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**Datum:** N/A

## BOREHOLE RECORD

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# BOREHOLE RECORD

Depth (m)	Water Level (m)	Sample Type	Sample Number	N Value or RQD %	Recovery (mm)	Symbols	SOIL AND/OR ROCK DESCRIPTION	Depth (m)	SPT (N) Blows/300mm					Moisture Content (%)				
									5	15	25	35	45	Wp	—	O	—	WL
0	0							0.0										
		-	-	-	-		ASPHALT (60 mm thick)	-0.1										
							Sand ASPHALT (135 mm thick)	-0.2										
1							Loose reddish brown silty SAND											
		SS	1	6	430		Loose brown poorly graded SAND	-0.4										
2							Loose to compact reddish brown silty SAND	-0.6										
3	1	SS	2	29	580													
4																		
5		SS	3	21	530													
6																		
2							End of borehole	-2.0										
7							<b>Location:</b> Approximately 8,000 m from entrance at Brackley Beach											
8																		

Depth (m)	Water Level (m)	Sample Type	Sample Number	N Value or RQD %	Recovery (mm)	Symbols	SOIL AND/OR ROCK DESCRIPTION	Depth (m)	SPT (N) Blows/300mm					Moisture Content (%)				
									5	15	25	35	45	Wp	—	O	—	WL
0	0							0.0										
		-	-	-	-		ASPHALT (115 mm thick)	-0.1										
							Sand ASPHALT (85 mm thick)	-0.2										
							Compact reddish brown silty SAND	-0.3										
1		SS	1	10	530		Compact brown poorly graded SAND											
								-0.6										
2							Compact reddish brown silty SAND											
3	1	SS	2	26	530													
4																		
5		SS	3	26	300													
6																		
7	2						End of borehole	-2.0										
8							<b>Location:</b> Approximately 8,750 m from entrance at Brackley Beach											

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**Project Name:** Geotechnical Investigation and Pavement Evaluation - PEI National Park  
**Project No.:** 034-152  
**Client:** CBCL Limited  
**Location:** Gulf Shore Parkway Westbound Lane  
**Water Level:** 1.7 m on June 5, 2015

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**Page:** 1 of 1  
**Date Drilled:** June 5, 2015  
**Datum:** N/A

Depth (m)	Water Level (m)	Sample Type	Sample Number	N Value or RQD %	Recovery (mm)	Symbols	SOIL AND/OR ROCK DESCRIPTION	Depth (m)	SPT (N) Blows/300mm					Moisture Content (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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**Location:** Multi-Use Trail at approximately 500 m from the entrance at Brackley Beach

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## BOREHOLE RECORD

## **APPENDIX C**

### **SYMBOLS & TERMS USED ON BOREHOLE AND TEST PIT RECORDS**

## SYMBOLS AND TERMS USED ON BOREHOLE AND TEST PIT RECORDS

### SOIL DESCRIPTION

Terminology describing common soil genesis:

- Topsoil* - mixture of soil and humus capable of supporting good vegetative growth
- Peat* - fibrous aggregate of visible and invisible fragments of decayed organic matter
- Till* - unstratified glacial deposit which may range from clay to boulders
- Fill* - any materials below the surface identified as placed by humans (excluding buried services)

Terminology describing soil structure:

- Desiccated* - having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
- Fissured* - having cracks, and hence a blocky structure
- Varved* - composed of regular alternating layers of silt and clay
- Stratified* - composed of alternating successions of different soil types, e.g. silt and sand
- Layer* - >75 mm
- Seam* - 2 mm to 75 mm
- Parting* - < 2 mm
- Well Graded* - having wide range in grain sizes and substantial amounts of all intermediate particle sizes
- Uniformly Graded* - predominantly of one grain size

Terminology describing soils on the basis of grain size and plasticity is based on the ASTM D2488 – Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). The classification excludes particles larger than 76 mm (3 inches). This system provides a group symbol (e.g. SM) and group name (e.g. silty sand) for identification.

Terminology describing materials outside the USCS, (e.g. particles larger than 76 mm, visible organic matter, construction debris) is based upon the proportion of these materials present:

- Trace, or occasional* Less than 10%
- Some* 10-20%
- Frequent* Greater than 20%

The standard terminology to describe cohesionless soils includes the compactness (formerly “relative density”), as determined by laboratory test or by the Standard Penetration Test ‘N’ – value.

Relative Density	‘N’ Value	Compactness %
<i>Very Loose</i>	<4	<15
<i>Loose</i>	4-10	15-35
<i>Compact</i>	10-30	35-65
<i>Dense</i>	30-50	65-85
<i>Very Dense</i>	>50	>85

The standard terminology to describe cohesive soils includes the consistency, which is based on undrained shear strength as measured by insitu vane tests, penetrometer tests, unconfined compression tests, or occasionally by standard penetration tests.

Consistency	Undrained Shear Strength (Su)		'N' Value
	Kips/sq.ft.	KPa	
<i>Very Soft</i>	< 0.25	< 12.5	< 2
<i>Soft</i>	0.25 – 0.5	12.5 – 25	2 – 4
<i>Firm</i>	0.5 – 1.0	25 – 50	4 – 8
<i>Stiff</i>	1.0 – 2.0	50 – 100	8 – 15
<i>Very Stiff</i>	2.0 – 4.0	100 – 200	15 – 30
<i>Hard</i>	> 4.0	> 200	> 30

## ROCK DESCRIPTION

### Rock Quality Designation (RQD)

The classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be due to close shearing, jointing, faulting, or weathering in the rock mass and are not counted. RQD was originally intended to be done on N-size (45 mm) core; however, it can be used on different core sizes if the bulk of the fractures caused by drilling stresses are easily distinguishable from in situ fractures.

RQD	ROCK QUALITY
90 – 100	Excellent, intact, very sound
75 – 90	Good, massive, moderately jointed or sound
50 – 75	Fair, blocky and seamy, fractured
25 – 50	Poor, shattered and very seamy or blocky, severely fractured
0 – 25	Very poor, crushed, very severely fractured

Terminology describing rock mass:

Spacing (mm)	Bedding, Laminations, Bands	Discontinuities
2000 – 6000	<i>Very Thick</i>	<i>Very Wide</i>
600 – 2000	<i>Thick</i>	<i>Wide</i>
200 – 600	<i>Medium</i>	<i>Moderate</i>
60 – 200	<i>Thin</i>	<i>Close</i>
20 – 60	<i>Very Thin</i>	<i>Very Close</i>
< 20	<i>Laminated</i>	<i>Extremely Close</i>
< 6	<i>Thinly Laminated</i>	

Strength Classification	Uniaxial Compressive Strength (MPa)
<i>Very Weak</i>	1 – 5
<i>Weak</i>	5 – 25
<i>Medium Strong</i>	25 – 50
<i>Strong</i>	50 – 100
<i>Very Strong</i>	100 – 250
<i>Extremely Strong</i>	> 250

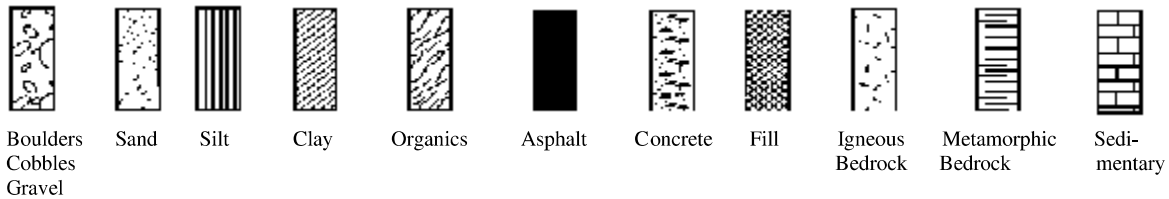
Terminology describing weathering:

- Slight* - Weathering limited to the surface of major discontinuities. Typically iron stained.
- Moderate* - Weathering extends throughout rock mass. Rock is not friable.
- High* - Weathering extends throughout rock mass. Rock is friable.



## STRATA PLOT

Strata plots symbolize the soil or bedrock description. They are combinations of the following basic symbols:



## WATER LEVEL MEASUREMENT



Borehole or  
Standpipe



Piezometer

## SAMPLE TYPE AND/OR FIELD TESTS





SS	Split Spoon Sample (obtained by performing the Standard Penetration Test)	AS	Auger Sample
		BS	Bulk Sample
		WS	Wash Sample
ST	Shelby Tube or Thin Wall Tube	HQ, NQ, BQ, etc.	Rock Core Samples (obtained with the use of standard size diamond drilling bits)
PS	Piston sample		
DC	Dynamic Cone Penetration		
FSV	Field Shear Vane		

## N- VALUE

Numbers in this column are the results of the SPT (Standard Penetration Test): the number of blows of a 140 pound (64kg) hammer falling 30 inches (760 mm), required to drive a 2 inch (50.8 mm) O.D. split spoon sampler one foot (305 mm) into the soil. For split spoon samples where insufficient penetration was achieved and 'N' values cannot be presented, the abbreviation SSR (Split Spoon Refusal) will appear in place of a numerical value.

## OTHER TESTS

Symbols in this column indicate that the following laboratory tests have been carried out and the results are presented separately.

S	Sieve analysis	H	Hydrometer analysis
G <sub>s</sub>	Specific gravity of soil particles	γ	Unit weight
k	Permeability	C	Consolidation
	Single packer permeability test; test interval from depth shown to bottom of borehole	CD	Consolidated drained triaxial
	Double packer permeability test; Test interval as indicated	CU	Consolidated undrained triaxial with pore pressure measurements
	Falling head permeability test using casing	UU	Unconsolidated undrained triaxial
	Falling head permeability test using well point or piezometer	DS	Direct shear
		Q <sub>u</sub>	Unconfined compression
		I <sub>p</sub>	Point Load Index (I <sub>p</sub> on Borehole Records equals I <sub>p</sub> (50); the index corrected to a reference diameter of 50 mm)
		MSV	Laboratory Miniature Shear Vane