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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No **CRR993**

Sheet 1 of 1

REFERENCE No **H13151**

PROJECT	Cross River Rail (CRR) Project - Additional Geotechnical Investigation		
LOCATION	O'Connell Terrace	COORDINATES 503265.9 E; 6963917.8 N	
PROJECT No	FG6470	SURFACE RL 15.54m	PLUNGE 90°
			DATE STARTED 29/08/2018
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 29/08/2018
			DRILLER Geodrill

DEPTH (m)	R.L. (m)	AUGER CASING WASHBORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
												EH
15.24					Silty SAND (Topsoil)		(SM)					
14.99					Dark brown, moist, loose. Fine to medium grained. Trace sub-angular fine gravel. Rootlets, grass.		(CH)					
14.84							XW					
1			(0) 77 (93)		Sandy CLAY (Fill) Pale brown, moist, firm to stiff. High plasticity. Fine to coarse grained sand.		HW	M	C	Is(50)=0.82 MPa Is(50)=1.40 MPa	D (1.17m) A (1.18m)	
2					TUFF (Rif) XW: Recovered as, pale grey mottled pale orange, moist, sub-angular fine to medium gravel with fine to coarse grained sand.		MW	M	M			
3			100 (89)		HW: Pale red and pale grey, with orange staining, fine grained, massive, clasts up to 30mm diameter, medium to high strength. Frequent MW zones.		HW	MH	M	Is(50)=2.20 MPa Is(50)=0.58 MPa	D (2.15m) A (2.16m)	
4			100 (53)		TUFF (Rif) MW: Pale red and pale grey, with orange staining, fine grained, massive, clasts up to 30mm diameter, high to very high strength.		MW	MH	W	Is(50)=0.85 MPa Is(50)=1.40 MPa	D (2.60m) A (2.61m)	
5	12.15						HW	MH	C			
6			100 (84)				MW	H-VH	M	Is(50)=1.60 MPa Is(50)=4.00 MPa	D (3.48m) A (3.49m)	
7			100 (91)		TUFF (Rif) SW: Pale red and pale grey, with orange staining, fine grained, massive, clasts up to 20mm diameter, high to very high strength.		MW	H-VH	M	Is(50)=5.00 MPa Is(50)=3.10 MPa	D (3.90m) A (3.91m)	
8							HW	MH	C			
9							MW	MH	M	Is(50)=6.70 MPa Is(50)=4.20 MPa UCS=117.00 MPa E=24.8 GPa v= 0.109 Is(50)=4.00 MPa Is(50)=4.00 MPa	D (5.10m) A (5.12m) (5.29m) D (5.63m) A (5.64m)	
10	8.54						MW	MH	C	Is(50)=2.50 MPa Is(50)=1.60 MPa	D (6.60m) A (6.61m)	
11							SW	H-VH	M	Is(50)=1.80 MPa Is(50)=3.80 MPa UCS=87.70 MPa E=26.6 GPa v= 0.121	D (7.07m) A (7.08m) (7.18m)	
12							HW	MH	C	Is(50)=4.50 MPa Is(50)=6.70 MPa	D (7.78m) A (7.79m)	
13	7.02		100				MW	MH	C	Is(50)=1.70 MPa Is(50)=3.30 MPa	D (8.44m) A (8.45m)	
Borehole completed at 8.52m												

REMARKS: Rif - Brisbane Tuff	LOGGED BY	REVIEWED BY
	ND	S.Foley

Detailed Discontinuity Description Log



This form is intended for the detailed description of discontinuities and defects as measured in outcrop by line mapping, or as they occur downhole in drilled rock core. The descriptions and abbreviations used shall be in accordance with Australian Standard AS1726-1993 Geotechnical site investigations and TMR Geotechnical Terms and Symbols Form F:GEOT017/8.

Project Name		Cross River Rail - Stage 2				Project No		FG6470	
Site ID / Borehole No.		CRR993				Surface RL		15.542	
Geologist		Nick Dewar				Date		29/08/2018	
						Page	1	of	2
Traverse Chainage; or Down hole depth (rock core)	Type LP / BP / FP / J etc.	Dip ° / Dip Direction °; or Angle ° from horizontal (rock core)	Planarity Stp / Un / PI	Roughness Ro / Sm / SI	Roughness Class I to IX	Aperture CD / OP / FL / TI	Infilling Cn / St / Vr / Ct ¹	Zones ¹ SZ / CZ / HFZ / AZ	Other
0.80	J	0	Un	Ro	IV	OP	Cn		
0.85	J	5	Stp	Ro	I	OP	Cn		
0.90	J	10	Un	Ro	IV	OP	St		Fe
0.95	J	0	Un	Ro	IV	OP	St/Vr		Fe/Coal
1.12	J	0	Un	Ro	IV	OP	Cn		
1.33	J	0	PI	Ro	VII	OP	St		Fe
1.60	J	10	Un	Ro	IV	OP	St		Fe
1.87	J	10	Un	Ro	IV	TI	St		Fe
1.89	J	10	Stp	Ro	I	OP	St		Fe
1.83-1.93	J	60-80	Un	Ro	IV	CD/FL	St		Fe
2.05	J	5	Un	Ro	IV	CD/TI	St		Fe
2.28	J	0	Un	Ro	IV	OP	St/Vr		Fe/Coal
2.29	J	5	Un	Ro	IV	OP	St/Vr		Fe/Coal
2.91	J	10	Un	Ro	IV	OP	Cn		
3.01	J	0	Un	Ro	IV	TI/CD	St		Fe
3.05	J	10	Un	Ro	IV	TI	St		Fe
3.13-3.19	J	50	Un	Ro	IV	TI	St		Fe
3.21-3.24	J		Un	Ro	IV			XW	
3.41	J	10	PI	Ro	VII	OP	St/Vr		Fe/Coal
3.65	J	10	Un	Ro	IV	OP	St/Vr		Fe/Coal
3.66	J	5	Un	Ro	IV	CD	St		Fe
3.83	J	20	Un	Ro	IV	OP	St/Vr		Fe/Coal
4.11-4.67	J	80-90	Un	Ro	IV	CD/TI	St		Fe
4.69	J	0	Un	Ro	IV	OP	St		Fe
4.73-4.78	J	70	Un	Ro	IV	OP	St		Fe
4.75	J	0	Un	Ro	IV	OP	St		Fe
5.14	J	10	Un	Ro	IV	OP	St/Vr		Fe/Coal
5.23	J	30	Un	Ro	IV	OP	St		Fe
5.58	J	20	Un	Ro	IV	OP	St		Fe
5.72	J	10	Un	Ro	IV	OP	St		Fe
5.92	J	5	Un	Ro	IV	CD	St		Fe

Note: 1. Describe zones and coatings in terms of composition and thickness (mm)

F:GEOT 533/9 – 2014

