

# **APPENDIX 'A'**

# **GEOTECHNICAL REPORT**

## APPENDIX 'A' - GEOTECHNICAL REPORT

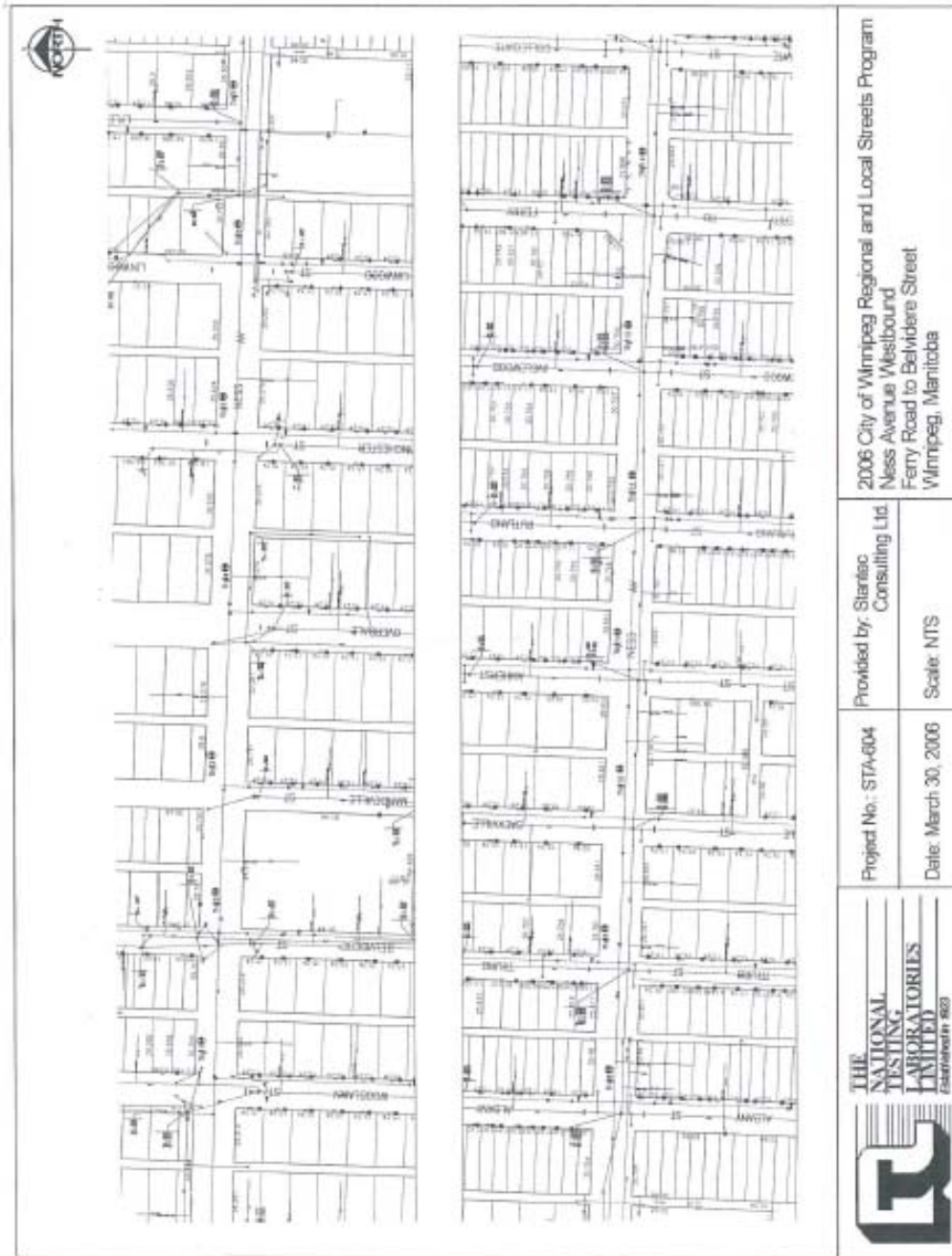
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.

### Geotechnical Report for Ness Avenue

#### Test Hole Locations



 <p><b>THE NATIONAL TESTING LABORATORIES LIMITED</b>  <small>Established in 1959</small></p>	<p>Project No.: STA-604          Date: March 30, 2006</p>	<p>Provided by: Starline Consulting Ltd.          Scale: NTS</p>	<p>2006 City of Winnipeg Regional and Local Streets Program          Ness Avenue Westbound          Ferry Road to Belvidere Street          Winnipeg, Manitoba</p>
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## Summary of Core Samples

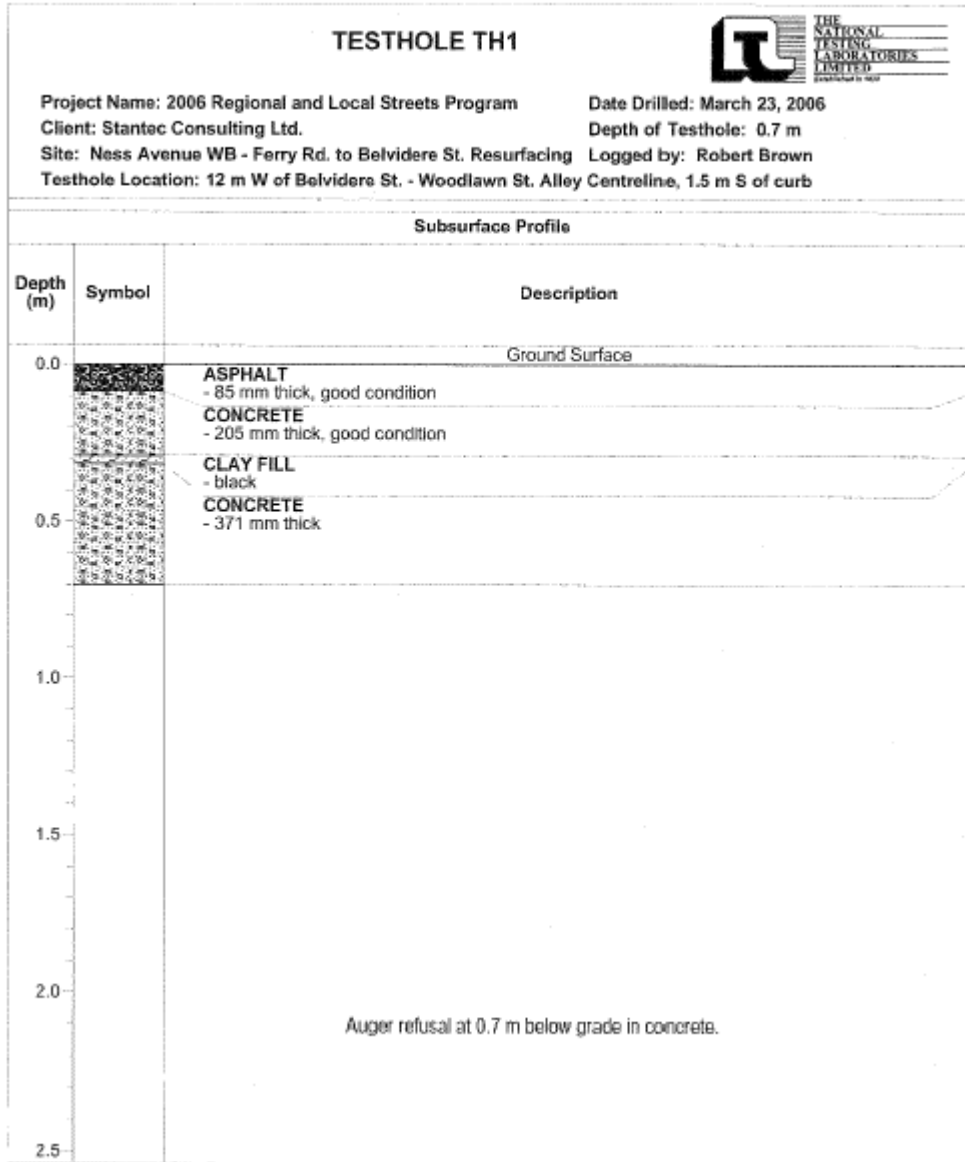
City of Winnipeg  
 2006 City of Winnipeg Regional and Local Streets Program  
 Geotechnical Investigation  
 Ness Avenue Westbound  
 Ferry Road to Balviders Street

Testhole No.	Testhole Location	Pavement Surface		Pavement Structure Material		Sample Description	Sample Depth (m)	Moisture Content (%)	Particle Size Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Limit	
1	Ness Avenue, Curb Lane	Asphalt/Concrete	85/205	N/A	N/A											
2	Ness Avenue, Median Lane	Asphalt/Concrete	76/200	N/A	N/A											
3	Ness Avenue, Curb Lane	Asphalt/Concrete	67/190	N/A	N/A											
4	Ness Avenue, Median Lane	Asphalt/Concrete	42/208	N/A	N/A	Clay	2.1	38.7	0.0	0.4	12.0	87.6	110.0	26.0	84.0	
5	Ness Avenue, Curb Lane	Asphalt/Concrete	50/215	N/A	N/A											
6	Ness Avenue, Median Lane	Asphalt/Concrete	40/200	Granular	335											
7	Ness Avenue, Curb Lane	Asphalt/Concrete	59/201	N/A	N/A											
8	Ness Avenue, Median Lane	Asphalt/Concrete	62/205	N/A	N/A											
9	Ness Avenue, Curb Lane	Asphalt/Concrete	50/190	N/A	N/A											
10	Ness Avenue, Median Lane	Asphalt/Concrete	34/196	N/A	N/A											
11	Ness Avenue, Curb Lane	Asphalt/Concrete	51/188	N/A	N/A											
12	Ness Avenue, Median Lane	Asphalt/Concrete	97/205	N/A	N/A	Clayey Silt	0.9	27.3	0.0	5.6	67.6	26.8	28.0	16.0	12.0	
13	Ness Avenue, Curb Lane	Asphalt/Concrete	57/192	N/A	N/A											
14	Ness Avenue, Median Lane	Asphalt/Concrete	105/190	N/A	N/A											

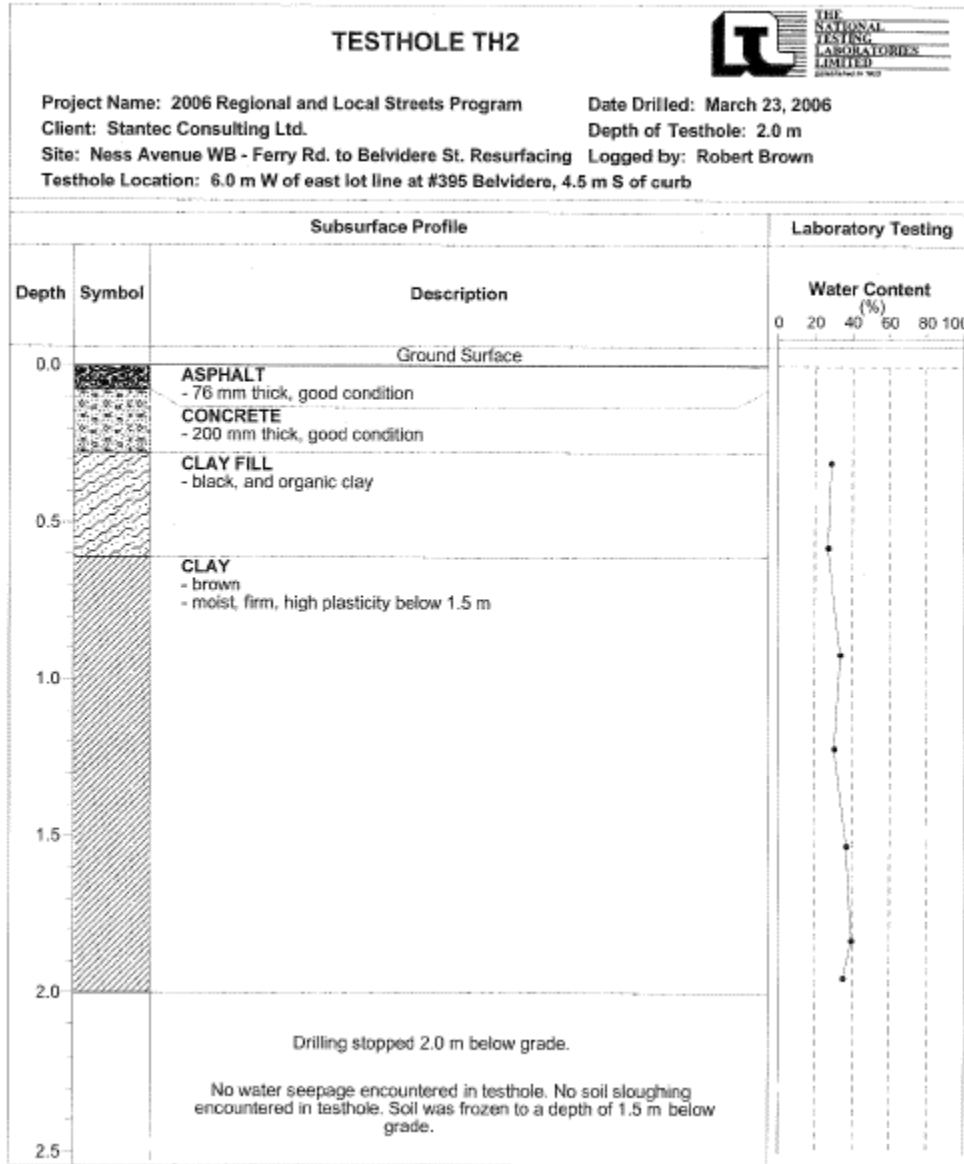
Notes:

1. A thin layer of clay fill was encountered underlying the concrete in TH1. Underlying the clay fill was a second layer of concrete. Auger refusal was encountered in TH1 within the second concrete layer at a depth of 675 mm below the top of the pavement.
2. Detailed testhole locations are provided in the attached testhole logs.
3. Granular fill was only encountered underlying the concrete in TH6. No granular fill was encountered in the remaining testholes.

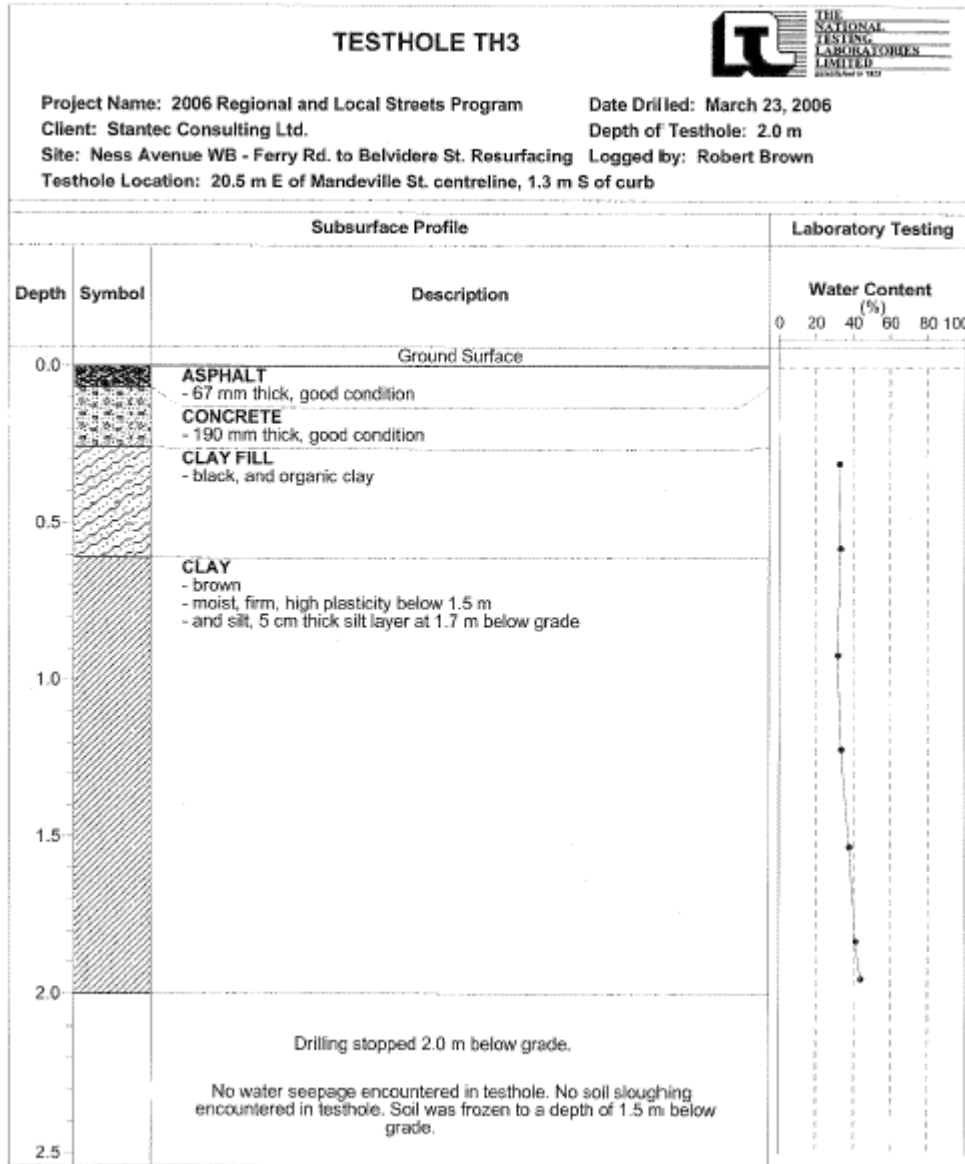
**Test Hole Log for TH1**



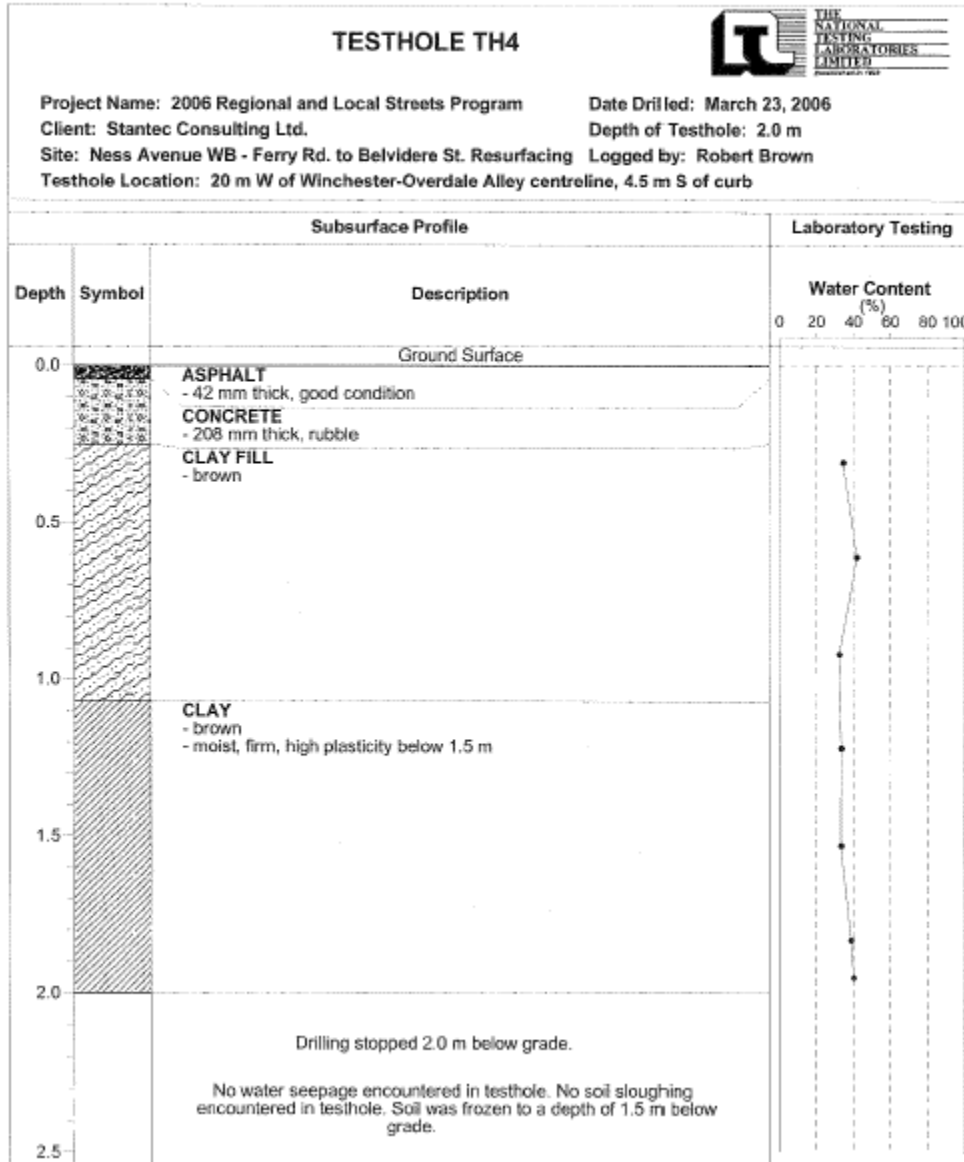
**Test Hole Log for TH2**



**Test Hole Log for TH3**

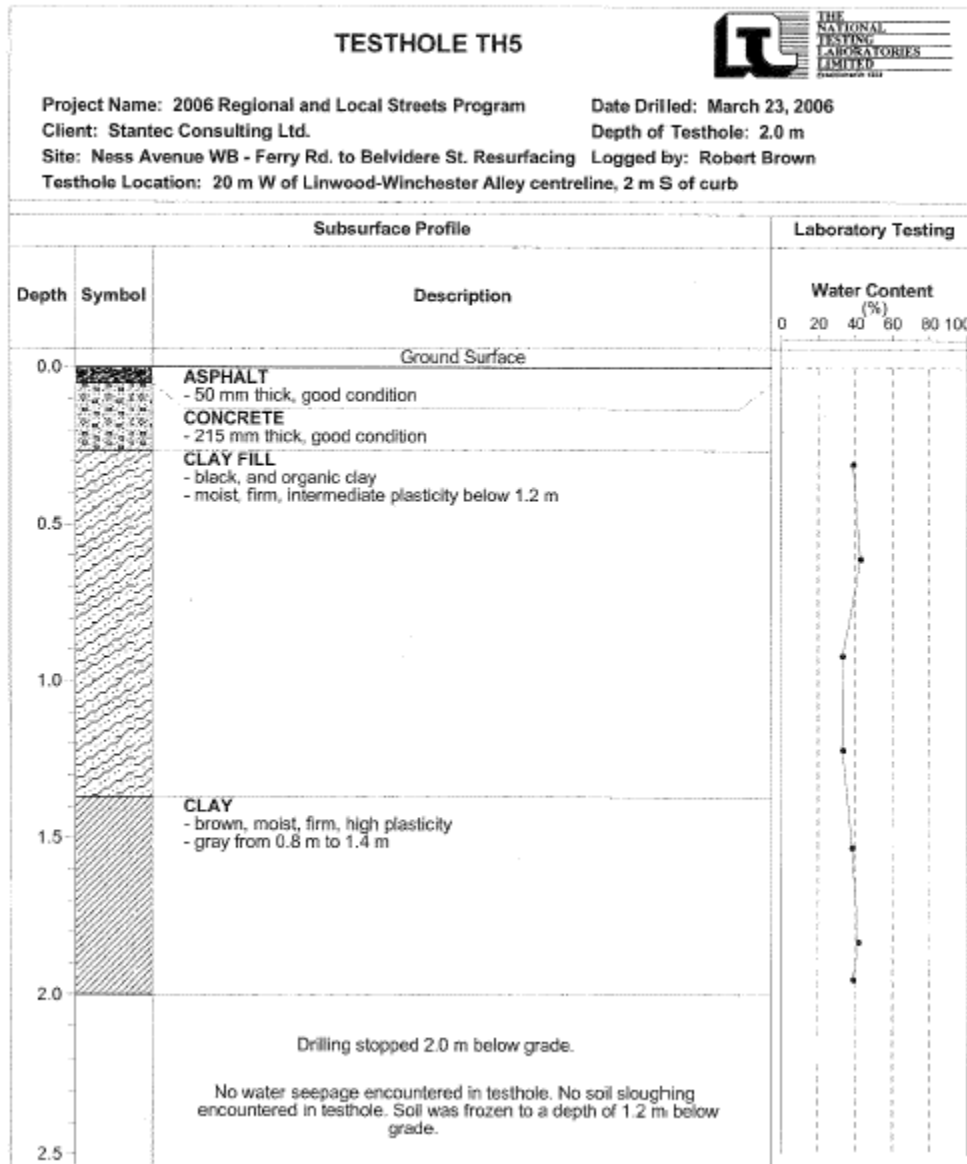


**Test Hole Log for TH4**

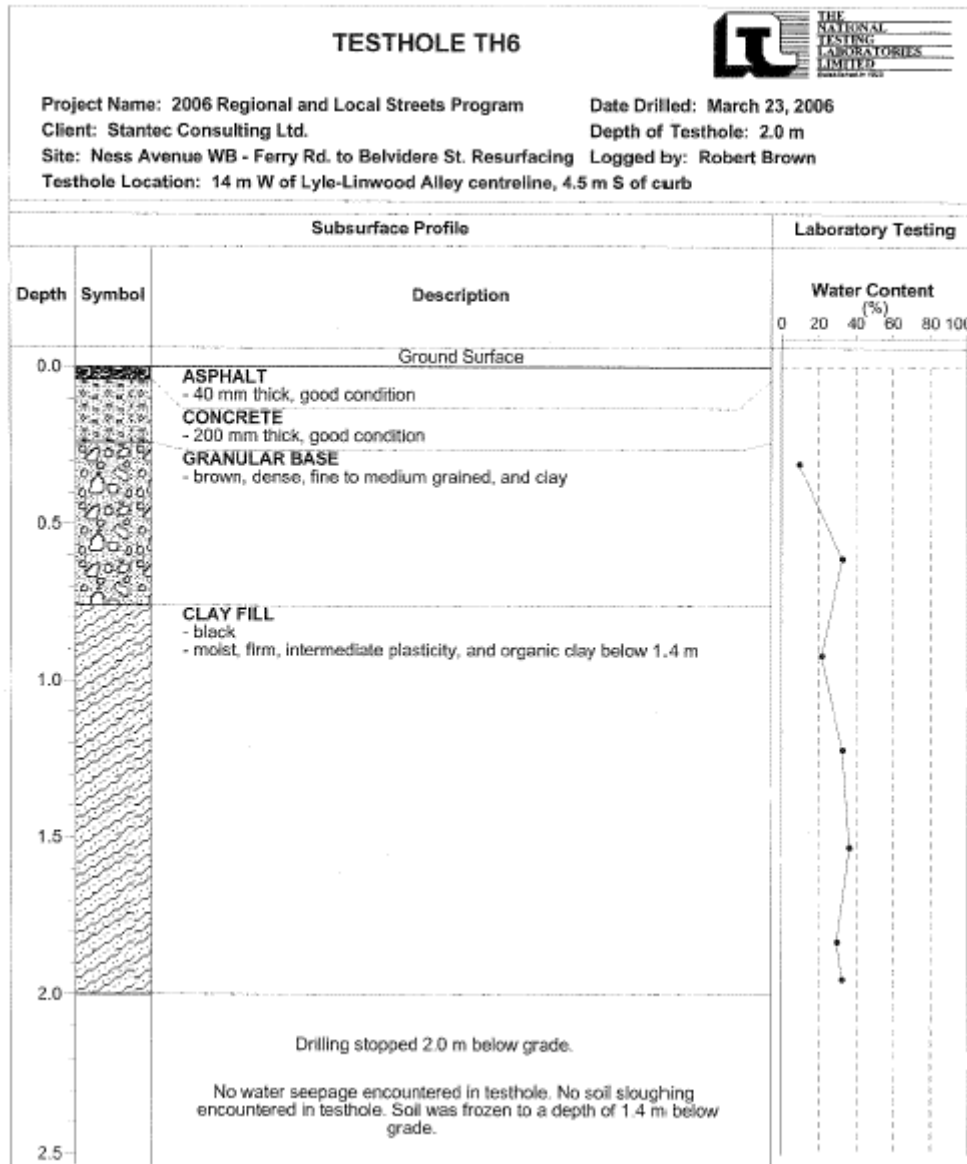




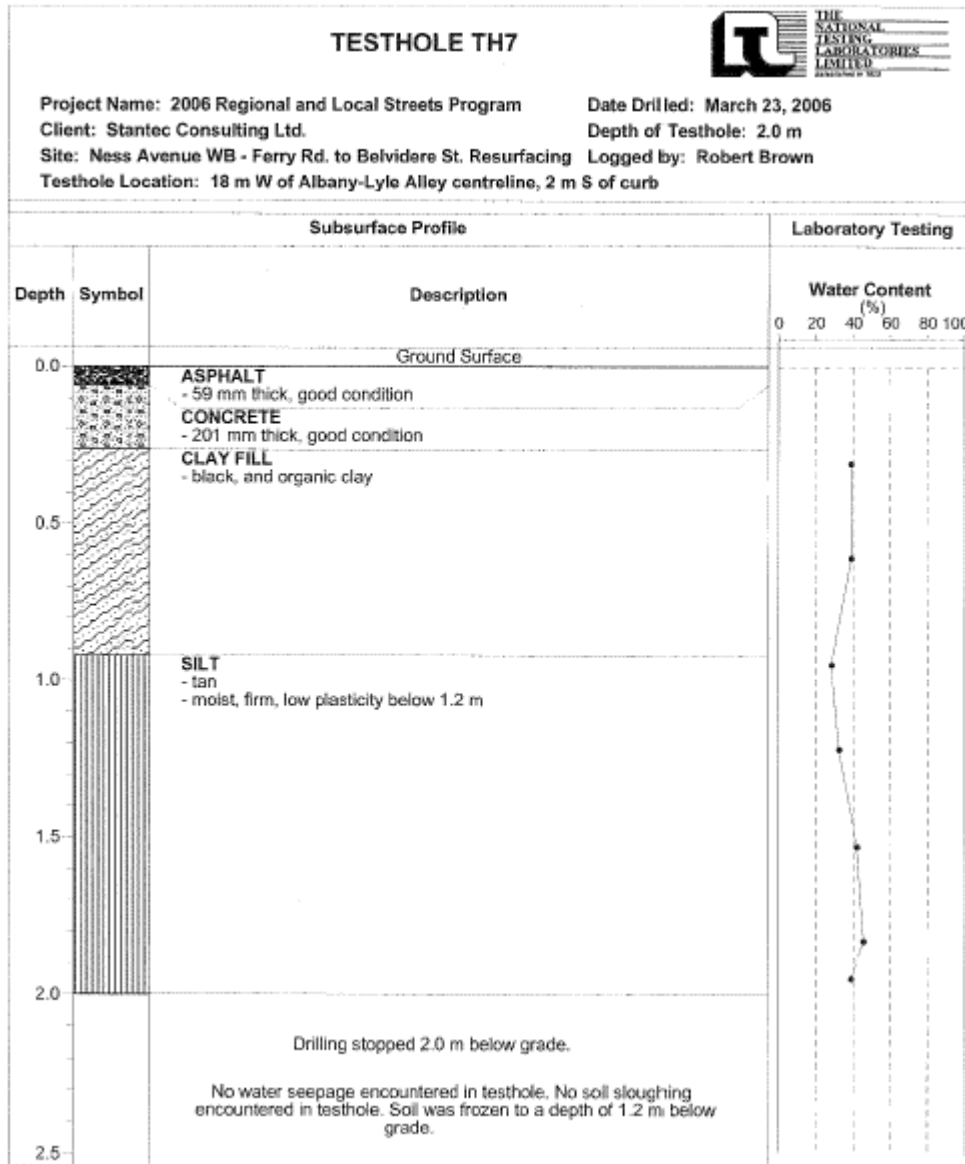
**Test Hole Log for TH5**



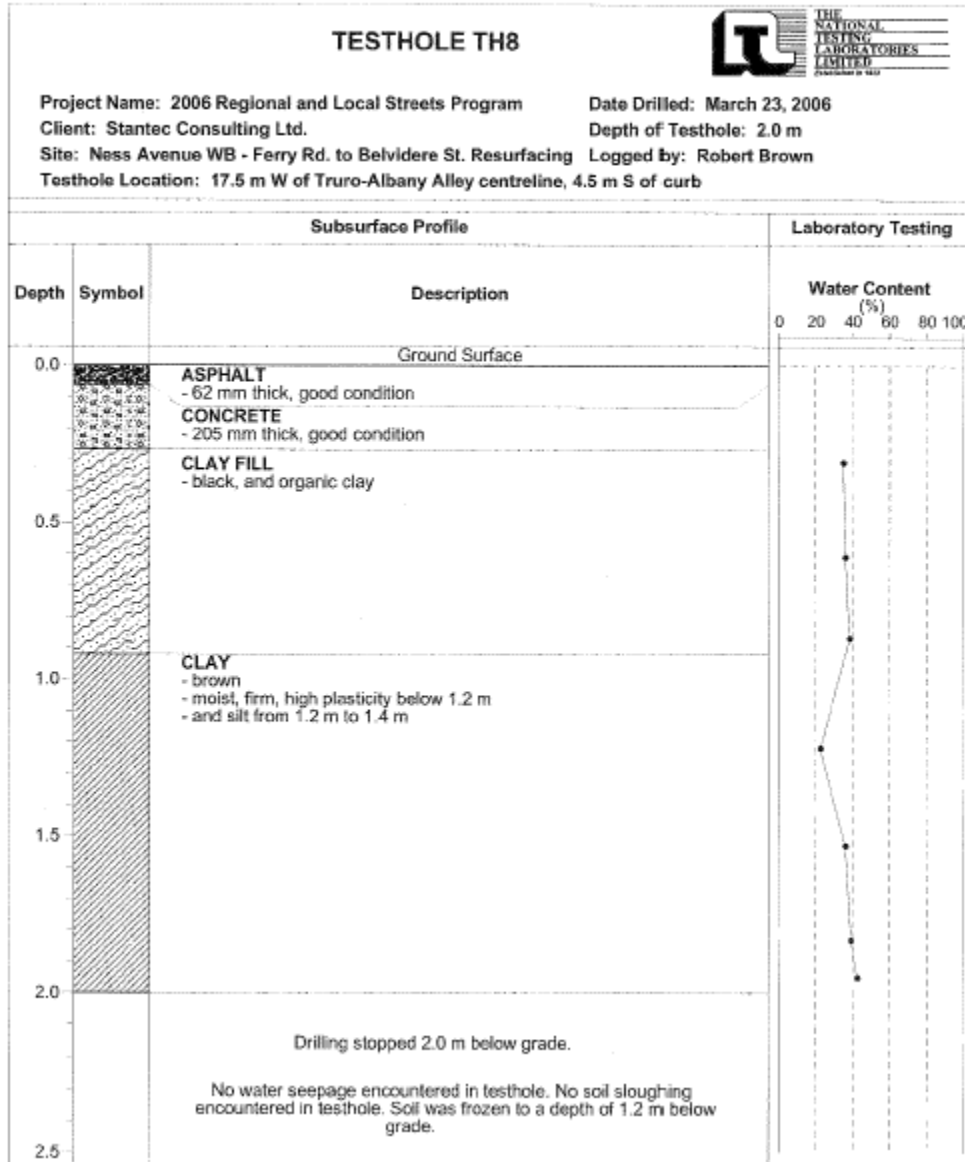
**Test Hole Log for TH6**



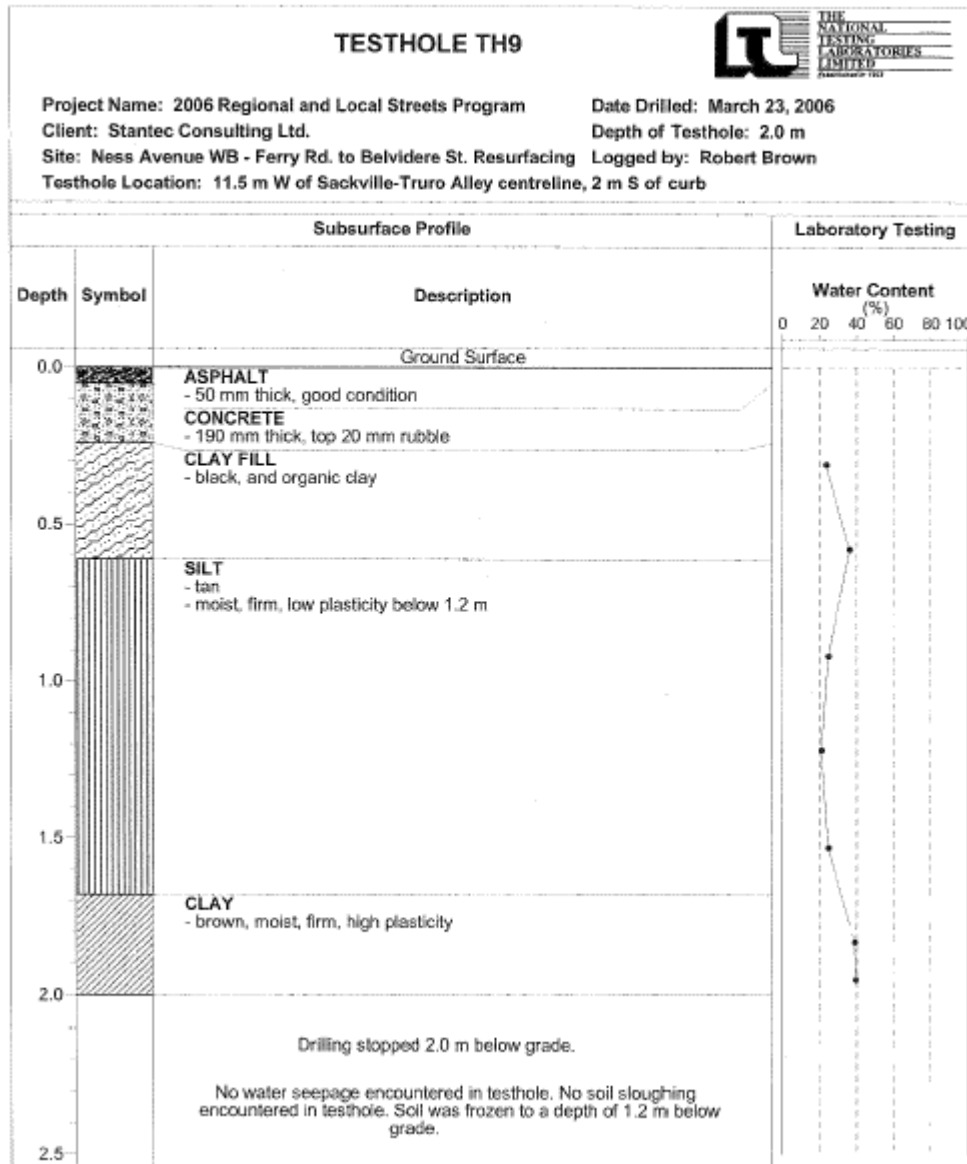
**Test Hole Log for TH7**



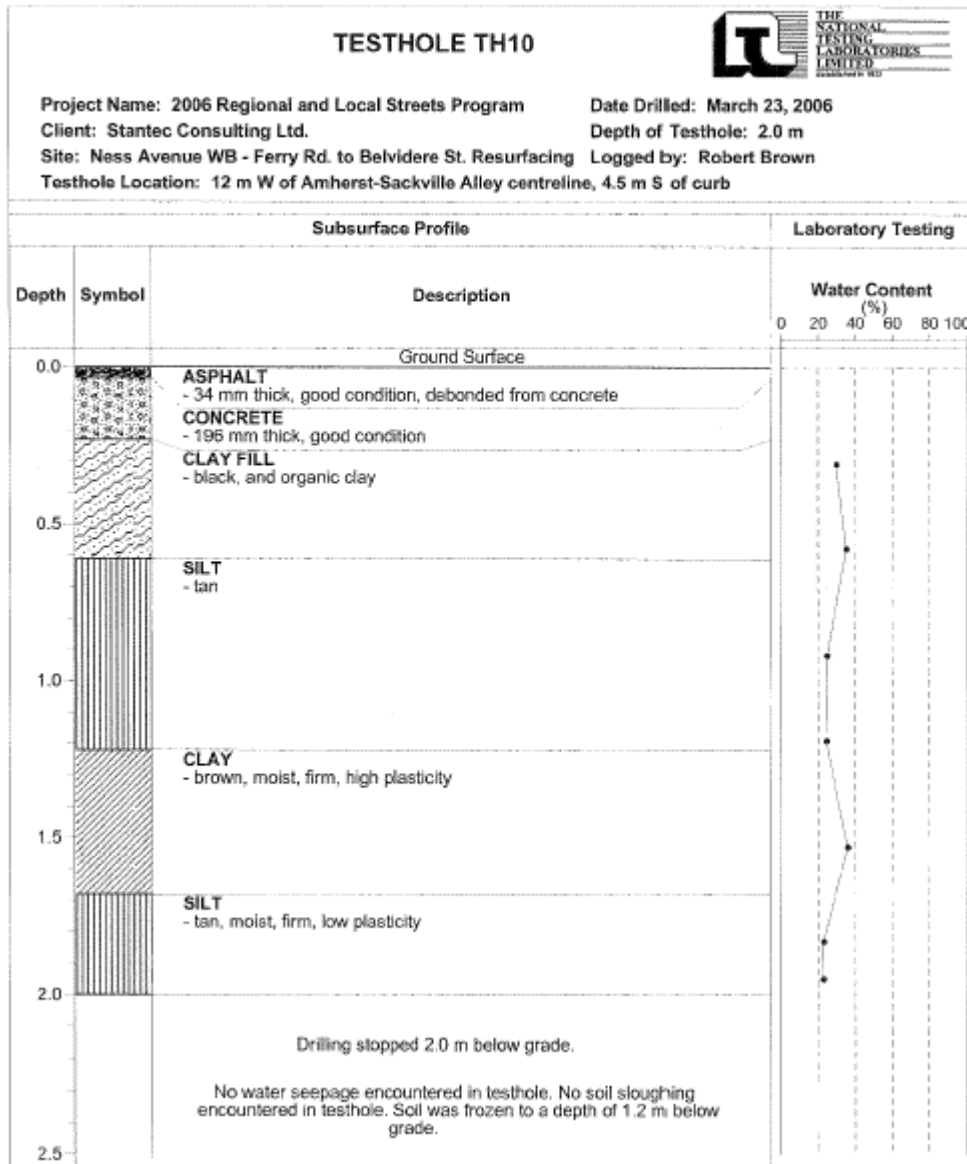
**Test Hole Log for TH8**



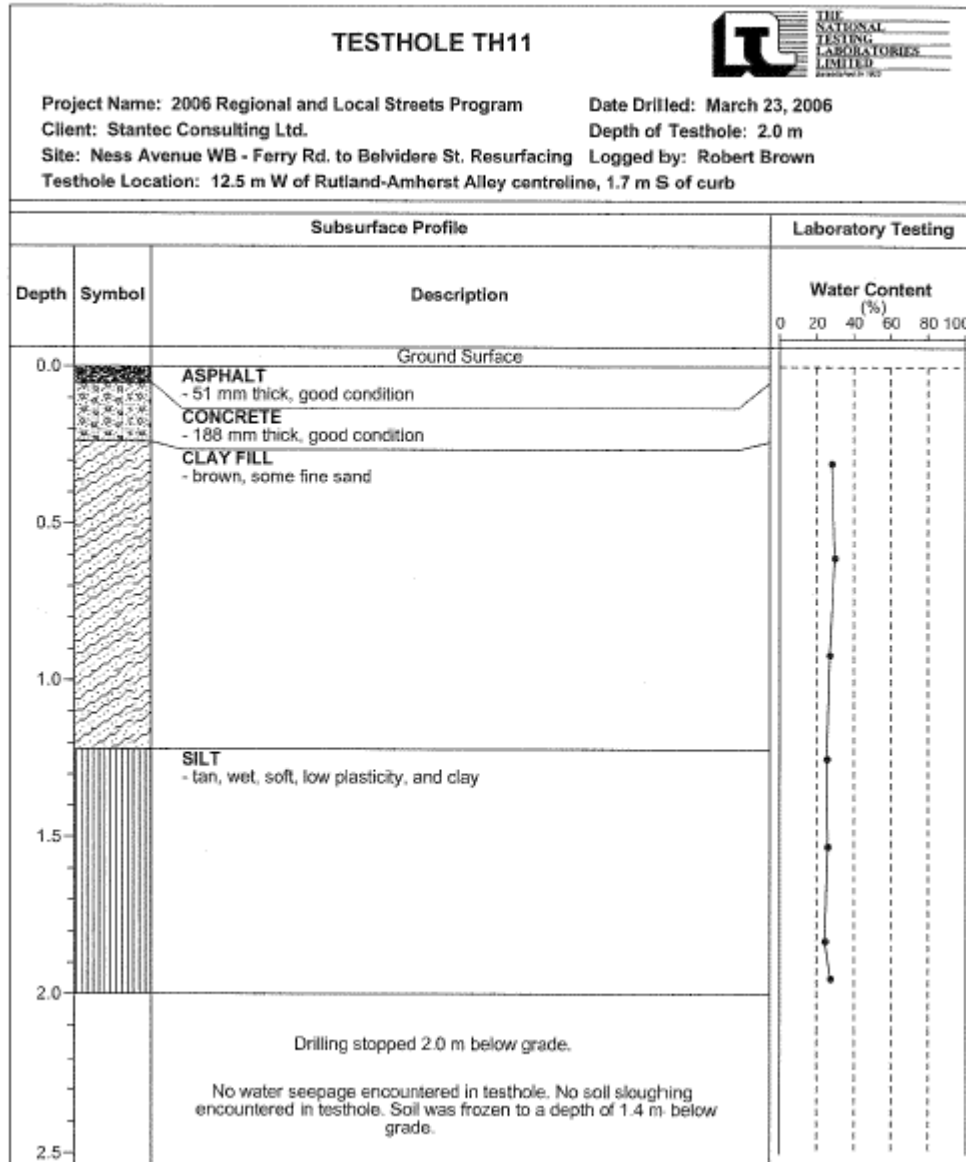
**Test Hole Log for TH9**



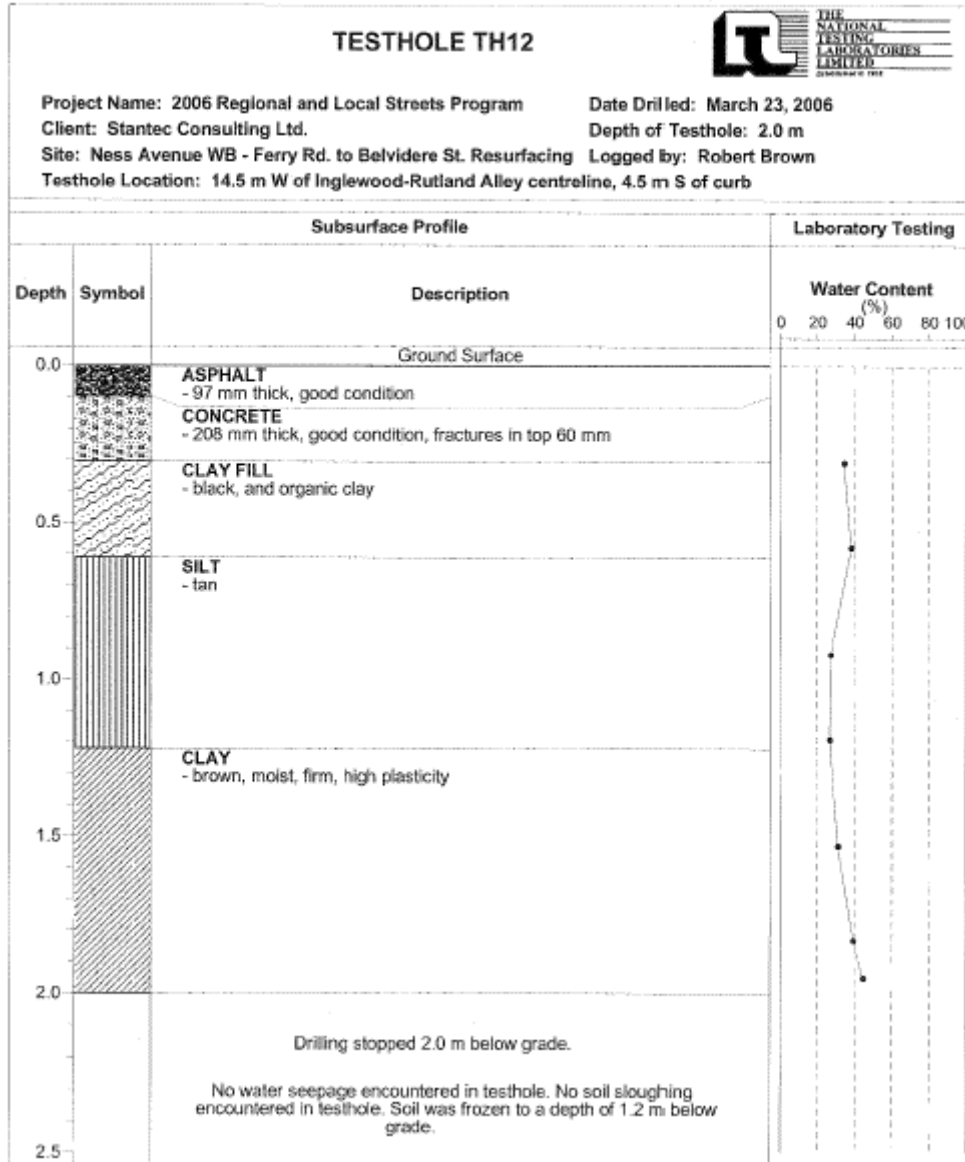
**Test Hole Log for TH10**



**Test Hole Log for TH11**

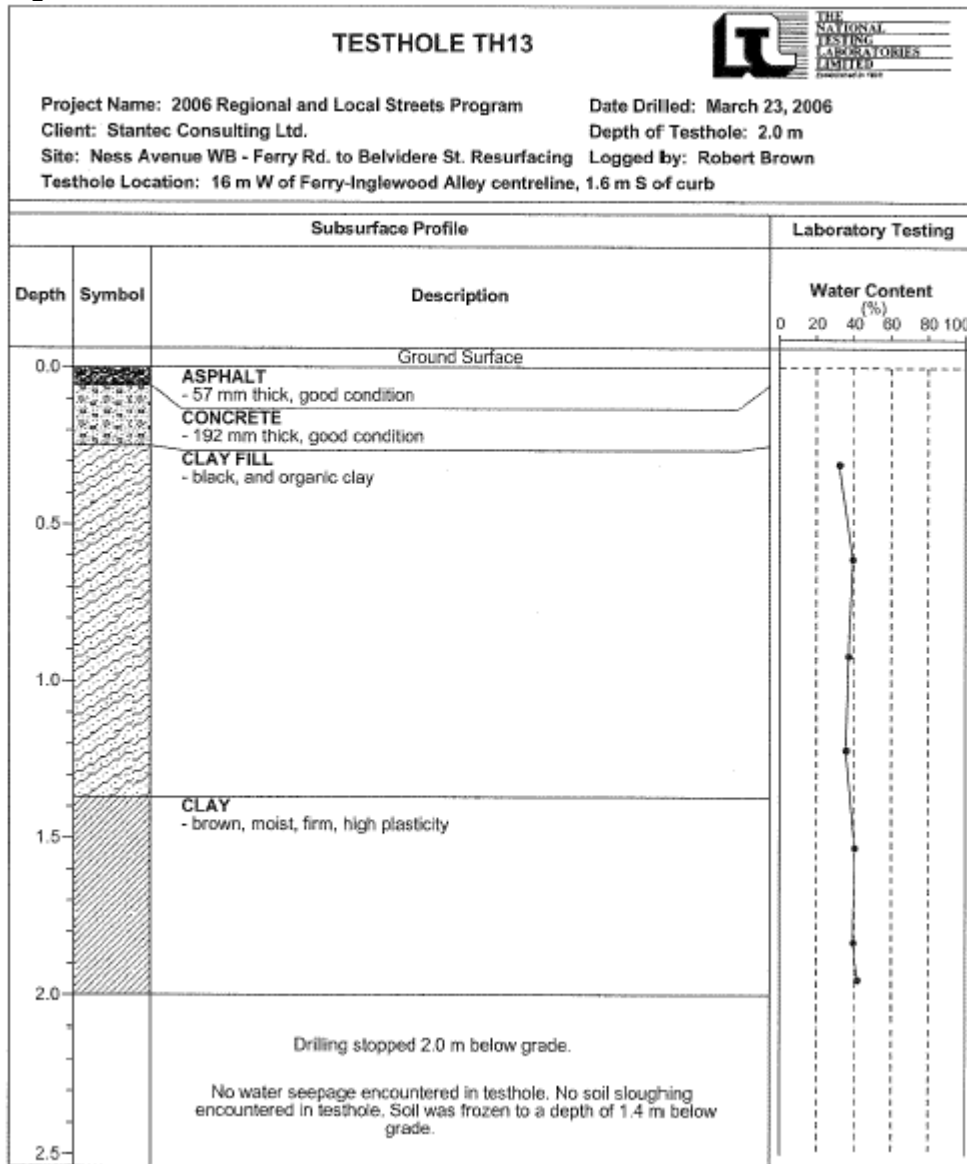


**Test Hole Log for TH12**

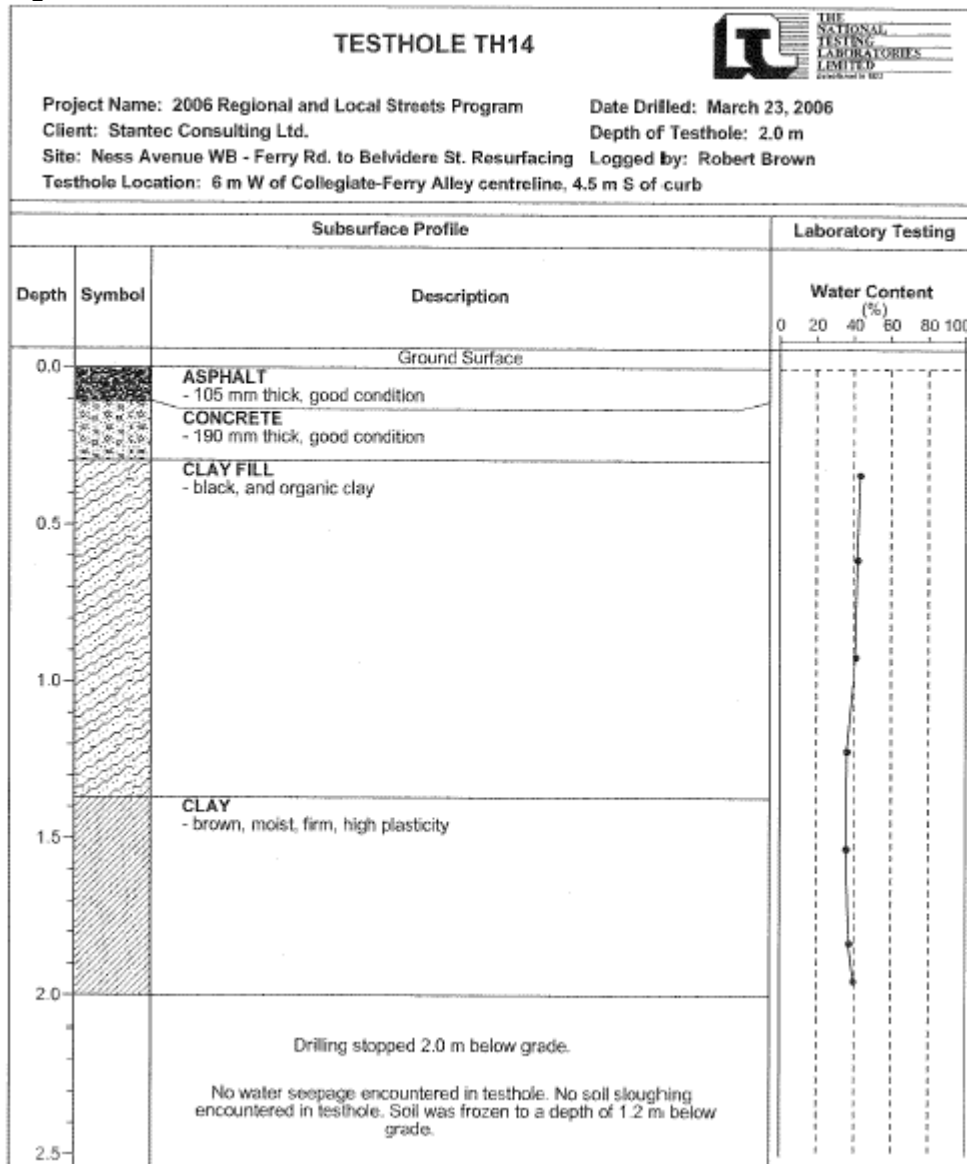




**Test Hole Log for TH13**



**Test Hole Log for TH14**



### Pavement Core Photos

2006 Regional and Local Streets Program  
Ness Avenue Westbound  
Ferry Road to Belvidere Street



TH1

TH2

TH3

TH4



TH5

TH6

TH7

TH8

2006 Regional and Local Streets Program  
Ness Avenue Westbound  
Ferry Road to Belvidere Street



TH9

TH10

TH11

TH12



TH13

TH14