Queensland Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH181**
SHEET 1 of 3
REFERENCE No **12122**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment B; CH: 8789m; COORDINATES 721444.9 E; 7661108.8 N
PROJECT No FG6184 SURFACE R.L. 7.25m PLUNGE DATE STARTED 14/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 15/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (EC VC C M W VW EW)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	7.25				**Clayey SILT (TOPSOIL)** Dark brown, moist, soft. Low plasticity. Some roots.		(ML)							
0.50	6.75				**Silty CLAY (ALLUVIUM)** Dark brown, moist, stiff. Low plasticity.		(CL)							
1				A								3,5,5 N=10		SPT
1.60	5.65				**Silty SAND (ALLUVIUM)** Brown, moist, loose. Fine grained.									
2				B								2,3,3 N=6		SPT
3				C								2,3,4 N=7		SPT
4				D	4.00m: Becoming loose to medium dense.		(SM)					2,4,6 N=10		SPT
5				E	5.00m: Becoming loose Clayey SAND.							1,2,2 N=4		SPT
6				F	6.00m: Fine to medium grained sand.							2,3,3 N=6		SPT
6.50	0.75				**Sandy GRAVEL (ALLUVIUM)** Grey-brown, moist, dense. Fine to medium gravel. Fine to coarse grained sand.		(GP)							
7				G								19,25,20 N=45		SPT
7.70	-0.45				**Silty SAND (ALLUVIUM)** Brown, moist, meidum dense. Fine grained sand.									
8				H			(SM)					7,7,8 N=15		SPT
9				J								5,8,8 N=16		SPT
9.70	-2.45				**Silty Sandy CLAY (RESIDUAL)**		(CH)							
10														

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

LOGGED BY MS

TMR JAN 15.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Datgel CPT Tool gINt Add-In 04/03/2015 10:52

ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH181**
SHEET 2 of 3
REFERENCE No **12122**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment B; CH: 8789m; COORDINATES 721444.9 E; 7661108.8 N
PROJECT No FG6184 SURFACE R.L. 7.25m PLUNGE DATE STARTED 14/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 15/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (EC VC C M W VW EW)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES / TESTS
10	-2.75			K	**Silty Sandy CLAY (RESIDUAL)** (Cont'd) Grey and yellow mottled brown, moist, stiff to mainly very stiff. High plasticity.		(CH)					4,5,8 N=13	SPT
11				L								7,10,12 N=22	SPT
12				M								6,10,10 N=20	SPT
13				N	13.00m: Becoming hard.							11,15,20 N=35	SPT
13.70	-6.45				**GRANODIORITE (Kgwu)** **XW:** Recovered as grey, brown and pink moist, hard Sandy CLAY. Low plasticity. Some HW rock fragments.								
14				P								25,27,25 N=52	SPT
15				Q								10,17,30 N=47	SPT
16				R	16.00m: Recovered as Clayey SAND / Sandy CLAY. High medium grained sand content.		XW					14,26,23 N=49	SPT
17				S								16,25,22 N=47	SPT
18				T								21,30/140	SPT
18.50	-11.25				**GRANODIORITE (Kgwu)** **HW:** Grey and pink, medium grained, very low strength.								
19				U			HW					30/60	SPT
20													

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

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BOREHOLE No **BH181**
SHEET 3 of 3
REFERENCE No **12122**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment B; CH: 8789m; COORDINATES 721444.9 E; 7661108.8 N
PROJECT No FG6184 SURFACE R.L. 7.25m PLUNGE DATE STARTED 14/10/14 GRID DATUM GDA 94 /MGA Zone 55
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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 (EH VH H M L VL EL)	DEFECT SPACING (mm) (EC VC C M W VW EW)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
20	-12.75			V	**GRANODIORITE (Kgwu)** **HW:** (Cont'd)			HW				30/130		SPT
21				W								9,30/40		SPT
21.50	-14.25		(0) 100		**GRANODIORITE (Kgwu)** **MW:** Brown-grey, fine to medium grained, massive, highly fractured, high strength. Some CA veins throughout the rock mass. Defects: - Js; 20°-30° (4/m); Un/Ro, OP-TI, some CA; - Js; 50°-60° (4/m); Un/Ro, OP-TI, some CA; - Js; 85°-90° (1/m); Un/Ro, OP-TI, some CA;			MW						
22			(0)											
23												Is(50) = 2.71MPa Is(50) = 2.42MPa; #	D (22.80m) A (22.85m)	
												Is(50) = 1.46MPa; #	D (23.35m)	
			100									Is(50) = 1.60MPa; #	D (23.65m)	
24			(0)											
24.50	-17.25		100											
					Borehole terminated at 24.5m. .									
25														
26														
27														
28														
29														
30														

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

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CORE PHOTO LOG

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

Queensland Government

Department of Transport and Main Roads

Project Name	**Mackay – Ring Road**		
Project No	FG6184	Date	15/10/14
Borehole No	BH181	TMR H No	12122
Location	Fursden Creek Overflow Bridge	Start Depth (m)	21.5
Detail	Abutment B	Finish Depth (m)	24.5
Chainage	**8789m**	Submitted By	J. Lopez
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5

GEOT043/1