

Interactive comment on “Causes and consequences of the Sinkhole at “El Trebol” of Quito, Ecuador - Implications to economic damage and risk assessment” by Theofilos Toulkeridis et al.

Theofilos Toulkeridis et al.

ttoulkeridis@espe.edu.ec

Received and published: 14 May 2016

Response letter to Reviewer 1

The detailed comments of Reviewer 1 allowed to significantly improve the document:

The unit have been changed to the International System

Figures have been improved and references to figures have been included

The missing references have been included

C1

Rainfall is now reported in mm and flow in m³/s

Some specific terms and ideas was better explained and developed such as (the number of lines correspond to the reviewed document): - the terms "smaller" and " lower rate" , lines 216-226, - the explanation for the materials found upstream the tunnel entrance, lines 254-255 - the hypothesis based on the collapse of the floor on the left margin of the channel because of the localization of the erosion due to water flow is better explained, lines 293-300 - we assume that the material of the collapse was transported downstream, line 302

In the whole document the term "subsidence", which indicate a regional land level lowering mainly due to the extraction of fluids from the subsoil (water, oil, gas), was changed by the term "sinking", that indicate local level lowering mainly associated with collapsible materials, piping and liquefaction. It also was recommended to improve the geotechnical characterization of the granular materials to determine their susceptibility to collapse.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-17, 2016.

C2