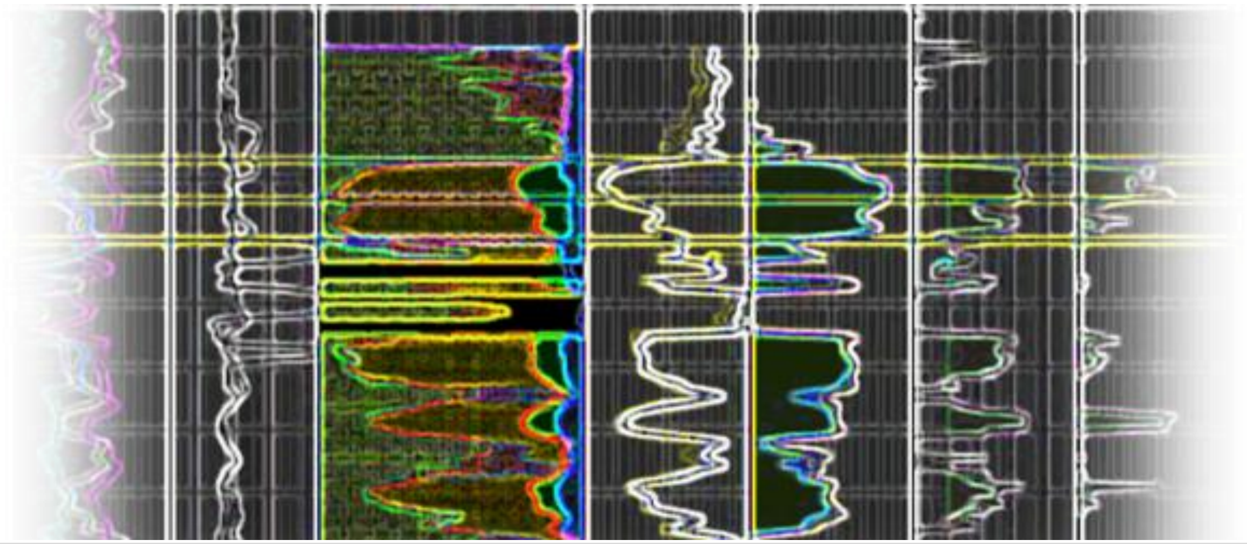
The Newsletter

Summer 2025



Thursday 19 June 2025

June 2025 All-Day Seminar
09:00 (GMT) at the Geological Society of London

Newsletter Content

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From the President

Dear LPS members,

As we head into the summer months, I'm delighted to bring you the latest update from the London Petrophysical Society. It's been a busy and rewarding period, marked by high-quality technical content, international collaboration, and the continued support of our engaged membership.

On 22 May, the London Petrophysical Society held its May Evening Lecture featuring the 2024 Iain Hillier Award Winners presentations at Burlington House. The event featured four presentations from the academic award winners, presenting their PhD research to the LPS. Andrew Evans (University of Manchester) discussed "Liberating Lithium from Subsurface Resources," and Daniela Navarro Pérez (University of Leeds) presented her work on reservoir characterization and gas production modeling from Chilean tight sandstone. Wurood Alwan (University of Leeds) showcased the use of machine learning to distinguish mineral phases and pore morphologies in carbonates, and Hager Elattar (also University of Leeds) introduced new techniques for developing unconventional carbonate reservoirs. The evening highlighted the depth of emerging talent in the petrophysics community and the relevance of academic research to real-world energy challenges.

June also saw the successful SPWLA Annual Symposium in Dubai, which brought together petrophysicists and formation evaluation experts from around the world. AI applications, digital core workflows, and unconventional reservoirs were key themes this year, with several LPS members contributing as speakers and session chairs. It was a timely reminder of the relevance and excellence of the UK's petrophysical expertise on the global stage.

Looking ahead, our June seminar is dedicated to the subject of core data acquisition and evaluation. Titled "Everything Coring", the event will feature a full day of technical talks and case studies covering coring tools, core analysis workflows, and the integration of core with log data. We're particularly honoured to welcome SPWLA President Iulian Hulea who will deliver the opening remarks and later present his own paper, sharing his perspective on fracture detection and accurate prediction of matrix properties.

Our next online lecture is scheduled for July, with full details to be announced shortly. We're finalising the speaker and topic, but rest assured it will continue our tradition of delivering high-calibre technical content that is accessible from anywhere.

This month's newsletter also includes a technical article by Fredy Rodriguez, titled "Electrical Efficiency and Porosity Dependencies in a Tight Sandstone Reservoir in Colombia." The paper offers a thoughtful investigation into how electrical properties can reveal porosity structure and reservoir quality in challenging tight formations. We encourage all members to take a look and engage with the findings.

We would also like to draw attention to the upcoming Ultra-Deep Azimuthal Resistivity (UDAR) Topical Conference, which will highlight advances in data integration and evaluation methods in complex and unconventional systems. This is an exciting opportunity for members working at the cutting edge of petrophysics to connect and contribute. The call for abstracts is open until the 1st of August and I encourage anyone with an interesting paper to send in their abstracts to the SPWLA technical committee. Further details can be found on the LPS website.

Lastly, a friendly reminder that membership renewal emails have recently been circulated. If you haven't already renewed your LPS membership, please take a moment to do so. Your continued support ensures we can maintain our active schedule of lectures, seminars, publications, and networking opportunities. A reminder email will be sent out to lapsing members before the end of June.

Thank you, as always, for being part of the London Petrophysical Society. We look forward to seeing many of you at our upcoming events—both in person and online.

Regards,

Phil Gibbons
London Petrophysical Society President, 2025

Our Sponsors

Upcoming LPS Events

Below are the scheduled upcoming events hosted by the LPS. Please visit our website for complete additional events and details: https://lps.org.uk/events/. Note that additional events for 2025 are still being added and will be announced soon.

If you would like to participate or suggest a speaker for a future event, please do get in touch.

Upcoming events:

Date	Format	Event	Venue	Topic
19 June 2025	Hybrid (in-person & online)	June 2025 All-Day Seminar	Geological Society Council Room, Burlington House, Piccadilly & Online	Everything Coring
4 September 2025	Hybrid (in-person & online)	September All-Day Seminar	Geological Society Council Room, Burlington House, Piccadilly & Online	TBC
11 December 2025	Hybrid (in-person & online)	December All-Day Seminar	Geological Society Council Room, Burlington House, Piccadilly & Online	TBC

Additional events to be announced soon!

Visit our events webpage for a complete list of 2025 past scheduled events and details.

June 2025 All-Day Seminar

Everything Coring

The London Petrophysical Society will be holding a hybrid, all day seminar on **Everything Coring**, presented in-person and streamed online simultaneously.

Date & Time: 19-June-2025 09:00 to 17:00; **Location:** The Geological Society, Burlington House, Piccadilly

London Petrophysical Society - "Everything Coring" - Thursday 19th June 2025				
Start Time	End Time	Name	Company	Talk Title
09:00	09:20	Doors Open and Registration		
09:20	09:30	Martin Leonard	LPS	LPS Seminars - Introduction
09:30	09:50	Iulian Hulea	Shell Global Solutions	SPWLA: Where Petrophysics is at Home! Know and share, learn and enjoy!
09:50	10:20	Craig Lindsay	Core Specialist Services Limited	Core Analysis - A Coming of Age?
10:20	10:50	Dave Saucier	BP	An operator view on trends in core acquisition
10:50	11:10	Break		
11:10	11:40	Elisabeth Steer	British Geological Survey	Maximising Value from Acquired Core
11:40	12:10	Tanguy Lhomme	EPSLOG SA	Enhancing Core Data Resolution and Continuity for Improved Geological Characterization
12:10	12:30	Iulian Hulea	Shell Global Solutions	From the way we function to Fracture Detection and Accurate Matrix Properties Prediction
12:30	13:30	Lunch		
13:30	14:00	Adam Moss	Islay Subsurface & Engineering	How to get an A* in Core Analysis
14:00	14:30	Chris Pentland	North Sea Transition Authority	Unlocking CO_2 Storage: The Critical Role and Challenges of Coring and Core Analysis
14:30	15:00	El-Saied Hassan	SLB	Sidewall coring recovery optimization with the latest enhanced SWC solutions
15:00	15:20	Break		
15:20	15:50	Lewis Evans	Islay Subsurface & Engineering	Planning for success; Operational considerations to improve core recovery, and preserve core quality from downhole to the lab
15:50	16:20	Mike Spence	British Geological Survey	3D Visualisation of Core Scan, Wireline and In-Situ Monitoring Data from the UK Geoenergy Observatory in Cheshire, UK
16:20	16:50	Robin Cooke	BP	Value of Core to Subsurface Understanding: Operations and Beyond!
16:50	17:00	Philip Gibbons	LPS	LPS President - Closing Remarks
17:00	Networking Reception in the Library			

Calendar reminder HERE

Registration is now open HERE

Event cost: £150

Retirees and looking for work: £75

Students: Free

Call for Abstracts

SPWLA Topical Conference on Ultra Deep Azimuthal Resistivity (UDAR) March 2026

Submission Deadline: **1st August 2025**

This Topical conference focuses on the latest advancements in ultra-deep azimuthal resistivity (UDAR) technologies from across the globe combined with education sessions to refresh and enlighten those new to the field.

The fast paced development of these technologies provides the opportunity to explore their use in multiple geographies and depositional environments. Experts from across the industry will present the latest developments and applications in this field as well as be available for debate and discussion. Education sessions will be conducted daily to focus on the foundations and fundamental knowledge required to successfully utilise this technology.

A special edition of Petrophysics will be published, incorporating the best papers presented at conference.

This is a **Call for Abstracts** for full papers and presentations from Energy Companies, Service Companies, Independent Consultants, Academia and other interested parties.

Suggested topics:

Geosteering , Geomapping, Geostopping, Look-Ahead, Hardware, Inversion/Modelling Workflows, Automation, Integration, Multiphysics workflows, Multi-laterals/Geological Sidetracks and Case studies.

Details:

Date:	23rd to 25th March 2026
Where:	Geological Society, London, United Kingdom
Deadline for Abstracts:	1st August 2025 (Standard SPWLA format) (400 to 500 words)
Format:	In person presentations
Where to submit:	Event webpage

Additional Events

Upcoming SPWLA Events:

- Resistivity SIG June 2025 Meeting - June 17th 2025
- Cased Hole Formation Evaluation Course - September 16th to 17th 2025
- SPWLA 2026 UDAR Topical Conference - March 23rd to 25th 2026

GESGB Events:

- **GESGB Events Webpage**

Electrical Efficiency and Porosity Dependencies in a Tight Sandstone Reservoir in Colombia: Implications for Water Saturation Estimation and the Incompatibility with the Archie Model

Fredy Rubén García Rodríguez

ABSTRACT

The classification of rocks' electrical properties depends upon their description by Archie's empirical model, which establishes a relationship between electrical properties such as formation resistivity factor (*F*) and resistivity index (*I*). Rocks whose properties align with the predictions of Archie's model are termed "Archie" rocks, while those deviating from its predictions are labelled "non-Archie" rocks. The primary objective in correlating measurable formation electrical properties to unmeasurable petrophysical variables lies in estimating water saturation and its correlate, hydrocarbon saturation – both pivotal parameters in reservoir assessment.

In the evaluation of tight sandstone reservoirs characterized by the intricate pore structures that result from enhanced diagenesis, the complexity of rock conductivity often leads to inaccuracies in water saturation calculations using models appropriate for Archie rocks.

A reservoir rock´s electrical behaviour is controlled by the arrangement and conductivity of constituent mineral grains, pores, and the distribution and conductivity of the electrolyte in the pore volume. In some tight reservoirs, Archie-based saturation models are too simple to make accurate predictions. Archie's model lacks universal applicability to petroleum reservoir rocks, leading to significant misinterpretations when applied to sediments more complex than the typical intergranular pore systems found in clean sandstone. This is evident in real-world situations, such as some encountered in Colombia, where core samples underwent comprehensive analysis, encompassing physical properties, rock experiments, and electrical tests. The examination of conductivity behaviour and sedimentological features revealed a complex pore system, rendering Archie's model inadequate to describe the relationship between electrical conductivity and water saturation accurately. Consequently, inaccuracies in water saturation predictions using Archie-based models become apparent, as demonstrated by the examination of core samples, well log interpretation and production tests data.

This article addresses this limitation by focusing on two proposed models to estimate water saturation by looking at the Conducting Connected Porosity and the Electrical Efficiency methods as an approximation for water and hydrocarbon saturation for such rocks. The proposed approach differs from Archie´s empirical model, introducing a physically grounded and understandable models.

Introduction

The Mirador Formation is a Tertiary sandstone with moderate to high permeability and low porosity (approximately 8%), located in the Llanos Foothills Basin of the Eastern Cordillera in the Colombian Andes. The relatively high permeability to its low porosity is attributed to the presence of fracture porosity.

Archie´s Formation Resistivity Factor (*F*) – Porosity (φ) model is not appropriately applicable to this reservoir for three main reasons. First, the Archie model was developed using a data set taken from the Nacatoch sandstone. This set consisted of 73 core samples with porosity values ranging from approximately 10% - 40%, representing a broad range with no data from compacted rocks. However, the trend defined by this data when extended to zero porosity very nearly intersects zero conductivity. Additionally. The trend plots as a straight line on log-log scales plots, as shown in Figure 1. These two characteristics indicate that the relationship observed in the Nacatoch sandstone data follows a power law. Unfortunately, this regression has subsequently been assumed to apply to all types of reservoirs including the Mirador Formation. Trends observed in many data sets intersect zero conductivity at a porosity greater than zero, a phenomenon known as a connected porosity or percolation threshold (Kennedy, 2012). This implies that electrical conductivity would vanish even while the rock still contains a measurable volume of fluid-filled porosity. This is particularly true for low-porosity rocks, especially in the Mirador Formation.

The Archie model was developed in terms of resistivities. However, it is simpler when expressed in terms of formation and brine conductivities[1]. The Archie´s model applying the usual notation, is

$$\frac{C_t}{C_w} = \varphi^m S_w^n$$

Note that $C_t \rightarrow 0$ as $\varphi \rightarrow 0$. And that C_t is a function of φ^m. This makes it a power law. To model a trend that requires a percolation threshold, this formula is modified to

$$\frac{C_t}{C_w} = \left(\frac{\varphi - \varphi_\vartheta}{1 - \varphi_\vartheta}\right)^m$$

φ_ϑ is a percolation threshold. Note that for this model, $C_t \rightarrow 0$ as $\varphi \rightarrow \varphi_\vartheta$ and $C_t / C_w \rightarrow 1$ as $\varphi \rightarrow 1$

From a geological viewpoint the rock conductivity develops at its actual magnitude once the rock transitions to a grain-supported system. The reduction in conductivity and porosity is attributed to diagenetic processes. As porosity decreases the rock´s conductivity declines – both due to the reduction in brine content and the increased constrictions to electrical current flow by the accommodation of quartz sediments. The rate at which conductivity changes with respect to brine volume varies from samples and it reflects the changes in geometry of the conducting phase due to changes of the internal architecture of the rock (Herrick & Kennedy, 1993).

This scenario also introduces a challenge in petrophysical evaluation. Given that the model assumes a porosity threshold to current conduction and consequently to fluid flow, the concept of effective porosity – typically defined by excluding clay-bound water – may not fully account for the physical phenomena. Therefore, relying solely on clay volume to define effective porosity may be insufficient to capture the transmissive properties of the rock.

The Archie Model and its Limitations for Petrophysical Analysis

The industry-standard interpretation framework for water saturation is rooted in an empirical power law correlation between porosity φ and formation resistivity factor F.

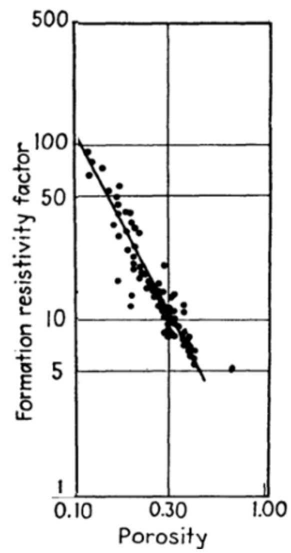

Figure 1. From Archie´s seminal data – Nacatoch Sandstone. Porosity varies from 12 % to roughly 40 %. There are different rock samples with different diagenesis processes. Such samples may come from different parts of the reservoir or different depths. The dataset is perfectly fitted by a power law. The "cementation exponent *m*" from the regression function estimated for these samples is approximately 2.

Based on Archie´s own description of core samples from the Nacatoch reservoir, he characterized the formation as a sandstone with poorly sorted grains, a shaly matrix, and calcareous cement, exhibiting comparatively high porosity and permeability. It is somewhat confusing that Archie´s description of samples does not fully correspond with the lithological classification commonly presented in

[1] Kennedy, D., & García, F. (2019) *Introduction to Resistivity Principles for Formation Evaluation: A Tutorial Primer*. DOI: 10.30632/PJV60N2-2019t2.

textbooks or articles: The criteria for an Archie reservoir shows (1) single rock type, (2) homogenous, (3) compositionally clean, (4) clay – silt free, (5) unimodal pore-size distribution, (6) water-wet, (7) no metallic minerals, (8) high salinity brine (Worthington, 2012). These characteristics are not applicable to low-porosity sandstones that have undergone complex diagenetic processes. As a result, there are significant discrepancies between Archie´s lithological description and the properties typically observed in the tight sandstone from Mirador Formation. Some of these features may apply since the cores recovered from the Mirador Formation revealed in most cases sediments with good selection, clay-free minerals, rounded to sub-rounded, sub-angular texture, and good sorting but also, the presence of multiple natural fractures, suggesting that the reservoir has a distinctly fractured character.

The low porosity and high degree of rock compaction in the Mirador Formation are key factors limiting reservoir quality and reservoir evaluation. Therefore, reservoir productivity largely depends on a hybrid system consisting of the rock matrix and natural fractures, which together facilitate efficient fluid drainage. These samples plotted in conventional Archie´s analysis, Figure 2, shows scatter which represents more than one porosity – changing process. Some of the causes that alter or modify porosity among samples probably do not act uniformly throughout the formation, therefore variability is guaranteed.

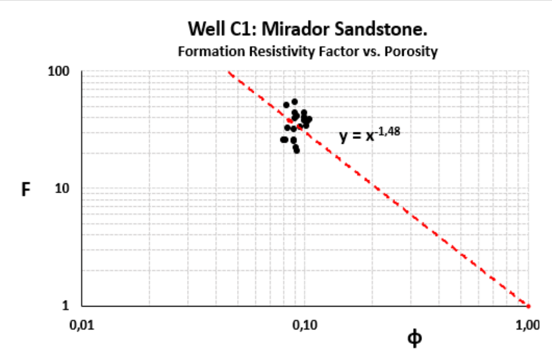

Figure 2. Formation Resistivity Factor and Porosity relationship for selected samples in the Mirador formation. From this relationship the samples show low porosity from a high compacted reservoir. The relationship shows scatter, variability of the rock and different rock types as well. The premise that homogeneity in clay-free sandstones at some scale exists is false for tight reservoirs. Highest values for Formation Resistivity Factor indicate the lack of conduction capacity for some core samples. The adjustable parameter called "cementation exponent *m*" is estimated below 2.

Water Saturation from First Principles

During the petrophysical evaluation of Mirador Formation, the results obtained using Archie´s model frequently proved inconsistent with the expected production. As a result, it was often necessary to incorporate advanced logging tools to estimate fluid saturation. However, the use of these specialized instruments significantly increased overall project costs. This situation was crucial so the petrophysical model needed multiple revisions.

While Archie´s model may apply for certain conditions, the equation does not have a theoretical basis; rather, it is an *ad hoc* relationship (Herrick & Kennedy, 1993, p. 1). Therefore, the reliability of a water saturation model is inherently dependent upon the understanding of the pore geometry or the internal architecture of the porous medium, which controls the specific distribution and connectivity of the conducting phase – formation water. Based on this analysis, the internal architecture of the rock can be explained by the electrical efficiency[2] E_0 since relates the electric current carried by the brine and its distribution in the pore system to that brine in its most conductive configuration, which is

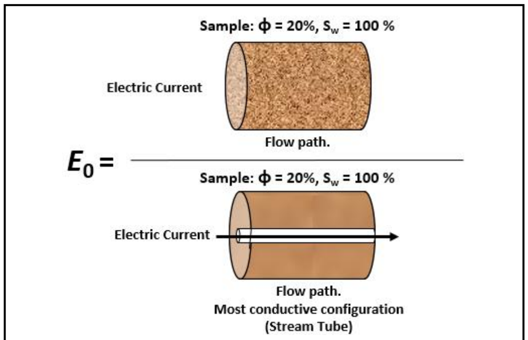

Figure 3. Relationship between average current flow path in rock and average current flow path in equivalent tube. Both samples have the same external dimensions.

[2] Herrick, D., Kennedy, D., (1993). *Electrical Efficiency: A Pore Geometric Model for the Electrical Properties of Rocks*.

considered a straight tube, Figure 3. For tight rocks, we know that when porosity is low, conductivity is also low, therefore the lack of efficiency for the rock to conduct current must be proportional to its geometry. Therefore, it has been established that for an aquifer that the conductivity of the porous medium would relate to the Triple Product Theorem (Kennedy & García, 2019): the bulk conductivity of the rock C_0 is proportional to (1) conductivity of the brine C_w, (2) Amount or fractional volume of brine represented by porosity φ, and (3) geometry of the brine represented by E_0. Then, the Triple Product Theorem defines the conductivity of a rock-fluid system fully saturated with brine as follows:

$$C_0 = C_w E_0 \varphi$$

Where E_0 is in other words a geometrical factor. Under this analysis, the formation factor in terms of conductivity would be the product between porosity and the electrical efficiency of the rock:

$$f = \frac{C_0}{C_w} = E_0 \varphi$$

Applying this concept to Archie´s dataset we can find that there is certain proportionality between electrical efficiency and porosity despite the scattering in the data we see due to environmental conditions of the samples, Figure 4. Generally, clean reservoirs having intergranular porosity exhibit this linear E_0 - φ behaviour. Of course, there are some scatters due to variability in rock composition and local diagenesis from the environment. The scattering may be expected to all kinds of reservoirs. From the previous plot we can say that electrical efficiency E_0 approximately equals porosity, and it can be also expressed as:

$$E_0 = a\varphi + b$$

Where a is the slope ≈ 1 and b the intercept ≈ 0 respectively. Also, the subscript 0 indicates the rock sample is fully water saturated. Similarly to the work done with the Mirador Formation when plotting the dataset in Archie´s relationship, we used the data and plotted in terms of electrical efficiency and porosity. The analysis indicates that there are physical features related to the sedimentological description of the rock that govern the overall conduction – probably fractures or shaliness – which are not only related to intergranular or primary porosity. The presence of this secondary porosity and clay minerals that conditions rock conductivity shows an abnormal relationship between electrical efficiency and porosity, Figure 5.

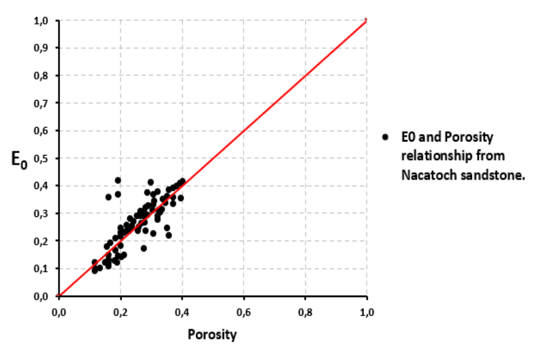

Figure 4. Validating E_0 using Archie´s dataset. The data was hand-digitized thanks to Professor David Kennedy from Archie's figure 2 in his seminal paper – 1942. The dataset shows scatter since there are also outliers that may represent fractured or clay rich samples. The perfect intercept at almost zero indicate that many effects in rocks occur and cancels each other to get a perfect proportionality. The relationship means that conduction occurs in 20% of the porous media in a rock sample with 20% porosity. This is also crucial to understand the relationship between conductivity and permeability and suggest revisiting the concept of effective porosity.

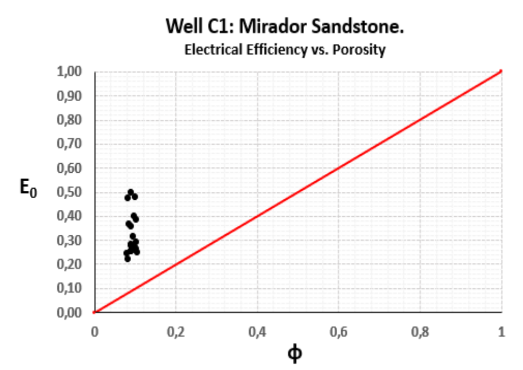

Figure 5. For brine saturated rocks in the Mirador Formation, we don't see any correlation between the electrical efficiency with porosity. The points are outliers being too conductive from the conventional trend between E_0 and Porosity (red curve). These rock samples may represent cores that have fracture porosity which corroborates the core description from Mirador Formation but, also the samples may contain some clay with surface conductivity. They are not entirely clay-free samples. Therefore, the samples may not apply for a water saturation model based on Archie´s equation as is commonly thought in the Llanos Foothills Basin in the Mirador Formation.

Since we know for tight rocks that conductivity is low when porosity is low, we also expect that the electrical efficiency must be a small number as well but, the relationship that we see shows the opposite. The dataset shows a high electrical efficiency due to secondary porosity as expected for different E_0 – relationships in rocks with different kinds of pore architecture (Herrick & Kennedy, 1993), Figure 6.

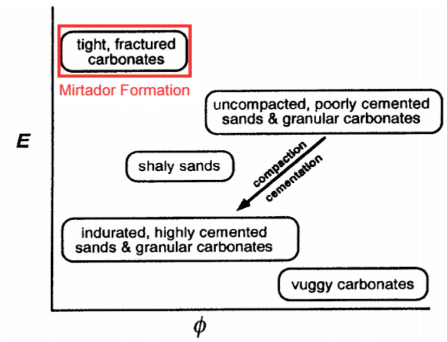

Figure 6. Electrical efficiency and porosity relationships for different reservoir types. The E_0 – φ relationship for the Mirador Formation indicates the presence of a secondary porosity system. The changes in porosity are accompanied by changes in the internal rock architecture since changing pore geometry and pore volume are essentially dependent upon the same phenomenon.

The Conducting Connected Porosity Model

As discussed earlier, there are cases in complex reservoirs such as the Mirador Formation where conductivity persists even with zero porosity. We can observe this phenomenon when plotting Archie´s Nacatoch data in terms of normalized conductivity f against porosity φ, Figure 7.

The red line corresponds to the quadratic function that fits the data. The trend is constrained to pass through the boundary condition called the brine point (φ = 1, f = 1). The percolation threshold corresponds to the intercept of the trend line with the porosity axis – representing the minimum connected porosity required for the electrical conduction. The expression for quantifying bulk conductivity becomes now

$$C_0 = C_w(\varphi - \varphi_\vartheta)E_0$$

The value of φ_ϑ is the value of porosity φ where conduction vanishes. Therefore, the electrical efficiency E_0 equals zero at $\varphi = \varphi_\vartheta$. Archie´s data set exhibits an intercept close to zero – point (0, 0).

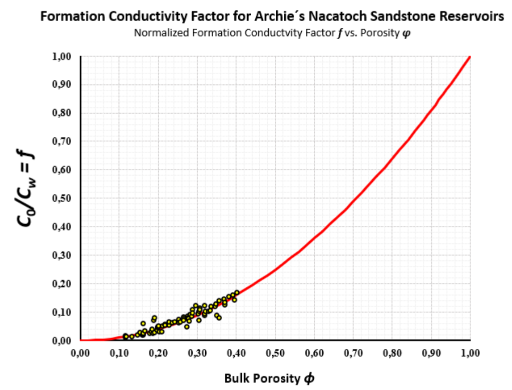

Figure 7. Archie's data set from the Nacatoch sandstone. Data plotted as normalized conductivity vs. porosity to identify the percolation threshold where bulk conductivity is zero. When plotted at this scale and including the brine point, we also can see the curvature that passes nearly at point (0,0).

By applying the percolation model illustrated in Figure 8, we observe that the data exhibits an anomalous trend, as the intercept does not cross with the porosity axis. This deviation is typically associated with samples containing matrix components with certain degrees of clay content. Such behaviour falls outside the conventional classification of Archie-type rocks, which assume clean, clay-free formations. For years the Mirador Formation has been treated as a clean rock and homogeneous sandstone, but under these

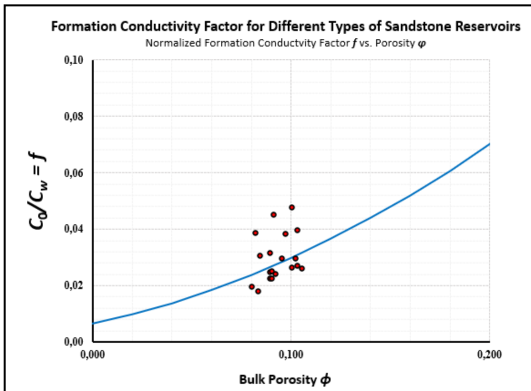

Figure 8. Normalized Formation Conductivity Factor versus Porosity for the Mirador tight sandstone Formation. Normally, Core plugs used in "Archie rocks" are typically with porosity values greater than 0.10. In this example, we see core plugs cut in a reservoir for porosities below the Archie´s domain. As we can see, the blue curve trend does not show the intercept in the porosity axis. Therefore, we cannot see the minimum "fractional volume of connected brine" due to additional conduction in the rock matrix.

unconventional approaches, we can see that there is in fact a volume of clay presents in the matrix and a secondary porosity system that should not be ignored. Given this, the analysis of the saturation model based on electrical efficiency and percolation models provides us with more information about the type of rock and the complexities it exhibits—to such an extent that we should consider reclassifying as non-Archie rock.

As a final thought, the conventional and empirical Archie´s water saturation model may not be accurate to represent the magnitude of fluid volumes in the Mirador Formation. The physical grounded models from the electrical efficiency E_0 and connected porosity show practical and essential results for a better understanding of conductivity and its relationship to fluid saturation. They provide valuable insights into the limitations of the empirical approaches. Incorporating this knowledge could lead to valuable modifications in logging analysis and log-core acquisition programs.

Acknowledgements

My sincere gratitude to Dr. David Herrick and Professor David Kennedy. For over 30 years they have conducted extensive work to advance the understanding of electrical conductivity in rocks and its connection to petrology. The original and fundamental ideas and theory in this article come from their research and critical mind. Their work has been a profound source of inspiration for both my professional and personal development. Although both are now retired from the industry, they remain active mentors to the new generation of petrophysicists.

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Call for Papers

A message from the LPS Executive Committee:

Call for LPS Newsletter Articles

We would like to invite members and friends of the LPS to submit technical articles for future editions of the LPS Newsletter.

The LPS Newsletter welcomes submissions in a range of flexible formats such as a short story/article/announcement that generally fall within the following structures:

- **Technical Innovation News:** The LPS will include a section specifically allocated to short, topical, innovation-oriented news. This can be a paragraph or an extended abstract format to share with the community newly developed methods, tools, and newly registered patents. The objective is to disseminate the information to all interested parties within the LPS community and beyond. Innovation encompasses new designs or methods, with the ultimate objectives of better solutions to meeting needs, or realising a goal in a new technique. The innovations are key to providing industrial and academic teams with a competitive edge, and part of the process of innovation is to make end users and competitors aware of what is new. The LPS would like to contribute to promoting innovative ideas and processes through the newsletter communication.
- **Major Articles:** In depth articles discussing topics of interest. Such articles can involve a review of a particular subject or can address and discuss a specific method, tool, or an academic study finding. For example, articles may discuss the implementation experiences, implementation efforts of a tool or a method, and uncertainties in the outcome and areas for improvements
- **Short Notes Articles:** These can be preliminary findings of academic and industrial R&D projects related to petrophysics, rock physics and rock mechanics. These short notes can be in the format of an extended abstract.
- **Educational Material:** This may include introducing a topical subject to the wider community. For example, there is a lot of discussions on Artificial Intelligence application in geosciences including petrophysics, rock physics etc. An article that describes the basic principles, historical background and current state of the art and challenges would be appropriate and timely.
- **Article Series:** This is a new addition to the LPS newsletter and will take the form of a series of articles or educational pieces that are too long for individual editions and will appear across multiple newsletters.
- **Community Stories:** Non-technical stories of charitable or community involvement of LPS members and friends are welcome to be submitted for inclusion in the newsletter.

Contribution Formats

Articles should be submitted in Word format and with embedded figures. The newsletter editor will support in formatting for inclusion into the LPS Newsletter.

Word count suggested guidelines:

Technical Innovation News: up to 500 words, and up to 4 figures/illustrations
Major Articles: up to 3000 words and up to 15 figures/illustrations
Short Notes Articles: up to 1500 words and 8 figures/illustrations
Educational Material: up to 3000 words and up to 15 figures/illustrations
Article Series: up to ~15,000 words and up to ~50 figures/illustrations

If anyone would like to contribute with material that has been previously published, the LPS Editor requires approval of the original article author (s) and the publisher and a Word version of the article without graphics.

Please reach out to the LPS Editor or other committee member with any questions or suggestions for future newsletter contributions.

Call for Papers

Why publish in the LPS Newsletter?

Articles submitted to the newsletter will benefit from rapid publication and flexible format. Furthermore, sharing technical innovation news give the inventors/service providers/researchers the exposure to potential end users and help in completing the innovation process into implementation and testing opportunities.

The deadline

Contributions should be sent to **the LPS Technical Editor by email.** Articles will be published on first come first serve basis subject to suitability of the article and readiness for publication with no editorial issues.

Frequency of publication

Accepted contribution for publications will be published in the bimonthly LPS newsletter.

The license and copyright

By submitting a contribution to the newsletter, you agree that the text which appears in the newsletter will be publicly available.

How to submit?

To submit a contribution to the newsletter please send your material at the first instance in a compressed pdf file format to the Newsletter Editor of the LPS.

All submitted material should have the full names and affiliation and contact details for the authors with an indication as to who is the corresponding author.

It is the responsibility of the author to get permission for the publication of material from their organization and third parties. LPS assumes that such permission is obtained before the material is submitted.

Commerciality should be avoided, and while preparing the material for publication the author should avoid any offense to others.

Templates for articles will be available on request from potential contributors.

Contact for queries/clarifications:

If you have further information/queries please contact:
Andrew C. Johnson, Newsletter Editor: ajohnson23@slb.com

SPWLA Membership

Become a Member

Founded in 1959, SPWLA a non-for-profit organization provides information services to scientists in the petroleum and mineral industries, serves as a voice of shared interests in our profession, plays a major role in strengthening petrophysical education, and strives to increase the awareness of the role petrophysics has in the Oil and Gas Industry and the scientific community.

MEMBERSHIP BENEFITS (does not apply to Affiliate Chapter Member)

-Chapter Monthly meetings in your region or any of our SPWLA Chapters and SIGs.
-Online digital copies of The SPWLA Today Newsletter.
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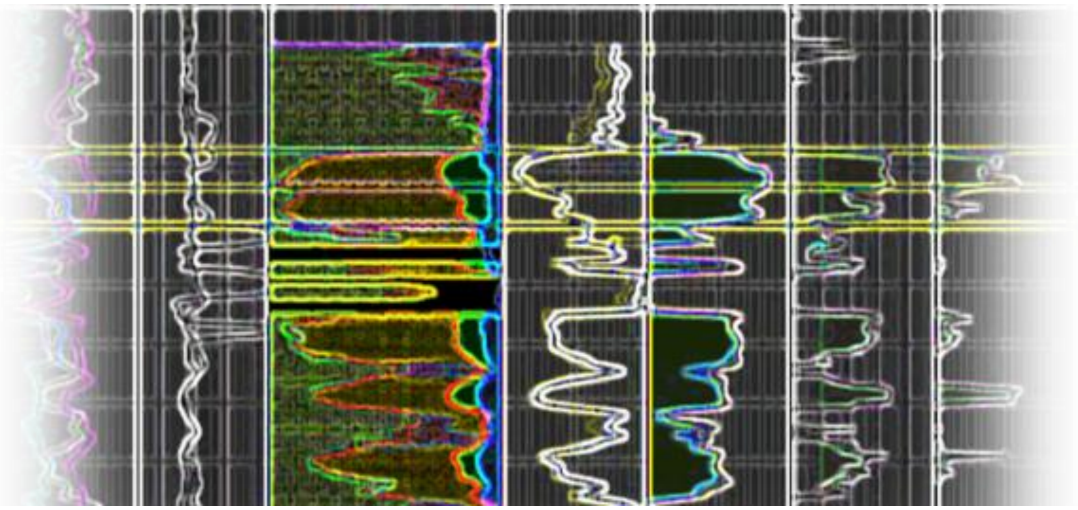

Feedback to AJohnson23@slb.com