

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 BH117
SHEET 1 of 4
REFERENCE No H10918

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Creighton House Driveway (Bridge BR20) COORDINATES 497287.8 E; 6950704.4 N
PROJECT No FG5779 SURFACE R.L. 23.96m PLUNGE -90° DATE STARTED 29/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 30/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	CASING OTHER 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	23.96					CONCRETE up to 0.15mm					Non destructive digging up to 1.5m depth. (Based on Drillers logs only)	
1	22.46				A	Silty CLAY (Alluvium) Mottled grey to red, moist, soft. High plasticity.	(CH)				1,1,3 N=4	SPT
2	21.46				B	Silty CLAY (Residual) Mottled yellow-red to grey, moist, mainly very stiff to hard. Medium to high plasticity. Iron staining in parts.	(CI-CH)				4,9,12 N=21	SPT
3					C						5,7,12 N=19	SPT
4					D						7,11,18 N=29	SPT
5					E	Becoming hard below 5.5m depth.					9,18,27 N=45	SPT
6					F						4,8,21 N=29	SPT
7	16.96				G	SILTSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF SILT SIZED PARTICLES XW: Generally exhibits engineering properties of grey to brown, moist, hard silty clay. Relict rock fabric structure visible.	XW				11,16,27 N=43	SPT
8					H	Contains thin bands of fine grained sand in parts.					18,17,30 N=47	SPT
9	14.46				J	MUDSTONE (See over)	XW				8,12,18 N=30	SPT
10												

REMARKS _____

LOGGED BY
BW/SG

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH117
SHEET 2 of 4
REFERENCE No H10918

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Creighton House Driveway (Bridge BR20) COORDINATES 497287.8 E; 6950704.4 N
PROJECT No FG5779 SURFACE R.L. 23.96m PLUNGE -90° DATE STARTED 29/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 30/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	CASING OTHER WASH BORING CORE DRILLING	RQD () %	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	13.96		CORE REC %								
11				K	MUDSTONE (Cont'd) FINE GRAINED SEDIMENTARY ROCK MAINLY COMPOSED OF CLAY SIZED PARTICLES XW: Generally exhibits engineering properties of dark grey to black, moist, hard silty clay. High plasticity; organic content in parts.	XW				9,12,18 N=30	SPT
12				L						22,30/120mm N>50	SPT
13	10.96			M	Contains interbeds of siltstone below 12.5m depth.					30/100mm N>50	SPT
14			(95)		HW: Dark grey, massive, fissile structure in parts, fine grained, mainly very low strength. Generally defects are rare. - Drilling induced lamination / bedding partings @ 5° (1/m) Defects are mainly wide spaced, planar, smooth and slickensided, closed and clean.	HW				DD = 1.66t/m ³ ; WD = 2.00t/m ³ ; MC = 20.6%; UCS=359KPa Siltstone interbeds app. 200mm thick.	
15	9.36		100		SANDSTONE FINE TO MEDIUM GRAINED, MASSIVE POORLY CEMENTED, SEDIMENTARY ROCK HW: Yellow-brown, iron stained, massive, fine grained, very low strength. Generally defects are rare. - Drilling induced bedding partings @ 5° (1/m)	HW				Is(50) = 0.07MPa Is(50) = 0.04MPa Loose erodable sand (XW) BZ Gravelly sand (XW)	x o
16	7.86		100		MUDSTONE MW: Dark grey, laminated, fine grained, mainly very low to low strength. Contains interbeds of sandy siltstone in parts. Generally defects are rare. - Drilling induced / lamination partings @ 5° (<1/m) - Joint @ 15° (1/m) - Joint @ 45° (1/m) Defects are close to wide spaced, planar, smooth closed and clean.	MW				Is(50) = 0.09MPa Is(50) = 0.10MPa DD = 1.82t/m ³ ; WD = 2.12t/m ³ ; MC = 15.6%; UCS=765KPa Fine grained sandstone Siltstone interbeds	x o x o x o
17			100	(100)						Is(50) = 0.02MPa Is(50) = 0.05MPa	x o
18			100	(90)						Is(50) = 0.05MPa Is(50) = 0.06MPa Is(50) = 0.04MPa Is(50) = 0.05MPa	x o x o
19			100							Is(50) = 0.06MPa Is(50) = 0.15MPa	x o
20	3.96									Is(50) = 0.12MPa Is(50) = 0.11MPa	x o

REMARKS _____

LOGGED BY
BW/SG

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH117
SHEET 3 of 4
REFERENCE No H10918

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Creighton House Driveway (Bridge BR20) COORDINATES 497287.8 E; 6950704.4 N
PROJECT No FG5779 SURFACE R.L. 23.96m PLUNGE -90° DATE STARTED 29/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 30/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	CASING OTHER WASH BORING CORE DRILLING	RQD () %	SAMPLE	MATERIAL DESCRIPTION	USC	WEATHERING	INTACT STRENGTH					DEFECT SPACING (mm)				GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS		SAMPLES	TESTS
								EH	VH	H	M	J	VL	EL	20	60		200	600		
20	3.96																				
					SW: Dark black, massive with laminations, minor fissiling, fine grained, mainly very low to low strength.													Is(50) = 0.08MPa Is(50) = 0.07MPa	x o		
			100		Contains thin bands of siltstone in parts.													Is(50) = 0.10MPa Is(50) = 0.08MPa	x o		
21			(90)		Generally defects are rare. - Drilling induced lamination partings @ 5-10° (1/m) - Joint @ 15° and 25° (<1/m) -Joint @ 45° (1/m)													Is(50) = 0.10MPa Is(50) = 0.12MPa	x o		
			100															Is(50) = 0.11MPa Is(50) = 0.11MPa	x o		
22			(100)		Defects are medium to wide spaced, planar, smooth, closed and clean.													Is(50) = 0.07MPa Is(50) = 0.12MPa	x o		
																		Is(50) = 0.11MPa Is(50) = 0.11MPa	x o		
23			100															Is(50) = 0.07MPa Is(50) = 0.12MPa	x o		
			(95)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
24																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(80)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
25																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(100)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
26																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(80)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
27																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(80)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
28																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(80)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
29																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			100															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
			(80)															Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
30																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		
																		Is(50) = 0.05MPa Is(50) = 0.10MPa	x o		

REMARKS _____

LOGGED BY
BW/SG

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH117
SHEET 4 of 4
REFERENCE No H10918

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra
LOCATION Creighton House Driveway (Bridge BR20) COORDINATES 497287.8 E; 6950704.4 N
PROJECT No FG5779 SURFACE R.L. 23.96m PLUNGE -90° DATE STARTED 29/11/10 GRID DATUM GDA94
JOB No 140/U16/902 HEIGHT DATUM AHD BEARING DATE COMPLETED 30/11/10 DRILLER R&D Drilling Pty Ltd

DEPTH (m)	R.L. (m)	CASING OTHER WASH BORING CORE DRILLING	RQD (%)	SAMPLE	MATERIAL DESCRIPTION	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
30	-6.05										
30	-6.05										
31											
32											
33	-9.05										
34	-10.47										
35											
36											
37											
38											
39											
40											

REMARKS _____

LOGGED BY
BW/SG

Project: **Ipswich Motorway Upgrade - Rocklea to Darra**
Borehole No: **BH 117**
Start Depth: 13.00m
Finish Depth: 34.42m
Project No: FG5779
H No: H10918

Page 1 of 2



SCALE 1:5

F:GEOT043/1

Project: **Ipswich Motorway Upgrade - Rocklea to Darra**
 Borehole No: **BH 117**
 Start Depth: 13.00m
 Finish Depth: 34.42m
 Project No: FG5779
 H No: H10918



SCALE 1:5

F:GEOT043/1