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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010 BOREHOLE No \_\_\_\_BH120\_\_\_

SHEET \_\_\_1\_\_ of \_\_4\_\_

REFERENCE No \_\_\_\_H10890\_\_\_

PROJECT	WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE														
						51 <u>4.6 8.6m LHS)</u>					NATES 721509.3 E; 7654830.0 N				
PROJECT No						SURFACE R.L 9.09m PLUNGE									
JOB No	_2	42/	33 <u>B</u> /6	_		HEIGHT DATUM _AHD BEARING _				DATE COM	PLETED _	1/11/	10 DRILLER <u>Dri</u>	llsure Pty Lt	<u>d</u>
R.L. (m) PLL (m) 0 9.09		VASH BORING		% E	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	JSC	MEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS		SAMPLES
0 9.09	T		REC	70	0)	Sandy SILT (POSSIBLE FILL)		ľ		++++++	-				
						Brown, moist, stiff.  High plasticity.			1H)						
					Α									4,5,6 N=11	SPT
7.09						Silty CLAY (ALLUVIAL) Pale brown, moist, stiff.									1
3					В	High plasticity; minor sand and gravel fraction.		(C	CH)				2	3,5,6 N=11	SPT
5.49						Sandy SILT (ALLUVIAL)	_								
egied <>alianingrile>					С	Pale brown and grey, moist, very stiff.  High plasticity.								4,8,10 N=18	SPT :
LKERSTON BYPASS.GPJ «						Becoming more sandy with depth.		(N	ИH)					5,7,12	SPT
2.69					D									N=19	or i
- Own						SAND / Silty SAND (ALLUVIAL) Pale grey, wet, medium dense to dense, mostly fine to medium grained sand.									-
OLE LOG W LIT					E	Some coarse sand to fine gravel bands with minor silt fraction.								5,4,7 N=11	SPT
A ENGINEERING BOREHOLE LOG W LITHOLOGY								(5	SP)						
<u> </u>					F									7,8,9 N=17	SPT
010 DMR (18 010 010 010 010 010 010 010 010 010 0													— Increased gravel		-
	1 e	lote	:_*Fai	ure	арр	ears to have occured along a pre-existing defect plane	ne.	_	_				-	GED BY ME	



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

BOREHOLE No \_\_\_\_BH120\_\_\_

SHEET \_\_\_2\_\_ of \_\_4\_\_

REFERENCE No \_\_\_\_H10890\_\_\_

	PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE  OCATION PIER 1 - (Ch. 84514.6 8.6m LHS) COORDINATES 721509.3 E; 7654830.0 N											
PROJECT No. <u>FG5635</u> SURFACE R.L. <u>9.09m</u> PLUNGE DATE STARTED <u>1/11/10</u> GRID DATUM <u>MGA 94</u>												
JOB N					HEIGHT DATUM AHD BEARING							
ОЕРТН (m)	R.L. (m)	R IG BORING DRILING	RQD ()%	SAMPLE	MATERIAL DESCRIPTION			INTACT STRENGTH	DEFECT		ADDITIONAL DATA  AND  TEST RESULTS	SAMPLES TESTS
10	-0.91	1	REC 70	15/6	SAND / Silty SAND (ALLUVIAL)						7,7,10	SPT -
-11	2.42			Н	(Cont'd)  Becoming coarse with occasional gravels <10mm.		(SP)				N=17  Increased gravel 11,15,23 N=38	SPT
-13	-3.42			J	Sandy SILT (ALLUVIAL) Pale grey and speckled white, moist, very stiff. High plasticity; fine to medium grained sand.						7,9,12 N=21	SPT -
-14				К			(MH)				7,10,14 N=24 — Total water loss	SPT :
-16	-6.72	-		L	Clayey SILT / Silty CLAY (ALLUVIAL) Pale green to pale grey, slightly moist, hard.  High plasticity; some Fe/Mn oxide nodules;				‡	 	9,13,19 N=32	SPT
17				М	some minor sandy layers.				† † † † † †		10,14,22 N=36	SPT
19	-9.02	2		N	Clayey Gravelly SAND (ALLUVIAL) Grey to brown, wet, dense, medium grained sand (possible gravel layer).		(CH				12,18,20 N=38; No sample recovery	SPT
20	-10.92								<u>†                                     </u>	1	1000ED DV	
R	REMARKS Note: *Failure appears to have occured along a pre-existing defect plane.  LOGGED BY  ME											



FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010 BOREHOLE No \_\_\_BH120 \_\_\_

SHEET \_\_3 \_\_ of \_\_4 \_\_

REFERENCE No \_\_\_H10890 \_\_\_

PROJ										<u>O O\</u>	VERPASS BRIDGE
LOCA	CATION PIER 1 - (Ch. 84514.6 8.6m LHS)								DATE STARTED		
JOB N		242/	33B/6		-	HEIGHT DATUM AHD BEARING			DATE COMPLETED	1/11/	DRILLER Drillsure Pty Ltd
PTH (m)	R.L. (m)	R IG I BORING DRII ING	RQD ()%	AMPLE		MATERIAL DESCRIPTION			INTACT STRENGTH SPACING (mm)	Τ-	ADDITIONAL DATA  AND TEST RESULTS  ADDITIONAL DATA  AND TEST RESULTS
20	-10.92	4020	REC	% O	1	Silty CLAY (RESIDUAL)	-	-	1		
						Pale grey to mottled orange, moist, hard.			1		
				P	1	Medium to high plasticity.			<u> </u>		10,14,21 N=35
-21 - -	40.00								<u> </u>		
-22	-12.62			C		GRANODIORITE Intrusive, medium to coarse grained, massive, crystalline, porphyritic, acidic, igneous rock			1		18,30,30/100mm N>50
23				F		igneous rock HW: Generally exhibits the engineering properties of brown and mottled grey, moist, hard, clayey sandy silt.					30/120mm N>50
20 DMR. LIB 01A GIB LOG A, ENGINEERING BOXENIOLE LOG WILLIAM CONCERN C				5	8			н			30,30/90mm N>50 SPT
26					т						20,30/120mm N>50 SPT
28 28			(2)		U	Grading into extremely low strength rock.			# # # # # # # # # # # # # # # # # # # #		30/100mm N>50; No sample recovery
- CINER	-19.5	2	(20	)		Becoming low strength.					Is(50) = 0.09MPa; * x
DMR LIB 01A.GLB Log A EN	-19.5	2	10 (0	))		<b>MW:</b> Grey, speckled pink and greenish grey, generally low to medium strength.		MV	v		Is(50) = 0.07MPa; * o Is(50) = 0.15MPa; * x Is(50) = 0.12MPa; * x Is(50) = 0.09MPa; * o
30			(2	6)			las:				LOGGED BY
	REMAR	KS No	te:_*Fa	ilure a	ppe	ears to have occured along a pre-existing defect p	ane.				ME ME



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

BOREHOLE No \_\_\_\_\_BH120 \_\_\_\_

SHEET \_\_\_\_4 \_\_ of \_\_\_4 \_\_

REFERENCE No \_\_\_\_\_H10890 \_\_\_\_

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - COWLEYS ROAD OVERPASS BRIDGE											
OCATION PIER 1 - (Ch. 84514.6 8.6m LHS) COORDINATES 721509.3 E; 7654830.0 N PROJECT № FG5635 SURFACE R.L. 9.09m PLUNGE DATE STARTED 1/11/10 GRID DATUM MGA 94											
JOB I	No	242/3	33 <u>B/6</u> _		HEIGHT DATUM _AHD BEARING			DATE COMPLETED	1/11/	10 DRILLER <u>Drillsure F</u>	ty Lta
	R.L.	0	RQD				П	INTACT DEFECT	(1)	ADDITIONAL DATA	
(E)	(m)	SORING	()%		MATERIAL	₽	ONIO	(mm)	GRAPHIC LOG	AND	6
DEPTH (m)		<b>スロー</b>		SAMPLE	DESCRIPTION	LITHOLOGY	1 1		PHIC		SAMPLES
30	-20.92	AUG CASI WAS COR	CORE REC %	SAM		自	USC	88888 PF \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	GR/	TEST RESULTS	SAN
-	20102				GRANODIORITE			STRENGTH SPACING (mm)		Is(50) = 0.46N	Pa o
-					MW: (Cont'd)		MV			Is(50) = 0.22MP	a; * x _
-	-21.68		100		Defects: - Joints @ 10-30° (7/m)						
-31					Defect surfaces are generally planar,			1 1			
- 31					rough, open to closed.			‡			
-					Borehole terminated at 30.76m			1			
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40				_				<u> </u>			
F	REMARK	S Note	:_*Failur	e app	ears to have occured along a pre-existing defect plant	ane.				LOGGED	BY
										_ ME	

Project: Walkerston Bypass Geotechnical Investigation
Borehole No: BH120 (Cowleys Rd Bridge Ch. 84514.6 8.6m left)

Start Depth: 28.20m Finish Depth: 30.76 m Project No: FG5635 H No: 10890



