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**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH257**

Sheet 1 of 4

REFERENCE No **H12266**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 18 (RHS)			COORDINATES 721376.3 E; 7660627.8 N	
PROJECT No	FG6184	SURFACE RL	5.53m	PLUNGE	90°
				DATE STARTED	13/07/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	15/07/2015
				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	EC	VC	C				M	W	VW	EW
	5.33				Clayey Sandy SILT (Topsoil) Dark brown, moist, soft.																			
					Silty SAND (Alluvium) Pale brown, moist, very loose. Fine grained sand, trace rootlets.																			
1				A	1.00m: becomes clayey silty sand. Medium to high plasticity.		(SM)															1, 2, 2 N=4	SPT	
	3.63																							
2				B	SAND trace clay and silt (Alluvium) Orange grey and brown, dry to moist, loose. Medium grained sand.																	2, 2, 2 N=4	SPT	
3				C	Becoming very loose.		(SP)															1, 1, 1 N=2	SPT	
4				D	Becoming loose.																	2, 3, 3 N=6	SPT	
	0.93																							
5				E	SAND (Alluvium) Orange grey brown, wet, medium dense. Fine to coarse grained sand.																	3, 5, 7 N=12	SPT	
					5.50m: trace fine to medium grained gravel, rounded grains.		(SP)																	
6				F																		7, 7, 8 N=15	SPT	
	-1.07																							
7				G	Gravelly SAND (Alluvium) Orange grey brown, wet, medium dense. Medium to coarse grained sand, fine to medium grained gravel, subrounded grains.		(SP)															8, 13, 13 N=26	SPT	
8				H	Silty Clayey SAND trace gravel (Alluvium) Pale grey and orange grey, moist, medium dense.																	8, 11, 13 N=24	SPT	
	-2.67																							
9				I	Fine grained sand, fine grained gravel, rounded grains, medium plasticity.		(SC)															2, 4, 8 N=12	SPT	
	-4.47																							

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

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C.Boyes

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GEOTECHNICAL BOREHOLE LOG

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BOREHOLE No **BH257**

Sheet 2 of 4

REFERENCE No **H12266**

PROJECT Mackay Ring Road

LOCATION Pioneer River Bridge, Pier 18 (RHS) COORDINATES 721376.3 E; 7660627.8 N

PROJECT No FG6184 SURFACE RL 5.53m PLUNGE 90° DATE STARTED 13/07/2015 GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 15/07/2015 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
				J	Clayey SAND trace gravel (Alluvium) Pale grey and orange grey, moist, medium dense. Fine grained sand, fine grained gravel, rounded to subrounded grains.						
11				K		(SC)				9, 11, 9 N=20	SPT
					11.50m: gravelly lens.					8, 7, 16 N=23	SPT
12				L	12.00m: clay content increasing					5, 7, 10 N=17	SPT
	-7.07			M	GRANODIORITE XW: Recovered as pink, brown, grey and dark grey, moist, dense, sandy silty clay. Fine to medium grained sand, angular grains, medium plasticity.		XW			15, 15, 16 N=31	SPT
14				N						18, 20, 21 N=41	SPT
	-9.27			O	GRANODIORITE HW: Recovered as pink, grey and dark grey, moist, very dense, silty sand. Fine to medium grained. Pyrite throughout.					21, 28, 30/125mm	SPT
16				P						30/145mm	SPT
17				Q						30/110mm	SPT
18				R	18.00m: becomes pale green grey, dark grey and pink.					23, 30/70mm	SPT
19				S						30/110mm	SPT
	-14.47										

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REMARKS: Kgwu = Wundaru Granodiorite

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BOREHOLE No **BH257**

Sheet 4 of 4

REFERENCE No **H12266**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 18 (RHS)			COORDINATES 721376.3 E; 7660627.8 N	
PROJECT No	FG6184	SURFACE RL	5.53m	PLUNGE	90°
				DATE STARTED	13/07/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	15/07/2015
				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	VI	EL	EC	VC	C	M	W			VW
					GRANODIORITE																	
					\$W: (Cont'd)															Is(50)=1.60 MPa Is(50)=3.40 MPa	A (30.12m)- D (30.22m)	
					30.15m: becomes grey and dark grey.																	
31			100 (96)		31.00m: Js: 70° to 85°; (<1/m); Js: 5° to 20°; (1/m); Pl/Sm-Ro; TI- OP; Cn;															Is(50)=10.00 MPa Is(50)=4.10 MPa	D (31.06m)- A (31.35m)	
32																				UCS=127.00 MPa	(32.00m)	
					32.53m: becomes pink, dark grey and grey																	
33																				32.62m-32.66m: BZ; 32.85m-33.00m: AZ; pale green grey; 33.38m-33.56m: Calcite veining along defect surfaces <1mm thick.	Is(50)=2.20 MPa	A (32.80m)
34			100 (99)																	Is(50)=4.20 MPa	D (33.78m)	
					34.55 to 35.00m: Becomes Green grey															Is(50)=9.70 MPa Is(50)=12.00 MPa	A (34.68m)- D (34.74m)	
35																				35.02m: DI 35.08m: J: 75°; Un/Sm; CD; CA Vr; 35.18m: J: 75°; Un/Sm; CD; CA Vr;		
36																				UCS=199.00 MPa E=59.9 GPa ν= 0.087	(35.74m)	
	-31.27		100		Borehole completed at 36.80m															Is(50)=6.90 MPa	A (36.78m)	
37																						
38																						
39																						

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	13/07/15
Borehole No.	BH 257	TMR H No.	H12266
Location	Pioneer River Bridge	Start Depth (m)	25.02
Detail	Pier 18, RHS	Finish Depth (m)	36.80
Chainage		Submitted By	M.Ensor
Remarks			

The photograph shows a series of core samples arranged in boxes. Each box is labeled with its depth range in meters. The labels are as follows:

- Box 1: 25.02 to 25.62
- Box 2: 26.0 to 27.0
- Box 3: 27.5 to 28.0
- Box 4: 28.0 to 29.0
- Box 5: 29.0 to 30.0
- Box 6: 30.0 to 30.5
- Box 7: 30.5 to 31.0
- Box 8: 31.0 to 32.0
- Box 9: 32.0 to 33.0
- Box 10: 33.0 to 33.5

A scale bar at the bottom indicates a length of 700 units, with a scale of 1:5.

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	13/07/15
Borehole No.	BH 257	TMR H No.	H12266
Location	Pioneer River Bridge	Start Depth (m)	25.02
Detail	Pier 18, RHS	Finish Depth (m)	36.80
Chainage		Submitted By	M.Ensor
Remarks			




0 100 200 300 400 500 600 700

SCALE 1:5