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# ENGINEERING BOREHOLE LOG

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

BOREHOLE No	<u>BH127</u>
SHEET	<u>1</u> of <u>4</u>
REFERENCE No	<u>H10885</u>

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE  
 LOCATION ABUTMENT B - (Ch. 84575.6 22.0m LHS) COORDINATES 721571.6 E; 7654834.3 N  
 PROJECT No FG5635 SURFACE R.L. 9.19m PLUNGE \_\_\_\_\_ DATE STARTED 30/10/10 GRID DATUM MGA 94  
 JOB No 242/33B/6 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 30/10/10 DRILLER Cairns Drilling Pty Ltd

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	UL				
0	9.19					<b>Clayey SAND (ALLUVIAL)</b> Brown to mottled yellow, moist, loose.  Minor fine gravel fraction.													
1					A		(SC)										3,3,4 N=7	SPT	
2	6.99					<b>Silty CLAY (ALLUVIAL)</b> Pale brown to yellow, moist, very stiff.  High plasticity, minor sand and gravel fraction.													
3					B		(CH)										5,8,11 N=19	SPT	
4																			
5					C												5,8,11 N=19	SPT	
6	3.39					<b>SAND (ALLUVIAL)</b> Pale grey, wet, loose to mainly medium dense, mostly fine to medium grained.  Some coarse sand to fine gravel bands with minor silt.													
7					D												3,4,5 N=9	SPT	
8																			
9					E		(SP)										5,6,6 N=12	SPT	
10					F												6,7,9 N=16	SPT	

REMARKS Note: \*Failure appears to have occurred along a pre-existing defect plane.

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# ENGINEERING BOREHOLE LOG

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BOREHOLE No BH127  
 SHEET 2 of 4  
 REFERENCE No H10885

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE  
 LOCATION ABUTMENT B - (Ch. 84575.6 22.0m LHS) COORDINATES 721571.6 E; 7654834.3 N  
 PROJECT No FG5635 SURFACE R.L. 9.19m PLUNGE \_\_\_\_\_ DATE STARTED 30/10/10 GRID DATUM MGA 94  
 JOB No 242/33B/6 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 30/10/10 DRILLER Cairns Drilling Pty Ltd

DEPTH (m)	R.L. (m)	ALLOYS 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	VI	W				
10	-0.81					<b>SAND (ALLUVIAL)</b> (Cont'd)	(SP)										
11	-1.51				G	<b>Clayey Silty SAND (ALLUVIAL)</b> Pale grey, moist, medium dense, medium to coarse grained.										8,10,13 N=23	SPT
12					H		(SC)									5,7,11 N=18	SPT
13					J											10,15,19 N=34	SPT
14	-5.21				K	<b>Sandy Silty CLAY (RESIDUAL)</b> Pale grey to mottled yellow, moist, hard. High plasticity; fine to medium grained sand fraction.										14,26,30/120mm N>50	SPT
15					L		(CH)									14,23,29 N>50	SPT
16					M	<b>Silty SAND (RESIDUAL)</b> Pale grey, moist, medium dense, medium grained sand.	(SM)									9,11,14 N=25	SPT
17					N	<b>Silty CLAY (RESIDUAL)</b> Mottled pale grey and orange, moist, hard.	(CH)									12,18,22 N=40	SPT
18	-8.61																
19	-10.21																
20																	

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BOREHOLE No   BH127    
 SHEET   3   of   4    
 REFERENCE No   H10885  

PROJECT   WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE    
 LOCATION   ABUTMENT B - (Ch. 84575.6 22.0m LHS)   COORDINATES   721571.6 E; 7654834.3 N    
 PROJECT No   FG5635   SURFACE R.L.   9.19m   PLUNGE            DATE STARTED   30/10/10   GRID DATUM   MGA 94    
 JOB No   242/33B/6   HEIGHT DATUM   AHD   BEARING            DATE COMPLETED   30/10/10   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					INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	VI	II	III	IV					
20	-10.81					High plasticity; minor sandy layers. <b>Silty CLAY (RESIDUAL)</b> (Cont'd)												
21					O		(CH)										11,18,23 N=41	SPT
22	-13.11				P	<b>GRANODIORITE</b> Intrusive, medium to coarse grained, massive, crystalline, porphyritic, acidic, igneous rock HW: Pale grey, orange and black, moist, hard, silty clay.											14.29,30/60mm N>50	SPT
23					Q		HW										30/120mm N>50	SPT
24					R												30/60mm N>50	SPT
25					(0)													
26					100 (56)													
27	-17.23				91 (54)	<b>MW:</b> Pale grey speckled, dark grey and orange, generally low to medium strength.  Defects: - Joints @ 10-30° (7/m)  Defects are generally subplanar, rough and open.	MW										Is(50) = 0.16MPa; * Is(50) = 0.22MPa; *	x o
28																	Is(50) = 0.97MPa Is(50) = 0.10MPa; *	x o
29	-19.62				100 (96)	<b>SW:</b> Pale grey to grey, high to very high strength.	SW										Is(50) = 3.28MPa Is(50) = 1.43MPa	x o
30																		

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 LOCATION   ABUTMENT B - (Ch. 84575.6 22.0m LHS)   COORDINATES   721571.6 E; 7654834.3 N    
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 JOB No   242/33B/6   HEIGHT DATUM   AHD   BEARING        DATE COMPLETED   30/10/10   DRILLER   Cairns Drilling Pty Ltd  

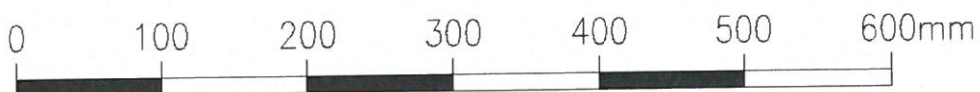
DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ( ) %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH					DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
										EH	VH	M	L	VL					
30	-20.81					<b>MICROGRANODIORITE</b> SW: (Cont'd) Defects: Very rare.  Some irregular and subvertical calcite veins.										Is(50) = 5.31MPa Is(50) = 1.86MPa	x o		
31				100				SW								Is(50) = 7.56MPa Is(50) = 1.02MPa	x o		
32	-22.38					Borehole terminated at 31.57m													
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

QLD\_DMR\_LIB\_01A.GLB Log\_A\_ENG ENGINEERING BOREHOLE LOG W LITHOLOGY COWLEYS FG5635- WALKERSTON BYPASS GPJ <<DrawingFile>> Datagel CPT Tool (INI Add-In 12/12/2011 15:33

REMARKS Note: \*Failure appears to have occurred along a pre-existing defect plane.

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Project: **Walkerston Bypass Geotechnical Investigation**  
Borehole No: BH127 (Cowleys Road Bridge Ch. 84575.6 22.0m left)  
Start Depth: 25.56 m  
Finish Depth: 31.57 m  
Project No: FG5635  
H No: 10885



SCALE 1:5

F:GEOT043/1