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GEOTECHNICAL BOREHOLE LOG

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

FINAL 02/11/2017

BOREHOLE No BH04

Sheet 1 of 4

EFERENCE No H12904

	AUDAS A	T FIDELIS	3			SY	MBOLS	REFER FORM F:GEO	OT 017/8-2014		MEI ENEIVEE IVO		
PROJE	СТ	В	oyne Riv	er Br	idge Repalcement								
LOCAT	TION	Pi	er 1, RF	IS						_	COORDINATES 323473.6	E; 715992	?7.6 N
PROJE	CT No	F	G6482		SURFACE RL 117.78m	PLL	INGE S	0°	DATE START	TED 11/07/201	7 GRID DATUM	MGA Z56	
JOB N	0	24	49/435/	3755	50 HEIGHT DATUM AHD	BEA	RING _		DATE COMPLET	12/07/201	7 DRILLER	North Coas	t Drilling
DEPTH (m)	R.L. (m)	AUGER CASING	RQ () () () () () () () () () () () () ()	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING		ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
1	116.78			A	to medium grained. Low plasticity fines. Clayey SAND (Alluvium)	**************************************	(SM)					1, 1, 1 N=2 2, 3, 5 N=8	SPT
- - - - - - - - 3	114.78			C	Fine to medium grained. Low plasticity fines. Sandy CLAY (Alluvium)		(SC)					3, 5, 7 N=12	SPT -
- - - - - - - - - - - -	113.78			D	Clayey SAND (Alluvium) Grey brown, moist to wet, medium dense, fine to coarse grained, low plasticity clay, trace silt.		(SC)					6, 8, 12 N=20	SPT
5 - - - - - - - - - - - - - - - - - - -	112.70			F	dense. Fine to coarse grained. Trace low plasticity clay. 6.0m: Becomes dense to very		(SP)					10, 11, 13 N=24	SPT
	110.64			G	CLAY (Alluvium) Grey, dark grey, wet, firm to stiff, high plasticity.		(CH)		-			3, 2, 6 N=8	SPT
- - - - - - - - - - - - - - - - - - -	109.78			Н	Silty CLAY (Residual) Brown with minor grey mottling, wet, very stiff to hard. High plasticity. Trace fine to medium grained sand. Trace fine, sub rounded gravel.		(CH)					6, 10, 17 N=27	SPT
=	107.78				Continued on next sheet	<u> </u>		<u> </u>	-				
R	EMAR	KS:	Je1 -	Eve	rgreen Formation.						LOGGED BY	REVIE	WED BY
											S. Louei	S.	Foley
					TMR	GEOTEC	HNICAL B	OREHOLE LOG - CREATED W	ITH HOLEBASE SI		1		

GEOTECHNICAL BOREHOLE LOG

FINAL 02/11/2017

BOREHOLE No BH04

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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014 H12904 REFERENCE No PROJECT Boyne River Bridge Repalcement COORDINATES 323473.6 E; 7159927.6 N Pier 1, RHS LOCATION SURFACE RL 117.78m DATE STARTED 11/07/2017 FG6482 PLUNGE 90° grid datum MGA Z56 PROJECT No DRILLER NorthCoast Drilling 249/435/375550 HEIGHT DATUM AHD BEARING ° DATE COMPLETED 12/07/2017 JOB No USCS WEATHERING ADDITIONAL DATA AND TEST RESULTS INTACT STRENGTH DEFECT SPACING SAMPLES TESTS Ξ LITHOLOGY SAMPLE DEPTH (RΙ MATERIAL DESCRIPTION CORE REC % Silty CLAY (Residual) Cont'd. At 11.00m: Becoming grey mottled 23, 22, 30/140mm brown, hard. SPT (CH) 10/20mm 103.78 11, 14, 21 Silty CLAY (Residual) N=35 SPT Dark brown, brown, wet, hard. Medium plasticity. With fine grained 14, 30/145mn М SPT (CI) 10/20mm 99.18 SPT Sandy Silty CLAY (Residual) Pale grey, moist, hard. Low to medium plasticity. Fine to medium grained sand. (CL) Continued on next sheet REMARKS: Je1 - Evergreen Formation. **LOGGED BY REVIEWED BY** S. Louei S. Foley TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

GEOTECHNICAL BOREHOLE LOG

FINAL 02/11/2017

BOREHOLE No BH04

Sheet 3 of 4

FOR GEOTECHNICAL TERMS AND H12904 REFERENCE No SYMBOLS REFER FORM F:GEOT 017/8-2014 PROJECT Boyne River Bridge Repalcement COORDINATES 323473.6 E; 7159927.6 N Pier 1, RHS LOCATION SURFACE RL 117.78m GRID DATUM MGA Z56 FG6482 PLUNGE 90° DATE STARTED 11/07/2017 PROJECT No DRILLER NorthCoast Drilling 249/435/375550 DATE COMPLETED 12/07/2017 JOB No HEIGHT DATUM AHD BEARING RQD USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ξ LITHOLOGY AND TEST RESULTS STRENGTH DEPTH (RΙ SAMP MATERIAL DESCRIPTION CORE REC % ᅚᄝᅩᆛᆿᆒᄓᇬᇬᄝᇰᄥ Sandy CLAY (Residual) Pale grey and white, wet, hard, medium to high plasticity. Fine to coarse grained sand. Trace silt. (CI) 96.28 30/70mr nm hb D (21.57m) (25) SANDSTONE (Je1) A (21.58m)_ HW: Pale grey, minor pale brown in (21.68m) parts, fine grained, thinly bedded, 22 mainly very low to low strength. Is(50)=0.10 MPa BP: 15° to 35° (3-4/m); PI/Ro-Sm; Is(50)=0.08 MPa UCS=2.03 MPa Is(50)=0.07 MPa 22.37m-22.39m: XW, Recovered as TI; some Fe St; some Cly Vr Clayey SAND D (22.57m)-HW - Js: 50° to 70° (1-2/m); PI/Ro-Sm; Is(50)=0.29 MPa A (22.68m)_ TI-CD; some Fe St; some Cly Vr Is(50)=0.04 MPa Is(50)=0.04 MPa D (23.30m) A (23.32m) XW 100 Is(50)=0.04 MPa D (24.20m) Is(50)=0.06 MPa A (24.21m) HW 25 Is(50)=0.06 MPa D (25.90m) 26 A (25.92m)-26.10m-26.23m: BZ XW HW ⊐ 26.41m-26.45m: BZ ¬ 26.55m-26.67m: BZ XW 100 27 Is(50)=0.08 MPa D (27.25m) Is(50)=0.03 MPa A (27.26m) HW Is(50)=0.06 MPa D (28.60m) Is(50)=0.01 MPa A (28.61m)-100 ¬ 29.09m-29.17m: BZ, DI 88.48 (26) SANDSTONE (Je1) D (29.50m) MW: Pale grey minor pale brown in MW Is(50)=0.03 MPa A (29.51m) parts, fine grained, Continued on next sheet REMARKS: Je1 - Evergreen Formation. **LOGGED BY REVIEWED BY** S. Louei S. Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

GEOTECHNICAL BOREHOLE LOG

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

FINAL 02/11/2017

BH04 BOREHOLE No

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H12904

REFERENCE No PROJECT Boyne River Bridge Repalcement COORDINATES 323473.6 E; 7159927.6 N Pier 1, RHS LOCATION SURFACE RL 117.78m GRID DATUM MGA Z56 FG6482 PLUNGE 90° DATE STARTED 11/07/2017 PROJECT No DRILLER NorthCoast Drilling 249/435/375550 HEIGHT DATUM AHD DATE COMPLETED 12/07/2017 JOB No BEARING ' USCS WEATHERING ADDITIONAL DATA AND TEST RESULTS RQD INTACT STRENGTH DEFECT SPACING SAMPLES TESTS Ξ LITHOLOGY DEPTH (RΙ SAMP MATERIAL DESCRIPTION CORE REC % SANDSTONE (Je1) MW: Cont'd. MW □ 30.35m-30.40m: BZ Thinly bedded, mainly low to medium strength. HW - BP: 40° to 60° (2-3/m); PI/Ro-Sm; 100 __ 30.88m-30.95m: BZ, DI (0) TI; some Fe St; some Cly Vr MW - Js: 30° to 50° (3-4/m); PI/Ro-Sm; TI-CD; some Fe St; some Cly Vr HW - Js: 80° to 90° (<1/m); Un/Ro; TI; some Cly Vr XW Is(50)=0.05 MPa D (31.90m) Is(50)=0.13 MPa A (31.91m)-32.27m-32.30m: BZ, HW ⊐ 32.46m-32.50m: BZ. HW MW 33 33.13m-33.35m: HFZ HW 100 33.30m-33.35m: BZ, DI (0) Is(50)=0.01 MPa Is(50)=0.12 MPa D (33.45m) MW A (33.46m) 33.96m-34.00m: MW HW 34.00m-34.20m: HFZ, HW MW Is(50)=0.10 MPa D (34.75m)_ Is(50)=0.03 MPa A (34.76m<u>)</u> 35.05m-35.35m: HFZ 100 82.44 Borehole completed at 35.35m 37 REMARKS: Je1 - Evergreen Formation. **LOGGED BY REVIEWED BY** S. Louei S. Foley TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

CORE PHOTO LOGDEPARTMENT OF TRANSPORT AND MAIN ROADS GEOTECHNICAL SECTION



Project Name	Boyne River Bridge Replacement		
Project No.	FG6482	Date	14/07/2017
Borehole No.	BH04	Reference No.	H12904
Location	Pier 1, RHS	Start Depth (m)	21.50
Submitted By	S. Louei	Finish Depth (m)	35.35
Remarks		. , ,	
24.50 m 24.50 m 26.0 m 27.5 m 29.0 m	231 240 270 270 270 270 270 270 270 27	220 250 250 250 260 270 280 280 280 280 280 280 280 280 280 28	26th 22th 22th 22th 22th 22th 22th 22th
0 100	200 300 400 SCALE (mm)	500 600	700

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CORE PHOTO LOGDEPARTMENT OF TRANSPORT AND MAIN ROADS GEOTECHNICAL SECTION



Project Name	Boyne River Bridge Replacement	T	T
Project No.	FG6482	Date	14/07/2017
Borehole No.	BH04	Reference No.	H12904
Location	Pier 1, RHS	Start Depth (m)	21.50
Submitted By	S. Louei	Finish Depth (m)	35.35
Remarks			
Remarks	So to	31.0 mg 1 35.35 mg 2 35.35 mg 2 35.35 mg 2 34.4	
0 100	200 300 400 SCALE (mm)	500 600	700

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