## **Borehole Log**

BH7-1-03

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Project Name: BRIDLINGTON rBWD GROUND INVESTIGATION Project No: A1031-11

Borehole ID: BH7-1-03

Location: Bridlington Co-ords (British National Grid): 519037.46 - 467450.79 Level: 8.85

Hole Type: CP+RC Logged By: Dates: 2011-05-19 - 2011-05-26

Client: Yorkshire Water Services Limited Contractor: SOIL MECHANICS Project Engineer:

	Client: Yorkshire Water Services Limited Contractor: SOIL MECHANICS Project Engineer:											
	Pla	nt l	Jsed:	SPT Hammer		0: 	I				Da.: ().	ł
	We	:II	Water	Samples Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	Depth m	
GGG	<b>5</b> 6 (	<u>L</u> G	GGG			G G G G G G G G G G G	ତ ଫ୍ରନ୍ଥର ତ	G & & G	G C G (	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	GGG	G G
	à								$\mathbb{K}_{\times}$	GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG		
				0.3	D		0.30	8.55	$\mathbb{K}^{\times}$		-	
	à	9		0.5.4.0					<u>x-</u> 17		0.5	
	ĸ			0.5 - 1.0	В				<u>x-</u>		0.5 —	
	Ž								<u>;-x-</u> ;		_	
	5.2755_275_27	시 사시 나가 나								Ash FILL Foreman s description MADE		
	2			1.0	D		1.00	7.85		GROUND	1.0	
							4.00	7.65	<u>x-</u>			
				1.2 - 1.65	U		1.20	7.65	*,0*,0		_	
	Į.	9							*****		1.5 —	
	Š	5B0V5B0		1.65 - 1.85	D				٠	Soft mottled orange brown and grey slightly silty CLAY GLACIAL TILL		
	);	ğ							ిస్తుంది		_	
	Š	3										
	);	ğ		2.0 - 2.45	В	N=18 (2,3/4,4,5,5)			*****		2.0 —	
	Š	3							:0:::			
	);	<u> АВоравораворавораво</u>							*****	Soft orange brown slightly silty slightly	_	
	Š	3							٠	Soft orange brown slightly slity slightly gravelly CLAY Gravel is subangular to subrounded fine to coarse of various	2.5 —	
	);	ğ							****	lithologies including chalk and sandstone ALLUVIUM		
	Š	3							*****	ALLOVION	_	
	),	ğ							*****			
	Š	3		3.0 - 3.45	В	N=21 (3,5/5,5,6,5)			;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;		3.0 —	ŀ
	);	ğ							*****			
	n .	1							*****		-	ł
	);	ģ							******			
	Š	3									3.5 —	
	),	ğ							*****			
	<u> </u>	3								Nadiiim dansa oranga brown ting to	-	
	);	ğ								coarse gravelly SAND Gravel is angular to subrounded fine to coarse of chalk and	4.0	
	Š	3		4.0 - 4.45	В	N=20 (3,4/5,6,5,4)				occasional flint Possible ALLUVIUM	4.0 —	
	);	ğ										
	ನ್ನು	$\vec{z}$										
	);	<u> УРАВОРАВОРАВОРАВОРАВОРАВОР</u>									4.5 —	
	ನರ್ಗ	Z										
	$\sum_{i=1}^{n}$	ġ									_	
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	Plant	Used:	SPT Hammer	Serial N	0:					
			Samples	3						Depth
١٧	Vell	Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	m
0220 0220	500750075		5.0 - 5.45	В	N=22 (2,3/4,5,6,7)				Medium dense orange brown fine to coarse gravelly SAND Gravel is angular to subrounded fine to coarse of chalk and occasional flint Possible ALLUVIUM	5.5 —
0000	ZeBeV	abla	5.7	W						-
0.00	VAGO		6.0	D				,0		6.0 —
8	200%		6.3	D		6.30	2.55			
10000	Jonyano		6.5 - 6.95	U						6.5 — -
	Vallavallavallavallavallavallavallavall	•	6.95 - 7.15	D					Soft dark brown silty slightly gravelly CLAY Gravel is angular to subrounded fine and medium of chalk Possible ALLUVIUM	7.0 —
02000	30226025		7.5	D						7.5 —
0,000	DAGODA		8.0 - 8.45	DΒ	N=17 (2,2/2,4,5,6)	8.30	0.55	X-17: X-17:	Firm dark brown silty slightly gravelly	8.0 —
	- 10								CLAY Gravel is angular to subrounded fine and medium of chalk and flint GLACIAL TILL	8.5 —
SO 800 00	VAGOVAGO		9.0	D						9.0 —
20 02 02 02	VAROVARO		9.5 - 9.95 9.95 - 10.15	U						9.5 —
12.	_ 0		J.JJ - 10.13	U		I		~		

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Pla	ant Used:	SPT Hammer	Serial No	rial No:						
		Samples	3						Depth	
We	ell Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	m	
ಭಾ ಕನ್ನುಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ ಕನ್ನಲ	iValloValloValloValloValloValloValloVall	10.5	D					Firm dark brown silty slightly gravelly CLAY Gravel is angular to subrounded fine and medium of chalk and flint GLACIAL TILL	10.5 —	
ಯಾಗಿ ಕಾನ್ಯ	BolzaBolz	11.0 - 11.45	ВD	N=20 (2,3/4,4,5,7)			X		11.0—	
020 O20	<u>त्रकार्यकार</u>						X-X- X-X- X-X- X-X-		11.5—	
ನ್ನಡಿಸುವ	<u>स्प्रवास्त्रवा</u>	12.0	D						12.0—	
ನಾರ್ಣವಾಗಿ	והעסווהעס	12.5 - 12.95	U				X- X- X- X- X- X- X-		12.5—	
		12.95 - 13.15	D				X		13.0—	
ನಲ್ಲಿನಲ್ಲ	оглавоглавоглавоглаво	13.5	D				X		13.5 —	
ನಿಕ್ಷಾಲ ಕ್ಷಾಲ ಕ್ಷಾಲ ಕ್ಷಾಲ ಕ್ಷಾ	אלמסטבעסטב	14.0 - 14.45	B D	N=23 (2,3/4,5,6,8)					14.0 —	
100 CM	വാട്യവ						X		-	

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Client: Yorkshire Water Services Limited Contractor: SOIL MECHANICS Project Engineer:

Plant Used: SPT Hammer Serial No:

Plan	t Used:	SPT Hammer	Serial N	0:		•			
		Samples	3						Depth
Well	Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	m
	$\nabla$	15.0 15.3	D W D		15.30	-6.45		Firm dark brown silty slightly gravelly CLAY Gravel is angular to subrounded fine and medium of chalk and flint GLACIAL TILL	_
		15.5 - 15.95	В	N=18 (3,4/4,3,5,6)	15.80	-6.95	3016 016 001 100		15.5 —
		15.8	D		15.60	-6.95		White and dark brown slightly clayey GRAVEL Gravel is subangular to rounded fine and medium of chalk and flint GLACIAL SAND AND GRAVEL	16.0 —
		16.5	D		16.50	-7.65			16.5—
		17.0 - 17.45	В	N=24 (3,4/5,6,6,7)				Firm grey and light brown gravelly CLAY Gravel is subangular to rounded fine and medium of chalk and flint GLACIAL TILL	17.0 —
								Medium dense white and cream clayey sandy GRAVEL Gravel is angular to subrounded fine to coarse of chalk and flint GLACIAL SAND AND GRAVEL	17.5 — –
		18.0	D						18.0—
		18.5 - 18.95	В	N=22 (4,5/5,5,6,6)				Soft light grey and cream slightly gravelly CLAY Gravel is subangular to subrounded fine to coarse of chalk and flint GLACIAL TILL	18.5—
		18.8	D		18.80	-9.95			19.0—
		19.4	D		19.40	-10.55		White and cream GRAVEL Gravel is subangular to subrounded fine to coarse of chalk and flint FLAMBOROUGH CHALK Possible GRADE Dc	- 19.5 — -
				50 (11,12/13,17,20 for 70mm)	20.00	-11.15			

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Client: Yorkshire Water Services Limited Contractor: SOIL MECHANICS Project Engineer:

Plant	Used:	SPT Hammer	Serial N	0:					
		Samples	5						Depth
Well	Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend		m
		20.0 - 20.2 20.0 - 20.37 20.49	B D CS	<del>50 (11,12/13,17,20 for 70mm)</del>				Weak to medium strong medium density cream beige and white CHALK with no staining or speckling Fracture sets are 1 No fractures are 10 45deg closely to medium spaced planar rough with orange brown staining on fracture surfaces 2 No fractures are vertical to 80deg planar rough with orange brown staining on fracture surfaces FLAMBOROUGH CHALK GRADE C2	20.5—
		21.5	cs						21.0 —
		22.67	CS						22.0 — - 22.5 —
		22.01							23.0 —
		23.75 24.03 - 24.23	CS CS						24.0 —
		24.81	CS						_

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Plant	Used:	SPT Hammer	Serial No	D:					
		Samples	5						Depth
Well	Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	m
		25.8	CS					Weak to medium strong medium density cream beige and white CHALK with no staining or speckling Fracture sets are 1 No fractures are 10 45deg closely to medium spaced planar rough with orange brown staining on fracture surfaces 2 No fractures are vertical to 80deg planar rough with orange brown staining on fracture surfaces FLAMBOROUGH CHALK GRADE C2	-
									26.5 —
		26.92	cs		27.30	-18.45			27.0 — - 27.5 —
		27.94	CS					Medium strong high density cream and white CHALK with no staining or speckling Fractures are vertical to 70deg planar undulating with orange brown staining on fracture surfaces FLAMBOROUGH CHALK GRADE A2	- 28.0 —
		29.03	CS						29.0 — 29.5 —

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		Samples	3						Depth
Well	Water	Depth (m)	Туре	Result	Depth (m)	Level (m)	Legend	Stratum Description	m
		30.24	CS		30.30	-21.45		Medium strong high density cream and white CHALK with no staining or speckling Fractures are vertical to 70deg planar undulating with orange brown staining on fracture surfaces FLAMBOROUGH CHALK GRADE A2	30.5 —
									31.0 —
									31.5 —
									32.0—
									32.5—
									33.0—
									33.5 —
									34.0—
									34.5 —

## GENERAL REMARKS

SPT Hammer ID: DC1. SPT Rod type: BW.