Interactive comment on “Evolution of rheologically heterogeneous salt structures: a case study from the northeast of the Netherlands” by A. F. Raith et al.

Anonymous Referee #2

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General: An excellent and well-presented demonstration of some of the effects of different evaporite rheologies on deformation of a mixed salt sequence using modern industrial 3-D seismic data. I guess this will become a classic reference.

I have no significant criticisms, only admiration. However, the English could be improved in two sections and I sprinkle a few specific suggestions for clarifying the geology throughout (as in the list below)

Line 16: rock salt: rock salt (taken here to consist mainly of halite (NaCl)

Line 28: bitterns to bittern brines

Figure 1 does not really show how the Groningen High fits into the North Sea- but fits the description. The first paragraph of Geological setting is wondrous.

Fig. 3 top and bottom diagrams reversed relative to caption

P. 1883, Line26. Two density stratified (?) OR with stale density stratification(?). Data and methods: a bit rough

P. 1884, line16, are publically available on the... .

Results

Figure 5. The seven scaling keys are too small to read in this version. EITHER replace all seven by a single much larger scaling key OR write about warm colours being thin and cold colours thick(?) in the caption.


Line 26if this polygonal pattern is on the scale of each dome please say so. If it is smaller g Indicate approximate scale or wavelength.

Page 1887. Lines 1+2, hard and soft to strong/stiff to weak?

Page 1890, line 19. Add downslope and upslope movement where relevant?

Figure 8:I cannot see labels a,b, or c.

Page 1891: line 6 which don’t show: without

Evolution of the internal structure of the salt= Improve English throughout e.g.

Page 1892: line 4. would have= had

Line 8: and to in or by?

Line 10: is not thinning= does not thin

Page 1893, lines 3-6: Separate into 2 sentences.
lines 8-10: Separate into 2 sentences.

Figure 8 is good but could be improved (by more annotation?) Clarify that white spots indicate local deposition.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/7/C980/2015/sed-7-C980-2015-supplement.pdf

Interactive comment on Solid Earth Discuss., 7, 1877, 2015.