

## **COPYRIGHT NOTICE**

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence*". This licence does not apply to the Queensland Government logo or trademarks.

## **LIMITATION OF LIABILITY**

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <http://qgd.org.au/>



**Queensland  
Government**

## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH220**

Sheet 1 of 3

REFERENCE No **H12229**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 6 (CL)			COORDINATES 721307.0 E; 7660212.1 N	
PROJECT No	FG6184	SURFACE RL	7.67m	PLUNGE	90°
				DATE STARTED	08/09/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	09/09/2015
				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 _LH _VH	EH _LH _VH	EH _LH _VH	EH _LH _VH	EH _LH _VH	EC _VC _OC	EC _VC _OC	EC _VC _OC	EC _VC _OC			
1	6.17			B	Silty SAND (Alluvium) Brown, dry, very loose to loose. Fine grained sand. 0.50m: becomes loose		(SM)										3, 4, 4 N=8	SPT	
				C	1.00m: becomes moist												3, 2, 3 N=5	SPT	
2	5.52			D	SAND trace silt (Alluvium) Pale brown, dry, very loose. Fine grained sand. 2.00m: become loose.		(SP)										2, 1, 2 N=3	SPT	
				E	Clayey SAND (Alluvium) Dark brown, wet, loose.											4, 4, 3 N=7	SPT		
3	4.67			F	Fine to medium grained sand, low plasticity.		(SC)										1, 2, 3 N=5	SPT	
				G	SAND (Alluvium) Pale brown, moist, loose. Fine to medium grained sand.											2, 3, 3 N=6	SPT		
4	3.17			H			(SP)										3, 4, 4 N=8	SPT	
				I	4.00m: becomes medium dense.											3, 5, 6 N=11	SPT		
5	2.17			J	SAND trace gravel (Alluvium) Pale brown, wet, loose. Fine to coarse grained sand. 5.00m: becomes medium dense		(SP)										4, 4, 5 N=9	SPT	
				K												4, 5, 7 N=12	SPT		
6	1.67			L	GRAVEL trace sand (Alluvium) Pale grey and brown, wet, medium dense.		(GP)										13, 13, 12 N=25	SPT	
				M	Fine to medium grained gravel.											9, 13, 12 N=25	SPT		
7	1.17			N	SAND trace gravel (Alluvium) Pale brown, wet, medium dense. Fine to coarse grained sand.		(SP)										10, 8, 7 N=15	SPT	
				O	Gravelly SAND (Alluvium) Grey-brown, wet, medium dense. Fine to coarse grained sand, fine to medium grained gravel, subrounded grains.											6, 4, 6 N=10	SPT		
8				P			(SP)										11, 12, 8 N=20	SPT	
				Q												11, 6, 9 N=15	SPT		
9	-1.43			R			(SC)										10, 6, 6 N=12	SPT	
				S	Clayey SAND trace silt and gravel (Alluvium) Pale grey, wet, medium dense.											12, 12, 14 N=26	SPT		
	-2.33			T	Fine to medium grained sand. 9.50m: trace gravel												15, 14, 13 N=27	SPT	

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY

REVIEWED BY

T.Goosey

S.Foley



**Queensland  
Government**

## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH220**

Sheet 2 of 3

REFERENCE No **H12229**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 6 (CL)			COORDINATES 721307.0 E; 7660212.1 N	
PROJECT No	FG6184	SURFACE RL	7.67m	PLUNGE	90°
				DATE STARTED	08/09/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	09/09/2015
				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 _VL _EL	EC _VC _C _M _W _VW _EW													
11				U	Clayey SAND trace silt and gravel (Alluvium)		(SC)										8, 8, 13 N=21	SPT				
				V	Pale grey, wet, medium dense. Fine to medium grained sand.													12, 8, 10 N=18	SPT			
				W																10, 13, 16 N=29	SPT	
				X																8, 12, 14 N=26	SPT	
12	-4.63			Y			(CI)											10, 10, 12 N=22	SPT			
				Z	CLAY trace sand (Alluvium) Grey, moist, very stiff. Medium plasticity.															6, 10, 14 N=24	SPT	
13				AA			(CI)												12, 13, 15 N=28	SPT		
				AB																8, 14, 18 N=32	SPT	
				AC																	9, 15, 23 N=38	SPT
				AD																	12, 19, 25 N=44	SPT
15	-7.83			AE			(CI)												14, 22, 30/130 hb	SPT		
				AF	GRANODIORITE (Kgwu )																22, 30/90 hb	SPT
16				AG	XW: Recovered as grey brown, moist, very dense, clayey sand trace gravel. Fine to medium grained sand.		XW													30/130 hb	SPT	
17				AH			XW														30/100 hb	SPT
18				AI			XW														30/50 hb	SPT
19	-11.33			AJ	MICRODIORITE (Kgwu )		XW														10, 30/120 hb	SPT
	-12.33				XW: Recovered as brown, moist, hard, sandy clay. Fine grained sand, low to medium plasticity.																	

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY

REVIEWED BY

T.Goosey

S.Foley



**Queensland  
Government**

## GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH220**

Sheet 3 of 3

REFERENCE No **H12229**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 6 (CL)			COORDINATES 721307.0 E; 7660212.1 N	
PROJECT No	FG6184	SURFACE RL	7.67m	PLUNGE	90°
				DATE STARTED	08/09/2015
				GRID DATUM	GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	09/09/2015
				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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	-12.93		(80)		MICRODIORITE (Kgwu ) SW: Blue grey, fine grained, massive, very high strength. Js: 5° to 10°; (6/m); Pl-Un/Sm; TI-FL; Fe St, some Cly Vr; Js: 20° to 30°; (3/m); Pl/Sm; TI; Fe St; GRANODIORITE (Kgwu ) SW: Pale red grey mottled dark grey, coarse grained, porphyritic, very high strength. Js: 5° to 15° (4/m); Pl/Ro; TI; Fe St; Js: 20° to 30°; (2/m); Pl/Ro; TI; Fe St; MICRODIORITE (Kgwu ) SW: Blue grey, fine grained, massive, high to very high strength. Js: 5° to 10°; (2/m); Pl-Un/Ro; TI; Cn; Js: 20° to 30°; (1/m); Pl/Sm; TI; Fe St; MICRODIORITE (Kgwu ) MW: Grey brown, fine to medium grained, massive, high strength. Js: 5° to 15°; Pl/Ro; TI; Fe St; MICRODIORITE (Kgwu ) SW: Blue and brown grey, fine to medium grained, massive, high to very high strength. Js: 20° to 30°; (2/m); Pl/Ro; TI; Fe St; Js: 40° to 50°; (2/m); Pl/Ro; TI; Fe St; Borehole completed at 25.90m		SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY

REVIEWED BY

T.Goosey

S.Foley

# CORE PHOTO LOG

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

