

Appendix A

Borehole Logs

DESCRIPTIVE TERMS- BOREHOLE/TEST PIT LOG

SOILS

GRAIN SIZE

0.01

0.1

1.0

10

100

1000mm

SILT CLAY

SAND

GRAVEL

Cobble

BOULDER

0.08

0.4

2

5

80

200

DESCRIPTIVE TERMINOLOGY

0

10

20

35

weight. % of material

TRACE	SOME	ADJECTIVE	and > 35% noun > 35% and main fraction
trace clay, etc.	some gravel, etc.	silty, etc.	sand and gravel, etc.

COMPACTNESS
gravels, sands, tills

N, RANGE	0 - 4	4 - 10	10 - 30	30 - 50	> 50
DENSITY	V. LOOSE	LOOSE	MEDIUM	DENSE	V. DENSE

CONSISTENCY
silt, clay

S, KPa	< 12.5	12.5 - 25	25 - 50	50 - 100	100 - 200
CONSISTENCY	V. SOFT	SOFT	MEDIUM	STIFF	V. STIFF

ROCK

RQD

0 - 25

25 - 50

50 - 75

75 - 90

90 - 100

OVERALL QUALITY

VERY POOR

POOR

FAIR

GOOD

EXCELLENT

FRACTURE SPACING

VERY CLOSE 20 - 60 mm

CLOSE 60 - 200 mm

MODERATE 200 - 600 mm

WIDE 600 - 2000 mm









VERY WIDE 2 - 6 m

COMP. STR. MPa	1 - 5	5 - 25	25 - 50	50 - 100	100 - 250
DESCRIPTION	V. WEAK	WEAK	MODERATE	STRONG	V. STRONG





SAMPLE TYPES (location to scale on log)

S SPLIT TUBE	G SHOVEL
T SHELBY TUBE	H CARVED BLOCK
P PISTON	K SLOTTED
F AUGER	V IN SITU VANE
W WASH	NR NO RECOVERY

LOG SYMBOLS

			
GRAVEL	SAND	SILT	CLAY
			
ORGANIC	BOULDER	ROCK	TILL

ROCK CORES A(30mm); B(41mm); N(54mm)

			
SCREEN WITH SAND	PIPE WITH SAND	PIPE WITH BENTONITE	PIPE WITH BACKFILL

WELL SYMBOLS

- N - standard penetration test; blows by 475 J drop hammer to advance Std. 50mm O.D. split tube sampler 0.3m
- RQD - percent of core consisting of hard, sound pieces in excess of 100mm long (excluding machine breaks)
- RECOVERY - sample recovery expressed as percent or length
- S - shear strength, kPa; vane \oplus ; penetrometer \blacksquare ; unconfined \circ ; U_c unconfined compressive strength
- S_r - shear strength, remoulded; vane \otimes ; penetrometer \square
- D_d - dry density; t/m³
- W - natural moisture content, percent *
- PL - plastic limit, percent —
- LL - liquid limit, percent —
- ND - non detect, total petroleum hydrocarbons (TPH) not detected in soil
- Groundwater Level ∇ ; Seepage ∇

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada

Proj
No. 4735.48

BOREHOLE

Project Hueston Brook Culvert Replacement

Date
Drilled 2015/05/12BH1
Page 1 of 1

Location Fundy National Park, New Brunswick

Ground Level, m

Datum:

Geodetic

Logged
By

NG

DEPTH
m

SAMPLE

No TYPE N (RQD) REC (mm)

LOG

DESCRIPTION

0 25 Undrained Shear Strength - kPa 75 100

○ Unconfined Compression
⊕ Field Vane Test■ Pocket Penetrometer
⊗ RemouldedWater Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3mW_P W_L W_U

0

1

1

2

3

4

1

2

3

4

5

6

7

11

0

1

2

10

5

4

170

100

50

50

160

0

420

0.10 ASPHALT 0.10

Grey SAND and GRAVEL

4.87 - Sand and Gravel, trace silt (A-1-a) 4.87

End of borehole at 4.87 mbgs
Groundwater encountered at 4.7 mbgs

0 10 20 30 40 50 60 70 80 90 100



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BH2
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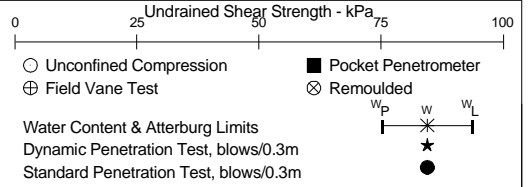
Location Fundy National Park, New Brunswick

Ground Level, m

Datum:
Geodetic

Logged By NG

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	S	8	300		0.10 ASPHALT 0.10
						Grey SAND and GRAVEL
1	2	S	4	220		- Sandy gravel, trace silt (A-1-a)
2	3	S	4	150		
3	4	S	3	190		
4	5	S	20	210		- Sandy gravel, trace silt (A-1-a)
	6	S	10	420		4.00 Brown sand, silt, some wood debris, trace gravel and clay 4.00
						4.30
	7	S	100+	100		4.30 Grey SAND and GRAVEL, some cobbles 4.30
						4.57
						End of borehole at 4.57 mbgs



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BOREHOLE

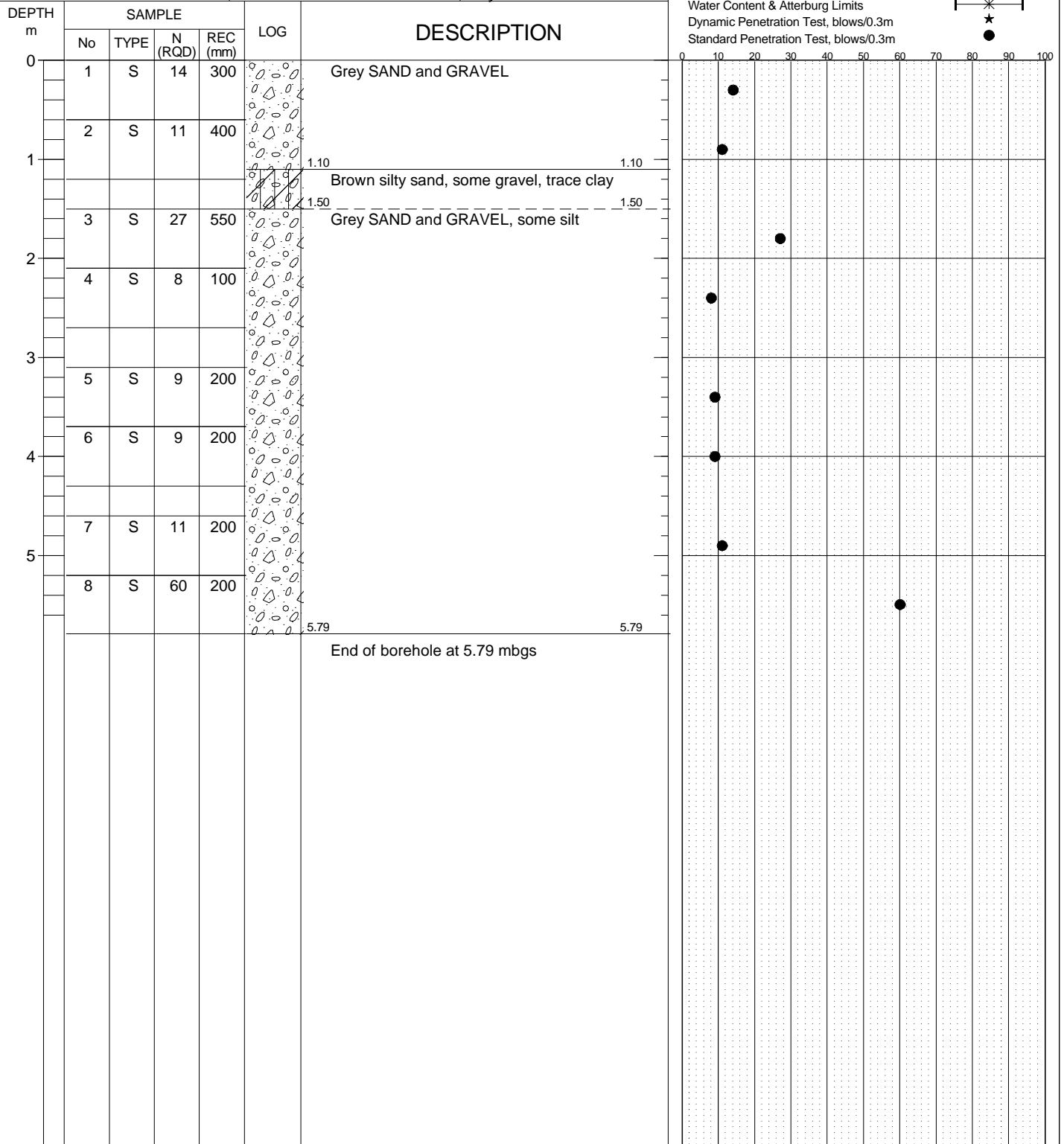
Project Hueston Brook Culvert Replacement

Date Drilled 2015/05/12

BH3
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Location Fundy National Park, New Brunswick

Ground Level, m

Datum:
GeodeticLogged
By NG

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BOREHOLE

Project Hueston Brook Culvert Replacement

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BH4
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Location Fundy National Park, New Brunswick

Ground Level, m

Datum:

Geodetic

Logged By

NG

DEPTH
m

SAMPLE

No TYPE N (RQD) REC (mm)

LOG

DESCRIPTION

0 25 Undrained Shear Strength - kPa 75 100

○ Unconfined Compression
⊕ Field Vane Test■ Pocket Penetrometer
⊗ RemouldedWater Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3mW_p W_L W_U

0

1

1

2

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5

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8

9

10

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