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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH18B

SHEET 1 OF 5

Client: QUEENSLAND DEPARTMENT OF MAIN ROADS

Date Commenced: 12/2/02

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 14/2/02

Borehole Location: TUGUN

Recorded By: MCM

Project Number: 2134070A

Log Checked By: DAW

Drill Model/Mounting:

Hole Angle: 90°

Surface RL: 1.4 m AHD

Borehole Diameter: 120 mm

Bearing: --

Co-ords: E 51621 N 86423 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	HAND PENETROMETER (MPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
VS	FB	VL	L	MD	ST	VST	D					
WB	Nil							SAND: medium grained, dark grey. trace of black heavy minerals.	W			ESTUARINE/ FLOODPLAIN/TIDAL DELTA DEPOSITS
			1									
			1									
			0									
				3.5,5	SPT							
			2	N=10								
			-1									
			3									
			-2									
			4									
			-3									
				2.5,3	SPT							
			5	N=8								
			-4									
			6									
			-5									
			7									
			-6									
				1,1,1	SPT			... becoming mottled pale brown, brown and grey, sediments have been disturbed by bioturbation, contains occasional shells and cemented sand 'nodules' up to 10mm in diameter.				
			8	N=2								
			-7									
			9									
			-8									

This borehole log should be read in conjunction with Parsons Brinckerhoff's accompanying standard notes.



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH18B

SHEET 2 OF 5

Client: QUEENSLAND DEPARTMENT OF MAIN ROADS

Date Commenced: 12/2/02

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 14/2/02

Borehole Location: TUGUN

Recorded By: MCM

Project Number: 2134070A

Log Checked By: DAW

Drill Model/Mounting:

Hole Angle: 90°

Surface RL: 1.4 m AHD

Borehole Diameter: 120 mm

Bearing: ---

Co-ords: E 51621 N 86423 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB			-9 10.50	11	2.4,4 N=8 SPT			SP	SAND: medium grained, dark grey, trace of black heavy minerals. (continued)	W		
								SM	Cemented Silty SAND (Coffee Rock): medium grained, dark brown.	M		
								SP	SAND: medium grained, pale brown, friable.			
								SC	Sandy CLAY: brown, with medium grained, contains some fine grained, dark coloured organic material.			
								SM	Cemented Silty SAND (Coffee Rock): medium to coarse grained, pale brown.			
			-12 13.50	14	5.11,17 N=28 SPT							INTERBEDDED ESTUARINE AND ALLVIAL DEPOSITS
			-15 16.50	17	7.20,30 N=50 SPT							
			-18 19.50	19	5.2,0 N=2 SPT							

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH18B

SHEET 4 OF 5

Client: QUEENSLAND DEPARTMENT OF MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: TUGUN
Project Number: 2134070A

Date Commenced: 12/2/02
Date Completed: 14/2/02
Recorded By: MCM
Log Checked By: DAW

Drill Model/Mounting: Hole Angle: 90° Surface RL: 1.4 m AHD
Borehole Diameter: 120 mm Bearing: --- Co-ords: E 51621 N 86423 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB												
			-29					GW	GRAVEL: white, grey and black clasts (fragments of quartz, feldspars and dark lithics to 15mm). subangular. (continued)	M		
			31									
			-30					SP	SAND: medium grained, pale grey, with white to off-white gravel fragments to 8mm.			
			31.50		7, 15, 12 N=27	SPT						
			32									
			-31									
			33									
			-32									
			34.00					CH	CLAY: grey with brown mottling.			
			-33									
			35									
			-34									
			36.00					GW	GRAVEL: white, pale grey, subangular. clasts to 20mm. with minor black clasts.			
			-35									
			37									
			-36									
			38		6, 14, 15 N=29	SPT						
			-37									
			39.00					CH	CLAY: grey with brown mottling.			RESIDUAL SOIL
			-38									

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH18B

SHEET 5 OF 5

Client:	QUEENSLAND DEPARTMENT OF MAIN ROADS	Date Commenced:	12/2/02
Project:	TUGUN BYPASS GEOTECHNICAL INVESTIGATION	Date Completed:	14/2/02
Borehole Location:	TUGUN	Recorded By:	MCM
Project Number:	2134070A	Log Checked By:	DAW

Drill Model/Mounting:	Hole Angle: 90°	Surface RL: 1.4 m AHD
Borehole Diameter: 120 mm	Bearing: ---	Co-ords: E 51621 N 86423 PMG

Borehole Information						Field Material Description							
1	2	3	4	5	6	7	8	9	10	11	12	13	
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	HAND PENETROMETER (NPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB								CH	CLAY: grey with brown mottling.(continued)	M			
				39		U56			... mottling becoming orange-brown.				
				41									
				40									
				42									
				41									
				43									
				42		U50							
				43.50		SPT			ARGILLITE: pale grey with orange-brown mottling, extremely weathered, extremely low strength, remanent rock texture and foliation visible in clay, contains residual gravel clasts.				WEATHERED ROCK
				44	R								N=R
				43									
				45									
				44									
				46									
				45									
				47	17, 18, 20 N=38	SPT			... becoming orange-brown to dark orange-brown, remanent foliation and cleavage displays some iron staining, grading to weathered Argillite.				
				46									
				48.04					ARGILLITE: very fine grained, argillaceous, dark grey, highly to moderately weathered, very low to low strength, foliated with many fractures.				
				47									
				49									
				48									
					R	SPT			END OF BOREHOLE AT 49.53 m				N=R

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