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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **BH211**

Sheet 1 of 3

REFERENCE No **H12220**

PROJECT Mackay Ring Road
 LOCATION Pioneer River Bridge, Pier 3 (CL) COORDINATES 721292.6 E; 7660109.0 N
 PROJECT No FG6184 SURFACE RL 5.91m PLUNGE 90° DATE STARTED 12/09/2015 GRID DATUM GDA 94 / MGA Z55
 JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 14/09/2015 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	H	M	J	VI	EL	EC	VC	C	M				W
1	4.91			Z	Sandy CLAY (Topsoil) Brown, moist, firm to stiff.															1, 3, 4 N=7	SPT	
				Zx	Fine grained sand, medium plasticity. 0.50m: sand content increasing																3, 4, 5 N=9	SPT
2				A	Clayey SAND (Alluvium) Brown mottled orange brown, moist, medium dense.		(SC)													6, 9, 8 N=17	SPT	
				Ax	fine grained sand. 1.50m: clay content decreasing.																8, 8, 8 N=16	SPT
				B	2.00m: clay content increasing, becomes Clayey SAND. 2.50m: becomes loose																6, 7, 7 N=14	SPT
3	2.76			Bx																3, 5, 4 N=9	SPT	
				C	SAND trace silt (Alluvium) Grey, dry to moist, medium dense.																4, 5, 7 N=12	SPT
4				Cx	Fine to medium grained.															3, 6, 5 N=11	SPT	
				D	4.00m: becomes wet																3, 5, 5 N=10	SPT
5				Dx			(SP)													4, 5, 5 N=10	SPT	
				E	5.00m: Trace fine to medium grained gravel, rounded																4, 6, 5 N=11	SPT
6				Ex	5.50m: becomes grey to orange brown. Fine to coarse grained sand.															2, 4, 7 N=11	SPT	
				F	6.00m: becomes medium dense. Fine to coarse grained sand, trace fine to medium grained gravel, rounded grains.																4, 7, 10 N=17	SPT
7	-0.89			Fx	6.50m: sand becoming coarse grained, rounded. Dense															12, 17, 15 N=32	SPT	
				G	Clayey SAND (Alluvium) Pale grey, wet, medium dense to dense.				(SC)												10, 13, 11 N=24	SPT
8				Gx	Fine to medium grained sand, medium plasticity.																	6, 8, 10 N=18
				H	Sandy CLAY (Alluvium) Pale grey mottled orange brown, moist, very stiff.				(CI)													
9	-3.09			Hx	fine to medium grained sand, medium plasticity. 8.00m: sand content decreasing.																	8, 8, 11 N=19
				I	CLAY (Alluvium) Pale grey mottled orange brown, moist, stiff to mainly very stiff.				(CI)													
	-4.09			Ix	Medium plasticity.																	6, 8, 10 N=18

8.50m-8.95m: No sample recovered

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	S.Foley



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Sheet 2 of 3

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PROJECT Mackay Ring Road
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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				J	CLAY (Alluvium) (Cont'd)						7, 8, 10 N=18	SPT	
				Jx	10.50m: trace fine grained sand.		(CI)				7, 9, 11 N=20	SPT	
				K							7, 9, 10 N=19	SPT	
	-5.89			Kx							8, 6, 9 N=15	SPT	
12				L	SAND with clay (Alluvium) Pale grey, moist, medium dense. Fine grained sand, medium plasticity.		(SP)				9, 10, 10 N=20	SPT	
	-6.89			Lx							11, 9, 11 N=20	SPT	
13				M	Clayey SAND (Residual) Pale grey mottled orange brown, moist, medium dense.		(SC)				11, 11, 12 N=23	SPT	
	-7.59			Mx	Medium to coarse grained sand, rounded grains, medium to high plasticity.						25, 26, 22 N=48	SPT	
14				N	GRANODIORITE XW: Recovered as orange brown and grey, moist, very dense, clayey sand. Fine to coarse grained sand.						30/130	SPT	
15													
16				O							30/100 hb	SPT	
17	-11.09		(0)	P							16.50m-16.51m: No sample recovered	SPT	
											30-Oct hb		
18					GRANODIORITE (Kgwu) MW: Pink, grey and dark grey, medium to coarse grained, porphyritic, very high strength. Highly fractured throughout. Js: 5° to 15°; (<8/m); Pl/Sm; Fe St, some Sinf; Js: 40° to 55°; (<5/m); Pl-Un/Sm; OP; Fe St, some Sinf; Js: 60° to 75°; (<2/m); Pl/Sm; OP; Fe St;		MW	VH	VC		17.15m-17.42m: Microdiorite (SW): Grey, fine grained, massive, very high strength. Highly fractured zone.	Is(50)=7.90 MPa	A (17.55m)
	-12.59		100 (9)				MW	VH	C		Is(50)=8.10 MPa	D (17.96m)	
19					MICRODIORITE (Kgwu) MW: Pink, grey and dark grey, medium to coarse grained.		MW	MH	VC		18.50m-18.75m: HFZ; jointed	Is(50)=0.75 MPa	I (18.84m)
	-14.09		93 (0)					VH	VC		19.41m-19.50m: HFZ	Is(50)=7.20 MPa Is(50)=7.30 MPa	A (19.36m) A (19.57m)

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	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	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	14/09/15
Borehole No.	BH 211	TMR H No.	H12220
Location	Pioneer River Bridge	Start Depth (m)	17.00
Detail	Pier 3, centreline	Finish Depth (m)	28.50
Chainage		Submitted By	M.Ensor
Remarks			



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SCALE 1:5