

# **APPENDIX 'A'**

# **GEOTECHNICAL REPORT**

## APPENDIX 'A' - GEOTECHNICAL REPORT

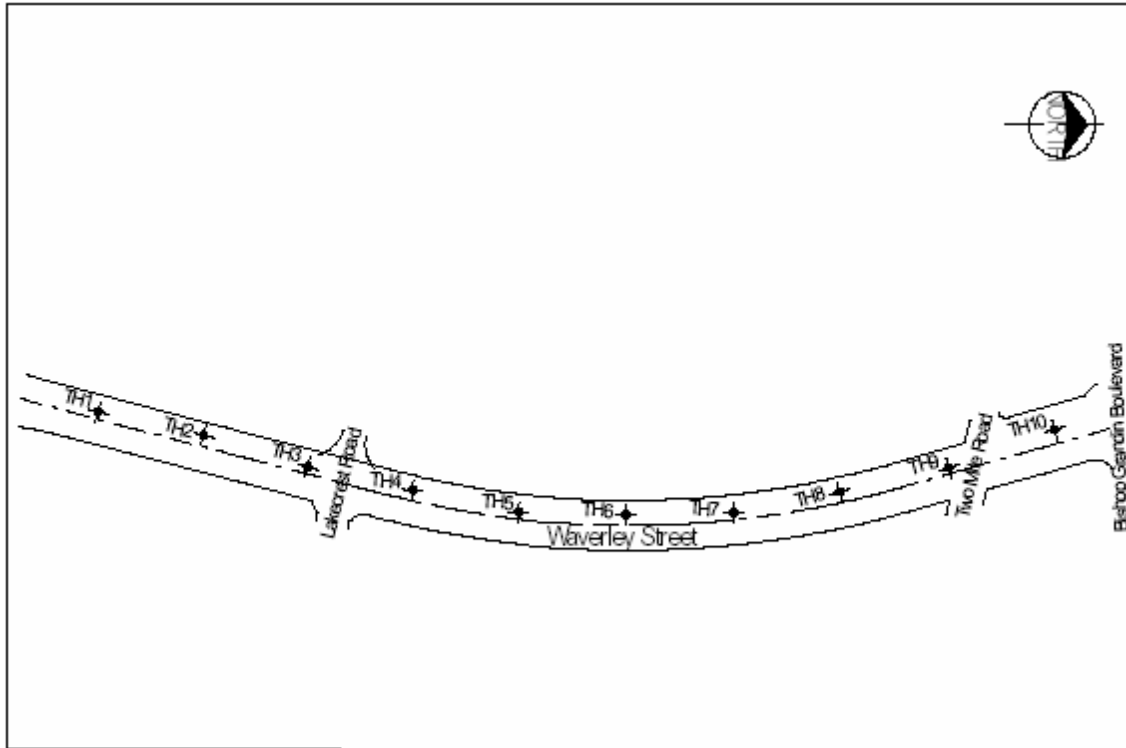
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. 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.

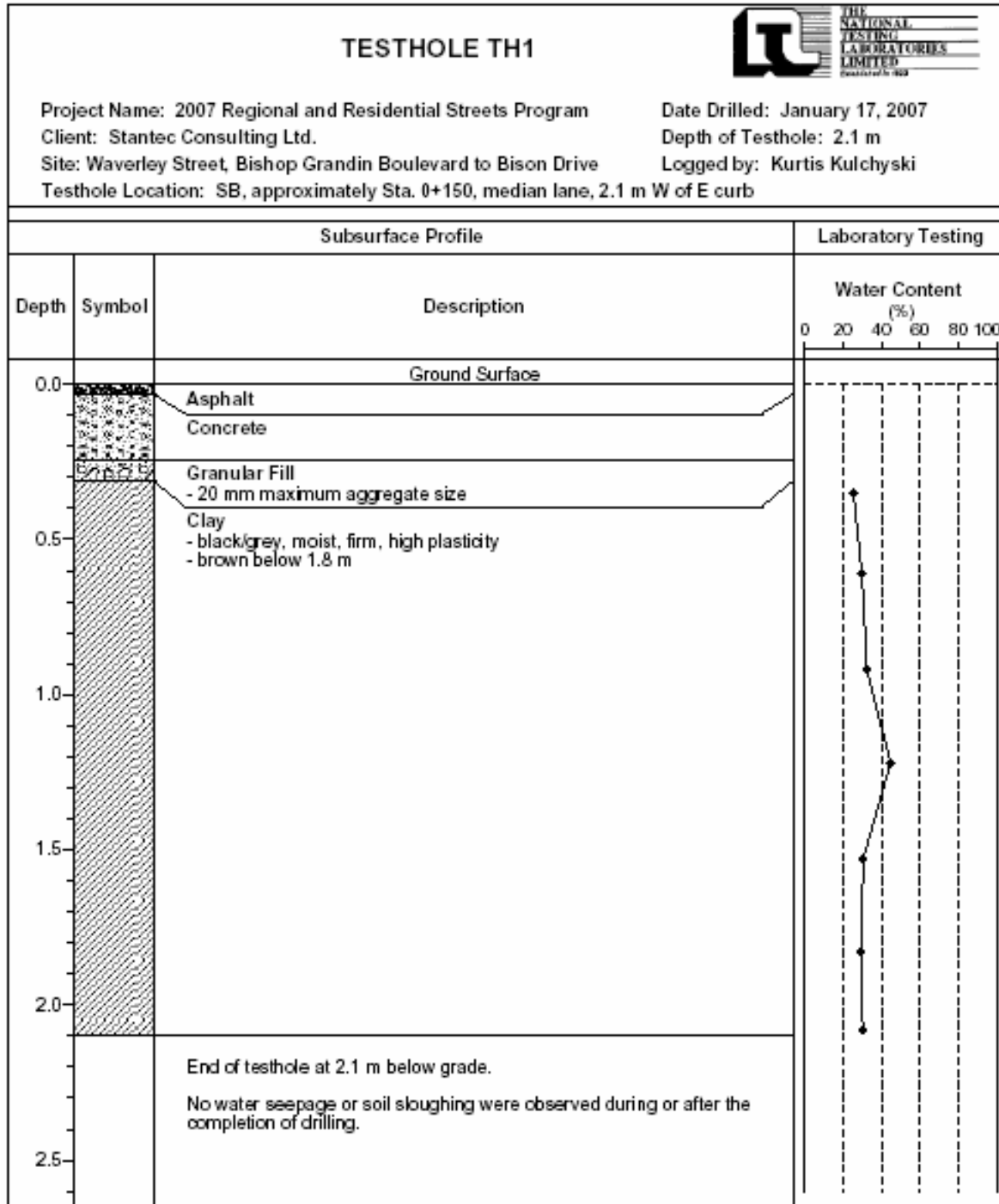
## Geotechnical Report for Waverley Street Southbound

### Test Hole Locations







**Test Hole Log for TH1**




**Test Hole Log for TH2**

TESTHOLE TH2			
Project Name: 2007 Regional and Residential Streets Program		Date Drilled: January 17, 2007	
Client: Stantec Consulting Ltd.		Depth of Testhole: 2.1 m	
Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive		Logged by: Kurtis Kulchyski	
Testhole Location: SB, approximately Sta. 0+250, shoulder lane, 1.2 m E of W side of lane			
Subsurface Profile			Laboratory Testing
Depth	Symbol	Description	Water Content (%)
			0 20 40 60 80 100
0.0		Ground Surface	
		Asphalt	
		Concrete	
		Granular Fill - 20 mm maximum aggregate size	
0.5		Clay - black/grey, moist, firm, high plasticity - brown below 1.5 m	
1.0			
1.5			
2.0		Silt - tan, moist, soft, low plasticity, some clay	
		Clay - brown, moist, firm, high plasticity, trace silt	
		End of testhole at 2.1 m below grade.	
2.5		No water seepage or soil sloughing were observed during or after the completion of drilling.	

**Test Hole Log for TH3**


TESTHOLE TH3			
Project Name: 2007 Regional and Residential Streets Program Client: Stantec Consulting Ltd. Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive Testhole Location: SB, approximately Sta. 0+350, median lane, 1.7 m W of E side of curb		Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski	
Subsurface Profile			Laboratory Testing
Depth	Symbol	Description	Water Content (%)
			0    20    40    60    80    100
0.0		Ground Surface	
	[Asphalt symbol]	Asphalt	
	[Concrete symbol]	Concrete	
	[Granular Fill symbol]	Granular Fill - 20 mm maximum aggregate size	
0.5		Clay - black/grey, moist, firm, high plasticity - brown below 1.2 m	
1.0			
1.5			
2.0			
2.5		End of testhole at 2.1 m below grade.  No water seepage or soil sloughing were observed during or after the completion of drilling.	

**Test Hole Log for TH4**

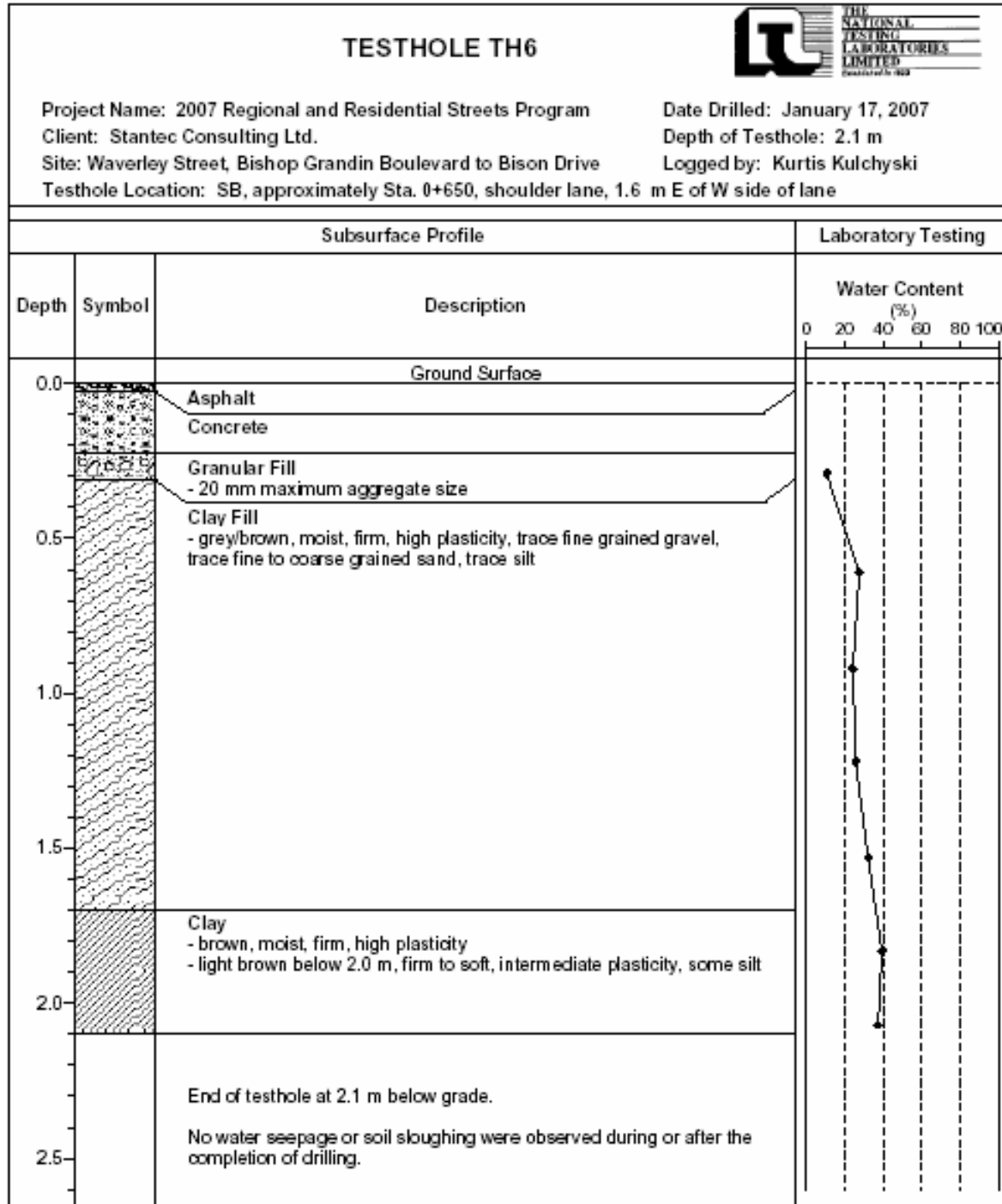
TESTHOLE TH4								
Project Name: 2007 Regional and Residential Streets Program Client: Stantec Consulting Ltd. Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive Testhole Location: SB, approximately Sta. 0+450, shoulder lane, 1.6 m E of W side of lane			Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski					
Subsurface Profile			Laboratory Testing					
Depth (m)	Symbol	Description	Moisture Content (%)		Gravel (%)	Sand (%)	Silt (%)	Clay (%)
			PL	LL				
0.0		Ground Surface						
		Asphalt						
		Concrete						
		Granular Fill - 20 mm maximum aggregate size						
0.5		Clay Fill - grey/brown, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand						
		Clay - black/grey, moist, firm, high plasticity						
1.0								
1.5		Clayey Silt - tan, moist, soft, low plasticity, some clay			0.0	6.8	65.2	28.0
2.0		Clay - brown, moist, firm, high plasticity, trace thin layers of silt						
2.5		End of testhole at 2.1 m below grade.  No water seepage or soil sloughing were observed during or after the completion of drilling.						







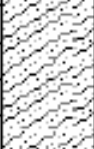

**Test Hole Log for TH5**

TESTHOLE TH5			
Project Name: 2007 Regional and Residential Streets Program Client: Stantec Consulting Ltd. Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive Testhole Location: SB, approximately Sta. 0+550, median lane, 2.0 m W of E curb		Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski	
Subsurface Profile			Laboratory Testing
Depth	Symbol	Description	Water Content (%)
			0    20    40    60    80    100
0.0		Ground Surface	
	[Asphalt symbol]	Asphalt	
	[Concrete symbol]	Concrete	
	[Granular Fill symbol]	Granular Fill - 20 mm maximum aggregate size	
0.5	[Clay Fill symbol]	Clay Fill - grey/brown, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand, trace silt	
1.0			
1.5	[Clay symbol]	Clay - black/grey, moist, firm, high plasticity, trace layers of silt between 1.7 to 2.0 m - brown below 2.0 m	
2.0			
2.5		End of testhole at 2.1 m below grade.  No water seepage or soil sloughing were observed during or after the completion of drilling.	

**Test Hole Log for TH6**



**Test Hole Log for TH7**

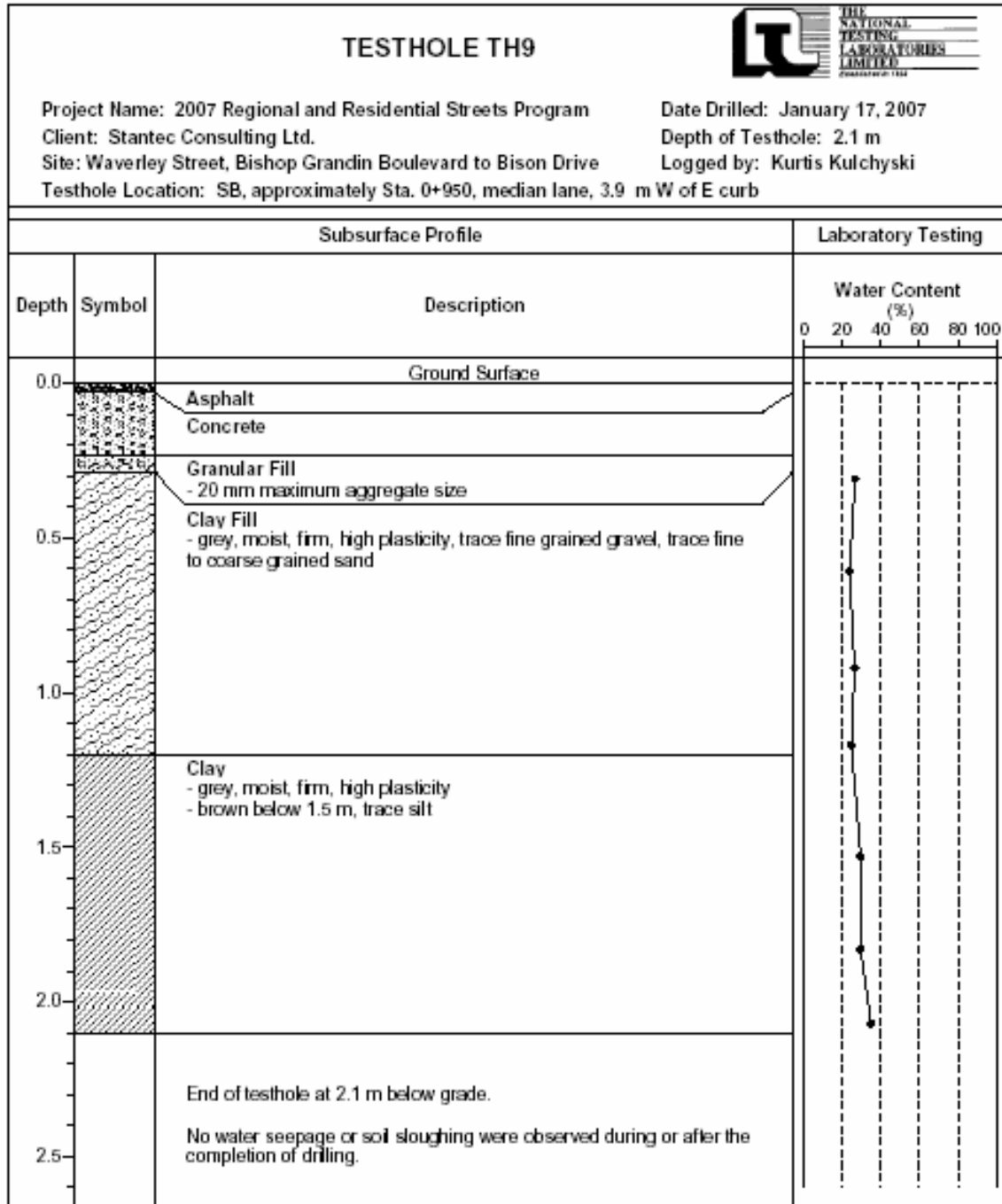
TESTHOLE TH7			 <small>THE NATIONAL TESTING LABORATORIES LIMITED founded in 1922</small>
Project Name: 2007 Regional and Residential Streets Program Client: Stantec Consulting Ltd. Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive Testhole Location: SB, approximately Sta. 0+750, median lane, 2.0 m W of E curb		Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski	
Subsurface Profile			Laboratory Testing
Depth	Symbol	Description	Water Content (%)
			0 20 40 60 80 100
0.0		Ground Surface	
		Asphalt	
		Concrete	
		Granular Fill - 20 mm maximum aggregate size	
0.5		Clay Fill - grey/brown, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand, trace silt	
1.0		Clay - light brown, moist, firm, high plasticity, trace rootlets to 1.5 m - brown below 1.8 m	
1.5			
2.0			
		End of testhole at 2.1 m below grade.	
2.5		No water seepage or soil sloughing were observed during or after the completion of drilling.	

**Test Hole Log for TH8**



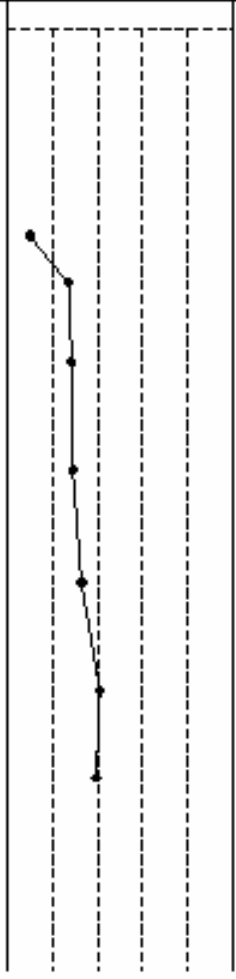

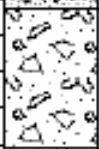
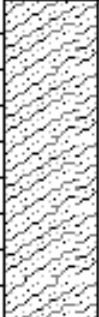

Subsurface Profile			Laboratory Testing					
Depth (m)	Symbol	Description	Moisture Content (%)		Gravel (%)	Sand (%)	Silt (%)	Clay (%)
			PL	LL				
0.0		Ground Surface						
		Asphalt						
		Concrete						
		Granular Fill - 20 mm maximum aggregate size						
0.5		Clay Fill - grey, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand						
1.0		Clay - grey, moist, firm, high plasticity - light brown between 0.8 m to 1.1 m, intermediate plasticity, with silt - brown below 1.1 m, high plasticity, some silt						
1.5					0.0	1.6	21.2	77.2
2.0								
2.5		End of testhole at 2.1 m below grade.  No water seepage or soil sloughing were observed during or after the completion of drilling.						



**Test Hole Log for TH9**



**Test Hole Log for TH10**

TESTHOLE TH10			
Project Name: 2007 Regional and Residential Streets Program Client: Stantec Consulting Ltd. Site: Waverley Street, Bishop Grandin Boulevard to Bison Drive Testhole Location: SB, approximately Sta. 1+050, acceleration lane, 1.6 m E of W side of lane		Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski	
Subsurface Profile		Laboratory Testing	
Depth	Symbol	Description	Water Content (%)
			0    20    40    60    80    100
Ground Surface			
0.0		Asphalt	
		Concrete	
0.5		Limestone Fill - 20 mm maximum aggregate size	
1.0		Clay Fill - grey/brown, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand	
1.5		Clay - brown, moist, firm, high plasticity - light brown below 2.0 m, some silt	
2.0			
2.5		End of testhole at 2.1 m below grade.	
		No water seepage or soil sloughing were observed during or after the completion of drilling.	

**Pavement Core Photos**



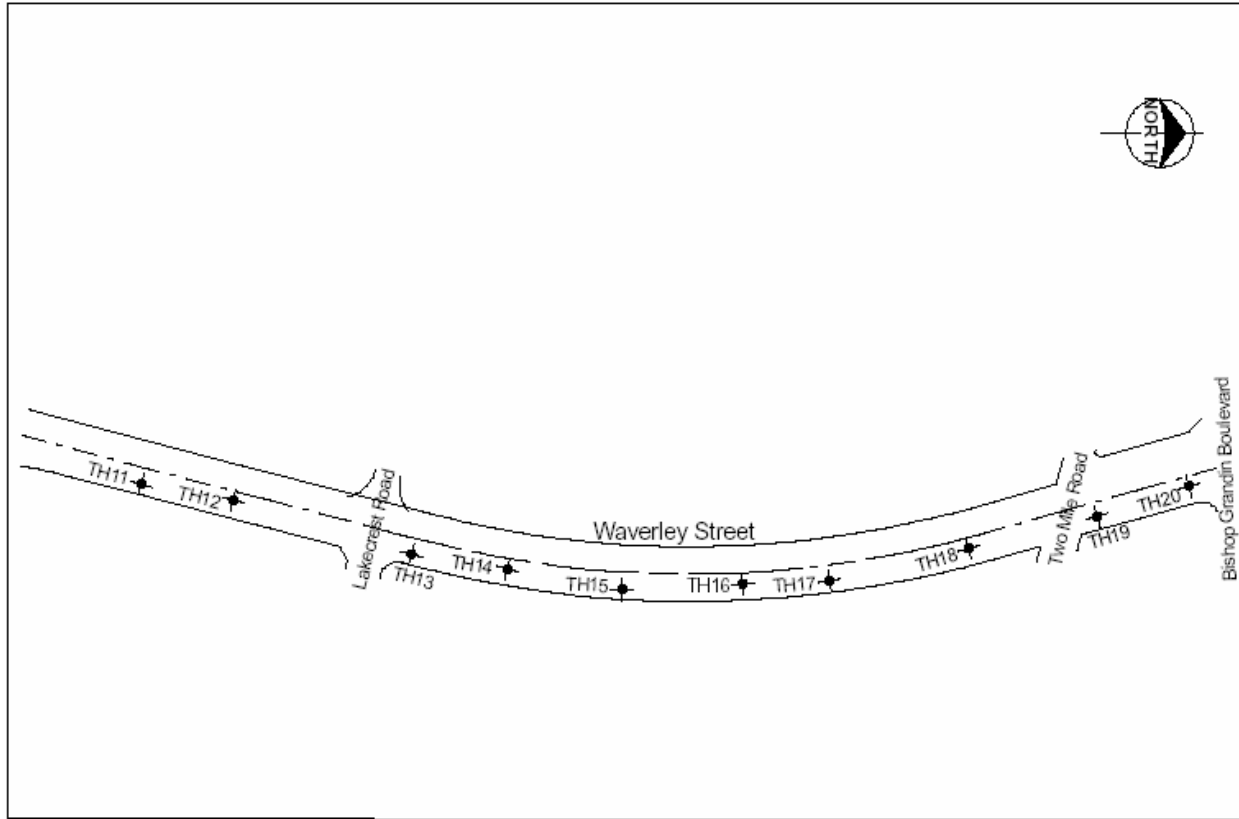






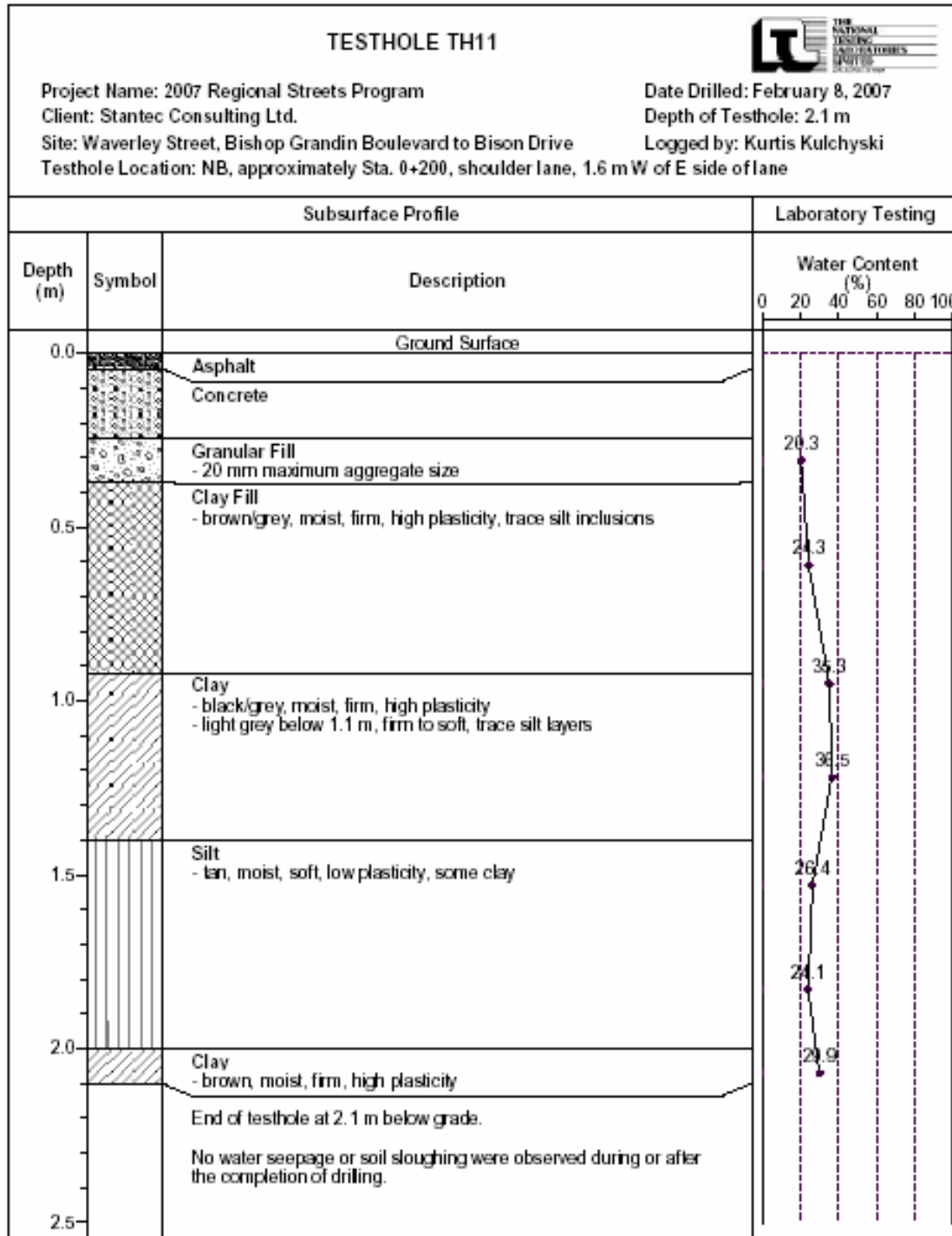
## Geotechnical Report for Waverley Street Northbound

### Test Hole Locations

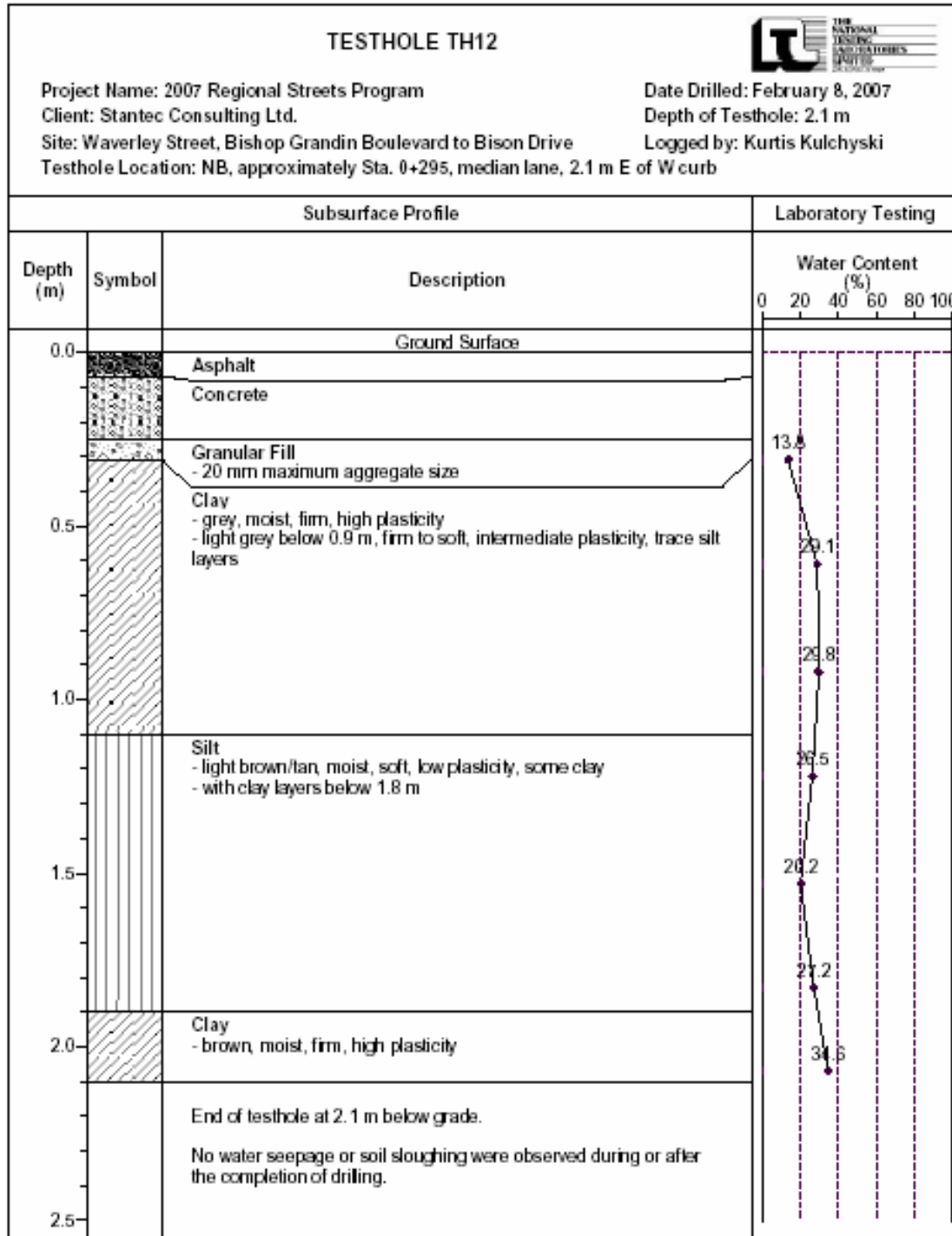




### Test Hole Log for TH11

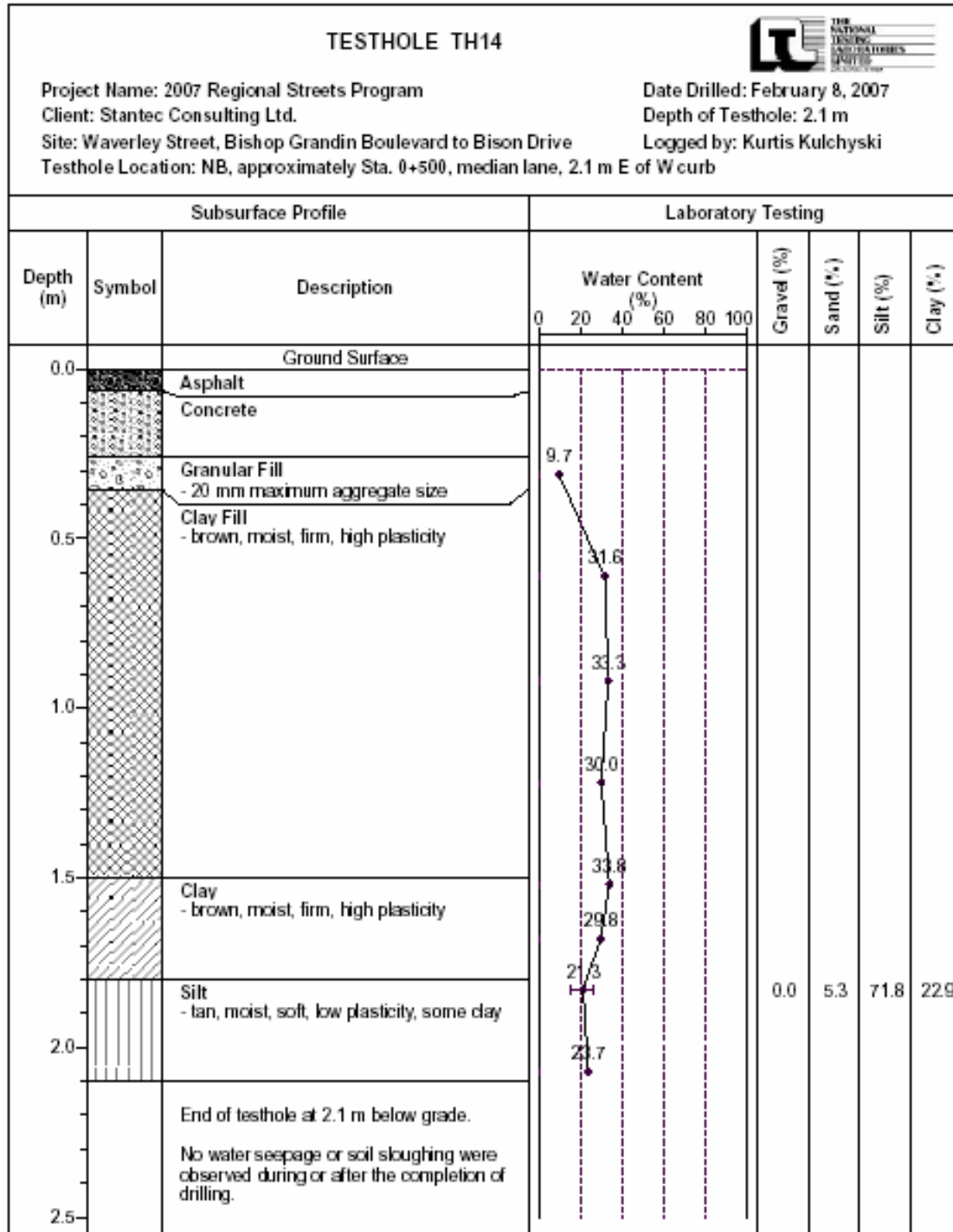


**Test Hole Log for TH12**

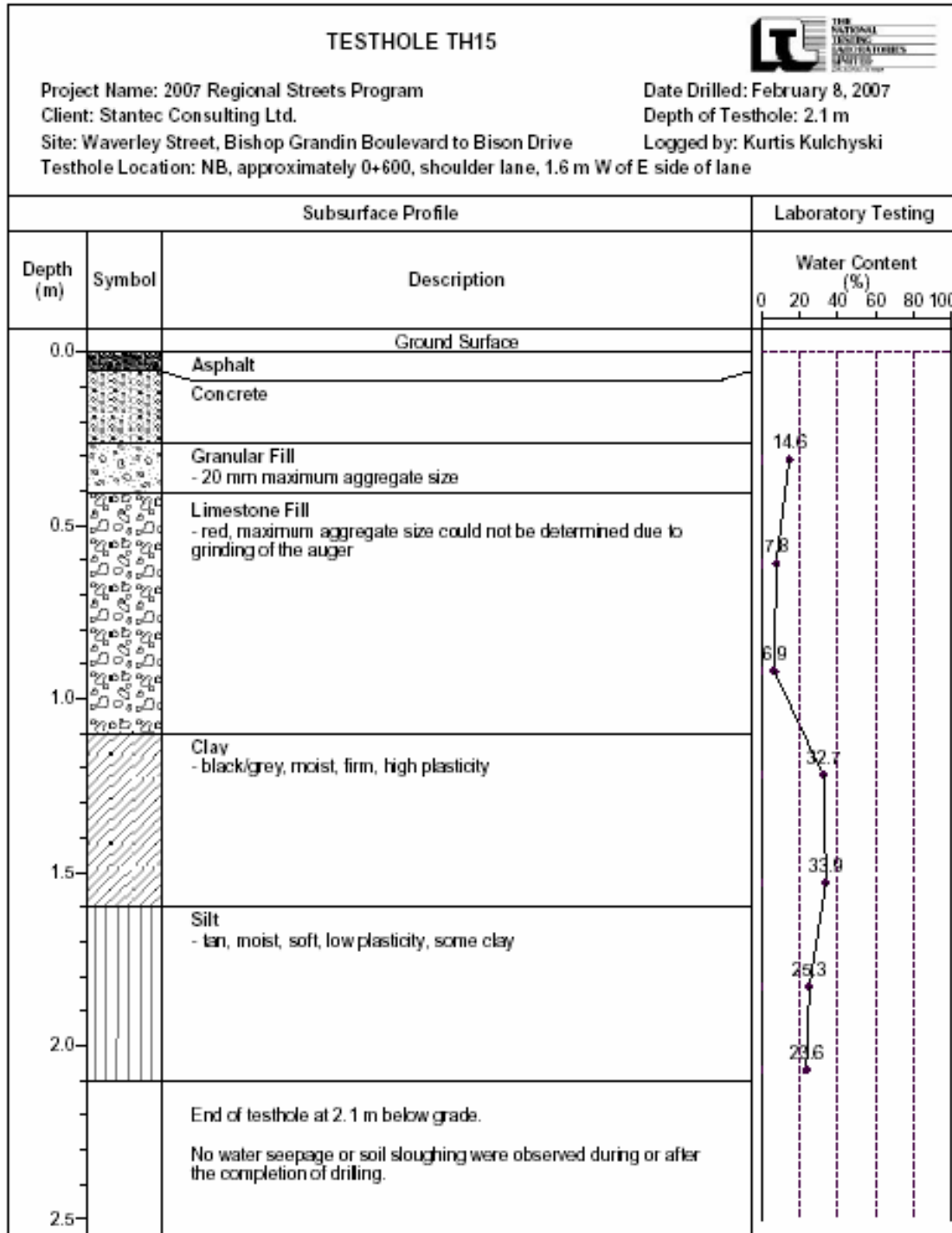




**Test Hole Log for TH14**



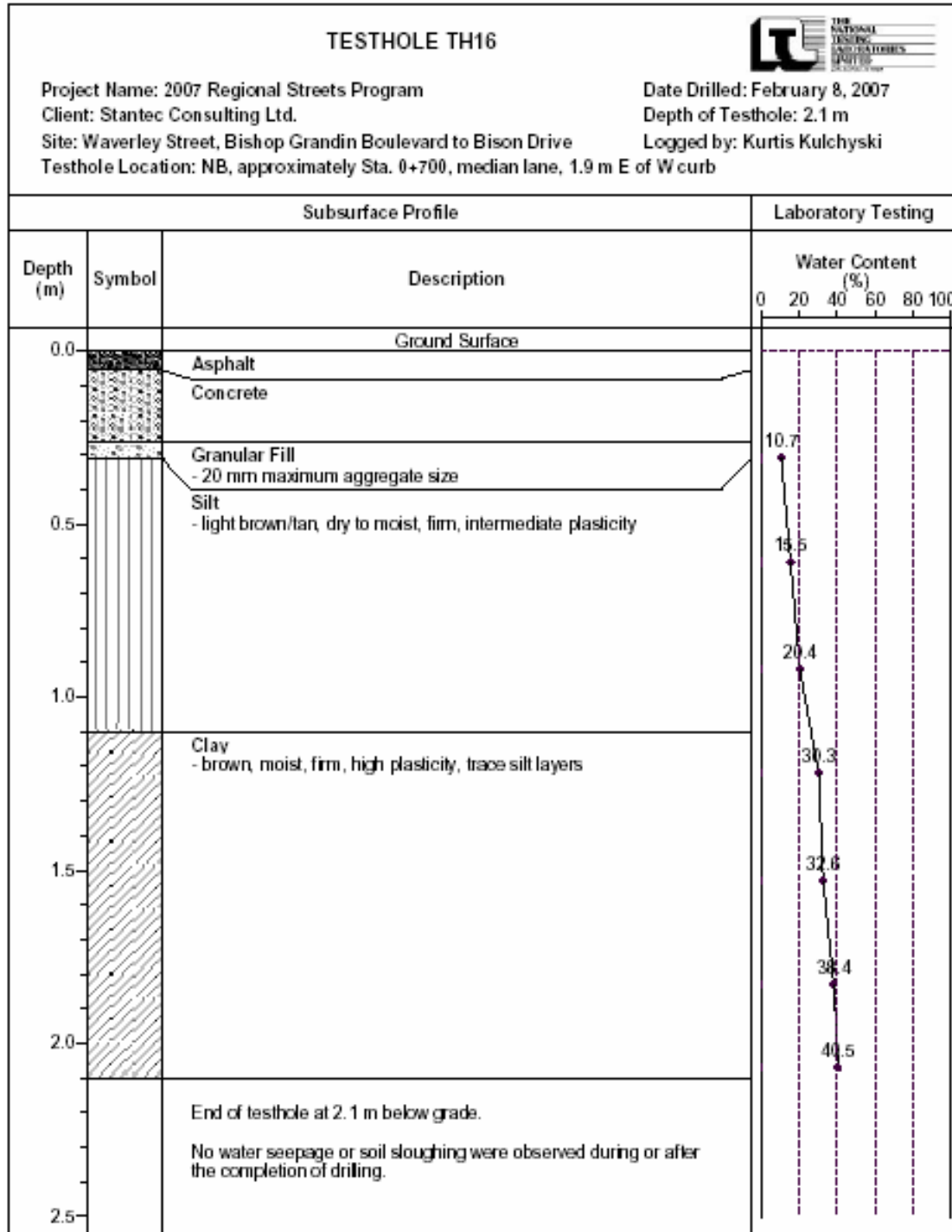
**Test Hole Log for TH15**



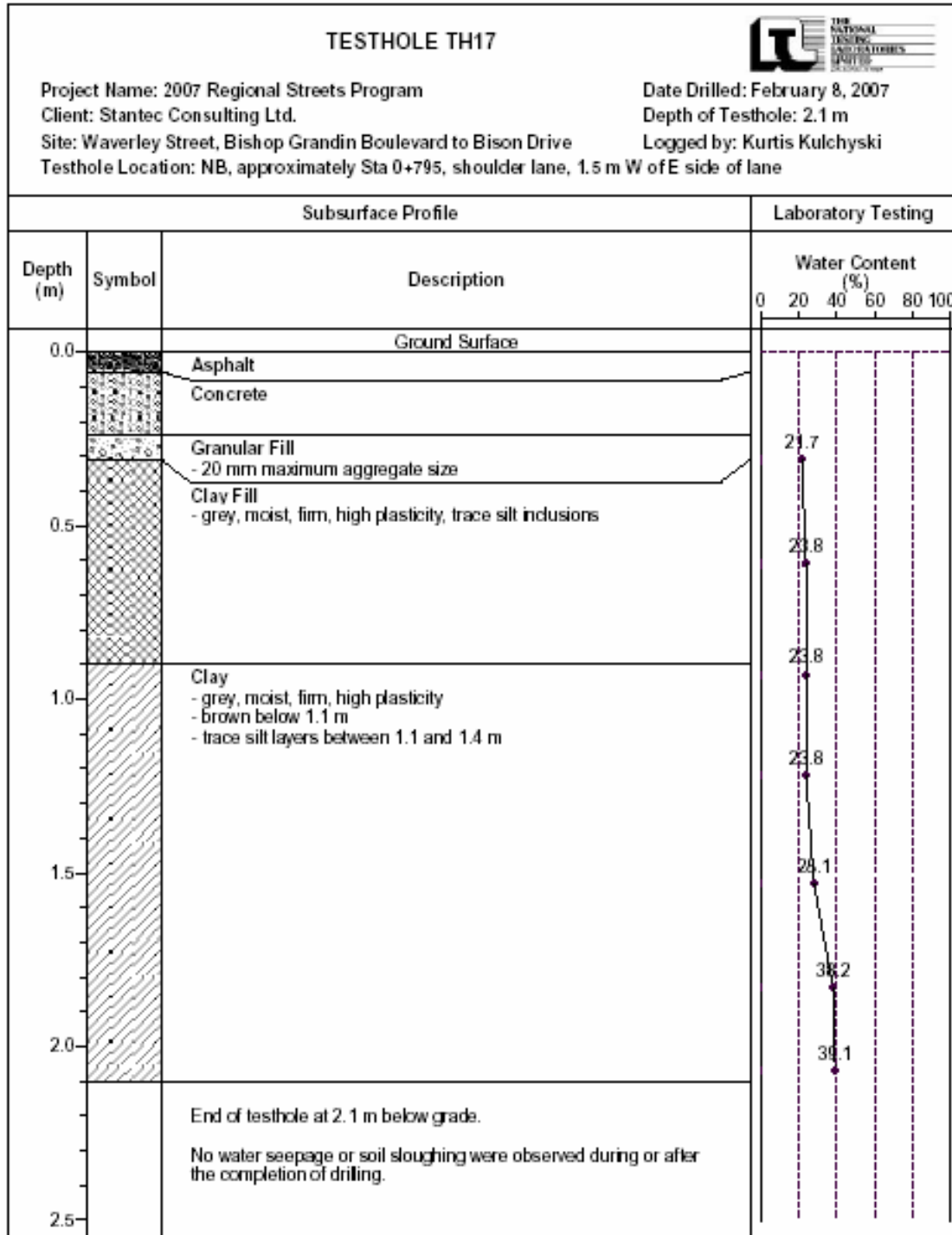


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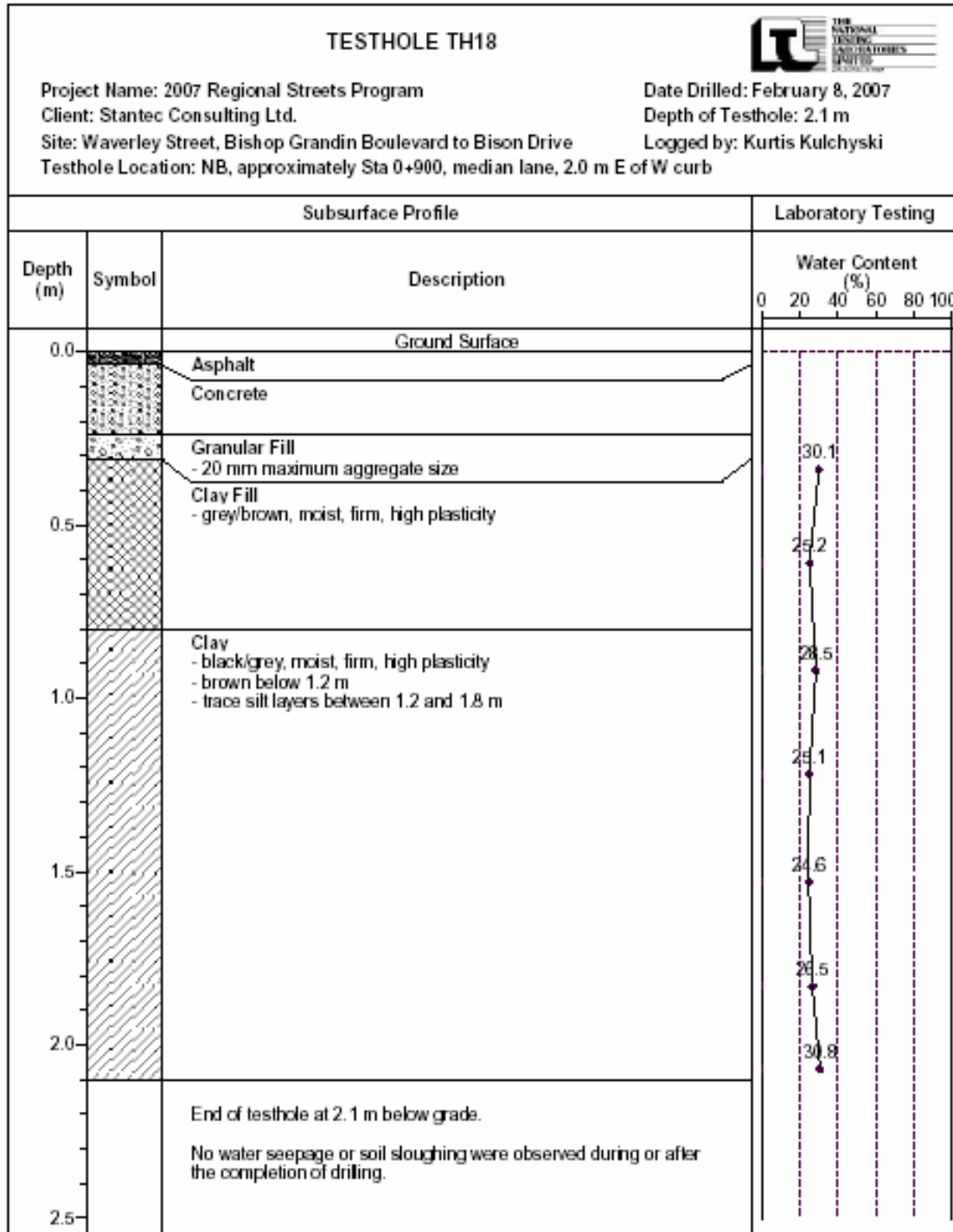
### Test Hole Log for TH16



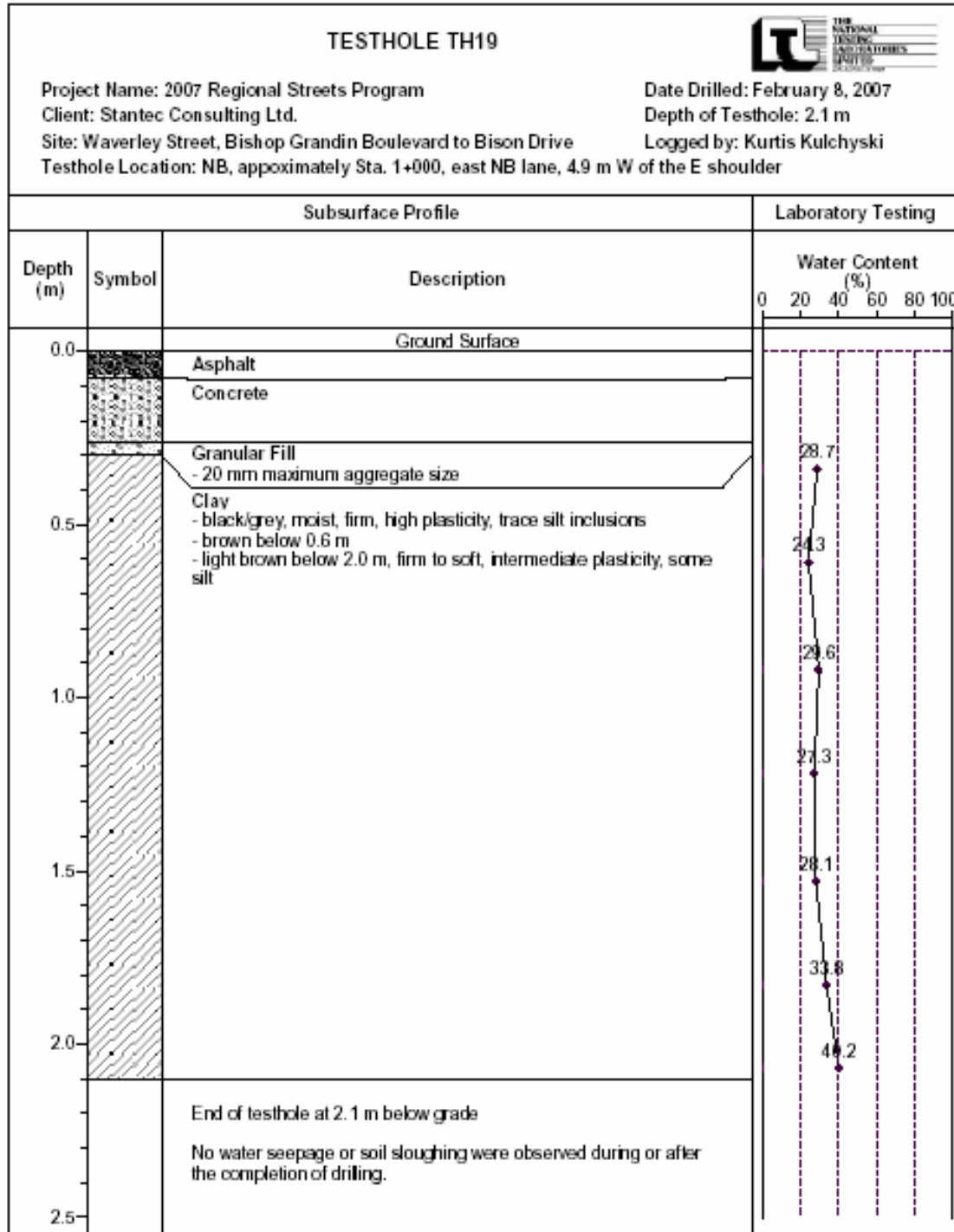
### Test Hole Log for TH17



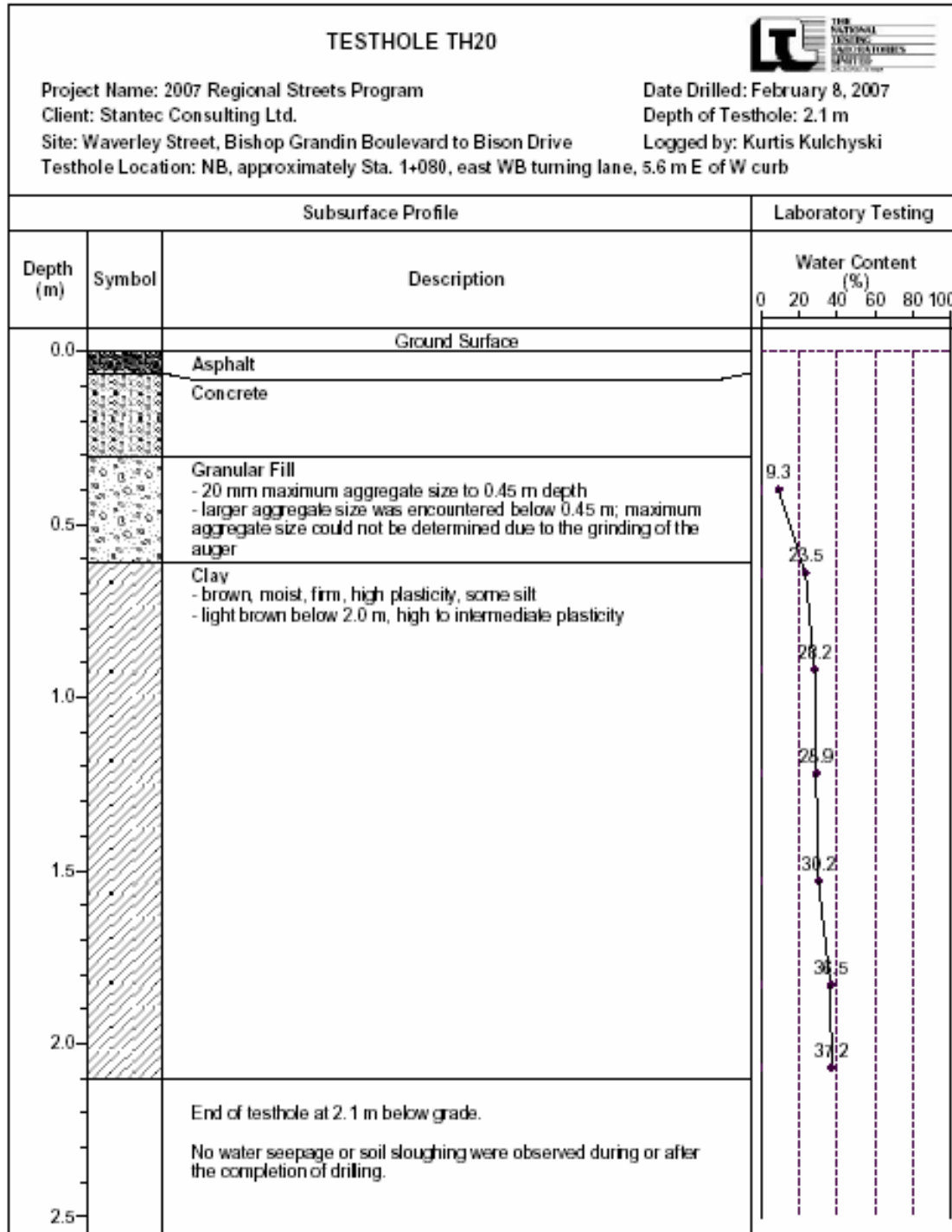
### Test Hole Log for TH18



**Test Hole Log for TH19**



**Test Hole Log for TH20**



**Pavement Core Photos**





