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# BOREHOLE ENGINEERING LOG

BOREHOLE NO.

**UBH09**

SHEET 1 OF 3

Client: Department of Transport and Main Roads  
Project: Gold Coast Rapid Transit  
Borehole Location: Proposed University Hospital Station, Parklands Drive, Ch: 19538.5  
Project Number: 2161016A

Date Commenced: 15/2/10  
Date Completed: 15/2/10  
Recorded By: DS  
Log Checked By: *LMK*

Drill Model/Mounting: Drillpower Hydrapower Scout Hole Angle: 90° Surface RL: 19.36 m AHD\*  
Borehole Diameter: 75 mm Bearing: --- Co-ords: E 81518.82 N 62065.35 GCCC Grid\*

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	C			0.05					ASPHALT			
				19					FILL (Silty GRAVEL): fine to coarse grained, dark grey, roadbase			FILL
				0.60								
				0.90				CH	Silty CLAY: medium to high plasticity, pale brown mottled orange.			RESIDUAL SOIL
WB	Nil			1	SPT 8,12,14 N=26	SPT			META-SILTSTONE: pale grey-white mottled orange and brown, extremely weathered, has consistency of very stiff to hard silty clay			WEATHERED ROCK
				18								
				2								
				17	SPT 5,11,18 N=29	SPT						
				3								
				16								
				3.80					... consistency of stiff silty clay			
				4	SPT 3,7,8 N=15	SPT						
				15								
				5								
				14	SPT 3,5,9 N=14	SPT						
				6								
				13								
				7	SPT 3,8,11 N=19	SPT						
				12								
				8								
				11	SPT 3,4,8 N=12	SPT						
				9								
				10								

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

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 Drill Model/Mounting: Drillpower Hydrapower Scout  
 Hole Angle: 90°  
 Surface RL: 19.36 m AHD\*  
 Borehole Diameter: 75 mm  
 Bearing: ---  
 Co-ords: E 81518.82 N 62065.35 GCCC Grid\*

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	PENETROMETER	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB												
			10.00		SPT 8,16,25 N=41			META-SILTSTONE: pale grey-white mottled orange and brown, extremely weathered, has consistency of very stiff to hard silty clay (continued)				
			9					... consistency of hard silty clay				
			11									
			11.20					... 11.2 m: occasional Fe cemented bands.				
			8		SPT 7,16,30 /140mm							
			12									
			7									
			13.00		SPT 6,8,15 N=23			... very stiff				
			13									
			6									
			14									
			5		SPT 24,30 /90mm			... hard				
			14.50									
			15					REFER TO CORED BOREHOLE LOG				
			4									
			16									
			3									
			17									
			2									
			18									
			1									
			19									
			0									

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





# CORED BOREHOLE ENGINEERING LOG


BOREHOLE NO.

UBH09

SHEET 3 OF 3

Client: Department of Transport and Main Roads Date Commenced: 15/2/10  
Project: Gold Coast Rapid Transit Date Completed: 15/2/10  
Borehole Location: Proposed University Hospital Station, Parklands Drive, Ch: 19538.5 Recorded By: DS  
Project Number: 2161016A Log Checked By: LMK

Drill Model/Mounting: Drillpower Hydrapower Scout Hole Angle: 90° Surface RL: 19.36 m AHD\*  
Borehole Diameter: 75 mm Bearing: --- Co-ords: E 81518.82 N 62065.35 GCCC Grid\*

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	
METHOD	SUPPORT	WATER	CORE RECOVERY	RQD	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 0.1 L 0.3 M 1 H 3 VH 10 EH 10	10 30 100 300 1000 3000		
						9						
						11						
						8						
						12						
						7						
						13						
						6						
						14						
						5						
						15		COMMENCE CORING AT 15 m				
NMLC	Nil					4		META-SILTSTONE: grey mottled orange-brown, Fe staining	XW-HW			15.0 m - 15.1 m: J, 60°, P, S, Fe stained 15.14 m: J, 10°, Ir, R, Fe stained 15.2 m: DB
			100	70		15.68		... 15.68 m: quartz vein, 5mm, coarse grained sandstone rock fragments				15.7 m: DB along healed joint
						15.80		... 15.8 m: trace fine grained sand	MW			15.9 m - 16.0 m: Non Intact Core
						15.94		META-SANDSTONE: fine grained, brown mottled orange	XW			15.0 m - 16.0 m: multiple healed joints with Fe staining
			100	100		16.13		META-SILTSTONE: grey mottled orange-brown Fe				16.26 m: PP 250 16.4 m: J, 10°, P, S, Fe stained 16.52 m: PP 480 16.76 m: PP 380
						17		... 17.05 m: colour change to grey-green	XW-HW			17.0 m - 18.0 m: waxy feel 17.07 m: PP 170
						17.05			XW			17.23 m: Fe cemented band, 2mm, coarse grained sand size Fe fragments 17.30 m: PP 260 17.66 m: Fe cemented band, 2mm, coarse grained sand size Fe fragments 17.85 m: PP 290 17.95 m: DB
			100	100		2						18.0 m - 19.0 m: 6 x DB, waxy feel 18.06 m: PP 240 18.28 m: PP 120
						18						18.4 m - 18.42 m: DS, 0°, CH clay 18.5 m - 18.51 m: DS, 0°, CH clay 18.59 m: PP 210
			100	70		1						
						19		END OF BOREHOLE AT 19.00 m				18.7 m - 18.73 m: DS, 0°, coarse grained sand size Fe fragments and clay 18.77 m: PP 210 PP = Hand Penetrometer (kPa) * Horizontal and vertical data determined by ground survey
						0						

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

## REPORT OF PHOTOGRAPHS



Borehole number: **UBH09**

Sheet 1 of 1

Client:	Department of Transport and Main Roads	Coordinates:	E 81518.82 N 62065.35	Depth range:	15.0m – 19.0 m
Project:	Gold Coast Rapid Transit	Surface RL:	19.36 m AHD	Inclined length:	–
Borehole location:	Ch: 19590	Hole angle:	90 °	Drill model/mounting:	Hydrapower Scout
Project number:	2161016A	Bearing:	–	Borehole diameter:	75 mm

