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# ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH174**  
SHEET **1** of **3**  
REFERENCE No **12115**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Fursden Creek Overflow Bridge Pier 2; CH: 8730m; COORDINATES 721421.3 E; 7661052.3 N  
PROJECT No FG6184 SURFACE R.L. 6.91m PLUNGE \_\_\_\_\_ DATE STARTED 19/10/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 20/10/14 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	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	6.91					<b>Silty CLAY (ALLUVIUM)</b> Dark brown, dry to moist, firm to stiff. High plasticity.							
1					A		(CH)					2,6,6 N=12	SPT
2					B							2,3,5 N=8	SPT
3	3.81				C	<b>SAND (ALLUVIUM)</b> Pale brown, moist, loose to medium dense. Fine to medium grained.						3,7,10 N=17	SPT
4					D							6,7,8 N=15	SPT
5					E		(SP)					3,4,4 N=8	SPT
6					F	6.00m: Becoming coarse grained with depth.						1,1,4 N=5	SPT
7	0.21				G	<b>Gravelly SAND (ALLUVIUM)</b> Brown, moist to wet, medium to dense. Fine to coarse grained. Fine to medium, subangular gravel.						7,5,7 N=12	SPT
8					H		(SW)					7,7,10 N=17	SPT
9	-1.89				J	<b>Silty CLAY (ALLUVIUM)</b> Pale brown, grey, white and black, moist, stiff. High plasticity. Trace fine to coarse grained sand. Trace fine gravel.						3,3,6 N=9	SPT
10													

REMARKS Kgwu - Wundaru Granodiorite;

# Sample failed along existing defect surface.

LOGGED BY  
ME

# ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH174  
SHEET 2 of 3  
REFERENCE No 12115

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Fursden Creek Overflow Bridge Pier 2; CH: 8730m; COORDINATES 721421.3 E; 7661052.3 N  
PROJECT No FG6184 SURFACE R.L. 6.91m PLUNGE \_\_\_\_\_ DATE STARTED 19/10/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 20/10/14 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	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	-3.09													
11					K	<b>Silty CLAY (ALLUVIUM)</b> (Cont'd) Becoming very stiff to hard.							4,7,12 N=19	SPT
12					L								8,10,14 N=24	SPT
13					M								6,16,16 N=32	SPT
14					N								6,9,12 N=21	SPT
14.20	-7.29				P	<b>GRANODIORITE (Kgwu)</b> XW: Recovered as grey, brown and black, moist, hard Silty CLAY.							5,8,30/145	SPT
15					Q								13,23,23 N=46	SPT
16					R								16,30/120	SPT
17					S								14,24,29 N=53	SPT
18					T								26,30/130	SPT
19					U								30/95	SPT
19.43	-12.52				(12)	<b>MICRODIORITE (Kgwu)</b> SW: Grey, fine to medium grained, very high strength.							Is(50) = 2.25MPa; #	D (19.87m)
20														

REMARKS Kgwu - Wundaru Granodiorite;

# Sample failed along existing defect surface.

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ME

# ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH174  
SHEET 3 of 3  
REFERENCE No 12115

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Fursden Creek Overflow Bridge Pier 2; CH: 8730m; COORDINATES 721421.3 E; 7661052.3 N  
PROJECT No FG6184 SURFACE R.L. 6.91m PLUNGE \_\_\_\_\_ DATE STARTED 19/10/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 20/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ( ) %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20	-13.09											
					<b>MICRODIORITE (Kgwu)</b> <b>SW:</b> (Cont'd) Defects: - Js; 0°-30° (10/m); Pl/Sm, TI; - Js; 30°-60° (5/m); Pl/Sm, TI;		SW				20.13m-20.25m: Clay seam; 15°, 120mm, CA;	
20.70	-13.79										20.70m: Contact at 50°.	
21					<b>GRANODIORITE (Kgwu)</b> <b>HW:</b> Pink and grey, medium to coarse grained, massive, low to medium strength. Defects: - Js; 0°-30° (4/m); Pl/Ro, TI; - Js; 60°-90° (2/m); Pl/Ro, TI;		HW					
22												
23											Is(50) = 0.26MPa; # A (22.50m) 22.70m-22.80m: Clay seam; 50°, 100mm, some gravel; Is(50) = 0.16MPa; # D (22.95m)	
23.85	-16.94										23.25m-23.40m: CA and Cly;	
24					<b>GRANODIORITE (Kgwu)</b> <b>SW:</b> Pink and grey, medium to coarse grained, massive, high to very high strength. Defects: - Js; 0°-30° (5/m); Pl-Un/Ro, TI; - Js; 30°-60° (1/m); Pl-Un/Ro, TI;		SW				Is(50) = 2.15MPa D (23.95m) Is(50) = 5.33MPa D (24.40m) Is(50) = 3.48MPa A (24.75m)	
25.02	-18.11										24.85m-24.93m: Microdiorite	
25					Borehole terminated at 25.02m. .							
26												
27												
28												
29												
30												

REMARKS Kgwu - Wundaru Granodiorite;

# Sample failed along existing defect surface.

LOGGED BY  
ME

# 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	<b>Mackay – Ring Road</b>		
Project No	FG6184	Date	20/10/14
Borehole No	BH174	TMR H No	12115
Location	Fursden Creek Overflow Bridge	Start Depth (m)	19.43
Detail	Pier 2	Finish Depth (m)	25.02
Chainage	<b>8730m</b>	Submitted By	M.Ensor
Remarks			

  
  

0      100      200      300      400      500      600      700

SCALE 1:5