Queensland Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH119**
SHEET 1 of 4
REFERENCE No **12065**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Pier 2; CH: 5615m; COORDINATES 720984.6 E; 7657968.2 N
PROJECT No FG6184 SURFACE R.L. 12.81m PLUNGE DATE STARTED 22/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 24/9/14 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	12.81				**Silty CLAY (TOPSOIL)** Dark brown, dry, stiff. High plasticity.		(CH)							
0.60	12.21				**Silty CLAY (ALLUVIUM)** Orange-brown, moist, stiff. High plasticity.									
1				A			(CH)					4,7,7 N=14		SPT
1.80	11.01				**Sandy Clayey SILT (ALLUVIUM)** Pale brown, moist, stiff. High plasticity. Fine grained sand.									
2				B			(MH)					3,3,5 N=8		SPT
2.80	10.01				**Silty CLAY (ALLUVIUM)** Pale brown and grey, moist, stiff to very stiff. High plasticity. Occasional Sandy CLAY layers.									
3				C								4,7,9 N=16		SPT
4				D								4,7,9 N=16		SPT
5				E	5.00-7.50m: Trace fine grained sand.							5,6,6 N=12		SPT
6				F			(CH)					6,5,6 N=11		SPT
7				G								5,6,11 N=17		SPT
8				H								5,6,7 N=13		SPT
9				J								4,5,7 N=12		SPT
10														

REMARKS

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ME

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BOREHOLE No **BH119**
SHEET 2 of 4
REFERENCE No **12065**

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10	2.81			K	**Silty CLAY (ALLUVIUM)** (Cont'd) Trace fine grained sand.							5,5,7 N=12	SPT
11				L								4,5,6 N=11	SPT
12				M								6,6,8 N=14	SPT
13				N								6,7,12 N=19	SPT
14				P								7,9,9 N=18	SPT
15				Q	15.20m: Becoming Sandy Silty CLAY.		(CH)					5,6,10 N=16	SPT
16				R								9,10,15 N=25	SPT
17				S								8,11,15 N=26	SPT
18				T								8,10,12 N=22	SPT
19				U								6,8,10 N=18	SPT
20	-7.19												

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SHEET 3 of 4
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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	-7.19													
21				V	**Silty CLAY (RESIDUAL)** Pale brown and grey, moist, very stiff. High plasticity.							8,9,12 N=21		SPT
				W			(CH)					8,9,11 N=20		SPT
22				X								6,6,9 N=15		SPT
22.70	-9.89													
23				Y	**Sandy Silty CLAY (RESIDUAL)** Pale grey and brown, moist, very stiff. High plasticity. Fine grained sand.							6,7,9 N=16		SPT
24				Z			(CH)					9,9,12 N=21		SPT
24.90	-12.09													
25				AA	**MICRODIORITE (Kgwu)** **HW:** Pale brown, fine to medium grained, very low strength.							30/100		SPT
26				AB			HW					30/70 hb		SPT
27	-14.24			AC								30/50 hb		SPT
			(28)		**MICRODIORITE (Kgwu)**									
			100		**MW:** Pale brown, medium to coarse grained, massive, mainly medium strength.		MW					Is(50) = 0.46MPa		D (27.35m)
			(17)				HW							
28							MW							
28.50	-15.69		100											
			(44)		**MICRODIORITE (Kgwu)** **SW:** Pale brown, medium to coarse grained, massive, very high strength.									
29							SW					Is(50) = 2.76MPa		D (29.50m)
30	-17.19											UCS=29.2MPa		

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SHEET 4 of 4
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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 / DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
30	-17.19												
30.40	-17.59		100 (55)		**MICRODIORITE (Kgwu)** **XW:** Recovered as Sandy Clayey GRAVEL.		XW						
31			100 (100)		**MICRODIORITE (Kgwu)** **SW:** Dark grey, fine grained, massive, very high strength. Defects: - Js; 5°-10° (2/m); Pl/Sm, OP;						Is(50) = 7.88MPa Is(50) = 7.49MPa	D (30.87m) A (30.93m)	
32							SW				Is(50) = 6.33MPa Is(50) = 5.56MPa	D (32.27m) A (32.33m)	
33													
34.00	-21.19		100								Is(50) = 3.48MPa Is(50) = 6.18MPa	A (33.90m) D (33.95m)	
34					Borehole terminated at 34m. .								
35													
36													
37													
38													
39													
40													

EH VH H M L VL EL EC VC C M W VW EW

REMARKS

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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 10:50

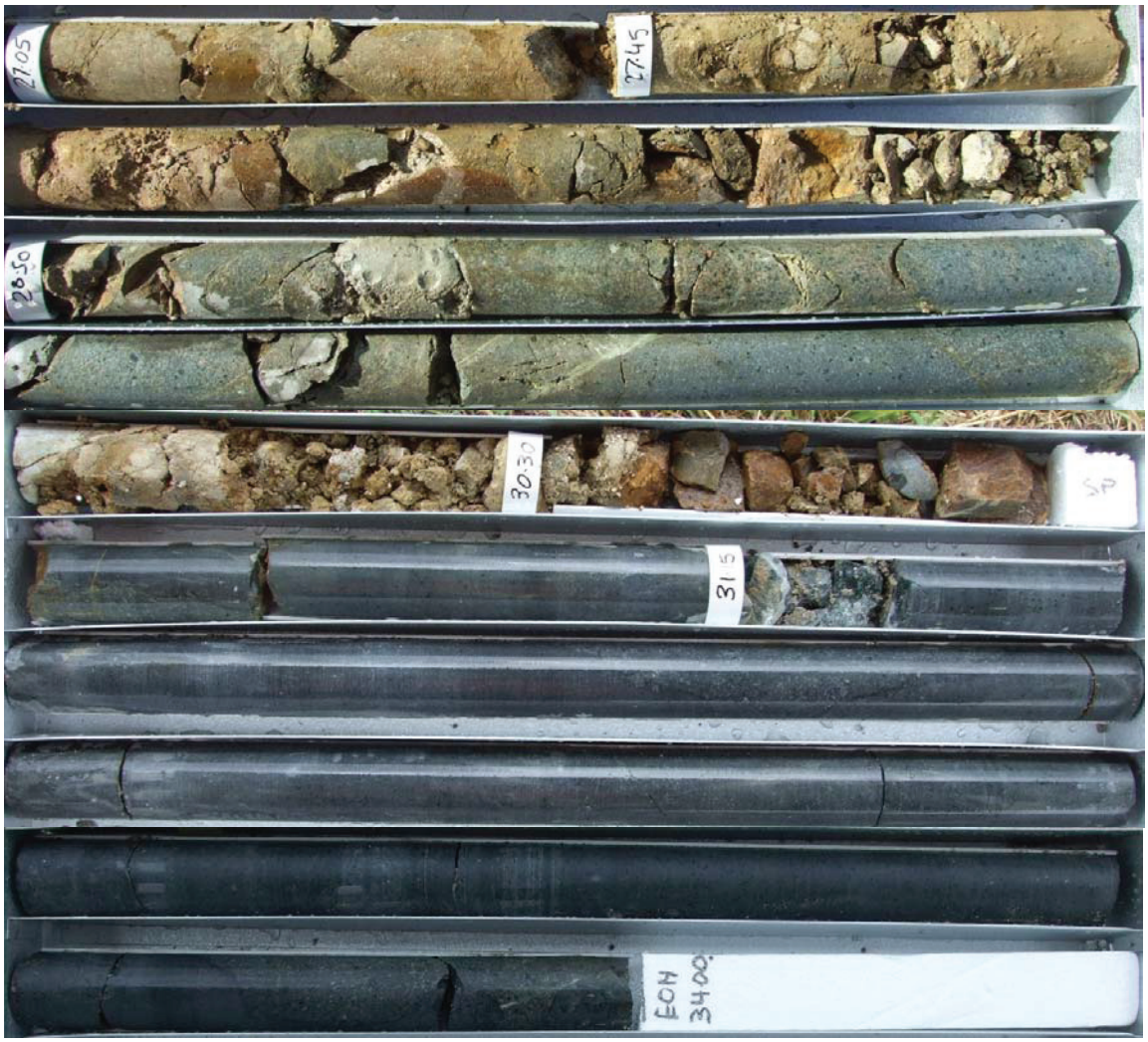
CORE PHOTO LOG

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	24/09/14
Borehole No	BH 119	TMR H No	12065
Location	Peak Downs Highway Overpass	Start Depth (m)	27.05
Detail	Pier 2	Finish Depth (m)	34.0
Chainage	**5615**	Submitted By	M.Ensor
Remarks			



0 100 200 300 400 500 600 700

SCALE 1:5