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ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH09**
SHEET 1 of 2
REFERENCE No **H11019**

PROJECT Moreton Bay Rail Link
LOCATION Brays Road Rail Bridge 5, Ch.4300 COORDINATES 501413.0 E; 6985695.5 N
PROJECT No FG5921 SURFACE R.L. 12.90m PLUNGE DATE STARTED 7/6/11 GRID DATUM MGA94 Zone 56
JOB No 250/120/3 HEIGHT DATUM AHD BEARING DATE COMPLETED 7/6/11 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER / CASING / OTHER / CORE DRILLING	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	12.90				**Gravelly Sandy CLAY (Residual)** Pale grey to orange red brown, moist, very stiff to hard. Sand fraction is medium to coarse grained. Subangular, high strength quartzitic gravel fraction sizing <25mm. Gravel fraction increases with depth.		(GC?)					Non-destructive drilling up to 1.5m (Based on Driller's logs only)		
1				A	Ferruginous iron concretionary nodules throughout.							5,9,10 N=19		SPT
2	10.40			B								12/80mm,HB,HB N>50		SPT
3					**CLAYSTONE** **Fine grained sedimentary rock mainly comprising clay-sized particles** **XW:** Generally exhibits the engineering properties of white, pale grey to grey, red brown, moist, very stiff to hard silty clay.									
4				C	Medium to high plasticity. Iron stained, ferruginous alterations (nodules).							8,14,17 N=31		SPT
5				D			XW					6,9,11 N=20		SPT
6				E								8,9,16 N=25		SPT
7	5.90			F								9,20,31 N>50		SPT
8	4.40		(73) 100		**HW:** Mottled white to grey, red brown, fine grained, laminated, very low strength. Defects: - Drilling-induced lamination partings @ 0-5° (2/m) - Joint @ 15° (1/m) Defect surfaces are planar, slightly rough, open, clay infilled or iron stained.		HW							
9			(83)		**SANDSTONE** **MW:**		MW					Is(50) = 0.05MPa Is(50) = 0.06MPa		x o
10			100		(See over)						CLy band			

REMARKS

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QLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY FG5921 MORETON BAY RAIL LINK.GPJ <<DrawingFile>> Datgel CPT Tool gINT Add-In 06/10/2011 14:45

ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH09**
SHEET 2 of 2
REFERENCE No **H11019**

PROJECT Moreton Bay Rail Link
LOCATION Brays Road Rail Bridge 5, Ch.4300 COORDINATES 501413.0 E; 6985695.5 N
PROJECT No FG5921 SURFACE R.L. 12.90m PLUNGE DATE STARTED 7/6/11 GRID DATUM MGA94 Zone 56
JOB No 250/120/3 HEIGHT DATUM AHD BEARING DATE COMPLETED 7/6/11 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER / CASING / OTHER / CORE DRILLING	RQD ( )% / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	2.90		(81)		**SANDSTONE** **Fine to coarse grained, massive, poorly cemented sedimentary rock comprising mainly of sand-sized particles** **MW:** Orange brown to grey, fine to medium grained, massive with laminated, low to medium strength.							Is(50) = 0.04MPa Is(50) = 0.06MPa	x o	
11			100 (88)		Defects: - Drilling induced lamination / bedding partings @ 0-5° (4/m) - Joint @ 85-90° (1/m) Defect surfaces are generally planar, smooth, tight or open, with clay infill.		MW					Is(50) = 0.41MPa Is(50) = 0.26MPa Is(50) = 0.71MPa Is(50) = 1.07MPa DD = 2.00t/m^3; MC = 9.8%; UCS=4.41MPa	x o x o	UCS
12														
13	-0.03		100 (90)		**Interbedded SILTSTONE and SANDSTONE** **SW:** Grey to dark grey, black, fine to medium grained, laminated, medium to mainly high strength. Medium to high strength. Defects: - Lamination partings @ 0-5° (4/m) Defect surfaces are close to medium spaced, planar, smooth, open and closed, with clay infill.							Carb bands Is(50) = 0.95MPa Is(50) = 1.71MPa	x o	
14			100 (62)									DD = 2.43t/m^3; MC = 2.4%; UCS=48.7MPa		UCS
15												Is(50) = 1.36MPa Is(50) = 3.11MPa	x o	
16			100 (92)				SW					15.6m: Co CLy pocket Is(50) = 0.78MPa Is(50) = 1.19MPa Is(50) = 1.20MPa Is(50) = 2.22MPa	x o x o	
17	-4.60		100									Is(50) = 1.05MPa DD = 2.45t/m^3; MC = 2.6%; UCS=55.2MPa	x	UCS
18					Borehole terminated at 17.5m									
19														
20														

REMARKS

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Project Name	**Moreton Bay Rail Link (MBRL)**		
Project No	FG5921	**Date**	07/06/11
Borehole No	BH 9	**TMR H No**	11019
Location	Bray's Rd Rail Bridge	**Start Depth (m)**	7.00
Detail	Structure	**Finish Depth (m)**	17.50
Chainage	**4310 Approx**	**Submitted By**	**BW**
Remarks			

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT & MAIN ROADS
Geotechnical Branch
35 Butterfield Street, HERSTON Qld 4006
Phone 07 3115 3035 Fax 07 3115 3011

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Project Name	**Moreton Bay Rail Link (MBRL)**		
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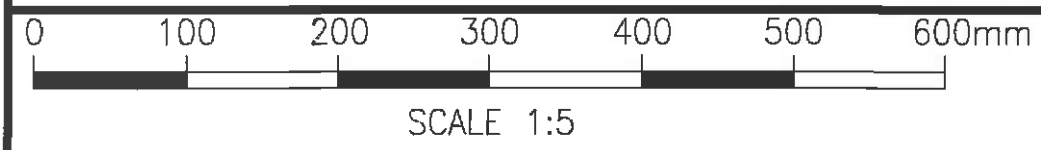

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DEPARTMENT OF TRANSPORT & MAIN ROADS
Geotechnical Branch
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