Accepted Manuscript

Title: First evidence for the early Aptian Oceanic Anoxic Event (OAE1a) from the Western margin of the Pindos Ocean (NW Greece)

Author: Vasileios Karakitsios Evi Tzortzaki Fabienne Giraud

Nikos Pasadakis

PII: S0016-6995(17)30126-2

DOI: https://doi.org/doi:10.1016/j.geobios.2018.04.006

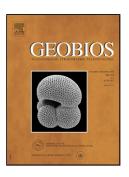
Reference: GEOBIO 820

To appear in: Geobios

Received date: 19-7-2017 Accepted date: 17-4-2018

Please cite this article as: Karakitsios, V., Tzortzaki, E., Giraud, F., Pasadakis, N., First evidence for the early Aptian Oceanic Anoxic Event (OAE1a) from the Western margin of the Pindos Ocean (NW Greece), *Geobios* (2018), https://doi.org/10.1016/j.geobios.2018.04.006

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.



ACCEPTED MANUSCRIPT

First evidence for the early Aptian Oceanic Anoxic Event (OAE 1a) from the Western margin of the Pindos Ocean (NW Greece) *

Vasileios Karakitsios ^{a,*}, Evi Tzortzaki ^a, Fabienne Giraud ^{b,c}, Nikos Pasadakis ^d

^a Department of Historical Geology and Paleontology, Faculty of Geology and Geoenvironment, National and Kapodistrian University of Athens, Panepistimiopolis Zographou, GR 15784, Athens, Greece

^b Univ. Grenoble Alpes, ISTerre, F-38041 Grenoble, France

^c CNRS, ISTerre, F-38041 Grenoble, France

^d Hydrocarbons Chemistry and Technology Laboratory, School of Mineral Resources Engineering, Technical University of Crete, GR 73100, Chania, Greece

* Corresponding author: Vasileios Karakitsios. E-mail: wkarak@geol.uoa.gr (V. Karakitsios).

* Corresponding editor: Gilles Escarguel.

Abstract

In this paper, new biostratigraphic, stable isotope (C, O) and organic geochemical data are presented for the Pindos Zone in NW Greece (SE Epirus region) in order to investigate whether the organic carbon rich strata of the Kalarrytes sections A and B correspond to a local expression of the early Aptian Oceanic Anoxic Event (OAE 1a or Selli Event) or not. The Pindos Zone Mesozoic to Tertiary sedimentary sequence constitutes the deep-sea sedimentary cover of the Pindos Ocean, which was separated from its oceanic basement as an accretionary prism during the complete closure of this ocean, and was emplaced westwards onto the adjacent Gavrovo-Tripolis carbonate platform. Stable carbon and oxygen isotope data from the Kalarrytes sections reveal an isotopic composition compatible with the characteristic features of the OAE 1a. Calcareous nannofossil and radiolarian biostratigraphy indicates an early Aptian age for both sequences. Biomarker analysis on the organic-rich intervals reveals

Download English Version:

https://daneshyari.com/en/article/8916443

Download Persian Version:

https://daneshyari.com/article/8916443

Daneshyari.com