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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH51

SHEET 1 OF 4

Client: QUEENSLAND MAIN ROADS

Date Commenced: 20/7/05

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 20/7/05

Borehole Location: Airport Tunnel, south western section on Pony Club

Recorded By: JM

Project Number: 2134070C

Log Checked By: DAN

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 42.1 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51192.7 N 86637.1 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 (kPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS	
Au	C		42						Clayey GRAVEL: brown, weathered argillite with fragments of reinforced concrete (max 0.8m).				FILL	
			0.70						Clayey SAND: dark grey, fine grained, rootlets.	D			TOPSOIL	
			0.00	1			SP	SAND: fine grained, pale brown, poorly graded.				ESTUARINE/ FLOODPLAIN/TIDAL DELTA DEPOSITS		
WB	M		41							W				
			2											
			40											
			2.30				SP	Cemented Silty SAND (Coffee Rock):dark brown, fine grained.						
					SPT 16,26,30 /120mm	SPT								
			3											
			39											
			4											
			38			SPT 30 /130mm	SPT							
			5											
			37											
			6											
			36			SPT 30 /120mm	SPT							
			7											
			35			SPT 19,30 /140mm	SPT							
			8											
			34											
			9			SPT 8,15,24 N=39	SPT							
			33											
			9.30					SW	SAND: fine grained, pale brown well graded with a trace of silt.					

MC=25.5%

% passing 0.425mm=99%

% passing 0.075mm=3%

MC=25.5%
% passing 0.425mm=99%
% passing 0.075mm=3%

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



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH51

SHEET 2 OF 4

Client:	QUEENSLAND MAIN ROADS	Date Commenced:	20/7/05
Project:	TUGUN BYPASS GEOTECHNICAL INVESTIGATION	Date Completed:	20/7/05
Borehole Location:	Airport Tunnel, south western section on Pony Club	Recorded By:	JM
Project Number:	2134070C	Log Checked By:	Daw

Drill Model/Mounting:	HYDRAPOWER SCOUT 250	Hole Angle:	90°	Surface RL:	42.1 m AHD
Borehole Diameter:	100 mm	Bearing:	---	Co-ords:	E 51192.7 N 86637.1 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 (kPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB			-32		SPT 12,17,19 N=36	SPT		SW	SAND: fine grained, pale brown well graded with a trace of silt. (continued)	W			MC=22.7% % passing 0.425mm=98%. % passing 0.075mm=4%.
			-31	11					... becoming brown, weakly cemented.				
			-30	12	SPT 7,16,30 N=46	SPT							
			-29	13									
			-28	14.044					Cemented Silty SAND (Coffee Rock): dark brown, fine grained.				
			-27	15	SPT 20,30 N=115mm	SPT							
			-26	16				SC	SAND: fine grained, grey and brown-grey, trace high plasticity fines.				MC=22.0% % passing 0.425mm=99%. % passing 0.075mm=11%.
			-25	17									
			-24	18	SPT 2,0,0 N=0	SPT							
			-23	19									

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



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH51

SHEET 3 OF 4

Client: QUEENSLAND MAIN ROADS

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Borehole Location: Airport Tunnel, south western section on Pony Club

Project Number: 2134070C

Date Commenced: 20/7/05

Date Completed: 20/7/05

Recorded By: JM

Log Checked By: DAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 42.1 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51192.7 N 86637.1 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			-22					SC	SAND: fine grained, grey and brown-grey, trace high plasticity fines. (continued)	W		
					SPT 7.9, 12 N=21	SPT						MC=29.4% % passing 0.425mm=100%. % passing 0.075mm=5%.
			-21	21								
			-20	22								
			-19	23								
			-18	24	SPT 0.0, 3 N=3	SPT			... interbedded sandy clay layers			First 300mm weight of rods. MC=27.2% % passing 0.425mm=100%. % passing 0.075mm=36%.
			-17	25								
			-16	26								
			-15	27	SPT 0.0, 0 N=0	SPT						Weight of rods.
			-14	28								
			-13	29	SPT 16, 14, 10 N=24	SPT		SC	Clayey SAND and gravel: medium to coarse grained, grey with high plasticity fines, fine to medium grained gravel.			

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH51

SHEET 4 OF 4

Client: QUEENSLAND MAIN ROADS

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Borehole Location: Airport Tunnel, south western section on Pony Club

Project Number: 2134070C

Date Commenced: 20/7/05

Date Completed: 20/7/05

Recorded By: JM

Log Checked By: *PAW*

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 42.1 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51192.7 N 86637.1 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			12					SC	Clayey SAND and gravel: medium to coarse grained, grey with high plasticity fines, fine to medium grained gravel. <i>(continued)</i>	VS	VL	
			31							SL	ST	
			10	32					... plant debris.	MD	VST	
					SPT 5,11,7 N=18	SPT				D	H	MC=39% % passing 0.425mm=95%. % passing 0.075mm=50%.
			9	33								
			33.50					CH	Silty CLAY: high plasticity, pale grey.			RESIDUAL SOIL
			8	34								
			34.80						ARGILLITE: pale grey, highly to moderately weathered, very low to low strength, yellow-brown staining along fractures, trace of sand and fine gravel sized quartz fragments.			WEATHERED ROCK
			7	35								
					SPT 7,27,30 /130mm	SPT						
			6	36								
			5	37								
			4	38								
					SPT 11,21,30 N=51	SPT						
			3	39					END OF BOREHOLE AT 38.95 m			

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