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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

RTBH05

SHEET 1 OF 3

Client:	Department of Transport and Main Roads	Date Commenced:	18/2/10
Project:	Gold Coast Rapid Transit	Date Completed:	18/2/10
Borehole Location:	Parklands Drive, Ch: 20264.7	Recorded By:	DS
Project Number:	2161016A	Log Checked By:	<i>LMCK</i>
Drill Model/Mounting:	Drillpower Hydrapower Scout	Hole Angle:	90°
Borehole Diameter:	75 mm	Bearing:	---
		Surface RL:	18.29 m AHD*
		Co-ords:	E 81921.18 N 61729.34 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	HAND PENETROMETER (kPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
										VS FB VL L MD ST D H VD			
TC	Nil								META-SILTSTONE: grey with orange and brown staining, extremely weathered, extremely low strength.				
WB		m30-12		18									
				17	SPT 30 /140mm	SPT							
				16									
				15	SPT 20,30,30 /100mm	SPT							
				14	SPT 15,30 /140mm	SPT							
				13				REFER TO CORED BOREHOLE LOG					
				12									
				11									
				10									
				9									

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

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CORED BOREHOLE ENGINEERING LOG

BOREHOLE NO.

RTBH05

SHEET 2 OF 3

Client:	Department of Transport and Main Roads	Date Commenced:	18/2/10
Project:	Gold Coast Rapid Transit	Date Completed:	18/2/10
Borehole Location:	Parklands Drive, Ch: 20264.7	Recorded By:	DS
Project Number:	2161016A	Log Checked By:	<i>JMK</i>

Drill Model/Mounting:	Drillpower Hydrapower Scout	Hole Angle:	90°	Surface RL:	18.29 m AHD*
Borehole Diameter:	75 mm	Bearing:	---	Co-ords:	E 81921.18 N 61729.34 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 (s150) MPa	AVERAGE DEFECT SPACING mm	STRUCTURE AND ADDITIONAL OBSERVATIONS
									EL 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 FH 10			
						18						
						17						
						16						
						15						
						14						
						13		COMMENCE CORING AT 5 m				
			100	30		12		... 5.54 m: Fe cemented. ... 5.56 m: quartz vein, 100mm, fine grained gravel size rock fragments.	XW-HW			5.21 m: DB 5.38 m: PP 500 Kpa 5.54 m: J, 30°, Ir, R, clay veneer
			100	55		11		... 6.36 m - 6.73 m: Fe stained bands. ... 6.73 m - 6.76 m: quartz vein, 100mm, purple. ... 7.0 m - 7.08 m: coarse grained sand.				5.9 m - 6.0 m: Non intact core 6.05 m - 6.27 m: J, 70°, P, R, clean 6.27 m, 6.34 m: DB 6.75 m - 7.0 m: Discing
			100	90		10		... 7.62 m - 7.65 m: quartz vein, purple.				7.2 m: J, 45°, P, R, clean 7.32 m: J, 45°, P, R, clean 7.45 m DB
						9		... 8.0 m, 8.26 m and 8.36 m: quartz vein, purple, 5 mm-10 mm. ... 8.65 m: quartz vein, purple, 5 cm. ... 9.2 m: Fe stained bands.				8.05 m: DB 8.70 m: PP 300 Kpa 8.9 m - 9.0 m: Non intact core 9.15 m: J, 20°, P, S, Fe stained 9.26 m: J, 30°, P, S, Fe stained 9.49 m, 9.54 m, 9.61 m: DB
			100	50		9		... 9.79 m: quartz veins, purple, 5 mm.				9.74 m: J, 45°, P, S, clean

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CORED BOREHOLE ENGINEERING LOG

BOREHOLE NO.

RTBH05

SHEET 3 OF 3

Client:	Department of Transport and Main Roads	Date Commenced:	18/2/10
Project:	Gold Coast Rapid Transit	Date Completed:	18/2/10
Borehole Location:	Parklands Drive, Ch: 20264.7	Recorded By:	DS
Project Number:	2161016A	Log Checked By:	L.M.C.K.

Drill Model/Mounting:	Drillpower Hydrapower Scout	Hole Angle:	90°	Surface RL:	18.29 m AHD*
Borehole Diameter:	75 mm	Bearing:	---	Co-ords:	E 81921.18 N 61729.34 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 LM 0.3 LH 1 VH 3 EH 10	10 30 100 300 1000 3000		
NMLC			100	20	8			META-SILTSTONE: grey-green with brown and orange staining. (continued)	HW			10.34 m: DB 10.53 m: DB 10.64 m: J, 45°, P, R, Fe stained 10.9 m - 11.5 m: Non intact core 11.5 m: J, 45°, P, R, Fe stained 11.77 m: J, 60°, P, S, Fe stained 11.94 m: DB 12.0 m - 12.05 m: DB
			100	70	12.13	6		META-CLAYSTONE: pale grey and dark grey with some orange staining. ... 12.4 m - 12.45 m: quartz vein, fine to coarse grained gravel size. ... 12.54 m: Fe band, 5 mm.	MW			12.4 m - 12.45 m: J, 30°, Ir, R, Fe stained 12.7 m - 13.0 m: multiple healed joints @ 60°, black and orange staining 13.05 m: J, 90°, P, S, Fe stained
			100	80	13.20	5		META-CLAYSTONE: pale grey and dark grey with some orange staining. META-SILTSTONE: grey-brown. ... 13.73 m: quartz vein, 1 cm, purple-green, coarse grained sand size.				13.5 m - 13.67 m: J, 65°, P, S, Fe stained 13.8 m - 14.0 m: Non intact core
			100	50	14.12	4		META-CLAYSTONE: grey-brown with orange staining.				14.34 m: J, 45°, P, S, Fe stained 14.38 m: J, 45°, P, R, Fe stained 14.6 m: DB
			100	95	15.15	3		META-SILTSTONE: grey-brown with orange staining. ... 15.65 m - 20.0 m: interbedded dark grey, carbonaceous and pale grey layers, Fe staining in parts.				14.91 m: J, 30°, P, R, Fe stained, quartz infil 2 mm 15.22 m: J, 45°, P, S, clean 15.42 m: DB 15.52 m: J, 20°, Ir, r, Fe and Mn stained 15.54 m - 15.61 m: J, 60°, P, S, Fe stained 15.74 m: J, 0°, P, S, Fe stained 15.92 m: DB 16.06 m: DB 16.14 m: DB
			100	90	17.6	2		... 17.6 m: grey-green. ... 17.8 m - 18.9 m: dark grey.				16.69 m: DB 16.75 m: DB 17.44 m: DB 17.49 m: DB 17.7 m: DB 17.78 m: DB
			100	100	18.9	1		... 18.9 m - 19.0 m: soft sediment deformation (?)				18.13 m: DB 18.25 m: DB 18.7 m: BP, 30°, P, S, clean 19.27 m: J, 40°, P, S, clean PP = Hand Penetrometer (kPa)

END OF BOREHOLE AT 20.00 m
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REPORT OF PHOTOGRAPHS



Borehole number: **RTBH05**

Sheet 1 of 1

Client:	Department of Transport and Main Roads	Coordinates:	E 81921.18 N 61729.34	Depth range:	5.0 m – 20.0 m
Project:	Gold Coast Rapid Transit	Surface RL:	18.29 m AHD	Inclined length:	-
Borehole location:	Ch: 20106.9	Hole angle:	90 °	Drill model/mounting:	Hydapower Scout
Project number:	2161016A	Bearing:	-	Borehole diameter:	75 mm

