

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 BH110
SHEET 1 of 3
REFERENCE No H10897

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Oxley Creek (New Service Road) COORDINATES 498879.6 E; 6951085.9 N
PROJECT No FG5779 SURFACE R.L. 3.10m PLUNGE -90° DATE STARTED 01/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 01/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	3.10											
1	2.10				A	Silty CLAY (Possible Fill?) Mottled grey-brown, moist, firm.					Based on Drillers logs only	
2						Silty CLAY (Alluvium) Mottled grey-brown, mainly firm. Medium plasticity.						2,2,4 N=6 SPT
3					B		CI				inferred GWT	
4	-0.60				C	Silty SAND (Alluvium) Grey to dark brown, wet, very loose to medium dense. Sand fraction mainly medium to coarse grained.					p'c=130kPa OCR=2.9	U100
5					D							6,7,8 N=15 SPT
6					E							6,8,10 N=18 SPT
7					F	Becoming medium grained, very loose black carbonaceous sand below 6.50m depth.	(SM)					1,0,0 N<1 SPT
8											Sample slipped	U100
9	-6.10				H							4,5,4 N=9 SPT
10					J	Becoming loose sand below 9.0m depth. Gravelly Clayey SAND (See over)	(SP)					13,12,9 N=21 SPT

REMARKS _____

LOGGED BY
BW / JA

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH110
SHEET 2 of 3
REFERENCE No H10897

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Oxley Creek (New Service Road) COORDINATES 498879.6 E; 6951085.9 N
PROJECT No FG5779 SURFACE R.L. 3.10m PLUNGE -90° DATE STARTED 01/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 01/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	-6.90											
						Gravelly Clayey SAND (Cont'd) Grey-brown, moist to wet, mainly medium dense.	(SP)				Becoming more gravelly below 10.50m depth.	
11	-7.90				K	Gravel fraction subangular high strength quartzitic rock fragments sizing up to 20mm.					7,7,15 N=22	SPT
12					L	Interbedded SILTSTONE and CLAYSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY CLAY AND SILT SIZED PARTICLES. HW: Generally exhibits engineering properties of yellowish brown, moist, hard, silty clay.					13,14,20 N=34	SPT
13					M	High plasticity.	HW				13,18,27 N=45	SPT
14	-10.90				N					Mudstone	16,21,27 N=48	SPT
15					P	Sandy SILTSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF SILT SIZED PARTICLES. HW: Generally exhibits engineering properties of pale grey, moist, hard clayey silt.	HW				13,22,30/135mm N>50	SPT
16	-12.90				Q	Sand fraction fine grained. Gradually grading into low strength rock with depth.					20,25,26 N>50	SPT
17	-13.70		(10)			CLAYSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF CLAY SIZED PARTICLES. HW: Dark grey, fine grained, bedded, extremely low to very low strength.	HW				Highly fractured throughout.	
			100			MW: Dark grey, occasionally mottled with red fine grained, bedded, very low to low strength.					Is(50) = 0.10MPa Is(50) = 0.04MPa	x o
18			(100)			Becoming mottled red-brown iron staining below 17.90m up to 19.40m depth.				HW DD = 1.77t/m ³ ; WD = 2.09t/m ³ ; MC = 18.4%; UCS=559KPa		
						Defects: - Bedding / lamination partings @ 5° (2/m) - Joint @ 45° (>1/m)					Is(50) = 0.08MPa Is(50) = 0.08MPa	x o
19			100			Occasional HW bands in parts; sandstone interbeds up to 200mm thick.	MW				Is(50) = 0.10MPa Is(50) = 0.07MPa	x o
			(93)			Defects are close to medium spaced, planar, smooth, open and closed with clay infill and iron stained.					DD = 1.83t/m ³ ; WD = 2.15t/m ³ ; MC = 17%; UCS=1000KPa Is(50) = 0.10MPa Is(50) = 0.09MPa	x o
20						(See over)						

REMARKS _____

LOGGED BY
BW / JA

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH110
SHEET 3 of 3
REFERENCE No H10897

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Oxley Creek (New Service Road) COORDINATES 498879.6 E; 6951085.9 N
PROJECT No FG5779 SURFACE R.L. 3.10m PLUNGE -90° DATE STARTED 01/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 01/11/10 DRILLER R&D Drilling Pty Ltd

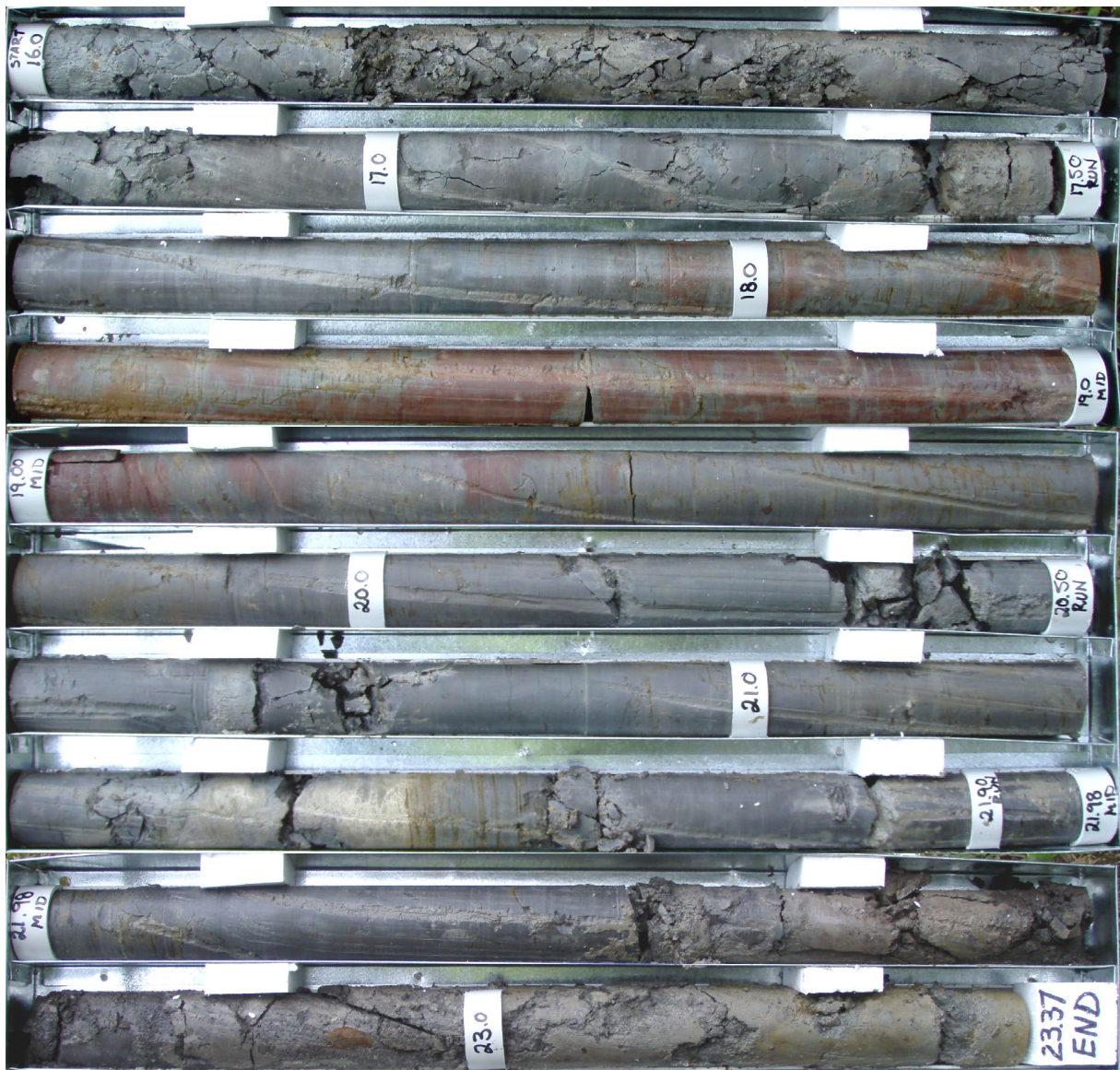
DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20	-16.90											
						CLAYSTONE MW: (Cont'd)					Is(50) = 0.17MPa Is(50) = 0.07MPa	x o
											BZ	
											Clay seams	
21							MW					
											Sandstone Interbeds	
											Is(50) = 0.07MPa Is(50) = 0.12MPa Is(50) = 0.03MPa Is(50) = 0.05MPa	x o x o
22	-18.90					MUDSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF CLAY SIZED PARTICLES.					DD = 1.72t/m ³ ; WD = 2.06t/m ³ ; MC = 19.8%; UCS=509KPa	
						HW: Dark grey to brown, fine grained, bedded, extremely low to very low strength; clayey and broken throughout.					Is(50) = 0.05MPa Is(50) = 0.11MPa	x o
							HW				Irregular fracture @ 45° (1/m)	
23						Defects as before.						
	-20.27					Borehole terminated at 23.37m						
24												
25												
26												
27												
28												
29												
30												

REMARKS _____

LOGGED BY
BW / JA

Project: **Ipswich Motorway Upgrade - Rocklea to Darra**
Borehole No: **BH 110**
Start Depth: 16.00m
Finish Depth: 23.37m
Project No: FG5779
H No: H10897

Page 1 of 1



SCALE 1:5

F:GEOT043/1