

**APPENDIX C**

**SUBTERRANEAN LTD.  
TEST CAISSON REPORT**

# Subterranean (Manitoba) Ltd.

**CAST IN PLACE CONCRETE PILING — ALL SIZES AND TYPES**

PHONE: 775-8291 • FAX: 783-0968 • 6 ST. PAUL BLVD • WEST ST. PAUL, MB CANADA R2P 2W5  
October 12, 2005

*xc J. Militano*  
*4231-040-09 (4.4)*

UMA Engineering Ltd.  
1479 Buffalo Place  
Winnipeg, MB.  
R3T 1L7

Attention: Giovanni Militano, P. Eng.

**RE: Test Hole - Kenaston Underpass**

The following is summary of ground conditions from test caisson.

0 - 1'	Gravel
1' - 8'	Topsoil and silt
8' - 38'	Clay
38' - 49'	Till, dry, small boulders
49' - 68'	Till, granite boulders, wet, 25' water @ 66'
68'	Limestone
75' 6"	Visual inspection, no cracks or seams
81' 6"	Broken rock
81' 6" - 82'	Silt layer
86' - 87' 6"	Silt, clay layer
88'	Rock became harder to core
100'	Test caisson terminated in sound bedrock. Water at 50 gallons/minute

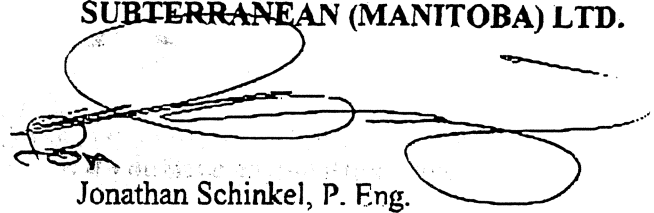
**Comments:**

- The test hole advanced easier than anticipated
- An estimate rate of installation would be approximately 2.0 to 4.0 days/hole depending on rig size
- A significant degree of difficulty was caused by boulders in the glacial till
- There was some sand inflows observed
- Rock sock caisson would be a very suitable foundation type for the given loads.

If you have any questions, please call.

Yours truly,

**SUBTERRANEAN (MANITOBA) LTD.**

A handwritten signature in black ink, appearing to read 'Jonathan Schinkel', is written over the printed name. The signature is stylized with loops and a long horizontal stroke.

Jonathan Schinkel, P. Eng.