Queensland Government

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH127
SHEET 1 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)	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) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	9.19				**Clayey SAND (ALLUVIAL)** Brown to mottled yellow, moist, loose. Minor fine gravel fraction.		(SC)					3,3,4 N=7	A	SPT
2	6.99				**Silty CLAY (ALLUVIAL)** Pale brown to yellow, moist, very stiff. High plasticity; minor sand and gravel fraction.		(CH)					5,8,11 N=19	B	SPT
												5,8,11 N=19	C	SPT
3.39					**SAND (ALLUVIAL)** Pale grey, wet, loose to mainly medium dense, mostly fine to medium grained. Some coarse sand to fine gravel bands with minor silt.		(SP)					3,4,5 N=9	D	SPT
												5,6,6 N=12	E	SPT
												6,7,9 N=16	F	SPT

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

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QLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY COWLEYS FG5635- WALKERSTON BYPASS.GPJ <<DrawingFile>> Datgel CPT Tool gINI Add-In 12/12/2011 15:33

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BOREHOLE No BH127
SHEET 2 of 4
REFERENCE No H10885

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 (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	-0.81				**SAND (ALLUVIAL)** (Cont'd)		(SP)						
	-1.51			G	**Clayey Silty SAND (ALLUVIAL)** Pale grey, moist, medium dense, medium to coarse grained.							8,10,13 N=23	SPT
11													
12				H			(SC)					5,7,11 N=18	SPT
13													
				J								10,15,19 N=34	SPT
14	-5.21				**Sandy Silty CLAY (RESIDUAL)** Pale grey to mottled yellow, moist, hard.								
15				K	High plasticity; fine to medium grained sand fraction.							14,26,30/120mm N>50	SPT
16							(CH)						
				L								14,23,29 N>50	SPT
17	-8.61				**Silty SAND (RESIDUAL)** Pale grey, moist, medium dense, medium grained sand.								
18				M								9,11,14 N=25	SPT
19							(SM)						
	-10.21				**Silty CLAY (RESIDUAL)** Mottled pale grey and orange, moist, hard.								
20				N			(CH)					12,18,22 N=40	SPT

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

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

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)	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) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
20	-10.81				High plasticity; minor sandy layers. **Silty CLAY (RESIDUAL)** (Cont'd)									
21				O			(CH)					11,18,23 N=41		SPT
22	-13.11				**GRANODIORITE** **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				P										
24				Q			HW					30/120mm N>50		SPT
25														
26			(0) 100 (56)	R								30/60mm N>50		SPT
27	-17.23		91 (54)		**MW:** 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)		**SW:** Pale grey to grey, high to very high strength.		SW					Is(50) = 3.28MPa Is(50) = 1.43MPa		x o
30														

Some CLy seams <10mm

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

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30	-20.81				**MICROGRANODIORITE** **SW:** (Cont'd) Defects: Very rare. Some irregular and subvertical calcite veins.		SW					Is(50) = 5.31MPa Is(50) = 1.86MPa		x o
31	-22.38		100									Is(50) = 7.56MPa Is(50) = 1.02MPa		x o
					Borehole terminated at 31.57m									
32														
33														
34														
35														
36														
37														
38														
39														
40														

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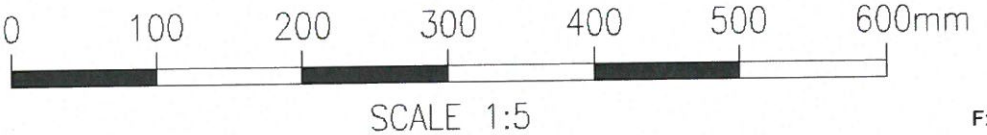
Project: **Walkerston Bypass Geotechnical Investigation**
Borehole No: BH127 (Cowleys Road Bridge Ch. 84575.6 22.0m left)
Start Depth: 25.56 m
Finish Depth: 31.57 m
Project No: FG5635
H No: 10885



SCALE 1:5

F:GEOT043/1