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## GEOTECHNICAL BOREHOLE LOG






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

BOREHOLE No **BH256**

Sheet 1 of 4

REFERENCE No **H12265**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 18 (CL)			COORDINATES 721366.2 E; 7660628.1 N	
PROJECT No	FG6184	SURFACE RL	5.56m	PLUNGE	90°
				DATE STARTED	15/07/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	16/07/2015
				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 _VL _EL
1	5.16			x	Clayey Sandy SILT (Topsoil) Dark brown, moist, firm.		(ML)			3, 3, 3 N=6	SPT	
	4.46	x1	Silty SAND (Alluvium) Pale grey, dry, loose. Fine grained sand.	(SM)				3, 3, 2 N=5	SPT			
			A	Silty Sandy CLAY (Alluvium) Dark brown, moist, firm.	(CI)						2, 2, 3 N=5	SPT
2	3.76			Ax	Silty SAND (Alluvium) Pale grey, dry, loose. Fine grained sand.  2.50m: becomes very loose.		(SM)			4, 4, 5 N=9		SPT
	B							2, 2, 4 N=6	SPT			
	3	2.56							Bx			
4		C	Clayey SAND (Alluvium) Orange brown, wet, very loose. Fine to medium grained sand. 3.5m: Becomes loose.		(SC)			1, 1, 2 N=3	SPT			
			Cx							1, 4, 5 N=9	SPT	
	D		4.00m: becomes fine to medium grained sand. Clay content decreasing.						3, 3, 3 N=6		SPT	
5	0.56	Dx	SAND (Alluvium) Orange brown, wet, medium dense. Fine to coarse grained sand.  6.00m: becomes coarse grained sand, trace fine to medium grained gravel, rounded grains.		(SP)			2, 3, 4 N=7		SPT		
						E					3, 6, 11 N=17	SPT
						Ex						3, 13, 8 N=21
6	F							4, 5, 6 N=11	SPT			
		Fx				5, 8, 13 N=21	SPT					
		G					8, 10, 11 N=21		SPT			
7	Gx								6, 8, 10 N=18	SPT		
		H	7.80m: fine to medium grained gravel, rounded to subrounded grains.		(SC)			8, 9, 10 N=19		SPT		
		Hx	Clayey SAND trace silt (Alluvium) Pale grey, moist, medium dense. Fine grained sand.							6, 10, 11 N=21	SPT	
8	-2.44	I	Silty SAND (Alluvium) Pale orange and grey, wet, medium dense.			(SM)					9, 11, 12 N=23	SPT
			Ix	Fine to medium grained sand.	(SC)			5, 6, 10 N=16	SPT			
			9	-3.54	-3.94	-4.44						

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REMARKS: Kgwu = Wundaru Granodiorite

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S.Foley



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## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH256**

Sheet 2 of 4

REFERENCE No **H12265**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 18 (CL)			COORDINATES 721366.2 E; 7660628.1 N	
PROJECT No	FG6184	SURFACE RL	5.56m	PLUNGE	90°
				DATE STARTED	15/07/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	16/07/2015
				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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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11	-6.44				J	Clayey SAND with gravel (Alluvium)	(SC)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

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REMARKS: Kgwu = Wundaru Granodiorite

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# GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH256**

Sheet 3 of 4

REFERENCE No **H12265**

PROJECT	Mackay Ring Road
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LOCATION	Pioneer River Bridge, Pier 18 (CL)
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COORDINATES 721366.2 E; 7660628.1 N

PROJECT No. FG6184

SURFACE RI 5.56m

PLUNGE 90°

DATE STARTED 15/07/2015

GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906

HEIGHT DATUM A.H.D.

BEARING °

DATE COMPLETED 16/07/2015

DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING	WASHBORING CORE DRILLING	RQD (%)	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH		DEFECT SPACING		ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS				
				CORE REC %														
									EH _LH _H _M _J _VL _EL	EC _VC _C _M _VW _EW								
-14.64							+	XW					30/35 hb	SPT				
				(0)		GRANODIORITE (Kgwu) XW: Recovered as grey and dark grey, moist, very dense, sandy gravel trace clay. Medium to coarse grained sand, fine grained gravel, angular grains.	+	XW										
-15.34																		
				58		CORE LOSS												
-15.89				(0)		GRANODIORITE (Kgw) XW: (Cont'd)	+	XW										
-16.44							+											
				93		GRANODIORITE (Kgwu) HW: Dark grey, pale grey and pink, massive, fine to coarse grained, extremely low to high strength Js: 5° to 15°; (~10/m); Pl-Un/Ro; OP; Fe St; Js: 70° to 80°; (<3/m); Pl/Sm-Ro; OP; some Ca Vn;	+	HW				22.10m-22.40m: MICRODIORITE (MW) 22.30m: Total water loss. 22.31m-22.61m: BZ;	Is(50)=6.40 MPa	I (22.13m)				
				100			+	MW										
				(0)			+											
							+	HW										
-17.59				100			+	XW					23.38m-23.50m: MICRODIORITE (SW)	Is(50)=8.50 MPa	I (23.50m)			
				(0)		GRANODIORITE (Kgwu) XW: Recovered as grey and dark grey, moist, very dense, sandy gravel trace clay. Medium to coarse grained sand, fine grained gravel, angular grains.	+	SW										
							+	XW										
							+											
							+	HW										
-19.32				100			+	XW										
				(98)		GRANODIORITE (Kgwu) SW: Speckled grey, dark grey and pink, massive, coarse grained, very high strength Js: 5° to 10°; (<3/m); Pl/Sm; OP; some Ca Vn; Js: 70° to 80°; (<1/m); Pl/Sm; CD; Ca Vn;	+					Is(50)=8.70 MPa UCS=112.00 MPa E=55.8 GPa v= 0.16 Is(50)=9.60 MPa	A (24.88m) (25.02m) D (25.35m)					
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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 **BH256**

Sheet 4 of 4

REFERENCE No **H12265**

PROJECT **Mackay Ring Road**

LOCATION **Pioneer River Bridge, Pier 18 (CL)**

COORDINATES **721366.2 E; 7660628.1 N**

PROJECT No **FG6184**

SURFACE RL **5.56m**

PLUNGE **90°**

DATE STARTED **15/07/2015**

GRID DATUM **GDA 94 / MGA 255**

JOB No **242/10G/906**

HEIGHT DATUM **A.H.D.**

BEARING **°**

DATE COMPLETED **16/07/2015**

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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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31					GRANODIORITE (Kgwu) SW: (Cont'd)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

REMARKS: Kgwu = Wundaru Granodiorite

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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	<b>Mackay – Ring Road (Stage 2)</b>		
Project No.	FG6184	Date	15/07/15
Borehole No.	BH 256	TMR H No.	H12265
Location	Pioneer River Bridge	Start Depth (m)	20.20
Detail	Pier 18, centreline	Finish Depth (m)	34.55
Chainage		Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5



# CORE PHOTO LOG

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

