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FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/2-2004

REFERENCE No **H9571**

DRILLER R&D DRILLING PTY LTD

BOREHOLE WITH LITHOLOGY 24 5 2005 - NORTHERN APPROACH PIERS AND ABUTMENT BOREHOLES.GPJ ENGINEERING BOREHOLE 09 04 GDT 31/8/05

LOGGED BY
A. DISSANAYAKE (DISS)



**Queensland
Government**

Department of
Main Roads

ENGINEERING BOREHOLE

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/2-2004

BOREHOLE No BH22

SHEET 2 of 5

REFERENCE No H9571

PROJECT GATEWAY BRIDGE DUPLICATION FOUNDATION INVESTIGATION - GATEWAY UPGRADE PROJECT

LOCATION PIER 10 - DOWN STREAM END COORDINATES 10082.0 E; 168216.8 N

PROJECT No FG5388 SURFACE R.L. 3.37 DATE STARTED 31/5/05 DATUM SETP

JOB No DATUM AHD DATE COMPLETED 3/6/05 DRILLER R&D DRILLING PTY LTD

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	ROD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH					DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									CU	CH	CM	CL	EL				
10	-6.63					ESTUARINE SANDY SILTY CLAY Dark grey to dark grey brown, moist to slightly wet, very soft to soft. Minor fraction of fine grained sand; high plasticity; occasional shell fragments.											
11																	HW, - N<1 SPT
12								OH									RW, - N<1 SPT
13																	
14																	RW, - N<1 SPT
15	-11.43					SILTY SAND/SAND Grey brown to dark grey brown, moist to mainly wet, loose to mainly medium dense. Some silty clay interbeds; fine grained sand.											1,5,5 N=10 SPT
16																	
17								SM-SP									1,4,7 N=11 SPT
18																	
19																	RW, 6,5 N=11 SPT
20	-16.63																4,5,6 N=11 SPT

REMARKS Defect angles have been measured with respect to a horizontal plane.

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FOR GEOTECHNICAL TERMS AND
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BOREHOLE No BH22
SHEET 3 of 5
REFERENCE No H9571

PROJECT GATEWAY BRIDGE DUPLICATION FOUNDATION INVESTIGATION - GATEWAY UPGRADE PROJECT
LOCATION PIER 10 - DOWN STREAM END COORDINATES 10082.0 E; 168216.8 N
PROJECT No FG5388 SURFACE R.L. 3.37 DATE STARTED 31/5/05 DATUM SETP
JOB No DATUM AHD DATE COMPLETED 3/6/05 DRILLER R&D DRILLING PTY LTD

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH					DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
										FC	CH	SH	SL	EL				
20	-16.63					SILTY SAND/SAND (As above).												
21																	1,5,5 N=10	SPT
22																		
23																	RW,6,6 N=12	SPT
24																		
25								SM- SP									5,5,6 N=11	SPT
26																	RW,1,0 N=1	SPT
27																		
28																	5,10,13 N=23	SPT
29																		
30	-26.63																RW,1,1 N<1	SPT

REMARKS Defect angles have been measured with respect to a horizontal plane.

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REFERENCE No **H9571**

DRILLER R&D DRILLING PTY LTD

BOREHOLE WITH LITHOLOGY 24 5 2005 - NORTHERN APPROACH PIERS AND ABUTMENT BOREHOLES GP.1 ENGINEERING BOREHOLE 09 04 GDT 31/8/05

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FOR GEOTECHNICAL TERMS AND
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BOREHOLE No BH22
SHEET 5 of 5
REFERENCE No H9571

PROJECT GATEWAY BRIDGE DUPLICATION FOUNDATION INVESTIGATION - GATEWAY UPGRADE PROJECT

LOCATION PIER 10 - DOWN STREAM END

COORDINATES 10082.0 E; 168216.8 N

PROJECT No FG5388

SURFACE R.L. 3.37

DATE STARTED 31/5/05

DATUM SETP

JOB No

DATUM AHD

DATE COMPLETED 3/6/05

DRILLER R&D DRILLING PTY LTD

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORE CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
40	-36.63					PROBABLE MUDSTONE As above.		XW- HW SW					
	-36.83			(10)		MUDSTONE Dark grey to black, thinly laminated, fine grained, very low to low strength.							
41								HW					
	-37.93		90	(59)		MW : Dark grey to black, thinly laminated, fine grained, low to mainly medium strength. Defects : Joints @ 70° - 80° 5/m).		MW					
42													
	-38.83					SW: Dark grey to black, fine grained, thinly laminated, medium to high strength with some low strength bands.						Is(50)=0.11 MPa Is(50)=1.36 MPa Is(50)=0.32 MPa	o o x
43			93	(59)				SW				Is(50)=0.74 MPa Is(50)=1.19 MPa	x o
44													
	-41.21					LOW GRADE COAL Dark grey to black, fine grained, thinly laminated, mainly dull to slightly vitreous, mainly very low to low strength. Highly fractured, broken and altered through out.		HW				Is(50)=0.19 MPa Is(50)=0.30 MPa	o x
45			86	(46)									
	-42.18					INTERBEDDED MUDSTONE AND SANDSTONE SW : Grey to dark grey, thinly laminated and bedded, fine to medium grained, mainly medium to high strength with some low strength bands. Defects : - Drilling induced lamination partings <10° (3-5/m) & joints @ 70° (1/m). Slight alteration along joint planes.		SW				Is(50)=0.07 MPa Is(50)=0.16 MPa	x o
46													
47												Is(50)=1.24 MPa Is(50)=0.59 MPa	x o
	-44.18		91			Borehole terminated at 47.55m							
48													
49													
50													

REMARKS Defect angles have been measured with respect to a horizontal plane.

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Project: **Gateway Upgrade Project - Gateway Bridge**

Borehole No: **BH 22**

Start Depth: 40.10m

Finish Depth: 47.55m

Project No: FG 5388

H No: 9571

