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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No	<u>BH55</u>
SHEET	<u>1</u> of <u>2</u>
REFERENCE No	<u>H11094</u>

PROJECT Moreton Bay Rail Link
 LOCATION Fresh Water Creek Rail Bridge 7, Abutment A, Ch.5020 COORDINATES 502104.0 E; 6985912.7 N
 PROJECT No FG5921 SURFACE R.L. 3.40m PLUNGE _____ DATE STARTED 4/7/11 GRID DATUM MGA94 Zone 56
 JOB No 250/120/3 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 4/7/11 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH							DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
								EH	VH	TH	WH	JL	VL	EL				
0	3.40				Silty CLAY (Uncontrolled Fill) Dark grey, moist, soft.											Based on Driller's logs only		
1	2.40			A	Sandy CLAY (Alluvial) Grey to brown, moist, soft to firm. Medium plasticity. Sand fraction is fine to coarse grained.											DD = 1.70t/m ³ ; WD = 2.00t/m ³ ; MC = 15%; LL-20%, PI=4%, LS=2+	U100	
2				B	Minor traces of quartzitic gravel below 2.8m. Becoming more sandy at base.	(Cl)											1,1,2 N=3	SPT
3				C													5,4,7 N=11	SPT
4	-0.60			D	Silty CLAY (Residual) Grey, moist, very stiff. High plasticity.												4,5,20 N=25	SPT
5	-1.60			E	Gravelly SAND (Residual) Grey, moist, fine grained, medium dense. Gravel fraction sizing >6mm.												12,12,12 N=24	SPT
6				F		(\$M/SP)											5,6,9 N=15	SPT
7	-3.70			G													30/75mm N>50	SPT
8			(92)		SANDSTONE Fine to medium grained, massive, poorly cemented sedimentary rock mainly comprising sand-sized particles MW: Yellow brown, fine to medium grained, massive, poorly cemented, low to medium strength.	MW										Is(50) = 0.37MPa Is(50) = 0.30MPa	x o	
9	-5.20		100 (100)		SW: Grey, fine to coarse grained, massive, high strength. Contains conglomeratic sandstone bands approx. 300mm thick.	SW										DD = 2.15t/m ³ ; MC = 7.6%; UCS=3.44MPa	UCS	
10					(See over)											Is(50) = 0.72MPa Is(50) = 0.66MPa	x o	

REMARKS _____

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BOREHOLE No	<u>BH55</u>
SHEET	<u>2</u> of <u>2</u>
REFERENCE No	<u>H11094</u>

PROJECT Moreton Bay Rail Link
 LOCATION Fresh Water Creek Rail Bridge 7, Abutment A, Ch.5020 COORDINATES 502104.0 E; 6985912.7 N
 PROJECT No FG5921 SURFACE R.L. 3.40m PLUNGE _____ DATE STARTED 4/7/11 GRID DATUM MGA94 Zone 56
 JOB No 250/120/3 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 4/7/11 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING						DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
								EH	VH	IM	J	VL	EL				
10	-6.60		100 (96)		SANDSTONE SW: (Cont'd) Rock core may be broken due to drilling and handling. Defects: Generally rare. - Drilling-induced fracture @ 10° (1-2/m) - Joint @ 20° (<1/m) Defect surfaces are mainly widely spaced, irregular, slightly rough, closed and open, clean.											Is(50) = 1.35MPa Is(50) = 1.14MPa Is(50) = 0.72MPa Is(50) = 0.54MPa	x o x o
11			100 (91)											Co Conglomeritic SSt	Is(50) = 2.07MPa Is(50) = 1.65MPa	x o	
12			100 (96)												Is(50) = 1.30MPa Is(50) = 1.48MPa DD = 2.35t/m³; MC = 3.9%; UCS=28.4MPa	x o UCS	
13			100 (96)											Coarse grained SSt	Is(50) = 2.68MPa Is(50) = 1.93MPa	x o	
14			100 (92)			SW									Is(50) = 1.38MPa Is(50) = 2.17MPa	x o	
15			100 (100)												Is(50) = 2.81MPa Is(50) = 1.70MPa	x o	
16			100 (92)												Is(50) = 2.07MPa Is(50) = 2.14MPa	x o	
17			100 (92)												Is(50) = 2.59MPa Is(50) = 2.52MPa DD = 2.29t/m³; MC = 4.7%; UCS=19.5MPa	x o UCS	
18			100 (100)												Is(50) = 1.39MPa Is(50) = 1.21MPa	x o	
19	-15.63		100 (100)											Co	DD = 2.38t/m³; MC = 3.7%; UCS=13.6MPa	x o UCS	
19			100		Borehole terminated at 19.03m										Is(50) = 1.48MPa Is(50) = 1.51MPa Is(50) = 1.15MPa Is(50) = 1.05MPa Is(50) = 0.85MPa DD = 2.15t/m³; MC = 6.4%; UCS=8.3MPa	x o x o UCS	
20																	

REMARKS _____

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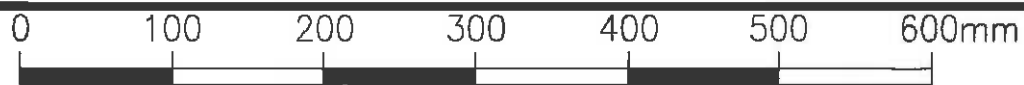
Project Name	Moreton Bay Rail Link (MBRL)		
Project No	FG5921	Date	04/07/11
Borehole No	BH 55	TMR H No	
Location	Fresh Water Creek Rail Bridge	Start Depth (m)	7.10
Detail	Abutment A Structure	Finish Depth (m)	21.90
Chainage	5330 Approx	Submitted By	BW
Remarks			



0 100 200 300 400 500 600mm

SCALE 1:5

Project Name	Moreton Bay Rail Link (MBRL)		
Project No	FG5921	Date	04/07/11
Borehole No	BH 55	TMR H No	
Location	Fresh Water Creek Rail Bridge	Start Depth (m)	7.10
Detail	Abutment A Structure	Finish Depth (m)	19.03
Chainage	5330 Approx	Submitted By	BW
Remarks			



SCALE 1:5