Geophysical Research Abstracts Vol. 20, EGU2018-3271, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



Research on the dam foundation pit hydrogeological problems in Dadu river deep overburden layer area

Xiaobing Kang (1), Shishu Zhang (2), Mo Xu (1), Qiang Li (1), and Xiaoping Zhao (2) (1) State Key Laboratory of Geohazard Prevention and Geoenvironment Protection [U+FF08] Chengdu University of Technology [U+FF09], Chengdu, 610059, China, (2) Powerchina Chengdu Engineering Corporation Limited, Chengdu, 610072, China

Westen sichuan is located in the two and three steps of transition zone of China on the terrain, in the area of Dadu River valley was "V" type, the valley is widely distributed deep overburden layer. The existence of deep overburden layer not only greatly increases the difficulty of hydropower development in the southwest region, but also gives birth to a series of new scientific problems. Since the excavation of the Changheba Hydropower Station dam foundation which located in Dadu River valley, the large amount of water inflow and the long duration of dam foundation have seriously affected the subsequent construction. This paper analyze the basic feature of deep overburden, formation the Dadu River and may encounter the pit water gushing, piping and quicksand problems, and take Changheba Hydropower Station dam foundation as an example, introduce the sources of water gushing in dam foundation, through the analysis of groundwater seepage and leakage, demonstrates the influence of seepage flow on the soil.