ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH100**
SHEET 1 of 4
REFERENCE No **H10883**

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - BAKER'S CREEK BRIDGE
LOCATION Abutment A, LHS COORDINATES 718723.4 E; 7655041.7 N
PROJECT No FG5635 SURFACE R.L. 9.84m PLUNGE DATE STARTED 28/10/10 GRID DATUM MGA94 Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 28/10/10 DRILLER Drillsure 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	9.84				**Sandy CLAY (ALLUVIAL)** Grey-brown, moist, firm to stiff. Low plasticity; medium to coarse grained sand.							Based on Driller's logs only		
1				A			(CL)					2,4,4 N=8		SPT
2	7.34													
				B	**Silty CLAY (ALLUVIAL)** Brown, moist, stiff to very stiff. Medium plasticity.							3,6,7 N=13		SPT
3							(CI)							
4				C								4,7,10 N=17		SPT
	4.89													
5					**Clayey SAND (ALLUVIAL)** Grey, moist, medium dense to mainly dense.									
				D	Medium to coarse grained sand.							6,11,11 N=22		SPT
6														
7							(SC)							
				E								11,16,22 N=38		SPT
8					Cemented sand and fine to medium gravel at 8.0m									
	1.24			F								30/80mm N>50		SPT
9					**GRANODIORITE** **Intrusive, coarse grained, massive, crystalline, acidic igneous rock** **XW:** Generally exhibits the engineering properties of brown-grey, moist, hard, sandy silty clay.		XW							
10														

REMARKS

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10	-0.16			G	**GRANODIORITE** **XW:** (Cont'd)		XW					11,13,17 N=30		SPT
	-0.46				**DOLERITE / BASALT** **Extrusive, fine to medium grained, massive, crystalline, intermediate igneous rock** **XW:** Generally exhibits the engineering properties of brown, moist, hard, clayey silt.									
11				H								8,15,19 N=34		SPT
12							XW							
13				J								6,11,16 N=27		SPT
	-4.16				**DOLERITE / BASALT** **HW:** Brown-grey, moist, hard, gravelly sandy clay.									
14				K								10,18,27 N=45		SPT
15														
16				L								30,30/50mm N>50		SPT
17							HW							
18				M								10,22,30 N>50		SPT
19				N								25,30,25 N>50		SPT
20	-10.16													

QLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY BAKERS FG5635- WALKERSTON BYPASS.GPJ <<DrawingFile>> Datgel CPT Tool gINt Add-In 01/09/2011 14:54

REMARKS

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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
20	-10.16				**DOLERITE / BASALT** **HW:** (Cont'd) Generally exhibits the engineering properties of brown-red, sandy clayey gravel. Gravel fragments are angular and <30mm. Grading to low strength rock with depth.									
				P								30,30/100mm N>50	SPT	
21														
22				Q								30,30/50mm N>50	SPT	
23														
				R			HW					30/50mm N>50	SPT	
24														
25				S								10,30,30/100mm N>50	SPT	
26														
				T								30/90mm N>50; No recovery	SPT	
27	-17.36													
			(0) 100		**DOLERITE / BASALT** **MW:** Brown, fine grained, massive, low to high strength.		MW					Is(50) = 1.13MPa Altered & BZ		o
			(0) 100											
28	-18.20		(29)		Broken and fractured throughout.									
					DOLERITE / BASALT **SW:** Grey, fine grained, massive, high to mainly very high strength.							Is(50) = 3.51MPa Is(50) = 10.05MPa		o x
			100 (37)											
					Defects: - Joints @ 20° (<1/m) - Joints @ 60° (<1/m)							Is(50) = 7.19MPa		o
29							SW					Broken & altered MW zone		
					Defects are generally planar, slightly rough and iron stained.									
			100 (93)									Is(50) = 3.13MPa Is(50) = 3.27MPa		o x
30					Frequent multidirectional calcite veins.									

REMARKS

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30	-20.16				**DOLERITE / BASALT** **SW:** (Cont'd)									
								SW				Is(50) = 5.02MPa		x
												Is(50) = 4.75MPa		o
	-21.10		100									Is(50) = 4.13MPa UCS = 66.6 MPa		o
31					Borehole terminated at 30.94m									
32														
33														
34														
35														
36														
37														
38														
39														
40														

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REMARKS

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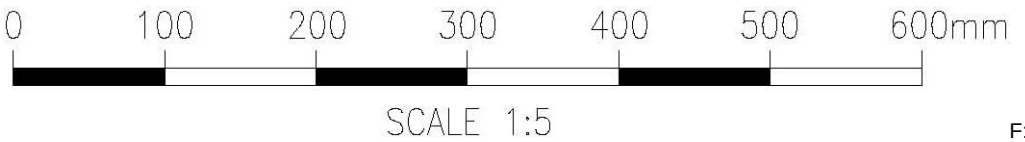
Project: **Walkerston Bypass Bakers Ck Bridge**

Borehole No: **BH100**

Start Depth: **27.20**m
Finish Depth: 30.94 m
Project No: FG5635
H No: H10883



SCALE 1:5

F:GEOT043/1