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ENGINEERING BOREHOLE LOG

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

BOREHOLE No	BH137
SHEET	1 of 2
REFERENCE No	H10896

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - BERGMANS ROAD OVERPASS

LOCATION Abutment B - LHS (Ch.74538.2, 1.7m L of Control Line) COORDINATES 711796.1 E; 7655449.1 N

PROJECT No FG5635 SURFACE R.L. 33.37m PLUNGE -90° DATE STARTED 15/11/10 GRID DATUM _____

JOB No 242/33B/6 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 15/11/10 DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH						DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
								EH	VH	HM	JL	VL	EL					20
0	33.37					Silty SAND (RESIDUAL) Pale yellow-brown, moist.	(SM)											
1	32.37				A	VOLCANICLASTIC SANDSTONE Fine to medium grained, predominately massive, crystalline, sedimentary rock. HW: Grey to yellow, fine grained, moist, very stiff, sandy clayey silt gradually grading into extremely low to mainly low strength rock with depth.	HW									7,25,30/120mm N>50	SPT	
2					B											10,19,30/110mm N>50	SPT	
3	30.07																	
4			(91)			SW: Grey, fine to medium grained, massive, indurated, generally high to extremely high strength.										Is(50) = 15.75MPa Is(50) = 3.13MPa	x o	
5			100			Minor relict thin laminations present.												
6			(73)			Defects: - Joints @ 10-20° (4/m) - Joints @ 45-80° (<1/m)										CLy seam, 10°, Pl, 20mm gravelly CLy infill		
7			100			Defects are generally planar, smooth and open.										Is(50) = 13.66MPa Is(50) = 1.62MPa	x o	
8			(74)				SW											
9			100			Becoming medium to coarse grained with depth.										Is(50) = 2.72MPa Is(50) = 12.82MPa	x o	
10	25.12		(23)				HW											
						BASALT Extrusive, fine grained, massive, crystalline, basic igneous rock. SW: Pale grey to dark grey, fine grained, massive, high to very high strength.												
			100			Defects: - Joints @ 10-20° (1-3/m) - Joint @ 45° (1-2/m)										Is(50) = 4.37MPa Is(50) = 1.46MPa	x o	
			(64)				SW											

REMARKS _____

LOGGED BY
ME / AD



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SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No	<u>BH137</u>
SHEET	<u>2</u> of <u>2</u>
REFERENCE No	<u>H10896</u>

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - BERGMANS ROAD OVERPASS

LOCATION Abutment B - LHS (Ch.74538.2, 1.7m L of Control Line) COORDINATES 711796.1 E; 7655449.1 N

PROJECT No FG5635 SURFACE R.L. 33.37m PLUNGE -90° DATE STARTED 15/11/10 GRID DATUM _____

JOB No 242/33B/6 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 15/11/10 DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH						DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
								EH	VH	H	M	J	VL					EL
10	23.37		100			BASALT SW: (Cont'd)								20		Is(50) = 7.14MPa Is(50) = 3.70MPa Is(50) = 10.14MPa Is(50) = 2.45MPa Is(50) = 7.92MPa Is(50) = 8.23MPa	x o x o x o	
			(97)												60			
11															200			
12			100			VOLCANICLASTIC SANDSTONE SW: Dark grey, fine grained, massive, high to very high strength.	SW							600		Is(50) = 2.42MPa Is(50) = 0.63MPa	x o	
			(100)												2000			
13																		
14	19.77		100			Defects: - Subvertical @ 80-90° (1/m) - Joints @ 45° (2-3/m) - Subvertical Fracture <10° (1-2/m)										Is(50) = 2.42MPa Is(50) = 0.63MPa	x o	
			(75)															
15	18.37		100			Borehole terminated at 15m												
16																		
17																		
18																		
19																		
20																		

REMARKS _____

LOGGED BY
ME / AD

Project: **Walkerston Bypass (Bergmans Road)**

Borehole No: **BH137**

Start Depth: 3.30 m

Finish Depth: 15.00 m

Project No: FG5635

H No:



SCALE 1:5

F:GEO043/1

Project: **Walkerston Bypass (Bergmans Road)**

Borehole No: **BH137**

Start Depth: 3.30 m

Finish Depth: 15.00 m

Project No: FG5635

H No:



SCALE 1:5

F:GEOT043/1