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**Queensland
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GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH205**

Sheet 1 of 3

REFERENCE No **H12214**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 1 (CL)			COORDINATES 721281.5 E; 7660039.2 N	
PROJECT No	FG6184	SURFACE RL	6.50m	PLUNGE	90°
				DATE STARTED	13/09/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	15/09/2015
				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
					Sandy CLAY (Alluvium) Dark brown, moist, soft. Fine grained sand, low plasticity.						
1				B		(CL)					1, 2, 3 N=5 SPT
	5.00			C							1, 2, 2 N=4 SPT
2				D	Clayey SAND (Alluvium) Dark brown, moist, very loose to loose.						1, 2 N=3 SPT
				E	Fine grained sand.	(SC)					2, 2, 2 N=4 SPT
3	3.50			F	2.50m: fine to coarse grained sand, trace fine grained gravel.						2, 3, 2 N=5 SPT
				G	CLAY (Alluvium) Pale brown grey, moist, firm.						1, 2, 4 N=6 SPT
4	2.50			H	Fine grained sand, low to medium plasticity, trace organics. 3.50m: becomes grey, stiff.	(CI)					3, 4, 8 N=12 SPT
				I	Clayey SAND (Alluvium) Grey mottled brown, moist, medium dense.						6, 9, 12 N=21 SPT
5				J	Fine to medium grained sand, low plasticity clay.						8, 12, 19 N=31 SPT
				K	4.50m: becomes dense. 5.00m: becomes medium dense.	(SC)					7, 10, 15 N=25 SPT
6				L							7, 11, 14 N=25 SPT
	-0.10			M							7, 11, 16 N=27 SPT
7				N	Silty CLAY (Alluvium) Pale grey and brown, moist, very stiff.						6, 10, 16 N=26 SPT
				O	Fine grained sand, low plasticity. 7.00m: becomes hard.	(CL)					7, 13, 20 N=33 SPT
8	-1.64			P	7.50m: becomes very stiff.						7, 10, 15 N=25 SPT
	-2.14			Q	8.00m: becomes hard	(SC)					6, 13, 18 N=31 SPT
9	-2.50			R	Clayey SAND (Alluvium) Pale grey and brown, moist to wet, dense. Fine to medium sand.						8, 10, 14 N=24 SPT
				S	Sandy CLAY (Alluvium) Grey brown, moist, very stiff.	(CI)					5, 10, 15 N=25 SPT
				T	Medium grained sand, low to medium plasticity.	(CI)					5, 12, 28 N=40 SPT
	-3.50				Silty CLAY trace sand (Alluvium)						
					Grey brown, moist, very stiff to hard.						

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REMARKS: Kgwu = Wundaru Granodiorite

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BOREHOLE No **BH205**

Sheet 2 of 3

REFERENCE No **H12214**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 1 (CL)			COORDINATES 721281.5 E; 7660039.2 N	
PROJECT No	FG6184	SURFACE RL	6.50m	PLUNGE	90°
				DATE STARTED	13/09/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	15/09/2015
				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 _W _VW _EW																							
11	-6.00			U	Silty CLAY trace sand (Alluvium) (Cont'd) Becoming very stiff. Fine grained sand, low to medium plasticity. 11.00m: becomes brown.		(CI)											8, 8, 10 N=18	SPT													
				V														4, 7, 11 N=18	SPT													
				W														6, 8, 12 N=20	SPT													
				X														6, 11, 15 N=26	SPT													
				Y														8, 11, 17 N=28	SPT													
				12														Z	Clayey SAND (Alluvium) Grey, moist, medium dense. Fine to medium grained sand. 14.50m: becomes dense.		(SC)										11, 13, 17 N=30	SPT
																		AA													8, 8, 11 N=19	SPT
																		AB													6, 8, 11 N=19	SPT
																		AC													5, 10, 11 N=21	SPT
																		AD													10, 16, 24 N=40	SPT
13	-8.49			AE	Sandy Silty CLAY (Residual) Grey brown, moist, hard. Fine to medium grained sand, low to medium plasticity. GRANODIORITE (Kgwu) XW: Recovered as pale brown, moist, very dense, silty clayey sand. Fine to coarse grained.		(CI)										10, 17, 22 N=39	SPT														
				AF																												
				AG																												
				AH																												
				AI																												
14	-8.99						XW										30/140 hb	SPT														
15	-11.50						XW										30/140 hb	SPT														
16	-12.38						XW										30/70 hb	SPT														
17	-13.50						XW										30/140 hb	SPT														
18				(25)	MICRODIORITE (Kgwu) MW: Blue grey, fine grained, massive, very high strength. Js: 20°-30°(2/m); Pl/Ro; TI-FL; some Cly and Fe St Js: 40°-50°(2/m); Pl/Ro; TI; Fe St Js: 80°-85°; (2/m); Un/Ro; TI; Fe St GRANODIORITE (Kgwu) SW: Pale red grey, coarse grained, porphyritic, high to very high strength.		MW										18.15m-18.16m: J; 20°, Pl/Ro, FL, Cly 10mm;	Is(50)=9.20 MPa	A (18.35m)													
				100																												
				(42)																												
19							SW										18.65m-18.75m: HFZ; DI	Is(50)=8.60 MPa UCS=147.00 MPa	A (19.29m) (19.55m)													
20							SW										18.94m-18.99m: XW Cly zone															

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PROJECT No	FG6184	SURFACE RL	6.50m	PLUNGE	90°
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								EH	VH	H	M	J	VI	EL	EC	VC	C				M	W	VW	EW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
21	-15.44		100 (76)		GRANODIORITE (Kgwu) SW: (Cont'd) Js: 10° to 20°; (2-3/m); Pl/Ro; Tl; Fe St; Js: 70° to 80°; (<1/m); Pl/Ro; FL; CA and Fe St;		SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

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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	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	14/09/15
Borehole No.	BH 205	TMR H No.	H12214
Location	Pioneer River Bridge	Start Depth (m)	18.00
Detail	Pier 1, RHS	Finish Depth (m)	29.05
Chainage		Submitted By	M.Ensor
Remarks			

The photograph displays a series of core samples from borehole BH205, arranged in a tray. The samples are labeled with their respective depths and project identifiers. The labels include 'FG6184', 'M.R.R.', 'BOX 1', 'BOX 2', 'BOX 3', and 'BH205'. The samples show a variety of soil and rock textures, including some with visible cracks and others that are more uniform. A scale bar at the bottom indicates a length of 700 cm, with markings every 100 cm. The text 'SCALE 1:5' is printed below the scale bar.

CORE PHOTO LOG

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



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Project No.	FG6184	Date	14/09/15
Borehole No.	BH 205	TMR H No.	H12214
Location	Pioneer River Bridge	Start Depth (m)	18.00
Detail	Pier 1, LHS	Finish Depth (m)	29.05
Chainage		Submitted By	M.ENSOR
Remarks			

0
100
200
300
400
500
600
700

SCALE 1:5