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Queensland
Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH176

SHEET 1 of 3

REFERENCE No 12117

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1

LOCATION Fursden Creek Overflow Bridge Pier 3; CH: 8750m; COORDINATES 721424.5 E; 7661072.2 N

PROJECT No FG6184 SURFACE R.L. 7.07m PLUNGE _____ DATE STARTED 17/10/14 GRID DATUM GDA 94 /MGA Zone 55

JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 18/10/14 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		HM		JL						VL		EC	VC	WC	WV	VW	EW										
0	7.07																																						
1				A	Silty CLAY (ALLUVIUM) Dark brown, dry to moist, stiff. Low plasticity.	(CL)																															4,6,6 N=12	SPT	
2	4.97			B	SAND (ALLUVIUM) Pale brown, moist, loose to medium dense. Fine grained.																																4,5,5 N=10	SPT	
3				C																																	2,3,4 N=7	SPT	
4				D																																	4,2,2 N=4	SPT	
5				E																																	2,4,5 N=9	SPT	
6				F																																	4,5,7 N=12	SPT	
7	6.60		0.47	G	Gravelly SAND (ALLUVIUM) Pale brown, moist to wet, medium dense. Fine to medium grained. Fine to medium gravel.																																8,11,9 N=20	SPT	
8	7.90		-0.83	H	Sandy GRAVEL (ALLUVIUM) Pale brown, moist to wet, loose to medium dense.																																3,2,4 N=6	SPT	
9	9.20		-2.13	J	Silty CLAY (ALLUVIUM) Pale grey, moist, stiff. High plasticity.																																6,4,8 N=12	SPT	
10	-2.93																																						

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

LOGGED BY
ME



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Government**

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH176

SHEET 2 of 3

REFERENCE No 12117

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1

LOCATION Fursden Creek Overflow Bridge Pier 3; CH: 8750m; COORDINATES 721424.5 E; 7661072.2 N

PROJECT No FG6184 SURFACE R.L. 7.07m PLUNGE DATE STARTED 17/10/14 GRID DATUM GDA 94 /MGA Zone 55

JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 18/10/14 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
									EH	VH	H	M	J	VL	EL	EC	VC	WC	W	WW	VW	EW						
10	-2.93				K	Sandy Silty CLAY (ALLUVIUM) Pale grey, moist, stiff. High plasticity. Fine to medium grained sand.	(CH)																		5,6,8 N=14	SPT		
10.90	-3.83				L	Silty CLAY (RESIDUAL) Pale grey-brown, white and black, dry to moist, very stiff to hard. High plasticity. Trace fine grained sand. Trace fine to medium gravel. Some Calcite.	(CH)																		10,11,11 N=22	SPT		
12					M																				16,23,25 N=48	SPT		
13					N		(CH)																		6,11,14 N=25	SPT		
14					P																				7,13,14 N=27	SPT		
15					Q																				7,15,18 N=33	SPT		
15.70	-8.63				R	GRANODIORITE (Kgwu) HW: Recovered as pale brown-grey, moist, hard Sandy CLAY. Fine to medium grained sand.																			16,30/65	SPT		
17					S																				15,22,30 N=52	SPT		
18					T		XW																		23,30/120	SPT		
19					U																				30/150	SPT		
20	-12.93																											

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

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ENGINEERING BOREHOLE LOG

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

BOREHOLE No	BH176
SHEET	3 of 3
REFERENCE No	12117

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Fursden Creek Overflow Bridge Pier 3; CH: 8750m; COORDINATES 721424.5 E; 7661072.2 N
PROJECT No FG6184 SURFACE R.L. 7.07m PLUNGE _____ DATE STARTED 17/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 18/10/14 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			
									EH	VH	I	M	J	L	VL	EL	EC	VC	W					VW	WW	EW
20	-12.93					GRANODIORITE (Kgwu) HW: Pink and dark grey, medium to coarse grained, massive, very low to low strength. Defects: - Js: 0°-30° (3/m); Pl/Ro, TI; - Js: 30°-60° (2/m); Pl/Ro, TI;																		30/110 Is(50) = 0.04MPa	SPT D (20.20m)	
21			(73)																							
			100	(45)																						
22																										
			66	(75)																						
23																										
			100	(47)																						
24																										
			100	(75)																						
25	-17.83					MICRODIORITE (Kgwu) SW: Grey, fine to medium grained, massive, very high strength. Defects: - Js: 0°-30° (2/m); Pl/Sm, TI, some Fe St; - Js: 30°-60° (2/m); Pl/Sm, TI, some Fe St;																				
			100	(75)																						
26																										
			100																							
26.75	-19.68					Borehole terminated at 26.75m.																				
27																										
28																										
29																										
30																										

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

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ME

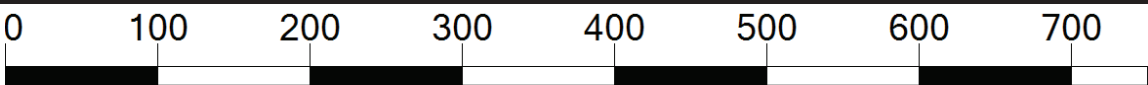
CORE PHOTO LOG

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	Mackay – Ring Road		
Project No	FG6184	Date	18/10/14
Borehole No	BH176	TMR H No	12117
Location	Fursden Creek Overflow Bridge	Start Depth (m)	20.1
Detail	Pier 3	Finish Depth (m)	26.75
Chainage	8750m	Submitted By	M.Ensor
Remarks			



SCALE 1:5