

COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Cross River Rail Delivery Authority under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute as follows: "*(c) Cross River Rail Delivery Authority 2023, licensed under the CC BY 4.0 Licence, prepared by the State of Queensland (Department of Transport and Main Roads)*". This licence does not apply to logos or trademarks.

LIMITATION OF LIABILITY

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for the Cross River Rail Delivery Authority use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <http://qgd.org.au/>



**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **CRR732**

Sheet 1 of 2

REFERENCE No **H12958**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation		
LOCATION	RNA showgrounds	COORDINATES 503130.9 E; 6963771.4 N	
PROJECT No	FG6470	SURFACE RL 7.34m	PLUNGE 90°
			DATE STARTED 25/09/2017
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 26/09/2017
			DRILLER Hinterland

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
7.19						ASPHALT (Fill) Silty SAND (Fill) Grey, moist, very loose. Medium to coarse grained sand; trace fine grained gravel.	(SM)				0.15m-1.50m: The fill appears to be poorly compacted.		
5.84					A	Silty SAND (Fill) Grey and grey brown, moist, very loose. Fine to medium grained, poorly compacted.	(SM)					1, hw, 1 N=1 SPT	
5.34					C	Sandy Gravelly CLAY (Fill) Orange brown and brown grey, moist, hard. Poorly compacted; medium plasticity; fine to medium grained gravel; medium to coarse grained sand.	(CI)					7, 11, 21 N=32 SPT	
4.14					D	Clayey SAND (Residual) Light grey and grey with orange brown mottling, moist, dense. High plasticity clay.						9, 14, 21 N=35 LL=71% PI= 52% MC=9.8% LS= 15% <75µm= 32% SPT	
					E	Medium to coarse grained sand. Trace medium to coarse grained, sub angular, quartz gravel.	SC					7, 11, 14 N=25 LL=49% PI= 33% MC=11.4% LS= 11% <75µm= 39% SPT	
2.04						TUFF (Rif) HW: Light grey, very low strength.	HW					30/70mm SPT	
1.64			(38)			TUFF (Rif) MW: Light grey and orange brown, fine to medium grained, massive, high strength, highly fractured.	MW					A (5.94m) D (5.96m) Is(50)=2.10 MPa Is(50)=0.81 MPa	
0.74			(0)			-Js: 50°-60° (2/m), Pl/Sm, Cly Ct -Js: 5°-10° (2/m), Un/Sm-Ro, Cly Ct							
0.39			(23)			CORE LOSS 0.35m TUFF (Rif) SW: Light grey and orange brown, fine to medium grained, massive, high strength.						Is(50)=0.18 MPa Is(50)=2.50 MPa A (7.00m) D (7.06m)	
			(38)			-Js: 50°-60° (2-3/m), Pl/Sm, Cly Ct -Js: 30°-45° (2-3/m), Un/Ro -Js: 0°-10° (2-4/m), Pl-Un/Ro, FeSt	SW					Is(50)=5.10 MPa Is(50)=2.20 MPa A (7.40m) D (7.76m)	
			(20)									Is(50)=2.40 MPa Is(50)=1.80 MPa A (8.16m) D (8.38m)	
			(55)										
			(71)									Is(50)=3.20 MPa Is(50)=0.64 MPa UCS=23.30 MPa E=7.58 GPa v= 0.076 D (9.20m) A (9.24m) (9.38m)	
-2.66							MW						

Continued on next sheet

REMARKS: Rif - Brisbane Tuff. Standpipe piezometer installed.

LOGGED BY	REVIEWED BY
MH	S. Foley



**Queensland
Government**

**STANDPIPE
INSTALLATION LOG**

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

BOREHOLE No **CRR732**

Sheet 1 of 2

PIEZOMETER No **CRR732**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation				
LOCATION	RNA showgrounds			COORDINATES 503130.9 E; 6963771.4 N	
PROJECT No	FG6470	SURFACE RL 7.34m	PLUNGE 90°	DATE STARTED 25/09/2017	GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °	DATE COMPLETED 26/09/2017	DRILLER Hinterland

DEPTH (m)	R.L. (m)	LITHOLOGY	MATERIAL DESCRIPTION	Standpipe Construction Details		
				Depth (m) /RL (AHD)	50mm PVC Class No. 18 Stick Up = 0.00m	Backfill Details
7.19		ASPHALT(Fill)				
		Silty SAND(Fill)	Grey, moist, very loose. Medium to coarse grained sand; trace fine grained gravel.			
5.84		Silty SAND(Fill)	Grey and grey brown, moist, very loose. Fine to medium grained, poorly compacted.			
5.34		Sandy Gravelly CLAY(Fill)	Orange brown and brown grey, moist, hard. Poorly compacted; medium plasticity; fine to medium grained gravel; medium to coarse grained sand.			
4.14		Clayey SAND(Residual)	Light grey and grey with orange brown mottling, moist, dense. High plasticity clay. Medium to coarse grained sand. Trace medium to coarse grained, sub angular, quartz gravel.			
2.04		TUFF	Light grey, very low strength.	5.50m / 1.84 AHD		
1.64		TUFF	Light grey and orange brown, fine to medium grained, massive, high strength, highly fractured.			Bentonite Seal
0.74			-Js: 50°-60° (2/m), Pl/Sm, Cly Ct -Js: 5°-10° (2/m), Un/Sm-Ro, Cly Ct	6.50m / 0.84 AHD		
0.39			CORE LOSS 0.35m			
		TUFF	Light grey and orange brown, fine to medium grained, massive, high strength.	7.45m / -0.11 AHD		Top of Slotted Pipe
			-Js: 50°-60° (2-3/m), Pl/Sm, Cly Ct -Js: 30°-45° (2-3/m), Un/Ro -Js: 0°-10° (2-4/m), Pl-Un/Ro, FeSt			Filter: Washed / Graded Sand
-2.66						

Continued on next sheet

REMARKS: Rif - Brisbane Tuff. Standpipe piezometer installed.	LOGGED BY	REVIEWED BY
	MH	S. Foley



**Queensland
Government**

**STANDPIPE
INSTALLATION LOG**

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

BOREHOLE No **CRR732**

Sheet 2 of 2

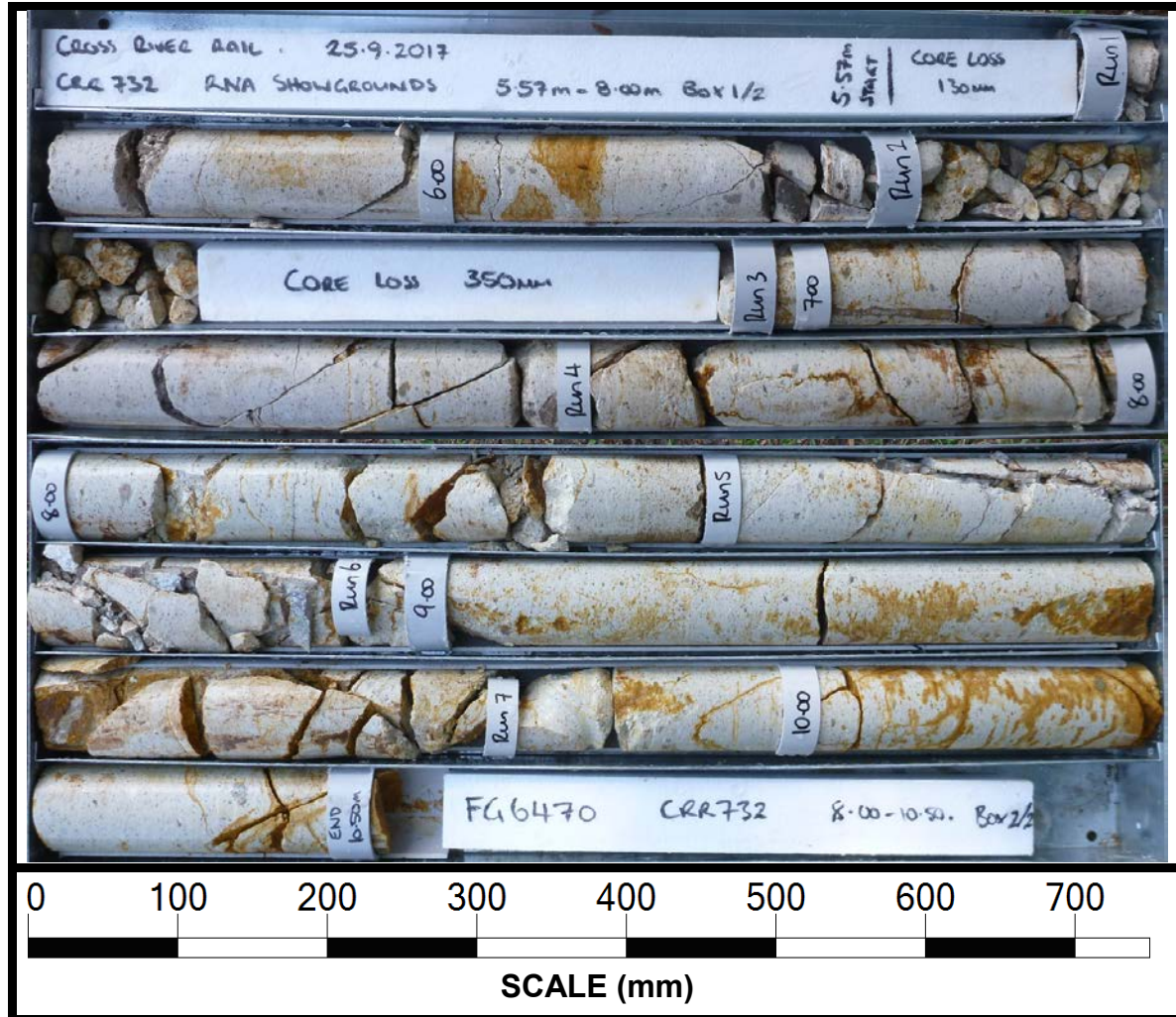
PIEZOMETER No **CRR732**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation								
LOCATION	RNA showgrounds					COORDINATES 503130.9 E; 6963771.4 N			
PROJECT No	FG6470	SURFACE RL	7.34m	PLUNGE	90°	DATE STARTED	25/09/2017	GRID DATUM	MGA94
JOB No		HEIGHT DATUM	AHD	BEARING	°	DATE COMPLETED	26/09/2017	DRILLER	Hinterland

DEPTH (m)	R.L. (m)	LITHOLOGY	MATERIAL DESCRIPTION	Standpipe Construction Details		
				Depth (m) / RL (AHD)	50mm PVC Class No. 18 Stick Up = 0.00m	Backfill Details
	-3.16	TUFF Cont'd.		10.50m / -3.16 AHD		
			Borehole completed at 10.50m			
11						
12						
13						
14						
15						
16						
17						
18						
19						

REMARKS: Rif - Brisbane Tuff. Standpipe piezometer installed.	LOGGED BY	REVIEWED BY
	MH	S. Foley

Project Name	Cross River Rail CRR2017 – Geotechnical Investigation		
Project No.	FG6470	Date	25/09/2017
Borehole No.	CRR732	Reference No.	H12958
Location	RNA showgrounds	Start Depth (m)	5.57
Submitted By	M. de Gee	Finish Depth (m)	10.50



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				Project No.		FG6470	
Site ID / Borehole No.		CRR732				Surface RL		7.40	
Geologist		M.H.				Date		25/09/2017	
						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
5.70									BZ to 5.75
5.80	J	10	Un	Sm	V	FL	Vr		BZ 10mm
5.96	J	50	Pi	Sm	VIII	CD /	Vr		Clay
6.00	J	5	Un	Ro	IV	TI	Cn		
6.23	J	60	Pi	Sm	VIII	OP	Vr		Clay
6.24								BZ	
7.00	J	60	Stp	Ro	I	OP	Cn		
7.15	J	30	PI	Ro	VII	OP	Cn		
7.20	J	10	PI	Ro	VII	OP	Vr		Clay
7.23	J	60	PI	Sm	VIII	CD	Vr		Clay
7.34	J	30	PI	Sm	VIII	FL			Clay
7.42	J	60	PI	Sm	VIII	CD	Vr		Clay
7.48	J	5	PI	Ro	VIII	CD	Cn		
7.52	J	60	PI	Sm	VII	CD	Vr		Clay
7.56	J	5	PI	Ro	VIII	OP	Vr		Clay
7.62	J	50	PI	Sm	VII	OP	Vr		Clay
7.68	J	20	Un	Ro	VIII	OP	St		Fe
7.80	J	30	Un	Ro	IV	OP	St		Fe
7.86	J	15	PI	Ro	IV	OP	St		Fe
7.93	J	30	PI	Sm	VII	CD	St		Fe
7.97	J	30	PI	Sm	VIII	CD	St		Fe
8.05	J	65	PI	Sm	VIII	CD	Vr		Clay
8.23	J	15	Un	Ro	IV	CD	St		Fe
8.27	J	45	PI	Ro	VII	CD	St		Fe, BZ
8.56	J	30	PI	Ro	VII	CD	St		Fe
Repeated 40-60m to 9m									
8.75	J	85	PI	Sm	VIII	FL	Vr		Clay *
* Start 8/56m, end 9.05m									
8.94	J	45	PI	Sm	VIII	CD	Vr		Clay
8.97	J	60	PI	Sm	VIII	CD	Vr		Clay
8.99	J	60	PI	Sm	VIII	CD	Vr		Clay

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

F:GEOT 533/9 – 2014

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				Project No.		FG6470		
Site ID / Borehole No.		CRR732				Surface RL		7.40		
Geologist		M.H.				Date		25/09/2017		
						Page		2	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		Other
								SZ / CZ / HFZ / AZ		
9.28	J	5	Un	Sm	V	CD				
9.65	J	80	PI	Sm	VIII	CD	St			Fe
9.70	J	60	PI	Sm	VIII	CD	Vr			Clay
9.71	J	45	PI	Sm	VIII	CD	Vr			Clay
9.74	J	45	PI	Sm	VIII	CD	Vr			Clay
9.80	J	30	Un	Sm	VIII	CD	Vr			Clay
10.05	J	20	Un	Ro	IV	CD	St			Fe
10.23	J	45	PI	Ro	VII	CD	St			Fe
10.24	J	30	PI	Ro	VII	CD	St			Fe
10.40	J	40	PI	Sm	VIII	CD	St			Fe
10.45	J	60	PI	Sm	VIII	CD	St			Fe

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

F:GEOT 533/9 – 2014