FINAL 02/11/2017

Queensland Government

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No **BH02**

Sheet 1 of 4

REFERENCE No **H12903**

PROJECT Boyne River Bridge Repalcement

LOCATION Abutment B, RHS

COORDINATES 323486.4 E; 7159943.2 N

PROJECT No FG6482 | SURFACE RL 124.82m | PLUNGE 90° | DATE STARTED 12/07/2017 | GRID DATUM MGA Z56

JOB No 249/435/375550 | HEIGHT DATUM AHD | BEARING ° | DATE COMPLETED 14/07/2017 | DRILLER NorthCoast Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (EC VC C M W VW EW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	124.82				Sandy SILT (Alluvium) Dark brown, moist, firm to stiff. Low plasticity. Fine grained sand.						
1				A			(ML)			5, 4, 4 N=8	SPT
2				B						3, 5, 4 N=9	SPT
	122.42				Silty SAND (Alluvium) Orange brown, moist, medium dense to dense. Fine grained sand.						
3											
4				C						7, 13, 9 N=22	SPT
5							(SM)				
				D	5.50m: Layers of Sandy CLAY <50mm thick.					12, 20, 18 N=38	SPT
6											
7				E	7.00m: Becoming Clayey SAND with layers of Sandy CLAY <250mm.					6, 13, 17 N=30	SPT
8	116.82				Gravelly SAND with Clay (Alluvium) Orange brown grey, moist, very dense. Fine to coarse grained sand. Fine to medium grained gravel, sub rounded. Sandy CLAY layers <50mm thick. Medium plasticity.						
				F			(SP-SC)			19, 30/145mm hb	SPT
9											
				G						14, 14, 14 N=28	SPT
	114.82										

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REMARKS: Je1 - Evergreen Formation.

LOGGED BY	REVIEWED BY
J. Armstrong	S. Foley

FINAL 02/11/2017

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GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No **BH02**

Sheet 2 of 4

REFERENCE No **H12903**

PROJECT Boyne River Bridge Repalcement

LOCATION Abutment B, RHS

COORDINATES 323486.4 E; 7159943.2 N

PROJECT No FG6482 | SURFACE RL 124.82m | PLUNGE 90° | DATE STARTED 12/07/2017 | GRID DATUM MGA Z56

JOB No 249/435/375550 | HEIGHT DATUM AHD | BEARING ° | DATE COMPLETED 14/07/2017 | DRILLER NorthCoast Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (EC VC C M W VW EW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
					Gravelly SAND with Clay (Alluvium) Cont'd.		(SP-SC)				
	114.32										
11				H	Sandy GRAVEL (Alluvium) Orange brown, moist, very dense. Medium to coarse grained sand. Fine to medium grained gravel, sub rounded to sub angular. Trace Clay.		(GM)			30/100mm hb	SPT
12	112.32										
13				I	Silty CLAY (Alluvium) Pale grey mottled orange brown, moist, very stiff to hard. Medium to high plasticity. Trace fine grained sand.		(CH)			12, 13, 18 N=31	SPT
14				J						6, 12, 13 N=25	SPT
15	109.82										
				K	Sandy CLAY with Gravel (Alluvium) Orange brown to grey, moist, hard. Medium plasticity. Gravel is iron cemented <20mm.		(CI)			30/140mm hb	SPT
17	107.72			L	Silty CLAY (Residual) Grey mottled orange brown, moist, hard. Medium plasticity. Trace fine grained sand.					20, 30/140mm hb	SPT
18				M			(CI)			13, 20, 30/140mm	SPT
19	104.82										

Continued on next sheet

REMARKS: Je1 - Evergreen Formation.

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Queensland Government

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No **BH02**

Sheet 3 of 4

REFERENCE No **H12903**

PROJECT Boyne River Bridge Repalcement

LOCATION Abutment B, RHS

COORDINATES 323486.4 E; 7159943.2 N

PROJECT No FG6482 | SURFACE RL 124.82m | PLUNGE 90° | DATE STARTED 12/07/2017 | GRID DATUM MGA Z56

JOB No 249/435/375550 | HEIGHT DATUM AHD | BEARING ° | DATE COMPLETED 14/07/2017 | DRILLER NorthCoast Drilling

DEPTH (m)	R.L. (m)	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USCS WEATHERING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
21			N	SILTSTONE (Je1) XW: Recovered as Silty CLAY with Sand. Dark grey mottled orange brown, moist, hard. Medium plasticity. Fine grained Sand.	XW	22, 30/100mm	SPT
			O	21.50m: Becoming dark brown mottled grey.		30/120mm hb	SPT
	102.92	(84)					D (21.79m) A (21.80m) D (21.95m)
22				Clayey SANDSTONE (Je1) HW: Grey mottled red brown, fine grained, indistinctly bedded, extremely low to very low strength. - BP: 5° to 10° (1-2/m); Pl/Ro-Sm; Tl-OP; Cly Vr	HW	Is(50)=0.02 MPa Is(50)=0.02 MPa Is(50)=0.03 MPa	
23							
		100				Is(50)=0.01 MPa Is(50)=0.07 MPa	A (23.65m) D (23.67m)
24		(80)					
						UCS=2.65 MPa Is(50)=0.11 MPa Is(50)=0.15 MPa	(24.44m) D (24.55m) A (24.56m)
	99.97						
25				Altered SANDSTONE (Je1) HW: Green grey mottled orange brown, fine grained, bedding indistinct, very low to low strength. With lithic clasts. Brecciated throughout. - Js: 0° to 15° (2-3/m); Pl-Un/Ro; Tl-OP; Cly Vr - Js: 30° to 40° (<1/m); Un/Ro; Tl; Cly Vr		Is(50)=0.05 MPa Is(50)=0.06 MPa	D (25.05m) A (25.07m)
26							
		100				Is(50)=0.17 MPa Is(50)=0.12 MPa	D (26.59m) A (26.60m)
27		(75)			HW		
						Is(50)=0.06 MPa Is(50)=0.12 MPa UCS=2.12 MPa	D (27.34m) A (27.36m) (27.50m)
28						28.10m: Petrographic Report	Is(50)=0.57 MPa Is(50)=0.46 MPa D (28.12m) A (28.14m)
29						29.10m-29.15m: XW, Cly	
	95.29				XW	29.40m-29.53m: XW, Cly	
		100		SILTSTONE (Je1) HW:	HW XW	29.68m-29.75m: XW, Cly	
	94.82	(66)			HW		

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REMARKS: Je1 - Evergreen Formation.

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FINAL 02/11/2017

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GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No **BH02**

Sheet 4 of 4

REFERENCE No **H12903**

PROJECT Boyne River Bridge Repalcement

LOCATION Abutment B, RHS

COORDINATES 323486.4 E; 7159943.2 N

PROJECT No FG6482 | SURFACE RL 124.82m | PLUNGE 90° | DATE STARTED 12/07/2017 | GRID DATUM MGA Z56

JOB No 249/435/375550 | HEIGHT DATUM AHD | BEARING ° | DATE COMPLETED 14/07/2017 | DRILLER NorthCoast Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH (EH VH H M J VL EL)	DEFECT SPACING (EC VC C M W VW EW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
31					SILTSTONE (Je1) HW: Cont'd. Pale grey, fine grained, thinly to medium bedded, very low strength. Bedding is highly disturbed. With fine grained sand. - Js: 20° to 40° (2/m); Un/Ro; Tl; Cly Vr - Js: 50° to 70° (1-2/m); Pl-Un/Ro; Tl-CD; Cly Vr		HW XW HW XW HW	VL EL-VL VL	M VC C VC C VC C	Is(50)=0.05 MPa Is(50)=0.04 MPa Is(50)=0.02 MPa Is(50)=0.02 MPa	D (30.58m) A (30.59m) D (30.90m) A (30.92m)
32										31.86m-31.88m: BZ Is(50)=0.02 MPa Is(50)=0.02 MPa	D (31.80m) A (31.83m)
	92.17		100		Borehole completed at 32.65m					Is(50)=0.08 MPa Is(50)=0.04 MPa	D (32.50m) A (32.52m)
33											
34											
35											
36											
37											
38											
39											

REMARKS: Je1 - Evergreen Formation.

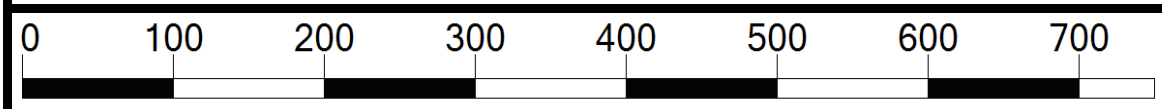
LOGGED BY	REVIEWED BY
J. Armstrong	S. Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT AND MAIN ROADS
GEOTECHNICAL SECTION

Queensland Government

Project Name	**Boyne River Bridge Replacement**		
Project No.	FG6482	Date	14/07/2017
Borehole No.	BH02	Reference No.	H12903
Location	Abutment A, RHS	Start Depth (m)	21.70
Submitted By	S. Louei	Finish Depth (m)	32.65
Remarks			

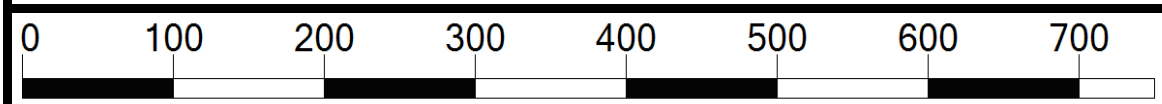


SCALE (mm)

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT AND MAIN ROADS
GEOTECHNICAL SECTION

Queensland Government

Project Name	**Boyne River Bridge Replacement**		
Project No.	FG6482	Date	14/07/2017
Borehole No.	BH02	Reference No.	H12903
Location	Abutment A, RHS	Start Depth (m)	21.70
Submitted By	S. Louei	Finish Depth (m)	32.65
Remarks			



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