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ENGINEERING BOREHOLE

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/3-2005 BOREHOLE No BH4

SHEET _ 1 _ of _ 2 _

REFERENCE No _ H9784 ____

PR	ROJECT	_Cab	<u>oolture</u>	Rive	Bridge Foundation Investigation							
	OCATION Pier 3 - 14.3m left (along skew) of existing northbound bridge CROJECT No FG5439 SURFACE R.L. 3.00						/L COORDINATES 497553.8 E; 7003505.6 N					
PROJECT No JOB No			<u>439</u> 0A/60C									
- 00		_25/1			DATUM <u>AHD</u>	DAT	E COMPLETE	D <u>08/11</u>	<u>/05</u>	. DRILLER <u>Drillsure Pt</u>	Ltd	
O DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	USC	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	
-1					Sandy CLAY (Alluvium): Brown, moist, soft, medium plasticity, fine grained sand.	CI				1,1, N=: Su = 32 kPa (PP)	23 SPT	
-3					High plasticity and some medium grained sand below 2.6m. Numerous orange iron-cemented nodules below 2.5m.					∑ 8/11/05 1,2,° N=3	SPT	
9/2	-0.90				Clayey Gravelly SAND (Alluvium): Grey-brown, moist, medium dense, fine to coarse grained, fine to medium angular gravel up to 20mm, high plasticity clay lenses.	SP				7,6,6 N=12	SPT	
MAIN ROADS.GDT 23/02/06	-2.00				Gravelly SAND (Alluvium): Pale grey-brown, moist, loose, medium to coarse grained, fine angular gravel up to 5mm.					5,4,4 N=8	SPT	
ABOOLI UKE K BKIDGE WIDENINGS.GPJ QLD MAIN	-4.25				More gravel and less sand at base of unit. Gravel up to 30mm.	SP				13,18,30/50 N>50	SPT	
8 8	-5.00				SANDSTONE: HW: Dark orange-brown, medium grained, very low to low strength, subhorizontal bedding laminations.	HW				7.5m: Blade refusal. 7.5m-8.0m: Rockroller.	-	
			(85)		MW: Pale orange-brown, medium grained, low to high strength, ironstained & iron cemented orange-brown throughout rockmass, occasional subhorizontal dark brown carbonaceous laminae and black vitreous coal aminae up to 20mm thick, and gravelly lenses throughout. Less orange-brown iron staining and cementation 9.5-10.15m.	MW				Is(50)=1.54 MPa Is(50)=1.87 MPa	x - 0 -	
] [10 R	-7.00 EMARKS									only slight ironstaining. LOGGED BY		
	A O'Rourke											



ENGINEERING BOREHOLE

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/3-2005
 BOREHOLE No
 BH4

 SHEET
 2 of 2

 REFERENCE No
 H9784

PROJ					r Bridge Foundation Investigation					- -		
					ft (along skew) of existing northbound bridge C/L				COORDINATES 497553.8 E; 7003505.6 N			
	PROJECT No JOB No						DATE STARTED <u>08/1</u>			56		
JOB V	lo 	_25/1	0A/60C		DATUM <u>AHD</u>	DATE COMPLETED _08/11/			DRILLER <u>Drillsure Pty I</u>	_td		
DEPTH (m)	R.L. (m)	NG NG H BORING	RQD ()%	J.E	MATERIAL DESCRIPTION	HERING	INTACT DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA	ES		
10	-7 00	AUGER CASING WASH CORF	CORE REC %	SAMPLE	JEGG AI FIGN	USC	2000 2000 2000 2000	SRAPI	TEST RESULTS	SAMPLES		
-11	-8.50		100 (58)		SANDSTONE: As above. MW: Defects: Numerous subhorizontal to 20° planar bedding partings. Only minor orange-brown staining between 10.8 - 11.15m. Gradation to SW sandstone. SW: Grey, some orange-brown iron staining, medium to coarse grained, low to medium strength. Numerous black coal laminae up to 20mm thick between 11.85 to 13.82m.	MW			Is(50)=0.07 MPa Is(50)=0.16 MPa Is(50)=0.32 MPa 11.44-12.5m: Grey sandstone with only minor orange-brown ironstaining. Total water loss into rock fractures below 12.5m. Is(50)=1.21 MPa Is(50)=1.52 MPa	x o		
-	-11.00		100		Numerous fine gravel lenses below 13.07m. Borehole terminated at 14m				13.23-13.25m: Dark brown carbonaceous laminae. 13.67-13.68m: Black coal laminae.			
Caroline Exhibit Box Eriol E CABOOL UNE R BRIDGE WIDENINGS.GPJ QLD MAIN ROADS.GDT 23/02/06	ARMO						+++++++++++++++++++++++++++++++++++++++					
REM	ARKS								LOGGED BY A O'Rourke			

Project: FOUNDATION INVESTIGATION FOR THE WIDENING OF THE CAPTAIN WHISH BRIDGES (NORTH AND SOUTHBOUND) – CABOOLTURE RIVER

Borehole No: BH4 Pier 3
Start Depth: 8.00m

Finish Depth: Project No: 14.00m FG5439

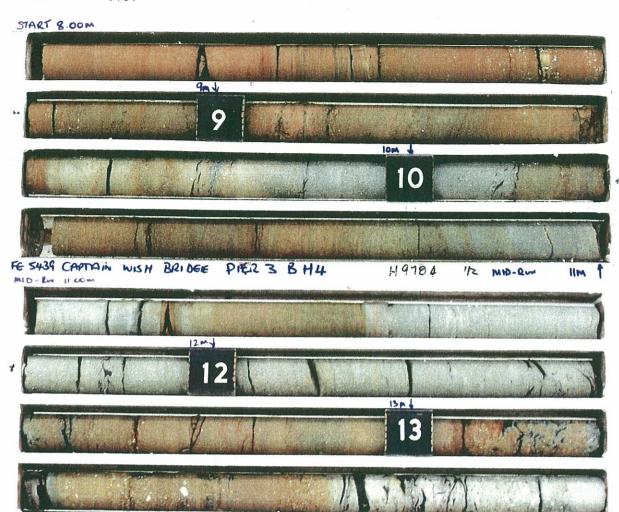
BRIDGE

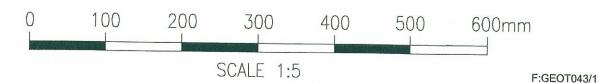
PIER 3 BH4

14-84

H No:

9784







ROAD SYSTEM & ENGINEERING GEOTECHNICAL BRANCH 35 Butterfield St Herston Q 4006

Point Load Strength Index - Test Report

Project: CABOOLTURE RIVER BRIDGE

Project No: FG 5439

Date Sampled 8/11/05

Feature: PIER 3

Sample Type: NMLC ROCK CORE

Report No. FG 5439/2/GS05/793AS4133.4.1

Date Tested 2/12/05

Sample	Sample	Depth	Test Type	ls	Is50	Strength	Lithology
Number	Location	(m)	D,A,B,I*	(MPa)	(MPa)	Descriptor*	
GS05/793-A GS05/793-B GS05/793-C GS05/793-D GS05/793-E GS05/793-F GS05/793-G	BH4 BH4 BH4 BH4 BH4 BH4	8.05 8.08 9.96 9.99 11.46 12.89 12.92	D A D A A D	1.55 2.17 0.08 0.19 0.33 1.22 1.69	1.54 1.87 0.07 0.16 0.32 1.21 1.52	H H VL L M H	Sandstone Sandstone Sandstone Sandstone Sandstone Sandstone Sandstone

Sample Remarks

* D - Diametral; A - Axial; B - Block; I - Irregular;

** EL - Extremely Low; VL - Very Low; L - Low; M - Medium; H - High; VH - Very High; EH - Extremely High (taken from AS1726 Table 8A)

Remarks / Variations to Test Procedures:

 Test Method: AS4133.4.1 Software Version 2.03 April 2005

NATA

Client Name: RS&E STRUCTURES DIVISION
Client Address: PO BOX 1412 SPRING HILL 4001

Signatory.

(P.REYNOLDS)

2 / 1 Z / 05

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