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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

PRO	DJECT	<u>Mor</u>	Moreton Bay Rail Link									
LOCATION		_Cut 1, Ch.1010 COORDINAT							ORDINATES 498441.3 E; 6984515	<u>.6 N</u>		
PROJECT No		»_FG5921			SURFACE R.L. 28.00m PLUNGE DATE STARTED 1/6/11 GRID				1 GRID DATUM _MGA94 Zone	<u> </u>		
JOE	3 No	<u>250</u>	/120/3		HEIGHT DATUM <u>AHD</u> BEARING			DATE COM	IPLETED _	2/6/1	1 DRILLER <u>R&D Drilling I</u>	Pty Ltd
DEPTH (m)	R.L. (m)	UGER ASING VASH BORING		SAMPLE	MATERIAL DESCRIPTION	ТТНОГОСУ	JSC	INTACT STRENGTH	DEFECT SPACING (mm)	SRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	AMPLES ESTS
0 	28.00		REC %		Silty CLAY (TOPSOIL) Red, moist, stiff.						Based on Driller's logs only	
	26.00			A	Silty CLAY (Residual) Red brown, moist, firm. Medium plasticity. Contains subrounded, high strength gravel		(CI)				2,2,2 N=4; LL-52%, PI=23%, LS=11+	SPT
2011 14:45				В	Gravelly Silty CLAY (Residual) Mottled red brown to grey, moist, very stiff to hard.						9,17,25 N=42; LL-53%, PI=19%, LS=12+	SPT
PT Tool gINt Add-In 06/10.				С	Low to medium plasticity. Gravel fraction is rounded, sizing >10mm; red iron staining throughout.		(CI)				9,10,14 ⊈ ?2/2/2 /2,011-69%, PI=38%, LS=15+	SPT
LINK.GPJ < <drawingfile>> Datgel C</drawingfile>	24.00			D	Interbedded CLAYSTONE & SANDSTONE CLAYSTONE: Fine grained sedimentary rock mainly comprising clay-sized particle SANDSTONE: Fine to coarse grained, massive, poorly cemented sedimentary rock comprising sand-sized particles XW: Generally exhibits the engineering properties of mottled grey to red brown,	s	xw				10,21,26 N=47; LL-54%, PI=33%, LS=13+ 9,15,21 N=36; LL-46%, PI=26%, LS=11+	SPT SPT
AORETON BAY RAIL I 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22.00		(0)		moist, hard, sandy clay. Relict rock fabric and structure visible in parts; occasional iron stained nodules. HW: Grey to red, moist, hard, sandy clay.							-
AGLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY F05921 A		-	90 (0) 100 (0) 100 (0) 100 (0) 100		Sand fraction is medium to coarse grained. Contains subangular, high strength quartzitic bands; iron stained bands throughout. Frequent blue grey, fine grained, high strength quartzitic bands <160mm thick. Extremely low to low strength bands below 9.85m and 10.5m.		HW				 → High strength QZ band → High strength QZ band → High strength bands Is(50) = 13.23MPa Is(50) = 10.08MPa → High strength bands 	
	REMADY	s Obs	(0) (0) 61 (68) ervation	well in	nstalled.						High strength bands	-
1		00									BW / DC2	

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No	<u>BH02</u>
SHEET	<u>2</u> of <u>2</u>
REFERENCE No	<u>H11012</u>

Moreton Bay Rail Link PROJECT COORDINATES 498441.3 E; 6984515.6 N I OCATION Cut 1, Ch.1010 ____ PROJECT No_FG5921____ DATE STARTED 1/6/11 ____ GRID DATUM _MGA94 Zone 56 SURFACE R.L. <u>28.00m</u> PLUNGE ____ DATE COMPLETED <u>2/6/11</u> JOB No 250/120/3 ____ HEIGHT DATUM _AHD ___ BEARING _____ DRILLER R&D Drilling Pty Ltd R.L. RQD INTACT DEFECT NG H BORING E DRILLING ADDITIONAL DATA STRENGTH SPACING ()% (m) 00 Š DEPTH (m) MATERIAL (mm) ГІТНОГОСУ THERI AND GRAPHIC SAMPLE DESCRIPTION CASINC CASINC CASINC CASINC CORE E TESTS SAMPL WEAT WEAT ELL ELL 2000 2000 2000 CORE TEST RESULTS nsc REC % 10 1 1 1 1 1 Interbedded CLAYSTONE & SANDSTONE HW: (Cont'd) 100 Heavily iron stained bands between 10.9m -(85) 11.75m; very low to low strength. нw High strength bands 67 (27)Is(50) = 0.50MPa х 16.26 CLAYSTONE 100 HW: Pale grey, fine grained, laminated, 12 (53) mainly very low to low strength. Defects: НW FG5921 MORETON BAY RAIL LINK.GPJ <<DrawingFile>> Datgel CPT Tool gINt Add-In 06/10/2011 14:45 - Drilling-induced lamination partings @ 5-10° (1-2/m) Is(50) = 0.09MPa х PROPOSED RAIL LEVEL 13 Defect surfaces are mainly medium to 14.75 widely spaced, planar, smooth, open and Ľ, clean 100 フィー Gravelly CLy bands MW: Mottled grey to orange red brown, (73)fine grained, mainly massive with slight laminations, very low to low strength. 14 Becoming dark grey below 14.85m depth. Defects: - Drilling-induced lamination partings @ 5-10° (1-2/m) Is(50) = 0.06MPa х - Black Carb band - Joints @ 15-20° (1-2/m) - Joints @ 25-30° (1/m) - Joints @ 45-40° (1/m) 100 15 (90) - Js @ 15°, PI, S, O, Carb Defect surfaces are mainly medium spaced, Is(50) = 0.09MPa х planar, smooth, open, clean or minor iron ls(50) = 0.02MPa 0 stained. 100 MW 16 Occasional thin clay seams below 18m, (35) approx. 30mm thick; red brown iron stained Is(50) = 0.19MPa х bands between 13.4m and 14.75m. ls(50) = 0.11MPa 0 Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY – J @ 50°, PI, SR, O, FeSt 17 – J @ 45°, PI, SR, O, FeSt 100 (17)Is(50) = 0.11MPa х 18 - Very low strength CLy bands 100 9.34 Borehole terminated at 18.66m LIB_01A.GLB 19 DMR LOGGED BY REMARKS Observation well installed. BW / DC2

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Project Name	Moreton Bay Rail Link (MBRL)		
Project No	FG5 92 1	Date	02/06/11
Borehole No	BH 2	TMR H No	11012
Location	Cut 1	Start Depth (m)	6.00
Detail	Cut	Finish Depth (m)	18.66
Chainage	1030 Approx	Submitted By	BW
Remarks			



 CORE PHOTO LOG
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Project Name	Moreton Bay Rail Link (MBRL)		
Project No	FG5921	Date	02/06/11
Borehole No	BH 2	TMR H No	11012
Location	Cut 1	Start Depth (m)	6.00
Detail	Cut	Finish Depth (m)	18.66
Chainage	1030 Approx	Submitted By	BW
Remarks		<u>-</u>	



0	100	200	300	400	500	600mm	
		C	CALE 1.5				
			CALE T.U				

 CORE PHOTO LOG
 GEOT043/1

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