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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No BH125
SHEET 1 of 4
REFERENCE No H10881

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE
LOCATION ABUTMENT B - (Ch. 84575.5 on control line) COORDINATES 721568.2 E; 7654812.1 N
PROJECT No FG5635 SURFACE R.L. 9.10m PLUNGE DATE STARTED 27/10/10 GRID DATUM MGA 94
JOB No 242/33B/6 HEIGHT DATUM AHD BEARING DATE COMPLETED 28/10/10 DRILLER Cairns Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER USING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING							DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	VH	I	N	J	L	EL				
0	9.10					Clayey SAND (ALLUVIAL) Brown, moist, loose to medium dense, fine to coarse grained.													
1					A			(SC)										3,4,5 N=9	SPT
2																			
3					B													5,8,10 N=18	SPT
4	5.70					Silty SAND / Sandy SILT (ALLUVIAL) Pale grey to mottled orange, moist, medium dense, very stiff.													
5					C			(SM-MH)										6,10,10 N=20	SPT
6	3.20					SAND (ALLUVIAL) Pale grey, wet, medium dense, mostly fine to medium grained. Some coarse sand to fine gravel bands with minor silt fraction.												4,7,6 N=13	SPT
7																			
8					E			(SP)										6,10,10 N=20	SPT
9																			
10					F													7,11,11 N=22	SPT

QLD_DMR_LIB_01A.GLB Log_A_ENGINEERING BOREHOLE LOG W LITHOLOGY COWLEYS FG5635- WALKERSTON BYPASS GPJ <<DrawingFile>> DatgetCPT Tool gINI Add-In 12/12/2011 15:32

REMARKS _____

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No	<u>BH125</u>
SHEET	<u>2</u> of <u>4</u>
REFERENCE No	<u>H10881</u>

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE
 LOCATION ABUTMENT B - (Ch. 84575.5 on control line) COORDINATES 721568.2 E; 7654812.1 N
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 JOB No 242/33B/6 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 28/10/10 DRILLER Cairns Drilling Pty Ltd

DEPTH (m)	R.L. (m)	ALGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING						DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	VH	H	W	V	EL				
10	-0.90					SAND (ALLUVIAL) (Cont'd)												
11					G		(SP)										8,12,12 N=24	SPT
12	-2.60				H	Silty SAND (ALLUVIAL) Pale grey, moist, medium dense. Layers of varying grain size and fines content.											4,7,9 N=16	SPT
13					J		(SM)											
14					K												3,8,11 N=19	SPT
15	-5.70				L	Silty SAND (RESIDUAL) Orange and pale grey, moist, dense, medium to coarse grained sand with some fine gravel.											11,14,21 N=35	SPT
16	-6.70				M	Silty CLAY (RESIDUAL) Mottled pale grey and orange, moist, hard. High plasticity; Fe/Mn oxide nodules; some minor sandy layers.											9,15,20 N=35	SPT
17					N		(CH)										11,17,21 N=38	SPT
18					O												11,17,21 N=38	SPT
19																	11,25,30/130mm N>50	SPT
20																		

QLD_DMR_LIB_01A.GLB Log A: ENGINEERING BOREHOLE LOG W: LITHOLOGY, COWLEYS FG5635- WALKERSTON BYPASS.GPJ <<DrawingFile>> Datigel CPT Tool gINI Add-In: 12/12/2011 15:32

REMARKS _____

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No BH125
 SHEET 3 of 4
 REFERENCE No H10881

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE
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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
									GH	VI	HM	JL	SL	20	60	200			
20	-10.90				P	Silty CLAY (RESIDUAL) (Cont'd)		(CH)									10,17,23 N=40	SPT	
21	-11.80				Q	GRANODIORITE Intrusive, medium to coarse grained, massive, crystalline, porphyritic, acidic, igneous rock XW: Generally exhibits the engineering properties of pale grey, orange and black, moist, hard, silty clay.											12,23,30/135mm N>50	SPT	
22					R			XW									12,19,26 N=45	SPT	
23					S												11,30/110mm N>50	SPT	
24	-14.50				T	HW: Generally exhibits the engineering properties of pale grey, orange and black, moist, hard, silty clay.											30/130mm N>50	SPT	
25					U												30/80mm N>50	SPT	
26	-16.25				(100)	SW: Pale grey speckled black, very high to extremely high strength. 30% mafic minerals. Defects: Generally rare. - Joints @ 20-50° (1/m)											J, 50°, minor Ca infill Is(50) = 3.80MPa Is(50) = 13.87MPa Is(50) = 11.04MPa Is(50) = 8.31MPa	x o x o	
27					100 (95)	Defects are generally planar, smooth and open.													
28	-18.35					DOLERITE / BASALT Extrusive or intrusive, fine to medium grained, massive, crystalline, basic igneous rock SW: Dark grey, mainly very high to extremely high strength. Defects: - Joints @ 10-20° (1/m) - Joints @ 30-60° (<1/m) - Occasional subvertical calcite veins Defects are generally planar, smooth and open.		SW									Contact @ 50°, undulose, sharp Is(50) = 8.93MPa Is(50) = 4.84MPa	x o	
29																			
30					100 (100)														

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BOREHOLE No	<u>BH125</u>
SHEET	<u>4</u> of <u>4</u>
REFERENCE No	<u>H10881</u>

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE
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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
										CH	TH	HL	ML	VL					
30	-20.90					DOLERITE / BASALT SW: (Cont'd)										Is(50) = 11.38MPa Is(50) = 8.42MPa	X	O	
31	-22.25		100			Borehole terminated at 31.35m		SW											
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

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REMARKS _____

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Project: **Walkerston Bypass Geotechnical Investigation**
Borehole No: BH125 (Cowleys Road Bridge Ch. 84575.5 on control line)
Start Depth: 25.35 m
Finish Depth: 31.35 m
Project No: FG5635
H No: 10881



SCALE 1:5

F:GEOT043/1