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	Queensland Government
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GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014 FINAL 02/11/2017

BH10

Sheet 1 of 4

BOREHOLE No

REFERENCE No

H12969

PROJECT Boyne River	Boyne River Bridge Repalcement								
LOCATION Pier 4, RHS						C(DORDINATES 323435.1	E; 715987	75.8 N
PROJECT No FG6482	SURFACE RL 114.05m	PLUNG	GE 90)°	DATE STAR	RTED 02/09/2017	GRID DATUM	/IGA Z56	
JOB No 249/435/37	5550 HEIGHT DATUM AHD	BEARIN	IG_		DATE COMPLE	ETED 04/09/2017	DRILLER N	IorthCoas	t Drilling
(L) HLd HLd HC (m) RQD (1)% PMHCHILEROD CORE	비 에 MATERIAL DESCRIPTION	LITHOLOGY	WEATHERING	INTACT STRENGTH 프루고, 독, 독, 국 교	DEFECT SPACING		ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
- 1 	B C D	(S	5W)					1, 1, 5 N=6 1, 9, 9 N=18 6, 7, 6 N=13 8, 10, 11 N=21	SPT SPT SPT SPT
109.25 5 108.55 6 7	Sandy GRAVEL with Silt (Alluvium) Grey and brown grey, moist, medium dense. Fine to medium grained gravel, medium to coarse grained sand. Gravelly SAND (Alluvium) Brown grey, moist, medium dense. Fine to coarse grained sand, fine to medium grained gravel with silt and clay. From 7.00m: Trace clay, dense.	-G	5W 6M) 					5, 9, 14 N=23 6, 12, 14 N=26 13, 16, 26 N=42	SPT SPT SPT
9 <u>105.05</u> 104.05	H Silty CLAY (Residual) Brown pale grey and purple brown, moist, hard, medium plasticity. I SANDSTONE (Je1) XW: Recovered as Sandy Clay. moist, hard. Grey brown and purple brown, fine grained, very low strength.	×	CI) (W		-		18	5, 16, 20 N=36	SPT SPT
	Continued on next sheet		fla	wingriver	hannal			PPPPP	
KEIVIAKKS: JEI - E	vergreen Formation. Hole offset d	ue to) ÎO	wing river o	nannei.	-	LOGGED BY		WED BY
	M. Hayes S. Foley								гојеу

													FINAL 0	2/11/2017
			5)	Qu	e	ensland						BOREHOLE No		BH10
	1SS	R	9	Go	ve	ernment	S		GEOTECHNICAL T			REFERENCE No	H	12969
PROJE	СТ	Bo	oyne	e River	Brid									
LOCAT	ION	Pi	er 4	, RHS								COORDINATES 323435.1	E; 71598	75.8 N
PROJE	CT No	F	G64	82		SURFACE RL 114.05m	PL	UNGE	90°	DATE STA	RTED 02/09/2017	GRID DATUM	MGA Z56	
JOB N	0	24	19/4	35/37	555	0 HEIGHT DATUM AHD	BEA	ARING		DATE COMPL	ETED 04/09/2017	DRILLER	NorthCoas	st Drilling
DEPTH (m)	R.L. (m)	IGER SING SEH BODINIC		RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	ГІТНОГОGY	USCS WEATHERING	INTACT STRENGTH			ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
			5			SANDSTONE (Je1)	::	•		⊔⊃∪∑≥≥≥ □ 		8, 2	6, 30/100mm	SDT
- - - - - - - - - - - - - 11	102.85	5		(20)	ĸ	XW: Cont'd.		xw			11.20m: Petrograph		30/50mm hb	SPT
- - - - - - - - - - - - -				(20)		SANDSTONE (Je1) XW: Yellow brown and red brown, fine grained, indistinct bedded, mainly extremely low strength. Defects overprinted by pervasive weathering. -Js 5°-10° (5-10/m), Pl/Ro, Cly Ct		xw			₩ 11.30m-11.34m: XW	ı Is(50)=4.30 MPa 50)=5.50 MPa	D (12.17m) A (12.18m)
13				<u>100</u> (5)		From 13.8m: Becoming grey brown, possible shear zone	* * * * * * * * * * * * * *	xw	-	C C		15(15(50)=0.04 MPa 50)=0.02 MPa	D (13.45m) A (13.47m)
- - - - - - - - - - - - - - - - - - -	99.40			<u>93</u> (30)		SANDSTONE (Je1) HW: Yellow brown and grey, fine to medium grained, bedding indisting extremely low to very low strength - BP: 15°-20° (2/m) PI/Ro, TI, Cly Vr 16.00 Light grey. 16.95 Yellow brown.) t,	HW			☐ 14.65m-14.70m: HV 15.00m: J 50°, Un/R fragmented zone.	o, 50mm Is(50)=0.17 MPa 50)=0.07 MPa	D (15.40m) A (15.42m)
- - - - - - - - - - - - - - - - - - -	96.75		_	73 (30)		SANDSTONE (Je1) MW: Pale grey, fine to medium grained, thinly bedded, low to		XW HW	VL MH MH	E C M C			50)=1.10 MPa 50)=0.54 MPa	– – – – – – – – – – – – – – – – – – –
- - - - - - - - - - - - - - - - - - -				<u>100</u> (50)		medium strength. -J 0°-5° (1-2/m), Pl/Ro, partially dri induced. - BP: 20°-25° (5/m), Pl/Ro, TI, Cly V From 18.30: Very low to low strength.		HW MW	MH		☐ 19.10m-19.15m: XW 19.15m-19.20m: SW	is(50)=0.27 MPa 50)=0.51 MPa	D (18.25m) A (18.26m)
	94.05			<u>100</u> (50)				XW MW XW MW		M	19.19.19.2000 XW	ls(ls(50)=1.70 MPa 50)=0.49 MPa	 D (19.65m) A (19.67m) [_]
R	emaf	RKS:	Je	e1 - E	ver	Continued on next sheet green Formation. Hole offset	due	to fl	owing river	channel.		LOGGED BY	REVIE	WED BY
												M. Hayes		Foley
						TM	R GEOTE	CHNICAL E	OREHOLE LOG - CREATED	WITH HOLEBASE SI		1	1	

	Queensland	GEOTECHNICAL BOREHOLE LOG
ß	Government	FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2
PROJECT	Boyne River Bridge Repalcement	
	Pier 4 BHS	

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2014

FINAL 02/11/2017

BH10

Sheet 3 of 4

BOREHOLE No

REFERENCE No

H12969

	375.8 N
LOCATION Pier 4, RHS COORDINATES 323435.1 E; 7159	
PROJECT NO FG6482 SURFACE RL 114.05m PLUNGE 90° DATE STARTED 02/09/2017 GRID DATUM MGA 25	
JOB NO 249/435/375550 HEIGHT DATUM AHD BEARING DATE COMPLETED 04/09/2017 DRILLER NorthCo	ast Drilling
Image: Constraint of the second se	SAMPLES TESTS
92.47 92.47 22 22 30°-60°. Rock fabric and defects overprinted by weathering. MW 92.47 <td></td>	
medium bedded, very low to medium strength. -Js 10°-20° (1-2/m), Pl/Sm, Fe St Indistinct bedding 45°-60°.	A (22.82m) (23.13m) _ D (23.27m)
90.60 90.60 100 SANDSTONE (Je1) (49) MW: Brown and grey, fine to medium grained, thinly bedded, very low to low strength. -J 30°-45° (2-3/m), Un/Ro, TI, Fe St -J 50°-65° (4-5/m) PI-Un/Sm, TI, Fe St. 24.35m-24.60m: Very closely spaced fractured zones. Js 60°-70° P/Sm every 20mm-50mm. 24.35m-24.60m: Very closely spaced fractured zones. Js 60°-70° P/Sm every 20mm-50mm. 24.35m-24.60m: Very closely spaced fractured zones. Js 60°-70° P/Sm every 20mm-50mm. 24.50m-24.65m: HW	
26 87.95 100 From 25.75m: Very low to low strength, highly weathered, yellow brown. 100 15(50)=0.02 M 15(50)=0.02 M <td>A (25.68m) D (26.09m) A (26.10m) A (26.29m)</td>	A (25.68m) D (26.09m) A (26.10m) A (26.29m)
28 100 -J 30°-45° (3-4/m), Pl/Sm, OP, Fe St or Cn 28 100 -J 30°-45° (3-4/m), Pl/Sm, OP, Fe St or Cn 100 -J 30° (3-4/m), Pl/Sm, OP, Fe S	A (27.94m)-
29 29.0m: Becoming medium to coarse grained IIS(50)=0.24 M IS(50)=0.38 M IS(50)=0.69 M IS(50)=0.69 M IS(50)=0.69 M	A (28.94m)- - - D (29.44m) A (29.45m)- - - -
	EWED BY
M. Hayes	. Foley

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, ah	A	ÀC.	2 1000					GE	OTECHN	IICAL		BOREHOLE No	B	BH10
			Que	ee	ensland rnment			BC	REHOLE	LOG		She	et 4 of 4	
K	S.	XI.	Go۱	ve	rnment		SY		GEOTECHNICAL TE REFER FORM F:GE			REFERENCE No	H	12969
PROJECT		Bovr	ne River F	Brid	ge Repalcement									
LOCATION	1		4, RHS	JIIG	ge nepuleement							COORDINATES 323435	1 F· 71598	75 8 N
PROJECT N			482		SURFACE RL	114 05m	DII	JNGE S	00°	DATE STA			MGA Z56	, 3.0 11
JOB No	10		/435/375	550				RING °			LETED 04/09/201		R NorthCoas	st Drilling
1011 801							BLA	-		DATE CONIFL				
	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESC	RIPTION	КООТОНТІ	USCS WEATHERING				ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
-					SANDSTONE (Je1)									
-			100 (70)	S	SW: Cont'd.		· · · · · · · · · · ·	sw	M VL-L	E C M	30.35m-30.50m: B	Z		
31							· · · · · · ·	MW	M				Is(50)=0.37 MPa Is(50)=0.48 MPa	D (31.15m) A (31.17m)
					31.85m: Becoming fir	ne grained.	· · · · · · · · · · · · · · ·			M			ls(50)=0.38 MPa ls(50)=0.27 MPa	
- 32 			100		g		* * * * * * * *		M		32.25m-32.30m: B		Is(50)=0.65 MPa Is(50)=0.70 MPa	D (32.10m) A (32.15m)
33			(87)				· · · · · · · · ·			M	32.75m-32.85m: B	Z		
							· · · · · · · · ·	SW		vc			Is(50)=1.30 MPa Is(50)=0.64 MPa	D (33.24m) A (33.26m) -
- 							+ + + + + + + + + + + +		м	M				-
							· · · · · · · · ·			M			Is(50)=0.86 MPa Is(50)=0.65 MPa	 D (34.60m) A (34.62m)_
- 35 - 78	3.50		100				· · · · · · ·	MW SW		м			Is(50)=0.43 MPa Is(50)=0.53 MPa	 D (35.30m) A (35.32m)_
- 70 			100		Borehole completed	d at 35.55m			-					
-														
37														- - - - -
-														
38														-
39 														
-										- - -				
REN	1ARI	<s: j<="" td=""><td>le1 - Ev</td><td>erg</td><td>reen Formation. I</td><td>Hole offset</td><td>due</td><td>to fl</td><td>owing river</td><td>channel.</td><td></td><td>LOGGED BY</td><td>REVIE</td><td>EWED BY</td></s:>	le1 - Ev	erg	reen Formation. I	Hole offset	due	to fl	owing river	channel.		LOGGED BY	REVIE	EWED BY
									-			M. Hayes		Foley
	TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI													

CORE PHOTO LOG DEPARTMENT OF TRANSPORT AND MAIN ROADS GEOTECHNICAL SECTION



Project Name	Boyne River Bridge Replacement		
Project No.	FG6482	Date	04/09/17
Borehole No.	BH10	Reference No.	H12969
Location	Pier 4, RHS	Start Depth (m)	11.20
Submitted By	M. de Gee	Finish Depth (m)	35.55
Remarks			
BH 10 IL 20	Lors Loss Loss Loss Loss Loss Loss Loss		
0 100	200 300 400	500 600	700
	SCALE (mm)		

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CORE PHOTO LOG DEPARTMENT OF TRANSPORT AND MAIN ROADS GEOTECHNICAL SECTION



Project Name	Boyne River Bridge Replacement		
Project No.	FG6482	Date	04/09/17
Borehole No.	BH10	Reference No.	H12969
Location	Pier 4, RHS	Start Depth (m)	11.20
Submitted By	M. de Gee	Finish Depth (m)	35.55
Remarks			
	26-29		
	SCALE (mm)		

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CORE PHOTO LOG DEPARTMENT OF TRANSPORT AND MAIN ROADS GEOTECHNICAL SECTION



Project Name	Boyne River Bridge Replacement		
Project No.	FG6482	Date	04/09/17
Borehole No.	BH10	Reference No.	H12969
Location	Pier 4, RHS	Start Depth (m)	11.20
Submitted By	M. de Gee	Finish Depth (m)	35.55
Remarks			
0	FG6482 33 32-35 FG6482 BH N	8019 BUR9	Total Total
0 100	200 300 400	500 000	700
	SCALE (mm	n)	

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