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**Queensland  
Government**

**GEOTECHNICAL  
BOREHOLE LOG**

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

BOREHOLE No **BH254**

Sheet 1 of 5

REFERENCE No **H12263**

PROJECT	Mackay Ring Road		
LOCATION	Pioneer River Bridge, Pier 17 (RHS)	COORDINATES 721372.9 E; 7660591.8 N	
PROJECT No	FG6184	SURFACE RL 4.71m	PLUNGE 90°
			DATE STARTED 10/08/2015
			GRID DATUM GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 12/08/2015
			DRILLER Saxon Drilling

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	VH
4.41					(Topsoil)								
1				A	Silty SAND (Alluvium) Pale brown, dry, loose. Fine to medium grained.	(SM)					3, 4, 3 N=7 SPT		
2	2.71			B	SAND (Alluvium) Pale brown, dry, medium dense. Fine to coarse grained. Trace silt.	(SP)					3, 7, 8 N=15 SPT		
3				C	3.00m: trace fine gravel, rounded						2, 6, 8 N=14 SPT		
4				D	Gravelly SAND (Alluvium) Pale brown, wet, medium dense. Fine to coarse grained sand. Fine grained gravel, rounded. 4.10 to 4.20m: gravel lense, fine to coarse, subrounde	(SP)					5, 8, 6 N=14 SPT		
5	0.01			E	Sandy GRAVEL (Alluvium) Dark grey and brown, wet, medium dense. Fine to medium grained, subrounded to subangular. Fine to coarse grained sand.						7, 17, 11 N=28 SPT		
6				F	6.25m: coarse gravel, subrounded						8, 13, 10 N=23 SPT		
7				G	7.35 to 7.45m: SAND lense	(GP)					8, 7, 8 N=15 SPT		
8				H	8.00m: boulder/cobble						24, 15, 12 N=27 SPT		
9	-4.34			I	SAND (Alluvium) Pale orange-brown, wet, loose. Fine to medium grained. Trace silt.	(SP)					4, 4, 4 N=8 SPT		
-5.29													

3.35m-3.45m: Sandy Silty CLAY:  
dark grey, dry, stiff. Low plasticity.  
Fine grained sand.

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley



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BOREHOLE No **BH254**

Sheet 2 of 5

REFERENCE No **H12263**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 17 (RHS)			COORDINATES 721372.9 E; 7660591.8 N	
PROJECT No	FG6184	SURFACE RL	4.71m	PLUNGE	90°
				DATE STARTED	10/08/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	12/08/2015
				DRILLER	Saxon Drilling

DEPTH (m)	R.L. (m)	FAUGER 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	VH
11	-6.29			J	Gravelly SAND (Alluvium) Pale brown, wet, medium dense. Fine to coarse grained sand. Fine to medium grained gravel. Trace silt.	(SP)					9, 10, 10 N=20	SPT	
11	-6.99			K	SAND (Alluvium) Pale brown, wet, medium dense. Fine to coarse grained sand. Trace fine to medium gravel, rounded. Trace silt.	(SP)					8, 11, 14 N=25	SPT	
12	-7.39			L	Clayey SAND (Alluvium) Orange-brown, wet, medium dense. Fine to coarse grained. High plasticity clay.	(SC)					8, 12, 17 N=29	SPT	
13	-8.29			M	Silty CLAY (Residual) Orange-brown, wet, very stiff. High plasticity.	(CH)					20, 20, 30 N=50	SPT	
14				N	Sandy CLAY (Residual) Pale brown-grey, wet, hard. High plasticity. Granite texture/ fabric evident.	(CH)					19, 28, 30 N=58	SPT	
15				O	15.00m: becomes pale green-grey mottled black and white, medium plasticity	(CH)					29, 30/110	SPT	
16				P							25, 24, 29 N=53	SPT	
17	-12.49			Q							26, 30/100	SPT	
18	-13.49			R	MICRODIORITE (Kgwu) MW: Dark grey, fine grained, medium to high strength. Recovered as GRAVEL: dark grey, wet, very dense. Fine to coarse grained.	HW					30/100	SPT	
19	-15.29			S	GRANODIORITE (Kgwu) XW: Recovered as Clayey SAND: Pale green-grey, mottled black and white, wet, very dense. Fine to coarse grained. Trace fine angular gravel.						30/130	SPT	

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley



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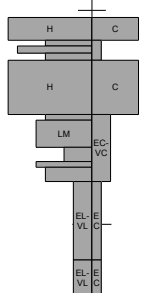
BOREHOLE No **BH254**

Sheet 3 of 5

REFERENCE No **H12263**

PROJECT	Mackay Ring Road		
LOCATION	Pioneer River Bridge, Pier 17 (RHS)	COORDINATES 721372.9 E; 7660591.8 N	
PROJECT No	FG6184	SURFACE RL 4.71m	PLUNGE 90°
			DATE STARTED 10/08/2015
			GRID DATUM GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 12/08/2015
			DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	FAUGER 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
21					U	GRANODIORITE (Kgwu) XW: (Cont'd)	+	XW				30/80 hb SPT	
22					V		+	XW				30/100 hb SPT	
23	-18.39				W		+	XW				30/150 hb SPT	
24	-19.39				X	MICRODIORITE (Kgwu) HW: Dark grey, fine grained, medium to high strength. Recovered as GRAVEL: Dark grey, wet, very dense. Coarse grained, angular.	∇	HW				30/100 hb SPT	
25					Y	GRANODIORITE (Kgwu) XW: Recovered as Clayey SAND: Pale green-grey mottled black and white, wet, very dense. Fine to coarse grained. Trace fine gravel, angular.	+	XW				30/130 hb SPT	
26					Z		+	XW				30/100 hb SPT	
27	-21.84				(28)	GRANODIORITE (Kgwu) MW: Pale red-grey, mottled black and white, coarse grained, porphyritic, high strength. Quartz Veins; 60°, 20mm thick.	+	MW				30/80 hb Is(50)=0.87 MPa A (26.55m)	
	-22.52					GRANODIORITE (Kgwu) HW: Pale red-grey, mottled black and white, coarse grained, porphyritic, high strength.	+	HW				Is(50)=0.93 MPa D (27.00m)	
	-22.99				100 (0)	GRANODIORITE (Kgwu) XW: Recovered as Sandy GRAVEL: Pale red-grey mottled black and white, wet, very dense. Fine to coarse grained.	+	XW				Is(50)=0.22 MPa A (27.44m)	
	-23.79				100 (0)		+	XW					
29	-24.29				33	GRANODIORITE (Kgwu) XW: Recovered as Sandy GRAVEL: Pale red-grey mottled black and white, wet, very dense. Fine to coarse grained. CORE LOSS GRANODIORITE (Kgwu) XW:	+	XW				30/80 hb SPT	
	-25.29				AA		+	XW					



26.71m-27.75m: XW seam  
26.80m-26.85m: XW seam

30.00m-30.10m: No sample recovered

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite	<b>LOGGED BY</b>	<b>REVIEWED BY</b>
	T.Goosey	S.Foley





**CORE PHOTO LOG**

DEPARTMENT OF TRANSPORT AND MAIN ROADS  
 Geotechnical Section  
 35 Butterfield Street, Herston Qld 4006  
 Phone 07 3066 3336



Project Name	<b>Mackay – Ring Road (Stage 2)</b>		
Project No.	FG6184	Date	12/08/15
Borehole No.	BH 254	TMR H No.	H12263
Location	Pioneer River Bridge	Start Depth (m)	26.55
Detail	Pier 17, RHS	Finish Depth (m)	38.55
Chainage		Submitted By	M.Ensor
Remarks			



**CORE PHOTO LOG**

DEPARTMENT OF TRANSPORT AND MAIN ROADS  
 Geotechnical Section  
 35 Butterfield Street, Herston Qld 4006  
 Phone 07 3066 3336



Project Name	<b>Mackay – Ring Road (Stage 2)</b>		
Project No.	FG6184	Date	12/08/15
Borehole No.	BH 254	TMR H No.	H12263
Location	Pioneer River Bridge	Start Depth (m)	26.55
Detail	Pier 17, RHS	Finish Depth (m)	38.55
Chainage		Submitted By	M.Ensor
Remarks			



SCALE 1:5