

Accepted Manuscript

Palaeohydrology of the lower cretaceous pre-salt lacustrine system, from rift to post-rift phase, Santos Basin, Brazil

Raphael Pietzsch, Daniel M. Oliveira, Leonardo R. Tedeschi, João V. Queiroz Neto, Milene F. Figueiredo, Joselito C. Vazquez, Rogério Schiffer de Souza



PII: S0031-0182(18)30014-2
DOI: doi:[10.1016/j.palaeo.2018.06.043](https://doi.org/10.1016/j.palaeo.2018.06.043)
Reference: PALAEO 8849

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 5 January 2018
Revised date: 27 June 2018
Accepted date: 27 June 2018

Please cite this article as: Raphael Pietzsch, Daniel M. Oliveira, Leonardo R. Tedeschi, João V. Queiroz Neto, Milene F. Figueiredo, Joselito C. Vazquez, Rogério Schiffer de Souza, Palaeohydrology of the lower cretaceous pre-salt lacustrine system, from rift to post-rift phase, Santos Basin, Brazil. *Palaeo* (2018), doi:[10.1016/j.palaeo.2018.06.043](https://doi.org/10.1016/j.palaeo.2018.06.043)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Palaeohydrology of the Lower Cretaceous pre-salt lacustrine system, from rift to post-rift phase, Santos Basin, Brazil.

Raphael Pietzsch^{1,a}, Daniel M. Oliveira¹, Leonardo R. Tedeschi¹, João V. Queiroz Neto¹, Milene F. Figueiredo¹, Joselito C. Vazquez¹, Rogério Schiffer de Souza¹

¹Petrobras Research and Development Centre (Cenpes), Av. Horacio Macedo 950, Cidade Universitaria, 21941-915, Rio de Janeiro, RJ, Brazil

^aCorresponding author: pietzsch@petrobras.com.br

Abstract.

Large oil accumulation discoveries in the last decade in the pre-salt rock succession off the Brazilian coast aroused renewed interest in carbonate reservoirs, prompting several studies aiming at unravelling the conditions of formation of these rocks.

Despite that, there are still many gaps in the knowledge concerning environmental conditions of the deposition of the pre-salt carbonates of Santos Basin, located at the southeastern Brazilian margin. In this study, we present and discuss a new suite of geochemical and biostratigraphic data of the lacustrine rift to post-rift succession (broadly correlated with Itapema and Barra Velha formations) of the Santos Basin, whose deposition occurred in the Aptian. The integration of the petrographic, biostratigraphic and geochemical data serves the ultimate purpose of the study, which is to apply the new radiogenic strontium data as a proxy for the reconstruction of the evolution of the lake hydrology associated with the deposition of the carbonates of the Itapema and Barra Velha formations. These data are integrated into numerical models, whose results bring new ideas on the general hydrologic conditions of the lake system and on its evolution through time. The mass balance calculations indicate that two

Download English Version:

<https://daneshyari.com/en/article/8868079>

Download Persian Version:

<https://daneshyari.com/article/8868079>

[Daneshyari.com](https://daneshyari.com)