

Dear Reviewer,

Thank you for your time, and the very detailed and valuable comments that allowed us to correct and improve the manuscript. We also appreciate your summary, and interpretation of our study, which allowed us to see this manuscript from different perspective with a critical eye. In this response letter, your concerns and comments are highlighted in violet color and the bulleted list, while our responses are in black.

- **5.1 section is missed**
Thank you for this comment. We added the missing section. It was part of the originally prepared manuscript but somehow, accidentally removed during edition of the word file for submission.
- **Lines 18, 412, 604: should be "10-day subset", "10-day stack" instead of 10-days (because words "subset" and "stack" are singular)**
Thank you corrected.
- **Line 18: "an" should be added between "We use" and "illumination" (-> We use an illumination diagnosis technique)**
We added "an".
- **Lines 39, 229-230: Dales et al. 2020 is missed in the References**
Thank you for spotting this. This reference was in the References but it had the wrong year. It is corrected now.
- **Line 52: there is no need to start the word "eastern" with the capital letter**
Thank you, we corrected this.
- **Lines 67-69: repeated sentence**
Thank you for spotting this. We removed the repetition.
- **Lines 211, 484, 486, 496: Snieder 2004 is missed in the References**
Thank you, corrected now.
- **Lines 299-300: sentence hard to follow, should be rewritten.**
Thank you for this comment. The sentence: "Inspection of the co-located passive and active-source data confirms that we were able to retrieve similar reflection responses of the medium with the passive data, even if it is obscured in some places by artifacts." was rewritten to: "Inspecting the reflection recordings from the co-located passive and active-source data confirms that passive data allows retrieving the reflection response of the medium, albeit in some places obscured by artifacts." as the latter is more logical with respect to the following part of manuscript.
- **Line 357, caption for the figure 6: missing "Hz" inside the brackets**
Thank you for spotting this. We added "Hz".
- **Lines 358, 360, caption for the figure 6: "s" should be added to VSG (-> VSGs)**
Thank you, added.
- **Line 383: "to" should be added between "It helps us" and "determine" (-> It helps us to determine)**
Thank you, we corrected this.
- **Line 389, caption for the figure 7: missing "Hz" inside the brackets**
Thank you, "Hz" added.
- **Line 390, caption for the figure 7: "s" should be added to VSG (-> VSGs)**
Thank you for this comment. We corrected the plural form.
- **Line 404: should be "Fig. 8f" instead of "Fig. 7f"**
Thank you for spotting this. We corrected it.

- Line 404: the numbers of figures are missing after “Figs.”
Thank you, after correction it reads now: “the Figs. 8 and 9”.
- Line 457: “to” should be added between “due” and “their” (-> due to their)
Thank you, we added “due”.
- Line 473: “as” should be added between “as well” and “the confirmed” (-> as well as the confirmed)
Thank you for this comment. We added “as”.
- Line 576: “a” should be added between “would be” and “typical” (-> would be a typical)
Thank you for this comment. It is corrected now.
- Line 577: “the” should be added between “where” and “most” (-> where the most)
Thank you for this comment. It is corrected now.
- Line 647: “a” should be added between “This article is” and “part of” (-> This article is a part of)
Thank you for this comment, we corrected this.
- Line 678: this reference is not included in the paper
- Line 727: this reference is not included in the paper
Thank you for mentioning the above two references. The reason of our mistake was providing the wrong year of publication in the Reference list, so these could not be tracked in the main body. We corrected this, and now both Snieder et al. 2004, and Dales et al. 2020 appear in the main body, and in the Reference.

On behalf of the authors,

Michal Chamarczuk