

Interactive comment on “Hydro-mechanical processes and their influence on the stimulation effected volume: Observations from a decameter-scale hydraulic stimulation project” by Hannes Krietsch et al.

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Dear Referee,

Thank you for your detailed comments on our manuscript “Hydro-mechanical processes and their influence on the stimulation effected volume: Observations from a decameter-scale hydraulic stimulation project”. Following your request, we reorganized the manuscript in a way that the impact is better visible. Therefore, we removed the “Q-strategy” in the introduction and the discussion. We drastically shortened the in-

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roduction, cleaned up the discussion and removed all statements that are somehow doubled in the manuscript. In addition, we separated even more strictly between pure observations and interpretation. We argue that the manuscript strongly benefits from this re-structuring. As most of the statements have been moved to different locations or even been rewritten in a clearer way, we cannot answer in a detailed way on each of your comments. We are sorry for these inconveniences. However, here is a short response on your main comments. 1) Terminology: We tried to make it clearer and avoid geological subunits, whenever possible. As the rock mass is rather complex and we want to take advantage of the comprehensive monitoring in such an environment, we think it is useful to simplify the geological description further as it is now in the revised version. 2) The Q strategy: As already mentioned above, we changed this and think that the impact and main research question are more obvious now. 3) presentation: We shortened the manuscript by at least six pages. The manuscript is now much better to the point. 4) technical: We added a critical section about the effect of monitoring quality depending on the injection location in the conclusion. We argue that the uncertainties of the measured values are given by the grouped presentations of the different experiments and the shown or written detection limit of the sensors. 5) Scientific conclusiveness: We made clearer statements in terms about the use of stress tensors and the influence of target geology on the stimulation outcome. For more peripheral information, such as seismic velocity model etc., we like to draw your attention to the corresponding cited papers. Adding this information would again extent the paper and add another level of complexity.

Best regards, Hannes Krietsch

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-204>, 2020.

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