BOREHOLE LOG

CLIENT: AECOM Australia Pty Ltd
PROJECT: Cross River Rail - Phase 1
LOCATION: Tamar Street, Annerley

SURFACE LEVEL: 21.5 m AHD
EASTING: 502858
NORTHING: 6957694
DIP/AZIMUTH: -90°/--

BORE No: CRR107
PROJECT No: 74321.00
DATE: 21 April 2010
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding, J - Joint, S - Shear, D - Drill Break)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
21	0.1	FILLING - loose, brown silty sand filling, sand fraction is fine to coarse grained, moist										
	0.5	FILLING - loose to medium dense, grey-brown sandy gravel filling, fine to coarse grained sand and gravel, with some silt, moist										
	0.9	SILTY CLAY - very stiff to hard, grey and orange brown mottled, medium to high plasticity silty clay, with trace fine to medium grained sand, moist (residual)										
20	1	SANDSTONE - very low strength, highly weathered orange-brown medium to coarse grained sandstone						(See attached sheet for abbreviations)				
19	2.5	- 200mm low strength, slightly weathered, fine to medium sandstone interbed, bedding at 20°						2.5m: frg to 2.65m, di				
		CONGLOMERATE - extremely low to very low strength, moderately to slightly weathered, slightly fractured, orange-brown and grey medium grained conglomerate, subhorizontal clast orientation						2.85m: B, sh, un, ti				
	3	- becoming moderately weathered, orange brown and grey banded, fine to coarse grained sandstone interbeds to 60mm at 60-100mm spacing to 4.2m						3.14m: J: 30°, un, ro	C	100	21	
18		- becoming slightly weathered, grey and orange-brown banded										
		- bedding at 15°										
	4	- bedding subhorizontal										
	4.2	CORE LOSS						4.2m: CORE LOSS: 1000mm				
17									C	66	8	

RIG: MD300 **DRILLER:** Taberner **LOGGED:** MAH **CASING:** HW to 2.5m

TYPE OF BORING: Auger 0.00-2.50m, NMLC core 2.50-10.00m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U$_x$	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep ▽ Water level

CHECKED
Initials: CB
Date: 24/6/10

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SHEET 2 OF 3

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		CORE LOSS *(continued)*										
16	5.2	CONGLOMERATE- sporadic sandstone interbeds to 50mm at 100-300mm spacings to 6.0m = becoming coarse grained conglomerate = becoming fine to medium grained conglomerate						5.2m: frg to 5.28, di 5.4m: frg to 5.54m, di				
	6.05	SANDSTONE - extremely low to very low strength, slightly weathered, slightly fractured, grey fine to medium grained sandstone, bedding at 10° = 80mm extremely low strength, fine grained conglomerate interbed = becoming fresh, grey-brown fine grained sandstone, bedding at subhorizontal to 10°, siltstone laminae to 5mm at 10-50mm spacings to 7.00m, sporadic laminae of coal and lignite to 7.20m						6.07m: J, 20°, un, sm 6.15m: B: 10°, pl, sm 6.24m: frg to 6.33m, di 6.25m: B: 10°, pl, sm 6.56m: B: sh, pl, sm	C	66	8	
15	7											
	7.2	CORE LOSS						7.2m: CORE LOSS: 600mm				
14	7.8	GRAVEL - grey medium to coarse gravel, potential fall-in from conglomerate unit at 3.00-6.00m = 40mm extremely low strength, highly to moderately weathered grey siltstone interbed						7.8m: frg to 8.16m, di	C	66	0	
	8.16	SILTSTONE - extremely low strength, moderately weathered, slightly fractured, grey and orange-brown mottled siltstone, bedding subhorizontal to 10°						8.16m: B: 10°, un, sm 8.24m: B, 10°, pl, sm 8.35m: J: 10°, pl, ro, lim 8.59m: B, sh, pl, ro 8.64m: J: 60°, pl, h, lim 8.7m: B: 10°, pl, ro, lim				
13	9											
	9.0	CORE LOSS						9m: CORE LOSS: 500mm				
12	9.5	GRAVEL - grey fine gravel, grading to medium to coarse at 9.70m, potential fall-in from conglomerate unit at 3.00-6.00m							C	50	0	
	9.95											

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CHECKED
Initials: CRB
Date: 24/6/10

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SHEET 3 OF 3

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	10.0	SILTSTONE - extremely low strength, highly to moderately weathered, fractured, grey siltstone										
		Bore discontinued at 10.0m										

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CHECKED
Initials: CMB
Date: 24/6/10

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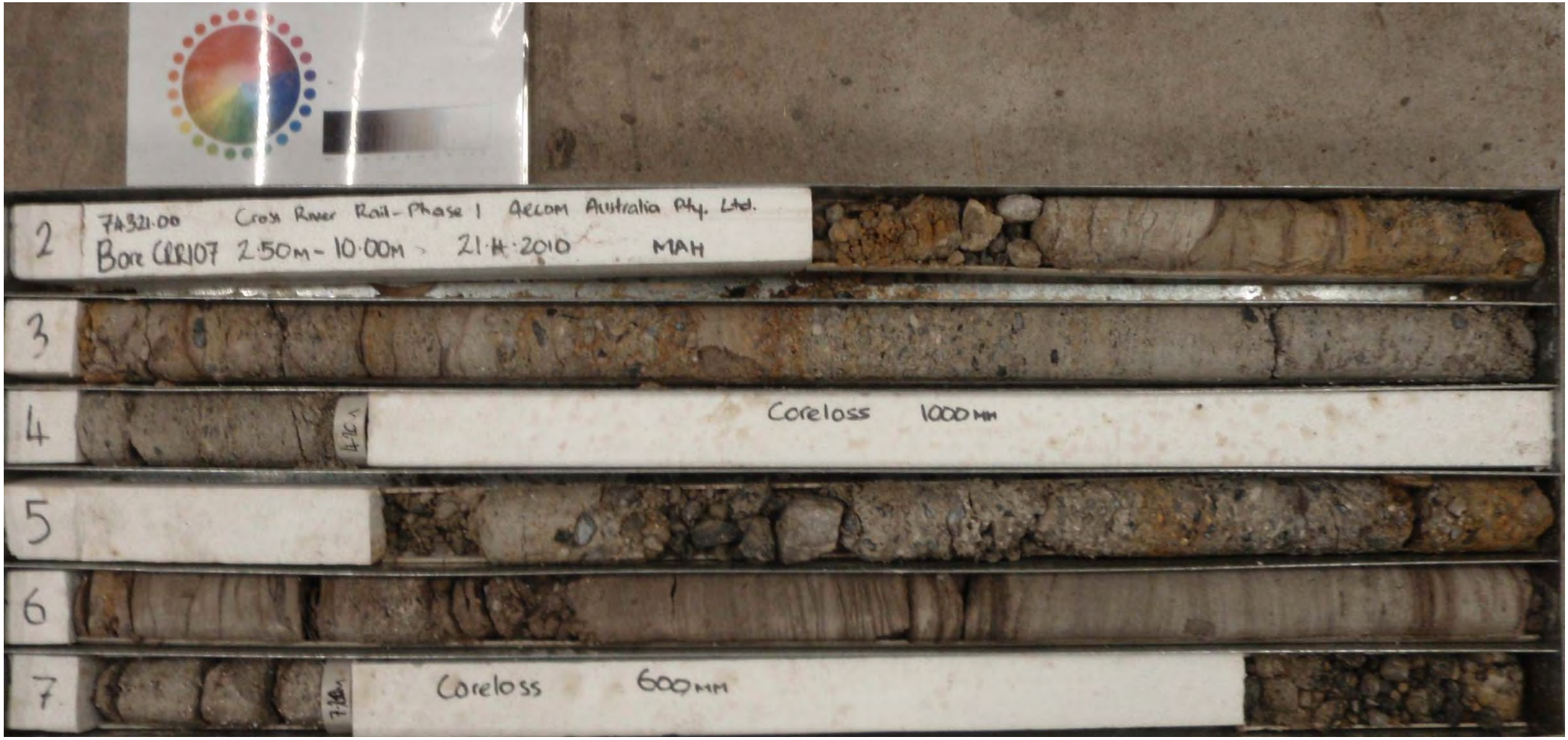

CROSS RIVER RAIL – PHASE 1 GEOTECHNICAL INVESTIGATION	BORE CRR107	Project 74321.00	Douglas Partners Geotechnics · Environment · Groundwater