FINAL 19/07/2019

Queensland Government

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH16**
Sheet 1 of 3
REFERENCE No **H13336**

PROJECT Centenary Bridge Upgrade
LOCATION Brisbane River, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore
COORDINATES 494725.94 E; 6955065.06 N
PROJECT No FG18012
SURFACE RL -7.26m
PLUNGE 90°
DATE STARTED 20/02/2019
GRID DATUM MGA94 56J
JOB No 498/05038
HEIGHT DATUM m AHD
BEARING
DATE COMPLETED 21/02/2019
DRILLER Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	GROUP SYMBOL / WEATHERING	INTACT STRENGTH (EH VH H M L VL)	DEFECT SPACING (EC VC C M W VW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0				A	SILT trace sand and gravel (Alluvium) Brown grey to dark brown, wet, very soft. 85% silt, low plasticity 10% fine grained sand 3% clay, low plasticity 2% gravel, subrounded <40mm.		(ML)				U75
1	-8.76									Su(PP)=0 kPa	
				B	SAND trace gravel (Alluvium) Grey to brown, wet, very loose. 87% fine to coarse grained sand. 11% fine to coarse grained gravel, sub-angular grains 2% fines, low plasticity.					1, 2, 1 N=3	SPT
2				C	2.50m: Becoming loose.					4, 3, 3 N=6	SPT
3				D						3.30m-3.35m: Environmental sample 'D1' 4, 4, 5 N=9 MC=22.5% <75µm= 2%	SPT
4				E			SW			4.30m-4.35m: Environmental sample 'E1" 4, 3, 3 N=6	SPT
5				F						5.30m-5.35m: Environmental sample 'F1' 2, 2, 3 N=5	SPT
6				G						6.30m-6.35m: Environmental sample 'G1' 4, 4, 4 N=8	SPT
7				H						7.30m-7.35m: Environmental sample 'H1' 6, 4, 7 N=11	SPT
8	-15.26				7.7-8.8m: Dark brown to grey, moist, stiff Silty CLAY band. 80% clay, medium plasticity, 15% silt, 5% fine grained sand.						
				I	SAND trace gravel and silt (Alluvium) Grey, brown, wet, medium dense. 80% fine grained sand 5% silt, low plasticity 15% coarse grained gravel, sub-rounded grains.		(SW)			8.30m-8.35m: Environmental sample 'I1' 9, 7, 9 N=16	SPT
9	-16.56			J	9.0-9.3m: Gravel portion increasing.					9.30m-9.35m: Environmental sample 'J1' 30/130mm	SPT
	-17.26				Clayey GRAVEL (Residual) (DCf)		(GC)				

REMARKS: Barge deck at 3.04 m AHD, 10.3 m measured from barge deck to river bed

LOGGED BY	REVIEWED BY
E. Maxwell	S. Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

Queensland Government

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BOREHOLE No **BH16**

Sheet 2 of 3

REFERENCE No **H13336**

PROJECT Centenary Bridge Upgrade

LOCATION Brisbane River, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore

COORDINATES 494725.94 E; 6955065.06 N

PROJECT No FG18012 | SURFACE RL -7.26m | PLUNGE 90° | DATE STARTED 20/02/2019 | GRID DATUM MGA94 56J

JOB No 498/05038 | HEIGHT DATUM m AHD | BEARING | DATE COMPLETED 21/02/2019 | DRILLER Schneider Drilling

DEPTH (m)	R.L. (m)	RQD ( ) % / CORE REC %	MATERIAL DESCRIPTION	GROUP SYMBOL / WEATHERING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
			Clayey GRAVEL (Residual) (DCf) Brown grey mottled yellow, moist, dense. 70% fine to medium grained gravel, angular grains (medium strength argillite gravel) 30% clay, low plasticity	(GC)		
	-17.56	(66)	GREYWACKE (DCf) MA: Pale blue-grey, fine grained, high strength with quartz veining.	MA	10.30m-12.30m: Js: 60°-80° (1/m), Sm, Tl, Fe Stn, Cn Js: 0°-20° (5-7/m), Ro, Tl, Cn Js: 30°-50° (3-4/m), Ro, Tl, Cn 30/30mm Is(50)=0.68 MPa Is(50)=0.83 MPa	~~D (10.32m)~~ A (10.33m)
11		100 (69)			Is(50)=0.66 MPa Is(50)=0.61 MPa	D (11.20m) A (11.27m)
12	-19.56		ARGILLITE (DCf) MA: Dark grey, fine grained, medium strength with high strength quartz banding/veining, typically close spaced fractures with some very close zones.	MA	12.30m-12.70m: Js: 10°-30° (6/m), Ro, Tl-OP, Cn Is(50)=0.39 MPa Is(50)=0.51 MPa	D (12.50m) A (12.51m)
13	-20.51	100 (75)	GREYWACKE (DCf) MA: Pale green-grey, fine grained, high strength, siliceous. Js: 0°-20° (8-9/m), Ro, Tl-OP, Cn Js: 30°-50° (3-4/m), Ro, Tl, Cn Js: 0°-20° (12-14/m), Ro, Tl-OP, Cn	MA	13.20m-13.25m: HA Zone Is(50)=0.96 MPa Is(50)=0.49 MPa	D (13.47m) A (13.49m)
14					Is(50)=0.04 MPa Is(50)=1.30 MPa	D (14.45m) A (14.46m)
15		100 (64)				
	-23.06		ARGILLITE (DCf) MA: Pale green-grey, fine grained, foliated, high strength, siliceous. Js: 0-10°, (3/m), Ro, OP, Cn FP: 15-35°, (2/m), Ro, Tl, Cn 16.02-19.15m Some clayey BZ joint infill.	MA	Is(50)=1.70 MPa Is(50)=1.30 MPa	D (15.46m) A (15.47m)
16		100 (45)			Is(50)=0.84 MPa Is(50)=2.70 MPa	D (16.19m) A (16.20m)
17					Is(50)=0.16 MPa Is(50)=1.40 MPa	D (17.37m) A (17.38m)
18		100 (84)			Is(50)=0.84 MPa Is(50)=1.50 MPa	D (17.75m) A (17.76m)
	-25.86		ARGILLITE (DCf) HA: Pale green, mottled pale grey, high strength, quartz veining throughout, siliceous.	HA XA HA		
19		100 (70)			Is(50)=0.33 MPa Is(50)=0.35 MPa	D (19.20m) A (19.21m)
	-27.26					

REMARKS: Barge deck at 3.04 m AHD, 10.3 m measured from barge deck to river bed

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E. Maxwell	S. Foley

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PROJECT Centenary Bridge Upgrade

LOCATION Brisbane River, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore

COORDINATES 494725.94 E; 6955065.06 N

PROJECT No FG18012 | SURFACE RL -7.26m | PLUNGE 90° | DATE STARTED 20/02/2019 | GRID DATUM MGA94 56J

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DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	GROUP SYMBOL / WEATHERING	INTACT STRENGTH (EH VH H M L VL)	DEFECT SPACING (EC VC C M W VW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
21			100 (95)		ARGILLITE (DCf) HA: Continued. Js: 0°-20° (8/m), Ro, Tl, Cn Js: 30°-50° (3-4/m), Ro-Sm, Tl, Cn		HA	VH	C	UCS=12.70 MPa Is(50)=0.78 MPa Is(50)=2.00 MPa	(20.20m) D (20.36m) A (20.37m)
22										Is(50)=2.30 MPa Is(50)=1.50 MPa	D (21.29m) A (21.30m)
	-29.82		100		Borehole completed at 22.56 m					Is(50)=2.70 MPa Is(50)=1.60 MPa	D (22.29m) A (22.30m)
23											
24											
25											
26											
27											
28											
29											

REMARKS: Barge deck at 3.04 m AHD, 10.3 m measured from barge deck to river bed

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E. Maxwell	S. Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

GEOT043/3

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT AND MAIN ROADS
GEOTECHNICAL SECTION

Queensland Government

Project Name	**Centenary Bridge Upgrade - Geotechnical Investigation**		
Project No.	FG18012	Date	20-21/02/2019
Borehole No.	BH16	Reference No.	H13336
Location	Brisbane River, Jindalee	Start Depth (m)	10.25
Submitted By	M. Hayes	Finish Depth (m)	22.56

0 100 200 300 400 500 600 700

SCALE (mm)