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Queensland Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH170**
SHEET 1 of 3
REFERENCE No **12111**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment A; CH: 8691m; COORDINATES 721415.3 E; 7661013.3 N
PROJECT No FG6184 SURFACE R.L. 7.32m PLUNGE DATE STARTED 21/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 22/10/14 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	7.32				**Silty CLAY (ALLUVIUM)** Brown, dry to moist, stiff. High plasticity.		(CH)							
1.60	5.72			A								3,4,5 N=9		SPT
					SAND (ALLUVIUM) Pale brown, moist, loose to medium dense. Fine to medium grained sand. Trace fine to medium gravel.									
				B								2,3,3 N=6		SPT
				C								1,2,3 N=5		SPT
				D			(SP)					2,2,4 N=6		SPT
				E								4,7,7 N=14		SPT
				F								6,7,8 N=15		SPT
				G								4,4,5 N=9		SPT
7.60	-0.28				**Gravelly SAND (ALLUVIUM)** Brown, moist to wet, medium dense.									
				H			(SW)					18,12,3 N=15		SPT
9.00	-1.68													
				J	**Silty CLAY (ALLUVIUM)** Pale grey and brown, moist, stiff. High plasticity.		(CH)					3,5,7 N=12		SPT
10.00	-2.68													

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.
Rock Roller bit used 18.27m to 22.00m.

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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

Queensland Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH170
SHEET 2 of 3
REFERENCE No 12111

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment A; CH: 8691m; COORDINATES 721415.3 E; 7661013.3 N
PROJECT No FG6184 SURFACE R.L. 7.32m PLUNGE DATE STARTED 21/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 22/10/14 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	-2.68			K	**Silty CLAY (ALLUVIUM)** (Cont'd) Becoming very stiff.		(CH)					3,7,9 N=16		SPT
11				L								5,10,12 N=22		SPT
12				M	12.00m: Becoming hard.							6,13,20 N=33		SPT
12.80	-5.48				**Sandy Silty CLAY (RESIDUAL)** Pale grey, brown and black, moist, very stiff to hard. High plasticity.									
13				N								8,12,16 N=28		SPT
14				P								7,10,14 N=24		SPT
15				Q			(CH)					5,12,20 N=32		SPT
16				R								7,10,14 N=24		SPT
16.80	-9.48				**MICRODIORITE (Kgwu)** **XW:** Recovered as grey, moist, hard Gravelly Silty CLAY.									
17				S								11,12,20 N=32		SPT
18				T			XW					27,30/115		SPT
19				U								18.27m-22.09m: Rock Roller bit used. 29,30/100		SPT
20	-12.68													

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.
Rock Roller bit used 18.27m to 22.00m.

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ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH170**
SHEET 3 of 3
REFERENCE No **12111**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Abutment A; CH: 8691m; COORDINATES 721415.3 E; 7661013.3 N
PROJECT No FG6184 SURFACE R.L. 7.32m PLUNGE DATE STARTED 21/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 22/10/14 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
20	-12.68			V	**MICRODIORITE (Kgwu)** **HW:** Grey, fine grained, very low strength.							30/120		SPT
21				W			HW					18.27m-22.09m: Rock Roller bit used. 30/100		SPT
22	-14.77			X								30/90		SPT
23			(0) 71 (17) 100 (10)		**MICRODIORITE (Kgwu)** **SW:** Grey, fine to medium grained, massive, very high strength. Defects: - Js; 0°-30° (3/m); Pl/Sm, TI-CD, some Cly; - Js; 30°-60° (3/m); Pl/Sm, TI-CD, some Cly; - Js; 60°-90° (1/m); Pl/Sm, TI-CD, some Cly;		SW					22.25m-22.35m: Core Loss 22.45m-22.46m: Clay seam. Is(50) = 1.02MPa; # A (22.85m) Is(50) = 1.46MPa; # D (22.90m) Is(50) = 1.23MPa; # D (23.20m) Is(50) = 4.33MPa A (23.28m)		
24												23.80m-23.81m: Clay seam. 23.95m-24.25m: CS (5x); 10mm. 24.35m-24.55m: MW Granodiorite		
25			100 (70)				HW					24.85m-25.10m: HW zone, CA; Is(50) = 2.44MPa D (25.30m) Is(50) = 4.10MPa; # A (25.36m)		
26							SW					UCS=42.8MPa		
26.48	-19.16		100									Is(50) = 7.39MPa D (26.45m)		
27					Borehole terminated at 26.48m. .									
28														
29														
30														

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.
Rock Roller bit used 18.27m to 22.00m.

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CORE PHOTO LOG

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Queensland Government

Department of Transport and Main Roads

Project Name	**Mackay – Ring Road**		
Project No	FG6184	Date	22/10/14
Borehole No	BH170	TMR H No	12111
Location	Fursden Creek Overflow Bridge	Start Depth (m)	22.0
Detail	Abutment A	Finish Depth (m)	26.48
Chainage	**8691m**	Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5

GEOT043/1

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