

## **COPYRIGHT NOTICE**

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (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/>



# ENGINEERING BOREHOLE LOG

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

BOREHOLE No   BH04    
 SHEET   1   of   3    
 REFERENCE No   H11014  

PROJECT   Moreton Bay Rail Link    
 LOCATION   Kallangur Station, Fill 4, Ch.2600   COORDINATES   499825.0 E; 6985095.5 N    
 PROJECT No   FG5921   SURFACE R.L.   16.00m   PLUNGE        DATE STARTED   9/6/11   GRID DATUM   MGA94 Zone 56    
 JOB No   250/120/3   HEIGHT DATUM   AHD   BEARING        DATE COMPLETED   9/6/11   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
0	16.00					<b>Silty CLAY</b> Red brown to grey, moist, stiff to very stiff.  Medium plasticity.						Based on Driller's logs only	
1					A							3,3,6 N=9	SPT
2					B	Becoming more grey, very stiff below 2.5m depth.	(Cl)					6,11,16 N=27	SPT
3					C	Becoming grey.						7,13,16 N=29	SPT
4											QA gravel		
5	10.50				D	<b>Sandy Silty CLAY</b> White, moist, hard.  Sand fraction is coarse grained.  High plasticity; contains subangular quartzitic gravel sizing <40-50mm in parts.	(CH)				High strength gravel	13,22,32 N>50	SPT
6					E						High strength gravel	12,22,26 N=48	SPT
7	8.40				F	<b>Silty CLAY</b> White, moist, stiff.  High plasticity.	(CH)					3,5,8 N=13	SPT
8													
9													
10													

REMARKS \_\_\_\_\_

LOGGED BY  
BW / JD / LVD



# ENGINEERING BOREHOLE LOG

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

BOREHOLE No	<u>BH04</u>
SHEET	<u>2</u> of <u>3</u>
REFERENCE No	<u>H11014</u>

PROJECT Moreton Bay Rail Link  
 LOCATION Kallangur Station, Fill 4, Ch.2600 COORDINATES 499825.0 E; 6985095.5 N  
 PROJECT No FG5921 SURFACE R.L. 16.00m PLUNGE \_\_\_\_\_ DATE STARTED 9/6/11 GRID DATUM MGA94 Zone 56  
 JOB No 250/120/3 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 9/6/11 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						DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	VH	I	M	J	VL				
10	6.00				G	<b>Silty CLAY</b> (Cont'd) Becoming white to red, very stiff from 10m.											5,11,13 N=24	SPT
11							(CH)											
12					H	Becoming grey @ 11.5m.											6,11,14 N=25	SPT
13	3.00				J	<b>CLAYSTONE</b> Fine grained sedimentary rock mainly comprising of clay-sized particles <b>XW:</b> Generally exhibits engineering properties of light grey, moist, very stiff silty clay.  High plasticity.  Contains interbeds of mudstone in parts.											6,12,15 N=27	SPT
14							XW											
15					K	Relict rock fabric structure visible throughout.											10,17,25 N=42	SPT
16	0.00		(79)			<b>MW:</b> Light brown, laminated, low strength.  Contains thinly laminated mudstone and siltstone bands.  Defects: - Drilling-induced lamination partings @ 5° (1-2/m) - Joints @ 70° (1/m) - Joints @ 80-85° (1-2/m)											Is(50) = 0.12MPa DD = 2.03t/m <sup>3</sup> ; MC = 10.5%; UCS=2.61MPa	x UCS
17				100			MW										Is(50) = 0.13MPa Is(50) = 0.25MPa	x o
18			(75)			Defect surfaces are medium spaced, planar, smooth, open and closed, clay infill.											Is(50) = 0.13MPa	x
19	-2.90			100		<b>MUDSTONE</b> Fine grained sedimentary rock mainly comprising of mud sized particles <b>SW:</b> Brown black, laminated, low to medium strength.											Is(50) = 0.26MPa Is(50) = 0.17MPa Is(50) = 0.39MPa Is(50) = 0.32MPa	x o x o
20			(75)				SW										DD = 2.20t/m <sup>3</sup> ; MC = 6.2%; UCS=11.1MPa Is(50) = 0.32MPa Is(50) = 0.37MPa  DD = 2.06t/m <sup>3</sup> ; MC = 10.3%;	UCS x o UCS

REMARKS \_\_\_\_\_

LOGGED BY  
BW / JD / LVD



# ENGINEERING BOREHOLE LOG

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

BOREHOLE No	<u>  BH04  </u>
SHEET	<u>  3  </u> of <u>  3  </u>
REFERENCE No	<u>  H11014  </u>

PROJECT Moreton Bay Rail Link -----  
 LOCATION Kallangur Station, Fill 4, Ch.2600 ----- COORDINATES 499825.0 E; 6985095.5 N -----  
 PROJECT No FG5921 SURFACE R.L. 16.00m PLUNGE \_\_\_\_\_ DATE STARTED 9/6/11 GRID DATUM MGA94 Zone 56 -----  
 JOB No 250/120/3 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 9/6/11 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
										EH	VH	IM	JL	VL				
20	-4.00					<b>MUDSTONE SW:</b> (Cont'd)  Defects: Generally rare. - Fracture @ 65° (1/m) - Fracture @ 70° (1/m)  Defect surfaces are close to medium space, planar, smooth, open and closed, with clay infill.										UCS=3.22MPa  Is(50) = 0.36MPa Is(50) = 0.42MPa  Is(50) = 0.33MPa Is(50) = 0.33MPa  Is(50) = 0.58MPa Is(50) = 0.55MPa	x o  x o  x o	
21			100 (75)						SW									
22	-5.90		100			Borehole terminated at 21.9m												
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		

REMARKS -----  
 -----

LOGGED BY  
BW / JD / LVD

<b>Project Name</b>	<b>Moreton Bay Rail Link (MBRL)</b>		
<b>Project No</b>	FG5921	<b>Date</b>	09/06/11
<b>Borehole No</b>	BH 4	<b>TMR H No</b>	11014
<b>Location</b>	Kallangur Station	<b>Start Depth (m)</b>	16.00
<b>Detail</b>	Structure	<b>Finish Depth (m)</b>	21.90
<b>Chainage</b>	2590 Approx	<b>Submitted By</b>	BW
<b>Remarks</b>			



SCALE 1:5