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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH131

SHEET 1 of 4

REFERENCE No 12077

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1

LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5595m; COORDINATES 720962.7 E; 7657951.4 N

PROJECT No FG6184 SURFACE R.L. 12.48m PLUNGE DATE STARTED 3/10/14 GRID DATUM GDA 94 /MGA Zone 55

JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 4/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	INTACT STRENGTH							DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
								USC	WEATHERING	EH	VH	H	M	J					VL
0	12.48					Sandy GRAVEL (FILL) Pale brown, dry, dense. Fine to medium gravel.	(GP)												
0.60	11.88				A	Silty Sandy CLAY (ALLUVIUM) Brown-orange, moist, stiff to very stiff. Medium to mainly high plasticity.	(CI-CH)											5.9,11 N=20	SPT
1					B	2.00m: Becoming Sandy CLAY. Medium plasticity.	(CI-CH)											3.6,7 N=13	SPT
2					C	3.00m: Becoming Silty CLAY. High plasticity.	(CI-CH)											3.7,11 N=18	SPT
3					D	Clayey SAND (ALLUVIUM) Brown-orange, moist, medium dense. Fine to medium grained.	(SC)											5.8,16 N=24	SPT
4	8.28				E	Sandy CLAY (ALLUVIUM) Brown-orange, moist, stiff. Medium to high plasticity.	(CI-CH)											3.4,6 N=10	SPT
5	7.48				F		(CI-CH)											2.4,9 N=13	SPT
6					G	Silty CLAY (ALLUVIUM) Grey, moist, mainly stiff to very stiff. High plasticity.	(CH)											5.8,12 N=20	SPT
7					H		(CH)											4.6,7 N=13	SPT
8					J		(CH)											3.4,7 N=11	SPT
9							(CH)												
10							(CH)												

TMR JAN 15.GLB Log_A_ENG ENGINEERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Datget CPT Tool gInt Add-In 04/09/2015 10:51

REMARKS Kgwu - Wundaru Granodiorite;

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ENGINEERING BOREHOLE LOG

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SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No BH131
SHEET 3 of 4
REFERENCE No 12077

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5595m; COORDINATES 720962.7 E; 7657951.4 N
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DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH							DEFECT SPACING (mm)							GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
									EH	VH	H	M	J	VL	EL	EC	VC	C	W	VW	EW					
20	-7.52				V	Silty Sandy CLAY (RESIDUAL) (Cont'd)																			6,10,14 N=24	SPT
21					W		(Cl)																		7,9,12 N=21	SPT
21.80	-9.32																									
22					X	Sandy CLAY (RESIDUAL) Brown-orange and grey, moist, very stiff. Low plasticity.																			10,10,10 N=20	SPT
23					Y	23.00m: Colour change to grey.	(Cl)																		5,10,11 N=21	SPT
23.90	-11.42																									
24					Z	Clayey SAND (RESIDUAL) Pale grey, moist, medium dense to very dense. Fine to coarse grained sand. Trace fine gravel.																			8,12,12 N=24	SPT
25					AA	25.00m: Colour change to orange-brown.	(SC)																		9,14,30/80	SPT
25.50	-13.02																									
26						GRANODIORITE (Kgwu) HW: Pale brown, grey and white, medium to coarse grained, massive, very low strength. Some XW zones with EL strength.		SW																	25.50m-25.65m: SW Microdiorite, high strength.	
27								HW																	26.10m-26.55m: XW zone, EL strength.	
28								XW																	26.90m-27.70m: XW zone, EL strength.	
29								HW																	Is(50) = 0.72MPa	D (27.80m)
28.50	-16.02							XW																		
29						GRANODIORITE (Kgwu) SW: White, grey and orange, medium to coarse grained, massive, very high to extremely high strength. Defects: - Js; 10°-20° (5/m); Pl/Ro, OP, Fe St; - Js; 45° (1/m); Pl/Ro, OP, Fe St;		SW																	Is(50) = 5.54MPa Is(50) = 10.53MPa	D (28.75m) A (28.85m)
29.75	-17.27							HW																	UCS=226MPa; Is(50) = 11.06MPa Is(50) = 9.39MPa	D (29.52m) A (29.58m)
30						MICRODIORITE (Kgwu) SW:		SW																		

REMARKS Kgwu - Wundaru Granodiorite;

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ENGINEERING BOREHOLE LOG

BOREHOLE No BH131
 SHEET 4 of 4
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FOR GEOTECHNICAL TERMS AND
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PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
 LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5595m; COORDINATES 720962.7 E; 7657951.4 N
 PROJECT No FG6184 SURFACE R.L. 12.48m PLUNGE DATE STARTED 3/10/14 GRID DATUM GDA 94 /MGA Zone 55
 JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 4/10/14 DRILLER Saxon Drilling

TMR JAN 15.GLB Log_A_ENG ENGINEERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Datget CPT Tool gInt Add-In 04/03/2015 10:51

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING											GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS													
									EH	VH	H	M	J	VL	EL	EC	VC	C	W				VW	EW											
30	-17.52					MICRODIORITE (Kgwu) SW: (Cont'd) Dark grey, fine to medium grained, massive, high strength. Defects: - Js; 10°-20° (1/m); Pl/Ro, OP, Fe St; - Js; 45° (1/m); Pl/Ro, OP, Fe St; - Js; 60°-65° (1/m); Pl/Ro, OP, Fe St;	+														Is(50) = 9.82MPa Is(50) = 8.77MPa	A (30.78m) D (30.82m)													
			100 (80)																																
32				100 (73)																															
33						Borehole terminated at 33.64m.	+														Is(50) = 10.00MPa Is(50) = 8.65MPa	A (32.60m) D (32.64m)													
33.64	-21.16			100																															
34																																			
35																																			
36																																			
37																																			
38																																			
39																																			
40																																			

REMARKS Kgwu - Wundaru Granodiorite;

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CORE PHOTO LOG

DEPARTMENT OF TRANSPORT & MAIN ROADS
 Geotechnical Branch
 35 Butterfield Street, HERSTON Qld 4006
 Phone 07 3066 3336



Department of
 Transport and Main Roads

Project Name	Mackay – Ring Road		
Project No	FG6184	Date	04/10/14
Borehole No	BH 131	TMR H No	12077
Location	Peak Downs Hwy Overpass	Start Depth (m)	25.5
Detail	Pier 1	Finish Depth (m)	33.64
Chainage	5595m	Submitted By	J. Lopez
Remarks			

