

Interactive comment on “Fracture attribute scaling and connectivity in the Devonian Orcadian Basin with implications for geologically equivalent sub-surface fractured reservoirs” by Anna M. Dichiarante et al.

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Reviewer 1 reply

We thank Reviewer 1 for his extensive comments on our manuscript and the suggestions for improvement. The main changes to the manuscript are summarised here. 1) We have revised and greatly expanded the number of references in our introduction to give a more complete review of the basis for our study. (requested by reviewer 1). 2) As suggested by reviewer 2 we moved the ‘Geological setting’ section before the

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‘Methodology’ 3) Both reviewers requested more detail on the validity of the Orcadian basin as an analogue for Clair. We added a new section 2.2 to the Geological setting to explicitly deal with this issue. 4) Both reviewers requested that we explain why we combine regional-scale and macro-scale (outcrop data). We have added a section (2.2) describes this assumption. We use a geological basis (onshore outcrops) to support the way we have combined our data in a multi-scale plot. We have added discussion of this assumption in the discussion. 5) We reorganised the discussion to flow in a more logical manner (requested by reviewer 1).

Our detailed response is given in the attached pdf

Please also note the supplement to this comment:

<https://se.copernicus.org/preprints/se-2020-15/se-2020-15-AC4-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2020-15>, 2020.

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