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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH24

SHEET 1 OF 3

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Cut; Chainage 1068 (MC11); 16m left of centreline;
Project Number: 2134070C

Date Commenced: 20/5/05
Date Completed: 20/5/05
Recorded By: MCM
Log Checked By: *DMW*

Drill Model/Mounting: LEWIS 350 TRACKED RIG Hole Angle: 90° Surface RL: 16.8 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 47592.8 N 89925.3 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
TC	Nil	None										
			0.20						Gravelly CLAY: high plasticity, pale orange-brown, fine to coarse grained gravel.			FILL
			0.40					OL	Silty CLAY: low plasticity, dark brown, spongy, contains organic matter and roots.			TOPSOIL
			1.6					CH	CLAY: high plasticity, pale orange-brown, with medium to coarse grained sand.			RESIDUAL SOIL
WB	M	None	1.50		SPT 4.30	SPT			Interbedded ARGILLITE and GREYWACKE: pale orange-brown, extremely to highly weathered with the consistency of low plasticity clayey sand with fine to coarse grained sand and some fine gravel, extremely low to very low strength.			WEATHERED ROCK
			1.50		1/120mm							LL=23.6% PI=5.2% LS=5.4% Emerson No.=5
			2									
			14		SPT 15	SPT			... extremely to highly weathered, extremely low to very low strength.			No sample recovery
			13		1/20mm							
			12		SPT 30	SPT			... numerous highly to moderately weathered greywacke rock kernels up to 20mm in size.			LL=23% PI=6% Emerson No.=3 % passing 0.425mm=98% % passing 0.075mm=3.3%
			11		1/110mm							
			10		SPT 30	SPT			... extremely to highly weathered with the consistency of clayey sandy gravel with low to medium plasticity fines and fine to medium greywacke gravel.			LL=23% PI=6% Emerson No.=5
			9		1/110mm							
			8		SPT 15	SPT						No sample recovery
			8		1/30mm							
			7						REFER TO CORED BOREHOLE LOG			

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



CORED BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH24

SHEET 2 OF 3

Client: QUEENSLAND MAIN ROADS

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Borehole Location: Cut; Chainage 1068 (MC11); 16m left of centreline;

Project Number: 2134070C

Date Commenced: 20/5/05

Date Completed: 20/5/05

Recorded By: MCM

Log Checked By: *DM*

Drill Model/Mounting: LEWIS 350 TRACKED RIG

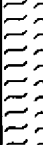
Hole Angle: 90°

Surface RL: 16.8 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 47592.8 N 89925.3 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	
METHOD	SUPPORT	WATER	CORE RECOVERY	ROD	RL(m) AHD	DEPTH(m)	GRAPHIC LOG	SOIL/ROCK MATERIAL FIELD DESCRIPTION	WEATHERING	INFERRED STRENGTH Is(50) MPa	AVERAGE DEFECT SPACING mm	STRUCTURE AND ADDITIONAL OBSERVATIONS
									EL 0.03 VL 0.03 V 0.3 L 1 H 3 EH 10	20 100 300 1000 3000		
					16	1						
					15	2						
					14	3						
					13	4						
					12	5						
					11	6						
					10	7						
					9	8						
					8	9						
NMLC	M					9		COMMENCE CORING AT 9 m				
								Interbedded ARGILLITE and GREYWACKE: pale orange-brown and grey with brown and black staining, steeply bedded.	MW			9.00-10.00m: Non Intact core.
					7							

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



CORED BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH24

SHEET 3 OF 3

Client: QUEENSLAND MAIN ROADS

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Borehole Location: Cut; Chainage 1068 (MC11); 16m left of centreline;

Project Number: 2134070C

Date Commenced: 20/5/05

Date Completed: 20/5/05

Recorded By: MCM

Log Checked By: DAN

Drill Model/Mounting: LEWIS 350 TRACKED RIG

Hole Angle: 90°

Surface RL: 16.8 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 47592.8 N 89925.3 PMG

Borehole Information						Field Material Description					
1	2	3	4	5	6	7	8	9	10	11	12
METHOD	SUPPORT	WATER	CORE RECOVERY	Ø ROD	RL(m) AHD	DEPTH(m)	SOIL/ROCK MATERIAL FIELD DESCRIPTION	WEATHERING	INFERRED STRENGTH $\sigma_{(50)}$ MPa	AVERAGE DEFECT SPACING mm	STRUCTURE AND ADDITIONAL OBSERVATIONS
NMLC			50	Ø	16.80		CORE LOSS				
					6	11	END OF BOREHOLE AT 11.00 m				
					5	12					
					4	13					
					3	14					
					2	15					
					1	16					
					0	17					
					-1	18					
					-2	19					
					-3						

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

Project: **Tugun Bypass Geotechnical Investigation**
Borehole: **BH24**
Start Depth: 9.00m
Finish Depth: 11.00m

BH24

2134070A

TUGUN

20-05-05

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CORE

LOSS

H9587