COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the <u>Creative Commons Attribution 4.0 Licence</u> (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department as follows: "(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence". This licence does not apply to the Queensland Government logo or trademarks.

LIMITATION OF LIABILITY

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database http://qgd.org.au/



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

PROJECT GATEWAY UPGRADE PROJECT GEOTECHNICAL INVESTIGATION - NORTHERN SECTION												
LOCAT										ORDINATES 9532.4 E; 169232.8 N		
PROJECT No _FM2055			<u> </u>		SURFACE R.L <u>3.77</u>	DATE STARTED 2/8/04			D _2/8/04	<u>.</u>	DATUM SETP	
JOB No)				DATUM <u>AHD</u> .		DAT	E COMPLETE	D <u>2/8/04</u>	<u> </u>	DRILLER R&DDrilling F	Pty Ltd_
	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	ПТНОГОВУ	USC		DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
					ASPHALT AND ROADBASE Crushed rock up to 30mm.		GC		L L .l . J F		Drilling record only	-
1	3.17				CLAYEY GRAVEL - FILL Pale brown to orange brown, moist, dense sandstone fragments.		GC		***************************************		6,14,30 N=44	SPT
-3					SAND - ALLUVIUM Brown to orange brown, wet, medium dense. Medium sand becoming coarse with depth.						5,6,9 N=15 ₹ 7/9/04 6/10/04	SPT
-4							SM	+ + + + + + + + + + + + + + + + + + + +			8,11,12 N=23	SPT
5								+ + + + + + + + + + + + + + + + + + +			11,12,13 N=25	SPT
7	-2.98				SILTY CLAY - ALLUVIUM Pale green to mottled orange, slightly moist to dry. Medium plasticity, some red concretions and lateritic zones.					-	10,5,7 N=12	SPT
9							CI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			11,13,16 N=29	SPT
3 <u>† 10 </u>	-6.23		At valers:	(n -)		/// •		<u> </u>				*
REMARKS SPT N values in clayey sandy gravel can overestimate density due to influence of coarser size gravel particles. LOGGED BY B.Woodgate & A.Dissanayake												



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

BOREHOLE No	BH104
SHEET	2 of4
REFERENCE No	<u>H9413</u>

GATEWAY UPGRADE PROJECT GEOTECHNICAL INVESTIGATION - NORTHERN SECTION **PROJECT** CONTROL LINE: MCAO - Ch. 18641.1 - OFFSET 4.1 L LOCATION COORDINATES 9532.4 E; 169232.8 N PROJECT No_FM2055 _ _ _ _ SURFACE R.L. _3.77 __. DATE STARTED 2/8/04 DATUM SETP ____ JOB No DATE COMPLETED 2/8/04 DATUM AHD DRILLER R&D Drilling Pty Ltd RQD R.L. INTACT DEFECT (m) ()% STRENGTH SPACING ADDITIONAL DATA Ê MATERIAL DEPTH LITHOLOGY AND SAMPLES DESCRIPTION SAMPL ACGER CASIN WASH CORE CORE WEATHER WEATHE TEST RESULTS REC % -6.23 10 SILTY CLAY - ALLUVIUM 5,8,12 (As above) SPT Becoming sandy with depth. SAND - ALLUVIUM Pale brown to orange brown, wet, mainly medium dense to occasionally very dense. Medium grained sand. 4.6.8 SPT 5,8,9 SPT SP BOREHOLE WITH LITHOLOGY GATEWAY NORTHERN UPGRADE.GPJ. ENG BOREHOLE FINAL.GDT 30/4/05 4,5,5 SPT Fine sand at 15.5m. 5,4,8 SPT -13.23 CLAYEY SANDY GRAVEL - ALLUVIUM Brown, moist, dense to very dense. Angular to subangular quartzitic and lithic fragments sizing up to 40mm. 20.28.30/130 SPT N>50 5,6,10 SPT REMARKS SPT N values in clayey sandy gravel can overestimate density due to influence of coarser size gravel particles. LOGGED BY B.Woodgate & A.Dissanayake



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

BOREHOLE No __BH104__ SHEET _3_ of _4,_ __H9413__ REFERENCE No

GATEWAY UPGRADE PROJECT GEOTECHNICAL INVESTIGATION - NORTHERN SECTION **PROJECT** CONTROL LINE: MCAO - Ch. 18641.1 - OFFSET 4.1 L LOCATION COORDINATES 9532.4 E; 169232.8 N PROJECT No _FM2055 __ __ SURFACE R.L. _3.77_ __. DATE STARTED 2/8/04 DATUM SETP JOB No DATUM _AHD _. DATE COMPLETED 2/8/04 DRILLER R&D Drilling Pty Ltd RQD R.L INTACT DEFECT (m) ()% ADDITIONAL DATA STRENGTH SPACING DEPTH (m) MATERIAL (mm) LITHOLOGY AND SAMPLE SAMPLES DESCRIPTION 88888 CORE TEST RESULTS REC % -16.23 20 11111111111 **CLAYEY SANDY GRAVEL - ALLUVIUM** As above. 17,30/120. SPT N>50 GC 15,16,17 SPT 16,30/105, SPT N>50 -20.13 -24 SANDSTONE FINE TO MEDIUM GRAINED, MASSIVE TO LAMINATED, POORLY CEMENTED SEDIMENTARY ROCK. Drilling record only HW HW: Generally exhibits engineering properties of grey brown, moist, very dense silty sand gradually grading into low -21.23 GATEWAY NORTHERN UPGRADE.GPJ ENG BOREHOLE FINAL.GDT (100) strength rock. Is(50)=0.45 MPa Is(50)=0.24 MPa Grey white to pale grey, thinly laminated to massive, mainly medium to high strength. Occasional carbonaceous layers up to 30mm. Is(50)=0.61 MPa Defects - Generally rare. Is(50)=0.45 MPa Occasional drilling induced lamination partings <30deg (1/2m). Joints @ 60deg (1-2/m). -27 SW Is(50)=0.56 MPa ls(50)=0.74 MPa 100 -28 Is(50)=1.02 MPa Is(50)=0.78 MPa BOREHOLE WITH LITHOLOGY Is(50)=0.64 MPa Is(50)=1.08 MPa REMARKS SPT N values in clayed sandy gravel particles. LOGGED BY

B.Woodgate & A.Dissanayake



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

BOREHOLE No	BH104
SHEET	_4_ of _4_
REFERENCE No	H9413

PROJECT											
LOCATION				MCAO - Ch. 18641.1 - OFFSET 4.1 L					OORDINATES 9532.4 E; 169232.8 N		
					DATE STARTED _2/8/04				DATUM SETP		
JOB No DATUM _AHD DATE COMPLETED 2/8/04 DRILLER _R & D Drilling Pty_Ltd									Pty Ltd_		
R.L. (m)	200	RQD				,,	INTACT DEFECT STRENGTH SPACING	l _o	ADDITIONAL DATA		
DEPTH (m)	SER IING SH BORING RE DRILLING			MATERIAL	β	N N	STRENGTH SPACING (mm)	GRAPHIC LOG	AND	_ω	
OEP	SING SING ASH E	CORE	SAMPLE	DESCRIPTION	LITHOLOGY	SAT	EE 00888	\ APH	TEST RESULTS	SAMPLES	
30 -26.2	SASSISSISSISSISSISSISSISSISSISSISSISSISS	REC %	8		=	ន្ត្រី	N 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	8		SAI	
[]							1 ‡			1	
-							‡			4	
[1	
-31							1 +			-	
-]]	
-							1 ‡				
-]	
-32							†			-[
							‡				
-							 			-	
							1 1				
-33							 				
							1 ‡]	
-							+				
							1				
-34							<u> </u>				
[1 ‡			- 1	
							<u> </u>			-	
]]	
-35										4	
										-	
įĘ											
-36							‡				
3} "							Ī				
						1	1 ±				
}							Ī]	
37							1 1			=	
į l							‡			-	
1							1			-	
E							1 ‡				
-38							I				
							1 ‡			-	
-							<u> </u>]	
F							1 ‡]	
39							‡]	
F							‡			=	
1							1 ‡			-	
							‡			1	
2 40 EMARK	/C CDT	Al1:	 '				<u> </u>				
REMARKS SPT N values in clayey sandy gravel can overestimate density due to influence of coarser size gravel particles. LOGGED BY B.Woodgate & A.Dissanayak								nayake			

Project: Gateway Upgrade Project Geotechnical Investigation

Borehole No: BH 104
Start Depth: 25.00m

Finish Depth: 30.00m Project No: FM2055 H No: 9413

