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ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH133**
SHEET 1 of 4
REFERENCE No **12078**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5599m; COORDINATES 720977.7 E; 7657952.6 N
PROJECT No FG6184 SURFACE R.L. 12.44m PLUNGE DATE STARTED 4/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 6/10/14 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	12.44				**Gravelly CLAY (FILL)**									
0.50	11.94						(CI)							
					Silty CLAY (ALLUVIUM) Pale orange-brown and grey, dry to moist, stiff to very stiff. High plasticity.									
1				A								4,7,8 N=15		SPT
2				B								4,5,7 N=12		SPT
3				C			(CH)					5,6,10 N=16		SPT
4				D								3,5,8 N=13		SPT
4.60	7.84				**Silty Clayey SAND (ALLUVIUM)** Pale brown and grey, moist, medium dense. Fine grained.										
5				E			(SC)					6,9,10 N=19		SPT
6				F								6,4,7 N=11		SPT
6.20	6.24				**Silty CLAY (ALLUVIUM)** Brown and grey, moist, stiff to very stiff. High plasticity.										
7				G								5,7,11 N=18		SPT
8				H			(CH)					5,7,9 N=16		SPT
9				J								3,5,8 N=13		SPT
10														

REMARKS # Sample failed along existing defect surface.

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ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No BH133
SHEET 2 of 4
REFERENCE No 12078

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5599m; COORDINATES 720977.7 E; 7657952.6 N
PROJECT No FG6184 SURFACE R.L. 12.44m PLUNGE DATE STARTED 4/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 6/10/14 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	2.44			K	**Silty CLAY (ALLUVIUM)** (Cont'd)							4,6,8 N=14	SPT
11				L								4,4,7 N=11	SPT
					11.50m: Trace fine grained sand.								
12				M								5,7,10 N=17	SPT
13				N			(CH)					5,6,9 N=15	SPT
14				P								8,8,11 N=19	SPT
15				Q								5,7,9 N=16	SPT
15.80	-3.36				**Silty SAND (ALLUVIUM)** Pale grey, moist, medium dense. Fine to medium grained.								
16				R								3,4,7 N=11	SPT
17				S			(SM)					13,11,14 N=25	SPT
18.10	-5.66			T	**Silty CLAY (RESIDUAL?)** Pale grey and brown, moist, very stiff. High plasticity.							8,9,12 N=21	SPT
19				U			(CH)					5,7,9 N=16	SPT
20.00	-7.56												

REMARKS # 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 **BH133**
SHEET 3 of 4
REFERENCE No **12078**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5599m; COORDINATES 720977.7 E; 7657952.6 N
PROJECT No FG6184 SURFACE R.L. 12.44m PLUNGE DATE STARTED 4/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 6/10/14 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	-7.56			V	**Silty Sandy CLAY (RESIDUAL)** Pale brown and grey, moist, very stiff. High plasticity.		(CH)				5,8,9 N=17	SPT
21.10	-8.66			W	**Silty SAND (RESIDUAL)** Pale brown and grey, moist, medium dense. Medium grained.		(SM)				9,7,8 N=15	SPT
21.90	-9.46			X	**Silty CLAY (RESIDUAL)** Pale brown and grey, moist, very stiff. High plasticity. Trace fine grained sand.		(CH)				6,8,10 N=18	SPT
22.80	-10.36			Y	**Sandy Silty CLAY (RESIDUAL)** Pale brown and grey, moist, very stiff. High plasticity.		(CH)				8,10,13 N=23	SPT
24.80	-12.36			Z							4,6,11 N=17	SPT
25.00	-13.56			AA	**MICRODIORITE (Kgwu)** **HW:** Brown, medium to coarse grained, very low strength.		HW				19,25,30/120	SPT
26			(38)	AB	**MICRODIORITE (Kgwu)** **MW:** Grey and brown, fine grained, massive, medium to high strength.		MW				30/30 Is(50) = 0.78MPa; #	SPT D (26.05m)
			100								26.42m-26.60m: HFZ;	
			(38)								Is(50) = 1.62MPa; #	D (26.70m)
27											27.08m: Clay seam, 10°, 10mm.	
27.53	-15.09										27.42m-27.55m: HW zone.	
28			100		**MICRODIORITE (Kgwu)** **SW:** Grey, fine to medium grained, massive, very high strength. Defects: - Js; 0°-30° (2/m); Pl/Ro, TI;		SW				Is(50) = 9.87MPa Is(50) = 7.49MPa	A (27.85m) D (27.90m)
			(100)								28.20m: Clay seam, 5°, 20mm.	
29											Is(50) = 10.54MPa Is(50) = 4.35MPa UCS=88.5MPa	A (28.63m) D (28.68m)
30											Is(50) = 5.73MPa; #	D (29.60m)

REMARKS # 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 **BH133**
SHEET 4 of 4
REFERENCE No **12078**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 1; CH: 5599m; COORDINATES 720977.7 E; 7657952.6 N
PROJECT No FG6184 SURFACE R.L. 12.44m PLUNGE DATE STARTED 4/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 6/10/14 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
30	-17.56				**MICRODIORITE (Kgwu)** **SW:** (Cont'd)									
			100 (74)				SW					30.51m-30.70m: BZ;		
31 31.19	-18.75		100											
					Borehole terminated at 31.19m. .									
32														
33														
34														
35														
36														
37														
38														
39														
40														

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REMARKS # Sample failed along existing defect surface.

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Queensland Government

Department of Transport and Main Roads

Project Name	**Mackay – Ring Road**		
Project No	FG6184	Date	06/10/14
Borehole No	BH133	TMR H No	12078
Location	Peak Downs Hwy Overpass	Start Depth (m)	26.0
Detail	Pier 1	Finish Depth (m)	31.19
Chainage	**5599m**	Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5

GEOT043/1

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