



# spwla today

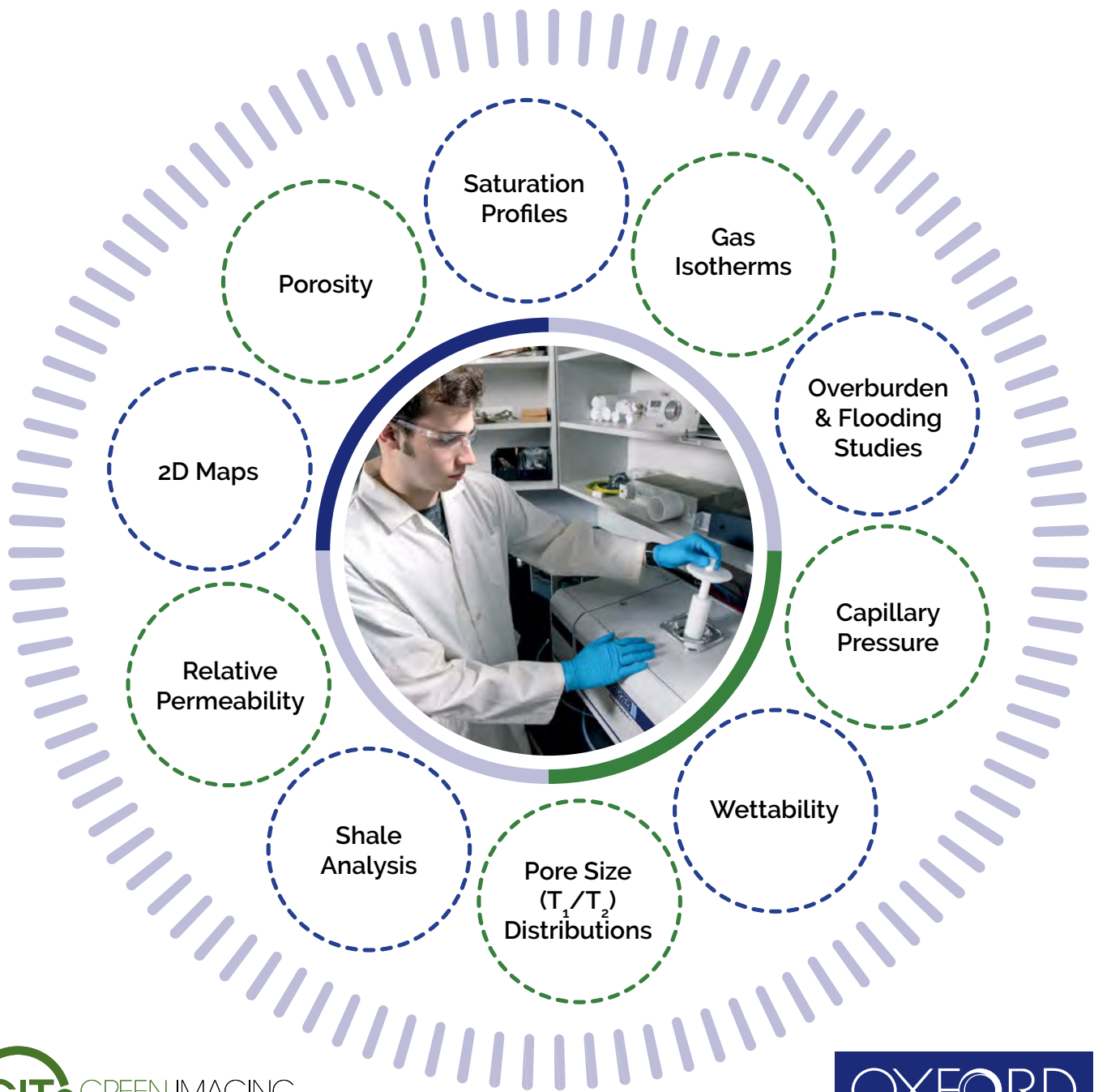


NEWSLETTER

# Make NMR core analysis routine with GeoSpec

Contact us now to discuss your core analysis requirements.

No NMR expert, no problem



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**CALENDAR OF EVENTS**

**November 2–3, 2021**

Cement Evaluation from Basics to the Advanced  
Instructor – Gary Frisch  
Online  
[www.spwla.org](http://www.spwla.org)

**November 10–11, 2021**

Petrophysical Multimineral Analysis Training Series  
Instructor – Patricia E. Rodrigues  
SeisPetro Geoconsulting  
[www.spwla.org](http://www.spwla.org)

**December 7–9, 2021**

Practical Geomechanics Training Class  
Instructor – Tom Bratton  
[www.spwla.org](http://www.spwla.org)

**June 10–15, 2022**

SPWLA 63rd Annual Symposium  
Stavanger, Norway  
[www.spwla.org](http://www.spwla.org)

**About the Cover**

Autumn in the oil field.

**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.**

## From the President



**Katerina Yared**  
2021-2022  
SPWLA President

Dear Petrophysics Friends,

I hope this newsletter finds you well.

We have been busy here at the SPWLA, and by that, I include many of our chapters who are resuming their post-vacation break activities in full swing. Things are picking up in terms of oil and gas prices. If someone told me last year that natural gas would pass the USD 5 mark, I would have laughed out loud... not that I don't do that already, but I would not have believed them.

That said, budgets seem to be tight, and careful spending is always number one on the agendas of executives in our industry. The focus seems to be getting back to pre-COVID norms, but a lot more emphasis is being given to alternative energies and how to be a part of the new energy mix.

We have made progress on one of my targets for the year—getting sponsorship for our student members.

We thank GoWell and Baker Hughes for their generous sponsorship of our student members!!!

We keep on welcoming more students, and we hope for industry leaders to see the value in investing in our future workers. If you want to be part of that, sponsor a student today!

**Thank you Sponsors!**

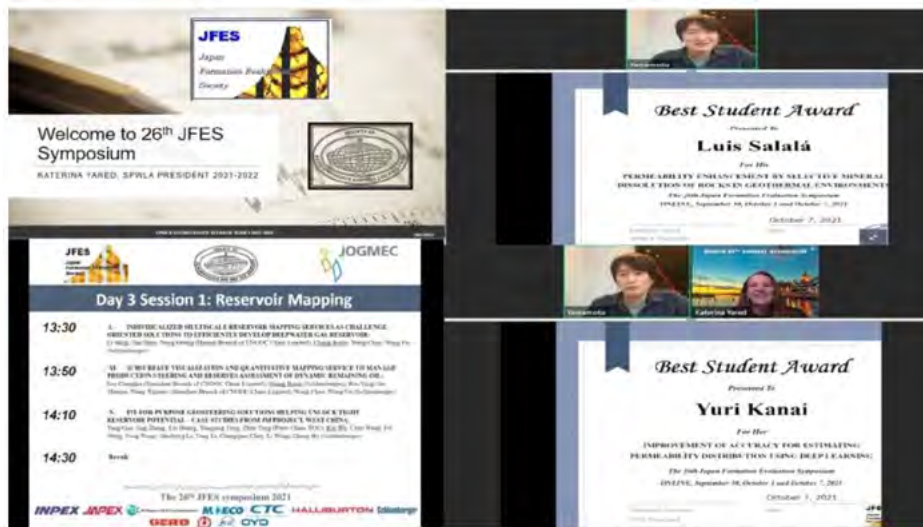
**Baker Hughes**

**GOWELL**

**2021-2022 STUDENT CHAPTERS SPONSORS!**

## From the President

I was happy to participate in the well-respected JFES Symposium and had the honor to nominate one of the best student papers. They were all great, and I can't wait to see them compete at the ISPC 2022!



Speaking of 2022, we are gearing up for our annual symposium in Stavanger, Norway, next June (11–15) and already have a very energy-transition-focused field trip planned. Who is with me?!

We have great classes coming up: Cement Bond Logging and Practical Geomechanics, to name a few. Make sure to check our webpage for more updates.

With the holidays approaching, I hope for you and your loved ones to have safe and memorable holidays and get enough rest because I have a feeling in 2022, we'll be knocking it all out of the park!

As always, I welcome any feedback. Please email me at [president@spwla.org](mailto:president@spwla.org).



Respectfully yours,

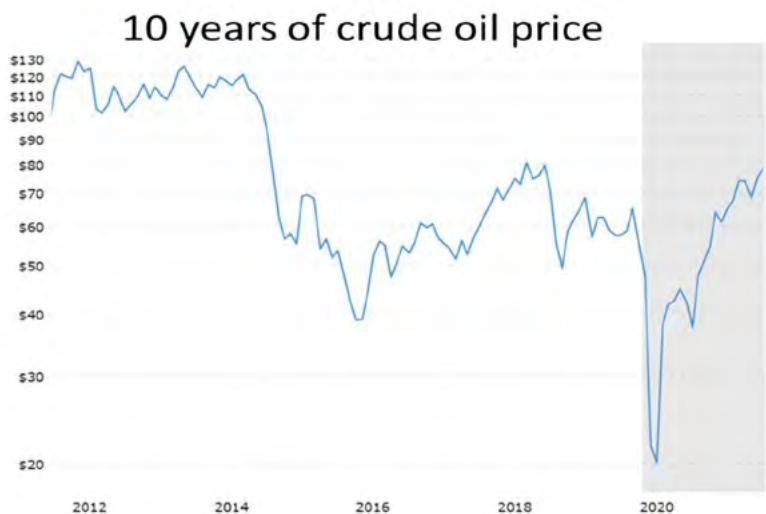
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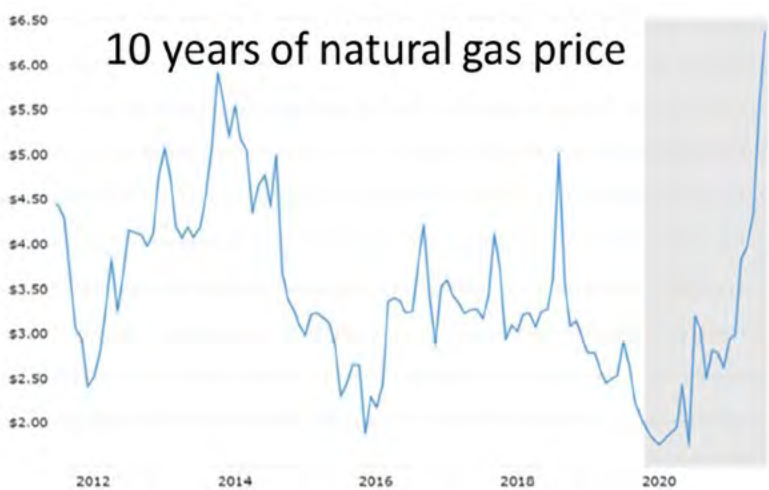
Songhua Chen  
2021-2022  
Vice President Publications

Greetings and welcome to the November 2021 issue of *SPWLA Today*. The November issue of the newsletter is the last one for the year, so I would like to use this opportunity to hope everyone found 2021 to be a fulfilling year both in your career and your private life, despite still being under a cloud of the COVID-19 pandemic.

Pandemic or not, the world learned to fight it, live with it, and make a solid plan to prosper beyond it. It is a relief to know that new cases have declined meaningfully in the last month and continuously declined globally. Although we are not completely out of the woods, and there could be a new wave or new variant in the future, the global economy seems decidedly in a growth mode. This certainly creates a solid demand for oil and gas, which is reflected in the recent crude oil and natural gas prices. The two charts below show the 10-year history prices of crude oil and natural gas, respectively. The crude oil price is nearly USD 80/barrel at the time of writing, and the natural gas price is at a 10-year high. Petrophysicists are getting busy as activities are picking up globally.



Source: <https://www.macrotrends.net/1369/crude-oil-price-history-chart>.



Source: <https://www.macrotrends.net/1369/natural-gas-price-history-chart>.

## From the Editor

SPWLA society activities also are picking up. The Fall Topical Conference on Unconventional Petrophysics was held in late October, and SPWLA SAC is currently holding a 7-week long (1 day a week) Workshop on Data-Driven Petrophysics with participants from all over the world, just to mention a few. The forecast indicates that society activities in 2022 will pick up the pace even more, as several delayed meetings have been rescheduled next year. Please pay attention to the announcements in *SPWLA Today* and on the society's website, so you won't miss the ones in which you would like to contribute and/or participate.

Starting in this issue, Nelson Suarez is taking over as the senior editor for *The Bridge* section. Many early-in-their-career petrophysicists and students find this section particularly inspiring. We look forward to Nelson putting a fresh spin on things in that section of the newsletter. Thanks, Nelson!

Living in Texas, what I most enjoy about autumn is the crisp air in the morning while walking along the bayou. After a long, hot summer, who doesn't like autumn? I hope you can find some time to enjoy the best that nature has to offer in autumn and get ready for a joyful holiday season that follows.

Best,  
Songhua Chen  
Vice President Publications  
VP-Publications@spwla.org





**Tegwyn Perkins**  
2021-2022 President Elect

Hello and welcome to my third column as President Elect for the *SPWLA Today* newsletter. I'm currently in Houston (well, the lovely city of Tomball just to the north of the oil capital of the world) and enjoying the beautiful sunny fall/autumn weather. It won't last, though. I'll be back in Wales before too long.

I've been working on several little "backroom" tasks since my last article. As I'm sure you are aware, the Call for Abstracts launched last month. The VP Technology, **Carlos Torres-Verdin**, and the Technical Program Co-Chair, **Iulian Hulea**, have designed a program that consists of a combination of General Themes and Special Organized Sessions. To accommodate a change in the abstract preparation, we modified the software used for submission. It was completed in time for the opening call, but there will be further changes for other upcoming events (International Student Paper Contest and 2022 Spring Topical Conference). The closing date for submitting abstracts for the 2022 Symposium is Sunday, 7 November, so you still have time! More information can be found here: <https://www.spwlaworld.org/call-for-abstracts/>

On the subject of SPWLAworld.org, the SPWLA 2022 website team: **Sergey Alyaev, Bob Engelman, Stefano Pruno**, and I have been updating the site for next year's symposium. It's always a "work in progress," but you will begin to see more and more content added to the site in the coming months. If you have any suggestions for articles for the website, please email me at the address below.

Also, if you would like to be involved in maintaining and developing the SPWLA World website, please email me. It's all volunteer work. I'm afraid there will be no remuneration, just the heartfelt thanks of your fellow SPWLA members and an entry for your resume or CV. WordPress skills would be preferred!

Let's now turn our attention to the Special Interest Groups (SIGs). I've spent a lot of time engaging with the SIGs over the past couple of months. All have been recovering from the pandemic at their own pace, and I'm glad to write that many have held their first events since 2020 in October.

The **Petrophysical Data-Driven Analytics (PDDA)** SIG has been especially active. They recently announced the 2021 SPWLA PDDA Machine-Learning Contest. The goal of this contest is to develop data-driven models to estimate reservoir properties, including shale volume, porosity, and fluid saturation, based on a common set of well logs, including gamma ray, bulk density, neutron porosity, resistivity, and sonic. Good luck to all the teams entered!

The PDDA SIG is also currently planning the **2022 Spring Topical Conference** on Petrophysical Machine Learning. Details of this event and the call for abstracts will be announced soon.

There are new SIGs in the works. Please look out for a forthcoming announcement about the Hydrocarbon Reserves SIG. The SIG board has been working tirelessly to bring this SIG to life, and it's almost ready to go live. Far earlier in the planning stages are the Borehole Imaging SIG and Alternative Subsurface SIG. If you are interested in getting involved with any of the SIGs, please email me at the address below.

I was delighted to be invited to attend the JFES Symposium last month. It was an early start for me, but I heard some exceptional talks, especially from the students, and I also got to listen to our esteemed madam president, **Katerina Yared**, give the keynote.

**Calling all SPWLA Chapters!!** Please continue sending me your solicitations for the SPWLA 2023 Symposium proposals. We have held several exploratory meetings, but a decision won't be made until early 2022. Traditionally, odd years are held in the US; however, we are not living in traditional times, so I am interested in all proposals.

**"Fy iaith, fy ngwlad, fy nghenedl Cymru"** – these words have a special meaning for me, which hopefully will become apparent in my next article!

Kind regards

Tegwyn JP Perkins

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President Elect 2021-2022

[President-Elect@spwla.org](mailto:President-Elect@spwla.org)





**Carlos Torres-Verdín**  
2021-2022 Vice President  
Technology

## ONE SPWLA in Stavanger: What Are You Waiting for to Submit Your Abstract for the 2022 Symposium?

The call for Annual Symposium abstracts has been out since last month (reproduced for your convenience in this installment of *SPWLA Today*), and the deadline for submissions is fast approaching (November 7, 2021).

What are you waiting for to submit your abstract?

First, please note that, in addition to the customary 300- to 500-word abstract, the submission format now requires that you separately describe five important components of your abstract and upload one representative figure of the work described in the abstract. The five components of your abstract/work that need to be described separately are (the abstract submission website has been designed so that you can enter this information into five separate boxes):

1. Objectives/Scope
2. Methods/Procedures/Processes
3. Results/Observations/Conclusions
4. Application/Significance/Novelty Information
5. Optional: any other pertinent and relevant information about your work

All the above materials will be read, examined, and vetted by SPWLA's Technology Committee members. Each abstract will be independently scrutinized by at least six members of the Technology Committee to guarantee impartiality and to mitigate potential biases. Furthermore, the names and affiliations of the authors will not be released to abstract reviewers, thereby enforcing a completely blind review process. The Technology Committee will subsequently rank the abstracts based on their combined grading scores, and the ranking will be used to fill out normal and special organized sessions. This year, the Annual Symposium will not include the E-poster presentation format. Only oral and poster (printed posters in the old traditional way) sessions will be part of the technical program. We are also anticipating two simultaneous oral sessions starting on Monday afternoon and continuing on Tuesday and Wednesday.

And I would like to share with you where we are now with our to-do list as part of the organization of the SPWLA 2022 Annual Symposium:

1. Select the final Organized Sessions (Done! 10 Special Organized Sessions were selected from the submission pool)
2. Release the official Call for Abstracts for the 2022 SPWLA Symposium (Done!)
3. Complete the selection of members of the 2021–2022 SPWLA Technology Committee (Done!)
4. Nominate and select keynote speakers (ongoing)
5. Begin planning the technical workshops that will precede the symposium (ongoing)

The 2021–2022 Technology Committee comprises an extraordinary, talented, experienced, and diverse team of 37 colleagues from around the world, including active personnel from service and operating companies, private technical consultants, and academics. They will be the heart and soul of the 2022 Technical Program. I thank them immensely for their volunteer work and for sharing with the SPWLA their valuable time and expertise to make the 2022 Annual Symposium a smashing success.

All in all, don't be shy to present and share with SPWLA members your case histories, experiences, technology innovations, interpretation methods, and unique borehole and laboratory measurements during the 2022 Annual Symposium. This is how we grow and learn together. Plus, SPWLA has traditionally prided itself on its cadre of intelligent, creative, passionate, kind, and cooperative members who are ready and eager to interact with you to discuss and amplify the learnings and benefits of your work. And what more inspiring place to do it all than the beautiful city of Stavanger?



Magnificent view of Stavanger's downtown. In addition to truly bucolic scenery, Stavanger has multiple areas for outdoor exercising and contemplation of nature (photograph by the author).

Concerning the writing of your Symposium abstracts, please allow me to make a few useful suggestions to guide the preparation of a successful submission:

1. Before writing your abstract, make an itemized list of the most relevant conclusions and lessons learned from your work. The clearer and more explicit the conclusions and lessons learned are, the better your abstract will be ranked by the Technology Committee.
2. Make sure that the subject of your abstract appeals to a wide audience, is devoid of commercialism, and includes all the relevant facts to understand it. Clearly specify what you did, and why and how you did it.
3. Use short and direct sentences with clear and effective words to describe your work. Describe the application and contextual background of your work. Emphasize in no uncertain terms the novelty of your work and/or the technical contributions stemming from your work.
4. Make sure that your sentences are well articulated and effectively convey a compelling and easy-to-understand story.
5. Choose and compose a figure/image that visually describes (and extols) the work behind your abstract.
6. Have one or more colleagues review your abstract to ensure that it reads and flows well and that the context, technical contributions, and novelty are clearly stated and understood.
7. For those colleagues who are not experienced in writing abstracts in English, I recommend not using Google's translation utility to turn your abstract from your native language to English. Instead, I recommend to seek translation and writing help from an experienced English technical writer and, preferably, from someone who has previously submitted successful SPWLA abstracts. It makes a great difference!
8. Make sure that your abstract does not exceed the 500-word limit.

As always, don't hesitate to contact me with suggestions for improvement. All ideas are appreciated and will be given the utmost consideration. We are striving to celebrate an inclusive Annual Symposium where all SPWLA members feel welcomed and valued, regardless of gender, age, race, nationality, or technical specialty—ONE SPWLA Annual Symposium for all!

Sincerely yours,

Carlos Torres-Verdín, PhD, Professor

Brian James Jennings Memorial Endowed Chair in Petroleum and Geosystems Engineering

Hildebrand Department of Petroleum and Geosystems Engineering

The University of Texas at Austin

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**Fransiska Goenawan**  
2020-2022  
Vice President Education

Hello SPWLA Members,

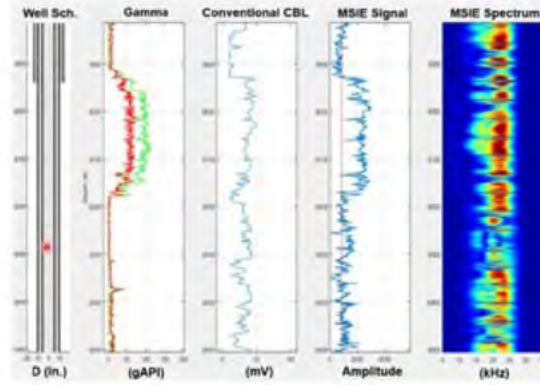
The year 2022 is almost here! I hope 2021 was kind to everyone and brought success, hope, and joy.

I would like to show my appreciation for Jun Zhang (Probe) and Supriya Sinha (Halliburton), who shared their Distinguished Talks during the September and October webinars. I also would like to thank everyone who attended the webinars. Thank you for your attendance and for submitting questions to our wonderful speakers.

## Feasibility Verification and Improvement



- Omni-directional measurements were verified intensively.  
More cases: [SPE 195607-MS](#)
- Segmented measurements are implemented
  - 4 sectors at 3-ft spacing
  - 6 independent signals in total



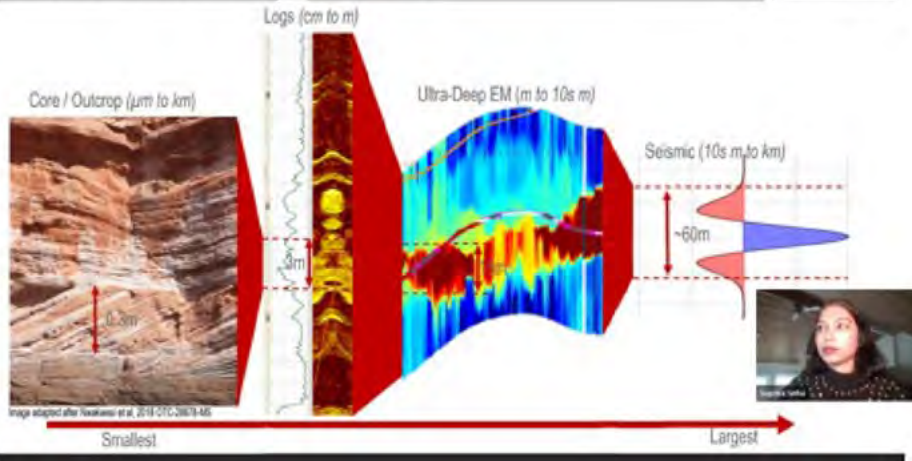
SPWLA DISTINGUISHED SPEAKER SERIES 2021-2022

9/23/2021

Jun Zhang – September webinar.

3

## Measurements and Scales



Supriya Sinha – October webinar.

## Learning Opportunities

My appreciation also goes to Avrami Grader (Halliburton) for sharing his Distinguished Talk on The Digital Rock Bridge to the Reservoir on the SPWLA special webinar. Here is a snapshot from a summary of his presentation.

**Summary: The digital rock analysis train has left the station**

The slide illustrates a five-stage process: **Workflows**, **Relevance**, **Digital**, **Integration**, and **Reservoir**. Each stage is represented by a small image: Workflows (a wellbore log), Relevance (a flowchart with 'If' and 'Then' boxes), Digital (a data visualization with 'Pc, Kr, n' and 'De-risking decisions'), Integration (a graph with 'water' and 'gas' labels), and Reservoir (a 3D rock model).

Integration of physical and digital “core data streams” into coherent and consistent interpretations that are used in exploration and development of various hydrocarbon resources.

**Integrating and up-scaling core data to wellbore logs**  
**Accelerate building of static and dynamic reservoir models**

63 SPWLA **ALCOA** DISTINGUISHED SPEAKER SERIES 2021-2022

Avrami Grader – special webinar.

By the time this column is published, the SPWLA 2021 Fall Topical Conference “Unconventional Petrophysics” should be finished. I personally would like to appreciate our sponsors: Saudi Aramco, Halliburton, and Chevron. I also want to acknowledge the FTC Committee for all its hard work and effort in making this conference finally happen!

Co-chairs: Jinhong Chen (Aramco Americas) and Matthew Blyth (SLB)  
Steering Committee: Alexei Bolshakov (Chevron), Ron Bonnie (ConocoPhillips), Robert Gales (HAL), Keli Sun (SLB), Kristoffer Walker (Chevron), and Chicheng Xu (Aramco Americas)

Special thanks to our guest speakers: Ron Dusterhoft (Halliburton) and Carlos Torres-Verdin (UT Austin), as well as panel discussion speakers: Madam President Katerina Yared (SM Energy), Paul Connolly (EOG-retired), Robert Laronga (Schlumberger), Mike Sullivan (Chevron-retired), Ishtar Barranco (Chevron), Manika Prasad (Colorado School Mines), and Hannes E. Leetaru (University of Illinois Urbana-Champaign). I also appreciate all the speakers, poster presenters, and everyone who joined in the conference. The conference would not have happened without you! Big thanks!!

# UNCONVENTIONAL PETROPHYSICS



## Thursday – Oct. 21

8:40-10:00 | **Session 1**  
**Petrophysics in Unconventional Production**

Session Chair: Alexei Bolshakov

10:15-11:35 | **Session 2**  
**Unconventional Technology I**

Session Chair: Matt Blyth



Ron Dusterhoft  
Halliburton

11:35 – 12:45  
**Lunch & Presentation**

*The Quest for Low Cost,  
Yet Useful Data in Shale  
Developments*

12:45 -14:05 | **Session 3**  
**Advanced Formation Evaluation I**

Session Chair: Chicheng Xu

14:20-16:00 | **Panel Discussion 1**  
**The Real Value of Petrophysics in Unconventional Production**

Moderators: Robert Gale, Matt Blyth



Katerina Yared  
SM Energy



Paul Connolly  
EOG (Retired)



Robert Laronga  
Schlumberger



Mike Sullivan  
Chevron (Retired)

## Friday – Oct. 22

8:30-9:50 | **Session 4**  
**Advanced Formation Evaluation II**

Session Chair: Jinhong Chen

10:05 - 11:25 | **Session 5**  
**Petrophysics Parameters Optimization**

Session Chair: Ron Bonnie

11:25 – 12:35  
**Lunch & Presentation**

*Advances, Replications,  
and Misfortunes of  
Machine Learning and  
Data Science Applied to  
Formation Evaluation*



Carlos Torres-Verdin  
UT Austin

12:35-13:55 | **Session 6**  
**Unconventional Technology II**

Session Chair: Keli Sun

14:10-15:50 | **Panel Discussion 2**  
**Advances in CO2 Sequestration**

Moderators: Kristoffer Walker, Alexei Bolshakov



Ishtar Barranco  
Chevron



Manika Prasad  
Colorado School Mines



Hannes E. Leetaru  
Univ. of Illinois Urbana-Champaign



**ONLINE POSTERS**

Registered attendees can watch the recorded poster presentations at any time on the event website

Special thanks to VP Social Media and her team who made this flyer!

## Learning Opportunities

We have wonderful short courses coming up!

1. Cement Evaluation From the Basic to the Advanced by Gary Frisch (November 2–3)
2. Petrophysical Multimineral Analysis by Patricia E. Rodrigues (November 10–11)
3. Practical Geomechanics by Tom Bratton (November 30–December 2)

You may visit the SPWLA website or follow SPWLA social media for more detailed information. If you have any suggestions for short course topics, please kindly contact [vp-education@spwla.org](mailto:vp-education@spwla.org).

We have exciting news for machine learning, deep learning, and AI enthusiasts! The SPWLA 2022 Spring Topical Conference will focus on these topics. The call for abstracts should be announced shortly.

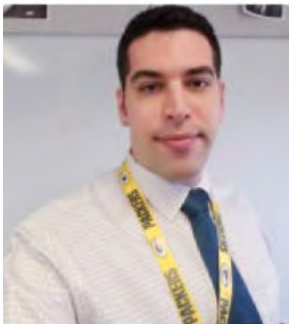
To SPWLA students, the 2022 International Student Paper Competition is coming up! Stay tuned to the SPWLA social media channels for an upcoming announcement!

Thank you very much, and I hope you and your family enjoy the upcoming holiday season. Stay safe.

Kind regards,

Fransiska Goenawan

[VP-Education@spwla.org](mailto:VP-Education@spwla.org)



**Adam Haecker**  
 2021-2022 VP Finance,  
 Secretary, and Administration

Hello All

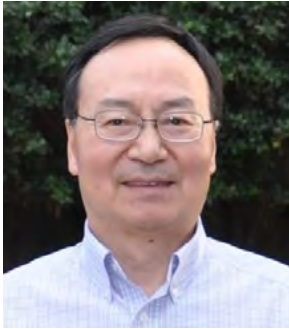
As I write this, the society continues to execute its financial plan that the board put into place in the summer. We have found ways to save additional money and bring things in under budget. Two areas that we have been focusing on these last 2 months are employee medical insurance and IT infrastructure. Both are four-figure line items that we can find areas to save in. Tegwyn, Harry, Sharon, Stephanie, and others have been trailblazing ways to get us into a better system for tracking our membership. Katerina, Tegwyn, and I found an alternative medical plan that was less impacted by COVID. I am sure it is a surprise to no one that health insurance costs are going up after all the hospitalizations last year. As a small non-profit organization, we have to be cognizant of these changes and try to keep our costs down in order to serve the membership better. Luckily, Sharon was able to work with our broker to find a new plan that still gives us good service but keeps our costs reasonable.

In terms of the society’s finances, in 5 months, the society has currently spent 27.1% of the annual budget and received 13.3% of our expected revenue. Since most of our revenue comes from the symposium, we tend to concentrate our revenue in the 2 months following the event. However, many of our expenses are constant. Nonetheless, we remain under budget for the moment, and our typical revenue streams like paper sales through onepetro.org are up for the year to date. Below is a table of our projections vs. budget. The percentages are where we are at 5 months in. We are doing great for training income, and hopefully, we will continue to see good enrollments in the courses offered.

Category	5 Months % of Annual Projections/ <b>Budget</b>
Lecture/Training Center Inhouse	71%
Other Types of Revenue	21%
Symposium Revenue	10%
<b>Total Income</b>	13%
<b>Expense</b>	<b>27%</b>

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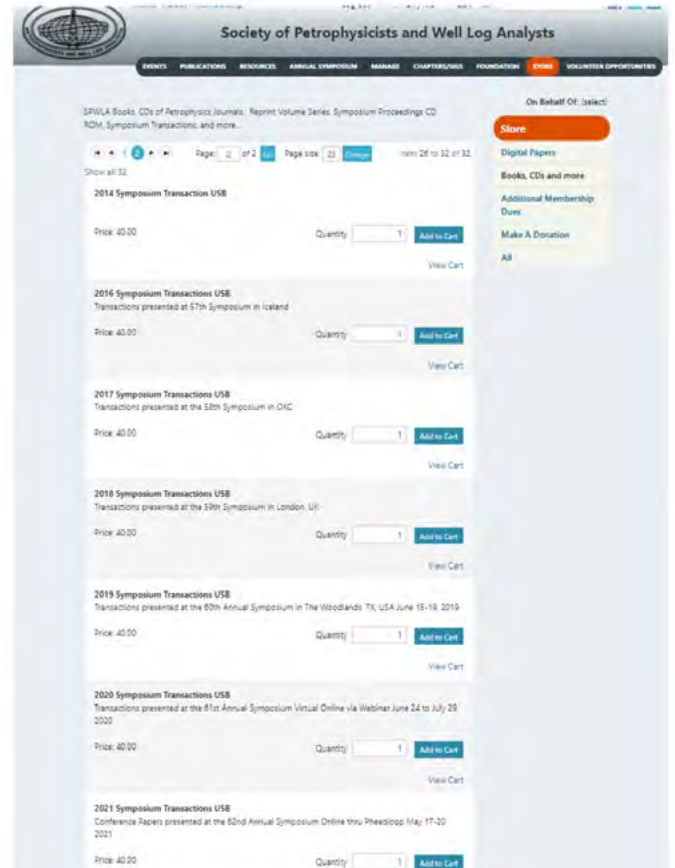
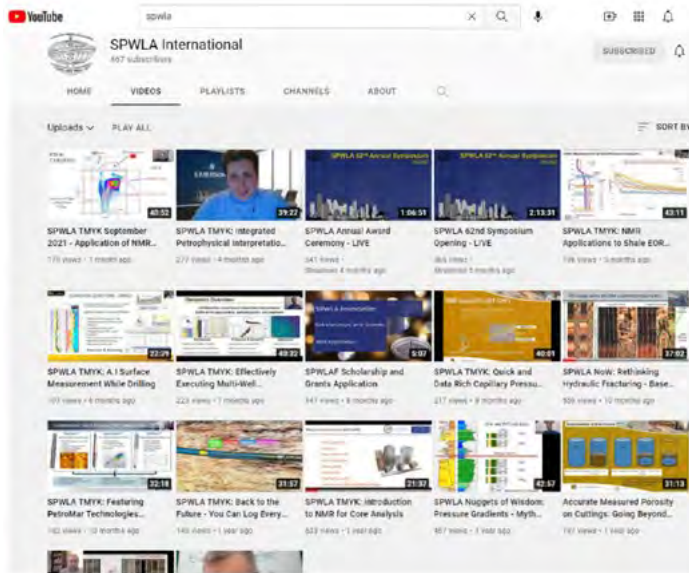




**Harry Xie**  
2021-2023 Vice President  
Information Technology

Dear Colleagues,

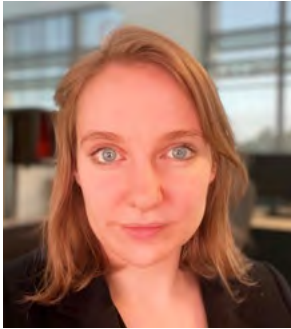
Welcome to my column for the *SPWLA Today* newsletter. I believe that many of us have adopted the modern lifestyle of working from home and meeting virtually. Every day, we still spend a significant amount of time on our computers and surfing the web. While you are doing so, I would like to draw your attention to two sources of information and knowledge that may benefit you greatly: the SPWLA YouTube channel, where you can find a list of past webinar recordings, and the SPWLA Store on our website for past publications. I encourage you to subscribe to the YouTube channel and pass the link to your colleagues and friends to benefit from the valuable content.



I also believe that many of us are eager to go out to meet friends and colleagues, visit each other in offices, and join discussions at conferences or symposiums. Now, with the situation improving day by day, we see the light at the end of the tunnel. We will be going to Stavanger, Norway, in June 2022 for our first in-person symposium in 2 years. Get your data ready, put your ideas together, and get your abstracts submitted. Let us all meet in Stavanger!

Yours sincerely,  
Harry Xie  
Vice President Information Technology  
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[VP-InfoTech@spwla.org](mailto:VP-InfoTech@spwla.org)





**Mathilde Luycx**  
2021-2023 VP Social Media

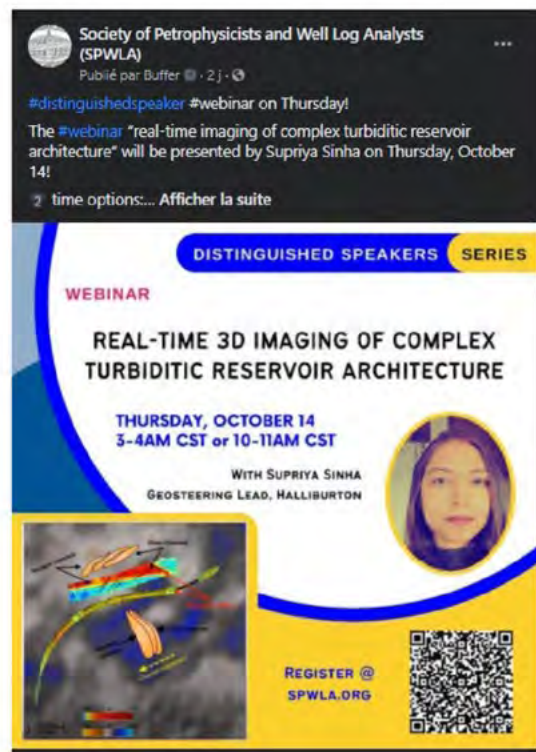
As always, we will be sharing a couple of social media highlights from the last 2 months: the SPWLA Distinguished Speakers Program, the upcoming 2020 SPWLA Annual Symposium in Stavanger, Norway, and some great news about new student chapters sponsors!

**#spwladistinguishedspeaker**

With many Distinguished Speakers sharing their excitement in the days prior, the 2021–2022 SPWLA Distinguished Speakers list was announced at the end of August. Many authors have since been solicited by local chapters and SPWLA International to share some of the best presentations of the 2021 SPWLA Symposium. Opportunities to discover or rediscover their work will continue to trickle in during the coming months, so watch out for #spwladistinguishedspeaker and #distinguishedspeaker.



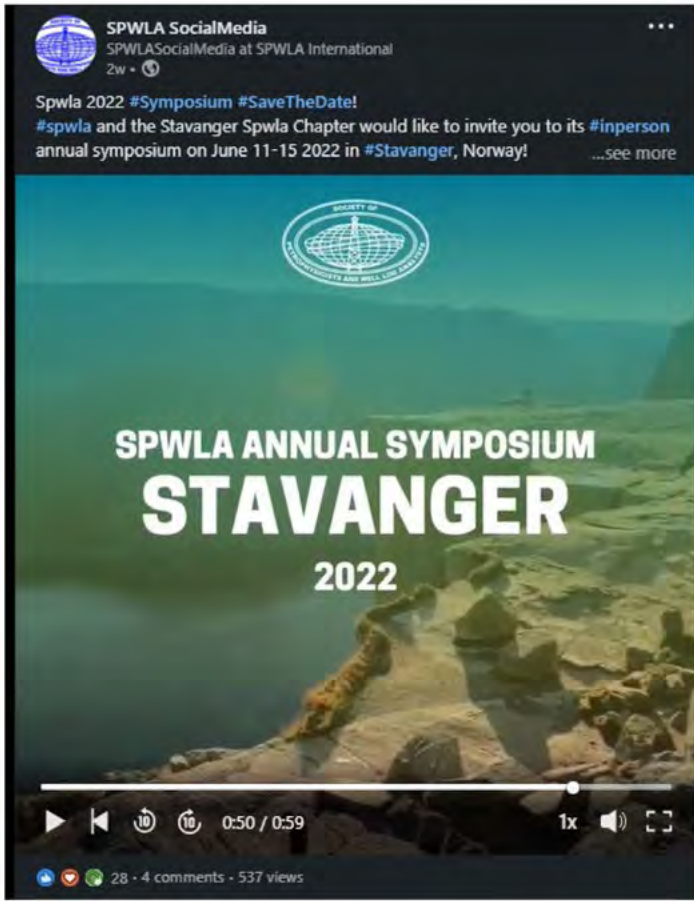
“Official” Announcement



#distinguishedspeaker webinar

**SPWLA 2022 Annual Symposium**

The countdown to #spwla2022 from June 11–15 in Stavanger, Norway, has now officially started. If you do not know what to expect yet, you can get a preview from this [video](#)! For everything else, we invite you to #savethedate and experience Stavanger and our symposium for yourself. You can start right away by submitting your abstract for a chance to present your work at the largest petrophysics conference of the year!



Symposium Preview [Video](#)



#callforabstracts

### Student and Local Chapter News

#### Student Chapters Sponsors

The SPWLA has been seeking sponsors to provide students with nominal financial support allowing them to become members of the SPWLA, participate in industry networking events, and represent their university at the International SPWLA Student Chapter Competition. We are happy to report that [Baker Hughes](#) and [GOWell](#) have stepped up to inspire the next generation of petrophysicists. Many thanks to them for their contribution!



Call for Student Chapters Sponsors



2021–2022 Student Chapters Sponsors

We hope that you enjoyed this overview of our social media happenings of the last 2 months!

Sincerely,

Mathilde Luycx  
 Vice President Social Media  
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## Regional Understandings—North America 1 and 2



**Robin Slocombe**  
2020-2022 North America 1  
Regional Director

Many of the North American chapters are now resuming in-person meetings or starting up their fall virtual meeting season, and we are starting to see how attendance at SPWLA events has been changed by recent events and the corresponding shifts in the oilfield business. The DWLS had its first in-person luncheon on September 21, with about 20 people showing up and registering for the event, compared to the usual 40 to 50 people who would have attended a pre-COVID event. Bakersfield also held its first in-person event, with a BBQ Cookoff sponsored by Best Core Services. It was also lightly attended and reflects how many companies have moved people out of places like Bakersfield during the downturn. The OKC Chapter also held an in-person speaker meeting last month; however, they saw attendance only drop by around 20% compared with events pre-COVID.



**Matt Blyth**  
2021-2023 North America 2  
Regional Director



Bakersfield Chapter BBQ Cookoff at Best Core Services.



OKC and OU Chapter members who attended the OKC September Lunch Event hosted by Devon.

## Regional Understandings—North America 1 and 2

Additionally, the OU Student Chapter is planning a very active fall season. They participated in a welcome back event where they were able to publicize the SPWLA with students of various academic backgrounds and also joined the OKC Chapter at their September lunch event, hosted by Devon. They are continuing with regular monthly speaker meetings, lab tours, and a skills development workshop, which is a great sign for the health of petrophysics in the future. Our members in the New Orleans Chapter thankfully came through the last hurricane in comparatively good shape, and although they have not resumed meetings just yet, they do plan to do so soon.

Matt & Robin, NA Regional Directors

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## Regional Understandings–Latin America



**Bruno Menchio Faria**  
2020-2022 Latin America  
Regional Director

Hello, Petrophysical Community,

I always feel happy about how creative and perseverant we are when coping with troubling times. The student and professional chapters in Latin America make me proud and offer excellent lectures, initiatives, ideas, and a great desire to help. Some great news coming from Argentina is the opening of a new student chapter in the country. I feel privileged to be able to count on the help of competent and dedicated people in the Latin American region.

Looking back at my professional trajectory, I remember working at private companies and for the government. I acquired a great deal of academic experience during my master's course, and now, I am taking a different path. I decided to open my own company and start a business in the petrophysics area. I would like to hear stories from professionals who, like me, are now dedicated to entrepreneurship. Anyone able to talk about entrepreneurship in petrophysics? Can anyone write a column on this topic for the next edition of the *SPWLA Today* newsletter? I am sure that personal accounts can serve as an inspiration for all who wish to follow a similar direction and those who are curious about the topic.

Yours Sincerely,

Bruno Menchio Faria

LA Regional Director

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[Director-LA@SPWLA.org](mailto:Director-LA@SPWLA.org)

## Regional Understandings–Europe



Eva Gerick  
2021-2023 Europe  
Regional Director

Dear SPWLA Community,

The last couple of months saw the global launch of our new SPWLA Distinguished Speakers (DS) and Global Distinguished Speakers (GDS) series, and Europe is no exception. Our French and Norwegian Chapters made a great head start with two local DS/GDS sessions on rock typing and overbalanced drilling effects, and more local sessions are being planned. Even if travel restrictions still don't encourage extensive travel, it's fantastic to see how our chapters are constantly adapting to find solutions and bring those excellent talks to their local communities!

And, even if Europe is slowly opening up for in-person meetings, I'm delighted to see that most chapter events still have a live streaming option to keep in touch with their extended audience. So, stay tuned and keep an eye on online European Chapter events via the global SPWLA calendar.

More progress is happening in Norway as well on our Symposium 2022. The planning of the field trip and social events is now in full swing, and I'm absolutely convinced there will be lots to look forward to next year!

Keep well and healthy!

All the best,

Eva

Europe Regional Director

[Director-Europe@spwla.org](mailto:Director-Europe@spwla.org)



## Regional Understandings—Middle East/Africa



**Nelson Suarez Arcano**  
2012–2022  
Middle East/Africa  
Regional Director

Dear Petrophysicists and Colleagues,

On a daily basis, I talk with people based in our region. Despite where you come from, the company you work at, whether you are an operator, a service company, or a freelancer (like the one who writes), there is something we all have in common. We all want to page-break and start the post-pandemic era with more jobs, more contracts, more sales, more revenue, better salaries, more motivation, new places, and new adventures.

Now, with the oil price hitting the \$80 barrier again, there is a general consensus that if things remain the same all 2021, then our oil and energy industry will improve by 2022 for both experienced and young professionals. But, if the oil price was the problem, why in February 2021, when we recovered the pre-pandemic oil price of ~\$55, were things not improving significantly by then? Why is the rig count about 50 to 60% pre-pandemic in some places?

Well, talking with Chris, a colleague in a service company, he mentioned that there is a policy of “wait and watch.” He is right as we are not seeing a sudden change in the bearing of the industry economy just yet. Talking with Laura from an operator company, she mentioned that companies are still adapting their cost to this era. Despite there being a lot of work to do, it is being done by a few in overstretched hours. How is your situation, and what is your point of view? Do you agree with Chris? Do you agree with Laura? Is Africa different? Is ME different? I encourage you to write us, and we will publish your thoughts in the next SPWLA newsletter.

Yours sincerely,

Nelson “NSA” Suarez Arcano

Middle East and Africa Regional Director

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## Regional Understandings–Asia Pacific/Australia



**Ryan Lafferty**  
**2021-2023 Asia Pacific/Australia**  
**Regional Director**

Hello again to all our members, and I hope you are all doing well. Our chapters in the Asia Pacific region have been busy over the last few months, with a good number of technical events being held. Given the current restrictions, most of the events have been held virtually, but it is good to see some chapters returning to in-person meetings. Hopefully, this trend continues, as I am sure many of you are missing the networking and social aspects that our monthly technical meetings provide.

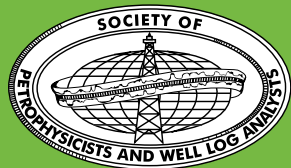
I would like to make a special mention and congratulate the winners of the student article competition in Indonesia. Well done, and keep up the good work! I would also like to congratulate JFES for successfully holding their 26th Formation Evaluation Symposium and the IGUP Student Chapter from Pakistan, which hosted their first technical meeting.

Finally, a big thanks to the chapter presidents for a fruitful discussion in our first meeting together. We will continue with these bi-monthly meetings with the aim of improving communication and integration between the chapters in the region. We are also in preliminary discussions regarding a potential regional event sometime in 2022. Please watch this space for further announcements regarding this event.

All the best for a safe and prosperous new year, and I look forward to a “more normal” 2022.

Keep safe.

Regards,  
Ryan Lafferty  
Asia Pacific/Australia Director  
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## Young Professionals: An Interview with Malvin Delgado

November 2021

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*In this edition:*

*Young Professionals:  
An Interview with  
Malvin Delgado*

*Crossword Puzzle*



Malvin Delgado

We suffered an economic hit in 2008–2009, a downturn starting in 2014, and the effects of the pandemic starting in the year 2020—three shocks in one decade. Regardless of the background and geographic location, young professionals (YPs) are facing a paramount challenge nowadays—from the moment they graduate and start their career until that day when they finally can look back and say I have found my place in an organization, found my dream job, or just found what I like to do. These are situations that may or may not happen.

Moreover, the YPs of today are not the same as the YPs at the beginning of the century or even more different than the last century. Just as brief examples, statistics tell us that today only 10% of YPs who are 25 years old are married. This number was around 70 to 80% half a century ago. Today, the energy transition will require the brightest minds, a concept that was

not in the minds of the last century YPs.

To tell us more about this, we had the pleasure to talk with Mr. Malvin Delgado. He is an international energy business director with more than 26 years of experience working in the oil, gas, and energy industries. He has worked in leadership roles for Picarro, Inc., T.D. Williamson, Baker Hughes, GE, SIEMENS, SHELL, PDVSA, as well as other important energy and tech companies in multiple roles related to business development, sales, marketing, operations, product management, and project management in North America, Latin America, Europe, and the Middle East. He states his greatest professional assets are his true passion for customers, entrepreneurship, and communication skills, which along with his experience as the customer, the vendor, and the services provider, give him the unique capability to speak the business language that customers really understand and appreciate.

**Mr. Malvin, in the energy sector, what is the meaning of being a young professional (YP) in the world we live in today? What do you think is influencing them the most in the development of their careers?**

In the world we live today, the energy sector has changed. There is an unwritten agreement between governments, companies, and financial entities to leave fossil fuels behind and embrace the so-called green energies. This is happening under the excuse/umbrella of protecting the environment with the clear objective of heating or boosting the economy through massive investment in R&D, as well as reconstructing the world we live in. Under this context, we must be aware that people who were experts 10 to 20 years ago are not experts anymore. Also, the way we work today is even different from the way we worked 5 years ago. This represents a huge challenge that is connected to the capability to change and get adapted to the interesting world we live in today. In front of that, YPs represent the most important asset that any energy company can have to succeed in this challenging world.

**Indeed, young workers were hit hard by the COVID-19 effect on the economy, but also the experienced people were affected. Can this be seen as an opportunity for the YPs?**

The pandemic is something that equally affected every single business and person in the world. No one was truly prepared for the effects associated with this crisis. Some companies have died; some others resisted and are slowly recovering with huge scars; some others saw the crisis and quickly changed to survive and thrive, and very few were fully prepared to navigate and succeed through the crisis. Consequently, the last ones became bigger and stronger during this complicated period. I personally tend to associate YPs with the type of companies that were fully prepared for the pandemic because they did not have years of careers on their shoulders that anchored them to the past. This can be translated as a huge opportunity for YPs who are able to risk more and get more benefits out of these types of situations.

**Petrophysics is a specialty similar to geology and geophysics. In the end, we are all looking at the same rock, at the same formation, with different methodologies but with the same objective, the so-called subsurface and geoscience world. From an oil and energy point of view, how different are the challenges of a YP specializing in geoscience compared to others in the energy sector? Are we that different, or do the commonalities align themselves?**

Let me please start by saying that it is a fact that YPs defer in the way they face challenges compared to experienced professionals. This is a matter of the way YPs take risks and adapt to change. Then, connecting my answer to the first question, it is also a fact that the energy world has changed to leave fossil fuels behind and embrace green energies. This means that in the short term, we won't be getting power out of the rocks anymore. Professionals specialized in geoscience must acknowledge this and start working to adapt to this reality as soon as possible. YPs have a competitive advantage because the capability to unlearn and then learn again is natural to them. I truly believe that the commonalities among energy professionals are greater than their differences, and this is true from fossil fuels to green energies. This contributes to creating that alignment, and when it comes to YPs, the alignment is even easier.

**Energy business transformation, net-zero-carbon emissions, machine learning... In your view, how will these words change the mindset of a YP today, and how will it shape their future ahead?**

This is a very interesting question. I say this because you are putting together the three biggest trends that will affect the world economy in about 10 years or less. The energy business has changed already, but the world we live in today is not ready just yet. Therefore, governments, energy companies, and finance entities are working together to transform energy businesses to embrace the changes that have been defined. But again, this will take time. Then, to reduce the time that will take to get adapted to the defined changes, governments supported by financial entities have created a political constrain called net-zero-carbon emissions under the umbrella of saving the planet. This is good, don't get me wrong, but I believe that it is just promoting tons of capital investment in R&D, as well as the modernization of manufacturing processes that will end up boosting and growing the economy. By the way, it is brilliant. And then, we have machine learning and artificial intelligence that goes from a fully automated house, passing through unmanned car driving, until fully automated and more efficient manufacturing processes. This is the icing on the cake. This not only will change, but it will also mold the mindset of every single YP toward a new future that has already started.

**Now, Mr. Malvin, I have a series of questions submitted by young professionals, and they are:**

**a) How will a recent graduate get experience if almost all the job postings require a minimum of 3 to 5 years of experience?**

This is a question that touches me very closely because my son, a very smart 19-year-old man, is currently at a university, working hard to get a PE Engineering diploma, and this is a conversation we often have. In the old school, people used to go to universities to get information, with the expectation of, once graduated, going to a company to start gaining experience. I truly believe that in today's world, people must start learning and experimenting or putting into practice immediately what they have learned. This must be promoted and taught in our homes, as well as in educational institutions, starting from elementary

schools. This must be natural in every single YP. Then, when they go to a company to begin a professional practice or for a job interview, they must show what they can do. A job interview for a YP must be an opportunity to present how they can be productive to the hiring person. Getting experience must be a way of living, not something that happens at work.

**b) Why don't companies give feedback when you don't get selected in an interview process for a job? Wouldn't it be good to know what things to improve upon next?**

This is also part of the old-school hiring process. In my more than 26 years of professional career, I have hired dozens of people, and I always have made my hiring teams provide feedback to the people who are not hired. I truly believe that the feedback will help people to do better the next time. I strongly encourage any YP to request feedback in case you are not selected in a hiring process. I am saying this because sometimes YPs feel ashamed to request feedback after not being selected for a job. Change that mindset and move forward.

**c) What happened to the training budget? Considering companies generally state that YPs are the future of the company, why don't companies want to invest in training like it has before?**

There is no excuse for saving money on training. If you are working in a company that works that way, I recommend you get away from that company. On the other hand, I also have identified that in previous times, it was easier to train people in hard skills. In today's world, hard skills are less needed, and soft skills are more demanded. However, companies are still looking for ways to provide these types of training. The truth is that many of the soft skills cannot be taught. They must be acquired by the same person through a process of self-awareness and self-learning with the guidance or mentoring of more experienced people.

**This Mr. Malvin leads to the most important question in this conversation. What is the best recommendation you have given to a YP in order to grow?**

Be open, prepared, and accept change because you can be sure that the world you think you know today will be different tomorrow. Be fully aware of yourself because the higher your self-awareness is, the quicker you will work on closing the gaps that prevent you from succeeding in the challenges you are facing. And learn every single day. If there is only one day in which you go to bed without having learned something, that will be a lost day for you. Don't waste your days. Treasure them and capitalize on them by learning what you can monetize tomorrow. Finally, have integrity, be ready and willing to help others, connect with people even outside your area of expertise, and try to add value every time you perform a job. You will see that the growth will come accordingly.

**We talked about unemployment levels these days, but talking about the job search, we all have heard YPs say that it is easy for experienced people and hard for them because they don't have "enough experience." Is that statement always true?**

I disagree with that statement. Please do not take me wrong. It is a fact that experience is important, mainly when it comes to making decisions, but it is rare to hire YPs for decision-making positions. But, in contrast, when I hire YPs, I always aim to find 70% desire, passion, and willingness, and 30% experience because experience I can provide or teach when the other three elements are present.

**Hard skills vs. soft skills? From a manager's point of view, which skills are "most wanted" in 2021?**

Soft skills by far!

## Young Professionals: An Interview with Malvin Delgado

### Self-taught vs. professional advisors vs. industry mentors? Which way to go?

It depends on the level you are in your growth process. In the beginning, being self-taught must have higher bandwidth. Then, by the middle of your professional journey, professional advisors are more recommended, and when you have enough maturity, industry mentors are the way to go. As a final comment, being self-taught is something you must have during your entire life.

### Big companies vs. small companies? YPs typically think of big ones with a renowned name. What is your view on this?

I have worked for the biggest companies in world history, as well as for small companies, and I also have had my own company. No matter where you serve, have integrity, be ready and willing to help others, connect with people, even outside your area of expertise, and try to add value every time you perform a job. You will see that the growth will come accordingly. It is easier to grow and learn in small companies rather than in big companies.

### Last question, how important is networking, and how do you do that when we are still suffering from a pandemic, working from home, etc.?

I truly believe that professional networking is the leverage that moves today's connected world. You must invest time and money in doing effective professional networking. Today, you can literally reach everyone in any place in the world, and you must go for it. Using LinkedIn is a brilliant way to do it, but also, you can use the very popular post-pandemic video call systems. There are no excuses for not developing a professional network. I believe that the market value of a professional, sooner than later, will be measured according to the size of the professional network that professional has.

**Contact us: [SPWLAYP@SPWLA.ORG](mailto:SPWLAYP@SPWLA.ORG)**

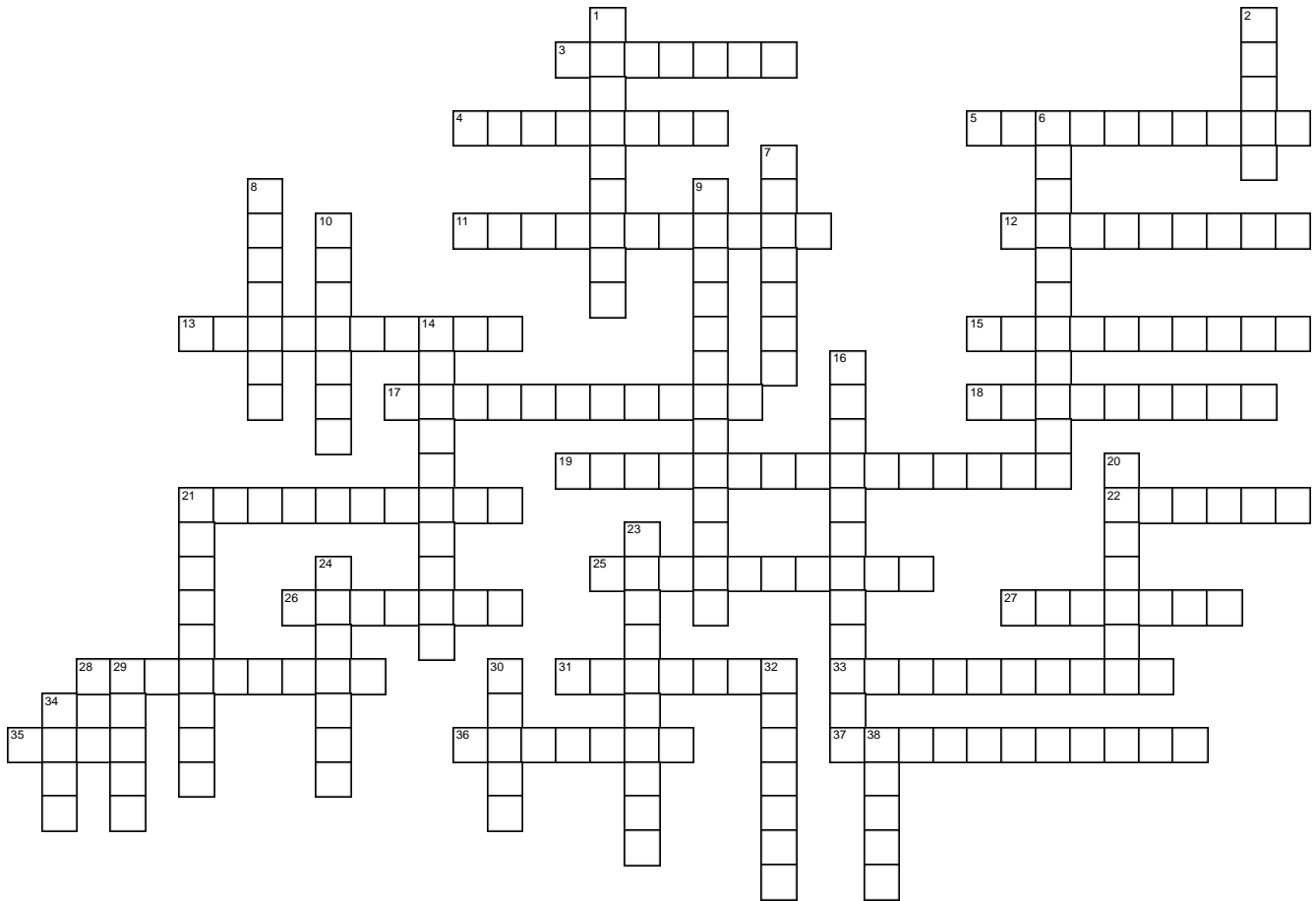
*We encourage you to contact us with any suggestions for improving our group and/or if interested in participating in our activities.*



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



# CROSSWORD PUZZLE



## ACROSS

- 3 An apparatus for cleaning core samples using the distillation extraction method
- 4 The ratio of effective permeability to phase viscosity
- 5 The process of absorbing a wetting phase into a porous rock
- 11 The pressure and temperature conditions at which the first bubble of gas comes out of solution in oil
- 12 A set of equations that describes the partitioning of energy in a wavefield relative to its angle of incidence at a boundary
- 13 An oil or gas accumulation that has matured to a production plateau or even progressed to a stage of declining production
- 15 Pertaining to an environment of deposition in lakes
- 17 A cyclic process in which a well is injected with a recovery enhancement fluid and

## CROSSWORD PUZZLE

- produced after a soak period
- 18 A statistical function that describes the correlation or continuity between sample values
  - 19 The ratio of the percent change in volume to the change in pressure applied to a fluid or rock
  - 21 A measure of the geometric complexity of a porous medium
  - 22 Pertaining to the environment of deposition of sediments by wind
  - 25 The sudden release of accumulated stress in the Earth by movement or shaking
  - 26 Log-log plot of resistivity and porosity
  - 27 The trend along which a particular geological feature is likely
  - 28 The amount of displacement of a seismic wavelet measured from peak to trough
  - 31 Space between wellbore and casing
  - 33 The weight of overlying rock
  - 35 Lithified volcanic ash
  - 36 A wellbore that has not encountered hydrocarbons in economically producible quantities
  - 37 Vibrating sieve used to remove drilling solids from the mud

### DOWN

- 1 A principle of physics stating that the product of pressure and volume divided by the temperature is a constant for an ideal gas
- 2 A very widely used pore pressure equation
- 6 Capillary pressure model using tube-bundle model as the starting assumption
- 7 A line on a map that represents a constant value of the parameter being mapped
- 8 Oil that contains no dissolved gas
- 9 A geological surface that separates younger overlying sedimentary strata and represents a large gap in the geologic record
- 10 Located down the slope of a dipping plane or surface
- 14 A chemical additive that reduces interfacial tension between immiscible liquids
- 16 Describing rocks or sediments containing particles that are silt or clay sized
- 20 Type of fault where the block above moves up relative to the block below
- 21 A fluid-flow regime characterized by chaotic motion as the fluid moves along the pipe or conduit
- 23 The study of fossilized remnants of microscopic entities having organic walls, such as pollen, spores and cysts from algae
- 24 An exploration well
- 29 Pertaining igneous rocks composed of minerals that are rich in iron and magnesium and typically dark in color
- 30 Topography formed in areas of widespread carbonate rocks through dissolution
- 32 An exploration and production play type in which prospects exist below salt layers
- 34 voids or large pores in a rock that are commonly lined with mineral precipitates
- 38 A relatively high-standing area formed by the movement of normal faults that dip away from each other





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## CALL FOR ABSTRACTS

### SPWLA 63<sup>rd</sup> Annual Logging Symposium Stavanger, Norway • June 11-15, 2022

The SPWLA Board of Directors invites you to join us in **Stavanger, Norway, June 11-15, 2022** to showcase your case studies, new technologies and innovations at the **SPWLA 63<sup>rd</sup> Annual Logging Symposium**.

We are soliciting papers in the following General Themes:

1. **Formation Evaluation of Conventional Reservoirs**
2. **Formation Evaluation of Unconventional Reservoirs**
3. **Automated Methods of Formation Evaluation**
4. **Specialized Measurement Techniques and Interpretation Methods**
5. **Core and Well-Log Integration**
6. **Case Studies**

Likewise, we are soliciting papers in the following Special Organized Sessions:

1. **Nuclear Magnetic Resonance of Cuttings: Measurements and Interpretation**
2. **Distributed Fiber Optics for Formation Evaluation**
3. **A Decade with UDAR Technology: Status of look-around and look-ahead applications and future potential**
4. **Surface Logging Technology in the Era of Digitalization and New Energies**
5. **Deep Learning with High-Dimensional Petrophysical Data**
6. **The Role of Long-Term Petrophysics in Carbon Capture Utilization and Storage**
7. **Advances in the Integration of Well Logs and Surface Electromagnetic Measurements for Reservoir Monitoring**
8. **Recent Advances in Borehole Image Technology and Interpretation**
9. **Automation in Borehole Geology**
10. **Digitalization in Petrophysics: A Revolution in Formation Evaluation?**

Detailed information about abstract submission is being provided in an accompanying document. The material contained in your abstract is the basis for the acceptance of your paper into the technical program. Your abstract should contain 300-500 words. Do not feel obligated to use the full allocated length. The Technology Committee is looking for papers containing strong technical and innovative content. We ask you to refrain from commercialism and focus on the promotion of petrophysics and formation evaluation. Your submitted abstract needs to be the same as the abstract published in your paper. Before submitting you must agree to meet all deadlines defined on the abstract submission page. All abstracts and final manuscripts must be in English.

Abstracts must be submitted no later than **Sunday 7<sup>th</sup> November 2021** via online submission at <https://www.spwlaworld.org/abstract-submission/>

Notification of **acceptance** will be made in **December 2021**. If selected, your **abstract will be published online** on the Symposium's website in **February 2022**. You will then be required to **submit a draft manuscript** for the Symposium transactions by **Monday 28<sup>th</sup> March 2022** and your **final manuscript** by **Monday 25<sup>th</sup> April 2022**. Any paper not submitted in finalized format by then will be removed from the program. After submitting, authors will work with two members of the Technology Committee to review their manuscript in order to ensure clarity and to avoid commercialism. For questions, please contact Stephanie Turner at SPWLA either by phone (+1) 713-947-8727 or email [stephanie@spwla.org](mailto:stephanie@spwla.org).

We look forward to reviewing your abstracts!

**Best regards,**  
**Carlos Torres-Verdín, PhD**  
**Vice-President Technology 2021-22**



**Iulian Hulea, PhD**  
**Technical Program Co-Chair**





Photograph by Carlos Torres-Verdín

## Instructions for Submitting 2022 SPWLA Symposium Abstracts Online

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- Abstract/Presentation/Paper Title
- Submission Theme (to be selected from the list online and shown below, including special organized sessions)
- Submission Category
- First-Author Region (i.e., the continent of current residency)
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  - First and Last Name
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*Please note that when entering the authors, you will need to identify the Presenting Author (by default, the submitter). The Presenting Author will become the main point of contact and will receive ALL correspondence regarding the submission. It is then the responsibility of the Presenting Author to share all pertinent information with his/her Co-Authors.*

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## Abstract/Manuscript Title

The abstract title should be standardized with all letters capitalized. Also:

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- All abstracts must be a minimum of 300 words and a maximum of 500 words as determined by the Technology Committee and specified on the online submission form. All abstracts should be written in English.
- Identify the primary theme area and/from the list provided below to which the abstract is best suited. This includes the selection of a Special Organized Session, if that is your intention. Abstracts are reviewed by the Technology Committee based on the primary theme/session designated by the author.
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- The substance of the abstract should not have been presented or published before in any other conference or publication venue.
- The abstract should stand on its own and not refer to another work, unless associated with current work.
- Do not include the title or author names in the body of the abstract. The title and author information will be requested separately through the submission system.

Abstract submissions should also include specific information concerning the following items:

1. Objectives/Scope
2. Methods/Procedures/Processes
3. Results/Observations/Conclusions
4. Application/Significance/Novelty Information
5. Optional: any other pertinent and relevant information

The submission website includes boxes to be completed for each of the above items. Please note that the Technology Committee will only accept abstract submissions that include information specific to the above items and which was entered through the corresponding submission website in English.

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All submissions must be received electronically by the stated deadline. Submissions received after the abstract submission deadline will not be considered for review by the Technology Committee. No exceptions will be made.

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An automated email confirmation will be sent upon finalizing your electronic submission, as well as a PDF attachment of your abstract for review and verification. You can also view and edit your submission up until the closing date for abstract submissions. Please note your Abstract ID and use it in any future correspondence regarding your submission.

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All abstract submissions are reviewed by the Technology Committee. Each abstract will be reviewed by at least 6 different Technology Committee members who are experts in the corresponding Symposium Theme or Special Organized Session. The review is strictly author/affiliation blind to mitigate potential biases. Additionally, the review is based on a metric system that apportions points to the various components of the abstract listed above. Points will be deducted because of undue and blatant commercialism.

### Author Notifications

Author notifications will be sent to each *Presenting Author* regarding the status of their submission. The notification will provide a link to the appropriate status letter (which can be printed as often as necessary). Notification letters are addressed to the *Presenting Author* only. It is then the responsibility of the *Presenting Author* to share all pertinent information with all Co-Authors.

Please note: Highly sensitive anti-spam software may block this notification since it is actually emailed by a third party. **If you do not receive this email by notification date, contact the SPWLA ([stephanie@spwla.org](mailto:stephanie@spwla.org)) immediately.**

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Abstracts can be edited by the submitting author up until the closing submission date; no changes are possible after that. **Cancellations, particularly after the abstract has been accepted and publicized, are viewed by the Technology Committee as highly unprofessional.**

### Speaker Registration/Funding

**No funding is available for Presenting Authors or Speakers.** All technical session speakers **must** register for the Symposium. Speakers attending the Symposium for the day of presentation must register at the prevailing one-day rate.

## Presentation Modality

The Symposium will offer only two presentation modalities: **Live Presentation** and **Poster Presentation**. There will be no E-Poster presentations during the Symposium. Poster presentations are the customary poster presentations printed on large paper format and affixed to an elevated surface fixture by presenters. Poster presentations will be delivered during Symposium time segments and quiet rooms planned expressly for this presentation modality, which require that the author be present to deliver his/her presentation to a live audience congregated around the poster.

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Authors who intend to submit abstracts for a Special Organized Session (listed below) are encouraged to contact the session organizers to make them aware of your submission. Special Session Organizers are motivated to work with potential paper authors to make sure that their abstract submissions are strong, relevant, and well written. All abstracts submitted for Special Organized Sessions will be subject to the same vetting/examination process by the Technology Committee as for abstracts submitted to general themes.

## General Symposium Themes

1. **Formation Evaluation of Conventional Reservoirs**
2. **Formation Evaluation of Unconventional Reservoirs**
3. **Automated Methods of Formation Evaluation**
4. **Specialized Measurement Techniques and Interpretation Methods**
5. **Core and Well-Log Integration**
6. **Case Studies**

## Special Symposium Organized Sessions

1. **Nuclear Magnetic Resonance of Cuttings: Measurements and interpretation**

Organizer:

Adam Haecker, Continental Resources, Inc. ([adam.haecker@clr.com](mailto:adam.haecker@clr.com))

*Nuclear Magnetic Resonance (NMR) of drill-bit cuttings has been shown to be viable at the 2021*

SPWLA symposium (Singer et al. 2021; Dick et al. 2021). Building upon previous work in the field, we invite authors to submit papers detailing pitfalls, best practices, case studies, sample preparation ideas, and processing of data.

## 2. **Distributed Fiber Optics for Formation Evaluation**

### Organizers:

Isabelle Pellegrini, Ziebel ([isabelle.pellegrini@ziebel.com](mailto:isabelle.pellegrini@ziebel.com))

Garth Naldrett, Silixa ([garth.naldrett@silixa.com](mailto:garth.naldrett@silixa.com))

Glynn Lockyer, Lytt ([glynn.lockyer@lytt.com](mailto:glynn.lockyer@lytt.com))

Colin Wilson, Schlumberger Fiber Optic Global Advisor ([CWilson7@slb.com](mailto:CWilson7@slb.com))

*Deployed permanently or using novel intervention methods, Distributed Fiber Optics (DFO) sensors provide dense spatial and temporal measurement of temperature, strain, and acoustics along the length of the wellbore. These measurements enable new and improved approaches to well integrity, production optimization, reservoir optimization, and field management by delivering rich and extensive data sets. This session will offer an opportunity to showcase the latest advances in acquisition, deployment and analysis of DFO sensors.*

## 3. **A Decade with UDAR Technology: Status of look-around and look-ahead applications and future potential**

### Organizers:

Frank Antonsen, Equinor ASA ([fraan@equinor.com](mailto:fraan@equinor.com))

Maurizio Mele, Eni SpA ([Maurizo.Mele@eni.com](mailto:Maurizo.Mele@eni.com))

Monica Vik Constable, Equinor ASA ([mvc@equinor.com](mailto:mvc@equinor.com))

Michael Rabinovich, BP ([Michael.Rabinovich@bp.com](mailto:Michael.Rabinovich@bp.com))

*How is UDAR technology helping operators today, and what are the main challenges to achieve full potential of the technology? Answers to these questions should stimulate a good discussion on potential future UDAR technology and interpretation improvements for an even more effective use of the technology.*

## 4. **Surface Logging Technology in the Era of Digitalization and New Energies**

### Organizers:

Ilaria De Santo, Schlumberger ([IDeSanto@slb.com](mailto:IDeSanto@slb.com))

Tao Yang, Equinor ([tay@equinor.com](mailto:tay@equinor.com))

*Surface logging technology provides alternative solutions for formation evaluation in the era of digitalization and new energy exploration. We welcome new advances covering but not limited to mud gas technology, real-time fluid identification, geothermal, hydrogen, and lithium in this special session.*

## 5. **Deep Learning with High-Dimensional Petrophysical Data**

### Organizers:

Chicheng Xu, Aramco Americas ([Chicheng.xu@aramcoamericas.com](mailto:Chicheng.xu@aramcoamericas.com))

Tao Lin, Aramco Americas ([Tao.Lin@aramcoamericas.com](mailto:Tao.Lin@aramcoamericas.com))

Lei Fu, Aramco Americas ([Lei.Fu@aramcoamericas.com](mailto:Lei.Fu@aramcoamericas.com))

*This session showcases the advantages of cutting-edge deep learning algorithms in accomplishing challenging petrophysical interpretation tasks that involve high-dimensional data. Participants are also encouraged to share insights on how to overcome the potential limitations of deep learning for practical field applications.*

## **6. The Role of Long-Term Petrophysics in Carbon Capture Utilization and Storage**

### Organizers:

Luis Quintero, Halliburton ([Luis.Quintero@halliburton.com](mailto:Luis.Quintero@halliburton.com))

Kelly Skuce, Independent Consultant ([kellyskuce@shaw.ca](mailto:kellyskuce@shaw.ca))

*The process of Carbon Capture Utilization and Storage (CCUS) relies heavily on the proper assessment of the target reservoir in terms of long-term seal, capacity, injectivity, etc. Petrophysics and well-log analysis are therefore key disciplines in any CCUS project. This special session will focus on the impact of key petrophysics subdomains such as geomechanics, cased hole saturation monitoring, and wellbore and cap rock integrity on the successful completion of CCUS projects.*

## **7. Advances in the Integration of Well Logs and Surface Electromagnetic Measurements for Reservoir Monitoring**

### Organizers:

Yardenia Martinez, KMS Technologies ([yardenia@kmstechnologies.com](mailto:yardenia@kmstechnologies.com))

Herminio Passalacqua, Red Tree Consulting LLC ([hpassalacqua@redtreesonsultingllc.com](mailto:hpassalacqua@redtreesonsultingllc.com))

*This session showcases borehole and surface electromagnetic methods for reservoir monitoring. Applications include: geothermal, CCUS, and EOR. It highlights the importance of correlating borehole and surface EM measurements necessary to estimate reservoir-scale properties. Such correlation is critical for better understanding and inference of fluid transport from surface measurements, which reduces time for important decision making.*

## **8. Recent Advances in Borehole Image Technology and Interpretation**

### Organizers:

Peter Barrett, Halliburton ([Peter.Barrett@halliburton.com](mailto:Peter.Barrett@halliburton.com))

Christian Rambousek, Nimbus Geoscience ([rambousek@nimbus.com](mailto:rambousek@nimbus.com))

*This session focuses on advances in borehole imaging technology from the wellbore to dynamic reservoir modelling. It will include the latest developments in tool technology, machine learning as an aid to interpretation, data analysis techniques, dip feature deliverable standardization, and the use of the data in reservoir modelling.*

## **9. Automation in Borehole Geology**

### Organizers:

Chandramani Shrivastava, Schlumberger ([cshrivastva@slb.com](mailto:cshrivastva@slb.com))

Peter Schlicht, Schlumberger ([PSchlicht@slb.com](mailto:PSchlicht@slb.com))

*The session intends to attract professionals and researchers from borehole geology and related disciplines (image logs, drill-cuttings, sidewall cores, etc.) to share their case studies and recent developments in automated processing and interpretation. Participants are encouraged to*



*share their experiences with machine learning applications in borehole geology and how formation evaluation is benefiting from those advances.*

**10. Digitalization in Petrophysics: A revolution in formation evaluation?**

Organizers:

Sarah Magdalena Birkeland, Equinor ([samap@equinor.com](mailto:samap@equinor.com))

Gerrit Toxopeus, Equinor ([gtox@equinor.com](mailto:gtox@equinor.com))

*The main objective of this session is to highlight how new ways of working and digitalization in Petrophysics will continue to revolutionize the discipline. Participant will learn about existing solutions and will be encouraged to share their experiences and ideas.*

# Well-Log-Based Reservoir Property Estimation With Machine Learning: A Tutorial for the PDDA 2021 ML Contest

Lei Fu, Chicheng Xu, Yanxiang Yu, Michael Ashby, Andy McDonald, and Bin Dai

## ABSTRACT

Well-log data play a key role in estimating reservoir properties, including volumes of minerals, porosity, and water saturation that are critical for reserve estimation. A conventional workflow using a multimineral physical model based on core-log integration requires an a priori rock-fluid model; therefore, it is often inadequate in reservoirs of complex minerals such as carbonate or unconventional fields. There is a potential for applying machine learning (ML) for data-driven solutions. In this tutorial, we demonstrated a machine-learning approach to predict reservoir properties based on conventional well logs. This tutorial aims to provide a starting point for the participants of the 2021 Machine Learning Contest organized by the Society of Petrophysicists and Well Log Analysts (SPWLA) Petrophysical Data-Driven Analytics Special Interest Group (PDDA-SIG). It applied the Random Forest (RF) regression method to simultaneously predict shale volume, porosity, and water saturation based on conventional well logs (gamma ray, bulk density, neutron porosity, resistivity, and sonic). The RF algorithm was tested with a data set from the Equinor Volve Field. A total of 35,046 data points collected from eight wells were used to train and validate the model. The trained model was then applied on the hidden testing data set from four wells in the same field and achieved reasonable accuracy. The solutions from different participants will be ranked based on the averaged root-mean-squared-error (RMSE) score measured on the blind-testing data set.

## INTRODUCTION

Well logs are interpreted and processed to estimate in-situ reservoir properties (including petrophysical, geomechanical, and geochemical properties), which is essential for reservoir modeling, reserve estimation, and production forecasting. The modeling is often based on multimineral physics or empirical formulae. When sufficient training data are available, a machine-learning solution provides an alternative approach to estimate those reservoir properties based on well-log data and usually has less turnaround time and human involvement.

Following the good output of last year's contest (Yu et al., 2021), we are launching the 2021 SPWLA PDDA ML Contest. The objective of this contest is to develop data-driven models to estimate reservoir properties, including shale volume, porosity, and fluid saturation, based on a common set of well logs, including gamma ray, bulk density, neutron porosity, resistivity, and sonic. The participants will be provided with log data from eight wells from the same field together with the corresponding reservoir properties estimated by petrophysicists. They need to build a data-driven model using the provided training data set. Following that, they will deploy the newly developed data-driven models on the test data set to predict the reservoir properties based on the well-log data.

## EXPLORATORY DATA ANALYSIS

Exploratory Data Analysis (EDA) is an open-ended process where we calculate statistics and make figures to find trends, missing values, outliers, anomalies, patterns, or relationships within the data.

The data set we use comes from the Equinor Volve Field data from the link (<https://www.equinor.com/en/what-we-do/digitalisation-in-our-dna/volve-field-data-village-download.html>). We use Pandas library to load the data into a data frame, which provides a convenient data structure to visualize and perform exploratory data analysis on the available logging data. For example, we apply the `data.describe()` function to gain a quick overview of the statistical distribution of the training data, as shown in Table 1.

```
import pandas as pd
df1 = pd.read_csv('train.csv')
df1.describe()
```

Table 1—Statistical Attributes of the Original Training Data Set\*

	WELLNUM	DEPTH	DTC	DTS	...	RMED	ROP	PHIF	SW	VSH
count	318967	318967	318967	318967	...	318967	318967	318967	318967	318967
mean	4.08	6998.18	-7791.05	-8605.14	...	-804.02	-989.37	-8515.78	-8515.69	-8585.16
std	2.46	3797.94	4168.06	3491.48	...	4177.16	3028.43	3554.02	3554.22	3484.04
min	0	335.16	-9999	-9999	...	-9999	-9999	-9999	-9999	-9999
25%	2	3757.87	-9999	-9999	...	0.67	15.2	-9999	-9999	-9999
50%	4	6905.18	-9999	-9999	...	1.15	24.97	-9999	-9999	-9999
75%	6	10052.49	-9999	-9999	...	2.15	30.63	-9999	-9999	-9999
max	8	15651.58	181.81	388.84	...	97543.4	208.63	0.4	1	3.65

\*Note that several columns are not displayed here due to limited width.

From Table 1, we see a total of 318,967 samples (data vectors) are loaded, and each of them consists of nine columns. The description and unit of each column are listed in Table 2.

Table 2—Column Names, Meanings, and Units

Name	Description	Unit
WELLNUM	Well number	
DEPTH	Depth	feet
DTC	Compressional Travel-time	nanosecond per foot
DTS	Shear Travel-time	nanosecond per foot
BS	Bit size	inch
CAL	Caliper size	inch
DEN	Density	Gram per cubic centimeter
GR	Gamma Ray	API
NEU	Neutron	dec
PEF	Photo-electric Factor	Barn
RDEP	Deep Resistivity	Ohm per meter
RMED	Medium Resistivity	Ohm per meter
ROP	Rate of penetration	Meters per hour
PHIF - Porosity	Porosity	Percentage
SW	Water saturation	Percentage
VSH	Shale Volume	Percentage

### Feature Selection

Five commonly used logs (DEN, GR, NEU, PEF, RDEP) are selected together with target columns (PHIF, SW, VSH).

```
col_names = ['DEN', 'GR', 'NEU', 'PEF', 'RDEP']+list(df1.columns.values[-3:])
```

### Handling the Missing Data

“-9999” is shown as the missing value in all features. To handle the missing values, we first replace all the values equal to “-9999” to “np.nan,” and then remove all the rows that contain the nan by using data.dropna() function. This is another quick implementation provided in the Pandas library. After removing all the missing values, there are 40,192 data vectors left, as shown in Table 3.

**Table 3**—Statistical Attributes of the Data After Removing the Missing Values\*

	WELLNUM	DEPTH	DTC	DTS	...	RDEP	RMED	ROP	PHIF	SW	VSH
count	40192	40192	17431	7198	...	40192	40192	40095	40192	40192	40192
mean	5.21	12131.01	76.39	131.02	...	26.18	786.81	23.43	0.14	0.66	0.27
std	2.05	1557.91	12.32	14.55	...	450.55	6788.72	7.76	0.08	0.36	0.2
min	1	8494	48.93	74.82	...	0.13	0.14	0.34	0	0.01	0
25%	4	11154.2	68.28	123.15	...	1.58	1.65	18.82	0.07	0.29	0.11
50%	6	11837.27	74.65	131.9	...	3.01	3.54	24.98	0.14	0.78	0.23
75%	6	13115.81	83.37	138.54	...	9.46	11.56	29.91	0.22	1	0.35
max	8	15566.93	123.25	193.84	...	80266.8	62290.8	46.9	0.4	1	1

\*Note that several columns are not displayed here due to the limit width.

Note here, we dropped the whole row if any column of the data point contains a missing value. As a result, only less than 12% of the data is left. However, once you select the features most related to the outputs or fill the missing values, much more data can be used to build the model.

### Removing the Outliers

One of the findings from Table 2 is that the maximum values of all features are dramatically larger than their mean values, which indicates anomalies and outliers exist in the data set. It's helpful to remove those abnormal data points to improve the performance of the model trained. Here, we used the Isolation Forest algorithm to remove the outliers. We suggest that the contestants try their best to quality control the log data. More information on this can be found in Misra et al. (2019).

```
from sklearn.ensemble import Isolation Forest
clf = IsolationForest().fit_predict(df1)
df1=df1[clf=1]
```

### Correlation

The below function is used to quickly check if there's any correlation between features and targets. It is suggested to conduct this practice for all the features and gain more insights. The correlation between all the logs is plotted in Fig. 1.

```
import seaborn as sns
sns.pairplot(df)
```

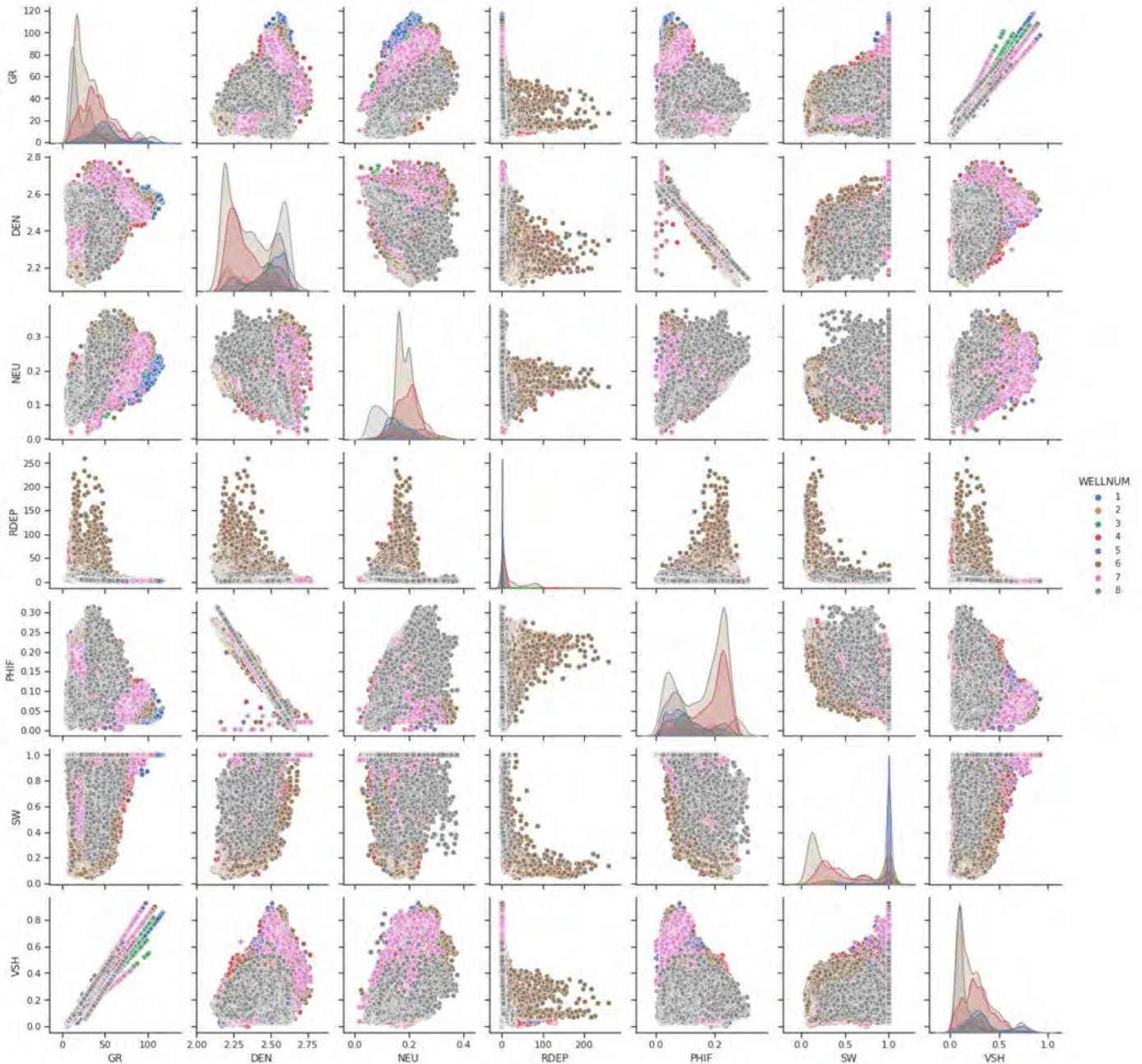


Fig. 1—Plot pairwise relationships of the data set.

## RESULTS

### Identifying the Features and Targets

We will use the first five data columns as the input features for the desired machine-learning task and the last three columns as the targets. We extract the feature vectors and the associated target vectors from the training and testing data set as:

```
X = df1[:, :-3]
Y = df1[:, -3:]
```

### Splitting the Data Set Into Training and Testing Data Sets

A standard practice before doing any further data preprocessing and training the supervised learning model is to separate the data into the training and testing data sets, where the testing set can be used to evaluate the generalization of the model in terms of overfitting or underfitting. Once the train-test split is performed, the test data set should not be touched to avoid information leakage from the testing data set to the training data set. The testing data set should be used only for purposes of evaluating the generalization capability of the model. In the code shown below, we used the first seven wells for training and the last well for validation purposes. The participants may apply different strategies to separate the training data set and testing set.

```
n = 29171
X_train, X_val = X[:n], X[n:]
y_train, y_val = Y[:n], Y[n:]
```

### Evaluation Metric

The performance of the model is measured by RMSE calculated from the well-log data:

$$RMSE = \sqrt{\frac{1}{m} \sum_{i=1}^m (\hat{y}_i - y_i)^2}$$

Here  $\hat{y}_i$  is the predicted values of the true values  $y_i$ . Both  $\hat{y}_i$  and  $y_i$  are vectors with three elements: PHIF, SW, and VSH.  $m$  is the sample size. PHIF, SW, and VSH are in the same weight during the evaluation. Understanding and optimizing the predictions for this evaluation metric is paramount for this competition.

### Training

After training on the `X_train` and `y_train`, the Random Forest regression model was then evaluated on the training data set. The Random Forest regressor exhibits a good performance on the test data set, which in terms of  $R^2$  is 0.9986 and RMSE is 0.0088. Figure 2 shows the predicted value vs. the original value for the first 1,000 data points of the training data set; we can see a very good match.

```
from sklearn.ensemble import RandomForestRegressor
RF = RandomForestRegressor(n_estimators=20, random_state=100)
pred_train = RF.predict(X_train)
```

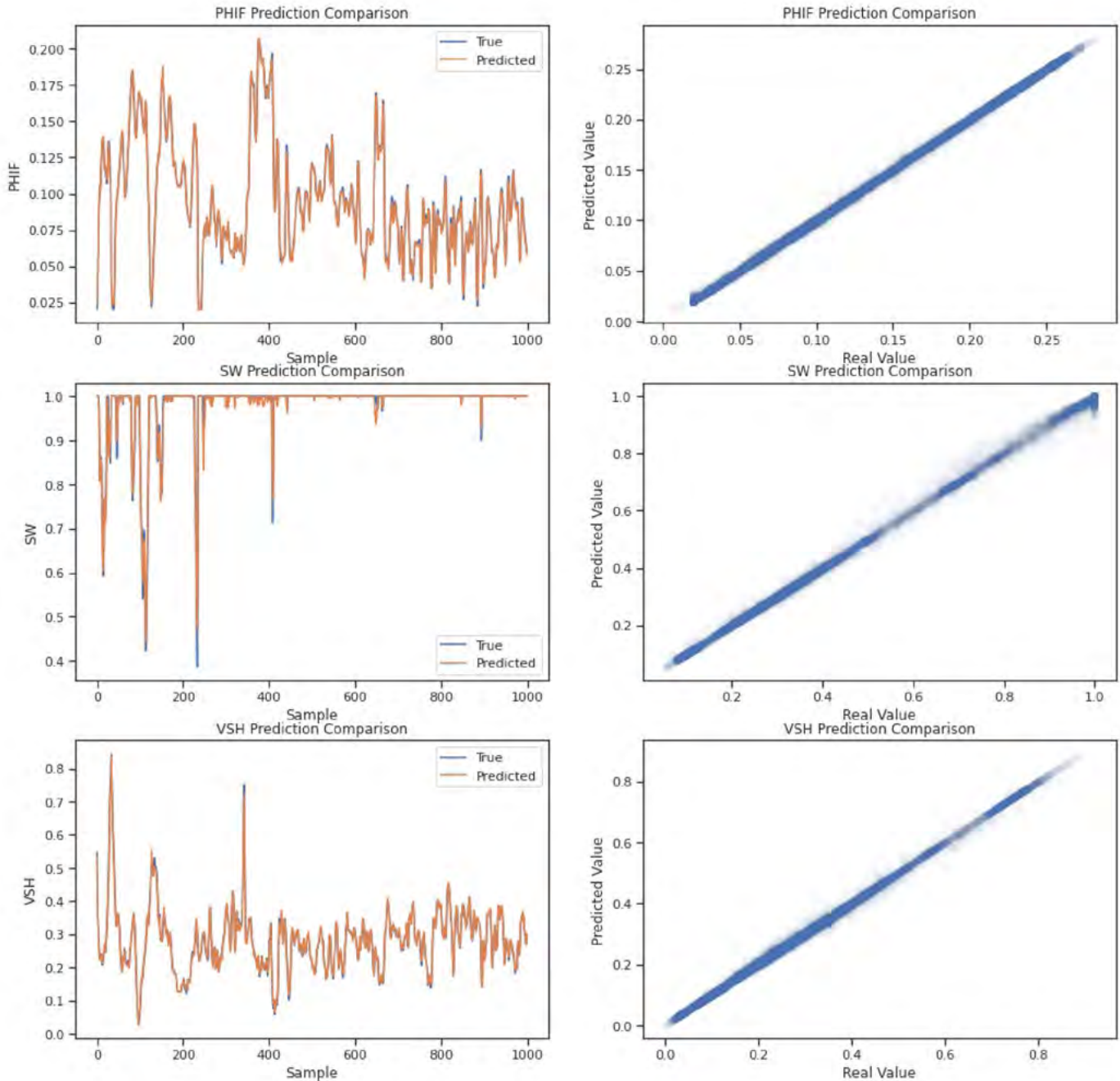


Fig. 2—Predicted values vs. true values of the training data set.

### Validation

The Random Forest regressor is then applied to the validation data set. The model still performs very well on the validation data set, which in terms of  $R^2$  is 0.8764 and RMSE is 0.0948.

```
pred_val = RF.predict(X_val)
```

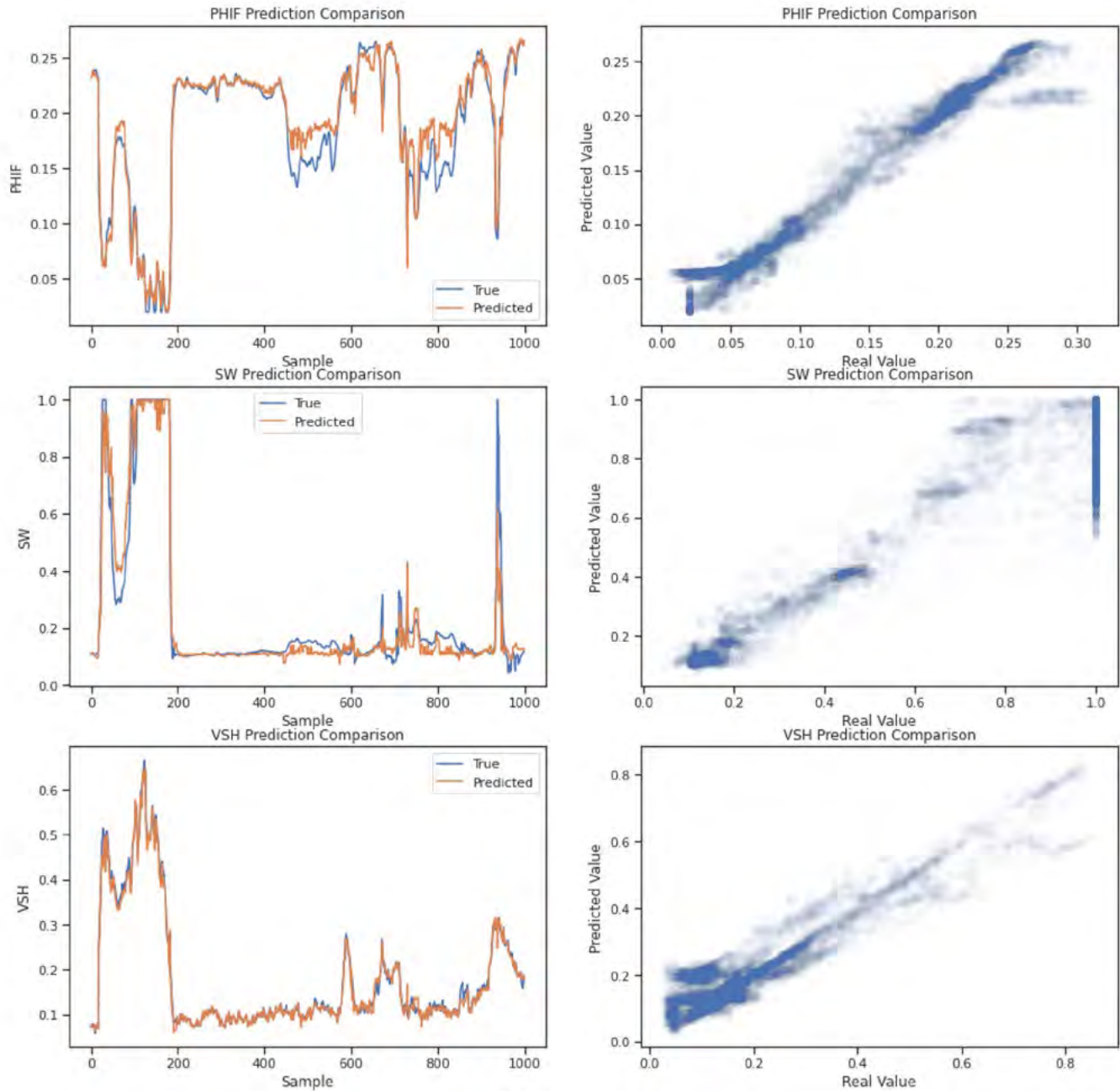


Fig. 3—Predicted values vs. true values of the validation data set.

## DISCUSSION

There are many things worth further exploration. We list several of them here:

1. Select the most relevant features.
2. Handle the missing values in better ways.
3. Determine anomalous data points in better approaches.
4. Zonate the logs and train different models for different zones.
5. K-fold cross validate the model.
6. Apply more sophisticated models.



## CONCLUSION

In this tutorial, we demonstrate the machine-learning workflow on a practical petrophysical problem: preparing a data set, training and testing a regression model, and finally, testing the model on the unseen data. Libraries and open-source tools, such as scikit-learn provide powerful algorithms that can be applied to problems with a few lines of code, which greatly helps to facilitate the research of data science in the petrophysics area. In addition to the procedures mentioned above, many other methods may be applied to improve the performance and stability of the model, such as applying better treatments to the missing values and anomalies, train different models for zones with different lithologies, training other regression models, and/or combining them.

For more details about the data and code, please check the Github repo: <https://github.com/pddasig/Machine-Learning-Competition-2021>.

## ACKNOWLEDGEMENTS

A note of thanks goes to Equinor for releasing the Volve data set. We also thank the members of the SPWLA PDDA SIG ML Contest Committee for their contributions.

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- Yu, Y., Xu, C., Misra, S., Li, W., Ashby, M., Pan, W., Deng, T., Jo, H., Santos, J.E., Fu, L. and Wang, C., 2021, Synthetic Sonic Log Generation With Machine Learning: A Contest Summary From Five Methods, *Petrophysics*, **62**(4), 393–406.

## A Brief History of Schlumberger, Part 4

By Mark Mau

**ABSTRACT:** Founded by the two brothers Conrad and Marcel Schlumberger in Paris in 1926, Schlumberger started its life as an electrical prospecting and well logging company. It gradually spread its activities on the oil field and today stands as the world's leading provider of upstream technology to the oil and gas industry. In 2015, it had a 12% market share among the top 400 service companies, and it is the most important developer of new technologies with no other company matching the research and development expenditures of Schlumberger.

Explaining company milestones and key periods of Schlumberger's history, this article portrays its leaders and shows their impact on the evolution of the company. It argues that the company culture embodied by the values of people, technology, and profit has been and still is crucial for the company's growth and success.

**DISCLAIMER:** The views expressed in this article are those of the author and do not necessarily reflect the views of Schlumberger management.

"A Brief History of Schlumberger" initially appeared in the 2016 *Oil-Industry History*, Volume 17, pages 111–140. It is reprinted with permission from the Petroleum History Institute, publisher of *Oil-Industry History*.

This is the fourth installment of a six-part series.

### FROM FAMILY ENTERPRISE TO MODERN COMPANY (cont'd)

In May 1965, Pierre Schlumberger was succeeded by the lawyer and former investment banker Jean Riboud (Fig. 9). Riboud and the Schlumbergers had known each other for a long time. Jean Riboud's father was a close friend of Maurice Schlumberger, Conrad and Marcel Schlumberger's brother.



Fig. 9—Jean Riboud (1919–1985), President and CEO of Schlumberger Limited from 1965 to 1985 (courtesy of Schlumberger).

## A Brief History of Schlumberger, Part 4

Often, they went on holidays together. During World War II, he joined the French Resistance, was captured in August 1943, and survived two years in the Buchenwald concentration camp until released by the American forces in May 1945. His fellow student Yves Le Portz who was captured by the Nazis with Riboud remembered that Jean emerged as a leader at Buchenwald. “He taught himself German and a few months after entering the camp, Jean was the official German interpreter for the prisoners—and he’d read German newspapers to them.”<sup>42</sup>

After the war, Riboud worked for André Istel’s investment bank in New York. Istel was a banking partner of Maurice Schlumberger, and a third of the bank’s advisory business was with the Schlumberger company or with the family itself. In 1951, Jean Riboud joined Schlumberger as a financial advisor to Marcel Schlumberger. Only six years later, he was running the SPE with its European and overseas business, excluding the Americas.<sup>43</sup>

Riboud sympathized with the French socialist movement, and he would later become a close friend of François Mitterand, leader of the Socialist Party and President of France from 1981 to 1995. But he was convinced that there was no conflict between his political beliefs and his business. “He had a very moralistic approach to life, whether it was business or politics,” says Felix Rohatyn, who served on the Schlumberger board in the 1980s and became Riboud’s closest American friend. For Riboud, Schlumberger should have the highest possible ambitions. He was well known for the memorable motto: “It is not enough to be the best, to be number one. A great company must strive for perfection.” For Riboud, the key to success was people. He had a deep belief that people matter; “loving people, respecting people” were his main principles during his tenure as leader of Schlumberger.<sup>44</sup>

As CEO, one of Jean Riboud’s first decisions was to move the company’s headquarters from Houston to New York. In a speech before the Boston Security Analysts Society in October 1965, Riboud said, “The growth of our international business, our broad entry into electronics and instrumentation business in contrast with serving only the oil business made the move to New York City logical. New York will facilitate communications with our stockholders and the financial community.”<sup>45</sup>

Riboud was determined to make clear that he, not the family, was running Schlumberger. In 1965, members of the Schlumberger family still owned 50% of the stock, whereas the other half was owned by 9,000 different stockholders, including a long list of trusts and pension funds. “Schlumberger is and will be managed as a public company,” Riboud underlined in his Boston speech. For Riboud, moving headquarters to New York also meant not having the handicap of working in an environment where the family and especially Pierre Schlumberger were deeply rooted. New York offered an acceptable neutral ground for the Parisian executive. Riboud’s strategy would soon prove successful: In 1973, only 35% of shares were owned by the family, 10 years later that number would decrease to 25%.<sup>46</sup>

The management structure was changed from a geographical organization—Western and Eastern Hemisphere—to a functional organization along product lines to ensure more direct management and more efficient coordination of research, manufacturing, and sales. Riboud created two main divisions: One division for all Schlumberger oilfield services, and one division for all Schlumberger instrumentation and electronic companies worldwide. Riboud strongly supporting the diversification strategy: “I have heard the same questions asked many times. You have a strong company in your own field; why did you go into a difficult, competitive, new business such as electronics and instrumentation? The rationale behind this basic move of Schlumberger is simple.” He said in his 1965 speech in Boston, “Schlumberger from day one has been in the instrumentation business. In the oil fields, we use instrumentation to measure various parameters. Our sondes down the borehole are the basic transducers or sensing elements. We transmit and record data. These are the basic functions of any instrumentation system. We have always been a technically oriented company. It was logical to apply our experience and technical knowhow, gained in the oil service business, to other areas of instrumentation.”<sup>47</sup>

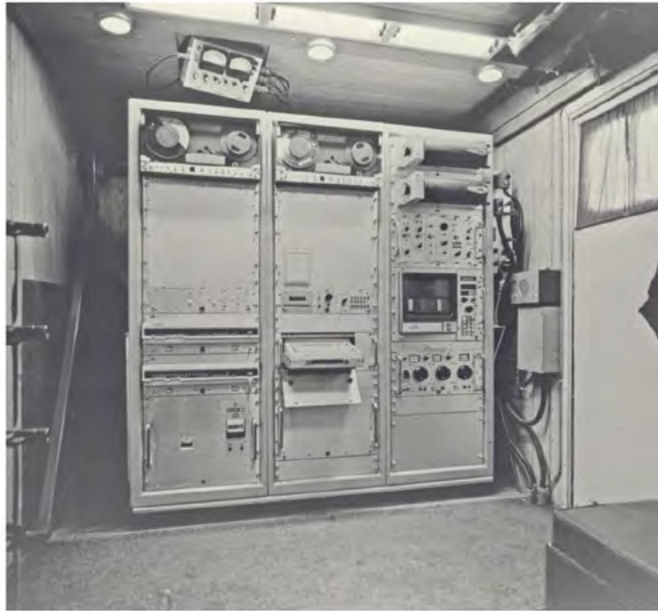
During the late 1960s, Schlumberger benefited from a widely increased use of digital electronics and a surge in offshore drilling, resulting in steady growth of revenue and profits (approx. 10% annually from 1965 to 1969). This allowed Riboud to continue acquiring electronics companies. When Schlumberger in 1970 acquired Compagnie des Compteurs, a world-leading French manufacturer of utility meters, it tipped the balance towards non-oil and gas activities. From 1970 to 1975, electronics was the major source of income. During the late 1970s, semiconductors had started to replace electronic valves in downhole tools, and in 1979, Schlumberger acquired Fairchild Camera and Instrument Corporation, a leading American semiconductor manufacturer, to the electronics division. Two years later, Schlumberger started work on “smart” cards, plastic cards embedded with microchips, when it received an order from a group of French banks for a pilot series of a new electronic credit card developed by Flonic, a Schlumberger subsidiary created from the water, gas, heat, and mechanical divisions of Compagnie des Compteurs in 1977 (Fig. 10).<sup>48</sup>



**Fig. 10**—Semiconductor production at Fairchild Camera and Instrument Corporation that was a part of Schlumberger from 1979 to 1987. Silicon wafers in process at the Fairchild South San Jose plant, California, in 1980. Each wafer contained several hundred large-scale integrated circuit chips (courtesy of Schlumberger).

Many of the instrument and electronic companies Schlumberger took over during the 1960s and 1970s were running at a deficit at the time of acquisitions and took years to make profitable. The *Compagnie des Compteurs*, for example, didn't get out of the red before 1977—quite in contrast to its wireline division that operated with huge profit margins, sometimes reaching 40 or even 50%. However, it has to be said that competition in electronics was far greater than in the oilfield business.<sup>49</sup>

The oil price spikes in 1973 and 1979 boosted oilfield revenues, resulting in the share of oilfield activities rising to 70% of revenues during the early 1980s. R&D was significantly strengthened, with Schlumberger developing new advanced wireline technologies. In 1977, the first Schlumberger logging truck equipped with a computer entered the field as part of the Cyber Service Unit (CSU) (Fig. 11), and in 1980, the company commercialized measurement while drilling (MWD), combining elements of wireline logging with real-time data transmission. MWD incorporates the measurement tools into the drillstring and pulses the drilling mud to transmit data to help with steering the drill and to evaluate the formation.<sup>50</sup>



**Fig. 11**—A Cyber Service Unit (CSU), which was mounted inside the first digitized logging trucks in 1977 (courtesy of Schlumberger).

The high oil prices of the 1970s and early 1980s propelled Schlumberger to heights never seen before. In 1978, *Dun's Review* placed Schlumberger among the five best-managed companies in the world (the other four were Boeing, Caterpillar Tractor, Continental Illinois, and General Electric). The boom years at Schlumberger reached their peak in 1982. Seven out of every ten logs in the world were taken by Schlumberger. The firm's hold on the wireline logging business rivaled that of IBM's in computers. When management gurus Thomas Peters and Robert Waterman in 1982 published their bestseller *In Search of Excellence: Lessons from America's Best-Run Companies*, Schlumberger was one of the chosen 43 corporations. The company's annual results showed sales of \$6.2 billion and profits of \$1.3 billion, a staggering 21% ratio that made Schlumberger the most profitable of the world's 1,000 largest corporations.<sup>51</sup>

The company's commitment to developing a global research network led to the opening of its Cambridge Research Center in England in 1982, focusing on drilling technology, fluids, seismic techniques, production logging, and rock mechanics. Cambridge was essentially the research center for all oilfield technologies that were not 100% wireline. The Fuchinobe engineering center in Japan was opened in 1985. This global research drive was complemented by pioneering use of computer connectivity to bring Schlumberger's widely spread operations together. In 1980, the company implemented its first international data links with e-mail. Five years later, Schlumberger deployed the Schlumberger Information Network (SINet), the first commercial intranet. In May 1987, Schlumberger was the 75th organization to register a ".com" domain, [www.slb.com](http://www.slb.com). Almost all its predecessors were computer companies.<sup>52</sup>

The mid-1980s saw Schlumberger's continued expansion into other domains of the oil field. Drilling was strengthened through the purchase of the SEDCO drilling rig company, the operator of the largest fleet of semisubmersibles in the world, and 50% of Dowell of North America in 1984, which resulted in the creation of a worldwide cementing and stimulation business. The acquisition of 50% of GECO A.S., a Norwegian provider of offshore geophysical services, mainly in the North Sea and the United States, in 1985 signaled the start of a long-term commitment to the seismic measuring sector.<sup>53</sup>

But by 1985, the oil boom had passed its climax. The years from 1982 to 1985 were difficult for Schlumberger. Drilling experienced a prolonged slump, and Fairchild was being hurt by two recessions in the semiconductor industry, one in 1981–82 and another, the most severe till then, in 1985, and kept reporting losses. Schlumberger's net income fell to US\$ 351 million with a slim profit margin of 5.3% in 1985.<sup>54</sup>

As if problems couldn't get bad enough, Jean Riboud died of cancer on October 22nd, 1985. Three years earlier, he had already designated Michael Vaillaud as his successor (Fig. 12). Vaillaud, a former director of hydrocarbons in the French Ministry of Industrial and Scientific Development, had joined Schlumberger in 1973. He had served as head of the company's electronics division in Europe before he in 1981 became responsible for the oilfield service business. From 1982 to 1985, he was the company's chief operating officer. In September 1985, Vaillaud was elected chairman and CEO of Schlumberger Limited.<sup>55</sup>



Fig. 12—Michel Vaillaud (born 1931), Schlumberger's CEO from September 1985 to October 1986 (courtesy of Schlumberger).

Alas, shortly after, the oil industry was hit by a severe market turmoil never seen before. A combination of weaker demand, a tremendous oversupply that had built up since the early 1970s and OPEC's decision against production cuts in November 1985 resulted in the price of oil dropping from US\$ 30 to barely 10 within a few months. The resulting steep decline in business led to Schlumberger's first full-year loss of US\$ 2 billion in 1986. It was a severe crisis for the company, and Vaillaud wasn't able to find the right solutions for the problems at Schlumberger and the challenging business climate. In October 1986, the board of directors decided that Michel Vaillaud had to step down and be replaced by Euan Baird, the head of the company's worldwide Wireline operations.<sup>56</sup>

### ~To be continued~

<sup>42</sup> AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, pp. 32, 37

<sup>43</sup> AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, pp. 39, 44, 53

<sup>44</sup> AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, p. 15; AULETTA, Ken, 1985, The noblest capitalist of them all: *Daily News*, October 28; and "Board meeting of September 11, 1985" in Schlumberger Limited Paris archives, SLP- 09B06, case 1

<sup>45</sup> RIBOUD, Jean, 1965, Presenting Schlumberger Limited: *Inter-com*, no. 129 (December 1965), pp. 1-5;

<sup>46</sup> "Euan Baird nouveau patron de Schlumberger," *Le Matin de Paris*, October 3, 1986; "It's "Slumber-Jay" and it's a money gusher," *Fortune*, September 1973; "Oil industry problems profit Schlumberger," *Investor's Reader*, May 1973; and RIBOUD, Jean, 1965, Presenting Schlumberger Limited

<sup>47</sup> RIBOUD, Jean, 1965, Presenting Schlumberger Limited; and SCHLUMBERGER, ed., 1966, *Annual Report 1965*: New York, Schlumberger Limited

<sup>48</sup> ATTAL, Claude, 1984, Schlumberger: analyse d'une stratégie: *Revue de l'Énergie*, no. 369 (December 1984), pp. 811-824; AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, pp. 172-173; MANNERS, David, and TSUGIO, Makimoto, 1995, *Living with the Chip*: London, Chapman & Hall, pp. 130-134; MARTIN, Jonathan, and SALAMIE, David E., 2004, "Schlumberger Limited", p. 369; SCHLUMBERGER, ed., 1967, *Annual Report 1966*: New York, Schlumberger Limited; SCHLUMBERGER, ed., 1970, *Annual Report 1969*: New York, Schlumberger Limited; SCHLUMBERGER, ed., 1971, *Annual Report 1970*: New York, Schlumberger Limited; SCHLUMBERGER, ed., 1976, *Annual Report 1975*: New York, Schlumberger Limited; SCHLUMBERGER, ed., 1982, *Annual Report 1981*: New York, Schlumberger Limited; SCHLUMBERGER, ed., 1990, *Annual Report 1989*: New York, Schlumberger Limited; and Chronology of Schlumberger Transactions, July 28, 1997, in Schlumberger Limited Paris archives, SLP-06A05, case 2

<sup>49</sup> ATTAL, Claude, 1984, Schlumberger: analyse d'une stratégie

<sup>50</sup> SCHLUMBERGER, ed., 1983, *Annual Report 1982*: New York, Schlumberger Limited; [www.slb.com/about/history/1970s.aspx](http://www.slb.com/about/history/1970s.aspx); and [www.slb.com/about/history/1980s.aspx](http://www.slb.com/about/history/1980s.aspx)

<sup>51</sup> AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, p. 144; PETERS, Thomas, and WATERMAN, Robert, 1982, *In Search of Excellence: lessons from America's best-run companies*: New York: Harper & Row; and MARTIN, Jonathan, and SALAMIE, David E., 2004, "Schlumberger Limited", p. 369; "A singular and mysterious giant," *Forbes*, October 30, 1978; and "The five best-managed companies," *Dun's Review*, v. 12, no. 6 (December 1978), pp. 29-47

## A Brief History of Schlumberger, Part 4

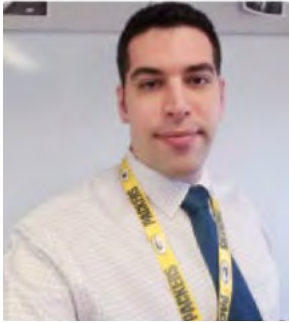
<sup>52</sup> [www.slb.com/about/history/1980s.aspx](http://www.slb.com/about/history/1980s.aspx)

<sup>53</sup> SCHLUMBERGER, ed., 1985, *Annual Report 1984*: New York, Schlumberger Limited; [www.slb.com/about/history/1970s.aspx](http://www.slb.com/about/history/1970s.aspx); and [www.slb.com/about/history/1980s.aspx](http://www.slb.com/about/history/1980s.aspx)

<sup>54</sup> NATIONAL RESEARCH COUNCIL, ed., 1992, *U.S.-Japan Strategic Alliances in the Semiconductor Industry: Technology Transfer, Competition and Public Policy*, Washington (D.C.), National Academies Press, p. 28; "A tough act to follow at Schlumberger," *Business Week*, September 30, 1985; "Schlumberger: Jean of Schlumberger," pp. 176-177; and MARTIN, Jonathan, and SALA MIE, David E., 2004, "Schlumberger Limited", p. 369

<sup>55</sup> AULETTA, Ken, 1984, *The Art of Corporate Success: The story of Schlumberger*, p. 178; "Schlumberger says Vaillaud elected Chairman, Chief," *The Wall Street Journal*, September 12, 1985; and Jean Riboud's internal communication about the election of Michel Vaillaud as his successor, Paris, September 11, 1985, in Schlumberger Limited Paris archives, SLP-09B03 Jean Riboud, biographical sketches, case 3 (1966-1983)

<sup>56</sup> SCHLUMBERGER, ed., 1987, *Annual Report 1986*: New York, Schlumberger Limited; VAILLAUD, Michel, 1986, Presentation to the New York Society of Security Analysts, May 27, 1986: New York: Schlumberger Limited; and Schlumberger Limited press release about the CEO and Chairman succession, Paris, October 1, 1986, in Schlumberger Limited Paris archives, SLP-09B02 Michel Vaillaud, biographical sketches, case 1 (1972-1988)

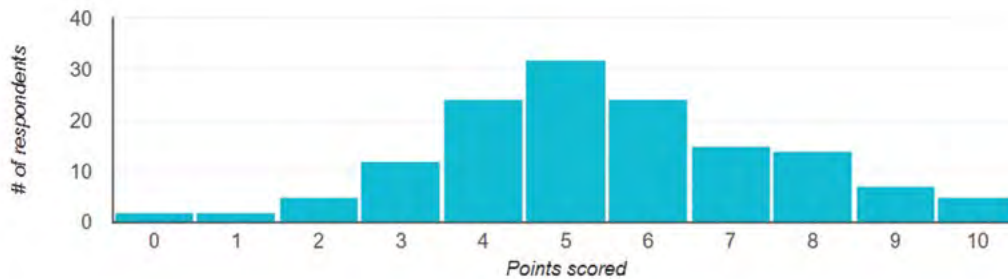


Hello Intrepid SPWLA Quiz Takers:

It has been another eventful quiz. I think this one was a little more difficult or perhaps too sneaky. After 142 responses, the median score was only 5 points, which is not a great median. I take the blame for writing poorly worded questions. We will be putting a new quiz up, and if you are reading this and thinking “What Quiz?,” check the SPWLA social media channels. One of the questions I should have thought twice about was the one regarding vertical resolution. I had to reword the question twice during the quiz because respondents pointed out how different tools showed what I thought was the correct answer to be incorrect. There are just too many possible tool combinations. I will try to do better next time.

<b>Average</b> 5.48 / 10 points	<b>Median</b> 5 / 10 points	<b>Range</b> 0 - 10 points
------------------------------------	--------------------------------	-------------------------------

Total points distribution



## Frequently missed questions ?

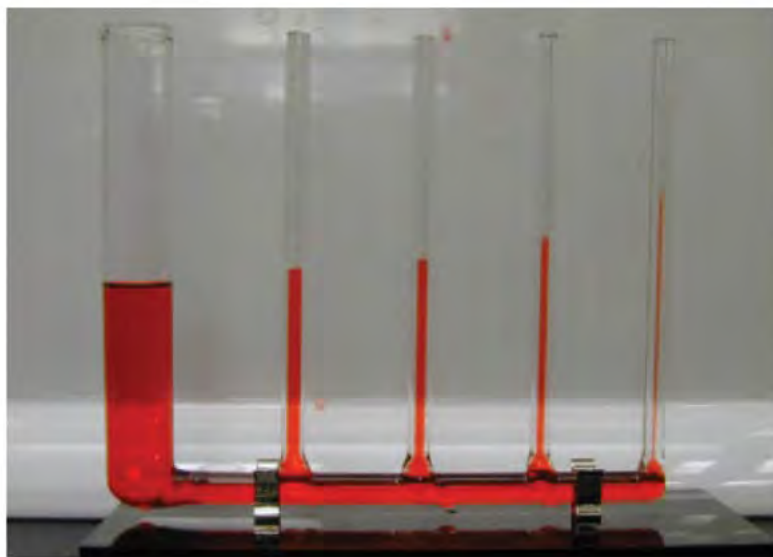
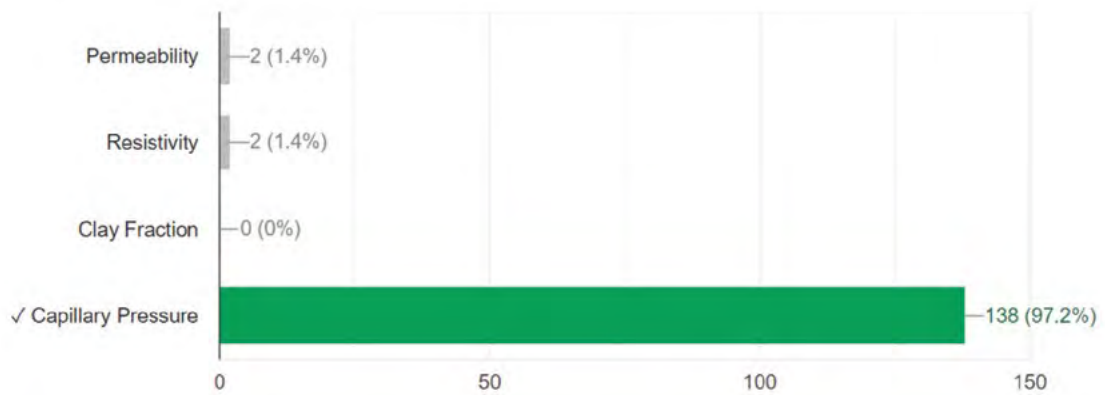
Question	Correct responses
Dielectric logging tools actually measure what property?	38 / 142
Henri Darcy famously discovered the principles of permeability while building a water supply system for what French city?	62 / 142
In general, of the below tools, which has the best vertical resolution?	27 / 142



What can I say? You guys can smell a capillary pressure question from a “mile away.”

In petrophysical education this photo (or one like it) is often used to teach what concept?  
(photo credit to MIT)

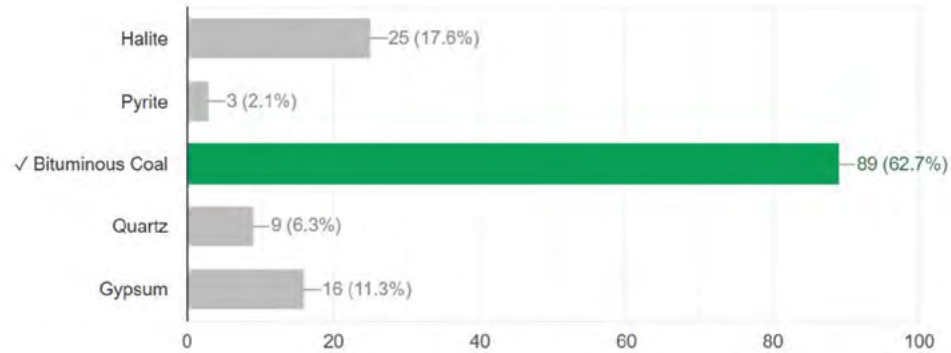
138 / 142 correct responses



I tried to be a bit sneaky here by putting gypsum and halite in, but you guys didn't fall for it.

Of the below minerals, which most closely matches a density of 1.3 g/cc?

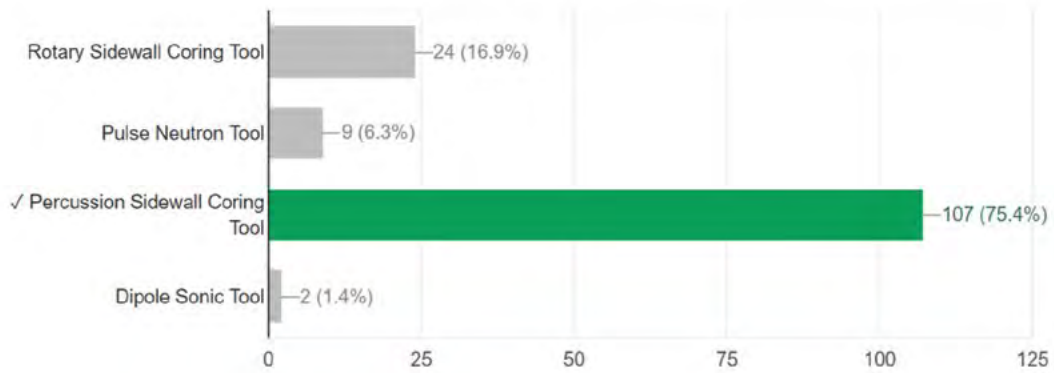
89 / 142 correct responses



This is, of course, a picture of a percussion coring gun. How many of us have spent late nights loading one of these tools for a rush job that just came up?

The following is a picture of what type of logging tool? (Photo Credit to Baker Atlas)

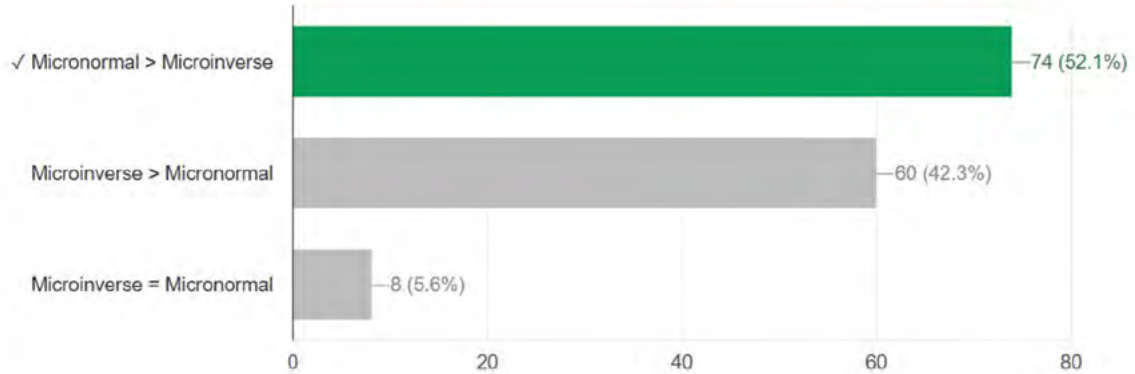
107 / 142 correct responses



A bit of a persnickety question since you really have to remember your microlog theory. I can't make it too easy for everyone!

In microresistivity logging (microlog), the presence of permeability is indicated by what?

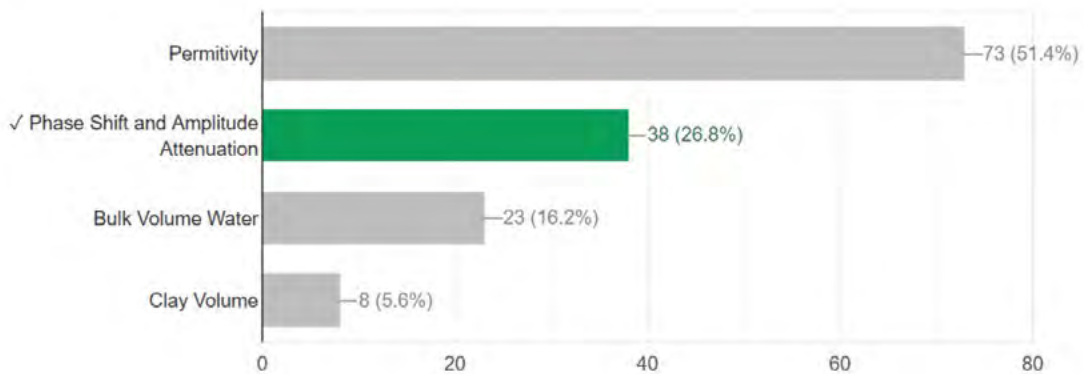
74 / 142 correct responses



It looks like my curveball worked on this one. Many of you went for the red herring of permittivity since it was the first option.

Dielectric logging tools actually measure what property?

38 / 142 correct responses

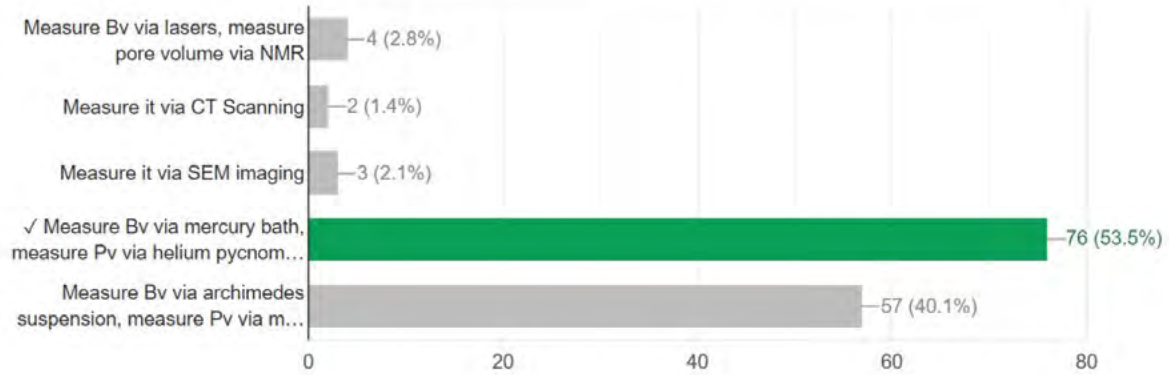


## Petrophysics Quiz and Delightful Statistics by Adam Haecker

The giveaway on this one was mercury for bulk or mercury for pore volume. While MICP is a valid way to measure pore volume, it is typically not the first thing people try. We generally do helium pycnometry for grain density and mercury immersion for bulk volumes

In core analysis, how is porosity typically calculated? Bv = bulk volume ; Pv = pore volume

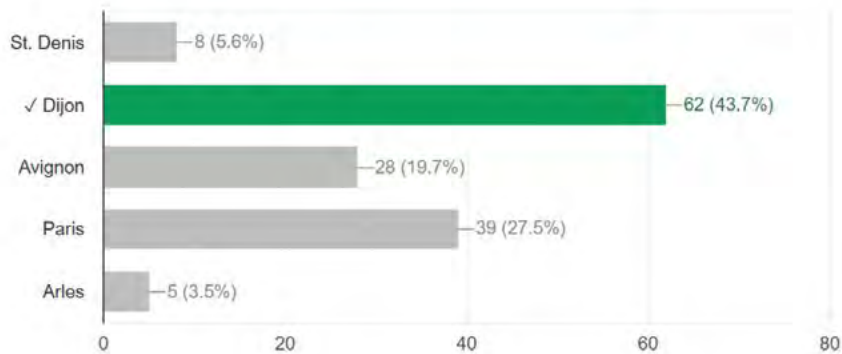
76 / 142 correct responses



Today in Dijon, there is a garden in Henri Darcy's honor called Jardin de Darcy. Click the [link](#) to see it in Google Maps.

Henri Darcy famously discovered the principles of permeability while building a water supply system for what French city?

62 / 142 correct responses



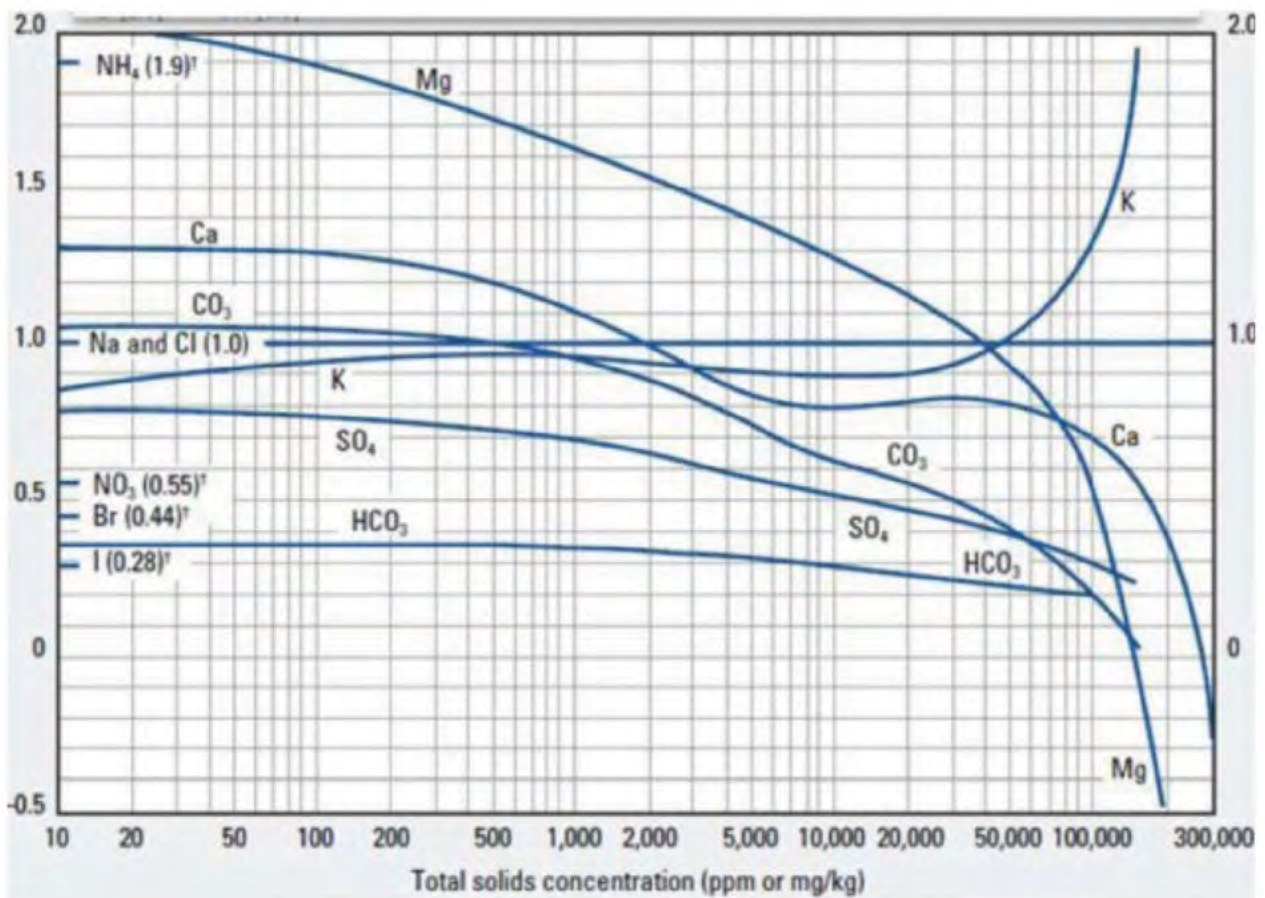
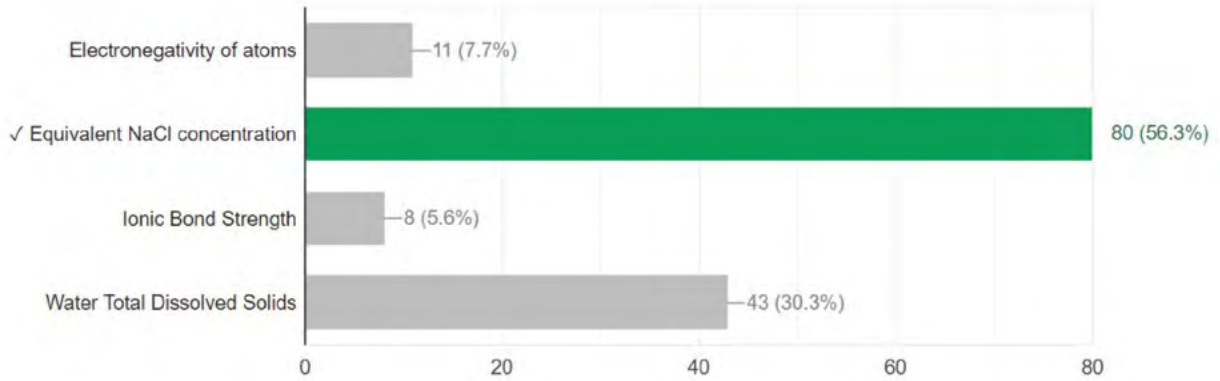
# Petrophysics Quiz and Delightful Statistics by Adam Haecker

The below chart has been found in chartbooks for years but may not be used that much compared to the RW to NaCl chart.

The below chart is used to calculate what property? Chart courtesy of Schlumberger and S. Mark Ma



80 / 142 correct responses



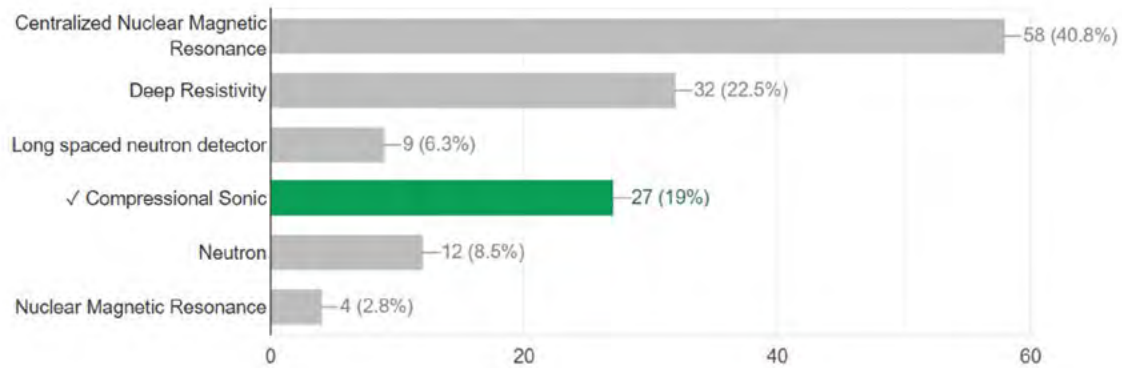
## Petrophysics Quiz and Delightful Statistics by Adam Haecker

I regret this question because some of these tools have huge variances in vertical resolution. Some are pad tools; some are centralized. I will do better next time. Sorry for those who missed it and felt like they were robbed.

In general, of the below tools, which has the best vertical resolution?



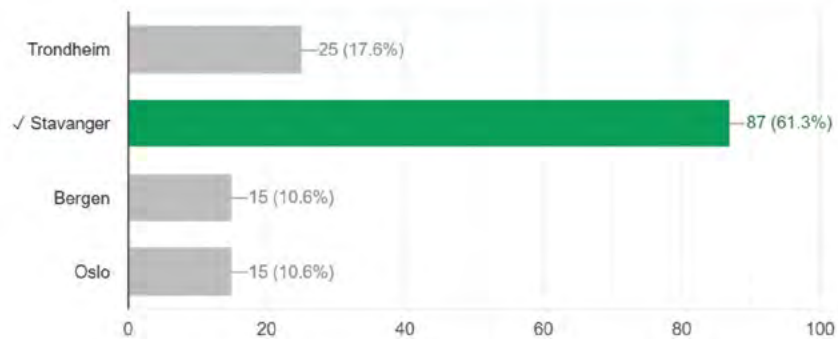
27 / 142 correct responses



This one should have been obvious, hopefully, if you have been paying attention to the upcoming symposium. I hope to get a chance to visit Pulpit Rock next year before or after the symposium.

Seen at the end of the movie Mission Impossible: Fallout. Tom Cruise fought Henry Caville on a rock formation called Pulpit Rock near what Norwegian city that may or may not be hosting a SPWLA symposium?

87 / 142 correct responses



# SPWLA THIRD BOARD OF DIRECTORS MEETING

## REMOTE

### SEPTEMBER 8, 2021

President Katerina Yared called the meeting to order at 8:02 a.m. In attendance, President-Elect, Tegwyn Perkins, Vice President Technology, Carlos Torres-Verdin, Vice President Education, Fransiska Goenawan, Vice President Finance, Secretary and Admin, Adam Haecker, Vice President Publications, Songhua Chen, Vice President Information Technology, Harry Xie, Vice President, Mathilde Luycx, Regional Director N. America 1, Robin Slocombe, Regional Director N. America 2, Matthew Blyth, Regional Director Europe, Eva Gerrick, Regional Director Middle East/Africa, Nelson Suarez, Regional Director Asia Pacific/Australia, Ryan Lafferty, Director Latin America, Bruno Menchio Faria and Executive Director, Sharon Johnson.

**A motion made by** Vice President Education, Fransiska Goenawan to give a 10% net profit compensation to the PDDA SIG for partnering in the 2022 Spring Topical Conference, was seconded by Regional Director N. America 2, Matthew Blyth. This motion passed by majority vote.

**Action Item:** Vice President Information Technology, Harry Xie to research and explore new website options.

2021-2022 IT Committee Members: Vice President Information Technology, Harry Xie, Vice President Finance, Secretary and Admin, Adam Haecker, President-Elect, Tegwyn Perkins, Regional Director Middle East/Africa, Nelson Suarez, President Katerina Yared.

**Action Item:** Executive Director, Sharon Johnson to immediately pay the Advanced Solutions membership/ website subscription agreement for a period of 1 year (Sept 30, 2021 – Sept 30, 2022), 2 users licenses.

**Action Item:** Vice President Finance, Secretary and Admin, Adam Haecker to review the annual employee medical insurance quotes for renewal with committee members President Katerina Yared, President-Elect, Tegwyn Perkins, Vice President Information Technology, Harry Xie.

**Meeting adjourned 12:05 pm**

Respectively Submitted by  
Sharon Johnson  
Executive Director

**BOD meeting schedule:**

Wednesdays at 8 – 11 am CST  
November 17, 2021  
January 19, 2022  
March 9, 2022  
May 11, 2022

Meetings will held in person at the SPWLA Business Office Houston or Remote via GoToMeeting.

# Chapter News

## ABERDEEN CHAPTER (Aberdeen Formation Evaluation Society)

### Upcoming Events

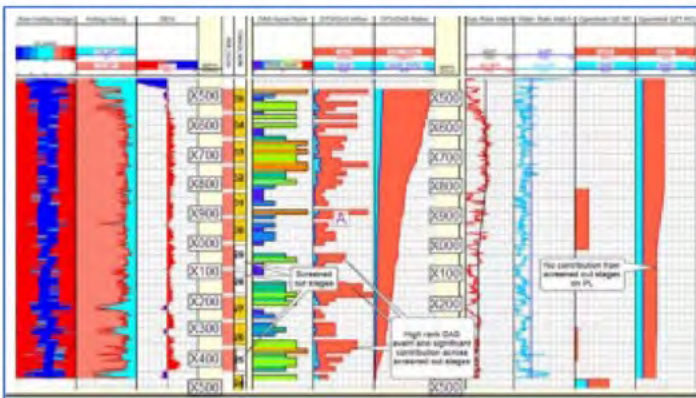
AFES has events planned and is also in the planning stages for the winter period 2021 into 2022. Please check our website ([www.afes.org.uk](http://www.afes.org.uk)) or contact Greg Blower @ [President@afes.org.uk](mailto:President@afes.org.uk) for details. We are also available on Facebook and LinkedIn.

**DEVEX 2022:** AFES, along with PESG and SPE, produce the Aberdeen-based DEVEX Conference each year. The call for abstracts is now out. More details, including how to submit abstracts, can be found by simply searching “DEVEX 2022.”



### Recent Events

18 August 2021—AFES hosted Yegor Se (Chevron), who talked about the “Lessons Learned From Cross-Validation of Fiber Optics and Production Logging Cluster Performance Assessment in Unconventional Wells.” This was a web-based event.



11 September 2021—Martin Leonard (PetroMaxc) spoke about wireline tool deployment in highly deviated wells. This was a web-based event. PetroMac’s slide pack is available for review on the AFES website ([www.afes.org.uk/archives](http://www.afes.org.uk/archives)).



14 October 2021—AGM and Technical Talk. AFES’s first physical event in well over a year! We were delighted to offer this event to the membership at the Crown Plaza, Aberdeen Airport. The event was very well attended, and it was great to see many faces, old and new, at the event. The evening was loosely split into two sections: The first section was the AGM and a run through of AFES activities and Committee workings over the last year. Of note, the AFES Committee has expanded, and AFES would like to welcome in new Committee members Dorota Beckett (Premier), Grant Kelly (SunCor), and Gbolahan Odusi (Baker Hughes). The table below shows the new AFES Committee structure going into 2022:



Position	Current 2020-21	Proposed 2021-22
<b>Executive Committee</b>		
President	Greg Blower	
VP Technology (Lectures)	Chee Kong Chen	Chris Blair
VP Seminars	Stephen Morris	
Secretary	Girvani Ganeshalingam	
Treasurer	Neil Cardy	
Student Rep	Daniel Ronald	Morgan Barrington - Williams
Past President & Devex Rep	Ed Downer	
<b>Technical Sub Committee</b>		
Communications/Media Officer	Alex Kaye	
University Liaison Officer	Ebrahim Heydari	TBD
Sponsorship	John Banks	Damien Dennison
Additional Technical Sub Committee	Daniel Ronald John Banks Chee Kong Chen Tegwyn Perkins Jeremy Titjen Derek Littlejohn Craig Lindsay Dorota Beckett Grant Kelly Gbolahan Odusi	

The second part of the evening was a presentation from Russell Gray (TotalEnergies) on well depth and its measurement: "Lifting the Lid on Depth – Catastrophe or an Opportunity?" Slides from both the AGM aspect and the talk from TotalEnergies are available on the AFES website ([www.afes.org.uk/archives](http://www.afes.org.uk/archives)).

Finally, AFES would like to thank their ongoing sponsors:



**ARGENTINA CHAPTER**

**General News**

This committee meets almost monthly; we have already held seven meetings during 2021, and the different activities to be carried out are being outlined. During the first part of 2021, we achieved many goals, summarized in the following figure.



First quarter 2021 summary.

**SPWLA Distinguished Speakers.** We have new SPWLA Distinguished Speakers in our chapter. We congratulate Nicolás Carrizo Páez (YPF S.A. based in Neuquen, Argentina), who received this recognition, along with Pablo Saldungaray, another Argentine member currently based in the UAE.



Distinguished Speakers in the Argentina Chapter.

The **Argentina Student Chapter** is very close to being created. The members of the interim board are already proposed and waiting for global approval on November 17. The chapter will be made up of more than 40 students from different universities in the country. The spirit of the Argentina Chapter is clearly inclusive. The students are sponsored by four companies that kindly offered to participate in this beautiful opportunity. We hope that in the next issue of Chapter News, we can report more on the creation of this chapter. We thank Net Zero Carbon Solutions, Tecpetrol, Baker Hughes, and Emerson, who collaborated in taking charge of 10 student memberships for 2022.



First informational meeting, Argentina Student Chapter.

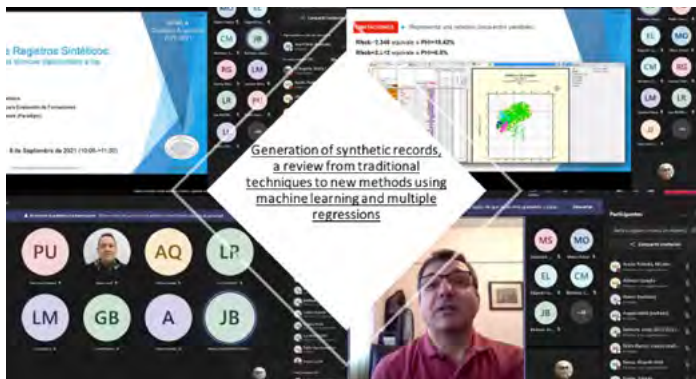
To normalize Argentina Chapter memberships, we strongly encourage professionals interested in our activities to enroll in one of the membership categories SPWLA offers. The results were amazing, and today we have more than 180 members of the Argentina Chapter YTD.

Due to the global pandemic, we are designing different formats of activities. We must be creative and take this situation as a great opportunity for professional and personal growth. To learn more about us, <https://www.linkedin.com/in/spwla-capitulo-argentina/> email: [spwla-capituloargentina@gmail.com](mailto:spwla-capituloargentina@gmail.com) IG: [spwla\\_arg](https://www.instagram.com/spwla_arg)

Event videos are available on our YouTube channel @ <https://youtu.be/1FqkDoeCbJU> <https://youtu.be/NxYilW10xQw> & [https://youtu.be/C\\_h4V26E9h4](https://youtu.be/C_h4V26E9h4) <https://youtu.be/1FqkDoeCbJU> <https://youtu.be/IFpVr7C0wWY>

#### Recent Events Open Talks Cycle

8 September 2021—Jorge Barboza (Emerson) presented a Distinguished Speaker presentation on “Generation of Synthetic Records, A Review From Traditional Techniques to New Methods Using Machine Learning and Multiple Regressions.” Pablo Uzzo moderated the talk.



Recent event on machine-learning methods.

10 October 2021—Gustavo Magenta (reference of LWD technologies, YPF S.A.), José Viramonte (technical reference in geosteering, YPF S.A.), and Matías Cánavea (geologist, geosteering) participated in a Distinguished Speakers presentation on “Challenges and Strategies in the Geosteering of Unconventional Reservoirs: YPF’s Experience in Vaca Muerta.” The event was moderated by Andrés Askenazi (geosteering leader, YPF S.A.). Members can access the video @ <https://youtu.be/IFpVr7C0wWY>.



The recent geosteering event about YPF’s experience in Vaca Muerta Formation.

**Proposed topics after September 2021 and other activities related to soft skills acquisition:**

Topics: Unconventional Reservoirs in Colombia; High-Resolution Petrophysics Using Resistivity Borehole Images, Magnetic Resonance Applied in Unconventional Reservoirs, etc. We propose formative and informative activities for students in the last steps of their career, which may also interest a general audience.

- HR topics
- Development of soft skills
- Interviews
- And any topic that reminds us to be a little more human



Topic “A Little More Human.”

**BOSTON CHAPTER**

**General News**

SPWLA general members and Boston-affiliate members are invited to browse our chapter website <http://boston.spwla.org> for up-to-date information on our mission and events, including event details and registration. Follow us on LinkedIn at <https://www.linkedin.com/in/spwla-boston/>.

**Recent Events**

Several members of the Boston Chapter have agreed to serve as Distinguished Speakers for the 2021–2022 season, based on their recent Symposium presentations:

- **Marie Lefranc**, with “Deep-Learning-Based Automated Sedimentary Geometry Characterization From Borehole Images”
- **Martin Poitzsch**, with “Nanotags for Improved Cutting Depth Correlation”
- **Michael Thiel**, with “Accurate Reservoir Mapping Using Deep-Directional Resistivity Measurements With 1D to 3D Imaging Inversions”
- **Nicholas Bennett**, with “Sonic Imaging Recent and Future Developments”

Stay tuned for their presentations in your local chapter or via a global webinar.

The new officers of the Boston Chapter continue to meet regularly to plan for upcoming meetings with invited speakers and local activities this fall.

**Upcoming Events**

Stay tuned for upcoming announcements of events on LinkedIn and our chapter webpage.

## BRAZIL CHAPTER

## General News

Since August 2020, our monthly meetings have been held online every third Tuesday of the month, at 4 pm (Brasilia Time). Anyone wishing to participate is welcome to join us. We also post chapter updates and meeting links on our LinkedIn page (SPWLA Brazil Chapter). Check us out. We decided to discontinue our Facebook page.

For further information about the chapter, please contact our secretary, Jesus Salazar ([Jesus.Salazar3@bakerhughes.com](mailto:Jesus.Salazar3@bakerhughes.com)). Membership to our chapter is free and can be claimed by filling out the form available at <https://lnkd.in/g4KQjYf>. 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!

## Recent Events

21 September 2021—We had speaker Armando Vianna, leader of the Well Construction Department for the Asia Pacific region in Baker Hughes. He has been dedicated to geosteering for the last 15 years in several positions and is the subject matter expert for deep and extra deep resistivity tools. His talk was entitled “A Novel Methodology in Reservoir Navigation for Quicklook Production Insights: A Case Study From a Mature Oil Field Offshore NW Sabah, Malaysia,” discussing the approach of integrating multiple services into real-time reservoir navigation.

19 October 2021—Milena Siqueira and Santiago Drexler presented “Petrophysical Workflow Optimization Using Digital Rock Analysis.” Milena has PhD in applied nuclear physics and is currently the technology team leader for Wireline and Perforating at Halliburton. Santiago has a PhD degree in chemical engineering and is currently a technical advisor and Ingrain Brazil Petrophysics team leader with Halliburton.




188ª Reunião Mensal

Terça-feira, 21 de setembro, 17h - Teams meeting

**A novel methodology in reservoir navigation  
for quicklook production insights:  
Case study from a mature oilfield offshore NW  
Sabah, Malaysia**

Armando Vianna

Well Construction Lead, Baker Hughes



Invitation to the September monthly meeting of SPWLA Brazil Chapter.




189ª Reunião Mensal

Terça-feira, 19 de outubro, 16h - Teams meeting

**Petrophysical Workflow  
Optimization using Digital  
Rock Analysis**

Milena Siqueira

Technology Team lead for Wireline &amp; Perforating - Halliburton

Santiago Drexler

Technical Advisor &amp; Ingrain Brazil Petrophysics Team Leader - Halliburton

Invitation to the October monthly meeting of SPWLA Brazil Chapter.

### CHINA UNIVERSITY OF PETROLEUM (BEIJING) STUDENT CHAPTER

#### General News:

The SPWLA Student Chapter of China University of Petroleum (Beijing) conducted an orientation meeting; many first-year post-graduates have joined us.

#### Recent Events

On September 2nd, the SPWLA Student Chapter of China University of Petroleum (Beijing) held an orientation meeting. At the meeting, Chairman Xiaozhuang Wang first gave a brief introduction to the Logging Association, then ministers in various departments introduced the specific work of their departments. Finally, Chairman Xiaozhuang Wang gave a summary and said that with the efforts of all of us, the chapter would become better and better in the future. After the meeting, the chapter added many new members. Among them, the office department added six members, the academic department added three members, and the network department and the propaganda department added four members each.

#### Upcoming Events

Next, we will organize the old members of the chapter to lead the new members to familiarize themselves with the work of the chapter so that the new members can exercise in future activities and make more contributions to the chapter. Thus, more students can join it.



New and old members attended the orientation meeting.

### DUBAI CHAPTER

#### General News

Dubai Chapter continues with online meetings, as usual being held every two months. Anyone interested is welcome to visit our profile on LinkedIn SPWLA Dubai Chapter or email us ([dubai@spwla.org](mailto:dubai@spwla.org)) to join the online events and ask any questions regarding the regional chapter.

#### Recent Events

13 October 2021—Ibrahim Milad presented his paper “Machine Learning to Predict Large Pores and Permeability in Carbonate Reservoirs Using Standard Logs.” It was a very informative presentation with plenty of questions at the end by the audience.



Speech by the Minister of the Academic Department of SPWLA.

### Upcoming Events

The next presentation will be scheduled for December, which is yet to be confirmed. It will be posted on the SPWLA Dubai Chapter LinkedIn Profile.

Dubai SPWLA chapter would like to thank GOWell for the generous sponsorship.



### DUTCH PETROPHYSICAL SOCIETY

#### Recent Events

9 September 2021—The Dutch Petrophysical Society held our most recent virtual quarterly meeting. The theme of the meeting was a hot topic in the Netherlands at present: “Geothermal Energy – Drilling and Petrophysical Challenges” with two well-received presentations: Arjen Bok (MWD coordinator, INCO drilling) who presented “Upper Rotliegend Schlochteren Geothermal Exploitation” discussing experiences drilling one of the most commonly targeted geothermal formations in the Netherlands. The second talk, “Making ‘Geothermal Anywhere’ a Reality: Addressing Technology Gaps and Needs” by Eric van Oort (professor of petroleum engineering and J.J. King Chair in Engineering, the University of Texas at Austin) discussed the challenges in realizing geothermal projects worldwide.

#### Upcoming Events

2 December 2021—As COVID regulations in the Netherlands are relaxing and we’re returning to normal, we will be holding our first in-person meeting since early 2020 at our usual venue KIVI in Den Haag. For this, we are planning something special: a panel discussion “The Future of Petrophysics” with a panel comprising key petrophysical stakeholders from industry, academia, and government in the Netherlands. For more details, visit the DPS website at [www.dps-nl.org](http://www.dps-nl.org), the DPS LinkedIn page, or sign up for the DPS mailing list at the DPS website. Following the meeting, we’ll be holding our traditional pre-Christmas social where we can take the opportunity to catch up over pre-Christmas drinks.

### FORMATION EVALUATION SOCIETY OF AUSTRALIA (FESAus)

#### General News

FESAus, the Australian chapter of SPWLA, combines the formation evaluation societies from around Australia, predominantly Western Australia, as well as FESQ, New South Wales, Victoria, and South Australia. Our meetings are held the second Tuesday of each month in person for those in Perth and online via a Schlumberger-hosted webinar. Webcasts of the presentations are also available soon after for members to review as they wish. We welcome new members to visit [www.fesaus.org](http://www.fesaus.org) for meeting information. From July, we’ve moved to sundowner formats, which have been received very well by our members and have increased the mingling and subsequent networking.

Our committee meetings are now held via Zoom as we all work in our various home offices, and we welcome new committee members with open arms.

#### Recent Events

12 October 2021—We had our half-day New Technology Forum featuring Hardware Solutions with presenters from the three service companies, Schlumberger, Weatherford, and Halliburton. Chevron hosted the theatre, lunch, and refreshments, and we had a good attendance from a range of companies, as well as welcoming a few new FESAus attendees. The topics covered were:

Fiber-Optic Application in Borehole Seismic Acquisition	Schlumberger
Focused Magnetic Resonance tool (FMR)	Weatherford
Geochemical Spectroscopy Instrument (GSI)	Weatherford
Latest Generation of Spectral Gamma LWD	Halliburton
IriSphere Look-Ahead While Drilling Service: Reduce Drilling Risks	Schlumberger
SWIFT – Formation Sampling in Ultra-Low Mobility Reservoirs With the Aid of Targeted Stimulation	Halliburton
De-Risking Reservoir and Fluid Data Acquisition Workflow With Spectra Sphere Fluid Mapping While Drilling Service	Schlumberger

- 10 August 2021—The illustrious Jennifer Market (Epiroc Kinetic) presented on “Mineral Logging for Oilfield Petrophysicists,” which had the audience thoroughly engaged as some were introduced to the full process of mining from exploration through to the processing of the rock. The suite of tools used in exploration was touched on, as well as the new technology of assaying within the mine sites with the speed of the drill and blast operations and the need for accurate data surprising many.
- 13 July 2021—Dr. Steve Cuddy presented a talk on “The Benefits and Dangers of Using Artificial Intelligence in Petrophysics” remotely to a very interested audience. It sparked a lot of technical questions as well as philosophical discussions afterward.



Wes Emery and Jennifer Market



Dr. Steve Cuddy

**Upcoming Events**

- 9 November 2021—Technical Presentation and Webinar with Zach John presenting “How 3D Geomechanics Is Providing Deeper Insights Into Solving Drilling and Reservoir-Related Challenges in the Life of a Field.”
- 14 December 2021—Technical Presentation and Webinar. For our final meeting of the year and Christmas talk, we have Ishtar Barranco presenting “Australian Carbon Capture and Storage.”

**2021 Committee Members**

<b>President/Treasurer</b>	Wesley Emery
<b>Vice President</b>	Martin Kennedy
<b>Company Secretary</b>	Vacant
<b>Vacant Assistant Treasurer</b>	Vacant
<b>Website Coordinator/ Data Standards Focal Point</b>	Diego Vasquez
<b>Monthly Meeting Coordinator Secretary/Social Coordinator/</b>	Zeyn Safarkhanlou
<b>Special Events and Awards</b>	Vacant
<b>Membership Coordinator</b>	Siobhan Lemmey
<b>New Technology Forum Coordinator</b>	Dunston D’Souza
<b>Education Group Leader</b>	Vacant
<b>Audio Visual Coordinator</b>	Nigel Deeks
<b>Sponsorship Coordinator</b>	Vacant
<b>Audio Visual Coordinator</b>	Yang Xingwang
<b>Newsletter Coordinator/ Inter-Society Liaison/</b>	Bronwyn Djefel
<b>New Technology Forum Coordinator/ Masterclass Coordinator Queensland Representative</b>	Sally Edwards
<b>Victoria Representative</b>	Ashish Datey
<b>NSW Representative</b>	Harris Khan
<b>South Australian Representative</b>	Matthew Pfahl

## FORMATION EVALUATION SOCIETY OF MALAYSIA (FESM)

### General News

FESM, a local chapter of the Formation Evaluation Society of Malaysia, is based in Kuala Lumpur. Technical meetings are held on the fourth week of each month. For meeting information, please visit our chapter website at [www.fesmkl.com](http://www.fesmkl.com).

### Recent Events

23 September 2021—FESM hosted a fifth Virtual Series Technical meeting for 2021 with the topic of “The Latest Development of NMR for Formation Evaluation From Core Analysis to Well Logging” by Dr. Harry Xie (NMR senior advisor, Core Laboratories). At the beginning of the talk, a brief introduction of basic NMR principles and petroleum applications were included, together with descriptions of applications, such as measurements of porosity, permeability, fluid saturations, wettability, and water uptake, etc. He also presented the latest development of the NMR techniques and NMR applications in laboratory core analysis and well logging, especially for unconventional reservoirs such as shale oil and gas.

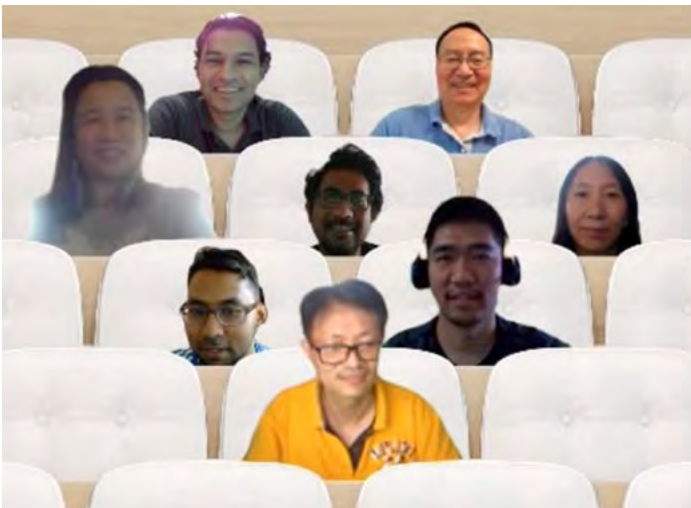


Photo taken on Microsoft Teams with Dr. Harry Xie (second from left, top row) with some attendees.

21 October 2021—FESM hosted the sixth Virtual Series Technical meeting for 2021 with the topic of “Mitigation of Geomechanical Risks for Long-Term CO<sub>2</sub> Geological Storage,” by Dr. Tan Chee Phuat (chief scientist geomechanics, PETRONAS Group Research & Technology (GR&T)). He addressed the numerous geomechanical

challenges and risks associated with CO<sub>2</sub> injection and geological storage during his talk. The presentation covered coupled geomechanical modeling assessment of CO<sub>2</sub> leakage risk associated with fault reactivation, failure of caprock, CO<sub>2</sub>-rock interaction, cooling of injected CO<sub>2</sub> on caprock and reservoir rock, and breach of completion integrity. The key geomechanical mechanisms and study workflow were described, followed by illustrations of coupled modeling results from various case studies.

## HOUSTON CHAPTER

### General News

The SPWLA Houston Chapter recently organized a virtual lunch with **Stephanie Perry** (chief petrophysical advisor, GeoMark Research). Originally, we planned the event to be simultaneously virtual and in person; however, we decided to switch the seminar to be completely online due to weather conditions. On September 13, Nicholas was upgraded to Category 1 hurricane, and, at that time, power outages were being reported across the Houston area due to the storm. We would like to thank Stephanie for presenting her work and accommodating the changes with such short notice.

We also hosted a happy hour event outdoors at the King’s BierHaus patio on September 30. Not only was this networking event fun, but it was well attended, including the presence of four former SPWLA International Presidents and local board members. With vaccinations (and boosters) now fully available for everyone in the United States, we are once again consistently promoting in-person events so that everyone can engage in fruitful interactions with fellow professionals in our industry. Of course, it is always recommended to follow the CDC’s guidelines and pay attention to trends and any announcement that might restrict such activities.

Furthermore, we would like to express our gratitude to **Ken Henry** for giving a talk on the “History of Oil in the Middle East.” It was a very informative and entertaining talk. Among the attendees, we had experts who worked for years in the Ghawar Field in Saudi Arabia, the biggest in the world. They greatly contributed to the discussions and storytelling after the talk about technical challenges in the field, work, and life in the Middle East.

As we continue our in-person events, we will be hosting the SPWLA Distinguished Speaker **Bernd Ruehlicke** (Eriksfiord Inc.), who will expand his presentation on “Taming the Thunder Horse with Axes and Vectors” on October 28. Additionally, we will host a virtual seminar with Bernd on November 18. We would also like to invite you for a lunch seminar with **Isaac Easow** (Geolog Americas Inc.) on December 8. Isaac will give a talk titled “Advanced Surface Logging Techniques Provide Cost Optimized Solutions for Reservoir Characterization.”



The SPWLA Houston Chapter will host a **Software Showcase** on December 10. A popular event among SPWLA members in Houston is back after three years. We will host the software show at the Hyatt Regency Houston West. This will be a one-day event with several great talks distributed during the day with plenty of opportunities for networking and seeing the latest advances in software development and applications to formation evaluation. More details will be shared soon on our chapter website, including registration. Companies interested in the exhibition and presenting during the day can contact us directly at [president@spwla-houston.org](mailto:president@spwla-houston.org) and [vpwestside@spwla-houston.org](mailto:vpwestside@spwla-houston.org)

If you would like to receive notifications of upcoming events and chapter news, please register on the new SPWLA Houston Chapter website. Additionally, there are multiple interesting sponsorship opportunities and job postings announced there. Please reach out to us if you are interested or would like to receive additional information. As always, we are open to new speakers in our seminars. We look forward to bringing other guests in addition to our SPWLA Distinguished Speakers if the topic is of interest to the petrophysics audience. Contact any board members if you have a presentation you would like to share.

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 included below.

**Recent Events**

- 15 September 2021—SPWLA Houston Chapter recently organized a virtual seminar with **Stephanie Perry** titled “Integrated Rock and Fluid Characterization Workflow.” This seminar was well attended, and we had a great Q&A session. We thank Stephanie for presenting her work to our chapter members and others from overseas interested in the topic.
- 30 September 2021—A significant group of members gathered to enjoy a beautiful evening with drinks and food on the patio of King’s BierHaus. Members of all ages, backgrounds, and experience had the opportunity to socialize while talking about technical or anecdotal events related to petrophysics. Attendees enjoyed it a lot and recommended continuing this type of activity. Four former SPWLA International Presidents and other local board members were in attendance, in addition to the Houston Chapter President.



- 11 October 2021—The SPWLA Houston Chapter supported the panel event organized by the SPE Gulf Coast. The panel of experts on the roles of CCS, geothermal energy, hydrogen technologies, and other energy alternatives in an ever-changing approach to manage energy resources, increase the efficiency of existing energy systems, and reduce their carbon footprint discussed applications in the energy transition. This event was well attended and complemented the recent online networking and job search event organized for members in transition in the Houston metro area.
- 13 October 2021—SPWLA Houston Chapter recently organized an in-person lunch seminar with **Ken Henry** about “The History of Oil in the Middle East.” This seminar was very informative and included many entertaining and curious stories about the industry, geology, and life experiences in the region. We thank Ken for sharing his experience with our chapter members and attendees.

**Virtual Industry Panel Event**  
Members in Transition

RELIABLE ENERGY IN AN ENERGY TRANSITION  
PANEL EVENT: OCT 11, 9 TO 11 AM (CST)

<b>STEVEN JOHNSON</b> SUT-103 Marilla Energy Resource Committee Chair	<b>GRANT STREM</b> Chairman & CEO Probita Technologies Canada Inc.	<b>SAEED SALEHI, PHD</b> Associate Professor University of Oklahoma	<b>CHRISTINE EHLIG-ECONOMIDES, PHD</b> Professor & University Chair University of Houston	<b>SCOTT FRAILEY, PHD</b> Principal Reservoir Engineer Illinois State Geological Survey	<b>NATHAN MEEHAN, PHD</b> 2016 SPE President President CMO Petroleum Consulting (Moderator)
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Register NOW at <https://www.spe.org/events/154>

- 28 October 2021—Lunch Seminar (11:30 am–1 pm) featured “Taming the Thunder Horse with Axes and Vectors,” by SPWLA Distinguished Lecturer and VP Westside by Bernd Ruehlicke (Eriksfiord, Inc.) at Houston – Helios Plaza, 201 Helios Way, Houston, Texas 77079.

### Upcoming Events

- 18 November 2021—Virtual Seminar (3–4 am)/(10–11 am) featuring “Taming the Thunder Horse With Axes and Vectors” by SPWLA Distinguished Lecturer and VP Westside Bernd Ruehlicke (Eriksfiord, Inc.).
- 8 December 2021—Lunch Seminar (11:30 am–1:30 pm) featuring “Advanced Surface Logging Techniques Provide Cost-Optimized Solutions for Reservoir Characterization” by Isaac Easow (Geolog Americas Inc.) at Geolog Americas, 10402 Valley Forge Dr., Houston, TX 77042.
- 10 December 2021—SPWLA Software Showcase (7:30 am–3 pm) at the Hyatt Regency Houston Westside, 13210 Katy Fwy, Houston, TX 77079. Registration for exhibitors and attendees will open soon! More details will be available soon on the Houston Chapter’s website: <https://www.spwla-houston.org/>.

**Supporting Student Chapters of SPWLA!** The Houston Chapter consistently supports great initiatives proposed by student chapters. The SPWLA Student Chapter at the University of Houston will be hosting “**The Ultimate Networking Event.**” SWPLA UH Bowling with the Professionals features a networking opportunity with SPWLA professional members from the Houston area. We will enjoy amazing food while bowling at the Student Game Center. This event provides the opportunity for SPWLA members to come together for exciting and energetic career networking where they can discuss the current trends in the oil and gas industry while having fun.

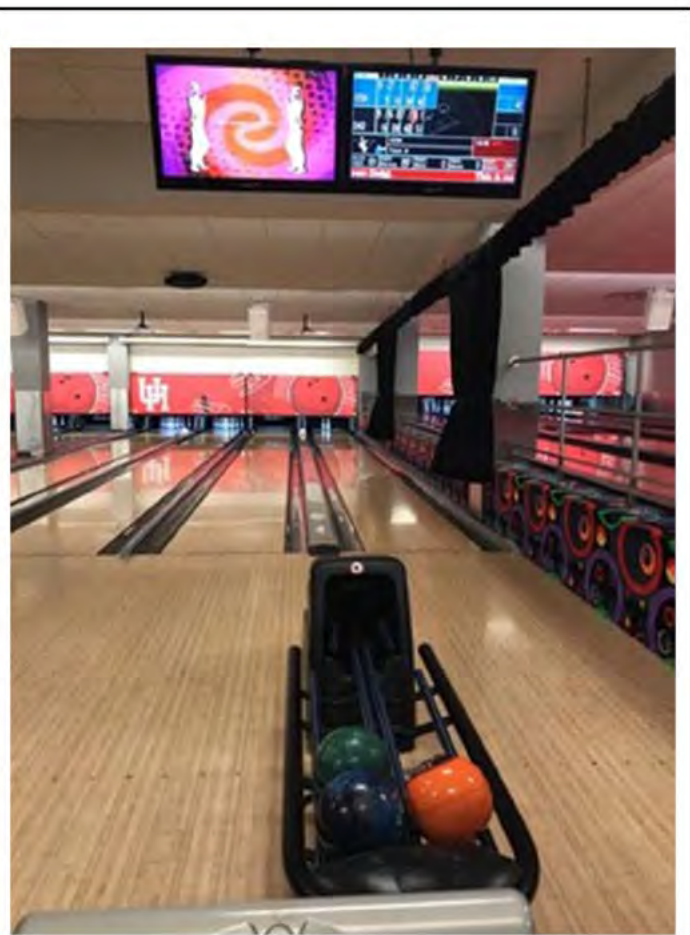
**Sponsorship opportunities are open for companies interested in this event, as well as those professionals who want to participate** and network with students while sharing their experience. Please contact us at [editor@spwla-houston.org](mailto:editor@spwla-houston.org) if you want further information or want to participate.

*Bowling with*  
SPWLA-UH  
*Professionals*

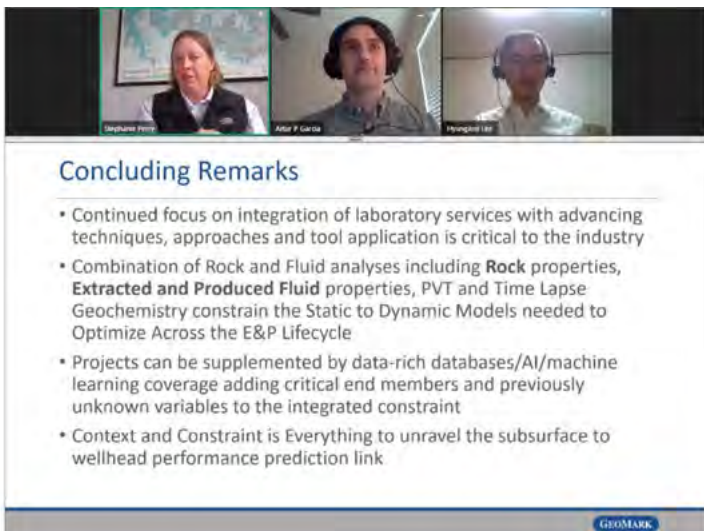
THE ULTIMATE NETWORKING EVENT!  
TEAM UP WITH AN INDUSTRY PROFESSIONAL

11.10.21 | 6PM  
STUDENT CENTER BOWLING ALLEY  
FOOD AND DRINKS PROVIDED

Students will be teamed up with professionals to play bowling while they can discuss aspects of the industry.



The teams will be picked based on the professional’s background and the student’s interest/thesis



Stephanie Perry (right), SPWLA Houston Chapter Editor Artur Posenato Garcia (center), and SPWLA Houston Chapter Vice-President Downtown Hyungjoo Lee (left) during our virtual seminar on September 15.



Attendees having fun at the SPWLA Houston Chapter networking event and enjoying some free Bundt Cakes sponsored by **Nothing Bundt Cakes**. Owners Lisset Sousa and Ana Rondon, with a long career in the oil industry, recently joined our happy hour, brought desserts for everyone, and shared a good time with us. You can enjoy these great pastries at the following store:

Nothing Bundt Cakes, Houston-Energy Corridor, Texas.  
 14555 Memorial Drive Suite 200, Houston, Texas 77079  
 Houston-EnergyCorridor@nothingbundtcakes.com  
 832-314-1427 / 832-998-3738



SPWLA Houston Chapter Networking event in September. Several international and local SPWLA officers joined were in attendance, including four past SPWLA International Presidents (from left to right): Zhipeng Liu (2018–19), Luis Quintero (2016–17), Terry Quinn (2008–09), and Jesus Salazar (2019–20).



SPWLA members including SPWLA Houston Chapter President and Editor Javier Miranda and Artur Posenato Garcia, respectively, SPWLA International Presidents Luis Quintero (2016–17) and Terry Quinn (2008–09), and past SPWLA UH Student Chapter President Charles Adams. Ken Henry (first on the left), October speaker seminar, was also in attendance.



SPWLA Houston Chapter members enjoying a well-attended outdoor networking event hosted by SPWLA Houston Chapter President Javier Miranda and Editor Artur Posenato Garcia. Members enjoyed networking in a relaxed atmosphere, including distinguished guests (four SPWLA International Presidents!).



SPWLA Houston Chapter President Javier Miranda introduced Ken Henry during our lunch seminar on October 13.



(From left to right) Charles Adams (past SPWLA University of Houston Student Chapter President), Javier Miranda (SPWLA Houston Chapter President), sponsors Ana Rondon and Lisset Sousa (owners of Nothing Bundt Cake Houston-Energy Corridor), and Luis Quintero (SPWLA International President 2016–17).



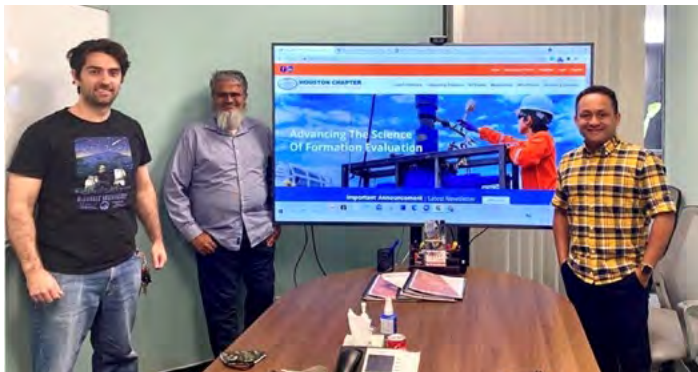
Ken Henry told a funny story about the discovery of oil in the Middle East.



A sunny evening with food and drinks partially sponsored by SPWLA Houston Chapter on a popular patio was the perfect location for members to enjoy a great networking event.



SPWLA Houston Chapter President Javier Miranda presents a gift to the speaker Ken Henry after his talk.



(From left to right) SPWLA Houston Chapter Editor Artur Posenato Garcia, Kbiz COO and former Houston webmaster Amir Rangwala, and Chapter President Javier Miranda discussing improvements and changes to the chapter's website during the September board meeting held both in-person and online. A couple of VPs, treasurer, and webmaster also attended via Zoom.



Part of SPWLA Houston Chapter Board planning upcoming events, such as a software show and monthly seminars. (From left to right) Javier Miranda (President), Bernd Ruehlicke (VP Westside), and Artur Posenato Garcia (Editor).



Part of SPWLA Houston Chapter Board planning upcoming events, such as a software show and monthly seminars. (From left to right) Jeff Crawford (VP Northside), Javier Miranda (President), and Artur Posenato Garcia (Editor).

**SPWLA Houston Chapter Board for 2020–2022**



**Javier Miranda**  
PRESIDENT

[president@spwla-houston.org](mailto:president@spwla-houston.org)



**Jeff Crawford**  
VICE-PRESIDENT NORTH SIDE

[vpnorthside@spwla-houston.org](mailto:vpnorthside@spwla-houston.org)



**Hyungjoo Lee**  
VICE-PRESIDENT DOWNTOWN

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**Bernd Ruehlicke**  
VICE-PRESIDENT WESTSIDE

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**Hans Wong**  
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**Artur Posenato Garcia**  
EDITOR

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**Tianmin Jiang**  
WEBMASTER

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**JAPAN FORMATION EVALUATION SOCIETY (JFES)**

**General News**

**New Board Members (2021–2023)**

- |                             |  |
|-----------------------------|--|
| <b>President</b>            | Masatoshi Nishi (INPEX)  |
| <b>First Vice President</b> | Tetsuya Yamamoto (JAPEX)   |
| <b>VP Technology</b>        | Yuki Maehara (Schlumberger)  |
| <b>VP Membership</b>        | Tetsuzo Fukunari (JOGMEC)  |
| <b>Secretary</b>            | Aiko Takada (JAPEX)  |
| <b>IT Secretary</b>         | Masaaki Okita (JX)   |
| <b>Treasurer</b>            | Akira Fujimoto (JOGMEC)  |
| <b>Director</b>             | Chisato Konishi (OYO), Shinichi Takaoka (MOECO), Shinichi Sakurai (Independent), Tadahiro Nagano (Schlumberger), Takahiro Hasegawa (CTC), Takeaki Otani (JAPEX), Takuya Ishibashi (AIST), Tatsuya Sato (GERD), Tsuyoshi Fujii (GSC), Takayuki. Wada (West JEC), Yasuhiro Yamada (Kyushu Univ.), Yoshinori Sanada (JAMSTEC) |

## Recent Events

30 September, 1 and 7 October 2021—The 26th Formation Evaluation Symposium of Japan, Special Session “Integrated Evaluation,” was held successfully. JFES committees had postponed the symposium in 2020 due to the COVID-19 pandemic. Ninety-four attendees contributed to our first online symposium for 3 days. Ms. Yuri Kanai (Waseda University) and Mr. Luis Salalá (Tohoku University) won the Best Student Awards selected by the JFES Board Members and by the SPWLA President, respectively. Mr. Hideo Komatsu (INPEX) received the Distinguished Service Award for his remarkable contribution as a Board Member from 2011 to 2019.

## IGUP STUDENT CHAPTER-PAKISTAN

### General News

We hope everyone is enjoying good health. SPWLA IGUP Student Chapter-Pakistan was inaugurated on July 8, 2021. It remains active through online meetings and webinars. While local travel restrictions remain firmly in place, the local chapter is working behind the scenes to bring interesting presentations and webinars to the members. Since August 2021, four meetings have been conducted online among team members to discuss innovative ideas for the prosperity of the chapter. Significant activities were carried out during online meetings and are being outlined. The meeting schedule of the student chapter after the inaugural ceremony until now is as follows:

Sr. No.	Date	Agenda
1	09-08-2021	Registration criteria for SPWLA IGUP Student Chapter-Pakistan Management of budgeting and finance of student chapter Fee for international membership Topics for webinars
2	13-08-2021	Finalization of the topics for webinars Social Media Marketing of Student chapter
3	05-09-2021	Finalization and modifications of the local registration form Academic license of software for the university students of Pakistan Finalization of date of the webinar (October-2021)
4	25-09-2021	Finalization of the topic for the webinar (October-2021) Poster Designing Social Media Marketing of the Poster Time slots for the webinar Finalization of the speaker for the webinar

What topics or speakers would you like to hear more from next year? Please send your thoughts and suggestions to [spwla.igup.pak@gmail.com](mailto:spwla.igup.pak@gmail.com). Your feedback is very important.

## Boards of Directors (2021-22)

The names of the Board of Directors with their designation and contact details are as follows:

- Dr. Muhammad Armaghan Faisal Miraj  
Faculty Advisor [armghan.geo@pu.edu.pk](mailto:armghan.geo@pu.edu.pk)
- Mr. Muhammad Bilal Malik  
President [bilalmalik00791@gmail.com](mailto:bilalmalik00791@gmail.com)
- Miss Pal Washa Shahzad Rathore  
Vice-President [palwashashahzad97@gmail.com](mailto:palwashashahzad97@gmail.com)
- Mr. Rana Faizan Saleem  
Secretary [ranafaizan7737@gmail.com](mailto:ranafaizan7737@gmail.com)
- Mr. Sher Afgan  
Treasurer [sherafgan1994@gmail.com](mailto:sherafgan1994@gmail.com)
- Miss Maha Ali Haider  
International Relations Chairperson [mahaalihaider26@gmail.com](mailto:mahaalihaider26@gmail.com)
- Miss Irza Akhtar  
Membership Chairperson [irzaakhtar1999@gmail.com](mailto:irzaakhtar1999@gmail.com)
- Mr. Shan Shahzad  
Event Manager [shan.mphil.geo@pu.edu.pk](mailto:shan.mphil.geo@pu.edu.pk)

## Recent Events

11 October 2021—Recently, the SPWLA IGUP Student Chapter-Pakistan organized the first episode of the webinar series in hybrid mode. The Institute of Geology hosted the first episode. SPWLA IGUP Student Chapter-Pakistan was honored to have a key speaker, Mr. Shahid Azizul Haq (reservoir domain head, Schlumberger USA), with the topic “So What Is Petrophysics?” The flyer for the episode is as follows:

## WEBINAR SERIES OF SPWLA IGUP STUDENT CHAPTER-PAKISTAN



### PRESENTER: **SHAHID AZIZUL HAQ**

Shahid Azizul Haq is Reservoir Engineering Advisor in Schlumberger. He currently holds two positions; Reservoir Domain Head (RDH) for Schlumberger Well Construction Division and Schlumberger Reservoir Discipline Career Manager. He is subject matter expert on formation testing (FT), production logging (PL) and pressure transient analysis (PTA). He has been with Schlumberger for 33 years. For the past 13 years, as RDH, Shahid's primary role is to manage the development of new formation testing and reservoir engineering techniques/workflows/answer products for the "while drilling" environment. He has pioneered the workflow of Real Time Productivity Steering also known as RTPS, a key enabler for the real-time applications of reservoir engineering while drilling horizontal wells. Shahid has co-authored more than 30 technical papers. He holds BS and MS degrees in petroleum engineering. Shahid has been a member of various SPE, SPWLA and IPTC program committees as well as the Editorial Review Committee for SPE Reservoir Evaluation & Engineering. Shahid received 2017 SPE Regional Service Award for Gulf Coast North America Region. He was SPE Distinguished Lecturer for 2019-20 and the title of his talk was "Reservoir Engineering While Drilling" in Horizontal Wells.

### CONTACT

**Prof. Dr. Naveed Ahsan (Director)**  
Email: [director.geo@pu.edu.pk](mailto:director.geo@pu.edu.pk)  
Website: [www.geology.edu.pk](http://www.geology.edu.pk)  
Phone: +92 3334242056, +92 3335954449

### SO WHAT IS PETROPHYSICS?

In short, it is the branch of geology concerned with the physical properties and behaviour of rocks.

According to Wikipedia, Petrophysics (from the Greek πέτρα, petra, "rock" and φύσις, physis, "nature") is the study of physical and chemical rock properties and their interactions with fluids. A major application of petrophysics is in studying reservoirs for the hydrocarbon industry. Petrophysicists are employed to help reservoir engineers and geoscientists understand the rock properties of the reservoir, particularly how pores in the subsurface are interconnected, controlling the accumulation and migration of hydrocarbons. Some of the key properties studied in petrophysics are lithology, porosity, water saturation, permeability and density. A key aspect of petrophysics is measuring and evaluating these rock properties by acquiring well log measurements – in which a string of measurement tools are inserted in the borehole, core measurements – in which rock samples are retrieved from subsurface, and seismic measurements. These studies are then combined with geological and geophysical studies and reservoir engineering to give a complete picture of the reservoir.

In this first episode of "The SW Series" titled "So What Is Petrophysics?", Shahid Haq will take a deeper dive into the basics as well as practical applications of petrophysics, and its relationship to other disciplines in the oil and gas industry.

### REGISTER HERE

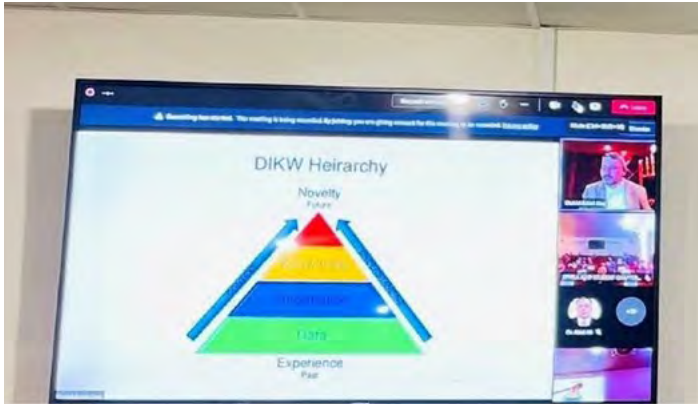
<https://bit.ly/3FfrM4m>

Time: 03:00-05:00 pm (PKT)

OCTOBER  
11TH  
2021



Flyer for the first episode of the webinar series of SPWLA IGUP Student Chapter-Pakistan.



Mr. Shahid Azizul Haq (reservoir domain head, Schlumberger USA) addressing the audience of the webinar organized by the SPWLA IGUP Student Chapter-Pakistan.

LinkedIn: <https://www.linkedin.com/in/spwla-igup-student-chapter-pakistan-57b116219/> or <https://tinyurl.com/m9jbys5y>

Facebook: <https://www.facebook.com/SPWLA-IGUP-Pakistan-107338908181070> or <https://tinyurl.com/8aj2eap6>

Contact Details: [spwla.igup.pak@gmail.com](mailto:spwla.igup.pak@gmail.com)



Team members of SPWLA IGUP Student Chapter-Pakistan, with the Director of Institute of Geology, University of the Punjab, Lahore, Pakistan after the first episode of the webinar series at the Institute of Geology, University of the Punjab, Lahore, Pakistan. (From left to right) Maha Ali Haider (International Relations Chairperson), M. Bilal Malik (President), Shan Shahzad (Event Manager), Prof. Dr. Naveed Ahsan (director, Institute of Geology), Dr. Abid Ali (assistant professor, Institute of Geology), and Dr. M. Armaghan Faisal Miraj (Faculty Advisor).



Faculty Advisor (Dr. Muhammad Armaghan Faisal Miraj) of the SPWLA IGUP Student Chapter-Pakistan welcoming the audience.



International Relations Chairperson (Miss Maha Ali Haider) of the SPWLA IGUP Student Chapter-Pakistan discussing the detailed program of the first episode of the webinar series of the IGUP Chapter.

### Upcoming Events

SPWLA IGUP Student Chapter-Pakistan is planning to organize the second episode of the webinar series in November for the students.

We are working continuously to communicate with industries to provide academic licenses for their software to the students at different universities in Pakistan to minimize the gap between academia and industry. More details about upcoming events and updates can be seen on our social pages as:



Event manager (Mr. Shan Shahzad) of the SPWLA IGUP Student Chapter-Pakistan addressing the audience.





President (Mr. M. Bilal Malik) of the SPWLA IGUP Student Chapter-Pakistan discussing the registration of the members.



Group photo at the end of the first episode of the webinar series of the SPWLA IGUP Student Chapter-Pakistan at the Institute of Geology, University of the Punjab, Lahore, Pakistan.

### LONDON PETROPHYSICAL SOCIETY (LPS)

#### General News

In September, the LPS hosted a seminar on “AI & ML in Petrophysics: Friend or Foe?” with 10 excellent talks on a wide range of subjects. These included a presentation from one of the current SPWLA Distinguished Speakers.

#### Recent Events

In October, members listened to an evening talk on “Source Rock Evaluation Using HAWK Pyrolysis.”

#### Upcoming Events

November 2021—The LPS AGM will be held online, and we would encourage all members to attend this meeting to contribute to the running of the society. They can either vote in advance or during the AGM, which will be followed

by an off-topic talk: “An Introduction to Site Investigation Within Offshore Wind Farm Development.” As a spoiler, this talk will also include some relevance to the use of petrophysics in placing wind turbines.

December 2021—The LPS will host a seminar on “Petrophysics for Geomodeling.” Please visit our website for details on the call for abstracts and to register. We are hoping to host this in person but are currently negotiating a suitable venue.

### NMR SIG

#### Recent Event

In a joint event with the SPWLA Malaysia Chapter, Harry Xie, past president of NMR SIG, presented a webinar on September 23, 2021. The webinar title is “The Latest Development of NMR for Formation Evaluation from Core Analysis to Well Logging.”



Screenshot during the webinar. (Left) Harry Xie (past president of NMR SIG, Core Laboratory) and (right) Thanapala Singam, president of SPWLA Formation Evaluation Society of Malaysia, Petronas).

### NORWEGIAN FORMATION EVALUATION SOCIETY (NFES)

#### General News

**NFES Annual General Meeting (Årsmøte) – New NFES Board**  
The annual general meeting was held on Wednesday, 8 September 2021, in the Solastranden Gård prior to the monthly technical meeting, both held under the guidelines of the Norwegian health authorities. As per articles of the association, the agenda included a financial review as well the membership and sponsorship status report and the revisiting of past activity.

Following the presentation and approval of the report, both the relief of the past and the reconfirmation of the new NFES Board took place. The current NFES Board consists of:

Position	Name	Corporation	Term
President	Mathias Horstmann	Schlumberger	2020/22
<i>VP Program</i>	<i>Venkat Jambunathan</i>	<i>Halliburton</i>	<i>2021-23</i>
<i>VP Membership</i>	<i>Dler Mirza</i>	<i>Aker BP</i>	<i>2021-23</i>
VP Sponsorship	Elin Solfjell	PGNiG	2020/22
VP Finance	Torunn Hana	Repsol	2020/22
VP PR & Academia	Sergey Alyaev	NORCE	2020/22
<i>VP Technology</i>	<i>Irada Yusufova</i>	<i>Equinor</i>	<i>2021-23</i>

\*Italicized type highlights new or re-elected board members.

**Recent Events**

**Monthly Technical Meetings**

September 2021—Since the Norwegian authorities lifted COVID-19 measures recently, the society met the first time after the summer break in person. After the annual general assembly, Mathias Horstmann, NFES president, kicked off the session at the Solastranden Gård. Due to the current situation, the session was also streamed online as a webinar. For the first talk of the new season, Mathias and the board welcomed Remke Ellis (domain champion, TGT Diagnostics), presenting a “Barrier Verification via Acoustic Leak Off Test – Rigless P&A.” A great start to the technical year! All participants enjoyed being together in a meeting room and are looking for more to come.



NFES Technical Meeting September 2021 in Stavanger. Mathias Horstmann (left), NFES President, thanks Remke Ellis (TGT Diagnostics) for his great talk.

October 2021—Many delegates joined NFES and welcomed SPWLA Distinguished Speaker Matthew Reppert (Neptune Energy) at our technical meeting. Matthew presented the global symposium-selected paper, “The Impact of Overbalanced Drilling From Exploration/Appraisal Wells to Field Development Plan.” A great talk indeed, and recently elected NFES VP Program Venkat Jambunathan moderated this great presentation and fruitful discussion after – tusen takk!



NFES Technical Meeting October 2021 in Stavanger. Newly elected NFES VP Program Venkat Jambunathan (left) presents to Matthew Reppert (Neptune Energy) the famous NFES ice bear in gratitude for his well-attended and well-delivered Distinguished Presentation from the SPWLA Annual Symposium 2020.

**Upcoming Events**

The NFES’s monthly seminar usually runs on the first Wednesday of the month at Solastranden Gård at 11 am.

8 November 2021—This month, though, we will host Bernd Ruehlicke (president, Eriksfiord, Inc.), who comes to us as a current SPWLA Distinguished Speaker, to present “Taming the Thunder Horse with Axes and Vectors.” NFES is looking forward to welcoming Bernd back to Norway!

1 December 2021—To close the year 2021, we plan to have Taher Kortam (Halliburton) with us, presenting “Application of LWD Acoustic Dispersive Data Processing for High-Quality Shear Slowness Logs in Slow Formations.” Please come to Taher’s talk and also enjoy the legendary Julebord buffet after!

**NFES as the SPWLA Host Chapter of the Annual Symposium 2022**

Being awarded to host the 63rd SPWLA Annual Symposium 2022 in Stavanger, the Norwegian Formation Evaluation Society has formed the Host Chapter Committee and is working with the SPWLA BoD on this “real in-person” event. The team represents many operators and major service companies in Norway, which shows the strong commitment of the chapter to make the next symposium a great success. The committee started to assist, coordinate, and plan the global event according to the individual functions as below. Please do not hesitate to contact NFES to learn about sponsorship and exhibition opportunities, and visit [www.spwlaworld.org/welcome-to-stavanger-2022](http://www.spwlaworld.org/welcome-to-stavanger-2022)

Function	Name	Surname	Affiliation
General Chairman	Mathias	Horstmann	Schlumberger
Co-general Chair	Torunn	Hana	Repsol
Chair Social Functions	Vanessa	Mendoza Barron	Shell
	Nils Andre	Aarseth	AkerBP
	Terje	Kollien	Lundin Energy
Chair Sponsorship	Dler	Mirza	AkerBP
	Sonia	Hernandez-Cordon	Equinor
	Terje	Kollien	Lundin Energy
Chair Finance	Matthew	Reppert	Neptune
	Liv Inger	Trøan	Lundin Energy
Chair Exhibits	Harry	Brandsen	Equinor
	David	Larsen	Var Energi
Chair Fieldtrip	Elin	Solfjell	PGNiG
	David	Larsen	Var Energi
Chair Partner/Guest Activities	Torunn	Hana	Repsol
Chair Publicity/ IT/ WEB, Technical Arrangements (venue)	Sergey	Alyaev	NORCE
	Stefano	Pruno	Stratum
	Bob	Engelman	Halliburton

**OKLAHOMA CITY**

**General News**

The Oklahoma City Chapter has returned to in-person meetings. It has been good to see everyone who could attend, and we look forward to catching up with those who attend future events.

**Recent Events**

- 14 September 2021—Son Dang (Stratum Reservoir) presented “Measurement of Effective Tortuosity in Unconventional Tight Rock Using Nuclear Magnetic Resonance.”
- 12 October 2021—Judah Odiachi (OU) presented “Determination of Pore Fluid Salinity in Tight Rocks Without Fluid Extraction.”



September was our first lunch back in person at Vast featuring Son Dang (Stratum Reservoir). (Front row, from left to right) Adam Haecker, Andrew Berry, Blessed Amoah (OU SPWLA President), Lesley Evans, Son Dang. (Back row, from left to right) Rishabh Pandey (OU SPWLA Treasurer), Laura Osorio Ojeda Camilo (OU SPWLA Secretary), Carlos Arengas (OU SPWLA Vice President) John Stachowaik, Joe Comisky, Jon Roberts, Scott Witt, Nasar Khan, Jarret Borell, Randy Brintnell.

**Upcoming Events**

- 9 November 2021—SPWLA OKC November Luncheon at Vast – 11:30 am – 1 pm
- 16 December 2021—SPWLA OKC Holiday Happy Hour

**SAUDI ARABIA CHAPTER**

**Recent Events**

- 29 September 2021—First session: After a successful multisession virtual workshop on Coring and Core Analysis in the spring of 2021, SPWLA SAC conducted its 10th Topical Workshop on Data-Driven Petrophysics. This session was dedicated to the fundamentals of data analytics and machine learning. The workshop was inaugurated by keynote addresses of Mr. Khalid Zainalabedin (Saudi Aramco RDS manager), Dr. Dhafer Al-Shehri (Petroleum Engineering Department chairman at KFUPM), Mr. Ziad Jeha (Schlumberger KSA and Bahrain managing director), and Dr. Ridvan Akkurt (Schlumberger AI and analytics petrophysics advisor). Ridvan Akkurt (Schlumberger) emphasized that machine learning can only work its magic when the data are well prepared and have undergone a thorough quality control. Freeh Alenezi (Al Majmaah University) reviewed the basics of statistics underpinning all machine-learning and artificial intelligence algorithms. Rasesh Saraiya (Schlumberger) provided key pointers on the basics of machine learning and how to get started with learning and training in this field. Ted Furlong (Baker Hughes) talked about the power of combining machine learning with physics-based models.
- 6 October 2021—The second session of the 10th SPWLA-SAC chapter online workshop on Data-Driven Petrophysics was dedicated to data preparation and quality control, which are usually the most time-consuming tasks of any

data analytics project. Chicheng Xu (Aramco Americas) opened the session with a keynote talk. He argued that understanding the physics behind data behavior was key before applying any machine-learning models. Machine learning has advantages over conventional workflows when large amounts of data or multidimensional data sets are present. Heloise Beurdouche and Jean-Etienne Jacolin (Schlumberger) described how machine learning could be used to perform quality control and data preparation to obtain clean log data sets that can be further interpreted using machine learning. Elizaveta Onegova (Baker Hughes) presented a log quality control analytics service to automate log QC during and after logging. Jie Yang (Halliburton) closed the session with a talk on how to harness statistical data analysis techniques and develop a data-driven model to predict drilling tools failure.

13 October 2021—The third session of the 10th SPWLA-SAC Chapter Online Workshop on Data-Driven Petrophysics was dedicated to borehole imaging and geosteering. Jean-Michel Denichou (Schlumberger) opened the session with a talk about how game-changing digital developments in the cloud enable a multidisciplinary (and sometimes not co-located) team of experts and decision makers to optimize well placement. Enrico Ferreira (Baker Hughes) presented a method to automate log interpretation for completion design. Songhua Chen (Halliburton) showed a technique to automatically fill gaps in borehole images. Lei Wu (Baker Hughes) presented an algorithm to automate sonic data quality control while drilling. Chandramani Shrivastava (Schlumberger) shared the latest advancements in LWD borehole image analysis allowing the automatic downhole identification of breakout and drilling-induced fractures on the ultrasonic image, reducing the need for telemetry bandwidth but unlocking the full potential of borehole images analysis.

Interest in the topic was exceptional, with more than 400 participants for the first three sessions.

Please stay tuned to our chapter website for details on the remaining sessions in this workshop (spwla-saudi.org). Event announcements will be sent out as usual.


**10<sup>th</sup> SPWLA Saudi Arabia Chapter Online Topical Workshop**  
October/November 2021

**SPWLA Saudi Arabia Chapter (SAC)**


**DATA DRIVEN PETROPHYSICS – Challenges and Best Practices**

Digital Transformation, what is it? Machine Learning (ML) and Artificial Intelligence (AI), how do they work and impact us, the petrophysicists? Those topics are what everyone keeps talking about nowadays, in our industry and around the globe. But do we really know what they mean? And how they will be used and impact the future of upstream business in general and petrophysics in particular? This online workshop is developed to answer some, surely not all, of these questions. It will open with a session introducing the fundamentals of data analytics and ML/AI where experts in the field will share their knowledge and experiences. The following sessions will explore the applications of data driven petrophysics in the subject matters of formation evaluation, geosteering, dynamic reservoir surveillance, laboratory core and fluid analyses, and unconventional resources evaluations. Since we are merely at the very beginning of this digital transformation, a session dedicated to emerging technologies in data driven petrophysics will conclude this topical workshop.


Opening & Keynote Speeches by:




Mr. Khalid Zameer  
Manager - Reservoir Description and Simulation Department  
Saudi Aramco



Dr. Othman Al-Hakiri  
Chairman of Petroleum Engineering Department  
KFUPM



Mr. Zaid Jata  
USA and Bahrain Managing Director  
Schlumberger



Dr. Stefan Albert  
AI & Analytics Petrophysics Advisor  
Schlumberger

Date	Time	Subject
1 29-Sep-21	12:00-15:00	Fundamentals of data analytics and machine learning
2 06-Oct-21	12:00-15:00	Data driven petrophysics- Data Preparation and Quality Control
3 13-Oct-21	12:00-15:00	Data driven petrophysics- Applications in borehole imaging and geo-steering
4 20-Oct-21	12:00-15:00	Data driven petrophysics- Applications in Rock Typing and Formation Evaluation
5 27-Oct-21	12:00-15:00	Data driven petrophysics- Applications in Reservoir Evaluation
6 03-Nov-21	12:00-15:00	Data driven petrophysics- Applications in Formation Testing and Sampling
7 10-Nov-21	12:00-15:00	Data Driven Petrophysics- Applications in Unconventional Source Rock Evaluation


Workshop Target Audience:

- Petrophysicists as well as logging and log analysts
- Reservoir engineers and simulation engineers
- Geophysicists, Geologists, and Geo-Modelers
- Rock/geo-mechanical Subject Matter Experts
- Drilling and Production engineers
- Upstream Researchers

This event is sponsored by: **Schlumberger**

Registration  
www.spwla-saudi.org  
info@spwla-saudi.org  
Maximum attendees 250 in each session

SPWLA Saudi Arabia Chapter (SAC) Sponsors:



### TTU STUDENT CHAPTER

#### General News

SPWLA TTU Chapter officers have been communicating every day through in-person meetings and via messaging.

#### Recent Events

The lists of events that the SPWLA TTU Chapter has organized since August 2022 are listed below. Red Raider Orientation Raiderland Experience Organization Fair 2021 (July and August)

Since July 2021—The SPWLA TTU Chapter continued participating in the RRO Student Organization Fair in August by interacting with students from different majors and classifications. The officers successfully delivered the purpose and motive of the organization and its plans for the rest of the year to all the students. In addition to that, they also distributed flyers and encouraged student involvement by inviting them to join the organization.

- 24 August 2021—The SPWLA TTU Chapter organized its first officers’ meeting. During that meeting, all the new officers were introduced to each other and discussed plans for the rest of the year and how the organization could run smoothly by conducting as many events as possible throughout the year. They also discussed how they should be reaching out to people for community services opportunities.
- 25 August 2021—The SPWLA TTU Chapter introduced its chapter to all the sophomore students in the Bob L. Herd Department of Petroleum Engineering. Delivering the chapter’s vision, purpose, and motive, the officers detailed the events organized in the past and outlined the upcoming events for the semester.
- 26 August 2021—The SPWLA TTU Chapter organized its officers’ photoshoot. It was a successful event, and great professional pictures were taken by the officers themselves. Those pictures have been used in their social media and also their website (spwlattu.com).



Engineering Kick-Off, TTU, (from left to right ) Alejandro Gallegos (SORC Representative), Janett Lopez (Treasurer), and Sunita Pathak (President).



SPWLA TTU Chapter Officers Photoshoot: (back row, from left to right) Secretary, Vice-President, SORC Representative, (front row, from left to right) Membership Chair, President, and Treasurer.



Engineering Kick-Off, TTU, Diego G. Lopez (Vice-President).

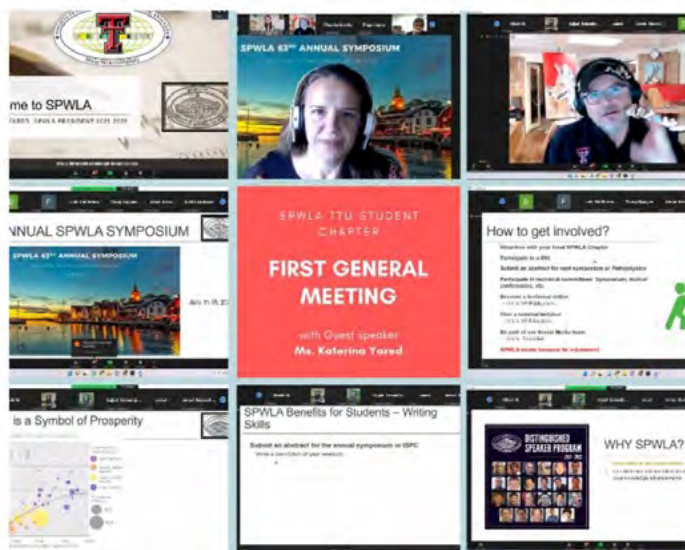
- 27 August 2021—The SPWLA TTU Chapter participated in the Engineering Kick-Off Event organized at Texas Tech University. The officers distributed their marketing materials, flyers, candies, and SPWLA T-shirts. Over 70 students signed up during that event, and many joined the organization, thus making it another successful event of the year.

- 28 August 2021—The SPWLA TTU Chapter organized its first volunteering event of the year. The officers and its members helped the South Plains Food Bank by thinking of apple trees and helping them harvest those apples. They were successful in filling up over 30 buckets full of apples. It was great teamwork and a very productive day for all of them.



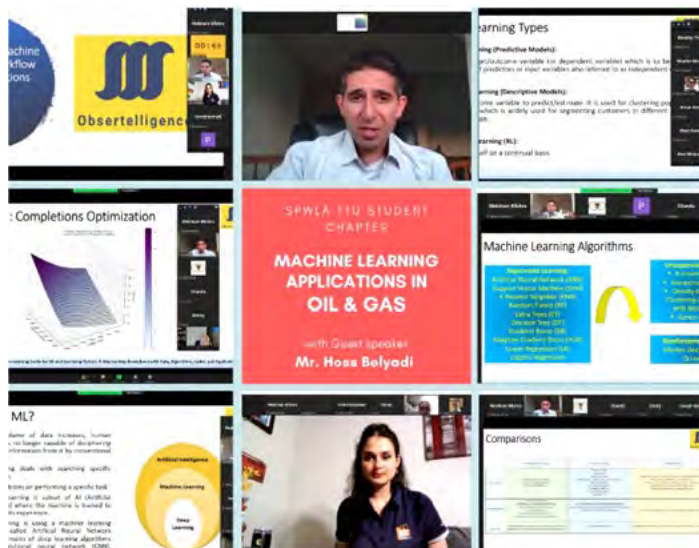
Apple Orchard Volunteering, South Plains Food Bank, Sunita Pathak (President).

31 August 2021—The SPWLA TTU Chapter organized its First General Meeting with Ms. Katerina Yared, the SPWLA International President. It was a great meeting with Ms. Yared, and all the officers, along with its members, got a great opportunity to learn about the SPWLA. In addition to Ms. Yared, Dr. Steven Henderson, Faculty Advisor of the SPWLA TTU Chapter, also added a few words about the great vision of the chapter and the benefits of being involved.



SPWLA TTU Chapter First General Meeting, Ms. Katerina Yared (left), Dr. Steven Henderson (Right), Zoom meeting.

7 September 2021—The SPWLA TTU Chapter organized an info session with Mr. Hoss Belyadi on “Machine Learning Applications in Oil and Gas.” It was a virtual event, and the chapter had a great turnout. Along with the officers and its chapter members, the info session was attended by several professors as well as students and professionals from outside the university.



Info session with Mr. Hoss Belyadi, virtual, Mr. Hoss Belyadi (top), Sunita Pathak (President) (bottom).

7 September 2021—The SPWLA TTU Chapter organized an info session with Endeavor Energy Resources. The purpose of this info session was to provide students with the opportunity to meet with the recruiter and learn more about the company while, at the same time, offering the company a flexible way to meet the versatile students at Texas Tech University. It was an amazing info session, and the chapter had a great turnout.



Info session with Endeavor Energy Resources, TTU.

25 September 2021—The SPWLA TTU Chapter organized another community service opportunity assisting Lubbock Memorial Arboretum in planting several trees, removing weeds off the lawn, and cleaning up the garden. It was a great time and a great day volunteering for all the officers and the members who participated.



Lubbock Arboretum Volunteering Opportunity, Lubbock, TX.

19 October 2021—Tech Session with Dr. Steven Henderson on “Abnormalities’ in Log Headers: Why it Matters” and Tech Session with Dr. George Asquith on “An Adventure in Carbonate Petrophysics.”

**Upcoming Events**

Several events for November are in progress, but the dates and times are not fixed yet.

**Photos:** We have more pictures of each event on our LinkedIn page. Please check us out at: <https://www.linkedin.com/company/ttu-spwla>.

**UFRJ SPWLA STUDENT CHAPTER**

**General News**

Our chapter maintains normal activities with 10 active members organized below:

**Board Members:**

- President: Rodrigo Gentil Azambuja ([rodrigo.gentil.azambuja@gmail.com](mailto:rodrigo.gentil.azambuja@gmail.com))
- Vice President: Amanda Mendes Bezerra ([mendesamanda@ufrj.br](mailto:mendesamanda@ufrj.br))
- Treasurer: Sofia D’Orsi ([sgdorsi@gmail.com](mailto:sgdorsi@gmail.com))
- Secretary: Sarah Aleixo ([sarahaleixo@gmail.com](mailto:sarahaleixo@gmail.com))

**Executive Members:**

- Bruno Valle ([bruno@geologia.ufrj.br](mailto:bruno@geologia.ufrj.br))
- Teresa Mourão ([teresamouraoo@gmail.com](mailto:teresamouraoo@gmail.com))

**Marketing Members:**

- Caio Guedes ([caioBittencourt@gmail.com](mailto:caioBittencourt@gmail.com)) (coordinator)
- Shirlene Barros ([shirlenebarros1@hotmail.com](mailto:shirlenebarros1@hotmail.com))
- Iago da Costa ([iago.cjaques@gmail.com](mailto:iago.cjaques@gmail.com))

**Logistic Members:**

- Gabriel Ferraz ([gabrieferraz036@gmail.com](mailto:gabrieferraz036@gmail.com))

**Recent News**

UFRJ SPWLA members value principles and knowledge in petrophysics, well logging, and important subjects related to this in geology. Because of that, last month, we hosted a 4-day online course about sequence stratigraphy taught by Jorge Picanço de Figueiredo, who is a renowned professor at the Federal University of Rio de Janeiro. These classes were open to the public during September 13–16, 2 hours a day. We had more than 100 viewers in nine countries around the globe.

Also, our members get together at least once per month to discuss our marketing strategy and organize future events. We keep posting informational content on our social media, and each chapter member is responsible for searching for content. In August and September, we posted about drilling mud, oil barrels, petrophysics and mining exploration, sequence stratigraphy, and oil spills.



Post created to promote the online course about sequence stratigraphy. Posted on Instagram, LinkedIn, and Facebook (language: Portuguese).

### Upcoming Events

Our team intends to keep organizing courses with great specialists to teach basic but important petrophysics concepts and well logging so that both old and new members stay updated on these topics. Unfortunately, this year, we had some members leave our chapter. Because of this, we will be recruiting new members in the next few weeks through a new selection process. Finally, we continue to share through our social media posts, trivia, and some concepts about well logging and petrophysics. We recognize the current importance of being active on social media nowadays.

### UNIVERSITY OF HOUSTON CHAPTER

### Recent Events



SPWLA UH President Ajibola Samo introducing SPWLA to a new student.

25–26 August 2021—SPWLA participated in the UH Cat’s Back program. The Cat’s Back is a tradition to welcome new and returning students to the University of Houston. Thirteen students gave their contact details for future invitations for SPWLA events.

18 and 25 September 2021—UH SPWLA, AADE, Pi Epsilon Tau, and SPE co-sponsored an end-of-season tailgate party for the UH vs. Navy football game. Smoked brisket and homemade carnitas were prepared for the event, along with beverages and games.



30 September 2021—SPWLA UH held its First General Meeting. Dr. Sarwa Tan (Schlumberger) was the guest speaker on the topic, “Well Placement Using Electromagnetic LWD Tools.” This meeting was a hybrid, with some participants attending on Zoom.



8 October 2021—SPWLA UH hosted Matthew Blyth at the Petroleum Engineering Graduate Seminar at the University of Houston, who spoke on his 2020–21 SPWLA Distinguished Speaker topic, “Revealing Hidden Information; High-Resolution Logging-While-Drilling Slowness Measurements and Imaging Using Advanced Dual Ultrasonic Technology.” The Graduate Seminar is a weekly event designed as an important part of our academic program and provides an opportunity for students to learn about current research in the petroleum industry as well as its applications.





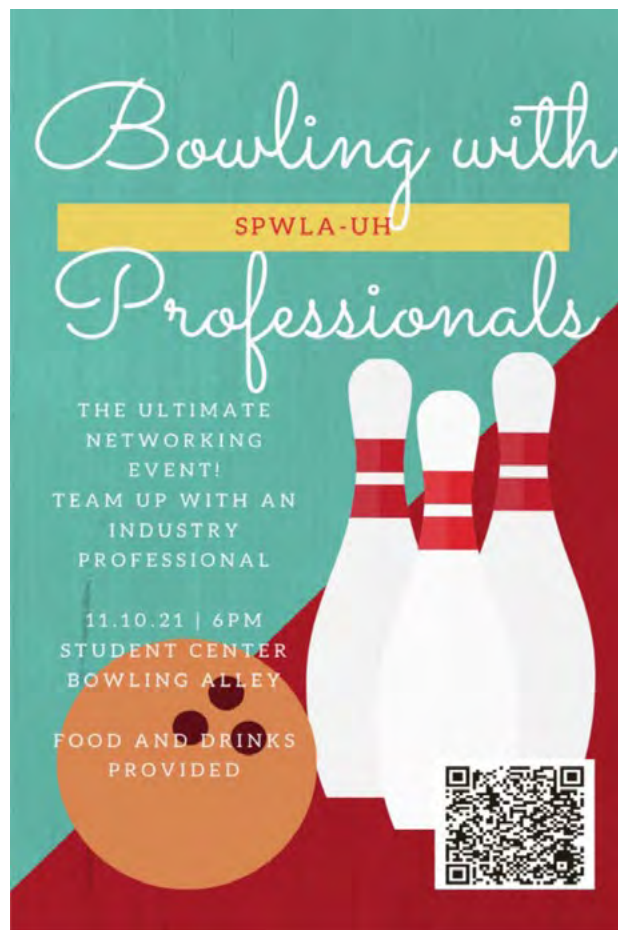
Matthew Blyth discussing his SPWLA Distinguished Speaker Presentation at UH.

12 October 2021—Petro-Organizations Innovation Workshop was initiated by SPWLA UH and held in collaboration with other UH Petroleum Engineering organizations (AADE, Pi Epsilon Tau, and SPE). The energy industry is at an inflection point where new technologies and inventions can aid in the transition to a low-carbon future. Jeanne Perdue discussed the process of innovation and took attendees through the process of innovation, from idea generation to naming to drawing to improving and selling.



Petro-Organizations Innovation Workshop.

Upcoming Events



THE UNIVERSITY OF TEXAS AT AUSTIN CHAPTER

General News

School is back in session at UT Austin, and the Student Chapter of SPWLA at UT Austin hopes everyone in our community stays safe and healthy coming back to in-person activities. The student chapter of SPWLA has recruited new officers for the 2021–2022 academic year: Domenico Crisafulli (Treasurer), Tarek Sabry Mohamed (Secretary), Syed Talha Tirmizi (Secretary), Landon Lockhart (Jackson School of Geosciences at UT Austin Liaison – JSG Liaison), Hana Bachi (Special Events Officer), Javier Guerrero (Special Events Officer), Mohamad Abdo (Webmaster), Beatriz Palenzuela-Torre (Undergrad Social Media Officer), and Mohammadreza Rostamnezhadcher (Undergrad Social Media Officer). Their diligent efforts and support will enable continuing officers Gabriel Gallardo-Giozza (President), Daria Olszowska (Vice-President), Pierre Aerens (Treasurer), and Sabyasachi Dash (Social Media Manager) to accomplish our planned objectives during this next academic year.

We bid farewell to some of our officers who stepped down to focus on finishing their degrees or pursuing their careers outside of UT Austin. We would like to thank Andres Gonzalez (President 2020–2021), Camilo Gelvez (Special Events Officer), and Wen Pan (Webmaster) for their hard work during this last academic year. Their well-demonstrated efforts have made the new team capable of organizing highly engaging events during this coming year.

**Recent Events**

We started to plan the events for the academic year 2021–2022. We have confirmed our two first technical seminars for this year. Currently, we are exploring new ideas to increase the participation of students by incorporating undergraduate officers and officers from other UT schools and by doing integrated work with other student chapters.

28 October 2021—Priyavrat Shukla (production stimulation engineer, SLB) presented “Understanding Stacked Plays and the Role of Technology in Tapping the Unconventional Giant.”

**Upcoming Events**

12 November 2021—Kent Newsham (chief petrophysicist, Oxy) will present “Workflow for Determining Relative Permeability Behavior in Low Permeability Media Using MICP Drainage-Imbibition Measurements.”

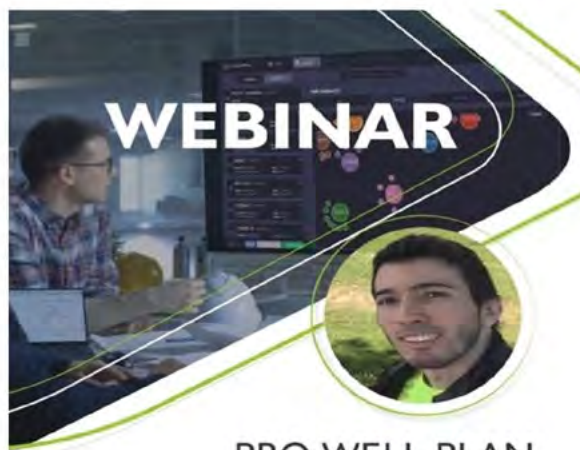
**Board of Directors**

- President:** Luis Alberto Chinomes G. ([presidencia.spwlaui@gmail.com](mailto:presidencia.spwlaui@gmail.com))
- Vice President:** Carlos José Medina L. ([vicepresidencia.spwlaui@gmail.com](mailto:vicepresidencia.spwlaui@gmail.com))
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- Secretary:** Maria Andrea Herrera P. ([secretaria.spwlaui@gmail.com](mailto:secretaria.spwlaui@gmail.com))
- Treasurer:** Tanya Mercedes Garavito L. ([contador.spwlaui@gmail.com](mailto:contador.spwlaui@gmail.com))

**Recent Events**

20 August 2021—Colombian Student Chapter SPWLA UIS announced a data science event with the PRO WELL PLAN program by Juan Gonzalez, who has a master’s degree in petroleum engineering from Norway.

**UIS STUDENT CHAPTER – COLOMBIA**



**PRO WELL PLAN**

**M. Sc. Juan Camilo González**  
Ingeniero de petróleos con enfoque en análisis datos, desarrollo de software y Data Science

Encuentra el link en nuestra bio

Organiza: capítulo estudiantil SPWLA UIS

**Fecha:** 20 agosto | **Hora:** 11 a.m.

Universidad Industrial de Santander | Facultad de Ingeniería de Petróleos

[Ver más...](#)

31 August 2021—The Colombian Student Chapter SPWLA UIS organized a virtual event for the Zoom platform entitled “Petrophysics of Exploration and Their Role in the Determination of the Petroleum System” by Maria Gomez, who is a geological engineer in Venezuela.



9 September 2021—The Colombian Student Chapters SPWLA UIS and SPWLA USCO organized a virtual event for the Zoom platform entitled “Exploration and Exploitation of Geothermal Resources in Oil Fields” by Dr. Rosa Prol from México.



3 September 2021—The team launched a new podcast project because we love what we do. In this activity, we inform students about opportunities abroad in different areas of the industry. Link <https://lnkd.in/eECEyEfu>



16 September 2021—The Colombian Student Chapters SPWLA UIS and SPWLA USCO organized a virtual event for the Zoom platform entitled “Petrophysics in Mature Fields Brazil” by Bruno Menchio (senior petrophysicist and SPWLA Latin America Regional Director).



22 September 2021—The Colombian Student Chapter SPWLA UIS and National and International Colombian Association of Hydrogeologists (ACH-UIS) organized a virtual event for the Zoom platform entitled “The Role of the Petroleum Engineer in the Characterization of Deep Aquifers” by Elizabeth Quiroga, MSc, (technical lead for projects in Africa and Somalia).

in f @spwlauis @hidro\_ach\_uis

**"El rol del ingeniero de petróleos en la caracterización de acuíferos profundos"**

M.Sc Elizabeth Quiroga  
Jordan  
Ingeniería de Hidrocarburos.  
Technical lead – Ruden AS, Norway.

El miércoles 22 de Septiembre 11:00 am

Organizan:

7 October 2021—The team held a recruiting event with Inner People, a company that connects students with their dreams in the oil industry. The event was conducted by Claribeth Estepa who is a senior Latin American recruiter.

**Conectando Estudiantes con sus sueños**

Claribeth Estepa Sarmiento

Cofundadora y consultora senior en INNER PEOPLE CONSULTING. Profesional senior de Recursos Humanos con más de 20 años de experiencia, y una trayectoria probada en conectar al mejor talento del mercado con clientes de alto perfil a nivel mundial apoyando procesos de desarrollo.

Preparaté para el mundo laboral

07/10/21 5 P.M.

8 October 2021—The team held an event to learn about some oil opportunities abroad with the company Inner People. The event was conducted by Sonia Plazas and Claribeth Estepa, two senior recruiters and senior consultants.

**Explora Canadá con Inner People**

Claribeth Estepa Sonia Plazas

Cofundadora y consultora senior en INNER PEOPLE CONSULTING. Consultora senior

08/10/21 5 P.M.

Preparaté para migrar al exterior

22 October 2021—The team launched our second podcast episode in Spanish to learn about opportunities, the process of joining a post-graduate program, and the speaker’s experiences in France.



### Upcoming Events

- November 2021—The team will develop connections between International SPWLA Chapters such as Pertamina Indonesia for benchmarking.
- November 2021—The team will do a course on nonconventional reservoirs with a quicklook and basic-advanced petrophysics by María Florencia Segovia (senior petrophysicist who works in the Management Department of ECOPETROL – Colombia) and Jorge Barbosa, MSc, (senior petrophysicist, formation evaluation consultant, and team lead EMERSON AUTOMATION SOLUTIONS).
- November 2021—The team will host a webinar on hydrogeological studies applying electromagnetic soundings by Angel Salazar (geologist).
- November 2021—The team will have a new podcast episode where they will learn about the process of studying for a post-graduate degree in Saudi Arabia.

**ECOLOGICAL VOLUNTEERING:** The team planted trees and helped to improve the environment in a neighborhood of Bucaramanga. The activity was carried out by all members of the SPWLA UIS Student Chapter.



### SPWLA UIS/ Social Networks

**LinkedIn:**

<https://www.linkedin.com/company/spwla-uis-student-chapter/>

**Instagram:**

<https://www.instagram.com/spwlauis/?hl=es-la>

**YouTube:**

<https://www.youtube.com/c/SPWLAUIS>

**Facebook:**

<https://es-la.facebook.com/SPWLAUIS/>

UNIVERSITAS PERTAMINA STUDENT CHAPTER

General News

SPWLA Universitas Pertamina Student Chapter was founded in 2019. This is our 3rd cabinet in SPWLA UP SC, namely the Enhancement Cabinet. We just renewed our cabinet a few months ago. Our chapter is the most active amongst SPWLA Student Chapters in Indonesia. We have 40 officers with a total of eight departments and four divisions included. Our officers are mostly majoring in petroleum, geology, and geophysics engineering. Our student chapter is assisted by Petroleum Engineering Student Associations.

In our cabinet, we have many work programs for internal and external organizations to develop the officers and Universitas Pertamina’s students, especially the Faculty of Exploration and Production Technology’s students, such as hard and soft skills to prepare them for work and career life. We have monthly meetings every last week of the month to evaluate the performances of officers and work programs. So far in September, we have held a few events that were open to the public, such as IGNITE, and a few events held just for internal officers of the SPWLA Universitas Pertamina Student Chapter. Also, another upcoming event will be held for the public that everyone could participate in, such as the International PetroWell Event (IPW) 2021, Upgrade Your Skills vol. 2, Talkshow, and TALKTION.

Recent Events

September and October 2021—The IGNITE program is courses that improve your theoretical and practical skills of petrophysics and well logging. IGNITE had three series of events. The first series was held on September 5 with Mr. Andri Setyanto P., the second on September 12 with Mr. Taufik Anwar, and the last on October 2 with Mr. Catur Kristiawan. The event was attended by 82 participants only to maintain the focus group discussion of the courses and was held via Zoom.



Group discussion between participant and Mr. Andi Praptono as the mentor in IGNITE Series 1.



Group discussion between participants and Mr. Taufik Anwar as the mentor in IGNITE Series 2.



Group discussion between participants and Mr. Catur Kurniawan as the mentor in IGNITE Series 3.

Upcoming Events

- 5 December 2021—The International PetroWell (IPW) Event is an annual international event for geoscience enthusiasts, especially undergraduate students. IPW 2021 has two main events. These events are the PetroWell Study Case Competition (PSCC) and the Annual Forum, which will be held this year with the theme “**Future Challenges for Petrophysics in Energy Industry.**” Besides the PetroWell Study Case Competition (PSCC) that we’ve closed the registration for, we have an Annual Forum that will be filled with many amazing experts for sharing and changing insight about “**The Role of Geoscientist in the Transition of Unconventional Hydrocarbons and Challenges in the Future Oil and Gas Industry.**” Also, the best of the best in this event is the awardees for the PetroWell Study Case Competition (PSCC) winner. The annual event will be held via Zoom at 12:30 pm Indonesia Western Time (GMT+7).
- 6 November 2021—Talkshow is a webinar held by the Education and Training division. This webinar talks about coaching for people who want to join paper and poster competitions about oil and gas. This webinar is open to the public but only for people who are joining an OnG Paper Competition. This webinar will be held via Zoom.

27 November 2021—Talktion is a live streaming-based talk show using SPWLA UP SC Instagram. We will invite experts as our speakers. The topic of TALKTION 1.0 is about nontechnical matters in work and career life. Participants will get new insights, sharing their experiences and knowledge. The Talktion will be held from 1–2 pm Indonesia Western Time (GMT+7) via SPWLA Universitas Pertamina SC Instagram (@spwla.upsc).



The International PetroWell Event series of events will begin with the PetroWell Study Case Competition that closed its registration in October and will end with the Annual Forum in December.

## Welcome New Members: August 15, 2021 – October 20, 2021

- Abdel-Raouf, Emad**, Halliburton, Katy, TX, United States  
**Adelman, Melanie**, Ryder Scott, Houston, TX, United States  
**Ambrosi Planel, Matías**, Universidad Nacional De La Plata, La Plata, Buenos Aires, Argentina  
**Benavides, Rodrigo**, U.N. Comahue, Neuquén, Argentina  
**Calle Ortiz, Karen**, U.N. Comahue, Neuquén, Argentina  
**Crespo Arnez, Rocío**, U.N. Comahue, Neuquén, Argentina  
**Crotti, Alejandra**, Universidad Nacional De La Plata, La Plata, Buenos Aires, Argentina  
**Crousse, Luisa**, Chevron, Houston, TX, United States  
**Davis, Gary**, Texas A&M University, Dallas, TX, United States  
**De Los Ríos, Jorge**, U.N. Comahue, Neuquén, Argentina  
**De Torres, Jasmine Anne**, Batangas State University, Batangas, IV-A, Philippines  
**Di Persia, Ana**, UN Salta, Salta, Argentina  
**Diasanta, Alpha Joy**, FESM Malaysia, Sta. Rosa, IV-A Calabarzon, Philippines  
**Disabar, Ram**, UT Austin, Taylor, TX, United States  
**Domingue Jr., Kirby**, Robertson Energy, Lafayette, LA, United States  
**Dominguez, Malena Antonella**, U.N. Comahue, Neuquén, Argentina  
**Duff, Deanne**, Canada-Newfoundland and Labrador Offshore Petroleum Board, St. John's, NL, Canada  
**Ekanem, Eyo**, C-NLOPB, St. John's, NL, Canada  
**Elvira, Paloma**, National University of Cordoba, Córdoba, Argentina  
**Gialetti, Axel**, Instituto Superior De Enseñanza Técnica (INSET), Río Gallegos, Santa Cruz Prov, Argentina  
**Granado, Luis**, Innergy Tech Inc., Mission, TX, United States  
**Gregorio, Julie Ann**, Batangas State University, Batangas City, Calabarzon, Philippines  
**Gutierrez, Fernando**, Dakota State University, Houston, TX, United States  
**Hernandez, Federico**, IPICYT, San Luis Potosí, Mexico  
**Hicks, Stephen**, Canada-Newfoundland and Labrador Offshore Petroleum Board, St. John's, NL, Canada  
**Huiza, Gianna**, UNLP, La Plata, Buenos Aires, Argentina  
**Ismail, Maher**, Basra Oil Company, Basra, Iraq  
**Izquierdo, Mayra Anahí**, U.N. Comahue, Allen, Rio Negro, Argentina  
**Kechichian, Jackie**, Shell, Doha, Qatar  
**Khan, Adnan**, Baker Hughes, Houston, TX, United States  
**Kohn, Clayton**, University of Houston, Houston, TX, United States  
**Laureta, Joshua**, Batangas State University, Bacoar City, Philippines  
**Liu, Yunke**, Rice University, Houston, TX, United States  
**Malasique, Gabriel**, Batangas State University, Sto. Tomas City, Batangas, Philippines  
**Manalo, Andrea Lorraine**, FESM Malaysia, Balayan, Batangas, IV-A, Philippines  
**Mandigma, Sheila**, FESM Malaysia, Batangas City, Region IV-A, Philippines  
**Maquinto, Ciara Iana Mae**, Batangas State University, Gloria, Philippines  
**Marasigan, Julie Pearl**, Batangas State University, San Pascual, Region IV A, Philippines  
**Mejia Diaz, Gerson**, Jaguar Exploración Y Producción, Francisco I Madero, Hidalgo, Mexico  
**Melli, Agustina**, Estudiante Geología. UNLP, La Plata, Buenos Aires, Argentina  
**Messahli, Yacine**, University of Houston, Houston, TX, United States  
**Molina, Sebastián**, Universidad De Buenos Aires - FCEN, CABA, Buenos Aires, Argentina  
**Montero Rodriguez, Iris**, Texas A&M University Kingsville, Kingsville, TX, United States  
**Mukherjee, Ritwik**, Texas Tech University, Lubbock, TX, United States  
**Olatunde, Taiwo**, Texas A&M University, College Station, TX, United States  
**Onitiri, Maruufdeen**, University of Houston, Houston, TX, United States  
**Pepper, Andrew**, This Is Petroleum Systems LLC, Fredericksburg, TX, United States  
**Peral, Fernando**, Universidad Nacional De Salta, Salta Province, Argentina  
**Peralta, Anibal**, Universidad Nacional De La Rioja – UNLaR, La Rioja, Argentina  
**Pesquesa, Kristelle Angela**, FESM Malaysia, Calamba, Philippines  
**Quiroga, Débora**, UN Comahue, Neuquén, Argentina  
**Rangel Gavidia, Jean**, UNICAMP, Campinas, São Paulo, Brasil/São Pa, Brazil  
**Retamoso, Santiago**, Universidad Nacional De Salta, Salta Province, Argentina  
**Riofrio, Karol**, Halliburton, Stavanger, Norway  
**Robles, Paula**, U.N. Comahue, Neuquén, Argentina  
**Rubio, Luciano**, U.N. Comahue, Neuquén, Argentina  
**Sandoval, Eugenia**, U.N. Comahue, Neuquén, Argentina  
**Skopec, Stuart**, The Ohio State University, Columbus, OH, United States  
**White, Richard**, Holy Cross Exploration, Ltd., Evergreen, CO, United States  
**Zhang, Alyssa**, University of Houston, Houston, TX, United States  
**Zhu, Bingqian**, Southwest Petroleum University, Chengdu, Xindu Block, China



By Barbara Anderson, Jim Hemingway,  
and Peggy Barber

### Tom Barber 1943–2021

Tom Barber died on August 27, 2021, after a courageous battle with cancer. He was a long-time member of SPWLA and the winner of the 2011 SPWLA Gold Medal for Technical Achievement.

Tom started his career in oilfield services in 1976, when he joined Schlumberger-Doll Research in Ridgefield, CT. Prior to that, he received a BA in physics from Vanderbilt University and did graduate work at the University of Georgia. His previous job experience included a post-doctoral appointment at Brookhaven National Laboratory and work as a NASA contractor. After working on magnetic susceptibility measurements in Ridgefield, Tom transferred to Schlumberger Well Services in Houston in 1978. He remained there, working in the area of induction logging, until his retirement.

Tom began his work in Houston by developing the first commercial signal-processing algorithm for resistivity tools, Phasor processing. This was a significant contribution because it improved the vertical resolution of the existing Dual Induction tool by means of a software upgrade without hardware changes. This advance led to a series of SPWLA papers explaining induction logs that were previously considered “strange” and the introduction of the first commercial log modeling software, ELMOD. Tom found that signal processing was a difficult concept to teach. To put people at ease, he used the hands-on example that he learned signal processing not from mathematics textbooks but from working with radio-tube circuits and their feedback characteristics.

Tom next worked on the design of the Array Induction Tool family. He also developed the log-processing algorithms for them. He constantly studied ways to improve induction log interpretation in highly deviated wells and anisotropic formations. His most recent contributions before retirement were coordinating the design of the 3D RtScanner and investigating dielectric and magnetic effects on induction logs.

Tom has authored or coauthored over 50 papers published in refereed journals and conference proceedings and holds 25 patents. He has also won several SPWLA Best Paper Awards.

However, Tom’s accomplishments ranged far beyond papers and patents. His willingness to answer questions about all areas of resistivity logging and to mentor young scientists has ensured that his contributions will live on, both at a technical level and at a human level. This is evidenced by posts on the Neptune Society web page that his wife Peggy has set up, where friends and colleagues can record their memories of Tom.

Comments about Tom on this web page have the following recurring themes:

- He had great enthusiasm for his work, which inspired his colleagues.
- His guest lectures educated both PhD students and scientists at operating companies.
- His advice had major impact on careers.
- He had an in-depth understanding of both the science of induction logging and the art of signal processing.
- He explained complex logging issues in a way that one could easily understand.
- He had a great sense of humor and could introduce joke lines into technical conversations.
- His office door was always open for anyone to come in and ask questions.
- His SPWLA Gold Medal acceptance speech was a great example of Tom’s way of “telling it like it is.”
- People felt fortunate to have worked with Tom because he was such a “great guy.”

Tom’s enthusiasm for his work extended to his hobby of playing the guitar. He and Peggy (who plays the violin) regularly attended music festivals where they would both listen and perform. Tom’s playlist included humorous and satirical songs about electromagnetism. The photo below was taken at a performance at a Schlumberger internal meeting.

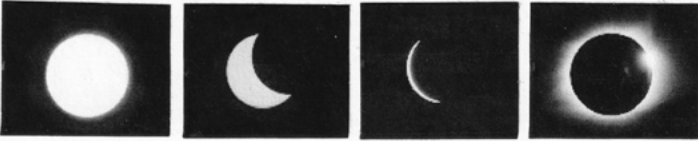


(From left to right) Jan Smits, Tom Barber, and Barbara Anderson performing the song “Spelling Maxwell’s Name” at an Electromagnetics Workshop at Round Top, Texas, in 2004.

## In Memoriam

In his spare time, Tom was a Scout Committee Chairman. On several occasions, he led Houston-area Boy Scout troops on high-adventure field trips to New Mexico. He used this opportunity to take photos of interesting geological formations in that area. The best ones have appeared as illustrations in his papers and guest lectures.

He was also an avid amateur astronomer. On Halloween, he would set up his telescope at home and invite trick-or-treaters and their parents to take a closer look at the night sky. He traveled to Kentucky for the 2017 total solar eclipse where he took these photos.



Photos taken by Tom during the 2017 total solar eclipse in Kentucky. (From left to right) calibration, crescent, thin crescent, and corona with diamond ring.

Tom was a key player in developing the last three generations of resistivity tools: Phasor Induction, Array Induction, and RtScanner. The photo below was taken by John Hunka in the late 1980s at a luncheon meeting of the Array Induction design team. The attendees are identified in the caption.



Luncheon meeting of the Array Induction design team held in the late 1980s. (From left to right) Julian Singer (interpretation development), Bill Vandermeer in the background (electrical engineering), Jacques Tabanou (array design), and Tom Barber (signal processing).

Starting with Tom's Phasor patent and continuing into his semi-retirement, he could always be counted on to extract additional information from induction measurements. He will be greatly missed.

### ONE OF THE ORIGINAL FOUNDING FATHERS OF SPWLA

#### Donald J. Timko 1929–2021



Donald J. Timko is survived by his wife, Phyllis, and nieces, Merrienne and Melanie.

Don loved music and, in his youth, played trumpet in the high school band, becoming Pittsburgh's Outstanding Music Student of the Year, with many more honors to follow in his distinguished life.

At Don's University of Pittsburgh graduation ceremony, he held his geology diploma in one hand and a draft notice in the other. He spent the next 8 years in the Air Force, serving in Korea, where he attained the rank of Captain. He then returned to Pittsburgh, where he earned his master's degree. He put his degrees to work by joining an Oklahoma oil and gas company, but after 5 years, he moved to Houston and was with Conoco for 9 years. With two partners, he then formed an oil and gas consulting firm.

Don had 50 years of experience in the petroleum industry. After graduating from the University of Pittsburgh, he was employed by Conoco as a research and reservoir petroleum engineer. Some of his initial responsibilities involved drilling and evaluating wells in Conoco's extensive operations in Texas, Oklahoma, and Kansas. Prior to leaving Conoco in 1973, he was promoted as the head of Conoco's Formation Evaluation Operations on a worldwide basis.

Over the years, he was successfully associated as a co-owner of two domestic production companies, which discovered and developed considerable oil and gas reserves along the mid and upper Gulf Coast of Texas.

Don had been a member of the faculty of the University of Houston, teaching graduate-level courses in Hydrocarbon Formation Evaluation. Over the years, he taught a similar course in the USA, Canada, South America, and Europe.

He was selected as a "Distinguished Lecturer" for the Society of Petroleum Engineers of A.I.M.E. The lectures, given worldwide, emphasized techniques to define the commerciality of oil and gas reservoirs in high-pressure/high-temperature deep geological environments. He published many technical papers on this subject over the years in the *Oil and Gas Journal*.

Don loved to share his knowledge, often teaching employees of producing oil well companies internationally, as well as at the University of Houston. He proudly served as president of numerous oil and gas technical societies, including The Society of Professional Log Analysts, which he co-founded.

An avid duplicate bridge player, Don and Phyllis could often be found competing at the local bridge clubs or at tournaments around the country. Don also served as president of the ACBL's Houston Unit 16, consisting of 2,500 members.

Over the years, he and Phyllis took many fun and exciting trips to France, Australia, England, Scotland, and San Miguel de Allende, to name a few.

Don had many great friends who enjoyed his great sense of humor and his zest for adventure. He will be sorely missed.

# CROSSWORD PUZZLE SOLUTION

