Understanding the Relative Importance of Vertical and Horizontal Flow in Ice-Wedge Polygons

Wales *et al*. (2019)

General Comments:
The authors have made substantive changes to the manuscript as suggested by reviewers. All major concerns have been addressed either in-text or in response to reviewer comments. I commend the authors on the additional work put into this text. This study summarizes field work from a logistically challenging region where field data and intensive studies are limited. I believe that this work will be a valuable contribution to the scientific literature.

Minor Comments:
The authors may consider including the raw GPR radargram images as supplementary material.

Page 4, lines 14-16: Include a line describing the potential for ice lenses (as this is an important piece in the discussion)

Page 13, line 11: Figure 8 caption, change 'topo' to topographic.

Page 17, lines 7-8: A table here would be a valuable resource to the reader, depicting the: a) study (authors); b) study site (with latitude); and c) range of hydraulic conductivity

Page 19, line 10: This point here may be more appropriate to include the reference of Shur *et al*. (2005) discussing the transient layer, as this ice-rich layer forms at the interface of the permafrost table and the base of the active layer.

Page 19, line 29: Consider rephrasing to: "temperature **and vapour** gradients"

Page 19, line 31: "… in a process known as cryosuction…" consider rephrasing to: "During freeze-up, cryosuction allows for soil moisture to migrate towards the freezing front"

Page 19, line 35: "which typically no longer than", change to: "which typically **lasts** no longer than"