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## ENGINEERING BOREHOLE

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

PROJECT GATEWAY UPGRADE PROJECT - GATEWAY BRIDGE FOUNDATION INVESTIGATION PIER 5 - DOWNSTREAM/RIGHTHAND SIDE LOCATION COORDINATES 10397.3 E; 167581.7 N PROJECT No\_FG5388 \_ \_ \_ SURFACE R.L. \_ 9.44 \_ \_ DATE STARTED \_\_18/04/05\_ DATUM SETP \_0405\_\_\_\_\_ JOB No DATE COMPLETED \_18/04/05\_. DATUM \_AHD \_. DRILLER GEO DRILLING PTY LTC R.L ROD INTACT DEFECT ()% ADDITIONAL DATA STRENGTH SPACING  $\widehat{\epsilon}$ MATERIAL (mm) -ITHOLOGY DEPTM AND SAMPLES DESCRIPTION AUGE CASIN WASH CORE USC WEAT CORE TEST RESULTS REC % 0 FILL Grey to mottled grey, dry, stiff clayey silt. Some gravels in the upper area of the CŁ SPT N=10 7.44 31/08/05 SANDSTONE MEDIUM TO COARSE GRAINED MAINLY MASSIVE TO SLIGHTLY .04.GDT HW LAMINATED POORLY CEMENTED 30/110 SPT N>50 SEDIMENATARY ROCK (56)HW : Pale grey to pink to mottled red, dry, 6.52 ENGINEERING BOREHOLE 09 ls(50)=0.01 MPa ls(50)=0.01 MPa ls(50)=0.06 MPa very dense sifty sand rapidly grading into MW very low to low strength rock 6.14 MW: Is(50)=0.06 MPa Pate grey to pink to mottled red, mainly Is(50)=0.06 MPa medium to coarse grained mainly very low MW to low strength. Core appears to be highly erodable and 5.34 friable especially around defect planes & exhibits sandy properties with excessive wetting. SILTSTONE Is(50)=0.06 MPa 5 2005 - BORELOGS FOR SOUTHERN APPROACH PIERS AND ABUT A.GPJ Is(50)=0.03 MPa FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK Coreloss MW : Pale grey to white, fine grained, thinly laminated, very low to low strength. (19)Core crumbles with excessive drying and exhibits high plastic clay properties with excessive wetting; gradually grading into sandstone with depth. ls(50)=0.12 MPa Is(50)=0.08 MPa MEDIUM TO COARSE GRAINED MW MAINLY MASSIVE TO SLIGHTLY LAMINATED POORLY CEMENTED SEDIMENATARY ROCK MW: Pale grey to pink to mottled red, mainly Coreloss medium to coarse grained, mainly very low to low strength. Core appears to be highly erodable and crumbles and exhibits sandy properties with excessive wetting. 1,20 42 INTERBEDDED SANDSTONE AND (74)MUDSTONE (SANDSTONE DOMINANT) BOREHOLE WITH LITHOLOGY MW: Dark grey and white banded, fine to medium grained, interbedded/laminated very low to medium strength. MW ls(50)=0.30 MPa ls(50)=0.39 MPa ls(50)=0.48 MPa Clay band REMARKS LOGGED BY A. DISSANAYAKE (DISS)



## ENGINEERING BORFHOLF

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

BOREHOLE No BH8

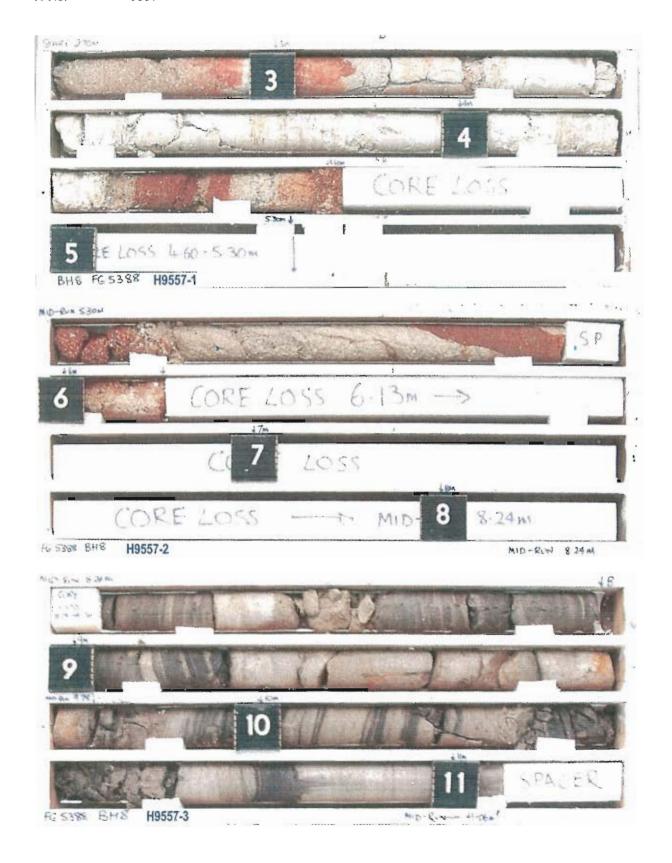
SHEET 2 of 2

REFERENCE NO H9557

SURFACE R.L. 9.44  DATUM AHD  RL. (m) PORT (1)% MATERIAL  DESCRIPTION  INTERBEDDED SANDSTONE AND MUDSTONE MW: (As above).  SILTSTONE - FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK MW: Pale grey to grey fine grained this laminated mainly very low to low streng Gradually grading into interbedded sandstone and mudstone.  INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW: Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75 and 12.65m (65°).	DATE	STRENGTH SPA	18/04/05 ECT	DATUM SETP  DRILLER GEO DRILLI  ADDITIONAL DATA  AND	
R.L. (m) COMPANY (1)% MATERIAL DESCRIPTION  -0.56 CORE REC % MW: (As above).  INTERBEDDED SANDSTONE AND MUDSTONE MW: (As above).  SILTSTONE - FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK MW: Pale grey to grey fine grained this laminated mainly very low to low streng Gradually grading into interbedded sandstone and mudstone.  INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW: Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75)		INTACT DE	ECT	ADDITIONAL DATA	ING PTY
MATERIAL DESCRIPTION  INTERBEDDED SANDSTONE AND MUDSTONE MW: (As above).  SILTSTONE - FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK MW: Pale grey to grey fine grained this laminated mainly very low to low streng Gradually grading into interbedded sandstone and mudstone.  INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW: Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75)	USC WEATHERING				
-1.81  SILTSTONE - FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK MW : Pale grey to grey fine grained this laminated mainly very low to low streng Gradually grading into interbedded sandstone and mudstone.  INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW : Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75)		The second second	111 g	TEST RESULTS	SAMPLES
SILTSTONE - FINE GRAINED THINLY LAMINATED SEDIMENTARY ROCK MW : Pale grey to grey fine grained thi laminated mainly very low to low streng Gradually grading into interbedded sandstone and mudstone.  INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW : Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75)	MW			Is(50)=0.10 MPa Is(50)=0.06 MPa Is(50)=0.08 MPa	al o
INTERBEDDED SANDSTONE AND MUDSTONE (MUDSTONE DOMINANT MW : Dark grey and white banded, fine medium grained, interbedded/laminate mainly low strength.  Two healed fault planes @ 12.45m (75)	inly			is(50)=0.42 MPa Is(50)=0.09 MPa Is(50)=0.10 MPa Is(50)=0.16 MPa Is(50)=0.11 MPa Is(50)=0.18 MPa Is(50)=0.16 MPa Is(50)=0.16 MPa	a
	ed MW			Is(50)=0.09 MPa Is(50)=0.23 MPa Is(50)=0.14 MPa Is(50)=0.10 MPa Is(50)=0.12 MPa Is(50)=0.10 MPa Is(50)=0.13 MPa	
SANDSTONE FINE TO MEDIUM GRAINED MAINLY SLIGHTLY LAMINATED TO MASSIVE POORLY CEMENTED SEDIMENATARY ROCK SW: Pale grey to white, fine to medium grained mainly mainly very low to low	Y	T		Is(50)=0.03 MPa Is(50)=0.05 MPa Is(50)=0.03 MPa Is(50)=0.01 MPa	x x
Clay infilled subvertical fault features throughout, becoming erodable and frie with depth.  Borehole terminated at 15.4m				IS(30)=0.01 (VIPA	
MARKS	1 1 1				

Project: Gateway Upgrade Project - Gateway Bridge

Borehole No: BHS
Start Depth: 2.70m
Finish Depth: 15.40m
Project No: FG 5388
H No: 9557



Project: Gateway Upgrade Project - Gateway Bridge

Borehole No: BH 8
Start Depth: 2.70m
Finish Depth: 15.40m
Project No: FG 5388
H No: 9557



