2006 Philadelphia Annual Meeting (22–25 October 2006)

Paper No. 24-10

Presentation Time: 8:00 AM-12:00 PM

COSMOGENIC RADIONUCLIDE ¹⁰BE EXPOSURE AGES FOR TWO GLACIAL ADVANCES IN THE BODUIZANGBU AND PALONGZANGBU RIVER VALLEYS, SOUTHEASTERN TIBETAN PLATEAU

COLGAN, Patrick M.¹, ZHOU, Shangzhe², XU, Liubing², DOUGLASS, Daniel³, REFSNIDER, Kurt⁴, MICKELSON, David M.⁴, and MUNROE, Jeffrey S.⁵, (1) Department of Geology, Grand Valley State University, Padnos Hall of Science, Allendale, MI 49401, colganp@gvsu.edu, (2) Geography, South China Normal Univ, Guangzhou, China, (3) Department of Geology, Northeastern University, 14 Holmes Hall, Boston, MA 02115, (4) Department of Geology & Geophysics, University of Wisconsin - Madison, Lewis G. Weeks Hall, 1215 W. Dayton Street, Madison, WI 53706, (5) Geology, Middlebury College, Middlebury, VT 05753

Cosmogenic radionuclide exposure ages provide a preliminary chronology for glacier advances in the Boduizangbu and Palongzangbu River valleys of southeastern Tibetan Plateau. The most extensive advance of the Guxiang Glaciation occurred during or before marine oxygen isotope stage 6 based on ¹⁰Be model exposure ages that range from 112,900 ± 16,700 to 136,500 ± 15,800 ¹⁰Be years ago. This advance completely filled the Boduizangbu River Valley and built a large lateral moraine near where the valley meets with the Palongzangbu River Valley. The glacier extended as far as Guxiang in the Palongzangbu River Valley. The second most extensive advance of the Baiyu Glaciation occurred at the end of marine oxygen isotope stage 2 based on ¹⁰Be ages with a mean of the model ages of 13,600 ± 4,000 ¹⁰Be years ago. This advance filled the Baiyugou and Zhuxigou River Valleys and blocked the Boduizangbu River Valley. So far no lake deposits have been found in the Boduizangbu River Valley upstream so large lakes probably didn't form or lake sediments were not preserved.

2006 Philadelphia Annual Meeting (22–25 October 2006) General Information for this Meeting

Session No. 24--Booth# 70 Quaternary Geology (Posters)

Pennsylvania Convention Center: Exhibit Hall C 8:00 AM-12:00 PM, Sunday, 22 October 2006

Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 71