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## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH233**

Sheet 1 of 3

REFERENCE No **H12242**

PROJECT Mackay Ring Road

LOCATION Pioneer River Bridge, Pier 10 (RHS) COORDINATES 721336.7 E; 7660349.5 N

PROJECT No FG6184 SURFACE RL 3.35m PLUNGE 90° DATE STARTED 26/10/2015 GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 27/10/2015 DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	AUGER Casing Washing Cone Drilling	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
1				A	SAND trace gravel (Fill) Brown, moist, loose to medium dense. Fine to coarse grained sand, fine to medium grained gravel, rounded grains. 1.00m: becomes medium dense.						7, 13, 16 N=29 SPT
2				B	2.00m: becomes wet, loose.						5, 3, 3 N=6 SPT
3				C	3.00m: becomes very loose.						1, 2, 1 N=3 SPT
4				D	4.00m: becomes loose.					4.00m-4.45m: No sample recovered	6, 4, 4 N=8 SPT
5	-1.65			E	Gravelly SAND (Alluvium) Brown, wet, loose. Fine to coarse grained sand, fine to coarse grained gravel, rounded grains.	(SP)					6, 4, 4 N=8 SPT
6	-2.65			F	SAND trace gravel (Alluvium) Brown, wet, loose. Fine to coarse grained sand.						3, 4, 4 N=8 SPT
7				G	7.00m: becomes dense.	(SP)					13, 19, 22 N=41 SPT
8	-4.65			H	Silty SAND (Alluvium) Grey brown, moist, medium dense. Fine to medium grained sand.	(SM)					8, 11, 15 N=26 SPT
9	-5.65			I	Sandy CLAY (Alluvium) Brown, moist, very stiff. Fine to medium grained sand, medium to high plasticity.	(CH)					6, 10, 14 N=24 SPT
-6.65											

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REMARKS: Kgwu = Wundaru Granodiorite

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REVIEWED BY

T.Goosey

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## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH233**

Sheet 2 of 3

REFERENCE No **H12242**

PROJECT Mackay Ring Road

LOCATION Pioneer River Bridge, Pier 10 (RHS) COORDINATES 721336.7 E; 7660349.5 N

PROJECT No FG6184 SURFACE RL 3.35m PLUNGE 90° DATE STARTED 26/10/2015 GRID DATUM GDA 94 / MGA 255

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 27/10/2015 DRILLER Cairns 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 _H _M _L _VL _EL	EC _VC _C _M _W _VW _EW			
11				J	Sandy CLAY (Alluvium) Brown grey, moist, hard. Fine to medium grained sand, medium to high plasticity.	(CH)					8, 16, 25 N=41	SPT				
				K	11.00m: becomes green grey										6, 13, 20 N=33	SPT
12				L	12.00m: becomes brown and pale grey.										10, 30/140	SPT
13	-9.80			M	Sandy Clayey GRAVEL (Residual) Pale grey white, moist, very dense.	(GC)					8, 30/150	SPT				
14	-10.65			N	Clayey SAND (Residual) Grey brown, moist, very dense. Fine to medium grained sand, low plasticity.	(SC)					15, 30/130	SPT				
15				O	15.00m: trace gravel									30/130	SPT	
16				P										30/90	SPT	
17				Q										30/80	SPT	
18				R										30/40 hb	SPT	
19	-16.15			S							30/120 hb	SPT				
	-16.65		(26)		GRANODIORITE (Kgwu )	MW				19.60m-19.80m: BZ						

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REMARKS: Kgwu = Wundaru Granodiorite

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# GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH233**

Sheet 3 of 3

REFERENCE No **H12242**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 10 (RHS)			COORDINATES 721336.7 E; 7660349.5 N	
PROJECT No	FG6184	SURFACE RL	3.35m	PLUNGE	90°
				DATE STARTED	26/10/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	27/10/2015
				DRILLER	Cairns 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	H	M	J	VI	EL	EC	VC	C			
	-17.15		100 (62)	MW:	GRANODIORITE (Kgwu )	+	HW			H			M				20.22m-20.30m: BZ; XW zone	Is(50)=1.20 MPa	A (20.15m)	
					MW: (Cont'd) Pale red and pale grey, coarse grained, porphyritic, high strength.	+				LM		VC					20.30m-20.50m: HW zone; Sinf;			
21					Js: 5° to 10°; (3-4/m); Pl/Ro; OP-FL; Sinf, Cly, Fe St;	+	SW			VH			M					Is(50)=1.70 MPa	A (20.95m)	
					Js: 65° to 75°; (2/m); Pl/Ro; OP-FL; CA and Sinf, Fe St;	+							C					Is(50)=5.70 MPa	D (21.70m)	
22	-18.62				GRANODIORITE (Kgwu )	+						EC-VC						Is(50)=4.80 MPa	A (21.75m)	
			100 (0)		SW: Pale grey, coarse grained, porphyritic, very high strength.	+							C							
					Js: 5° to 10°; (2/m); Pl/Ro; TI-OP; Fe St;	+	MW					VC						Is(50)=1.10 MPa	D (22.70m)	
23					Js: 20° to 30°; (2/m); Pl/Ro; TI-OP; Fe St;	+														
			100 (40)		Js: 40° to 50°; (1/m); Pl/Ro; TI-OP; Fe St;	+	HW					EC-VC								
					GRANODIORITE (Kgwu )	+	MW			H			CM							
24	-21.05				MW: Pale brown and pale grey, coarse grained, porphyritic, high strength.	+	HW										23.90m: J: 80°; Pl/Ro; OP; CA and Fe St;			
					Js: 5° to 15°; (4-5/m); Pl/Ro; OP; some Sinf and Fe St;	+				LM		VC					24.00m-24.40m: Calcite infill throughout			
25					Js: 35° to 50°; (3-4/m); Pl/Ro; OP; some Sinf and Fe St;	+	SW			VH			C				24.46m: J: 40°; Pl/Ro; FL; CA, 10mm	Is(50)=6.50 MPa	A (24.55m)	
			100 (0)		Js: 65° to 75°; (3-4/m); Pl/Ro; OP; Sinf and some CA; Fe St;	+							M				25.00m-25.06m: BZ;	Is(50)=0.86 MPa	D (25.00m)	
					GRANODIORITE (Kgwu )	+	SW			VH			C					Is(50)=0.74 MPa	A (25.05m)	
26					SW: Pale grey, coarse grained, porphyritic, very high strength.	+	MW			H-VH		VC					25.65m-25.90m: Microdiorite band	Is(50)=2.90 MPa	I (25.75m)	
			100 (87)		Js: 5° to 10°; (3/m); Pl/Ro; TI-OP; Fe St;	+				MH							26.00m-26.04m: BZ;			
27					Js: 25° to 35°; (2/m); Pl/Ro; TI-OP; Fe St;	+							M					Is(50)=2.80 MPa	D (26.50m)	
					Js: 70° to 80°; (2/m); Pl-St/Ro; TI-OP; Fe St;	+	SW			VH								Is(50)=0.64 MPa	A (26.95m)	
					From 26.3m: Js: 5° to 10°; (1/m); Pl/Ro; TI; Fe St;	+							C							
28	-24.70		100		Js: 25° to 35°; (3/m); Pl/Ro; TI; Fe St;	+							M					Is(50)=7.50 MPa	D (27.60m)	
						+							C							
29					Borehole completed at 28.05m															

REMARKS: Kgwu = Wundaru Granodiorite

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# 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	27/10/15
Borehole No.	BH 233	TMR H No.	H12242
Location	Pioneer River Bridge	Start Depth (m)	19.50
Detail	Pier 10, RHS	Finish Depth (m)	26.30
Chainage		Submitted By	M.Ensor
Remarks			

  

0 100 200 300 400 500 600 700

SCALE 1:5