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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH111
SHEET 1 of 3
REFERENCE No 12057

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment B; CH: 5079m; COORDINATES 720903.8 E; 7657438.6 N
PROJECT No FG6184 SURFACE R.L. 12.26m PLUNGE _____ DATE STARTED 19/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 20/9/14 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	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	12.26												
0.50	11.76					Sandy Clayey SILT (ALLUVIUM) Dark brown, moist, soft to firm. Low plasticity. Trace rootlets.	(ML)						
1					A	Silty CLAY (ALLUVIUM) Brown, orange and grey mottled, moist, stiff. High plasticity.	(CH)					3.5,7 N=12	SPT
1.90	10.36				B	Clayey SAND (ALLUVIUM) Brown, moist, medium dense. Fine grained.						3.5,6 N=11	SPT
2					C	3.00m: Becoming loose.						3.4,5 N=9	SPT
3					D	4.00m: Becoming medium dense. Becoming fine to medium grained. Trace fine gravel.	(SC)					6.8,9 N=17	SPT
4					E							5.9,12 N=21	SPT
5					F	6.00m: Becoming fine to coarse grained.						5.7,9 N=16	SPT
6.50	5.76				G	Silty CLAY (ALLUVIUM) Dark grey, moist, very stiff. High plasticity.						5,10,18 N=28	SPT
7					H		(CH)					6.9,14 N=23	SPT
8					J							8.8,14 N=22	SPT
9													
10													

REMARKS Kgwu - Wundaru Granodiorite

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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH111
SHEET 2 of 3
REFERENCE No 12057

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment B; CH: 5079m; COORDINATES 720903.8 E; 7657438.6 N
PROJECT No FG6184 SURFACE R.L. 12.26m PLUNGE _____ DATE STARTED 19/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 20/9/14 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	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	2.26												
10.50	1.76				K	Silty CLAY (ALLUVIUM) (Cont'd) Trace fine grained sand.	(CH)					6,8,14 N=22	SPT
11					L	Sandy CLAY (ALLUVIUM) Brown mottled orange and grey, moist, very stiff. Low plasticity.	(CL)					8,7,8 N=15	SPT
11.60	0.66				M	Silty CLAY (ALLUVIUM) Brown mottled orange and grey, moist, hard. Mainly high plasticity. With fine grained sand.	(CH)					10,15,18 N=33	SPT
13.00	-0.74				N	Sandy CLAY (ALLUVIUM) Brown mottled orange and grey, moist, hard. Low plasticity. Fine to coarse grained sand.	(CL)					11,20,23 N=43	SPT
14					P							19,24,25 N=49	SPT
14.50	-2.24				Q	Silty CLAY (RESIDUAL) Brown mottled orange and grey, moist, very stiff to mainly hard. High plasticity.	(CH)					12,15,24 N=39	SPT
16					R							7,10,17 N=27	SPT
17					S		(CH)					10,16,22 N=38	SPT
18					T							15,16,21 N=37	SPT
19					U							14,29,30 N=59	SPT
20													

REMARKS Kgwu - Wundaru Granodiorite

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ENGINEERING BOREHOLE LOG

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BOREHOLE No BH111
SHEET 3 of 3
REFERENCE No 12057

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment B; CH: 5079m; COORDINATES 720903.8 E; 7657438.6 N
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JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 20/9/14 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	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20	-7.74				V	Silty CLAY (RESIDUAL) (Cont'd) Colour change to dark grey-brown.						12,17,29 N=46	SPT
21					W							13,22,30 N=52	SPT
21.50	-9.24												
22	-9.84					MICRODIORITE (Kgwu) XW: Recovered as brown-grey, dry, hard Silty CLAY. Low plasticity.		XW				hb	
22.10													
23	-10.99		(31)			MICRODIORITE (Kgwu) MW: Dark grey and pale brown, fine grained, massive, very high to extremely high strength. Defects: - Js; 5°-10° (4/m); PI/Ro, OP, Fe St, some Cly; - Js; 30° (4/m); PI/Ro, OP, Fe St, some Cly; - Js; 65° (1/m); PI/Ro, OP, Fe St;		MW				Is(50) = 10.50MPa Is(50) = 10.93MPa	D (22.60m) A (22.65m)
23.25			(66)					HW				22.85m-23.25m: HW zone.	
24						MICRODIORITE (Kgwu) SW: Dark grey, fine grained, massive, very high to extremely high strength. Defects: - Js; 70° (1/m); PI/Ro, OP, Fe St; - Js; 45°-50° (2/m); PI/Ro, OP, Fe St; - Js; 10° (1/m); PI/Ro, OP, Fe St;		SW				Is(50) = 10.41MPa Is(50) = 6.48MPa Is(50) = 3.76MPa; UCS=256MPa;	A (23.26m) D (23.33m) A (23.40m)
24.10												Is(50) = 9.58MPa	D (24.07m)
25	-12.84		100									Is(50) = 10.75MPa Is(50) = 10.11MPa	D (24.75m) A (24.80m)
25.10						Borehole terminated at 25.1m. .							
26													
27													
28													
29													
30													

REMARKS Kgwu - Wundaru Granodiorite

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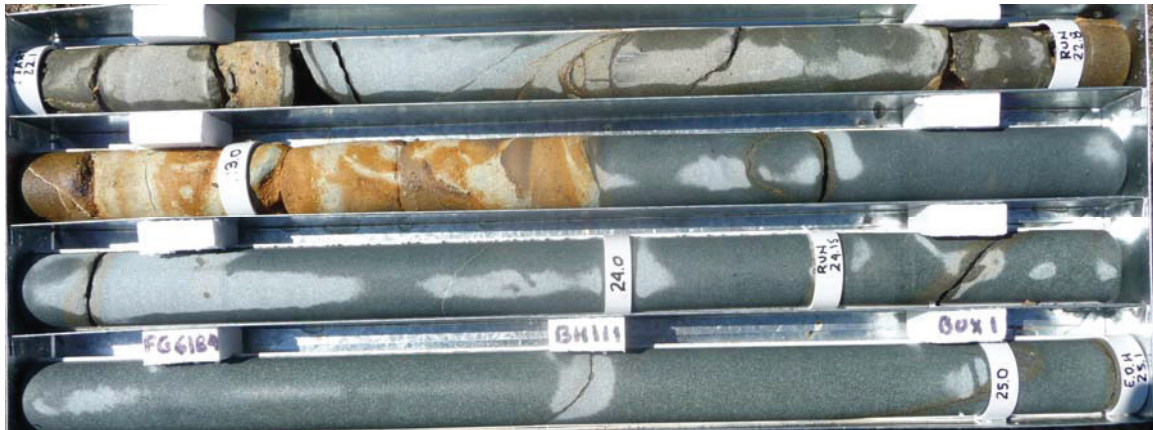
CORE PHOTO LOG

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	19/09/14
Borehole No	BH 111	TMR H No	12057
Location	Stotts Road Overpass	Start Depth (m)	22.1
Detail	Abutment B	Finish Depth (m)	25.1
Chainage	5079	Submitted By	J. Lopez
Remarks			



SCALE 1:5