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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 **BH265**

Sheet 1 of 4

REFERENCE No **H12274**

PROJECT Mackay Ring Road
 LOCATION Fursden Creek Bridge, Pier 2 (RHS) COORDINATES 721491.8 E; 7661440.2 N
 PROJECT No FG6184 SURFACE RL 5.50m PLUNGE 90° DATE STARTED 31/07/2015 GRID DATUM GDA 94 / MGA Z55
 JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 01/08/2015 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 YH H M J VI EI
1	4.60			01x	Silty CLAY (Topsoil) Dark brown, dry, very stiff. Medium plasticity, trace rootlets.		(CI)				6, 10, 9 N=19	SPT
				02x							5, 9, 12 N=21	SPT
2	3.90			A	Silty Sandy CLAY (Alluvium) Brown, dry, very stiff. Fine grained sand, medium plasticity.		(CI)				8, 10, 10 N=20	SPT
				Ax	Silty SAND (Alluvium) Brown, dry, very loose to loose. Fine grained sand.						4, 1, 1 N=2	SPT
3	2.50			B			(SM)				1, 2, 5 N=7	SPT
				Bx							4, 4, 6 N=10	SPT
4	1.00			C	SAND (Alluvium) Brown, wet, loose. Medium to coarse grained sand.		(SP)				1, 3, 5 N=8	SPT
				Cx							1, 3, 6 N=9	SPT
5	0.50			D			(SM)				2, 4, 4 N=8	SPT
				Dx	Silty SAND (Alluvium) Dark grey, wet, medium dense. Fine to medium grained sand.						2, 6, 6 N=12	SPT
6	-0.50			E	SAND (Alluvium) Pale grey, wet, loose. Fine to medium grained sand.		(SP)				2, 4, 5 N=9	SPT
				Ex							1, 1, 3 N=4	SPT
7	-1.30			F	Clayey SAND (Alluvium) Pale grey, moist, dense. Fine grained sand.		(SC)				8, 16, 22 N=38	SPT
				Fx							10, 13, 16 N=29	SPT
8	-2.50			G	Sandy CLAY (Alluvium) Mottled pale grey and orange, moist, very stiff to hard. Fine grained sand, high plasticity.		(CH)				6, 12, 14 N=26	SPT
				Gx							8, 18, 21 N=39	SPT
9				H	Silty CLAY trace sand (Alluvium) Grey, moist, very stiff. Fine grained sand, high plasticity.		(CH)				7, 10, 10 N=20	SPT
				Hx							6, 8, 9 N=17	SPT
				I							7, 8, 11 N=19	SPT
				Ix	9.50m: trace calcite nodules.						8, 7, 11 N=18	SPT

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REMARKS: Kgwu = Wundaru Granodiorite

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C.Boyes	S.Foley



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BOREHOLE No **BH265**

Sheet 2 of 4

REFERENCE No **H12274**

PROJECT	Mackay Ring Road		
LOCATION	Fursden Creek Bridge, Pier 2 (RHS)	COORDINATES	721491.8 E; 7661440.2 N
PROJECT No	FG6184	SURFACE RL	5.50m
		PLUNGE	90°
		DATE STARTED	31/07/2015
		GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.
		BEARING	°
		DATE COMPLETED	01/08/2015
		DRILLER	Saxon Drilling

DEPTH (m)	R.L. (m)	FAUGER CASING WASHBORING CONE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS		
												EH	VH
-4.80				J	Silty CLAY trace sand (Alluvium) (Cont'd)	(CH)						8, 9, 11 N=20	SPT
11				K	GRANODIORITE (Kgwu) XW: Recovered as speckled orange, brown and grey, moist, dense to very dense clayey sand. Fine to medium grained sand.	XW						11, 14, 17 N=31	SPT
12				L								14, 21, 30/140	SPT
-7.30				M	MICRODIORITE (Kgwu) XW: Recovered as pale green grey, moist, hard, gravelly clay. Fine grained gravel, medium plasticity.	XW						30/120 hb	SPT
-8.10				N	GRANODIORITE (Kgwu) XW: Recovered as orange brown, grey and dark grey, moist, very dense, clayey sand. Fine to medium grained sand.							26, 30/140	SPT
15				O								23, 30/100	SPT
16				P								30/120	SPT
17				Q								30/140 hb	SPT
18				R								30/90 hb	SPT
19				S								30/70 hb	SPT
-14.50													

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BOREHOLE No **BH265**

Sheet 3 of 4

REFERENCE No **H12274**

PROJECT	Mackay Ring Road		
LOCATION	Fursden Creek Bridge, Pier 2 (RHS)		COORDINATES 721491.8 E; 7661440.2 N
PROJECT No	FG6184	SURFACE RL 5.50m	PLUNGE 90°
			DATE STARTED 31/07/2015
			GRID DATUM GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 01/08/2015
			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	H	M			L
21					GRANODIORITE (Kgwu) XW: (Cont'd)							SPT 30/70		
22							XW					SPT 30/95 hb		
23												0/10 hb		
24	-18.50		(0)		GRANODIORITE (Kgwu) XW: Speckled brown, grey and dark grey, medium to coarse grained, extremely low to low strength.		XW					0/10		
25	-19.40		93 (38)		GRANODIORITE (Kgwu) HW: Speckled pink, dark grey and grey, coarse grained, massive, medium to high strength. Js: 20° to 30°; (<2/m); Pl/Sm-Ro; OP; some Sinf; Js: 50° to 70°; (<4/m); Pl/Sm; OP or CD; CA Vr;		MW					Is(50)=0.12 MPa D (24.50m)		
26			100 (37)				MW					Is(50)=0.17 MPa A (24.99m) Is(50)=0.35 MPa D (25.23m)		
27	-21.30		100 (80)		GRANODIORITE (Kgwu) SW: Pale grey and grey, coarse grained, massive, very high strength. Js: 0° to 30°; (<2/m); Pl-Un/Sm-Ro; OP; some CA Vn & Sinf;		HW					25.10m: J: 70°; Un/Sm; OP; some Sinf; 25.78m-25.88m: XW zone, sandy; 25.94m-26.00m: XW zone, sandy; 26.76m-26.80m: CW CA; weathered to clay 26.80m-27.05m: Microdiorite band (SW)		
28												Is(50)=2.10 MPa D (26.95m) Is(50)=8.40 MPa A (28.14m) Is(50)=14.00 MPa D (28.30m)		
29												28.53m-29.00m: XW CA VN; 70°; Pl-Un/Ro; 28.67m-28.74m: XW zone Is(50)=20.00 MPa D (29.10m) Is(50)=9.00 MPa A (29.17m)		
24.50			100 (82)									29.35m-29.52m: BZ;		

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REMARKS: Kgwu = Wundaru Granodiorite

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BOREHOLE No **BH265**

Sheet 4 of 4

REFERENCE No **H12274**

PROJECT	Mackay Ring Road		
LOCATION	Fursden Creek Bridge, Pier 2 (RHS)	COORDINATES 721491.8 E; 7661440.2 N	
PROJECT No	FG6184	SURFACE RL 5.50m	PLUNGE 90°
			DATE STARTED 31/07/2015
			GRID DATUM GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 01/08/2015
			DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	FAUGER CASING WASHBORING CONE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH											DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS							
								INTACT STRENGTH																				
								EH	YH	H	M	J	V	VI	EL	EC	VC	C				M	W	VW	EW			
30.05-30.06m					GRANODIORITE (Kgwu) SW: (Cont'd) Increased calcite & zeolite veining. Js: 5° to 30°; (<5/m); Pl-St/Sm-Ro; OP; some CA Vn & Sinf; Js: 60° to 90°; (<2/m); Un/Ro; CD; some CA Vn;	+	SW															M	30.05m-30.06m: HW zone; VN: 60°; Pl/Ro; OP; Is(50)=0.72 MPa Is(50)=5.10 MPa	D (30.17m) A (30.28m)				
31.00m																											UCS=11.70 MPa	(31.00m)
31.50m																												Is(50)=4.40 MPa
32.26m-32.49m					Borehole completed at 32.85m	+																C	32.26m-32.49m: HFZ; 32.53m: VN: 80°; Pl/Sm; CD; CA <5mm; Is(50)=1.30 MPa Is(50)=2.00 MPa	A (32.60m) D (32.67m)				
32.60m																												
33.00m																												

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	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	01/08/15
Borehole No.	BH 265	TMR H No.	H12274
Location	Fursden Creek Bridge	Start Depth (m)	24.00
Detail	Pier 2, RHS	Finish Depth (m)	32.85
Chainage		Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5