



مؤتمر ومعرض الشرق الأوسط الرابع عشر للعلوم الجيولوجية

14th Middle East Geosciences Conference and Exhibition

Conference: 4 - 7 October 2021 | Exhibition: 5 - 7 October 2021

Bahrain International Exhibition & Convention Centre

GEO YPS Webinar Series: Petrophysics: The Core of the Subsurface Evaluation Questions		
Name	Question	Answers
Joshua Pwavodi	For permeability estimation. What combination of logs should i use as proxy to determine the permeable zones in the absence of cores, well test etc.	The main logs to use are the porosity and the irreducible water saturation as per the models mentioned in SLB book such as Tixier, Timur, Coates-Dumanior & Coates. The book can be downloaded from SLB website for free
Rana Imran Ali	do you have any example of clastic reservoir which produced HC but low Resistivity?&nbsp;	Many examples are available in the literature, Pls refer to <a href="https://doi-org.dbgw.lis.curtin.edu.au/10.1007/s12517-014-1348-4">https://doi-org.dbgw.lis.curtin.edu.au/10.1007/s12517-014-1348-4</a> , There are many more on the web that shows many examples
Abdullah Alqubalee	Is there any suggested python/R packages to be used to run petrophysical evaluation?	Unfortunately I am not aware of any myself as I am using different softwares directly, but certainly there are many
stefano borello	Is there open source software to do this type of calculation?	There are many softwares in the market, and it is hard to find one that is open source. However, there are many softwares that can be easily used for a trial periods for up to a month
Rana Imran Ali	Or what could be the possible reasons of low resistivity?&nbsp;	Possible reasons could be the shale content, mineralogy, laminated shaly sands, etc
Danjuma Jacob Damina	Pls can you elaborate on the reverse Archie method for Water resistivity determination.&nbsp;	That is a simple method where you simply pick a clean water bearing interval, in which the Sw will equal (1), then use Archie equation to solve for Rw value as all the other parameters will be known in such case
Emad Mohamed	can you please share the presentation and the recorded webinar .	I believe the presentation will be shared, but there is no recording unfortunately
stefano borello	If I have limestone a fractured reservoir how I can characterise my reservoir and calculate porosity values?	The formation porosity is the first step in that case, in Carbonates, the density is the tool to use as long as the density is a valid log. Once the porosity is calculated, you can classify the facies using the FZI method or any of the other methods available; Happy to provide more info on that if interested
stefano borello	Is there open source software to do this type of calculation?	You certainly can do this on Excel sheet. The calculations are usually simple, this requires just some experience picking depths on your log to calculate the reservoir parameters. Re the open source software, I believe many companies may provide softwares for a trial period for up to 30 days
Akinmuda Olusegun	Is it professional to use the limestone scale of 1.95-2.95 density scale in a sandstone formation	The limestone scale is the reference as you correct this in your evaluation. All the tools, charts and softwares are referring to that scale. There are two limestone scales (1.95 - 2.95) and (1.71 - 2.71)
Akinmuda Olusegun	what software's are most suitable for petrophysical evaluation	Many good softwares are available in the market, I would recommend to look for IP software, as it is easy to use. Techlog is also a good one
Akinmuda Olusegun	How can i identify low Resistivity pay zone in clastic environment?	Many criterion to be considered in this, could be the resistivity that defines the hydrocarbons, could be the density neutron signature relative to the nearby clean sands, or a sort of both together. The advanced tools help a lot also with this such as NMR, images and spectroscopy
Rana Imran Ali	do you have any example where clastic reservoir properties are good but resistivity is low but during drilling gas flowed and burnt.	There are many published papers in SPE, through Onepetro. The majority of the cases I have seen are directly still under data protection policies and have not been shared in public domains unfortunately. To help more with that, pls look in Halliburton NMR Logging Principles and applications, there are several examples on low resistivity pay Clastics (e.g.: Page-17, Chapter-1). The book can be downloaded for free from HAL website
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