation of complex mudstone reservoir logs and their application. Chen Zhangqian presented research on rock physics-guided 1D magnetotelluric inversion. Hu Haipeng introduced an efficient seismic data denoising algorithm based on dictionary learning. The forum received insightful feedback, and Dr. Yang Huazhong secured first place.



Group of the second session of the 2024 Geophysical Big Data Graduate Forum.

Two Days Training on Techlog Essentials

21 and 22 November 2024—Training session hosted by the SPWLA-University of Houston Student Chapter. This hands-on workshop, led by Semaa Alessa, was a fantastic experience! She left no stone unturned to make this training a successful one. She stopped at every desk to ensure everyone was on the same page. With 5+ years of industrial experience in petrophysics and reservoir engineering, Semaa brought valuable insights and practical techniques to the table, sharing her expertise gained while working with industry leaders like BP and Halliburton. The event spanned two impactful days at the UH Technology Bridge, where we explored essential features of Techlog, a leading software for petrophysical analysis and reservoir evaluation.



Upcoming Events

We plan to organize the Student Paper Contest on January 25, which will be a great opportunity for students to showcase their work and get feedback from industry experts. In addition, a field visit to Baker Hughes Base is scheduled for Friday, February 7, 2025.

UNIVERSITY OF OKLAHOMA STUDENT CHAPTER

General News

As the fall 2024 semester draws to a close, the SPWLA Student Chapter at the University of Oklahoma reflects on a series of impactful and engaging events that enriched the academic and professional development of our members. This semester, we focused on fostering a collaborative community and offering opportunities for students to deepen their understanding of petrophysics while connecting with peers and industry professionals.

With a successful semester behind us, we look forward to carrying this momentum into the spring, continuing to provide meaningful experiences for our members. Stay informed about our activities and events by connecting with us on LinkedIn: [linkedin.com/company/spwlaouchapter](https://www.linkedin.com/company/spwlaouchapter).

Recent Events

22 October 2024—Tech Talk: Formation Testing 101: This semester, we were privileged to host Shahid Azizul (reservoir engineering advisor and reservoir domain head at SLB) for a highly informative Tech Talk titled “Formation Testing 101.” Shahid shared insights into the evolution of formation testing, its integration with openhole formation evaluation, and its critical role in optimizing reservoir performance. The talk covered key techniques such as petrophysical analysis, fluid sampling, and well logging, providing attendees with a comprehensive understanding of how these methods are applied in the industry. Participants left the session inspired and better equipped to apply these concepts in their academic and professional pursuits.



Shahid Azizul delivered an engaging presentation on formation testing techniques and industry applications at Tech Talk: Formation Testing 101.

8 November 2024—Semester Social Event: Bowling Event:

To celebrate a productive semester, our chapter hosted a Bowling Event at Sooner Bowling in collaboration with the SPE Student Chapter. The evening was filled with excitement, networking, and friendly competition as students from the Mewbourne College of Earth and Energy came together in a relaxed setting. This event not only offered a well-deserved break from academic life but also strengthened the connections within our community, ensuring a lasting sense of camaraderie among members.



Students enjoy a fun and collaborative evening at Sooner Bowling.

Upcoming Events

SPWLA and SPE Student Paper Contests

The deadline for submitting abstracts for the SPWLA and SPE Student Paper Contests was December 1, 2024. This is a valuable opportunity for undergraduate and graduate students to share their research on topics related to petroleum engineering and geosciences. Abstracts should be between 250 and 450 words. Selected participants will advance to the final contest on January 21, 2025, where they can compete for cash prizes and earn nominations to present at international conferences. We encourage all eligible students to take advantage of this chance to highlight their innovations and contribute to advancements in the field.

For more details, feel free to contact us on our social media platforms.

SPWLA and SPE Student Paper Contest

Student Chapter at

What?

- Topics related to Petroleum Engineering and Geoscience

How?

- Submit a 250–450 word abstract

Who?

- Undergraduates
- Masters
- PhDs

Deadline:
December 1st 2024

Prizes

- Cash prizes
- Nomination for presenting in international events

CALL FOR ABSTRACTS

Submit your abstract here:

THE UNIVERSITY OF TEXAS AT AUSTIN STUDENT CHAPTER

General News

On behalf of the SPWLA University of Austin Chapter, we are delighted to share a summary of our recent events and activities during November 2024, as well as an exciting preview of what's ahead.

Recent Events

- 8 November 2024**—Our chapter was privileged to host Dr. Jesus M. Salazar for a technical presentation titled “Navigating the Energy Transition: The Evolving Role of Petrophysicists and Opportunities for Growth.” The event was highly informative, with Dr. Salazar offering deep insights into subsurface exploration.
- 13 November 2024**—As part of our ongoing community-building efforts, we hosted a social event that featured an introductory rugby training session with the rugby team at The University of Texas at Austin. This engaging activity provided members with a fun and relaxed environment to connect and strengthen bonds outside of academic and professional settings.
- 22 November 2024**—Our chapter had the privilege of visiting the Baker Education and Technology Centers. This enriching and informative event included a comprehensive tour of the facilities, showcasing advanced tools, their development processes, materials, functionalities, and advantages. Additionally, the Geoscience team delivered an engaging presentation on current projects, providing profound insights into subsurface exploration. Their expertise deepened our understanding of critical industry topics and highlighted the innovative work shaping the future of geoscience. From the UT SPWLA team, we would like to thank the Baker Hughes team, specifically Dr. Ali Eghbali and Mr. Amer Hanif, for their help in organizing this event.

Chapter News

We are thrilled to announce two significant upcoming initiatives:

10 December 2024—We will host Jessica Schellenberger, an undergraduate student working on a research project with Dr. Larry Lake, to present her research on the analysis of lithium in brine! This session will provide members with a valuable opportunity to learn and stay informed on the latest advancements in new energy sources, such as lithium. This initiative also aims to introduce SPWLA to new students, especially undergraduates.

20 December 2024—**SPWLA Paper Contest:** We are excited to kick off the selection process for the SPWLA paper contest. We encourage all members to participate and showcase their innovative research and ideas. The deadline for abstract submission was December 20.

13 December 2024—SPWLA at UT Austin organized a White Elephant and Final Semester Gathering to celebrate the conclusion of fall 2024. The event featured food, the election of a star member of the fall semester, and a White Elephant gift exchange, where participants bring small to share in a lighthearted and festive manner.


Election of the Star of the Semester Fall 2024: As part of our end-of-semester celebrations, SPWLA will honor an officer who has gone above and beyond in their contributions to the organization during fall 2024. This individual will be recognized as the “Star Officer” for their exceptional dedication, hard work, and effort in advancing SPWLA’s goals and activities. To express our gratitude and appreciation, the Star of the Semester will receive a thoughtful gift as a token of our recognition for their outstanding efforts.



Rugby game for networking.




Baker Hughes visit.



SPWLA UT
Technical Session Series
Navigating the Energy Transition: The Evolving Role of Petrophysicists and Opportunities for Growth

Nov. 8th, 2025 5:00 p.m. – 6:00 p.m. CPE 2.218


Hildebrand Department of Petroleum and Geosystems Engineering
Cockrell School of Engineering



Jesús M. Salazar
Senior Petrophysicist,
Marathon Oil Company



Marathon Oil
CORPORATION

Jesús M. Salazar holds a Ph.D. and M.Sc. in Petroleum Engineering from the University of Texas at Austin and a B.Sc. in Physics from Central University of Venezuela. He is the Lead Petrophysicist Specialist at Marathon Oil in Houston with previous experience at ConocoPhillips, Occidental and FOMSA. Salazar has held leadership roles in the Society of Petrophysicists and Well Log Analysts and is currently an Associate Editor for the SPE Journal. He has published widely and received the SPE Peer Award in 2020. He and his wife have four children; he enjoys running, hiking, and spending time with his wife and his children.




REGISTRATION

General Meeting #3 with Jesus Salazar.

LONGHORN ENERGY CONTEST



Any UT student Can Join!


No Paper Required

Submission Deadline
December 20th


EVENT RULES

PRIZES
 1st Ph.D. \$500
 1st M.S. \$400
 1st B.S. \$300
 Funded trip to DUBAI on May 17th, 2025

How to Register?



The University of Texas at Austin
 Hildebrand Department of Petroleum and Geosystems Engineering
 Cockrell School of Engineering


 Scan me

Paper contest.



SPWLA UT
Technical Session Series

Analysis of Lithium in Brine

With the rise of modern electronics, especially EVs, the demand for lithium is high. Companies are looking for alternative lithium sources, such as extracting and refining lithium ions from oil and gas brines. However, little is known about lithium's relations to other elements within the brines, and how those relations change as the location changes. Understanding these relationships would help make the lithium recovery process in brines more economically viable.

Dec. 10th, 2025 5:00 p.m. – 6:00 p.m. CPE 2.218

The University of Texas at Austin
 Hildebrand Department of Petroleum and Geosystems Engineering
 Coakley School of Engineering



Jessica Schellenberger
 Undergraduate Student at
 UT Austin



Jessica Schellenberger is a dedicated Chemical Engineering student at the University of Texas at Austin. She has research experience in data analysis and visualization, securing, writing, python scripts to analyze geological data during a competitive summer internship and exploring correlations between frog development and climate in her ongoing research. Jessica is proficient in Python, R, Studio, and Microsoft Office, and is learning MATLAB. Active in organizations like the Society of Women Engineers, she has also participated in STEM initiatives and volunteer work, including crocheting blankets for Project Linus.



REGISTRATION

General Meeting #4 with Jessica Schellenberger.

At the SPWLA University of Texas at Austin Chapter, we remain dedicated to fostering professional development, knowledge sharing, and a sense of community among our members. We look forward to building on these efforts and strengthening our ties within the broader SPWLA network. Stay tuned for more updates and opportunities!

Thank you for your continued support, and please feel free to reach out with any questions or feedback.



White Elephant with SPWLA.



SPWLA Star Officer – Fall 2024, Feiyue Xia.

Welcome New Members – October 18, 2024 – December 9, 2024

Allong, Kami, Heritage Petroleum Company Limited,
Maraval, Port of Spain, Trinidad and Tobago

Arpino, Robert, Bureau of Ocean Energy Mgmt., Gilbert, AZ,
United States

Bernal Rodriguez, Luis Angel, Ecopetrol, Bogota, Colombia

Bittar, George, University of Houston, Houston, TX, United
States

Brandão, André, LAGESED, Rio de Janeiro, Brazil

Crichlow, Alishia, University of Houston, Missouri City, TX,
United States

Danaci, Mehmet, GEOLOG, Ankara, Turkey

Gregovich, Andrew, Shannon & Wilson, Seattle, WA, United
States

Hardiawan, Ridwan, Jadestone Energy, South Jakarta,
Indonesia,

He, Changsheng, UPC, China

Hindawy, Mohamed, Baker Hughes, Spring, TX, United States

Huang, Lester, Quantico Energy Solutions, Houston, TX,
United States

Kuakool, Sita, Weatherford, Bangkok, Thailand

Luna, David, Three Span Oil & Gas, Midland, TX, United
States

Murtuzaliyev, Murad, BP America, Katy, TX, United States

Olson, Eric, GEOLOG International, Houston, TX, United
States

Orlov, Nikita, Gubkin University, Moscow, Russia

Pimentel, Robert, ELS Advance Data Analytics, Cypress, TX,
United States

Porter, Lee, Crescent Energy, Irving, TX, United States

Ridenti, Manuel, Heriot-Watt University, Spoltore, Italy

Sagar, Swati, Core Laboratories, Cypress, TX, United States

Santiago Mateos, Nidia, IPN, Ciudad de México, Mexico

Schmid, Gregory, Halliburton, Houston, TX, United States

Shahbaz, Arslan, Dragon Oil, Ajman, United Arab Emirates

Skovli, Ander Wold, Equinor, Sandnes, Norway

Snatic, Jonathan, Halliburton, Houston, TX, United States

Tang, Huan, University of Houston, Houston, TX, United
States

Tao, Yi, Yangtze University, Jingzhou, China

Vielma, Miguel, Gaffney Cline, Spring, TX, United States

Wasnik, Atul, GEOLOG, Nagpur, India

