

W.E. HODGE

From: "Yogi" <vaid@civil.ubc.ca>
To: "W.E. HODGE" <wehodge@telus.net>
Sent: May 8, 2002 5:28 PM
Subject: Re:

Hi Bill,

Yes, you are now entitled to shout eureka (as did Archimedes) and choose to run out into the street without clothes.

I am just documenting in written form, what I conveyed to you on phone. We ran a poor man's experiment to verify your hypothesis regarding what causes pore pressure increase in saturated granular materials when drainage gets impeded during their static or vibratory loading.

It was done by suspending a 20 mm steel ball into the water in a long cylinder. The ball was suspended by a thread tied to a horizontal bar that rested across on top of the cylinder. The whole assembly was supported on a load cell. When the string was cut suddenly, the load cell instantaneously registered a decrease in force equal to the bouyant weight of the ball. The original load cell reading was restored after about 0.5 sec when the ball has reached its terminal velocity.

We shall now try to confirm it further by using balls of other diameters and densities.

Hopefully we will create a clean trace (from the recorded data on a digital oscilloscope) showing time verses load cell reading starting from the instant the thread was snapped.

Yogi