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GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH225**

Sheet 1 of 3

REFERENCE No **H12234**

PROJECT Mackay Ring Road

LOCATION Pioneer River Bridge, Pier 8 (LHS) COORDINATES 721307.4 E; 7660283.2 N

PROJECT No FG6184 SURFACE RL 5.46m PLUNGE 90° DATE STARTED 06/10/2015 GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 08/10/2015 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
					Silty SAND (Fill) Brown, dry, very loose to loose.					0.00m-1.00m: Road Tek access track to bund. Boulders and cobbles throughout.	
1	4.46			A	Silty SAND (Alluvium) Dark brown, dry, medium dense. Fine grained sand, rootlets.						3, 5, 5 N=10 SPT
2				B	2.00m: becoming loos	(SM)					2, 2, 4 N=6 SPT
3	2.46			C	SAND trace gravel (Alluvium) Brown, wet, loose. Fine to coarse grained sand, fine grained gravel, subrounded grains.						4, 4, 5 N=9 SPT
4				D	4.00m: becoming medium dense, increase in gravel.	(SP)					6, 8, 7 N=15 SPT
5	0.46			E	Gravelly SAND (Alluvium) Dark brown, wet, loose. Fine to coarse grained sand, fine to medium grained gravel.						3, 4, 3 N=7 SPT
6				F	6.00m: becoming medium dense to dense	(SP)				6.00m-6.45m: No sample recovered	15, 20, 13 N=33 SPT
7				G							5, 6, 7 N=13 SPT
8	-2.64			H	8.00m: becoming dense Silty SAND (Alluvium) Pale grey, moist, dense. Fine to medium grained sand.	(SM)					11, 14, 18 N=32 SPT
9	-3.54			I	Clayey SAND (Alluvium) Pale grey, moist, medium dense. Fine to medium grained sand, low plasticity.	(SC)					5, 7, 9 N=16 SPT
	-4.54										

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REMARKS: Kgwu = Wundaru Granodiorite

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BOREHOLE No **BH225**

Sheet 2 of 3

REFERENCE No **H12234**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 8 (LHS)			COORDINATES 721307.4 E; 7660283.2 N	
PROJECT No	FG6184	SURFACE RL	5.46m	PLUNGE	90°
				DATE STARTED	06/10/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	08/10/2015
				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	M
11				J	Clayey SAND (Alluvium) Pale grey, moist, medium dense. Fine to medium grained sand, low plasticity.	(SC)												4, 7, 12 N=19	SPT		
				K																9, 12, 13 N=25	SPT
12				L	12.00m: increasing clay content															6, 7, 12 N=19	SPT
				M	13.00m: becomes brown, dense. Fine to coarse grained sand.															8, 14, 20 N=34	SPT
14	-8.54			N	CLAY (Alluvium) Mottled dark grey, pale grey and brown, moist, very stiff. Low to medium plasticity.	(CI)													5, 14, 14 N=28	SPT	
15				O	15.00m: becomes green brown, hard.															6, 30/130 hb	SPT
16	-10.54			P	GRANODIORITE (Kgwu) XW: Recovered as pale brown grey, moist, very dense, clayey sand. Fine to coarse grained sand.														30/110 hb	SPT	
17	-11.39		(31)	GRANODIORITE (Kgwu) SW: Pale red grey, coarse grained, porphyritic, high to very high strength. Js: 25° to 35°; (3-4/m); Pl/Ro; Tl; Fe St; Js: 50° to 60° (2-3/m); Pl/Ro; Tl; Fe St;	SW														30/0 hb	A (17.20m) D (17.25m)	
18	-12.09		100 (21)	MICRODIORITE (Kgwu) SW: Brown grey, fine to medium grained, massive, high to very high strength. Js: 5° to 20°; (7/m); Pl/Sm-Ro; OP; Cn or CA; Js: 50° to 70°; (2/m); Pl/Sm-Ro; OP; CA; GRANODIORITE (Kgwu)	SW														Is(50)=5.30 MPa Is(50)=6.80 MPa		
19	-13.59							SW												Is(50)=1.50 MPa	D (18.76m)
			100 (78)					MW												Is(50)=1.30 MPa	A (19.65m)

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REMARKS: Kgwu = Wundaru Granodiorite

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BOREHOLE No **BH225**

Sheet 3 of 3

REFERENCE No **H12234**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 8 (LHS)			COORDINATES 721307.4 E; 7660283.2 N	
PROJECT No	FG6184	SURFACE RL	5.46m	PLUNGE	90°
				DATE STARTED	06/10/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	08/10/2015
				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	
21	-15.79		100 (97)		SW: Pale red, brown grey, coarse grained, porphyritic, high to very high strength. Js: 15°-30° (3/m); Pl/Ro; Tl; Fe St; Js: 40° - 50° (1/m); Pl/Ro; Tl; Fe St; Js: 5° - 20°(2/m); Pl/Ro; OP;		SW													
22					MICRODIORITE (Kgwu) SW: Blue grey, fine grained, massive, very high strength. No defects. Healed calcite veins throughout.		SW													
23	-17.94																			
24			100 (98)		GRANODIORITE (Kgwu) SW: Pale red grey, coarse grained, porphyritic, mianly very high strength. Js: 60° to 70°; (1/m); Pl/Ro; Tl; Fe St; Js: 5° to 15°; (2/m); Pl/Ro; Tl; Fe St;		SW													
25																				
26	-21.24		100																	
27					Borehole completed at 26.70m															
28																				
29																				

REMARKS: Kgwu = Wundaru Granodiorite

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Project Name	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	14/08/15
Borehole No.	BH 225	TMR H No.	H12234
Location	Pioneer River Bridge	Start Depth (m)	16.85
Detail	Pier 8 (LHS)	Finish Depth (m)	26.70
Chainage		Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5