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# A large rock slide - debris avalanche in cohesive soil at Pink Mountain, northeastern British Columbia, Canada

Marten Geertsema (1), Oldrich Hungr (2), **Steven G. Evans** (3), James W. Schwab (4)

(1) BC Forest Service, (2) University of British Columbia, (3) University of Waterloo, (4) BC Forest Service

In early July 2002 a large rock slide - debris avalanche occurred on the west slope of the Pink Mountain anticline in northeastern British Columbia (57° 04' N; 122° 52' W). The slopes have been subjected to previous deformation and landsliding. Pre and post slide digital elevation models (DEMs) were created from aerial photography. Approximately 1.04 M $m^3$ of sandstone and shale travelled nearly 2 km from an elevation of 1460 m to 1010 m. The landslide has a fahrböschung of 11.6 degrees and covered 43 ha. The rock debris entrained a certain amount of fine-textured till and colluvium increasing its volume by 15%. This entrainment caused partial liquefaction of the underlying soil thereby enhancing the mobility of the landslide. We used a Bingham rheological model to dynamically model the landslide with excellent correspondence between the analysis of the actual observed behaviour of the landslide.