

Interactive comment on “Hydrocarbon accumulation in basins with multiple phases of extension and inversion: examples from the Western Desert (Egypt) and the Western Black Sea” by William Bosworth and Gábor Tari

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Received and published: 28 August 2020

Dr. Krezsek has raised several interesting questions regarding our manuscript and this has helped us to clarify some important points. We thank him for his insights and general support of our work. Concerning specific suggestions:

Lines 50-55. Can you please specify the size of the discovered fields?

- We have added in-place resources for each of the three fields discussed. This will be useful for readers to ascertain the commercial scale of the targets we are describing.

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Line 222 and others. Change reference Krezsek et al (2018) to Krezsek et al (2017) throughout the paper

- Thank you for noting this and corrections have been made. The full reference is: Krezsek, C., Bercea, R. I., Tari, G., and Ionescu, G.: Cretaceous sedimentation along the Romanian margin of the Black Sea: inferences from onshore to offshore correlations, in: Petroleum Geology of the Black Sea, edited by: Simmons, M.D., Tari, G.C. and Okay, A.I., Geol. Soc. London Spec. Publ., 464, 211-245, 2017.

Line 255. The exact position of the break-up unconformity at basin scale is still debated being younger on the Romanian margin. Any comments to this?

- Our position, similar to the opinion expressed in the past by the reviewer himself, is stated between Lines 247-253. We slightly reworded and added the word "ultimate" on Line 255 to explain the context of the reference to Khriachtchevskaia et al. (2010): "By the Santonian, the WBSB opened to its full extent and in our study area the top Santonian is considered by Khriachtchevskaia et al. (2010) as the ultimate break-up unconformity."

Line 330. Are there any clear geochemical evidences for the Lower Cretaceous SR?

- There is evidence for Cretaceous source rocks, as Chevron and NaftaGaz jointly studied Upper Cretaceous source rocks on the Tarkhankut Peninsula with shale gas in mind in the early 2010s. We added a reference which is the only modern public domain work in this regard: Kitchka, A., Ishchenko, and Bashirov, G.: Cenomanian-Turonian calcareous black shales of the Tarkhankut Peninsula as a potential unconventional hydrocarbon shale gas play, AAPG Europe Regional Conference, Bucharest, May 19-20, 2016.

Alternatively, could the deeper, Tauric series be the origin of the gas/condensate?

- Given the great depth of the Tauric sequence beneath the study region, in the areas where it might have been preserved (see Fig. 9), we do not believe that this is a

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possibility.

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2020-105>, 2020.

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