

A47 Wansford to Sutton Dualling

Scheme Number: TR010039

9.42 Supplementary Ground Investigations 2022 Appendix II Exploratory Logs (Part A)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

November 2022



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

The A47 Wansford to Sutton Development Consent Order 202[x]

9.42 Supplementary Ground Investigations 2022 Appendix II Exploratory Logs (Part A)

Regulation Number:	Regulation 8(1)(c))
Planning Inspectorate Scheme	TR010039
Reference	
Application Document Reference	TR010039/EXAM/9.42
Author:	A47 Wansford to Sutton Project Team, National Highways

Version	Date	Status of Version
Rev 0	November 2022	Response to the Secretary of State





Appendix II – Exploratory logs

G					De	ер	Во	reh	nole Log
Project Name: Supplementar		rd to Sutto	n Dua ll ing	Client: Ga	alliford	Try			Date: 14/02/2022 - 15/02/2022
Location:	y (11			Contracto	r: Swe	со			Co-ords: E507585.93 N299722.52
Project No. : G	ST0386			Crew Nar	ne: JC	/ DL			Drilling Equipment: Tecop Tec 15
Borehole No BH10		Но	le Type RC		.evel 5m AO	D		gged By 6 / MWD	I -
Well Water Strikes			n Situ Testing		Coring	_	Legend	Depth (Level)	Stratum Description
Strikes	Depth (0.00 - 0 0.00 - 0 0.50 - 0 0.50 - 0	.70 B .70 ES	e Result	S TCR	SCR	RQD 0		(Level) (32.05) 0.30 (31.75) 0.50 (31.55) 0.70 (31.35) 1.20 (30.85)	Soft dark brown slightly gravelly sandy CLAY with few fine roots. Sand is fine and medium. Gravel is angular to subangular fine to coarse weathered oolitic limestone. Brown to orangish brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is subangular fine to coarse limestone fragments. Yellowish brown silty very sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is angular to subangular fine to coarse weathered limestone. Cobbles are angular to subangular weathered limestone. Medium dense yellowish brown sandy GRAVEL. Sand is fine to coarse. Gravel is subangular and angular weathered limestone. Yellowish brown very sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is angular to subangular fine to coarse weathered limestone. Cobbles are angular to subangular weathered limestone (up to 85 mm).
									5-
Hole Diame	eter Diameter	Casin Depth Base	g Diameter Diameter	Depth Top	Depth		selling Duration	Too	Drilling Flush Ol Depth Top (m) Depth Base (m Flush Type Flush Colour Min (%) Max (%)
Remarks Prior to drilling the	position wa	2.70	200 services and a	hand dug inspe	ection pit	to 1.20	m carried ou	it. The bore	ehole was terminated at 6.00 m which was und for variable head testing. SPT Hammer

	G						Эе	ep	Во	reh	ole	e L	og				
	ct Name ementa	: Wansford t	o Suttor	n Dua ll ing	Clier	nt: Gal	liford ⁻	Try			ı	Date: 1	4/02/20)22 - 15	(02/2022	2	
Locati		· •			Cont	ractor	: Swe	СО			(Co-ord:	s: E507	585.93	N29972	2.52	
Projec	t No. :	GT0386			Crew	v Nam	e: JC	/ DL			ı	Drilling	Equipn	nent: Te	сор Тес	15	
Bor	ehole N BH10			e Type RC			eve l m AOI	D		gged By 3 / MWD			Scale 1:25			ige Num heet 2 o	
Well	Water Strikes			Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descrip	tion		
Well		Sample Depth (m) 5.60 - 5.77	CS			TCR 40	SCR 18	11	Legend	Depth (Level)	Minim more comp yellov fragm	weathe rises pr wish bro nents of fragmer	very. Co red mate edomina wn grav oolitic LI nts.	re loss perial. Reconstitution	resumed covered c ium stror bble size NE with fr	ore ng	7 - 6 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8
Depth			Casing ppth Base	Diameter Diameter	Depi	th Top	Depth		elling Duration	Too	ol lo	Depth Top (m)	Depth Base (n		ng Flush e Flush Colour	Min (%)	9 — 10 —
Prior to	drilling the			services and a h d with a tempora													



BH101

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

iect ID: GT0386



BH101 1.20 m to 3.20 m



ect Nam plementa		d to Sutte	on Dua ll ing	Clien	t: Gal	liford	Try				Date: 1	14/02/20)22 - 28	3/02/20	22	
ation:	y			Conti	ractor	: Swe	СО				Co-ord	s: E507	'574.42	N2998	368.47	
oject No. :	GT0386			Crew	/ Nam	ie: AE	/ LW				Drilling	Equipn	nent: Fr	aste		
Borehole BH1		Ho	le Type RC			eve l m AO	n		gged By 3 / MWD			Scale 1:25			Page Nu Sheet 1	
Water	1	nple and I	n Situ Testing		00.04	Coring			Depth						Sileet i	
'ell Strikes					TCR	SCR	RQD	Legend	(Level)				n Descri			
	0.10 - 0 0.30 - 0								(30.94)	grav is fin subr	elly SILT e to coa ounded	rse. Gra	mmon fir vel is sul	ne rootle bangula	ets. Sand	
	0.50 - 0	.60 ES							0.35 (30.59)	GRA suba	ngish bro VEL. Sa	own and and is finand and subro	e to coai	rse Gra	vel is	
	1.15 - 1 1.20 - 1 1.20 1.60 - 1	.65 D SP	N=23 (6,8/7,6	5,5,5)	100	0	0		1.20 (29.74)	yello sligh cobb angu	wish bro tly claye le conte ılar to su	ıbangula	ESTONE GRAVE I is fine to ir fine to	E recove L with m o coarse coarse	ered as	
	2.00 - 2 2.00	.45 D SP	N=19 (6,5/4,	1,5,6)						quar 65 m 1.85 i	tz and linm). (Gram).	mestone ade I and 00 m sti	(up to 1 d II). ff yellow I orangi	30 mm vish bro ish brov	x 85 mm : own wn slighti	
	2.10 - 2			100	0	0			2.00 i browi sandy	m to 2.2 n mottle / clayey l is ang	d dark	reddish . sand .	brown	rellowish slightly to mediu nestone	m.	
	3.00 - 3 3.00 3.40 - 3	SP	N=10 (3,4/3,3	3,2,2)	60	0	0		3.60 (27.34)	AZC	L					
	4.00 - 4 4.00 4.50 - 4	SP ⁻	N=17 (2,3/4,6	5,4,3)	100	0	0		4.00 (26.94)	reco sand Sand suba Cobl limes	vered as ly GRAV d is fine t angular fi oles are stone (up		n dense medium e. Grave arse qua to subar mm x 85	slightly cobble I is angu artz and ngular q 5 mm x	clayey content. ular to limestone uartz and).
	5.00 - 5	.45 D		L												
Hole Dia			ng Diameter				Chi	selling		L			Drill	ing Flush		
oth Base	Diameter	Depth Bas		Dept	h Top	Depth		Duration	То	ol	Depth Top (m)	Depth Base (r 2.00	⊓Flush Typ Water		lour Min (%	1 (
											2.00 3.00 4.00	3.00 4.00 5.00	Water Water Water			

	G						Эе	ep	Во	reh	ol	e L	og				
	ct Name ementar		rd to Sutt	on Dua ll ing	Clie	nt: Ga	liford [*]	Try				Date: 1	4/02/20	22 - 28/	02/2022	2	
Locati		усы			Con	itractor	: Swe	со				Co-ord	s: E507	574.42 I	N29986	8.47	
Projec	ct No. : 0	GT0386			Cre	w Nam	ne: AE	/ LW				Drilling	Equipm	nent: Fra	aste		
Bor	ehole N		Но	ole Type RC			eve l m AO	D		gged By 6 / MWD			Scale 1:25			age Num heet 2 of	
Well	Water Strikes	San	nple and	In Situ Testing	J		Coring	9	Legend	Depth (Level)			Stratum	n Descrip	tion		
	Surkes	<u>Depth (</u> 5.00		e Results Γ N=27 (3,4/6,		93	O O	RQD 0		(Level)	Pre reco san Sar sub Col lime	overed as doy GRAV dis fine to angular fi obles are estone (up ghtly wea	medium EL with r to coarse ne to coa angular to to 120 r	dense s medium o Gravel arse quar o subano mm x 85	lightly cla cobble co is angula tz and lir gular qua	ayey ontent ar to mestone irtz and	6
		6.50 - 6 6.50		Г N=13 (2,2/3,	3,3,4)					6.40 (24.54) 6.50 (24.44)	san Sar sub	CL dium dens ndy GRAV nd is fine to angular fi obles are	EL with r to coarse ne to coa	medium o . Gravel arse quar	cobble co is angula tz and lir	ontent. ar to mestone	
		7.00 - 7	.15 D			100					7.0 r yello sano subr	m to 7.15 wish brod d is fine to angular q	o to 130 r o m firm own sligh o mediu limestor	mm x 85 - reddish htly grav ım. Grav	mm x 65 brown a velly san vel is	mm). and ady clay.	7 -
		7.70 - 7	.80 D							7.60 (23.34)		dium dens ruginous S		h brown	fine to m	edium	
		8.00 - 8 8.00 8.20 - 8	SP'	Г N=26 (3,4/5,	6,7,8)				X X X X X X X X X X X X X X X X X X X	8.00 (22.94)		f predomi ttled oran			ccasiona	ally	8 -
						66				8.50 (22.44)	AZO	CL					9
		9.50 - 9 9.50	.95 D SP	Г N=25 (3,3/5,	6,7,7)				**** **** **** ****	9.50 (21.44)	Firr	m grey silt	y CLAY s	shell frag	ments.		
									××××	10.00		E	nd of Bor	ehole at 1	10.00m		10
	Hole Diam			ng Diameter	_	ath T:	D-: "		selling						g Flush	Na: 7275	1 (2)
Depth	Base [Diameter	Depth Bas 7.00	e Diameter 200	Dep	oth Top	Depth	Base	Duration	To	OI	5.00 6.50 8.00	Depth Base (m 6.50 8.00 9.50	Flush Type Water Water Water	Flush Colou	Min (%)	Max (%)
the targ	drilling the	The borehol		f services and a hilled from ground												1	



BH102

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ject ID: GT0386



BH102 1.20 m to 3.00 m





BH102

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH102 5.00 m to 6.50 m





BH102

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH102 8.00 m to 9.50 m

upplementa		rd to Su	utton	Dua ll ing	Clien	t: Gal	liford ⁻	Try][Date: 1	5/02/20	022 - 1	6/02/2	022		
ocation:	. y C.1				Cont	ractor	: Swe	СО			(Co-ord:	s: E507	673.78	N299	9709	.91	
roject No. :	GT0386				Crew	/ Nam	e: JC	/ DL			ſ	Drilling	Equipr	nent: T	ecop -	Tec 1	15	
Borehole N				Туре			eve l Im AOI	n		gged By			Scale 1:25	!			ge Nun	
BH10		nole an		RC Situ Testing		30.38	Coring			6 / MWD Depth						31	neet 1 d	T
Vell Strikes	Depth (уре	Results		TCR	SCR	RQD	Legend	(Level)			Stratur	n Descr	iption			
	0.00 - 0 0.00 - 0		B ES							0.30	fine ro subar yellov	ootlets. ngular to vish bro	y clayey Sand is o subrou wn oolit	fine to on the fine to one of the fine to one of the fine of the f	coarse ne and tone	Gra med	vel is ium	
	0.50 - 0 0.50 - 0		B ES							(30.09)	Sand subar	is fine t ngular fi	own sligh to coarso ne to co ngular to	e. Grave arse oo	el is an litic lim	gular ıestoı	and ne with	
	1.60 - 1 1.90		D SPT	N=88	00)	100	0	0										
	2.10 - 3	.00	c	(2,4/9,19,28	,32)					2.10								
	2.40 - 2	D			100	10	0		2.40 (27.99)	low co Grave very v occas Cobb oolitic Mediu oolitic subar	obble co el is ang weak an sional an les are climesto um stror c LIMES ngular fi sional co	own slight ontent. Significations gular and weak ngular to subround one. ong to stra sTONE ro ne to co obbles. (Sand is to subant oolitic little subant object of subant oder fine ong light ecoveres arse grant of subant object object object object object object of subant object obj	ine to gular fi mestor gular quar quar quar quar quar quar quar qu	coars ne to ne wi uartz arse v wish I ngula	se, coarse th weak brown ar and		
	3.00 - 4 3.00		C SPT	N=102 (11,5/19,23,30	0,30)					3.00 (27.39)	AZCL							
	3.91 - 4	00	cs			66	26	0		3.50 (26.89)	fossili occas 15 - 3 (30/70 stepp	iferous o sional vo 80 degre 0/90) op ed, redo	rellowish politic LI pids (up ees very een with dish bro ghtly we	MESTC to 15 m closely slight s wn and	NE wit m). Fra to clos ilt vene greyist	th acture sely s eer, ro	paced ough,	
	4.50 - 6 4.50 4.95 - 5	cs	C SPT CS	N=100 (12 225mm/8,11, 0)						4.50 (25.89) 4.95 (25.44)	fossili occas 15 - 3 mm) o stepp	iferous o sional vo 80 degre open wi ed, redo	rellowish politic LI pids (up ees clos th slight dish bro ahtly we	MESTC to 10 m sely spa silt ven wn and	NE with m). From the contract of the contract	th actui 0/110 ugh, n bro	/130	
Hole Diam				Diameter					selling						ling Flus			
	Diameter	Depth E	Base	Diameter 200	Dept	h Top	Depth		Duration	Too	ol I	Depth Top (m) 2.10	Depth Base (i	πIFlush Ty Water	pe Flush ora	Colour inge	Min (%) 100	
												3.00	4.50	Water		inge	100	

	G							Эе	ep	Во	reh	ol	e L	og				
	t Name ementar	: Wansfor	rd to S	Sutton	Dua ll ing	Clien	t: Gal	liford T	Ггу				Date: 1	5/02/20	22 - 16	/02/2022	2	
Locati		,				Contr	ractor	: Swed	СО				Co-ord	s: E507	673.78	N29970	9.91	
Projec	t No. : 0	3T0386				Crew	Nam	e: JC	/ DL				Drilling	Equipm	nent: Te	сор Тес	15	
Bor	ehole N BH10				Type RC	;		eve l m AOI	D		gged By 3 / MWD			Scale 1:25			age Num heet 2 of	
Well	Water Strikes	San Depth (nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
					Nesuits		40	40	32		5.55 (24.84)	foss occa 15 - mm step	ong light y illiferous of asional vo 30 degre) open wi oped, redo ning. (Slig	oolitic LIM oids (up t ees close th slight : dish brov	MESTON to 10 mm ely space silt venee vn and g	IE with) Fracto ed (70/11 er, rough reyish bro	0/130 , own	
		6.00 - 7 6.00		C cspt	N=24 (5,5/3,5,6,1	10)	0											7
		7.50 - 9 7.50		C cSPT	N=31 (6,5/3,9,9,1	10)	40			X X X X X X X X X X X X X X X X X X X	7.50 (22.89)		grey loca ings and d.					8
		9.00 - 10 9.00	0.50	D C cSPT	N=35 (2,4/4,8,11,	12)				X X X	9.00 (21.39)	clay	silt and	quent pa	rtings a	,	black es of ligh	t 9 -
		9.50 - 9 9.80 - 9		D D			66			X X X X X X X X X X X X X X X X X X X	9.50 (20.89)	round limes Very redd low blac Gra	y stiff darl dish brow cobble co	k grey and slightly content and liftne sand	ium gravelly gravelly de freque de (up to ubangula	rey mottle rey mottle r silty CLA ent pocke 20 mm x ar fine to	ed dark AY with ts of 10 mm). coarse	10
	Hole Diam	eter		Casing	Diameter				<u>Chi</u> s	elling		<u> </u>			<u>Drill</u> ir	ng Flush		
Depth I	_	Diameter	Depth	Base	Diameter	Depti	h Top	Depth		Duration	Тоо	ol	Depth Top (m) 4.50 6.00 7.50	Depth Base (m 6.00 7.50 9.00	Flush Typ Water Water Water	1	60	Max (%) 60 0 70
the targe	drilling the	The borehole			ervices and a ha											ch was		

G	Г				L	Jе	ep	Bo	rer	Ol	e L	.og				
Project Name		d to Suttor	n Dua ll ing	Client	t: Gal	liford ⁻	Try				Date: 1	5/02/20	22 - 16/	02/2022	2	
_ocation:	•			Contr	actor	: Swed	СО				Co-ord	s: E507	673.78	N29970	9.91	
Project No. : 0	GT0386			Crew	Nam	e: JC	/ DL				Drilling	Equipm	ent: Ted	ор Тес	15	
Borehole N	lumber		e Type RC	3		evel m AOI		1	gged By			Scale 1:25		Pa	ige Num heet 3 of	
Well Water Strikes	Sam	ple and In	Situ Testing			Coring	ļ	Legend	Depth (Level)				Descrip			
	Depth (r	2.00 C	Results		TCR	SCR	RQD	X X X	10.50	redo low blac Grav	lish brow cobble con k silt and vel is and stone. C	k grey an rn slightly ontent an I fine san gular to si obbles ar	gravelly d freque d (up to 2 ubangula	silty CLA nt pocke 20 mm x ir fine to	AY with ts of 10 mm). coarse	
	10.50 11.60 - 11		N=34 (5,4/5,9,9,	11)	66	4	0		(19.89) 11.00 (19.39)	Very dark with blace Gravilime (up to suba	v stiff dar reddish low cobl k silt anc vel is anç stone wi to 20 mn angular li	I fine san gular to si th occasion x 30 mn mestone il belem 1.84 m s	ightly grant and fred (up to 2 ubangula conal ferrun). Cobble.	equent por 20 mm x ar fine to aginous res are	y CLAY ockets of 10 mm). coarse nodules	11 -
	12.00 - 12 12.00		N=37 (1,3/6,9,9, ⁷	13)	20				12.50 (17.89)	AZC		JI IE				12 -
	13.50 - 13	3.60 D			10			X - X	13.50 (16.89) 13.80 (16.59)	dark with blac Grav lime (up t	reddish low coble silt and vel is and stone with the column and the column angular li	brown sl	ightly gra nt and fre d (up to 2 ubangula onal ferru n). Cobbl	equent po equent po 20 mm x or fine to uginous r	ockets of 10 mm). coarse	14 -
Hole Diam Depth Base	eter Diameter 121	Casing Depth Base	Diameter Diameter	Depth	1 Тор	Depth		selling Duration	15.00 To	ol	Depth Top (m	nd of Boro	Drillin Flush Type Water	g Flush Flush Colou orange	Min (%)	15 T
Remarks Prior to drilling the the target depth. The target street of the target street.	The borehole													orange h was	100	100



BH103

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ct ID: GT0386









Project:

Wansford to Sutton Dualling Supplementary GI

BH103

Project ID: GT0386



BH103 4.50 m to 7.50 m





BH103

Project:

Wansford to Sutton Dualling Supplementary GI

Projec

Project ID: GT0386



BH103 10.50 m to 13.50 m



ject N oplem		: Wansfoi v G I	d to S	utton	Dua ll ing	Clie	nt: Gal	liford	Ггу				ate: 1	6/02/20)22 - 22/	/02/202	2	
ation						Con	tractor	: Swe	co			C	o-ord	s: E507	849.28	N29964	18.91	
ject N	lo. : 0	ST0386				Cre	w Nam	e: MG	/ GC			С	rilling	Equipn	nent: Be	retta T∠	14	
		umber H104A			Type RC			eve l m AOI	D		gged By 6 / MWD			Scale 1:25			age Num Sheet 1 o	
<u>"</u> " "	/ater		nple ar		Situ Testing			Coring		Legend	Depth				n Descrip			Ť
St	rikes	Depth (Type B	Results		TCR	SCR	RQD	5	(Level) (23.83)	Dork b	rown		layey gra		ND with	+
		0.00 - 0 0.00 - 0 0.10 0.20	.50	ES D ES								few fin	e rootl	ets. San		to coarse	e. Gravel	
		0.20 - 0 0.40 0.50 0.50 - 1	.00	B ES D B ES							0.30 (23.53)	Recov conter suban	ered a nt. Sand gular a one. Co	s gravell d is fine ind angu obbles a	n sandy l y sand w to coarse lar fine to re angula	rith low c e. Gravel o coarse	obble is	
		1.20		SPT	N=64	27)												
		1.30 - 1	.40	D	(3,8/3,8,26,	21)	100											
		1.50 - 2	.00	С							1.50	AZCL						\dashv
							0				(22.33)							
		2.00 - 3 2.00		C SPT	N=79 (13,18/13,18,	48,0)												
							26	22	6									
		3.40 - 3		cs							3.10 (20.73)	LIMES low co Gravel limesto	STONE bble co l is sub one. Co	Recove ontent. S pangular obbles a	and is fir	ravelly s ne to coa ular fine ar to sub	to coarse angular	\
		3.50 - 3 3.50 - 4 3.50	.50	D C SPT	N=4 (4,0/4,0	,0,0)					3.50 (20.33)	with oc to 25 m AZCL	casior nm x 3	nal light 1 mm)	grey pa	nrtings c	silty clay of silt (up	
		4.25 - 4	.41	cs			60	16	16		3.90 (19 . 93)	LIMES low co Gravel limesto weak I III). AZCL	STONE bble co is sub one. Co imesto	. Recove ontent. S pangular obbles a ne. (Mod	and is fir and angu re angula derate we	ravelly s ne to coa ular fine ar to sub eathering	to coarse angular g Grade	
		4.50 - 5 4.50		C SPT	N=50 (3 fo 225mm/3,13 5)						4.50 (19.33)	black of angula low co Gravel limesto	clayey or to su bble co l is sub one. Co	sandy L bangula ontent. S angular obbles a	r fine to o and is fir and ango re angula	NE. Reco coarse go ne to coa ular fine ar to sub	overed as ravel with arse, to coarse	
4.1		5.00	c	SPT	N=14 (2,2/2,4	1,4,4)				K 14272	4.90 (18.93)			rade III).		NOTICE (IV	ioueralery	
Hol th Bas 4.50 5.00	e Diame	eter Diameter 121 180	Depth 5.0	Base	Diameter Diameter 180	Dep	th Top	Depth		elling Duration	Тос	Ol De	epth Top (m) 2.00 3.50	Depth Base (n 3.50 4.50	Drillin Flush Typ Water Water	ng Flush Flush Color No return No return	n 0	M
mark																<u> </u>		L

G	ir					Эе	ер	Во	reh	ole	e Lo	og				
Project Nan		rd to Suttor	n Dua ll ing	Clien	nt: Gal	liford ⁻	Try			I	Date: 16	6/02/20	22 - 22/	02/202	2	
Location:	агу сп			Cont	ractor	: Swe	со			(Co-ords	: E5078	349.28	N29964	18.91	
Project No.	: GT0386			Crew	/ Nam	ie: MG	6 / GC			ı	Dril l ing l	Equipm	ent: Be	retta T₄	14	
Borehole BH104 &			e Type RC			eve l m AO	D		gged By 3 / MWD			Scale 1:25		1	age Num Sheet 2 c	
Well Wate	r San	nple and In	Situ Testing			Coring	1	Legend	Depth (Level)				Descrip		511001 2 0	
	5.35 - 5	.45 D	Results		100	SCR O	RQD 0		5.30 (18.53)	black angul low co Grave limes mediu weath Firm SILT coars limes round	lar to sub obble con el is suba tone. Con um strong nered Gra light and with low se. Grave tone. Con ded limes	andy Llivangular angular angul	MESTON fine to come and is fire and angular fine angular fine angular fine simple angular fine simple angular fine angular	NE. Rec coarse g ne to coa ular fine ar to sub ttone. (N y sandy Sand is fine to c unded an	overed as ravel with arse. to coarse angular loderately clayey fine to oarse and cobbles	
	6.30 - 6		N=25 (2,3/4,	7,6,8)	100				6.00 (17.83)	Mm). Stiff o SILT/ browi	n silt (up	tely wea mottled th occas to 20 m	athered of black sl sional po m x 10 n	grade III ightly sa ckets of nm) and)	J 6 -
	7.40 - 7		N=13 (2,3/3,	3,3,4) -	100				7.25 (16.58)	grave subar	ngular to). Sand subrour	is fine to nded fine	coarse and me	Gravel is	7 -
	- 8.00 8.30 - 8		N=36 (4,9/7,8,10	,11)	45				8.45 (15.38)	No re	ecovery.					8 -
	9.00 - 10 9.00 9.40 - 9	cSPT	N=34 (3,8/8,8	8,9,9)	60			X X X X X X X X X X X X X X X X X X X	9.00 (14.83) 9.60	CLÁY browi sand	stiff dark	e nodule nous me	es of wea	ak orang	ish	9-
Hole Di	Diameter		Diameter Diameter	Dept	th Top	Depth		selling Duration	(14.23) 10.00	AZCL	Depth Top (m)	Depth Base (m	Drillir Flush Typ	ng Flush e Flush Colo	ur Min (%)	10 Max (%)
Remarks Prior to drilling th blocked (BH104) from ground leve	121 e position was c The hole was r I to 4.00 m bgl a	leared of service epositioned and nd slotted pipe i	es and a hand dug the borehole was from 4.00 m bgl to sd with a tophat co	inspecti terminal 9.00 m t	ion pit to ted at 20 bgl. The	1.20 m o	carried o	ut. The boreho vas the target ckfi ll ed from gr	depth (BH10 ound level to	04A). The o 4.00 m b	borehole w	as installe	d with p l air	pipe		100 100

	Ч	Г					L	Je	ep	BO	rer	IOI	e L	.og					
Project Supple	Name	: Wansfo	rd to	Suttor	Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date:	16/02/20	022 - 2	2/02/20)22		
Location		усл				Con	tractor	: Swe	СО				Co-ord	ds: E507	7849.28	3 N299	648.9	91	
Project	t No. : (GT0386				Crev	v Nam	ne: MG	G / GC				Drilling	g Equipr	nent: B	eretta	T44		
		lumber H104A			e Type RC			eve l Im AO	D		gged By 6 / MWD			Scale 1:25)		_	Num et 3 o	
	Water Strikes	Sar Depth		and In Type	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratur	n Descr	iption			
		10.0		SPT	N=49	45)	1010	OOK	TOO		(13.83)	Ver	y stiff daı	rk grey C	LAY.				1
		10.50 - 1		D	(4,11/9,11,14	, 15)	100												
		11.00 - 1 11.00 11.50 - 1	0	C SPT D	N=36 (3,6/4,8,11,7	13)	100												11
		12.0	0	SPT	N=17 (4,4/4,4	-,4,5)						12.0	10 m to 1	12.45 m	 becom	ing stit	Ŧ		12
		13.0	0	SPT	N=42 (4,7/7,8,11,	16)	100												13
		13.50 - 1	14.50	С		,	100				13.50 (10.33)	Ver	y stiff daı	rk grey C	LAY.				
		14.10 - 1	14.20	D			100			===									14
		14.35 - 1	14.50	D											_			_	
		14.50 - 1 14.5	15.50	C SPT	N=48 (3,8/8,11,11,	18)						shal subr	5 m to 1 es to ful rounded stone gr	l diamet to roun	ter with	occas	ional		
						-													15
	Hole Diam				Diameter					selling						lling Flush			_
Depth B		Diameter		h Base 3.50	Diameter 200	Dep	th Top	Depth	Base	Duration	То	ol	Depth Top (m 13.50	n) Depth Base (i	ml Flush Ty Air/Mis	/pe Flush C	olour N	/lin (%) 100	Max (
Rema					<u> </u>			<u> </u>					1	1					
blocked (E from grou	3H104). TI nd level to	he hole was r 4.00 m bgl a	reposition	ned and ed pipe fi	es and a hand dug the borehole was t rom 4.00 m bgl to 9 d with a tophat cov	termina 9.00 m	ted at 20 bgl. The).50 m bg borehole	I which was bac	vas the target or okfilled from gro	depth (BH1 ound level t	04A). Tl to 4.00 r	ne borehole	was install	ed with pla	ain pipe			

	Ч						L	<i>J</i> e)) RO	rei	101	е∟	.og						
	t Name ementar	: Wansfo	rd to Su	tton [Oua ll ing (Client: Galliford Try Date: 16/02/20										22 - 22/02/2022				
ocatio		,			(Contractor: Sweco								Co-ords: E507849.28 N299648.91						
rojec	t No. : 0	GT0386			(Crew N	am	ie: MG	/ GC				Drilling Equipment: Beretta T44							
	ehole N 04 & B	umber H104A	H	Hole ⁻ R(23		eve l m AOD	ı	Logged By CG / MWD				Scale 1:25			age Num Sheet 4 o			
Well	Water Strikes	San Depth (d In S	Situ Testing Results	Т	CR	Coring	RQD	Legend	Depth (Level)	Stratum Description								
		15.10 - 1		D								Ver	y stiff dar	k grey C	LAY.					
						7	0				15.20 (8.63)	AZC	CL							
		15.50 - 1 15.50		C PT (N=71 (4,8/11,13,16,	31)					15.50 (8.33)	brov lam	Very stiff dark grey with occasion brown mottling fossiliferous ind laminated CLAY with isolated preddish brown silt (up to 15 mm			distinctly oockets	16			
		16.20 - 1		cs		10	00													
		16.70 - 1 17.00 - 1 17.00 - 1 17.00	7.30 C	CS C SPT	N=68													17		
					(9,9/9,13,17,2		00					angu	0 m to 17.65 m gravels of ular to subangular fine to c iliferous ferruinous limesto		coarse	grey e slightly	18			
		18.30 - 1 18.50 - 2 18.50	0.00	D C																
		18.60 - 1	50 cSPT		N=88 10,11/11,19,22)		00											19		
		19.50 - 1	9.83 C	CS														_ 2		
[Hole Diameter Casing Diameter								Chi	selling		<u> </u>	L_		Drillir	ng Flush				
epth E 20.00	Base [Diameter 121	Depth Ba		Diameter	Depth T	ор	Depth B		Duration	То	ol	Depth Top (m 14.50 15.50 17.00	Depth Base (r 15.50 17.00 18.50	Air/Mist Air/Mist Air/Mist	Flush Color grey grey	Min (%) 100 100 100	Max 10 10		
ocked (I om grou	rilling the p BH104). The	ne hole was r 4.00 m bgl a	epositioned nd slotted p	and the	and a hand dug ir e borehole was te m 4.00 m bgl to 9. with a tophat cove	rminated .00 m bgl.	at 20 The	0.50 m bgl v borehole v	which v	was the target of ckfilled from gro	depth (BH1 ound level	04A). Th to 4.00 m	18.50 t 4.95 m bg e borehole	20.00 I due to the was installe	Air/Mist hole becomed with plain	pipe	100	10		

	G							Эе	ep	Во	reh	ole) L	og						
Projec	ct Name ementa	: Wansfo	rd to Su	tton	Dualling	Clier	nt: Gal	liford ⁻	Try			D	Date: 16/02/2022 - 22/02/2022							
Locati		,				Con	tractor	: Swe	СО			С	o-ord	s: E507	'849.28	N29964	48.91			
Projec	ct No. : (GT0386				Crev	v Nam	ne: MG	/ GC			D	Drilling Equipment: Beretta T44							
	ehole N		ŀ		Type RC			eve l Im AOI	D		gged By 3 / MWD			Scale 1:25			age Num Sheet 5 c			
Well	Water Strikes	Sar Depth		d In /pe	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descrip	otion				
		20.00		PT	N=92 (8,14/15,19,1		101.	3611	T Car		20.50	brown Iamina	mottlir Ited CL h brow	ng fossili .AY with n silt (up	ith occas ferous in isolated to 15 m	distinctly pockets m x 10 n	of			
																		21 —		
																		23 -		
																		24 —		
																		25		
	Hole Diam	eter		asinø	Diameter				Chie	elling					Drilli	ng Flush				
Depth		Diameter	Depth B	-	Diameter	Dep	th Top	Depth		Duration	То	Ol De	epth Top (m)	Depth Base (r	Flush Typ	_	ur Min (%)	Max (%)		
]																
Rema		ooiti	door			in-	Har - ''	1.00		# Tb	do	lant- 1	ne !	due 4	hol- !	T				
blocked from gro	(BH104). To und level to	ne hole was r 4.00 m bgl a	epositioned and slotted p	and to	s and a hand dug the borehole was om 4.00 m bgl to I with a tophat cov	termina 9.00 m	ited at 20 bgl. The) 50 m bg borehole	I which was bac	as the target kfilled from gr	depth (BH1 ound level t	04A). The be to 4.00 m bg	orehole	was installe	ed with plair	n pipe				



Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 1.20 m to 3.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 5.00 m to 6.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 8.00 m to 10.00 m



BH104 & BH104A 10.00 m to 12.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 12.00 m to 13.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 15.50 m to 17.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH104 & BH104A

Project ID:



BH104 & BH104A 18.50 m to 20.00 m

	t Name ementa	: Wansfor rv GI	d to S	utton	Dua ll ing	Clie	nt: Gal	liford T	Гrу			Date: 14/02/2022 - 22/02/2022									
•	on:	y				Con	tractor	: Swed	co				Co-ords: E507925.19 N299623.85								
jec	t No. : 0	GT0386				Crew Name: AE / LW							Drilling Equipment: Fraste								
3or	ehole N BH10				e Type RC			evel m AOI	D		gged By 6 / MWD			Scale 1:25		Page Numbe Sheet 1 of 4					
ell	Water	San	nple a	nd In	Situ Testing			Coring		Legend	Depth			Stratum	Descrip	otion					
330	Strikes	Depth ((m) Type		Results		TCR	SCR	RQD		(Level) (20.10)	Darl	c brown s	slightly cl			AND	+			
		0.40 0.50 - 1 0.60	.00	ES B D					-	0.70 (19.40)	I light brown to orangish brown very sitty SANII)										
		0.80 0.90 1.20 - 1		D ES D							1.20	mec graii	with low cobble content. Sand is fine medium. Cobbles are subangular megrained weak limestone. Loose to medium dense orangish browns and the subangular megrained weak limestone.				dium				
		1.20 1.40 - 1 1.50 - 2	.50	SPT D B	N=9 (2,2/2,2	,2,3)	100				(18.90)	yello med extro 1.20	Loose to medium dense orangish browly ellowish brown SAND. Sand is fine an medium. Rare subangular clasts (< 30 in extremely weakly cemented sand. 20 m to 1.80 m slightly mottled lightle and medium								
		2.00 - 2 2.00 - 2 2.00	.80	D B SPT	N=11 (2,2/2,3	3,3,3)						2.00	m to 2.1	00 m slig 10 m poo ite silty f	_ cket (<	- 40 mm,) of brown	,			
		2.40 - 2 2.80 - 3		D D			100								_						
		3.00 - 3 3.00	.45	D SPT	N=10 (2,2/2,2	2,3,3)							0 m to 3.00 m diffuse pock mm) of brown slightly clay nd								
		3.25 - 3 3.50 - 4		D B			100				3.45 (16.65)		Loose to medium dense dark orangish bro slightly gravelly ferruginous SAND. Sand is and medium. Gravel is subangular and subrounded medium very weak to weak sandstone. 8.80 m to 4.00 m very weak to weak andstone					_			
		3.60 - 3 4.00 - 4 4.00	.45	D D SPT	N=11 (1,2/2,2	2,3,4)						and subi sand 3.80					d ak				
	•	4.35 - 4		D	, , ,					× #	4.30 (15.80)	CLA grey	Y and SI silt and	LT locally orange s	/ interlar and . Sai	ninated nd is fin					
		4.50 - 4 4.65 - 4	.75	D D			100			X X X		Bedding and laminations are 10-20 degrees. 4.30 m to 4.45 m firm/stiff dark grey silty cla 4.45 m to 4.60 m light grey slightly sandy silly sand is fine 4.75 m to 5.00 m interlaminated grey clay									
	Halo D'	4.85 - 4 5.00 - 5		D D	Diameter				CI.:	X - X - X		and s		frequent	t parting	s of or	ange and	$\frac{1}{2}$			
		eter Diameter 200	Depth		Diameter Diameter	Dep	oth Top	Depth		elling Duration	Тоо	ol	Depth Top (m) 1.20 2.00 3.00	2.00 3.00 4.00	Drillii Flush Typ Water Water Water	ng Flush e Flush Col	our Min (%)	N			

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.95 m bgl which was the target depth. The borehole was backfilled with bentonite from 15.95 m bgl to 0.50 m bgl and arisings from 0.50 m to ground level. SPT Hammer Ref: P2011130 (R9).

G	Г				Deep Borehole Log												
Project Name Supplementa		d to Suttor	n Dua ll ing	Client: Ga	alliford	Try			Date: 14/02/2022 - 22/02/2022								
Location:	- y - 1 - 1		(Contracto	r: Swe	со				Co-ord	s: E507	925.19	N29962	23.85			
Project No. : 0	GT0386		(Crew Nar	ne: AE	/ LW				Drilling Equipment: Fraste							
Borehole N BH10	lumber		e Type RC		evel 0m AO	D	Logged By CG / MWD				Scale 1:25		Page Number Sheet 2 of 4				
Well Water Strikes	Sam	ple and In	Situ Testing	Coring TCR SCR RQD			Legend	Depth (Level)		Stratum Description							
	Depth (i 5.00	SPT	Results N=5 (1,0/1,1,1	1,2)	SCR	RQD		5.60 (14.50)	m dark grey and light grey thinly interbedded AY and SILT locally interlaminated with light by silt and orange sand. Sand is fine. dding and laminations are 10-20 degrees. If m to 5.50 m softened and disturbed by 5.7 Pockets (< 30mm) of black organic/ tic silty clay evident in SPT sample m and stiff mottled yellowish brown greyish with and grey slightly sandy CLAY with casional partings and lenses of sand and casional traces of black organic/lignitic tter. Sand is fine and medium.								
	6 . 10 - 6.	20 D					2 2	6.05 (14.05) 6.40	5.95 sand ferrud Firm sligh	matter. Sand is fine and medium. 95 m to 6.05 m brown to yellowishtobrowand. Sand is fine to coarse, possibly rruginous Firm light grey mottled brown calcareous slightly clayey sandy SILT. Sand is fine and medium.							
	6.45 - 6. 6.50 - 6. 6.50		N=36 (20,5/6,10,10,	10)	13	0		(13.70) 6.50 (13.60)	Stro and SILT Part to be Rec stroi high 45-6 spac brow band	Strong to very strong light grey slightly s and veined orangish brown highly calca SILTSTONE. Rare shells (< 10 mm). Partial recovery (< 50%). Core loss pres to be more weathered/weaker material. Recovered as grey CLAY and strong to strong light grey with orangish brown ve highly calcareous SILTSTONE. Fracture 45-60 degrees and 20 degrees very closspaced (40/60/100) with heavy dark ora brown discolouration and possible 1 mm band of mineralisation. (Slightly weather Grade II).					7		
	7.60 - 7. 8.00 - 8. 8.00		N=9 (1,2/2,2,2	2,3)				8.00 (12.10)						LAY with t grey silt.	8 -		
	8.70 - 9.	00 CS		100						m to 9.2		nination.	s are in	nclined 15	9 -		
	9.50 - 9. 9.50			3,4)											- 10		
Hole Diam	eter	Casing	Diameter			Chie	selling			I		Drillir	ng Flush		<u> </u>		
	Diameter 200	Depth Base 6.00	Diameter 200	Depth Top	Depth		Duration	То	ol	Depth Top (m) 5.00 6.50 8.00	Depth Base (m 6.50 8.00 9.50		Flush Colo	ur Min (%) 100 100	Max (%)		
	pth. The bor		services and a har														

	Ġ					Эе	ep	Во	reh	ol	e L	og						
Projec	t Name	: Wansford rv Gl	to Sutto	n Dua ll ing	Client: Ga	lliford	Try			Date: 14/02/2022 - 22/02/2022								
Locati		•			Contracto	r: Swe	со				Co-ords: E507925.19 N299623.85							
Projec	t No. : 0	GT0386			Crew Nan	ne: AE	/ LW				Drilling Equipment: Fraste							
Bor	ehole N BH10			e Type RC		evel)m AO	D		gged By 3 / MWD		Scale Page Number 1:25 Sheet 3 of 4							
Well	Water Strikes	Samp		Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)	Stratum Description								
		10.65 - 10.9 11.00 - 11.4 11.00	95 CS	N=16 (2,3/3,4	100				11.00	10.90	0 m to 1 tated pa	s of light	grey silt.	11 -				
		12.10 - 12.2	25 CS		100				11.40 (8.70)	occa and silts	Stiff indistinctly laminated dark grey CLAY w occasional partings and lenses of light grey and rare rounded nodules (< 15 mm) of wea siltstone.							
		12.50 - 12.8 12.50		N=22 (2,3/4,5	,6,7)				12.50 (7.60)	12.25 m to 12.30 m pocket (< 50 mm) of subangular and subrounded pyritised nodules (< 10 mm) Very stiff indistinctly laminated locally fissured dark grey CLAY with occasional shell fragme (< 15 mm) and subrounded nodules (15 mm > 100 mm) of very strong grey calcareous pyritic mudstone and siltstone nodules.						13		
		13.60 - 13.9			100													
		14.00 - 14. 14.00	45 D SPT N=23 (2,3/5		100						14.80 m to 15.00 m frequent nodules (15 mm to 80 mm)							
	Hole Diam	eter	Casing	Diameter			Chis	elling					Drillir	ng Flush				
Depth I			epth Base	Diameter	Depth Top	Depth		Duration	То	ol	9.50 11.00 12.50	Depth Base (m 11.00 12.50 14.00		Flush Colo	ur Min (%) 100 100 100	Max (%) 100 100 100		
was the	drilling the	pth. The boreh		services and a ha											1			

	G						Эе	ep	Bo	reh	ole	e L	og							
	t Name ementa	: Wansford	to Sutto	n Dua ll ing	Clie	nt: Gal	liford ⁻	Try			ı	Date: 14/02/2022 - 22/02/2022								
Locati		,			Con	tractor	: Swe	со			(Co-ords: E507925.19 N299623.85								
Projec	t No. :	GT0386			Crev	v Nam	ne: AE	/ LW				Drilling Equipment: Fraste								
Bor	ehole N BH10			e Type RC			eve l Im AO	D		gged By 3 / MWD			Scale 1:25		Page Number Sheet 4 of 4					
Well	Water Strikes	Samp Depth (m)		Situ Testing Results	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion					
		15.10 - 15.4 15.50 - 15.9 15.50	0 CS	N=28 (3,5/6,7		TON				15.95	Very stiff indistinctly laminated locally fissured dark grey CLAY with occasional shell fragments (< 15 mm) and subrounded nodules (15 mm to > 100 mm) of very strong grey calcareous pyritic mudstone and siltstone nodules. End of Borehole at 15.95m									
													iiu oi bor	enoie at	15.99111		16			
																	18 -			
Depth	Hole Diam Base		Casing epth Base	Diameter Diameter	Dep	oth Top	Depth		selling Duration	Too	ı lo	Depth Top (m) 14.00	Depth Base (m 15.50		ng Flush e Flush Colou	Min (%)	20 —			
was the	drilling th	pth. The boreh		services and a hackfilled with bent																



Project:

Wansford to Sutton Dualling Supplementary GI

BH106 Project ID:

piect ID: GT0386



BH106 1.20 m to 3.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH106 Project ID:

ject ID: GT0386



BH106 5.00 m to 6.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH106 Proje

Project ID: GT0386



BH106 8.00 m to 9.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH106 Project ID:



BH106 11.00 m to 12.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH106 Project ID: GT0386



BH106 14.00 m to 15.50 m

	t Name ementa	: Wansford	d to Suttor	n Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 1	4/02/20)22 - 24	/02/20	22	
٠.	emenia on:	гу (ы					: Swe					Co-ord	s: E507	887.82	N2996	666.27	
ojeo	t No. : 0	GT0386			Crev	v Nam	e: AE	/ LW				Drilling	Equipn	nent: Fra	aste		
-	ehole N		Hole	е Туре		Le	evel		Log	gged By			Scale			Page Nur	nber
	BH10			RC		24.61	m AO	D	CG	3 / MWD			1:25			Sheet 1	of 5
ell	Water Strikes			Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descrip	tion		
		0.10 - 0.2 0.20 - 0.3	20 D	Results		TCR	SCR	RQD		(24.61)	few	fine rootl	ets. San	d is fine t	to coar	SAND with se. Gravel mestone	+
		0.20 - 0.7 0.40 - 0.8 0.50 - 0.6	70 B 50 ES							0.30 (24.31)	as g is fir angı	ravelly sa	and with rse. Gravo coarse	low cobb vel is sub e limestor	ole con pangula ne. Col	Recovered tent. Sand ar and bbles are	
Cartillate party and party		1.20 1.30 - 1.4	cSPT	N=63 (10,12 for 225mn		45	10	0		1.20 (23.41)	sand is fin suba Cob		EL with I rse. Grav ne to co	low cobb vel is ang arse oolit	le cont gular to tic lime	stone.	,
The settle settle settle settle set		2.00 - 2.3 2.00 2.20 - 2.3	SPT	N=100 (21,16 for 180mn		70	15			2.40 (22.21)						sh brown	
The section of the section of		200.24	17 00			70	15	0		2.80 (21.81)		ic LIMES thered G			ely to s	slightly	
The cartie of the settle settl		3.00 - 3.3	cSPT	158mm)		90	80	35		3.00 (21.61)	oolit pred close with coar	edium strong to strong light yellowish brown plitic LIMESTONE. Fractures are redominantly 15 to 30 degrees very close to osely spaced (25/70/190) predominantly open ith yellowish sandy clay. Sand is fine to parse. (Moderately to slightly weathered rade III and II).					
and the series and the series and a series and a		4.00 5.00 - 5.4		102 (29,38/10 81mm)	o2 for	10	0	0		5.00							
_	Hole Diam			Diameter	1				elling						ng Flush		ᆣ
oth 1.7		Diameter 200	Depth Base 1.70	Diameter 200	Dep	th Top	Depth	Base	Duration	Too	ol	Depth Top (m)	Depth Base (m	Flush Typ Water	Flush Co	olour Min (%) Ma

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the target depth, however a SPT was carried out at the base to 20.45 m. The borehole was installed from ground level to 1.20 m bgl with plain pipe and from 1.20 m bgl to 5.90 m bgl with slotted pipe. The borehole was backfilled from ground level to 1.20 m bgl with bentonite, from 1.20 m bgl to 5.90 m bgl with gravel, and with bentonite from 5.90 m bgl to the base of the borehole. The install was finished with a tophat cover secured in place with concrete. SPT Hammer Ref: P2011130 (R9).

oject Name: Wan	sford to S	Sutton	Dua ll ing	a						Т		4100:-	200 -	10.0 15 -		
upplementary GI			- Daaming			liford 7							022 - 24			
ocation:						: Swed				-+			887.82		66.27	
oject No. : GT038 Borehole Numbe		Hole	e Type	Crev		e: AE . evel	/ LVV	100	gged By		Jrilling	Equipn Sca l e	nent: Fr	_	age Num	her
BH105			RC	L.,		m AOI)		6 / MWD			1:25			Sheet 2 c	
Vell Strikes			Situ Testing			Coring		Legend	Depth (Level)			Stratun	n Descri _l	otion		
Dep	oth (m) 5.00	Type SPT	Results N=19 (2,3/4,4	1,5,6)	TCR	SCR	RQD	37.F333	(19.61)	Mediu	ım dens	e orang	ish brow	n ferrug	inous	+
5.30) - 5.40	D			100					SAND), Sand	is fine a	ınd medi	um.		
6.10	6.10 - 6.20 D 6.50 - 6.95 D SPT N=21 (1 7.10 - 7.30 D							XXXXX XXXX XXXX XXXX XXXX	5.88 (18.73) 6.30 (18.31)	5.90 m clay. S	SILT. o to 5.9 Sand is	4 m bla fine / occasi	onally monally monally monally m	tic sligh	atly sandy	/ /
6										light g subro	rey silt unded t reous sa	(up to 1 o round	5 mm x ed fine to e and ce	1 mm). (coarse	Bravel is slightly	
7.30	7.30 - 7.50 CS 8.00 - 8.45 D SPT N=26 (2,3) 8.75 - 9.00 CS				67			× × × × × × × × × × × × × × × ×	7.30 (17.31) 7.50	Mediu	ım dens is fine.	0 m bla se orang	<u></u> ack ligni jish brow	<i>tic clay</i> n sandy	SILT.	
									8.00 (16.61)		ional po		ightly sa f lignitic		Y with o 10 mm x	
					87				8.75 (15.86)	sandy black is fine round silty s Very v brown	y gravell lignitics to coar led fine and. weak to and re	y CLAY silt (up to se. Gra to coars medium ddish br	with occo o 10 mm vel is sul se nodule n strong	asional x 10 mi orounde es of cer light yel tic LIME	nented lowish STONE.	\
9.50) - 9.28) - 9.96).50	D SPT	93 (3,5/93 157mm)						9.10 (15.51) 9.30 (15.31) 9.50 (15.11)	close predo and re coarse Grade AZCL Very v brown Fractu open	to close minantleddish be. (Mode III and weak to and rewaith light	ely space y open vorown st erately to II). medium ddish br e predom nt and de	ed (25/70 with yello aining. S to slightly n strong rown ooli ninantly i ark reddi	o/170) owish sa cand is fi or weather ight yell tic LIME 70-90 de sh brow	ndy clay ne to ered owish STONE. egrees n staining.	
Hole Diameter	er Depth	Casing 1 Base	Diameter Diameter	_Dep	th Top	Depth		selling Duration	Too	<u>ì</u>)).	erately t	O Slightl	Drilli	ng Flush	de III and	1 Ma
											5.00 6.50 8.00	6.50 8.00 9.50	Water Water Water		100	1

ect Name: dementar		to Sutto	n Dua ll ing	Client:	: Gal	liford T	ry				Date: 1	4/02/20)22 - 24/	02/2022	2	
tion:	y			Contra	actor	: Swec	0				Co-ord	s: E507	887.82 1	N29966	6.27	
ct No. : G	ST0386			Crew	Nam	e: AE /	LW				Dril l ing	Equipn	nent: Fra	ste		
rehole No		Но	le Type	,		eve l m AOE			gged By			Scale			age Num	
BH105 Water	•	ole and I	RC n Situ Testing	<u> </u>	4.61	Coring	,		Jepth			1:25			Sheet 3 of	Ï
Strikes	Depth (m				TCR	SCR	RQD	Legend	(Level)			Stratun	n Descrip	tion		
	10.20 - 10. 10.50 - 10.				73				10.40 (14.21) 10.60 (14.01)	brov Frac opei (Mo II). Stiff brov light subi	vn and rectures are n with lighter dark gre vn slightly grey silt ounded to	eddish bree predoment and date slightly occasing gravell (up to 1sto rounder	n strong ligown oolitininantly 70 ark reddis y weather onally moy CLAY w 5 mm x 1 ed fine to e and cen	ic LIMES 0-90 dec sh brown red Grad ottled ora vith partii mm), G coarses	STONE. grees staining. le III and ingish ngs of ravel is slightly	,
	11.00 - 11. 11.00	SPT	N=13 (1,1/2,2	2,4,5)					11.00 · (13.61)	sligh silt (subi	cL n dark greatly grave up to 10 rounded t	elly CLAY mm x 1 to round	ionally mo with parimm). Gra ed fine to and silts	tings of I vel is coarse s	ight grey	J _
	11.60 - 11.	78 CS			67				12.00 (12.61)	AZC	CL CL					
	12.50 - 12. 12.50	95 D SPT	N=22 (2,3/4,5	5,6,7)					12.50 (12.11)	foss cem	iliferous	CLAY wi t nodule:	nctly lamir th occasions (up to 1	onal wea	ıkly	
	13.00 - 13.	28 CS			100											
	14.00 - 14. 14.00 - 14. 14.00	45 D	. N=24 (2,3/4,5		100								Strong li us siltsto		y slightly	
Hole Diame Base C		Casir Depth Base	g Diameter Diameter	Depth	Тор	Depth E		selling Duration	Тос	ol	Depth Top (m) 9.50 11.00 12.50	Depth Base (n 11.00 12.50 14.00		g Flush Flush Colou	70 0 0	N

	G							Эе	ep	Во	reh	ol	e L	.og					
	t Name	: Wansfor	rd to	Suttor	Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 1	14/02/20	022 - 2	4/02/2	022		
Location		ту сы				Con	tractor	: Swe	СО				Co-ord	s: E507	7887.8	2 N299	9666.27		
Projec	t No. : (GT0386				Crev	v Nam	e: AE	/ LW				Drilling	Equipr	nent: F	raste			
Bore	ehole N BH10				e Type RC			eve l m AO	D		gged By i / MWD			Scale 1:25	!		Page Nu Sheet 4		
Well	Water Strikes		_		Situ Testing			Coring		Legend	Depth (Level)			Stratur	n Desc	ription			
	Ounco	Depth (m)	Туре	Results		TCR	SCR	RQD		LEVEI	Stiff	dark gre						
		15.18 - 19 15.50 - 19 15.50	5.95	CS D SPT	N=31							cen	siliferous nented sil pyrite cr	t nodule			weakly n x 10 mm)	
					(3,5/6,7,8,7	10)	80				16.20 (8.41)	AZC	CL CL						16 -
		16.57 - 10	6.70	CS							16.70 (7.91)	Stiff	to very s	stiff dark	grey pr	edomin	antly		1
		17.00 - 1 17.00		D SPT	N=32 (4,5/6,7,8,7	11)					(1.01)	Stiff to very stiff dark grey predominantly indistinctly laminated slightly fossiliferous (with occasional weakly cemented silt nodu (up to 10 mm x 10 mm) and pyrite crystals 16.70 m to 16.80 m fragments of strong grey slightly calcarious ferruginous silts with occasional quartz vains (up to 40 m 2 mm)						ght ne	17 -
		17.50 - 1	7.80	CS			100										strong lig		
													occasio				us siltstoi to 30 mm		18
		18.50 - 16 18.50		D SPT	N=39 (3,5/6,8,10,	15)													11111111111
		19.00 - 1	9.30	CS			100												19
		20.00 - 2	0.45	D															20
	Hole Diam				Diameter				<u>Ch</u> is	elling		<u> </u>			Dri	illing Flush	n		_~
Depth E		Diameter	Dept	h Base	Diameter	Dep	th Top	Depth		Duration	То	ol	Depth Top (m 14.00 15.50 17.00 18.50	Depth Base (r 15.50 17.00 18.50 20.00	_	ype Flush (er er	_	%) N	√lax (%) 0 0 0 0
however pipe. The	rilling the page of a SPT was borehole	s carried out at was backfilled	t the ba I from g	ise to 20. round lev	es and a hand dug 45 m. The boreho vel to 1.20 m bgl w over secured in pla	le was i	insta ll ed tonite, fro	from grou om 1.20 r	und level n bgl to 5	to 1.20 m bgl v 5.90 m bgl with	with plain p gravel, and	ipe and	from 1.20 m	bgl to 5.90	0 m bgl w	ith slotted	I	1	

	Ч					L	<i>)</i> e	ep	Bo	reh	Ol	e L	og				
	t Name ementar		rd to Sutt	on Dua ll ing	Clien	t: Gal	liford 7	Try				Date: 1	4/02/20)22 - 24	/02/202	2	
Location		,			Contr	ractor	: Swed	СО				Co-ord	s: E507	887.82	N29966	6.27	
Projec	t No. : (GT0386			Crew	/ Nam	e: AE	/ LW				Drilling	Equipr	nent: Fr	aste		
	ehole N BH10	umber	Н	ole Type RC		Le	evel m AOI			gged By 6 / MWD			Scale 1:25		P	age Num Sheet 5 o	
Well	Water		nple and	In Situ Testin			Coring		Legend	Depth				n Descri			
	Strikes	Depth (20.00				TCR	SCR	RQD		(Level)		to voru				H	
		20.00		(4,5/6,8,9							indis with	stinctly la occasior	minated nal weak	slightly t dy ceme	dominan fossilifero nted silt r pyrite crys	ous CLAY nodules	
										20.45		E	nd of Bo	rehole at	20.45m		21 -
																	23
																	24 -
	Hole Diam	eter	Car	ng Diameter	\perp			Chie	elling			Ι		Drill	ing Flush		
Depth E		Diameter	Depth Bas		Depti	h Top	Depth		Duration	Тоо	ol	Depth Top (m)	Depth Base (r		ge Flush Color	ur Min (%)	Max (%)
pipe. The	rilling the p a SPT was borehole v	was backfilled	from ground	vices and a hand du 20.45 m. The boref level to 1.20 m bgl t cover secured in p	with bento	onite, fro	m 1.20 n	n bgl to 5	.90 m bgl with	gravel, and	ninated at lipe and f d with be	t 20.00 m w from 1.20 m ntonite from	hich was the bgl to 5.90 m bg	he target de 0 m bgl with gl to the bas	epth, n slotted se of the	1	



Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH105 Project ID:



BH105 1.20 m to 2.00 m





BH105

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

iect ID: GT0386



BH105 4.00 m to 5.00 m



BH105 5.00 m to 6.50 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH105 Proje



BH105 6.50 m to 8.00 m



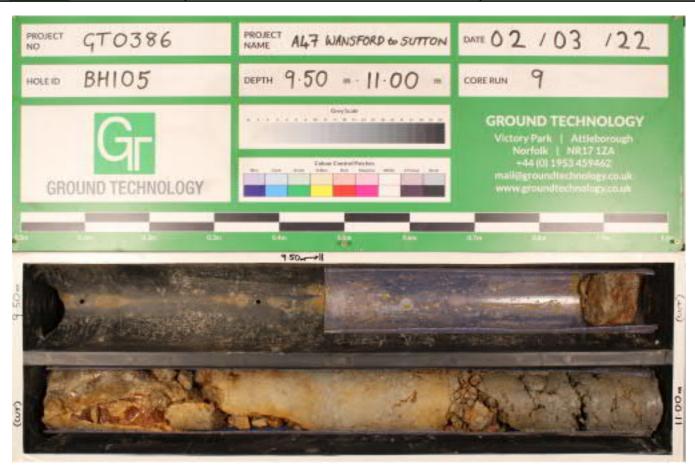


BH105

Project:

Wansford to Sutton Dualling Supplementary GI

Project |



BH105 9.50 m to 11.00 m





BH105

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH105 12.50 m to 14.00 m





BH105

Project:

Wansford to Sutton Dualling Supplementary GI

Pro



BH105 15.50 m to 17.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH105

Project ID:

GT0386



BH105 18.50 m to 20.00 m

G	Г				Je	ep	Bo	rer	nole Log	
Project Name		d to Suttor	Dua ll ing	Client: Ga	lliford [*]	Try			Date: 22/02/2022 - 25/02/2022	
Location:	y			Contracto	r: Swe	со			Co-ords: E507930.47 N299723.92	
Project No. :	GT0386			Crew Nan	ne: JC	/ DL			Drilling Equipment: Tecop Tec 15	
Borehole I	Number		е Туре	L	evel			gged By	sy Scale Page Numbe	
BH10			RC Situ Testing	21.2	Om AO Corino		CG	MWD		
Well Water Strikes	Depth (r	m) Type	Results	TCR	SCR	RQD	Legend	Depth (Level)		
	0.00 - 0.	70 ES						(27.29)	Greyish brown slightly gravelly sandy clayey SILT. Sand is fine to coarse. Gravel is subangular and subrounded fine and medium yellowish brown limestone.	
	0.70 - 1. 0.70 - 1.							0.70 (26.59)	I Medium strong to strong light vellowish hrown I	1
	1.20 - 2. 1.20	70 C SPT	50 (8,13/50 0mm)	for				1.20 (26.09)	Minimal recovery Core loss presumed to be	
				7	0	0				2
	2.70 - 4. 2.70	20 C SPT	50 (50 for 75mm/50 fo 10mm)		20	10		2.70 (24.59)		3 - 1
	3.83 - 4. 4.20 - 5. 4.20		50 (50 for					4.20 (23.09)	No recovery	4 —
	4.20	351	25mm/50 fc 0mm)		25	0		(20.09)		
						\vdash		5.00		5 -
Hole Diar	meter Diameter	Casing Depth Base	Diameter Diameter	Depth Top	Depth		elling Duration	To	1.20 2.70 Air/Mist yellow 100	1ax (%) 100 100
the target depth.	. The borehole ackfilled from g	e was installed ground level to	f from ground lev 5.00 m bgl with	el to 5.00 m bentonite, fro	bgl with om 5.00	plain pip m bgl to	e and from 5 7.50 m bgl v	5.00 m bgl with grave	orehole was terminated at 20.00 m which was gl to 7.50 m bgl with slotted pipe. The rel, and with bentonite from 7.50 m bgl to the er Ref: SIS1.	

	7				L	Je	ep	Bo	rer	lOl	e L	og				
Project Na	ame: Wansfo	ord to Sutt	on Dua ll ing	Clier	nt: Gal	lliford ⁻	Try				Date: 2	2/02/20)22 - 25/	/02/2022		
Location:	,			Cont	tractor	: Swe	СО				Co-ord	s: E507	930.47	N299723	3.92	
Project No	o. : GT0386			Crew	v Nam	ne: JC	/ DL				Drilling	Equipm	nent: Te	сор Тес	15	
	ole Number H107	Н	ole Type RC			eve l Im AOI	D	i .	gged By i / MWD			Scale 1:25			ge Numl heet 2 of	
	ikes		In Situ Testing	-	TCP	Coring		Legend	Depth (Level)			Stratum	n Descrip	tion		
		(m) Typ 6.20 6.20 C 0 SP 7.20 B 7.20 C 0 SP	Results T N=23 (3,6/6, T N=23 (3,6/6, T N=243 (3,8/8,10,17)	5,6,6)	100 100	SCR	RQD	Legend		Mec yellid sligl sub 5.20	m to 6.9	se to der wm local elly SANI o subrou o subro o su	nse light hily mottled. Sand in moded fine ghtly cal	orown to d light gres s fine. Gra e limeston cereous	avel is ie.	6
	7.90 - 8.20 - 8.2	8.10 B		- 4,16)	100				7.80 (19.49)	loca is si lime 7.65 oran Thir to d san lam silt a mm 7.80	ally very wubangularestones. m to 7.8 gish brounly to med ark grey of dy very sinated with and fine so of black	veakly to r to subro 80 m we wn ferru dium inte mottled y ilty CLAY th parting and. Occ silt/lignit	weakly of counded find the second of the sec	ery weak sandstor stiff to ve brown sli indistinct grey and pockets (. Gravel nedium dark ne ry stiff ghtly ly brown up to 5	8 -
	9.20 - 7 9.2 9.20 - 9.2	10.20 C 0 SP	T N=53 (4,11/11,12,1	- 13,17)	100											9
									'							10
Hole Depth Base	Diameter Diameter	Cas Depth Bas	ing Diameter se Diameter	Dent	th Top	Depth		elling Duration	То	ol	Depth Top (m)	Depth Base (m	Drillin Flush Typ	ng Flush Flush Colour	Min (%)	Max (%)
Remarks		_ 5,01,00		5		_ 2501				•	4.20 5.20 6.20 7.20 8.20	5.20 6.20 7.20 8.20 9.20	Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist	yellow yellow yellow orange orange	100 100 100 100 100	100 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the target depth. The borehole was installed from ground level to 5.00 m bgl with plain pipe and from 5.00 m bgl to 7.50 m bgl with slotted pipe. The borehole was backfilled from ground level to 5.00 m bgl with bentonite, from 5.00 m bgl to 7.50 m bgl with gravel, and with bentonite from 7.50 m bgl to the base of the borehole. The install was finished with a tophat cover secured in place with concrete. SPT Hammer Ref: SIS1.

	ct Name <u>ementa</u> i	: Wansfor	rd to S	Sutton	Dualling	Clier	nt: Ga	lliford Tr	у				Date: 2	2/02/20)22 - 2	5/02/20	022	_
٠.	ion:	y				Cont	tracto	: Sweco)				Co-ords	s: E507	930.47	7 N299	723.92	
je	ct No. : 0	GT0386				Crev	v Nam	ne: JC / [DL				Drilling	Equipn	nent: T	ecop T	ec 15	
30	rehole N BH10				Type RC			evel Im AOD			gged By i / MWD			Scale 1:25			Page Nur Sheet 3	
ell	Water Strikes	San Depth (nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descr	iption		
	10.20 - 11.20 C cSPT N=35 (8,8/8,8,8,11) 10.95 - 11.20 CS 11.20 - 12.20 C cSPT N=35							SCR	RQD			to da sand lami silt a mm) 10.15 dark 10.40 brown silt w weak 10.50	ark grey r ly very sinated with nd fine sof black of m to 10 brown feat on to 10 n weakly ith clasts siltstone	nottled y lty CLA\ h parting and. Oc silt/ligni 0.20 m errugino 0.50 m / ceme es (up to e	yellowisy f. Locali g of ligh casiona te. very st ous and extrem nted sla 20 mr moden	h browr ly indisti t grey a al pocke frong si d pyritisi aely we ightly o atley w	inctly ind brown its (up to 5 ubangular sed cobble ak light salcareous ngular ver	
					N=35 (0,3/7,8,9,1	1)	85				11.20 (16.09) 11.35 (15.94)	Subar AZC Very with	weak siltstone 10.50 m to 10.85 m moderatley weask to medium strong mottled slightly calcareous subangular mudstone/siltstone gravel AZCL Very stiff dark grey indistinctly laminated CLAY with occasional fossil shell fragments (up to 25 mm).					
		11.90 - 1 12.20 - 1 12.20	3.20	CS C cSPT	N=39 (5,6/9,9,10,						12.20 (15.09)	AZC						
		12.90 - 1	3.20	CS	(0,0/0,0,10,	,	70				12.50 (14.79)	dark Iami with	Very stiff locally fissured indistinctly laminated dark grey CLAY locally extremely weak thickly laminated to very thinly bedded MUDSTONE with occasional shell fragments (up to 15 mm). Fissures are impersistent planar smooth.					
		13.20 - 1 13.20		C cSPT	N=39 (4,6/6,10,10,	.13)	100					13.20	3.20 m belemnite fossil					
		13.90 - 1 14.50 - 1		CS														
		14.50		cSPT	N=48 (5,9/9,9,11,	19)												
th	Hole Diam Base	eter Diameter	Depth		Diameter Diameter	Den	th Top	Depth Ba		elling Duration	Too	nl nl	Depth Top (m)	Depth Base (r	Drii	lling Flush		М
<u>un</u>	nase l	viaineter	Deptn	Dase	DIAMETER	⊔ер	ит тор	реріп Ва	35E	บนเสแงก	100	JI	9.20 10.20 11.20	10.20 11.20 12.20	Air/Mi: Air/Mi: Air/Mi: Air/Mi:	st gre st gre	y 100 y 100	M

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the target depth. The borehole was installed from ground level to 5.00 m bgl with plain pipe and from 5.00 m bgl to 7.50 m bgl with slotted pipe. The borehole was backfilled from ground level to 5.00 m bgl with bentonite, from 5.00 m bgl to 7.50 m bgl with gravel, and with bentonite from 7.50 m bgl to the base of the borehole. The install was finished with a tophat cover secured in place with concrete. SPT Hammer Ref: SIS1.

	Ч						L	Je	ep	Bo	rer	lOl	e L	.og				
	t Name	: Wansford	d to Su	tton	Dualling	Clien	ıt: Gal	liford ⁻	Try				Date: 2	22/02/20)22 - 25	/02/202:	2	
Locati		,				Cont	ractor	: Swe	со				Co-ord	s: E507	930.47	N29972	23.92	
Proied	t No. : (GT0386				Crew	/ Nam	e: JC	/ DL				Drillina	Equipn	nent: Te	cop Tec	15	
	ehole N	lumber	F		Type		Le	eve l m AO		1	gged By			Scale 1:25		Pa	age Num Sheet 4 o	
Well	Water Strikes	Sam		d In	Situ Testing			Coring		Legend	Depth (Level)				n Descrip			
	Cuntoo	Depth (n	n) Ty	/ре	Results		TCR	SCR	RQD				/ stiff loca	ally fissu	red indist	tinctly lan	ninated	+-
		15.65 - 15	5.95 C	cs			100					lami with Fiss 15.28	inated to occasion ures are of m med ded silts	very thir nal shell impersis dium str	ily bedde fragmen stent plar ong bro	nely weaked MUDS ts (up to nar smoo wnish g	TONE 15 mm) th	
		16.00 - 17 16.00		C SPT	N=41 (5,8/8,8,12,1	13)					16.00 (11.29)	AZC	CL					16 -
		17.00 - 18 17.00	N=36 (4,4/5,8,9,1	4)	60				16.40 (10.89) 17.00 (10.29)	dark lami with Fiss 16.40 stron	grey CL inated to occasion ures are 0 m to 1 g to stro stone/ca	AY to ex very thir nal shell impersis 6.55 m ong grey	tremely valy bedde fragmen stent plar recover angula	tinctly lan weak thic ed MUDS ts (up to ner smoo ed as m ar to sub ne grave	ckly TONE 15 mm). th. nedium pangular	17		
						_					17.30 (9.99)	dark lami with	grey CL inated to occasion	.AÝ to ex very thir nal shell	tremely only bedde fragmen	tinctly lan weak thic ed MUDS ts (up to ner smoo	ckly TONE 30 mm).	
		18.18 - 18		cs			100					polis		ar surfa		nal impe ally crum	ersistent nbly/	18 -
		18.50 - 20 18.50		C SPT	N=44 (4,8/8,10,11,	15)						sligh	tly calce	reous s	iltstone	nded irr /mudsto 80 mm)	ne	19
		19.20	C	CS			100				20.00							20
	Hole Dies	otor I		ncina '	Diameter				CL:	olling	20.00		E T	nd of Bo	ehole at			
Depth E		eter Diameter 121	Depth Ba 18.00	ase	Diameter Diameter 121	Dept	h Top	Depth		elling Duration	То	ol	Depth Top (m) 14.50 16.00 17.00 18.50	Depth Base (n 16.00 17.50 18.50 20.00	Drilli Flush Typ Air/Mist Air/Mist Air/Mist Air/Mist	grey grey	100 100 100 100 100	Max (%) 100 100 100 100
the targe	drilling the et depth. ⁻ e was bac	The borehole kfilled from g	was inst round lev	talled vel to	ervices and a ha from ground lev 5.00 m bgl with d with a tophat c	el to 5 bento	.00 m b nite, fro	gl with p m 5.00	plain pip m bgl to	e and from 5 7.50 m bgl v	5.00 m bgl with grave	to 7.50 I, and w	m bgl with ith benton	n slotted p	ipe. The		1	



Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH107 Project ID:



BH107 1.20 m to 2.70 m





BH107

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH107 5.20 m to 7.20 m





GT0386

BH107

GROUND TECHNOLOGY

PROJECT

HOLEID

Photographic Report

оертн 9-20 - 11-20

ALT WANSFORD & SUTTON

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH107 Project ID:

DATE 03/03 /22

GROUND TECHNOLOGY

Norfolk | NR17 1ZA +44 (0) 1953 459462 mail@groundlectoulogy.co.uk



BH107 9.20 m to 11.20 m





GT0386

BH107

GROUND TECHNOLOGY

PROJECT

HOLEID

Photographic Report

DEPTH 13-20 = 14-50

ALT WANSFORD to SUTTON

Project:

Wansford to Sutton Dualling Supplementary GI

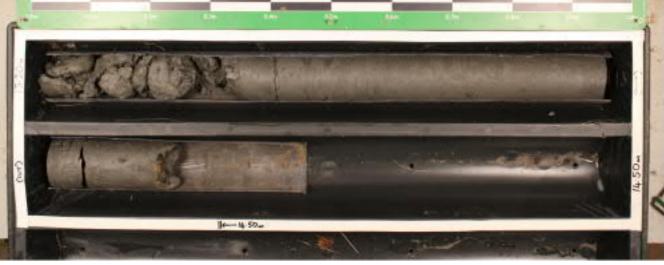
GT0386

BH107 Project ID:

CORE RUN 12

GROUND TECHNOLOGY

Victory Park | Attleberough Norfolk | NRET IZA +44 (0) 1953 459462 mail@groundtechnology.com



BH107 13.20 m 14.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH107 Project ID:



DI 1107 16 00 m to 17 00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH107 Project ID:



BH107 18.50 m to 20.00 m

ipplementa	: Wansford ry GI	u io Suitor	i Dualling	Clien	ıt: Gal	liford ⁻	Ггу			J	Date: 2	22/02/20)22 - :	25/0	2/202:	2	
cation:				Cont	ractor	: Swe	co				Co-ord	s: E507	'940.5	52 N	29980	8.34	
roject No. : (GT0386			Crew	/ Nam	e: JC	/ DL				Drilling	Equipn	nent:	Tecc	р Тес	15	
Borehole N			e Type RC			eve l m AOI	D		gged By 3 / MWD			Scale 1:25				age Nu Sheet 1	
Water Strikes			Situ Testing			Coring		Legend	Depth (Level)			Stratun	n Desc	criptio	on		
	Depth (r 0.00 - 0.3 0.00 - 0.3	30 B	Results		TCR	SCR	RQD		(28.54)	Sand	l is fine	slightly c to coarse	e. Gra	vel is			
	0.30 - 0. 0.30 - 0.								0.30 (28.24)	Yellowith of meditor to co	wish bro occasion um. Gra arse ver	own sligh nal cobb avel is ar ry weak a subangu	ntly cla les. Sa ngular and w	yey s and is and s eak c	s fine a subanç olitic li	nd Jular fin	e
	0.95 - 1.0	65 B								brow LIME orien infille claye	n to yell STONE stated ve ed (2/5/1 ey fine a	veak to r owish br i. Fractur ery close 5) with y nd medir veathere	rown s res are ly spac rellowicum oo	andy e rand ced (sh br litic s	oolitic domly 5/50/70 own sl and. (H	D) open ightly Highly to	
	1.65 - 3.0 1.65	00 C cSPT	N=129 (4,5/21,26,32	2,50)				1,1,1	1.65 (26.89)	AZCI	L						
	2.17 - 2.:	25 CS			74	35	0		2.00 (26.54)	yellov Fract close claye	wish bro tures are ely space ey sand,	ng to stro own sand e 5-10 de ed (50/80 undulati ghtly wea	dy oolit egrees 0/140) ing rou	ic LII and oper igh s	MESTO 85-90 n, infille lightly	ONE. degree ed with	s
	3.00 - 4. 3.00						ker maish bro politic l gular t 70 mr avities ctures and 8 andy c	ateria bwn a _IME o sub o sub o sub o sub and and are p 30-90 lay in	II. Med and yel STON pround owing some i possibly degre fill slig	ium lowish E. ed frequer ntact y closel es htly							
	4.36 - 4.50 CS 4.50 - 4.95 C								4.50	Grad	e II).	ery. Core	,				
									(24.04)	core greyi locall calca	compris sh brow ly oolitic areous fi	ered/wea ses medi n and ye LIMEST ne and r E. (Sligh	um str ellowis FONE nediur	ong t h bro to ora n gra	o stror wn sai angish ined	ng ndy brown	
Hole Diam Depth Base		Casing Depth Base	Diameter Diameter	Dept	h Top	Depth		elling Duration	Too		Depth Top (m	Depth Base (r		rilling Type F	Flush Iush Colou	m Min (9	6) Ma
орит Вазе	Diametel .	Depui Dase	Diameter	pehr	,, 10p	Pehill	Da96	DurauUII	100	4	1.65 3.00 4.50	3.00 4.50 4.95	Air/N Air/N Air/N	∕list ⁄list	grey grey grey grey	100 100 100	6) IVIa

	Ч					L	Je	ep	Bo	rer	lOl	e L	.og				
	t Name		d to Sutte	on Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 2	22/02/20	022 - 25	5/02/202	22	
Locati		усы			Conf	tractor	: Swe	СО				Co-ord	s: E507	7940.52	N2998	08.34	
Proied	t No. : (GT0386			Crev	v Nam	ne: JC	/ DL				Drilling	Equipr	ment: Te	ecop Te	 с 15	
	ehole N	umber	Но	le Type RC		L	eve l m AO		1	gged By			Scale 1:25)	F	Page Nun Sheet 2 d	
Well	Water Strikes	Sam Depth (r		n Situ Testing		TCR	Coring	RQD	Legend	Depth (Level)			Stratur	m Descri	ption		
		5.78 - 5.			,	20	20	10			mor core grey loca calc	ial recove e weathe e compris vish brow illy oolitic areous fi NDSTON	ered/wea ses medi on and yea LIMES	aker mate ium stror ellowish TONE to medium	erial. Red ng to stro brown sa orangish grained	covered ong andy n brown	
		6.00 6.35 - 6.	cSP 45 D	T N=35 (2,3/3,6,10	,16)					6.00 (22.54)	grav med 6.25	lium fine	ID. Sand grained 35 m plu	d is fine. limestor	Gravel is ne.	careous s angular grey clay	6
		6.50 - 6.	90 B			75				6.45 (22.09)	brov SAN <u>-6.70</u> 6.70	se light over locally ND. Sand m to 6.8 m to 6.8 dark bro	laminat is fine a 20 m sil 30 m or	ted dark and med t <u>v</u> ange, y	brown sl ium. <i>ellowish</i>	lightly silty	
		7.00 - 8. 7.00	00 B cSP	T N=57 (2,4/7,11,18		100				6.95 (21.59)	Very bed	/ dense t ded light vn silty S	hinly lan greyish	ninated t brown a	o very th nd yellov	wish	7 -
		8.00	cSP	T N=72 (7,7/10,17,2	1,24)												8 -
		8.40 - 8.	.90 B			85				8.80						ered a and greg	/ = -
		8.90 9.00	B cSP	T N=48 (3,4/8,12,14	1,14)					(19.74)	San		and med	dium. Oc	casional	us SAND. clasts (< tone.	9
		9.60 - 9.	.70 D			70			X X X X X X X X X X X X X X X X X X X	9.40 (19.14)	orga 9.40	n light gre anic SILT m to 9.4 nic silt /	13 m ve	_		nck slightly	
	11-1 5:	T		l Diama i	[1					10 -
Depth	Hole Diam Base I	eter Diameter	Casi Depth Bas	ng Diameter e Diameter	Dep	th Top	Depth		selling Duration	То	ol	Depth Top (m) Depth Base (ling Flush pe Flush Cole	our Min (%)	Max (%)
Rema		nocition	e cleared -	f services and a h	and do	a inens	otion sit	to 1 20	m corried a	ıt Tha ba	oholo	ae tarmir	ated at an	1 00 m ···-	ich was		
the targ	et depth. ckfilled fro	The borehole m ground lev	e was install vel to 5.00 n	ed from ground le bgl with bentoni mmer Ref: SIS1.	evel to 5	5.00 m b	gl with	plain pip	e and from	5.00 m bgl	to 10.0	0 m bgl wi	th slotted	pipe. The	e hole		

Ч					De	ep	Bo	rer	lOl	e Log				
Project Name Supplementa		o Suttor	Dua ll ing	Client: Ga	alliford	Try				Date: 22/02/20	022 - 25/	02/2022		
Location:	y (1)		,	Contracto	r: Swe	со				Co-ords: E507	7940.52 I	N299808	3.34	
Project No. : 0	GT0386		(Crew Nar	ne: JC	/ DL				Drilling Equipr	nent: Ted	cop Tec 1	15	
Borehole N BH10	lumber		e Type		.eve l 4m AO	D	i .	gged By		Scale 1:25		Pag	ge Numb	
Well Water Strikes	Sample		Situ Testing		Coring	9	Legend	Depth		Stratur	n Descrip			
Strikes	Depth (m) 10.00	Type SPT	Results N=37	TCR	SCR	RQD	KKKKK	(Level)	Firm	n light grey mottle	ed and vei	ned black	slightly	
	10.40 - 10.7	0 CS	(5,5/10,10,8,	9) 100			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	10.50 (18.04)	orga Thir and with	anic SILT. The stiff to wery stiff to very stiff to locally indistinct ght grey and brow	erbedded grey to da lamination	light grey rk grey Cl ns and pa	SILT _AY rtings	
	11.00 11.70 - 12.0	SPT O CS	N=49 (4,6/9,12,13,	100					11.70 mm)) m subrounded	d pyritic r	nodule (<	< 30	11
	12.00 - 13.5 12.00	0 C SPT	N=48 (5,7/10,12,12,	14)			X-1-X	12.00 (16.54)	LAZC 12.00	CL O m to 13.50 m illing, not suital	recovere	ed core a	listurbed	12
				67				12.60 (15.94) 13.05 (15.49)	grey spe mm (< 1 12.85 very silt, fi weak 12.90	ally to medium into v and dark grey Cockled black claye dium. Occasional of black organic omm) of pyritise of m to 13.05 m thin beds of light requent black of ally cemented closes.	CLAY and y SAND. irregular possibility in the silt/lightly of the brown organic tracts (55 clast (56 clast (56 charts))	brownish Sand is fir pockets (e and frag mains. calcareou to brown aces, an mm) 0 mm x S	grey ne and < 10 ments us, with n sandy d very	13
	13.50	SPT	N=51 (0,4/10,11,14,	16)					<i>siltste</i> Stiff fissu	ry strong light tone to very stiff indisured dark grey Clatered shells and	tinctly lam	ninated loc occasiona	cally I	14 -
	14.53 - 14.8	3 CS								0 m 2 no. round slightly calcare les				-
	15.00 - 16.5	0 C			1	\vdash		1	\vdash					15
Hole Diam Depth Base		Casing epth Base 10.60	Diameter Diameter 121	Depth Top	Depth		selling Duration	To	ol	Depth Top (m) Depth Base (12.00 13.50	_	g Flush Flush Colour grey	Min (%)	Max (%) 100
the target depth.	The borehole wa m ground level	as installed to 5.00 m b	from ground leve ogl with bentonite	el to 5.00 m	bgl with	plain pip	e and from 5	5.00 m bgl	to 10.0	as terminated at 20 0 m bgl with slotted ole was finished wit	pipe. The	hole		

	Ч	Γ				Deep Borehole Log															
Project Name: Wansford to Sutton Dualling Supplementary GI							nt: Gal	liford ⁻	Try			Date: 22/02/2022 - 25/02/2022									
Locati		7				Contractor: Sweco								Co-ords: E507940.52 N299808.34							
Projec	t No. : (GT0386				Crew Name: JC / DL								Drilling Equipment: Tecop Tec 15							
Bor	Borehole Number Hole Type BH108 RC						Level Logged By 28.54m AOD CG / MWD							Scale 1:25		Page Number Sheet 4 of 4					
Well	Water Sample and In Situ Testing					Coring			Legend	Depth (Level)			Stratun	n Descript	ion						
		Depth (15.00		Type SPT	Results N=50 (5,7/10,12,13	3 15)	TCR	SCR	RQD	====	(20.0.)	Stiff to very stiff indistinctly laminated locally fissured dark grey CLAY with occasional									
		16.20 - 1 16,50 - 1		cs c	(5,7/10,12,13	,, 10)	100					_scat 15.15	tered sh 5 m sub	ells and s rounded	AY will observe the control of the c	nents (< ong gre	: 30 mm). ∋ <i>y</i>	16 -			
		16.50 - 1 16.50	0	SPT CS	N=57 (4,8/11,13,16	5,17)	100				17.00 (11.54)	dark MUI and disc	ry stiff indistinctly laminated locally fissured k grey CLAY and extremely weak IDSTONE with occasional scattered shells dishell fragments (< 25 mm). Fissures and continuities are very closely spaced planar ooth.								
	18.00 18			C SPT	N=57 (4,7/11,14,13	3,19)						grey	calcare	ous silts	full core stone/mu ense/hea	dstone	er strong with	18 -			
		18.72 - 1	8.98	CS			100					18.45 m to 18.50 m 2 no. rounded strong grey calcareous siltstone/mudstone nodules 18.62 m to 18.72 m discontinuity inclined 45 to 50 degrees, undulating smooth to polished indistinctly slickensided					19 -				
		19.50	0	SPT	N=57 (5,7/12,14,15	5,16)					20.00						20				
	Hole Diam	eter		Casing	Diameter				<u>Ch</u> is	elling		<u> </u>		-114 UI DUI	ehole at 2	g Flush		<u> </u>			
Depth I 19.5	Base	Diameter 121	Depth		Diameter	Dep	th Top	Depth		Duration	То	ol	Depth Top (m 15.00 16.50 18.00	Depth Base (n 16.50 18.00 19.50	Air/Mist Air/Mist Air/Mist Air/Mist		100 100 100 100	Max (%) 100 100 100			
the targ	drilling the et depth. ckfilled fro	The borehol m ground le	le was ir evel to 5	nstalled .00 m b	ervices and a ha I from ground le ogl with bentonit mer Ref: SIS1.	vel to	5.00 m b	gl with p	plain pip	e and from 5	5.00 m bgl	to 10.0	0 m bgl w	ith slotted	pipe. The h	nole					



BH108

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH108 0.95 m to 3.00 m





BH108

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH108 6.00 m to 8.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH108 Project ID:



BH108 10.00 m to 12.00 m





BH108

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH108 13.50 m to 15.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH108



BH108 16.50 m to 18.00 m



	menta	e: Wansfo rv GI	14 10	Outto		Clien	t: Gal	liford ⁻	Try				Date: 1	Date: 17/02/2022 - 22/02/2022								
Location:								: Swe	СО			Co-ords: E507949.74 N299847.42										
Project No. : GT0386							Nam	e: JC	/ DL				Drilling	Equipn	nent: Ted	сор Тес	15					
Borehole Number Hole Type BH109 RC						:		eve l m AOI	D		gged By 6 / MWD			Sca l e 1:25		Page Number Sheet 1 of 3						
	Water Strikes	San Depth (and In Type	Situ Testing Results	4	TCR	Coring SCR RQD		Legend	Depth (Level)		Stratum Description									
		0.00 - 0 0.10 - 0	0.00 - 0.30 B 0.10 - 0.20 D 0.10 - 0.20 ES		results		TOR	3017	TOO		(27.58)	Sar	nd is fine	to coarse	layey gra e. Gravel i limeston	is angula						
		0.30 - 0 0.30 - 0 0.40 - 0	.50	ES B D							0.30 (27.28)	Yellowish brown slightly clayey sandy GRAVEL. Sand is fine and medium. Gravel is angular and subangular fine to coarse very weak and weak oolitic limestone.										
		1.20 1.80 - 1		cSPT	N=85 (15,21/15,21,2 5)	24,2	70	0	0		(26.38) sa co to ai lir lir		Attermely weak to very weak yellowish brown andy oolitic LIMESTONE. Sand is fine to barse. Recovered as sandy GRAVEL with low medium cobble content. Gravel is subangular and subrounded fine to coarse oolitic mestone. Cobbles are subangular oolitic nestone. (Highly and moderately weathered rade IV and III).									
		1.90 - 3 1.90	00 - 3.00		50 (50 for 0mm for 0mm)	n/50					1.90 (25.68)	san con GR sub	Very weak to weak yellowish brown slightly sandy oolitic LIMESTONE with medium cobble content. Sand is fine to medium. Recovered as GRAVEL with low cobble content. Gravel is subangular and subrounded fine to coarse limestone. Cobbles are subangular limestone.									
A 4544 4444 444 4		2.50 - 2	.40	D			100	50	0			(Moderately weathered Grade III). 2.68 m to 2.78 m Band of yellowish browl fine to medium sand										
A 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3.00 - 3 3.00 - 4 3.00	1.50) C	50 (50 for 0mm for 0mm)	n/50			40		3.00 (24.58) 3.30	(Fre	Strong light grey to grey oolitic LIMESTONE. (Fresh to slightly weathered Grade I and II). Weak and medium strong vellowish brown									
							100	70			3.70 (23.88)	Weak and medium strong yellowish brown slightly fossiliferous oolitic LIMESTONE with occasional voids (< 20 mm). Fractures are 15-30 degrees very closely to medium spaced (25/90) open with fine sand infill, rough, stepped. (Slightly and moderately weathered Grade II and III). Strong light grey and grey slightly fossiliferous oolitic LIMESTONE. Fractures are 15-30 degrees closely spaced (80 mm - 180 mm)										
		4.16 - 4 4.50		CS cSPT	N=31 (8 for						4.50	(Fre	esh and s		nfill, rougl eathered							
		1100		33. 1	8mm/6,7,9,9						(23.08)	AZCL										
	lole Diam	neter		<u>C</u> asing	Diameter				Chis	elling					Drillir	ng Flush		上				
th B	-	Diameter	Dept	h Base	Diameter	Depti	h Top	Depth		Duration	Тос	ol	Depth Top (m 1.90 3.00) Depth Base (n 3.00 4.50	Flush Type Air/Mist Air/Mist	1	Min (%) 100 100	Ma 1 1				
mai	rks																					

	뎩				Deep Borehole Log												
Project Supple			d to Suttor	n Dua ll ing	Client: G	alliford	Try			Date: 17/02/2022 - 22/02/2022							
Locatio		y			Contract	or: Swe	co			Co-ords: E507949.74 N299847.42							
Proiect	No. : 0	GT0386			Crew Na	me: JC	/ DL			Drilling Equipment: Tecop Tec 15							
		umber	Hole	е Туре		Level		Lo	gged By	/	Scale			age Num	ıber		
	BH109 RC				27.	58m AC	D	CG / MWD			1:25		s	heet 2 o	f 3		
	Water Sample and In Situ Testing				TCI	Coring	g RQD	Legend	Depth (Level)		Stratun	n Descrip	tion				
		Depth (r	m) Type	Results	101	3011	RQD			AZC	CL				 -		
		5.64 - 5. 6.00 - 7. 6.00		N=23 (9 fo 9mm/5,5,5,1			10		5.64 (21.94) 6.00 (21.58)	Stro oolii san wea Pari	ong light grey and tic LIMESTONE. I d infill, rough, ste athered Grade I au tial recovery. Core se material. Recove	Fractures pped. (Frond II).	open wiresh and	th fine slightly o be	6 -		
		7.30 - 7. 7.50 - 13 7.50 7.65 - 7.	.50 C SPT	N=26 (7 fo 7mm/4,6,7,9					7.50 (20.08) 8.16 (19.42)	part and 7.65 occa	f dark grey and gr tings of light grey black lignite (up) m to 7.75 m lign sionally mottled	silt (up to <u>to </u> 40 mm <i>ht grey a</i>	30 mm x (x 2 mm) and grey	x 2 mm)). /	8 -		
		9.00 - 10 9.00 9.30 - 9.	SPT	N=34 (8 fo 8mm/7,7,9,1					9.00 (18.58) 9.64 (17.94)	CLA light sub- ferro silts	y stiff dark grey sl AY with frequent p t grey silt (up to 3 angular to subrou uginous nodules a tone.	artings ar 0 mm x 2 inded fine	nd pocke mm) . G to coars	ets of ravel is se	9 -		
<u>H</u>	ole Diam	eter	Casing	Diameter			Chi	selling		<u> </u>			ng Flush		<u>—</u>		
Depth Ba		Diameter	Depth Base 9.00	Diameter 121	Depth To	Depth	n Base	Duration	To	ol	Depth Top (m) Depth Base (r 4.50 6.00 6.00 7.50	Air/Mist		Min (%) 100 100	Max (%) 100 100		
the target was back	rilling the depth filled fro	The borehole m ground lev	was installe vel to 2.50 m	d from ground leve	el to 2.50 r	า bgl with	plain pip	e and from 2	2.50 m bgl	to 4.50	vas terminated at 15 m bgl with slotted pole was finished wit	ipe. The h	ole				

	Ч	Γ				Deep Borenole Log															
Project Name: Wansford to Sutton Dualling Supplementary GI							nt: Gal	liford ⁻	Гry			Date: 17/02/2022 - 22/02/2022									
Locati		,				Con	tractor	: Swe	СО			Co-ords: E507949.74 N299847.42									
Projed	t No. :	GT0386				Crev	v Nam	e: JC	/ DL				Drilling Equipment: Tecop Tec 15								
Borehole Number Hole Type BH109 RC								eve l Im AOI	D	Logged By CG / MWD				Scale 1:25		Page Number Sheet 3 of 3					
Well	Water Strikes			nple and In Situ Testing			Coring			Legend	Depth (Level)	Stratum Description									
		Depth	(m)	Туре	Results		TCR	SCR	RQD		\	AZC	CL						_		
		10.50 - 1 10.5 11.10 - 1	0	C SPT CS	50 (50 for 0m for 0mm)		66	47	40		10.50 (17.08) 10.80 (16.78) 11.50 (16.08)	Very san to s nod Stro cald vert blad	y stiff grey dy CLAY. ules and ing light g areous S ical voids ck organic htly weath	Sand is ed fine to cemente grey sligh sILTSTON (up to 4 cm ateria	fine. Gracoarse of calcar of calcar of the c	avel is s ferrugine eous sil liferous predomi 5 mm) i t. (Fresh	ubangula ous Itstone, inantly nfilled witl	-	11 - 1		
		12.00 - 1 12.0		C SPT	N=38 (10 f 10mm/7,8,10		20	15	10		12.00 (15.58) 12.30 (15.28)	calc vert with are spa fine grey wea 12.0	sand and y and broathered G m to 13.	ELTSTON G (up to ² ganic ma nantly 10- 10/150) o d silt infill wn staini rade I ar	NE with 10 mm x iterial ar -25 degi pen with , rough, ng. (Fre id II).	predoming 5 mm) of silt. Frees closes orangis stepped sh and s	infilled ractures sely sh brown d, dark	noi	12 13 13 13 14 15 15 15 15 15 15 15		
		13.50 - 1	15.00	С			0				15.00		F	nd of Bor	ahole o	15 00m			14		
	Hole Diam	eter		Casing	Diameter				Chi:	selling		L		nu oi Dol		ing Flush					
Depth 15.0	Base 00	ole Diameter Casing Diameters Depth Base D			Diameter	Dep	th Top	Depth Base		Duration	Too	ol	9.00 10.50 12.00 7.50 13.50	Depth Base (m 10.50 12.00 13.50 13.50 15.00	Flush Typ Air/Mist	grey grey grey grey grey grey	100 100 100	1 1 1	x (%) 100 100 100 100		
Rema	arks																				

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 2.50 m bgl with plain pipe and from 2.50 m bgl to 4.50 m bgl with slotted pipe. The hole was backfilled from ground level to 2.50 m bgl with bentonite and from 2.50 m bgl to 15.00 m bgl with gravel. The borehole was finished with a top hat cover secured into place with concrete. SPT Hammer Ref: SIS1.



BH109

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

t ID: GT0386



BH109 1.20 m to 3.00 m





HOLEIO

GT0386

BH109

GROUND TECHNOLOGY

Photographic Report

BH109

осоти 4.5 m.7.5

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH109 4.50 m to 7.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH109 Project ID:



BH109 10.50 m to 13.50 m



	Ч					L	Je	ep	Bo	rer	lOl	e L	.og					
	t Name		rd to Sutto	on Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 0	2/03/20	22 - 03	3/03/20:	22		
Location		y			Con	tractor	: Swe	со				Co-ord	s: E507	963.91	N2996	66.43		
Proiec	t No. : (GT0386			Crev	v Nam	ie: MG	G / GC				Drillina	Equipn	nent: B	eretta T			
	ehole N	umber	Ho	ole Type RC		L	eve l m AO			gged By			Scale 1:25		F	Page N Sheet		
Well	Water		nple and I	n Situ Testing		20.10	Coring		Legend	Depth				n Descri		Oneet		,
,,,,,,,,	Strikes	Depth ((m) Typ	e Results		TCR	SCR	RQD	Logona	(Level) (23.45)		4 mallanda			•	a li ada tha	_	
		0.50 - 1	.00 ES							0.40 (23.05)	sand is fir suba lime med Med LIMI sligh cont to co Cob	dy GRAV ne to coa angular fi stone. Co lium stroi lium stroi ESTONE atly claye ent. Grav parse me bles are	sh brown FEL with I rse. Gravine to coobbles a neglight y Recovery GRAVI wel is angulational subangulation of the subangulation of	ow cobbyel is an arse me angulable limesto rellowishered as EL with long oolidar med	ole conte gular ar dium str lar and s ne. n brown slightly s low cobl d suban tic limes ium stro	ent. San nd rong ooli subangu sandy ole gular fin stone.	itic ilar ne	1 —
		1.20	Г N=6 (1,1/1,1	,2,2)	0				1.20 (22.25)	AZC	EL							
		2.20	SP ⁻	Г N=6 (1,1/1,2	·,1,2)	0				2.20	Med	lium stro	ng light y	rellowish	n brown	sandv		2
	2.20 SPT N 2.50 - 3.00 B					85				(21.25) 2.50 (20.95)	oolit claye med fine grad Loos brow fine, and	ic LIMES ey sandy lium. Gra and med le assign se thinly vn slightl Gravel i medium	STONE. If GRAVE avel is su lium lime aed due t and thick y silty ve s subano limeston	Recover L. Sand bangula stone. (o insuffi kly lamir ry grave gular to s e.	ed as slifed as slifed as slifed as slifed as slifed year slifed year slifed year slifed subroun	ightly and rounded thering mple). Ilowish D. Sand ded fine	l is	
		3.20	SP	Г N=8 (1,3/1,3	i,2,2) i	0				3.20 (20.25)	with v clasts 3.15 claye	very wea s (<30 n m to 3.2	20 m mo ets/lense	nented _ ottled g	subrou reyish b	ınded		3
		4.20	SP ⁻	Г N=20 (2,5/3,	5,5,7)					4.20 (19.25)		lium dens	se yellow lium.	vish brov	wn SAN	D. Sand	is	4 —
		4.50 - 5				80												
		5.00 - 5								5.00								5 —
Depth E	Hole Diam Base [eter Diameter	Casi Depth Bas 5.00	ng Diameter e Diameter 121	Dep	th Top	Depth		elling Duration	To	ol	Depth Top (m) 1.20 2.20 3.20	Depth Base (m 2.20 3.20 4.20	Drill Flush Ty	pe Flush Co yellov No retu No retu	v 100 urn 0	0	Max (%) 100 0 0
the targe	drilling the et depth kfilled fro	The borehol m ground le	e was install vel to 7.50 n	f services and a h ed from ground le n bgl with bentonit mmer Ref: SIS1.	vel to 7	7.50 m t	gl with p	plain pip	e and from 7	7.50 m bgl	to 10.00	m bgl wi	th slotted	pipe. The	e hole	<u> </u>		

	G							Эе	ep	Bo	rer	nole Log
	t Name: ementar		rd to Su	ttor	n Dua ll ing	Clie	nt: Ga	lliford ⁻	Try			Date: 02/03/2022 - 03/03/2022
Locati		•				Con	itractoi	: Swe	со			Co-ords: E507963.91 N299666.43
Projec	t No. : 0	ST0386				Cre	w Nam	ne: MG	/ GC			Drilling Equipment: Beretta T44
Bor	ehole N BH11		ŀ		e Type RC			eve l 5m AO	D	I	gged By 3 / MWD	· I
Well	Water Strikes	San Depth (d In	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)	
		5.20			N=25 (3,5/5,5	5,7,8)	0				(18.45) 5.20 (18.25)	light greyish brown and yellowish brown SAND with occasional thin laminations of brown sandy
		6.00 6.10 - 6		PT B	N=18 (3,5/3,5	5,5,5)	95				6.00 (17.45)	Medium dense yellowish brown and orangish brown ferruginous gravelly SAND. Sand is fine and medium. Gravel is subrounded to subangular fine and medium limestone. 6.60 m to 6.80 m dark orangish brown locally
		6.80 - 7	.00)						Y Y Y A	6.80	weakly cemented Thisly to medium interhedded light groy method
		N=21 (3,4/4,5	5,6,6)				X 26 X X 26 X 26 X X 26 X 26 X X 26 X 26 X X X 26 X 26 X X X 26	(16 . 65)	black sandy SILT, stiff dark grey organic CLAY and grey sandy CLAY. Sand is fine. 7 - 6.80 m to 6.85 m black organic silt/lignite			
							$\times \times $					
2000 Section 1		7.57 - 7	7.87 C	s			74			X 3X X AA X 34 X AA		
		8.00	S	PT	N=34 (3,8/8,8	3,9,9)	0			×××A	8.00 (15.45)	AZCL 8
		8.81 - 9	1.09 C	s							8.50 (14.95)	Moderately weak to medium strong grey argillaceous LIMESTONE with occasional scattered fossil shells and shell fragments (< 40 mm) and patches (< 70 mm) of brown staining. Predominantly fractureless. (Slightly weathered to fresh Grade II to I). 8.65 m subhorizontal (<10 degrees) bedding fracture, probably open with grey silt veneer, undulating rough slightly brown stained
		9.43 - 9	.73 C	s			100	50	50		9.25 (14.20)	scattered shell fragments (< 15 mm).
	Hole Diame	eter		sing	Diameter				Ch:	selling		Drilling Flush
Depth 10.0	Base [Diameter 121	Depth B		Diameter	Der	oth Top	Depth		Duration	То	
the targ	drilling the et depth. T ckfilled fror	he borehol n ground le	e was inst vel to 7.50	alled m l	d from ground le	vel to	7.50 m l	ogl with	plain pip	e and from	7.50 m bgl	8.50 10.00 Air/Mist grey 100 100 rehole was terminated at 10.50 m which was I to 10.00 m bgl with slotted pipe. The hole le borehole was finished with a top hat cover

	G							Эе	ep	Во	reh	nole Log
	t Name ementar	: Wansfor	d to Sut	ton Du	a ll ing	Clie	nt: Ga	lliford ⁻	Try			Date: 02/03/2022 - 03/03/2022
Locati		•				Cor	ıtractoı	: Swe	со			Co-ords: E507963.91 N299666.43
Projed	t No. : C	ST0386				Cre	w Nam	ne: MG	/ GC			Drilling Equipment: Beretta T44
Bor	ehole N BH11		Н	ole Ty RC	ре			eve l im AO	D		gged By 3 / MWD	
Well	Water Strikes	Sam Depth (nple and		ı Testir Resul		TCR	Coring	RQD	Legend	Depth (Level)	Stratum Description
		10.00		T	N=3: 0,4/9,9,1	9	TON	3011	1100		10.50	Very stiff locally laminated dark grey CLAY and extremely weak MUDSTONE with occasional scattered shell fragments (< 15 mm).
												11 -
												13 -
												15
	Hole Diame	eter I	Car	ing Diam	eter				Chic	elling		Drilling Flush
Depth		oiameter	Depth Ba		Diameter	De	oth Top	Depth		Duration	То	
the targ	drilling the et depth. T ckfilled fror	he borehole	e was insta vel to 7.50	lled fror m bgl w	n ground ith bento	level to nite and	7.50 m l	gl with	plain pip	e and from	7.50 m bgl	rehole was terminated at 10.50 m which was gl to 10.00 m bgl with slotted pipe. The hole he borehole was finished with a top hat cover



Project:

Wansford to Sutton Dualling Supplementary GI

BH110 Proje



BH110 1.20 m to 3.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH110 Project



BH110 5.20 m to 7.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH110 Proje



BH110 8.50 m to 10.00 m

oject Name: Wa pplementary G		o Suttor	n Dua ll ing	Client:	Gallifo	rd Try			Date: 25/02/2022 - 01/03/2022				
cation:				Contrac	tor: S	weco			Co-ords: E507966.68 N299778.75				
oject No. : GT0	386			Crew N	ame: N	MG / GC	;		Drilling Equipment: Beretta T44				
Borehole Numl BH111	ber		e Type RC	28	Leve .55m A			gged By 3 / MWD	· • • • • • • • • • • • • • • • • • • •				
ell Water Strikes	Sample Depth (m)	e and In Type	Situ Testing Results	т	Cor	Ť	Legend	Depth (Level)					
0.	.00 - 0.50 .00 - 0.50	В	results			True L		(28.55)	Soft dark brown slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse limestone.				
	.50 - 1.20 .50 - 1.20							0.50 (28.05)	Dense to very dense light orangish brown silty very sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is angular to subangular fine to coarse slightly fossiliferous oolitic limestone. Cobbles are angular to subangular slightly fossiliferous oolitic limestone.				
	.20 - 1.30 .20 - 2.70 1.20	_	N=69 (10,14/18,10, 0)	11,3			_						
	.20 - 2.30	D		10	00 (0 0 1.95 (26.60) Medium strong to strong light yellowish brown sandy slightly fossiliferous oolitic LIMESTONE. Sand is fine to coarse. Recovered as GRAVEL with low cobble content. Gravel is angular to							
2.	.20 - 2.70 2.20	C cSPT	63 (11,24/63 95mm)	for 10	00 (0			Sand is fine to coarse. Recovered as GRAVEL				
2	.70 - 3.30 2.70	C cSPT	50 (19,31/50 20mm)	for 10	00 3	8 0		3.20					
4	.30 - 4.00 .40 - 3.50			10	00 5	0 14		(25.35)	Medium strong to strong yellowish brown occasionally orangish brown sandy slightly fossiliferous oolitic LIMESTONE with occasional dissolution features/voids (up to 40 mm x 2 mm). Fractures are predominantly 0-20 degrees very closely to closely spaced (100/80/30) open with fine sand and silt veneer undulating rough with occasional grey and reddish brown staining. (Slightly weathered Grade II).				
140	.00 - 5.50 4.00 .48 - 4.62	cSPT	50 (50 foi 10mm/50 f 0mm)		6 3	7 16							
4	.85 - 4.95	D						4.80 (23.75) 5.00	Dense to very dense light yellowish brown slightly gravelly SAND. Sand is fine. Gravel is subangular to subrounded fine limestone.				
Hole Diameter oth Base Diam	neter De	Casing epth Base	Diameter Diameter	Depth T	op De	Ch pth Base	iselling Duration	Тос	Drilling Flush Dril				

	Ч						L	Je	ep) RO	rer	1OI	е∟	og				
Project Supple		: Wansfor	d to S	Sutton	Dualling	Clie	nt: Gal	liford T	ry				Date: 2	5/02/20	22 - 01/	03/2022		
Locatio		y Gi				Con	tractor	: Swed	ю				Co-ord	s: E507	966.68 1	N299778	3.75	
Project	: No. : 0	GT0386				Cre	v Nam	e: MG	/ GC				Drilling	Equipm	nent: Ber	retta T4	4	
	hole N	umber			Type RC		Le	evel m AOI			gged By 3 / MWD			Scale 1:25		Pa	ge Num heet 2 o	
\/\/\\	Water Strikes	Sam	nple a	ınd In	Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descript	tion		
F5 = 750	Strikes	Depth (m)	Туре	Results		TCR	SCR	RQD		(Level) (23.55)	No	recovery.					 _
		5.50 - 6. 5.50		C cSPT	N=79 (10,10/10,19	24.2					5.50 (23 . 05)	Der	nse to ver asional d					
	5.90 - 6.00 D						100					Sar	nd is fine.					6 -
	6.50 cSPT N:										6.35 (22.20)	dar SAI	nse to ver k reddish ND. Sand I medium	brown sl is fine. (ightly silty Gravel is s	y slightly	gravelly	
	7.00 - 7.10 D						80											7 -
										COMP-DAY-	7.30 (21.25)	No	recovery.					1 :
					N=68 (8,8/8,14,22	,24)					7.50 (21.05)		y dense d uginous S				silty	
7.70 - 7.80 D 8.20 - 8.30 D							100			XXXX XXXX XXXX XXXX XXXX	8.00 (20.55)	bro	y stiff ligh wn SILT v ts (up to 2	vith black	k lignite ai	ottled ora	angish ants of	8 -
		8.50 - 9. 8.50	C cSPT	N=57 (8,9/10,10,14	1,23)				X X X X X X X X X X X X X X X X X X X	8.74 (19.81)		y stiff darl						
		9.00 - 9.	.10	D			100			X X X X X X X X X X X X X X X X X X X	(10.01)	CL/ mm	ttled orang AY with po x 10 mm m to 9.2	ockets of). Sand i	black ligr s fine.	nitic silt (ı	up to 10	9 -
		9.50 - 11 9.50 - 9. 9.50	.70	C CS cSPT	N=54 (7,10/10,12,1	6,16)				X X X X X X X X X X X X X X X X X X X	9.85 (18.70)	of b of b up t Gra coa	y dense c yey sandy lack deco to 15 mm livel is sub rse ferrug estone.	GRAVE omposed x 10 mm oangular	L with oco organic r i). Sand i to subrou	casional material (is fine to inded fine	pockets lignite coarse e to	10
	Hole Diame	eter I		Casing	Diameter				Chi	selling			1		Drillin	g Flush		1 '
Depth B	ase [Diameter	Depth	Base	Diameter	Dep	oth Top	Depth I		Duration	Too	ol	Depth Top (m) 4.00 5.50 6.50 7.50 8.50	5.50 6.50 7.50 8.50 9.50	Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colour yellow yellow yellow yellow yellow	Min (%) 100 100 100 100 100	Max (%) 100 100 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 3.00 m bgl with plain pipe and from 3.00 m bgl to 8.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 3.00 m bgl with bentonite, from 3.00 m bgl to 8.00 m bgl with gravel, and with bentonite from 8.00 m bgl to the base of the borehole. The install was finished with a tophat cover secured into place with concrete. SPT Hammer Ref: SIS1.

	Ч	Γ	Deep Borenole Log ord to Sutton Dualling Client: Galliford Try Date: 25/02/2022 - 01/03/2022															
Projec	t Name	: Wansfo	rd to S	Sutton	Dualling	Clier	nt: Gal	liford 7	Ггу				Date: 2	25/02/20	22 - 01/	03/2022	2	
Locati		· y ·				Cont	ractor	: Swed	co				Co-ord	s: E507	966.68	N29977	8.75	
Projec	t No. : (GT0386				Crew	v Nam	ie: MG	/ GC	;			Drilling	Equipm	nent: Be	retta T4	4	
		lumber			Type RC			evel im AO[)		gged By 6 / MWD			Scale 1:25		Pa	age Num sheet 3 o	
Well	Water Strikes	Sar	nple a	ınd In	Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descrip			
	Strikes	Depth	(m)	Туре	Results		TCR	SCR	RQD	e see an	(Level)	Ven	y dense o	rangish a	and redd	ish brow	n slightly	+-1
							48				10.28 (18.27)	clay of b up t Gra coa lime	vey sandy lack deco to 15 mm vel is sub rse ferrug estone. recovery.	r GRAVE omposed x 10 mm oangular t ginous sil	L with oc organic i). Sand to subrou	casional material is fine to unded fin	pockets (lignite coarse. e to	
		11.00 - 12.00 C cSPT N (3,4/4									11,00 (17 . 55)	brov ligh mm	f predomii wn sandy t grey cal) and blad). Sand is	CLAY wi careous : ck lignite	ith occas silt (up to	ional pod 30 mm	ckets of x 10	11 -
					60				11.60 (16 . 95)	AZC	CL					- 1		
		12.00 - 1 12.00	N=31 (5,6/6,6,8,1	11)					12.00 (16.55)	occ	y stiff indi asionally asional m	mottled r	eddish b	rown CL	n grey AY with	12 -		
		12.90 - 1	13.00	D			100											13 -
		13.50 - 1 13.5	N=37 (5,7/7,8,9,1	13)	100						0 m to 1 e/clay	13.80 m	_ band of	f black fi	riable	14 —		
		14.70 - 1							15.00		E	nd of Bore	ehole at 1	5.00m		15		
	Hole Diam				Diameter					iselling					Drillir	ng Flush		
Depth I 11.0	3ase 0	<u>Diameter</u> 121		n Base .00	Diameter 121	Dept	th Top	Depth	Base	Duration	Too	OI	9.50 11.00 12.00 13.50	Depth Base (m 11.00 12.00 13.50 15.00	Flush Type Air/Mist	Flush Colou grey grey grey grey	Min (%) 100 100 100 100	Max (%) 100 100 100 100
Rema	arks																	

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 3.00 m bgl with plain pipe and from 3.00 m bgl to 8.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 3.00 m bgl with bentonite, from 3.00 m bgl to 8.00 m bgl with gravel, and with bentonite from 8.00 m bgl to the base of the borehole. The install was finished with a tophat cover secured into place with concrete. SPT Hammer Ref: SIS1.



BH111

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ID: GT0386



BH111 1.20 m to 2.70 m





BH111

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



DU111 4 00 m to 5 50 m





BH111

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

iect ID: GT0386



BH111 7.50 m to 9.50 m





PROJECT

HOLEID

Photographic Report

BH111

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:

PROJECT A47 AUANSFORD to SUTTON DATE 08 / 03 / 22

END BHIII DEPTH 12-00 m - 13-50 m

CONE BUN 12

GROUND TECHNOLOGY

GROUND TECHNOLOGY

The Ban Day 12-14-10 1953 459462

THE BAN DATE OF THE BAND DATE OF THE BAN DATE OF TH

BH111 12.00 m to 13.50 m



13-50 m

	Ч						L	Je	ep	Bo	ren	1OI	e L	.og				
	ct Name ementar		rd to S	Sutton	n Dua ll ing	Client:	: Gal	liford	Try				Date: 2	25/04/20	022 - 26	5/04/202	2	
Locati						Contra	actor	:: Swe	co				Co-orc	ls: E508	3321.23	N29970	9.97	
Projed	ct No. : C	GT0386				Crew N	Nam	ne: JC	/ DL				Drilling	g Equipr	nent: Te	cop Tec	15	
Bor	ehole N BH11				e Type RC	1		eve l Im AOI	D		gged By 3 / MWD			Scale 1:25			age Num Sheet 1 o	
Well	Water Strikes	San Depth (nd In Type	Situ Testing Results	+	TCR	Coring	RQD	Legend	Depth (Level)			Stratur	m Descri _l	ption		
		0.10 - 0 0.35 - 0 0.50 - 0	0.20	ES D ES			100				(17.49) 0.20 (17.29)	sligh rootl <u>suba</u> Soft sligh	ets Grave ets Sar angular t orangis etly grave se Grave	elly sand nd is fine to subrou h brown elly sand	ly CLAY version to coarse unded fin occasion ly CLAY.	d orangisi with comi e. Gravel e flint. ally bluis Sand is to subrou	mon fine is h grey fine to	-
	1.60 - 1.70 D 2.00 SPT N=15 (1,4						90				0.88 (16.61)	sligh Grav roun nodu occa	itly grave els are ded fine ules of s	elly sand predomi to coars ilt (up to angular fi	ly CLAY. nantly su se limesto 40 mm x	reddish b Sand is brounded brounded 25 mm) arse flint (fine. d to cemented with	1 -
	2.00 SPT N=15 (1,4,				N=15 (1,4/4,3		100				1.90 (15.59)	sligh Grav fine and mm)	tly grave vel is pre to coars cemente with oc	elly SAN edominar e occasi ed nodul	D. Sand ntly subroonally tal es of silt angular	bular lime (up to 40	coarse. rounded	2 -
	3.00 SPT N=				N=25 (3,4/4,4		100				3.60 (13.89)	<i>browi</i> Med	<i>n fine s</i> ium den	<i>and</i> ise orang	gish brow	lense ord on mottled medium S	d dark	3 -
	4.00 SPT N=20 (4,4 <i>i</i>) 4.40 - 4.80 B 5.00 SPT N=20 (4,4 <i>i</i>)						100				4.10 (13.39)	dark GRA pred occa	reddish VEL S Iominant Isionally	brown s and is fir tly subro tabular	slightly sil ne to coa unded to	n occasion o	andy vel is	4 -
Ш_		5.00		SPT	N=20 (4,4/4,5	5,5,6)												5 -
Depth I	Hole Diame	eter Diameter	Depth	Casing Base	Diameter Diameter	Depth ¹	Тор	Depth		elling Duration	Тос	ol	Depth Top (m	Depth Base (ing Flush	ır Min (%)	Max (%
Rema Prior to	arks drilling the	e position w	as clear	red of s	services and a ha	and dug ii	inspec	ction pit	to 1.20	m carried ou	ıt. The bore	ehole wa		ated at 20	0.00 m whi	ch was		

	G					Эе	ep	Во	reh	nole Log
	t Name ementar	: Wansford	to Suttor	n Dua ll ing	Client: Ga	lliford	Try			Date: 25/04/2022 - 26/04/2022
Locati		,			Contracto	r: Swe	со			Co-ords: E508321.23 N299709.97
Projec	t No. : 0	GT0386		(Crew Nan	ne: JC	/ DL			Drilling Equipment: Tecop Tec 15
Bor	ehole N BH11	I		e Type RC		evel 9m AO	D		gged By 6 / MWD	·
Well	Water Strikes	Samp Depth (m		Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)	Stratum Description
		 	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		100				5.40 (12.09)	Medium dense orangish brown occasionally dark reddish brown slightly silty very sandy GRAVEL. Sand is fine to coarse. Gravel is predominantly subrounded to rounded occasionally tabular fine to coarse limestone and flint (up to 40 mm x 25 mm). Stiff bluish grey predominantly indistinctly laminated slightly gravelly CLAY with
		5.67 - 6.00 6.00		N=29 (3,5/5,7,	8,9)					occasional partings of light grey silt and occasional pockets of light grey cemented silt (up to 10 mm x 10 mm). Gravels are angular to subangular fine to coarse Limestone with quartz veins (up to 5 mm x 2 mm)
		6.70 - 6.80			75					7
		7.50 8.00 - 8.2	SPT 2 CS	N=30 (5,6/6,6,8,10	70					8
		9.00	SPT	N=40	44)					9 -
		40.00, 40.0		(6,6/8,10,11,	100					
	Hole Diam	10.00 - 10.2		Diameter			Chin	elling		Drilling Flush
Depth			Casing Depth Base 6.00	Diameter Diameter 121	Depth Top	Depth		elling Duration	Тос	
	drilling the									rehole was terminated at 20.00 m which was to 20.00 m bgl with bentonite. SPT Hammer

	G						Эе	ep	Bo	reh	ole	e L	og				
	t Name	: Wansford to	Suttor	n Dua ll ing	Client:	Gal	lliford ⁻	Try			I	Date: 2	5/04/20	022 - 26	6/04/202	2	
Locati		•			Contrac	ctor	: Swe	со			[6	Co-ord	s: E508	3321.23	N29970	09.97	
Projec	t No. : 0	GT0386			Crew N	lam	ne: JC	/ DL			ı	Oril l ing	Equipr	nent: Te	ecop Tec	: 15	
Bor	ehole N BH11			e Type RC	17		eve l 9m AO	D		gged By 3 / MWD			Scale 1:25	•		age Num Sheet 3 c	
Well	Water Strikes	Sample Depth (m)	and In	Situ Testing	т	CR	Coring		Legend	Depth (Level)			Stratur	n Descri	ption		
Well		N=39 (5,8/8,9,10,	12)	000 000	SCR	RQD	Legend		Very soccas degre with li and lo	ated sligional passional passional passional point of 10 mm for the passional passional passional passionally sees) dark get gregot gre	dominar horizont k grzy są dominar horizont k grzy są y parting ial nodu	ominanti avelly CL of light gri f light gri f light gri m). Grav arse Lin o mm x 2 ally lightly fo gs of sili gles of sili gles of sili	ly indistin AY with rey silt an rey cemei vels are a nestone v	ninated - 30 s CLAY (2 mm) emented	11		
			Carina					Chi						Delli	in the		15
Depth B		Diameter De	Casing oth Base	Diameter Diameter	Depth T	ор	Depth		elling Duration	То	ol lo	Depth Top (m)	Depth Base (i		ing Flush pe Flush Colo	ur Min (%)	Max (%)
10.5		121															
Rema	_ arke						<u> </u>								 	1	L
Prior to	drilling the	e position was cle															
the targe Ref: SIS		The borehole wa	s backfille	ea trom ground le	evel to 0.5	υm	pgI with	arising	s and from 0	.50 m bgl	to 20.00 r	n bgl with	n bentoni	te. SPT F	ammer		

	G)e	ep	Bo	reh	ole L	-og				
Projec	t Name	: Wansfor	d to s	Suttor	Dua ll ing	Client: Ga	l l iford	Try			Date:	25/04/20)22 - 26	/04/2022)	
Locati		,				Contracto	r: Swe	со			Co-or	ds: E508	321.23	N29970	9.97	
Projec	t No. : (GT0386				Crew Nan	ne: JC	/ DL			Drilling	g Equipn	nent: Te	сор Тес	15	
Bor	ehole N BH11				Type RC		evel 9m AO	D		gged By 6 / MWD		Scale 1:25			ige Num heet 4 o	
Well	Water Strikes	Sam Depth (and In Type	Situ Testing Results		Coring	RQD	Legend	Depth (Level)		Stratum	n Descrip	tion		
		15.50 - 1		CS	Results	93	SCR	KQD			Very stiff pro occasionally degrees) da with light gr and occasion slightly calc	/ horizonta ork grey sl ey parting onal nodul	ally lamir ightly fos s of silt (i es of ligh	nated (+/- siliferous 25 mm x at grey ce	30 CLAY 2 mm) mented	16
		17.80 - 18	8.00	CS		100										17
		18.50 - 18	3.60	CS		93										18
						100				20.00		End of Bor				20
Depth E	Hole Diam Base	eter Diameter	Depth	Casing n Base	Diameter Diameter	Depth Top	Depth		elling Duration	Too	Depth Top (n) Depth Base (m		ng Flush Flush Colou	Min (%)	Max (%)
Rema Prior to	arks drilling the	e position wa	as clea	red of s	ervices and a h	and dug inspe	ection pit	to 1.20	m carried ou	t. The bore	ehole was termir o 20.00 m bgl w	nated at 20.	.00 m whic	ch was		



BH112

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH112 0.00 m to 2.00 m





BH112

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:









Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH112 Project ID:









BH112

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH112 10.50 m to 12.00 m





BH112

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:









Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH112 16.50 m to 18.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH112 Proje



BH112 19.50 m to 20.00 m

	Ч					L	Je	ep	BO	rer	ioie	L	og				
	ct Name	: Wansford	d to Suttor	n Dualling	Clie	nt: Ga	lliford	Try			Da	ate: 2	1/02/20	022 - 1	2/04/20	22	
Locat		<i>y</i>			Con	tracto	r: Swe	со			Co	o-ords	s: E508	3529.58	3 N2996	32.31	
Proje	ct No. : 0	GT0386			Cre	v Nam	ne: JC	/ DL			Dr	rilling	Equipr	nent: T	ecop Te	ec 15	
	rehole N	umber		e Type			evel			gged By	,		Scale		T	Page Nui	
	BH11	•		RC Situ Testing		9.24	m AOI Coring		CG	MWD			1:25			Sheet 1	<u>01 4</u>
Well	Water Strikes	Depth (n			_	TCR	SCR	RQD	Legend	Depth (Level)			Stratur	n Descr	ription		
		0.10 0.10	B ES							(9.24)	slightly	gravel Sanc	lly sand I is fine	y CLAY to coar	with cor se. Grav	ish brown nmon fine el is	
	*	0.50 0.50	B ES							0.50 (8.74)	Firm blu	uish gr slightly	ey moti	tled ora LAY. Sa	ngish bro	own slightle to coarse	y 9.
		1.00 1.00	B ES														1
		1.50 - 1.9 1.50	D SPT	N=2 (1,1/0,1	,0,1)												
								2.00 (7.24)	Recove clayey content subang	ered as very gi t. Sand jular to	s light b ravelly s I is fine subrou	rown sli SAND v to coar unded fi	ghtly silty vith low o se. Grav ne to coa	el is	2		
		2.50 - 3.0 2.50	00 B cSPT	N=44 (1,2/5,9,15,	15)						iimesto	ne. Co	obles a	ire suba	ingular II	mesione.	3 '
		3.50 - 4.0 3.50	00 B cSPT	N=49 (3,5/9,10,13	,17)												
,1		4.00 - 4.5	50 B							4.00 (5.24)	Very sti sandy s				ravelly sl	lightly	4
									===								
	Hel- C'	5.00 - 6.5		Diameter					alling	5.00					lling Et . !		5
Depth 4.5	Hole Diam Base [Casing Depth Base 4.50	Diameter Diameter 200	Dep	th Top	Depth		Belling Duration	То	Ol Dep	oth Top (m)	Depth Base (ı		lling Flush ype Flush Co	lour Min (%) Max (9
7.0																	
															Ш.,		
Rema		e position was	s cleared of s	services and a h	and du	ıa insne	ction nit	to 1 20	m carried ou	it. The hor	ehole was t	erminat	ted at 20	1.00 m w/l	nich was		
	jet depth			ed from ground I													

	G		ı				Эе	ep	Во	reh	ol	e L	.og				
Projec	t Name	: Wansfor	d to Sutt	on Dua ll ing	Clier	nt: Gal	l l iford ⁻	Try				Date: 2	21/02/20)22 - 12/	04/2022	2	
Locati		•			Cont	ractor	r: Swed	со				Co-ord	ls: E508	3529.58 N	N29963	2.31	
Projec	t No. : (GT0386			Crev	v Nam	ne: JC	/ DL				Drilling	 Equipn	nent: Tec	cop Tec	15	
Bor	ehole N BH11		Но	ole Type RC			eve l m AOE)		gged By 3 / MWD			Scale 1:25			age Numl Sheet 2 of	
Well	Water Strikes	Sam Depth (r	•	In Situ Testing	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descript	tion		
		5.30 - 5.				100				(4.24)	pred occa degr hue occa (up t horiz	lominant asionally ees) da slightly s asional n to 20 mn	tly indistir horizonta ark grey w silty sligh nodules o m x 15 mr	tiff with de nctly lamin ally lamin with slight htly fossili f light gre m) and oc i light grey	nated ated (up greenish ferous C y cemen ccasiona	CLAY with nted silt	6
		6.50 - 8. 6.50	SP*	T N=33 (7,7/7,	8 ,9,9)	100											7
		8.00 - 9. 8.00	SP	T N=40 (6,8/8,8,11	,13)	100											9
Depth I	Hole Diam Base	9.50 - 11 9.50	SP	T N=46 (8,10/10,10,1		th Top	Depth		ielling Duration	Тос	stron arain	g light a	and dark		e to me	edium ne	10 Max (%)
_ = = = = = = = = = = = = = = = = = = =				2.37000			_ = = = = = = = = = = = = = = = = = = =			,,,,		5.00 6.50 8.00	6.50 8.00 9.50	Air/Mist Air/Mist Air/Mist	grey grey grey	100 100 100	100 100 100
	drilling the			of services and a h								as termina	ated at 20.	.00 m which	h was		

	Ч					Deep Borehole Log													
Project Name: Wansford to Sutton Dualling Supplementary GI						Client: Galliford Try							Date: 21/02/2022 - 12/04/2022						
Location	n:	•			(Contractor: Sweco							Co-ords: E508529.58 N299632.31						
Project	No. : 0	GT0386			(Crew Name: JC / DL							Drilling Equipment: Tecop Tec 15						
Borehole Number Hole Type BH113 RC						Level 9.24m AOD			Logged By CG / MWD				Scale 1:25		Page Number Sheet 3 of 4				
	Well Water Strikes			and In Type	Situ Testing Results		TCR	Coring SCR RQD		Legend	Depth (Level)			Stratum	n Descript	ion			
		Depth (CS	Results		100	SUN	KQD.		10.70 (-1.46)	pred occa degi hue occa (up f	tiff becoming very stiff with depth redominantly indistinctly laminated ccasionally horizontally laminated (up to +/- 30 egrees) dark grey with slight greenish grey us slightly silty slightly fossiliferous CLAY with ccasional nodules of light grey cemented silt up to 20 mm x 15 mm) and occasional prizontal partings of light grey silt (up to 2 mm 1 mm).						
		11.00 - 1 11.00		C SPT	N=59 (11,10/10,12,1 9)		100				11,00 (-1.76)	pred occa degi hue occa (up f	lominant asionally rees) da slightly s asional n to 20 mm	ly indisting horizontaing the grey was silty slight odules of a x 15 mr	ery stiff winctly lamin ally lamin vith slight titly fossilif f light gre m) and oc light grey	nated ated (up greenish ferous C y cemen casional	to +/- 30 n grey LAY with ted silt	11 -	
		12.00 - 1 12.50		CS SPT	N=71 (10,12/12,16,1 4)	19,2												12 -	
		13.00 - 1	3.10	CS			93				40.00							13 -	
							100				13.90 (-4.66) 14.00 (-4.76)	lami (up f gree foss light and	v stiff with nated oc to +/- 30 enish gre- iliferous grey cer occasion	casionall degrees y hue slig CLAY wit nented s	redomina ly horizon) dark gre ghtly silty th occasic ilt (up to 2 ontal parti m).	tally lamey with somely with somelly somelly and the second secon	iinated light ules of 15 mm)	- 14	
		15.00 - 1	5.24	CS		 					'							15	
	ole Diam				Diameter					elling	'					g Flush			
Depth Ba 12.50	ase [Diameter 121	Dept	h Base	Diameter	Depth	Тор	Depth	Base	Duration	Too	OI .	9.50 11.00	Depth Base (m 11.00 12.50	Flush Type Air/Mist Air/Mist	Flush Colou grey grey	Min (%) 100 100	Max (%) 100 100	
	rilling the depth. T				ervices and a har														

Project Name: Wansford to Sutton Dualling Oliont Calliford To: Deep Borehole Log																		
	t Name		d to S	Sutton	Dua ll ing	Client: Ga	l l iford	Try			Date	Date: 21/02/2022 - 12/04/2022						
Locati		y v 11				Contracto	r: Swe	со			Co-c	Co-ords: E508529.58 N299632.31						
Projec	t No. : (GT0386				Crew Nan	ne: JC	/ DL			Drilli	Drilling Equipment: Tecop Tec 15						
Borehole Number Hole Type							evel			gged By		Scale		Page Number				
BH11			nole a		RC Situ Testing	9.24	4m AOD Coring		CG / MWD			1:25			heet 4 o	f 4 T		
Well	Strikes	Depth (Туре	Results	TCR	SCR RQD		Legend	(Level)			n Descrip					
						100					Very stiff v laminated (up to +/- greenish g fossiliferou light grey and occas silt (up to 2	inated light ules of 15 mm)	16					
		17.00 - 1 ¹		CS CS		93				18.40	AZCI					17		
19.0	19.00 - 19	9.15 CS			100				(-9.16) 18.50 (-9.26)	Very stiff v laminated (up to +/- 3 greenish g fossiliferou light grey v and occas	AZCL Very stiff with depth predominantly indistinctly laminated occasionally horizontally laminated (up to +/- 30 degrees) dark grey with slight greenish grey hue slightly silty slightly fossiliferous CLAY with occasional nodules of light grey cemented silt (up to 20 mm x 15 mm) and occasional horizontal partings of light grey silt (up to 2 mm x 1 mm).							
	Hole Diam		Do-#		Diameter	Donth Tar	Dont		elling	т	1 5	n/m) Double 2000		ng Flush	Min (0/)	May (0/)		
	arks drilling the		as clea		Diameter ervices and a had from ground I			to 1.20			ehole was term	inated at 20		ch was	Min (%)	Max (%)		



BH113

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH113 5.00 m to 6.50 m





BH113

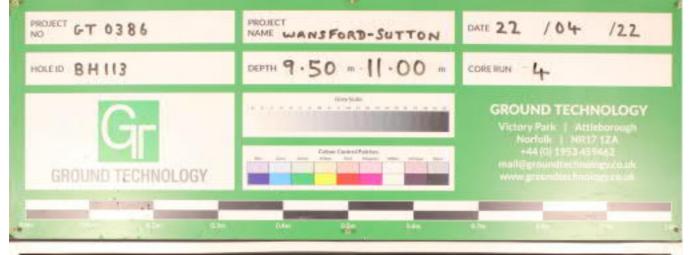
Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:











PROJECT GT 0386

GROUND TECHNOLOGY

HOLEID BH 113

Photographic Report

BH113

NAME WANSFORD-SUTTON

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



GROUND TECHNOLOGY



BH113 11.00 m to 12.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH113

Project ID:



BH113 14.00 m to 15.50 m



BH113 15.50 m to 17.00 m



BH113

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







oject Name: Wansfo	ord to Sutto	n Dualling	Client: G	alliford	Try				Date: 08/03/2022 - 11/03/2022						
pplementary GI cation:			Contract						Co-ords: E508799.29 N299644.15						
oject No. : GT0386			Crew Na	me: MC	3 / GC				Drilling Equipment: Beretta T44						
Borehole Number	Но	le Type		Level 66m AC	ים	i .	gged By	ged By Scale Pag					age Number Sheet 1 of 4		
BH114 Water Sa	I mple and I	RC n Situ Testing	10.6	Coring			Jepth					sneet 1 c	1		
Strikes Depth	(m) Type		TCF		RQD	Legend	(Level)				n Descri				
0.40 -							(10.66) 0.40	sligh and Grav coar	ntly grave few coar vel is sub se flint	elly SILT se roots angular	with cor . Sand is and sub	y slightly : nmon fine s fine to c rounded	rootlets oarse. fine to		
							(10.26)	grav suba	elly SAN	D. Sand	l is fine t ounded t	fine to coa	Gravel is		
1.2	1.20 - 2.20 C SPT N=31 1.30 - 1.40 D)			(9.46) Loose to medium dense orangish brow silty sandy GRAVEL. Sand is fine to co Gravel is subangular to subrounded qu siltstone, sandstone and limestone.							arse.	
2.20 - : 2.20 2.60 - :	cSP	T N=50 (50,0/50,0,0	,0)	0	0		2.20 (8.46) 2.50 (8.16) 2.70 (7.96)	to m ferru suba suba weat Very	edium gr ginous L angular fi angular c thered G stiff indi iliferous (rained sl IMESTO ne to co obbles. rade III stinctly I	ightly fo: DNE. Re arse gra (Modera and I V).	ssiliferous covered a vel and tely to hig	as		
	3.00 - 4.00 C cSPT N=		,3,4) 75				3.00 (7.66)	Firm indistinctly laminated dark drey slidt					ightly		
						-5-5-1	3.75 (6.91)	AZCL Firm to stiff indistinctly laminated dark grey slightly fossiliferous CLAY.							
4.00 - 4.00 4.50 -) SPT	N=15 (2,3/3,4	,4,4)				4.00 (6.66)								
5.00 -						-1-1-1	4.65 (6.01) 5.00	AZCL							
Hole Diameter		ng Diameter			Chi	selling	5.00				Drill	ing Flush			
oth Base Diameter	Depth Base		Depth Top	Depth		Duration	Tod)I	Depth Top (m) 1.20 2.20 3.00 4.00	2.20 3.00 4.00 5.00	_	Flush Colou yellow grey grey	Min (%) 100 100 100 100 100	Ma 1 1	

	Ч					Рe	ep	RO	ren	101	еL	og				
	t Name ementar	: Wansford	to Suttor	n Dua ll ing	Client: Ga	alliford	Try				Date: 0	8/03/20)22 - 11/(03/2022	2	
Locatio		y (1)		(Contracto	r: Swe	со				Co-ord	s: E508	799.29 N	129964	4.15	
Proiect	t No. : (GT0386		(Crew Nar	ne: MC	3 / GC				Drillina	Equipn	nent: Ber	etta T4	4	
	ehole N	umber		е Туре		.evel			gged By	,		Scale		Pa	age Num	
	BH11			RC	10.6	6m AO		CG	/ MWD			1:25		S	heet 2 o	f 4
Well	Water Strikes	•		Situ Testing	TCR	Coring	_	Legend	Depth (Level)			Stratum	n Descript	ion		
		Depth (m 5.00		Results N=19 (3,4/4,4,		SCR	RQD		(5.66)	Firm	to very	stiff indis	tinctly lan	ninated o	dark grey	
		5.50 - 5.8 6,00 - 7.5			100					parti nodu	ngs of si ules of lig	lt (25 mn jht grey (CLAY with n x 1 mm; cemented 30 mm x	and occ slightly	casional	
		6.00 6.00 6.60 - 6.8	cSPT	N=24 (3,5/5,6,												
		750.00			100											7 -
		7.50 - 9.0 7.50	0 C cSPT	N=43 (4,9/9,9,11,1	100											8 -
		8.50 - 8.7	o cs													-
		9.00 - 10.5 9.00	50 C cSPT	N=36 (3,6/6,6,11,1	3)											9 -
		9.50 - 9.7	0 CS		67				10.00							10 -
-	Hole Diam	eter T	Casing	Diameter			Chis	elling	. 0.00	Ц			Drillin	g Flush		<u> </u>
Depth B			Depth Base		Depth Top	Depth	Base	Duration	Too	ol	Depth Top (m)	Depth Base (m	Flush Type	Flush Colou	Min (%)	Max (%)
											5.00 6.00 7.50	6.00 7.50 9.00	Air/Mist Air/Mist Air/Mist	grey grey grey	100 100 100	100 100 100
depth. TI backfilled	drilling the he borehod from gro	ole was install ound level to 1	ed with plair .00 m bgl w	services and a har n pipe from ground vith bentonite, fron top hat cover sec	d level to 1.0 n 1.00 m bgl	00 m bgl to 5.00	and slot m bgl wi	ted pipe from th gravel, an	n 1.00 m b d with ben	gl to 5.0 ntonite fro	0 m bgl. 1	he boreh	ole was	Ĭ		

	Ч						L	Jee	эp	Bo	rer	Ol	e L	og				
	t Name ementa	: Wansford	d to S	Sutton	Dualling	Clie	nt: Gal	liford Tr	γ				Date: 0	8/03/20	22 - 11/0	03/2022	2	
Locati						Con	tractor	: Swec)				Co-ord	s: E508	799.29 N	129964	4.15	
Projec	t No. : (GT0386				Crev	w Nam	ie: MG /	/ GC				Drilling	Equipm	ent: Ber	etta T4	4	
Bor	ehole N BH11				e Type RC			eve l im AOD			gged By 6 / MWD			Scale 1:25			age Num heet 3 o	
Well	Water Strikes	Sam Depth (n		nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratum	Descript	ion		
		10.50 - 12		C	rodano						(0.66)	AZC						
		10.50		cspt cs	N=46 (4,11/10,11,1	1,14)	93				(0.16)	occa degr with and	asionally rees) dar light gre occasior	horizonta k grey sli y parting: nal nodule	inctly lamina ally lamina ghtly foo so of silt (2 so of light (up to 30	ated (+/- siliferous 25 mm x t grey ce	CLAY 1 mm) mented	11
		12.00 - 13 12.00 12.50 - 12	2.72	C SPT CS	N=45 (5,8/9,9,11,	16)	100				11.90 (-1.24) 12.00 (-1.34)	occa degr with and	stiff pred asionally rees) dar light gred occasion	horizonta k grey sli y parting nal nodulo	ly indistir ally lamina ghtly foss s of silt (2 es of light (up to 30	ated (+/- siliferous 25 mm x t grey ce	30 CLAY 1 mm) mented	13 -
		13.50 - 15 13.50 14.00 - 14 14.85 - 15 15.00 - 16	5.00	C SPT CS	N=44 (5,9/8,10,11	,15)	100					amm and 4	onites (l	up to 50 silised b		0 mm x	d : 10 mm) : 20 mm	14
	Hole Diam	eter	L	Casing	Diameter				Chis	selling					Drillin	g Flush		
Depth I		Diameter		Base .00	Diameter 121	Dep	th Top	Depth B	ase	Duration	To	ol	9.00 10.50 12.00 13.50	Depth Base (m 10.50 12.00 13.50 15.00	Flush Type Air/Mist Air/Mist Air/Mist Air/Mist	grey grey grey grey grey grey	Min (%) 100 100 100 100 100	Max (%) 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m, the target depth. The borehole was installed with plain pipe from ground level to 1.00 m bgl and slotted pipe from 1.00 m bgl to 5.00 m bgl. The borehole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel, and with bentonite from 5.00 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with bentonite. SPT Hammer Ref: SIS1.

Ч	Г				L	Je	ep	Bo	rer	Ol	e L	.og				
Project Name Supplementa		d to Sutto	n Dua ll ing	Client	: Gal	liford ⁻	Try				Date: 0	08/03/20	22 - 11/0	03/2022	2	
Location:	. y			Contra	actor	: Swed	СО				Co-ord	s: E508	799.29 N	N29964	4.15	
Project No. : 0	GT0386			Crew	Nam	e: MG	/ GC				Drillina	Equipm	nent: Ber	retta T4	4	
Borehole N		Но	le Type			evel		Log	gged By	•		Scale			age Num	ber
BH11			RC	·	10.66	m AOI	D	CG	/ MWD)		1:25		s	heet 4 o	f 4
Well Water Strikes		· .	n Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descript	tion		
	Depth (15.00		N=47		TCR	SCR	RQD		Ì	Very	stiff pre	dominan	tly indistir	nctly lam	inated	-
	15.50 - 19	5.65 CS	(6,8/8,10,13		100					occa degr with and	asionally rees) dar light gre occasior	horizonta k grey sl y parting nal nodul	ally lamin ightly foss s of silt (2 es of light t (up to 30	ated (+/- siliferous 25 mm x t grey ce	30 CLAY 1 mm) mented	16
	16.50 - 18 16.50) SPT	N=51 (9,9/10,10,1.	2,19)	93											17 -
	18.00 - 19 18.00 18.50 - 18) SPT	N=53 (7,9/9,11,13		100				17.90 (-7.24) 18.00 (-7.34)	occa degr with and	y stiff pre- asionally rees) dar light gre occasior	horizonta k grey sl y parting nal nodul	tly indistir ally lamin ightly foss s of silt (2 es of light t (up to 30	ated (+/- siliferous 25 mm x t grey ce	30 CLAY 1 mm) mented	18
	19.50) SPT	N=42 (8,8/8,8,12	,14)					20.00							19
Hal- Di	otor T	C	g Diameter	\perp			CI	olling	20.00		E T	nd of Bor	ehole at 2			
Depth Base 19.50	neter Diameter 121	Casin Depth Base	g Diameter Diameter	Depth	Тор	Depth		elling Duration	To	ol	Depth Top (m) 15.00 16.50 18.00	Depth Base (m 16.50 18.00 19.50		g Flush Flush Colou grey grey grey	Min (%) 100 100 100	Max (%) 100 100 100
Remarks Prior to drilling the depth. The borehole The borehole.	ole was insta ound level to	alled with pla 1.00 m bgl	in pipe from grou with bentonite, fro	nd level t om 1.00 r	to 1.00 m bgl t	0 m bgl a to 5.00 r	and slot m bgl wi	ted pipe from th gravel, an	n 1.00 m b d with ber	gl to 5.0 ntonite fr	00 m bgl. 1	The boreh	ole was	Ĭ		



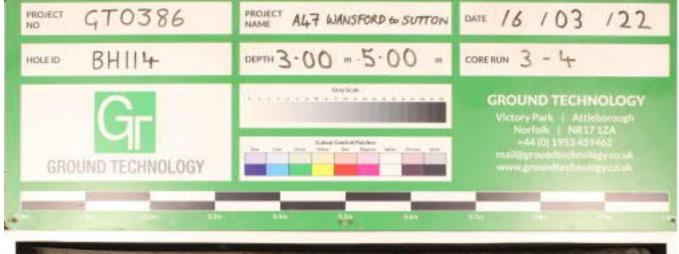
Project:

Wansford to Sutton Dualling Supplementary GI

BH114



BH114 1.20 m to 3.00 m



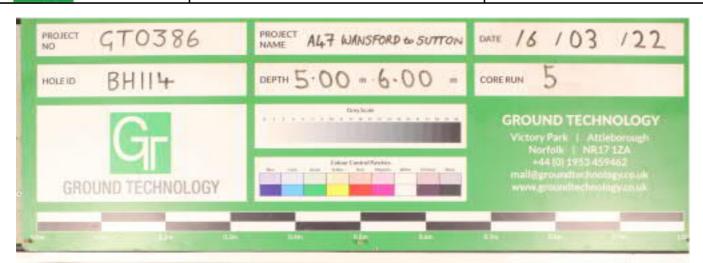


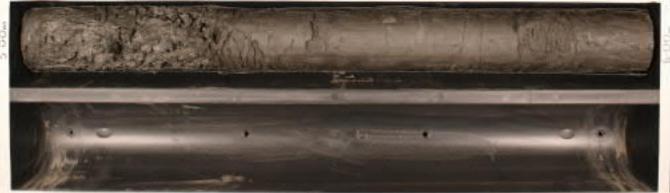


BH114

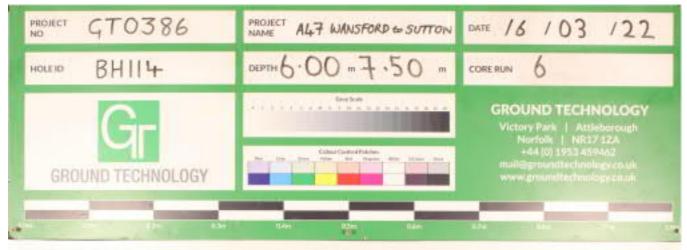
Project:

Wansford to Sutton Dualling Supplementary GI





BH114 5.00 m to 6.00 m







Project:

Wansford to Sutton Dualling Supplementary GI

BH114 Pro



BH114 7.50 m to 9.00 m

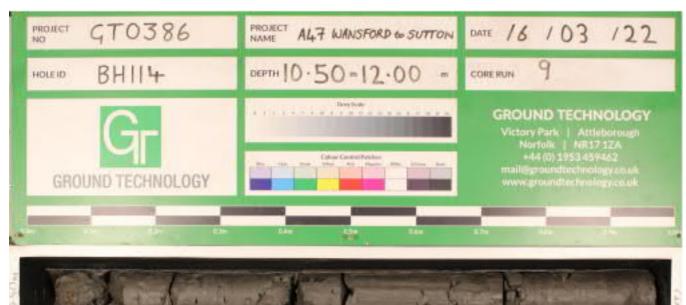


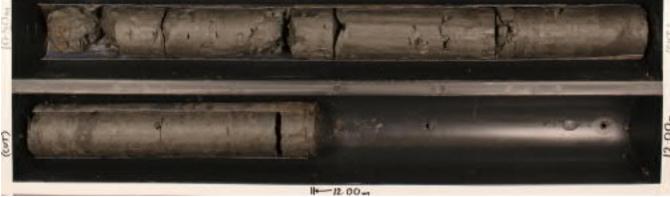


Project:

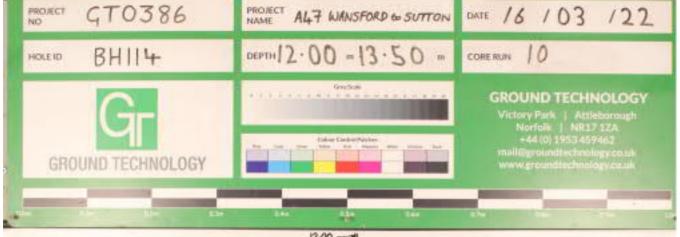
Wansford to Sutton Dualling Supplementary GI

BH114





BH114 10.50 m to 12.00 m







Project:

Wansford to Sutton Dualling Supplementary GI

BH114

Project ID:

GT0386



BH114 13.50 m to 15.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH114 Project ID:





BH114 16.50 m to 18.00 m



G	Г				Deep) Bo	reh	ole L	.og			
Project Name Supplementa		d to Suttor	Dua ll ing	Client: Ga	lliford Try			Date: 1	4/02/2022	- 22/03/2	2022	
-ocation:	ту сл			Contracto	r: Sweco			Co-ord	s: E508916	6.50 N29	9596.90	
Project No. :	GT0386			Crew Nan	ne: DB / MC	+AE / LW		Drilling	Equipment	t: Dando	3000 Fr	aste
Borehole N			e Type RC		eve l Om AOD		gged By 6 / MWD		Scale 1:25		Page Nu Sheet 1	
Well Water Strikes	Sam Depth (n		Situ Testing Results	_	Coring SCR RQD	Legend	Depth (Level)		Stratum De	escription		
	0.20 0.40	ES B	recounc				(15.20)	Brown and d fine to coarse subrounded brick.	e. Gravel is s	subangula	r to	5
	0.60	ES										
	1.00	В					1.00 (14.20)	Soft orangish sandy GRAV is subangula limestone fill	EL Sand is r to subround	fine to co	arse. Grave	1 -
	1.50 - 2.0 1.50	00 B cSPT	N=37 (3,5/5,9,10,	13)			1.50 (13.70)	Light brown a cobble conte subrounded are subangu	nt. Gravel is fine to coars	angular t e limesto	o ne. Cobbles	5
	2.50 - 3.0 2.50	00 B cSPT	N=38 (3,3/5,9,10,	14)			2.00 (13.20)	Brown and o GRAVEL with fine to coarse fine to coarse are subangu	n medium co e. Gravel is a e limestone f	bble cont angular to ill and bri	ent. Sand i subrounde	s ed
Water Added =100	3.50 - 4.0 3.50		N=28 (3,3/5,5	5,9,9)								4 -
-1001	4.50 - 4.8 4.50	80 B cSPT	N=28 (2,3/3,5,9,	11)								5 -
Hole Diam			Diameter			selling				Drilling Flu		
Depth Base Remarks	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Тоо	Depth Top (m	Depth Base (m) Flus	sh Type Flust	o Colour Min (%) Max (%

G	Γ				L)e	ep	Bo	rer	lOl	e L	.og				
Project Name Supplementa		rd to Sutt	on Dua ll ing	Clie	nt: Gal	lliford ⁻	Try				Date: 1	4/02/20)22 - 22/	/03/2022	2	
Location:				Con	tractor	: Swe	СО				Co-ord	s: E508	916.50	N29959	6.90	
Project No. :	GT0386			Crev	w Nam	ne: DB	/ MC+	FAE / LW			Drilling	Equipm	nent: Da	ındo 300	00 Frast	te
Borehole N BH11		Н	ole Type RC			eve l)m AO	D	I	gged By 3 / MWD			Scale 1:25			age Num Sheet 2 o	
Well Water Strikes			In Situ Testing		TOD	Coring		Legend	Depth (Level)			Stratum	n Descrip	otion		
	Depth (m) Typ	e Result:	5	TCR	SCR	RQD			Brov GR/ fine fine	wn and o AVEL with to coarse to coarse subangu	n mediun e. Gravel e limesto	n cobble l is angul ne fill an	content. ar to sub	Sand is rounded	
	5.50 - 6 5.50		T N=20 (2,3/3	,5,5,7)					5.50 (9.70)	silty San subi	at brown a sandy G d is fine t rounded ables are	RAVEL v to coarse fine to co	with low on the contract of th	cobble co is suban estone fil	ontent. Igular to	6
	6.90 7.00 - 7 7.00 7.25 - 7	.45 D SP		,3,3,5)	100				6.90 (8.30)		n to stiff d					7-
	8.50 - 8 8.50		T N=14 (1,2/2	,2,3,7)	100											8 -
	8.80 - 8	.90 D			100				8.70 (6.50) 8.95 (6.25)	sligh coar coar 20 r Stiff 15.5 occa +/- 4	rse cemenm) and becoming 50 m) pre	y clayey rel is sub ented silt siltstone og progre dominan horizonte	SILT. Sai rounded nodules (up to 45 ssively v tly indisti ally thinly grey with	nd is fine to round (up to 30 mm x 2 ery stiff (inctly lam a slight gr	e to ed fine to mm x 0 mm). (after hinated ed (up to reenish/	9-
	9.50 - 9 9.50		T N=19 (2,3/3	,3,5,8)						foss light mm grey Gra	iliferous t grey cer x 20 mm / calcared	CLAY with mented control and occurs silt (upper silt)	th occasi alcareou casional up to 10 i	onal nod is silt (up partings mm x 2 n ded fine t	lules of to 45 of light	10 -
Hole Dian	neter	Cas	ng Diameter				Chis	selling		<u> </u>			Drillin	ng Flush		
	Diameter 168	Depth Bas 7.00 9.00		Dep	oth Top	Depth		Duration	Too	ol	7.00 8.00 8.70	Depth Base (m 8.50 8.70 9.50		Flush Colou	ur Min (%)	Max (%)
depth. Once com	pleted the b	orehole was	f services and a libackfilled from g	round l	evel to 0).50 m b						ated at 20.				

Ч					L	Jе	ep	RO	rer	101	e L	og				
Project Name Supplementa		d to Sutto	on Dua ll ing	Client:	Gall	iford 7	Try				Date: 1	4/02/20	22 - 22/	03/2022		
_ocation:	<u>. y</u>			Contra	ctor:	Swed	co				Co-ord	s: E508	916.50 I	N29959	3.90	
Project No. : 0	GT0386			Crew N	lame	e: DB	/ MC+	-AE / LW			Drilling	Equipm	nent: Da	ndo 300	0 Fraste	 e
Borehole N		Но	le Type			vel		Lo	gged By	,	† **	Scale			ge Numb	
BH11	•		RC	15	.20r	m AOI	<u> </u>	CG	MWD			1:25		S	heet 3 of	<u>5</u>
Well Water Strikes	Sam Depth (r		n Situ Testing Results		CR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
	10.30 - 10 11.00 - 11 11.00	0.60 CS	N=27 (3,4/5,6	1	000					15. occ +/- blui fos: ligh mm gre Gra	f becomir 50 m) presasionally 40 degree issh grey h siliferous t grey cet x 20 mm y calcarea vel is sub stone (up	dominan horizonta ses) dark gue slight CLAY with mented con and ocous silt (uprounded	tly indisti ally thinly grey with ly gravell th occasicalcareou casional up to 10 r to round	nctly lam laminate slight grey slightly onal nodu s silt (up partings on x 2 m ed fine to	inated d (up to eenish/ sandy ules of to 45 of light im).	11
	11.50 - 11		1	00	3	0			grey foss	fine to r	nedium Iimestor	grained ne with c	slightly	and dark		
	12.50 - 12 12.50	N=28 (3,5/5,7		00											13	
	14.00 - 14 14.00		- N=23 (3,5/5,5	5.6.7)												14
	14.70 - 15		20 (0,0/0,0		00											
									4							15
Hole Diam Depth Base I	eter Diameter	Casir Depth Base	g Diameter e Diameter	Depth T	ор	Depth		elling Duration	То	ol	Depth Top (m 9.50 11.00 12.50	Depth Base (m 11.00 12.50 14.00	Drillin Flush Type Water polymer polymer	g Flush Flush Colour	Min (%) 100 100 100	Max (9 100 100 100
Remarks Prior to drilling the depth. Once com	e position wa	Casir Depth Base s cleared of rehole was		and dug in	spect to 0.	tion pit 50 m by	to 1.20	Duration m carried ou	ıt. The bor	ehole v	9.50 11.00 12.50	11.00 12.50 14.00	Flush Type Water polymer polymer	Flush Colour	100 100	

	Ч	П					L	Je	ep) Bo	rer	Ol	e L	og				
	t Name ementa		ord to	Suttor	n Dua ll ing	Clier	nt: Gal	lliford 7	Ггу				Date: 1	4/02/20	22 - 22/	03/2022	2	
Location	on:	-				Cont	tractor	:: Swed	ю				Co-ord	s: E508	916.50	N29959	6.90	
Projec	t No. : (GT0386				Crev	v Nam	ne: DB	/ MC-	+AE / LW			Drilling	Equipm	nent: Da	ndo 300	00 Frast	е
Bore	ehole N BH11				e Type RC			eve l Im AOI)		gged By 6 / MWD			Scale 1:25			age Numb Sheet 4 of	
Well	Water Strikes	Sar Depth		and In Type	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descript	tion		
		15.50 - 1 15.5 16.10 - 1	15.95 0	D SPT	N=37 (3,5/7,9,10,	111)	100	300				15.5 occa +/- 4 bluis foss light mm grey Gra silts	50 m) pre asionally 40 degree sh grey h illiferous t grey cer x 20 mm / calcared vel is sub tone (up	dominan horizonta es) dark (ue slightle CLAY with mented colors silt (uorounded to 70 mm 5.95 m s	n x 30 mi	nctly lam laminate slight gr y slightly onal nod s silt (up partings nm x 2 n ed fine t m).	ninated ed (up to reenish/ v sandy ules of to 45 of light	16 -
		17.00 - 1 17.0		D SPT	N=38 (3,5/6,9,11,	. 12)												17
		17.80 - 1		CS			100											18 -
		18.50 - 1 18.5 19.20 - 1	0	D SPT CS	N=46 (2,6/9,10,12	,15)	100											19 -
	Hole Diam		I		Diameter				Ch:	selling			<u> </u>		Deilli-	ıg Flush		120
Depth E	Hole Diam Base I	eter Diameter	Dept	th Base	Diameter Diameter	Dep	th Top	Depth		Duration	Too	ol	Depth Top (m)	Depth Base (m	Flush Type			Max (%)
Poma													14.00 15.50 17.00 18.50	15.50 17.00 18.50 20.00	polymer polymer polymer polymer		100 100 100 100	100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.45 m, the target depth. Once completed the borehole was backfilled from ground level to 0.50 m bgl with arisings and from 0.50 m bgl to the base of the borehole with bentonite. SPT Hammer Ref: P2011130 (R9) (Fraste) & 12-4 (Dando 3000).

	G							Эе	ер	Во	reh	ol	e L	.og				
	ct Name ementa	: Wansfor	d to Sut	ton Di	ualling	Clie	nt: Gal	liford ⁻	Try				Date: 1	14/02/20)22 - 22	/03/2022	2	
Locati		усл				Con	tractor	: Swe	со				Co-ord	s: E508	916.50	N29959	6.90	
Projec	et No. : (GT0386				Crev	w Nam	ne: DB	/ MC+	AE / LW			Drilling	Equipn	nent: Da	ndo 300	00 Frast	te
Bor	ehole N BH11		Н	lole Ty RC	/pe			eve l Im AO	D		gged By 3 / MWD			Scale 1:25			age Num heet 5 o	
Well	Water Strikes				u Testing			Coring	_	Legend	Depth (Level)			Stratun	n Descrip	otion		
Depth	Hole Diam	eter Diameter) SF	PT (t	Results N=46 5,8/9,10,11	1,16)	100	Depth		elling Duration	(Level) 20.45	15.6 occi. +/- 4 bluii fosso light mm grey Gra silts	50 m) preasionally 40 degresh grey he siliferous t grey ce x 20 mm y calcare vel is sub	ng progrestdominar horizont es) dark lue slight CLAY wi mented on and occursit (in prounded to 70 mr	essively valty indistriction indistriction in the provided indistriction in the provided individual	ery stiff (inctly lam I laminate I slight gr Iy slightly onal nod Is silt (up partings mm x 2 n ded fine to	inated ed (up to eenish/ seandy sules of to 45 of light mm), o coarse	21 — 22 — 23 — 24 — 25 — 25 — 25 — 25 — 25 — 26 — 26 — 26
Rema																		
Prior to depth. (drilling the Once com	e position wa pleted the bo ammer Ref:	orehole wa	s backf	i ll ed from gr	ound l	evel to 0	0.50 m b										



BH115

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

D: GT0386





BH115 7.00 m to 8.00 m





BH115

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH115 9.50 m to 11.00 m





BH115

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH115 12.50 m to 14.00 m





BH115

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH115 15.50 m to 17.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH115 Project ID:



BH115 18.50 m to 20.00 m

ЧГ					U	ee	įρ	DO	ren	noie Log
Project Name: Wa Supplementary G		Sutton	Dualling	Client:	Gallifo	ord Try	,			Date: 14/02/2022 - 10/03/2022
Location:				Contra	ctor: S	Sweco				Co-ords: E508939.32 N299618.36
Project No. : GT0	386			Crew N	lame:	DB/N	ЛС+ <i>/</i>	AE / LW		Drilling Equipment: Dando 3000 Fraste
Borehole Numl BH116	ber		e Type RC	13	Leve 3.09m				gged By i / MWD	• • • • • • • • • • • • • • • • • • •
Well Water Strikes	Sample Depth (m)	and In Type	Situ Testing Results			oring SCR R	RQD	Legend	Depth (Level)	
	0.10 0.50 0.50	ES B ES							(13.09)	Grey and light brown clayey silty very sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse limestone fill and brick.
1.	1.00 .50 - 2.00 1.50	B B cSPT	N=18 (2,2/3,3	,4,8)					1.50 (11.59)	Dark brown and orangish brown clayey silty very sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine and medium limestone fill.
2.	.50 - 3.00 2.50	B cSPT	N=23 (2,3/3,5,5,1	0)					2.50 (10.59)	Dark brown and orangish brown clayey sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine and medium limestone fill.
Water Added =150 I	3.20 .50 - 4.00 3.50	B B cSPT	N=29 (3,3/4,4,8,1	3)					3.20 (9.89)	Light brown slightly gravel SAND. Sand is fine and medium. Gravel is subangular to subrounded fine limestone.
4.	.50 - 5.00 4.50	B cSPT	N=32 (2,4/4,6,9,1	3)						5
Hole Diameter Depth Base Diam	eter Dept	Casing th Base	Diameter Diameter	Depth T	op D	epth Bas	Chise se	elling Duration	Toc	Drilling Flush Dol Depth Top (m) Depth Base (m) Flush Type Flush Colour Min (%) Max (%)
Remarks Prior to drilling the positio SPT was carried out at th 6.00 m bgl. The borehole	n was cleared e base of the b was backfilled	of service porehole to from grou	s and a hand dug ɔ 25.62 m bgl. The ınd level to 1.00 m	inspection borehole v	pit to 1.2 was insta	20 m carri alled with from 1.00	ed out plain r 0 m bg	i. The boreho bipe from gro gl to 6.00 m b	le was termi und level to gl with grave	minated at 25.00 m, the target depth, however an o 1.00 m bgl and slotted pipe from 1.00 m bgl to vel, and with bentonite from 6.00 m bgl to the base 0 (R9) (Fraste) & 12-4 (Dando 3000).

G	汇				D	eep) Ro	rer	IOI	e L	og					
Project Nan		rd to Sutto	n Dua ll ing	Client: 0	Sallifo	ord Try				Date: 1	4/02/20	22 - 10/	03/20	22		
Location:	y			Contrac	tor: S	Sweco				Co-ord	s: E5089	939.32 1	N2996	518.36		
Project No.	: GT0386			Crew Na	ame:	DB / MC	+AE / LW			Drilling	Equipm	ent: Da	ndo 3	000 Fi	raste	
Borehole BH			e Type RC	13.	Leve 09m	el AOD		gged By 3 / MWD			Scale 1:25			Page N Sheet	umber	
Well Wate	\ <u></u>		Situ Testing	тс		oring	Legend	Depth (Level)			Stratum	Descript	tion			
	Depth ((m) Type	Results		× 5	SCR RQE			and	medium,	slightly gr . Gravel is fine limes	s subang	ND. Sa Jular to	and is fin	e	
	5.50 - 5 5.50		N=30 (3,4/4,5,9,1	12)				5.50 (7.59)	sligh	ntly claye	slightly gr y SILT. S to subanç	and is fin	ie. Gra	avel is		-
	5.80 - 6	5.00 B														
	6.50 - 6 7.00 - 7			10	0			6.30 (6.79)	with	n light gre occasion areous s	ey occasional nodulo	onally mo	ottled b	prown SI	LT	6
	7.00 8.20 - 8	SPT SPT CS	N=9 (1,1/2,2	10	0											8
	8.50 - 8 8.50		N=37 (4,5/8,9,12	,8)	0			8.60 (4.49)	grey coal to co	r clayey s rse. Grav parse lim		AVEL, Sular and s	and is suban	fine to gular fine	Э	9 -
	9.88 - 10 10.00 - 1							9.70 (3.39)	occa degr occa mm	asionally rees) dar asional p) and occ ented ca	nantly ind horizonta k grey for artings of asional n lcareous	ally lamin ssiliferou light gre nodules o	ated (- s CLA y (25 r of light	+/- 30 Y with mm x 1 grey	10	10
Hole Dia			Diameter		 		iselling						g Flush		1 (a/) 1 :	
6.00 7.50 9.00	200 200 200 168	Depth Base 6.00 7.50 9.00	200 200 200 168	Depth To	p D	epth Base	Duration	Too	ol	Depth Top (m) 6.00 7.00 8.50	Depth Base (m) 7.00 8.50 10.00	Flush Type Water Water Water	Flush Co	olour Min		x (%) .00
Remarks		<u> </u>						I		<u> </u>		l				

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.00 m, the target depth, however an SPT was carried out at the base of the borehole to 25.62 m bgl. The borehole was installed with plain pipe from ground level to 1.00 m bgl and slotted pipe from 1.00 m bgl to 6.00 m bgl. The borehole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 6.00 m bgl with gravel, and with bentonite from 6.00 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with concrete. SPT Hammer Ref: P2011130 (R9) (Fraste) & 12-4 (Dando 3000).

(Gi							Эе	ep	Во	reh	ol	e L	.og				
Project N			rd to	Suttor	Dua ll ing	Clie	nt: Gal	lliford 7	Try				Date: 1	4/02/20	22 - 10/	03/2022	2	
Location:		y Ci				Con	tractor	: Swed	СО				Co-ord	s: E508	939.32	N29961	8.36	
Project N	No. : 0	ST0386				Crev	w Nam	ne: DB	/ MC+	+AE / LW			Drilling	Equipm	nent: Da	ndo 300	00 Frast	te
Boreho	ole N 3H11 (e Type RC			eve l Im AOI	D		gged By 6 / MWD			Scale 1:25			age Num Sheet 3 of	
	/ater				Situ Testing			Coring	_	Legend	Depth (Level)			Stratum	n Descrip	tion		
		Depth (10.00		Type SPT	Results N=29 (2,3/5,6,7,7		TCR	SCR	RQD			occa degr occa mm)	isionally ees) dar isional pa and occ	horizonta k grey fo artings o asional r	distinctly ally lamin ssiliferou f light gre nodules o	ated (+/- s CLAY y (25 mi of light gr	- 30 with m x 1 rey	-
		10.73 - 1	1.00	CS			80				11.20 (1.89)	cem mm)	•	Icareous	silt (up to	o 30 mm	1 x 15	11 —
		11.50 - 1 11.50	D .	D SPT	N=22 (2,3/3,5	5,6,8)	100				11.50 (1.59)	lamii (+/- ; CLA mm	nated oc 30 degre Y with oc x 1 mm) cemente	casionalles) dark casional and occ	ominantly ly horizor grey silty partings asional n reous silt	ntally lam fossilife of light o odules o	ninated erous grey (25 of light	12 -
		13.00 - 1 13.00		D SPT	N=40 (3,5/8,9,9,1	14)	100											13
		14.20 - 1 14.50 - 1 14.50	4.95	CS D SPT	N=28 (2,3/5,6	6,8,9)												15
	le Diame				Diameter					selling						g Flush		
Depth Base	se C	Diameter	Dept	h Base	Diameter	<u>Dep</u>	th Top	Depth	Base	Duration	Too	ol	10.00 11.50 13.00	Depth Base (m 11.50 13.00 14.50	Flush Type polymer polymer polymer	Flush Colou	100 100 100 100	Max (%) 100 100 100
SPT was carr 6.00 m bgl. T	ng the porried out	at the base on the hole was ba	of the b	oreho <mark>l</mark> e t from gro	es and a hand dug o 25.62 m bgl. The und level to 1.00 m top hat cover sect	boreh bgl wi	ole was i	nstalled v	vith plain 1.00 m b	pipe from groungly pipe pipe pipe pipe pipe pipe pipe pip	und level to gl with grav	1.00 m b rel, and w	gl and slot ith bentonit	ted pipe fro te from 6.00	m 1.00 m be m bgl to th	gl to	1	

	Ч						L	Je	ep	BO	rer	IOI	e L	.og				
	t Name ementa	: Wansfor	rd to	Suttor	Dua ll ing	Client	t: Gal	liford 7	Ггу				Date: 1	14/02/20)22 - 10	/03/202	2	
_ocati		. у С.				Contr	actor	: Swed	СО				Co-ord	ls: E508	939.32	N2996	18.36	
⊃rojec	t No. : (GT0386				Crew	Nam	e: DB	/ MC+	AE / LW			Drilling	Equipn	nent: Da	ando 30	00 Fras	te
Bor	ehole N BH11	lumber 6			e Type RC	,		eve l m AOI	D		gged By 3 / MWD			Scale 1:25			age Num Sheet 4 o	
Well	Water Strikes	San Depth (_	and In	Situ Testing Results	4	TCR	Coring SCR	RQD	. Legend	Depth (Level)			Stratun	n Descrip	otion		
		15.85 - 10 16,00 - 10	6.00	CS			100					lam (+/- CL/- mm gre: 15 i 15.5 stror grair calci	x 1 mm) y cement mm). 0 m to 1 ng light a	ccasional ees) dark ccasiona and occ ed calcar 5.55 m and dark atly fossi and occ	ly horizo grey silt l partings asional r reous silt	ntally lar y fossilife s of light nodules o t (up to 3 ong to e ne to me limesto	minated erous grey (25 of light 80 mm x extremely edium one with	
		16.00 - 10 16.00)	D SPT CS	N=38 (2,4/6,9,11,1	12)												16
							100					stror grair calci	ng light a	and dark atly fossi and occ	grey fii iliferous casiona	ne to me limesto	ne with	/ 17 ·
		17.50 - 1' 17.50		D SPT	N=44 (3,5/7,11,12,	14)	86											18
		18.74		CS							18.80 (-5.71)	AZC	CL					
		19.00 - 1: 19.00		D SPT	N=50 (4,6/50 228mm)) for	100				19.00 (-5.91)	occ 30 d foss	y stiff pre asionally degrees) siliferous t grey (25	horizont dark gre CLAY wi	ally thinly y with sli th occas	/ laminat ght gree	ted (+/- nish hue	— 19
		20.00 - 2	0.16	cs		-												20
	Hole Diam				Diameter					selling					1	ng Flush	_	
Depth E	Base	Diameter	Dept	h Base	Diameter	Depth	n Top	Depth	Base	Duration	Too	ol	Depth Top (m 14.50 16.00 17.50	Depth Base (n 16.00 17.50 19.00	polymer polymer polymer polymer		100 100 100 100	Max (9 100 100 100
SPT was 6.00 m b	rilling the p carried ou gl. The bor	t at the base of ehole was bac	of the b ckfi ll ed	orehole to from grou	es and a hand dug i o 25.62 m bgl. The und level to 1.00 m top hat cover secu	borehol- bgl with	e was in bentor	nsta ll ed v iite, from	vith plain 1.00 m b	pipe from groungly pipe pipe pipe pipe pipe pipe pipe pip	und level to gl with grav	1.00 m rel, and v	bgl and slot with bentoni	tted pipe fro te from 6.0	om 1.00 m t 0 m bgl to t	ogl to		<u> </u>

	Ч						L	Jee	Эþ) RO	ren	101	e L	og						
Projec	t Name ementa	: Wansfoi rv Gl	rd to s	Suttor	Dua ll ing	Clier	nt: Gal	liford Tr	у				Date: 14/02/2022 - 10/03/2022							
Locati		,			1	Cont	ractor	: Sweco)				Co-ords: E508939.32 N299618.36							
Projec	t No. :	GT0386				Crew Name: DB / MC+AE / LW								Drilling Equipment: Dando 3000 Fraste						
Bor	ehole N BH11				e Type RC			evel m AOD			gged By 6 / MWD			Scale 1:25			Page N Sheet			
Well	Water Strikes				Situ Testing			Coring		Legend	Depth (Level)		Stratum Description							
		Depth (m)	Туре	Results		TCR	SCR	RQD		I ,	Very	stiff pre	dominan	tly indisti	nctly la	aminated	l	-	
		20.50 - 2 20.50 20.50		D SPT	N=50 (3,6/50 227mm)	for	100					occa 30 d fossi	asionally egrees) iliferous	horizonta dark grey CLAY wit i mm x 2	ally thinly y with slig th occasi	/ lamination	ated (+/- enish hu	ie	21	
]	
		22.00 - 2 22.00 22.50 - 2	2.70	D SPT CS	50 (5,7/50 f 154mm)	or I	100												23	
		23.50 23.50 24.00 - 2	4.15	SPT CS	N=50 (42,6/50 261mm)	O for	100				25.00								24 —	
					Diameter				Ch.	selling	20.00	Щ,			D-:III:	ng Flush			20	
Hole Diameter Depth Base Diameter D			Depth	n Base	Diameter	Dept	th Top	Depth Ba		Duration	Too	ol	Depth Top (m)	Depth Base (m 20.50	Flush Typ polymer		olour Min		Max (%)	
								_					19.00 20.50 22.00 23.50	20.50 22.00 23.50 25.00	polymer polymer polymer polymer		10 10 10 10	0	100 100 100 100	
Rema	arks																			

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.00 m, the target depth, however an SPT was carried out at the base of the borehole to 25.62 m bgl. The borehole was installed with plain pipe from ground level to 1.00 m bgl and slotted pipe from 1.00 m bgl to 6.00 m bgl. The borehole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 6.00 m bgl with gravel, and with bentonite from 6.00 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with concrete. SPT Hammer Ref: P2011130 (R9) (Fraste) & 12-4 (Dando 3000).

	Ч					L	Je	ep	RO	ren	oie	Log							
Projec	ct Name ementa	: Wansfo	rd to Sutto	n Dua ll ing	Clien	nt: Gal	liford ⁻	Try		Pate: 14/02/2022 - 10/03/2022									
Locati		y () (Cont	ractor	: Swe	СО			Co-c	Co-ords: E508939.32 N299618.36							
Projec	et No. : (GT0386			Crew	/ Nam	e: DB	/ MC+	AE / LW		Drill	Drilling Equipment: Dando 3000 Fraste							
Bor	ehole N BH11			le Type RC			eve l m AO	D		gged By 6 / MWD		Scale 1:25	:	Page Number Sheet 6 of 6					
Well	Water Strikes			n Situ Testing	_		Coring		Legend	Depth		Stratum Description							
-	Otrikes	Depth 25.00				TCR SCR RQD (Level)										 			
		241mm						_		End of Borehole at 25.62m									
																26 -			
																28			
																29 —			
	Hole Diam			g Diameter					elling					g Flush		30			
Depth		<u>Diameter</u>	Depth Base	Diameter	Dept	th Top	Depth	Base	Duration	Tool	Depth T	op (m) Depth Base (i	m Flush Type	Flush Colou	Min (%)	Max (%)			
6.00 m b	drilling the p carried ou gl. The bor	ehole was ba	ckfilled from gr	ces and a hand dug to 25.62 m bgl. Th ound level to 1.00 a top hat cover sec	m bgl with	h bentor	nite, from	1.00 m b	gl to 6.00 m b	gl with gravel	l, and with ben	tonite from 6.0	0 m bgl to th	er an gl to e base					



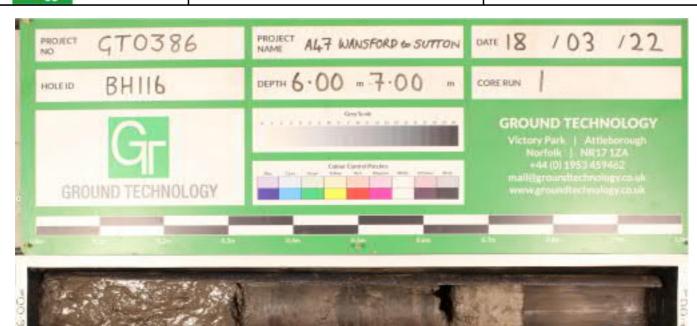
BH116

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH116 6.00 m to 7.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH116 Project ID:



BH116 8.50 m to 10.00 m





BH116

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH116 11.50 m to 13.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH116

Project ID:



BH116 14.50 m to 16.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH116

Project ID:



BH116 17.50 m to 19.00 m







BH116

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH116 20.50 m to 22.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH116 Project ID:



BH116 23.50 m to 25.00 m

Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 14/02/2022 - 07/03/2022																				
	ct Name lementa		rd to Sutt	on Dua ll ing	Clie	nt: Ga	l l iford ⁻	Try			Date: 14/02/2022 - 07/03/2022									
Locat		<u> </u>			Con	tracto	r: Swe	со				Co-ord	ls: E508	3970.99	9 N299	9639.6	57			
Proje	ct No. : (GT0386			Crew Name: AE / LW+DB / MC							Drilling Equipment: Fraste Dando 3000								
Во	rehole N		Н	ole Type RC			evel)m AO	D		gged By 6 / MWC			Scale 1:25			Page Number Sheet 1 of 7				
Well	Water Strikes	San		In Situ Testing		Legend (Level)							Stratum Description							
		Depth (5	TCR	SCR	RQD		(20.20)	Sof	Soft light yellowish brown dark brown and grey sandy gravelly CLAY with common fine rootlets.								
		0.10 - 0 0.50 0.50 - 0	В								Sar sub	dy grave nd is fine rounded estone fill	to coars fine and	e. Grave	el is sul	bangul	otlets. ar to			
	Water Added =150 I	1.00	В							1.00 (19.20)	SAI	owish bro ND. Sand angular t	l is fine t	o coars	e. Grav	el is	ill.	1 - 1		
		1.50 - 2 1.50		T 50 (8,17/5 150mm														2		
		2.50 - 3 2.50		T 50 (19,6/5 90mm														3		
		3.50 - 4.00 B 3.50 cSPT 50 (3,19/5 135mm									1.00 m to 6.00 m recovered as clay							4 —		
		4.50 - 5 4.50		T 50 (22,3/5 100mm							containing limestone fragments to cable drilling with addition of water has crushed and 'pulped' the fill material into clay							5		
	Hole Diam	eter	Cari	ng Diameter	ш			Chie	elling					Dri	lling Flus	h				
Hole Diameter Casing Diameter Depth Base Diameter Depth Base Diameter				Dep	oth Top	Depth		Duration	То	ol	Depth Top (m) Depth Base (ype Flush		1in (%)	Max (%)			
instructi	drilling the p	the borehole	was termina	rices and a hand du ted at 30.60 m. The ground level to 7.00	borehol	e was ins	stalled fro	m ground	d level to 7.00	m bal with	plain pip	e and from	7.00 m bal	to 9.00 m	bal with	 				
base of	the borehole	e. The boreho	le was finishe	ground level to 7.00 ed with a flush cover	cement	ted into p	lace. SP	п 7.00 m Г Hamme	er Ref: P20111	ogi with gra 30 (R9) (Fr	aste) & 1	With Dentor 12-4 (Dando	3000).	.vu iii agi t	.o uie					

G	Г				De	ep	Bo	ren	1OI	e L	og							
Project Nam Supplement		rd to Suttor	n Dua ll ing	Client: G	al l iford	Try			Date: 14/02/2022 - 07/03/2022									
Location:	<u>y</u>			Contract	or: Swe	eco				Co-ord	s: E508	970.99	N29963	39.67				
Project No. :	GT0386			Crew Na	me: AE	: / LW+	DB / MC			Drilling Equipment: Fraste Dando 3000								
Borehole BH1			e Type RC		Level 20m AO)D		gged By			Scale 1:25		Page Number Sheet 2 of 7					
Well Water Strikes			Situ Testing	TCF	Coring	g RQD	Legend	Depth (Level)		Stratum Description								
	5.50 - 6 5.50	.00 В			SCR	RQD			SAN	Yellowish brown clayey silty very gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded fine limestone fill.								
	7.00 - 7	10 D		100				6.00 (14.20)	brov occa mm fine	reddish	y silty gr plack roo Sand is e cemen	avelly SA ts lignitic fine to c ted sand	ND with roots (upoarse. Goarse. Goarse	p to 35 cravel is atrix with	6			
	7.50 - 7 7.50 7.70 - 7	.95 D SPT	16)				7.50 (12.70) 7.80 (12.40)	occa orga fine	ise light y asional p anic mate and med recovery.	ockets o rial (up t lium.	f black de	ecompos		8				
	9.00 - 9 9.00		N=37 (3,5/7,9,9,1	20				9.00 (11.20)		ise light y medium.		brown S	AND. Sa	and is fine	9-			
	9.50 - 9 9.90 - 10			66			××××	9.50 (10.70) 9.80 (10.40)	San Stiff with	se black d is fine t light gre occasion x 1 mm)	y mottleo	d dark gre	ey sandy	SILT	10			
11-1- 61	matar	C	Diameter			Cr.	olling	10.00		1		P.:iii	ng Elwal		10			
Hole Dia Depth Base 6.00 7.00	meter Diameter 200 168	Casing Depth Base 6.00 7.00	Diameter Diameter 200 168	Depth Top	Depth	Chis	elling Duration	Тоо	ol	Depth Top (m) 6.00 7.50	Depth Base (n 7.50 9.00		ng Flush e Flush Colou	100 100	Max (%) 100 100			
instruction of Swe slotted pipe. The I	co the borehole corehole was ba	was terminated ackfilled from gr	es and a hand dug d at 30,60 m. The b ound level to 7,00 r with a flush cover c	orehole was i n bgl with bei	nstalled frontonite, from	om ground m 7.00 m	d level to 7.00 bgl to 9.00 m	m bgl with pbgl with gra	olain pipe vel, and	e and from 7 with benton	7 00 m bgl ite from 9 0	to 9.00 m b	gl with	1	l			

G	Γ				L	Je	ep) RO	rer	101	е∟	og					
Project Name		d to Sutto	on Dua ll ing	Clien	nt: Gal	liford ⁻	Try			Date: 14/02/2022 - 07/03/2022							
Location:	<u>y</u>			Cont	ractor	: Swe	СО			Co-ords: E508970.99 N299639.67							
Project No. :	GT0386			Crew	/ Nam	ie: AE	/ LW+	DB / MC			Drilling Equipment: Fraste Dando 3000						
Borehole N BH11		Но	le Type RC	Level 20.20m AOD					gged By 6 / MWD			Scale 1:25		Page Number Sheet 3 of 7			
Well Water Strikes			n Situ Testing			Coring		Legend	Depth (Level)								
	Depth (m) Type	Results	+	TCR	SCR	RQD		(10.20)	AZC	AZCL						
	10.50 - 10 10.50		- N=31 (2,3/6,8	3,8,9)				(XXX) (XXX) (XXXX (XXXX)	10.50 (9.70)	with	light grey occasion x 1 mm).	nal partin	gs of ligr				
	11.20 - 11	1.30 D			80				11.10 (9.10) 11.40 (8.80)	indis part of lig Stiff	Very stiff dark grey locally tending to stiff ndistinctly laminated CLAY with frequent nartings of light grey silt and occasional pocke of light grey fine sand (up to 25 mm x 10 mm). Stiff light grey mottled dark grey and greenish grey sandy SILT with occasional partings of gnitic silt (up to 30 mm x 1 mm). Sand is fine.				nt I pockets 0 mm). eenish	11 -	
	11.60 - 1	1.70 D						XXXX XXXX	11.70 (8.50)		tic silt (up						
	12.00 - 1: 12.00		SPT	N=24 (3,3/4,5	5,7,8)					12.00 (8.20)	dark CLA light	light gree grey slig Y with oc grey silt Gravel is	htly gravecasional (up to 20	elly sligh pockets mm x 1	itly sand of lignition 0 mm). S	y silty c silt and Sand is	12 -
	12,60 - 12	2.70 D			0											-	
	13.00 - 1															13 -	
	13.50 - 1: 13.50 - 1: 13.50	3.80 D		0 for					13.50 (6.70) 13.80 (6.40)	Very strong to extremely strong light and dark grey fine to medium grained slightly fossiliferous LIMESTONE with inclusions of dark rounded clasts of siltstone (up to 40 mm x 20 mm) and occasional calcite veins (up to 15 mm x 1 mm). (slightly weathered grade II)						-	
	14.40 - 14				100	10	10			grey foss sligh	rery stiff predominantly thinly laminated dark rery stiff predominantly thinly laminated dark rey to occasionally greenish grey slightly issiliferous CLAY with occasional light grey ightly calcareous silt partings and shell agments (up to 5 mm).					14	
III-N	15.00 - 1		Jag Diameter									D.:III	or Elevat		15 -		
Hole Diameter Casing Diameter Depth Base Diameter Depth Base Diameter 13,50 168 13,50 168												Max (%)					
13.50 Remarks								9.00 10.50 12.00 13.00 13.50	10.50 12.00 13.00 13.50 15.00	polymer polymer polymer polymer polymer		100 100 100 100 100	100 100 100 100 100				

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was scheduled to be drilled to 25.00 m, however under the instruction of Sweco the borehole was terminated at 30,60 m. The borehole was installed from ground level to 7.00 m bgl with plain pipe and from 7.00 m bgl to 9.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 7.00 m bgl with bentonite, from 7.00 m bgl with gravel, and with bentonite from 9.00 m bgl to the base of the borehole. The borehole was finished with a flush cover cemented into place. SPT Hammer Ref: P2011130 (R9) (Fraste) & 12-4 (Dando 3000).

	疒				Deep Borehole Log														
Project Na	ame: Wansf	ord to	Suttor	Dua ll ing	Clien	t: Gal	liford 7	Γry				Date: 14/02/2022 - 07/03/2022							
Location:	mary Gi				Conti	ractor	: Swed	co				Co-ords: E508970.99 N299639.67							
Project No	o. : GT0386				Crew	Nam	e: AE	/ LW+	DB / MC			Drilling Equipment: Fraste Dando 3000							
	le Number H117			e Type RC			eve l m AOI)		gged By i / MWD			Scale 1:25			ige Numl heet 4 of			
Well Wa				Situ Testing		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratun	n Descrip	tion				
	15.50 -	00	Type SPT CS	Results N=47 (3,4/5,7,16,	19)	TOIX	361	INGO			grey foss sligl frag	y stiff pre y to occas siliferous htly calca iments (u 5 m to 1 ng light a	-						
	16.50 -	16.95			100	5	0				grained slightly fossiliferous limestone								
	16.£	50	D SPT CS	N=39 (4,6/7,8,11, <i>1</i>	13)	100											17		
	18.00 - 18.0 18.50 -	00	D SPT CS	N=30 (3,4/6,7	,8,9)	100					fine t	.35 m to 18.40 m recovered as rounded e to coarse fine to medium grained ssiliferous limestone gravels							
	19.50 - 19.£		D SPT	N=45 (4,6/7,8,12,	18)														
	Diameter		Casing h Base	Diameter					elling						g Flush		Max (%)		
Depth Base	Diameter	Diameter	Dept	h Top	Depth	Base	Duration	To	Tool Depth Top (m) Depth Base (m) Flush Type Flush Colour Min (9 15.00 16.50 polymer 100 16.50 18.00 polymer 100 18.00 19.50 polymer 100 1										
Remarks												<u> </u>							
Prior to drilling instruction of S	the position was Sweco the boreho he borehole was	le was te backfilled	rminated	es and a hand dug i l at 30.60 m. The bo ound level to 7.00 n with a flush cover c	orehole n bal wit	was ins	talled from	m ground 17.00 m	l level to 7.00 i bal to 9.00 m b	m bgl with pool with ara	plain pipe	e and from it	7.00 m bgl: nite from 9.0	to 9.00 m bg	l with				

G							Dee	ep	Во	reh	ol	e Log		
Project Nam Supplementa		d to	Suttor	n Dua ll ing	Client:	: Gall	liford Tr	у				Date: 14/02/2022 - 07	//03/2022	
Location:	агу Сп				Contra	actor:	Sweco)				Co-ords: E508970.99	N299639.67	
Project No. :	GT0386				Crew I	Nam	e: AE / I	LW+	DB / MC			Drilling Equipment: Fr	aste Dando 3	8000
Borehole BH1				e Type RC	2		eve l m AOD			gged By / MWD		Scale 1:25	Page Nu Sheet 5	
Well Water Strikes		_	and In Type	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)		Stratum Descrip	otion	
	20.15 - 20	0.30	CS			73				20.60 (-0.40)	grey fossi sligh	v stiff predominantly thinly to occasionally greenish iliferous CLAY with occas ntly calcareous silt partingments (up to 5 mm).	grey slightly ional light grey	
	21.00 - 2 ⁻ 21.00 21.80 - 2 ⁻		D SPT CS	N=42 (3,6/7,9,11,		100				21.00 · (-0.80)	grey light	stiff predominantly thinly slightly fossiliferous CLA grey slightly calcareous s I fragments (up to 5 mm).	Y with occasiona silt partings and	21
	22.50 - 23 22.50		D SPT	N=50 (4,6/50 228mm)										22
	23.80 - 24	4.00	cs			100								23
	24.00 - 24 24.00 24.60 - 24	4.58	D SPT	50 (4,7/50 ⁻ 208mm)		100								24 -
Hele B'			Coo!-	Diameter				CI-:	olling				ing Eluch	25 —
Depth Base	meter Diameter	Depth	Casing n Base	Diameter Diameter	Depth	Тор	Depth Ba		elling Duration	Тос	ıl		100 100	100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was scheduled to be drilled to 25.00 m, however under the instruction of Sweco the borehole was terminated at 30,60 m. The borehole was installed from ground level to 7.00 m bgl with plain pipe and from 7.00 m bgl to 9.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 7.00 m bgl with bentonite, from 7.00 m bgl with gravel, and with bentonite from 9.00 m bgl to the base of the borehole. The borehole was finished with a flush cover cemented into place. SPT Hammer Ref: P2011130 (R9) (Fraste) & 12-4 (Dando 3000).

	Ч						L	Je	ep	RO	rer	1OI	e L	.og				
	t Name	: Wansfor	rd to	Sutton	Dua ll ing	Clien	nt: Gal	liford 7	Ггу				Date: 1	4/02/20	022 - 0	7/03/20	22	
Location		усл				Cont	ractor	: Swed	co				Co-ord	s: E508	970.99	N2996	639.67	
Projec	t No. : (GT0386				Crew	/ Nam	e: AE	/ LW+	DB / MC			Drilling	Equipn	nent: F	raste	Dando 30	00
Bore	ehole N BH11				Type RC			eve l m AOI	D		gged By i / MWD			Scale 1:25			Page Nur Sheet 6	
Well	Water		nple a		Situ Testing			Coring		Legend	Depth			Stratun	n Descr	ription		
	Strikes	Depth (m)	Туре	Results		TCR	SCR	RQD		(Level)		y stiff pre				tod dark	
		25.50 - 2 25.50		D SPT	N=45		100					grey ligh	y stiii pre y slightly t grey slig Il fragmei	fossilifer htly calc	ous CL careous	AY with o	occasional	
		26.00 - 20	6,15	CS	(4,5/7,9,12,	17)	66											26
											26.50 (-6.30)	AZC	CL					
		27.00 - 2 27.00		D SPT	50 (5,7/50 221mm)	for					27.00 (-6.80)	grey ligh nod to 3 mm	t grey slig ules (up 0 mm x 1	fossilifer ohtly calc to 10 mn mm) ar . 3no coi	ous CL careous n x 10 n nd shell	AY with one cement of the ceme	occasional	
		27.70 - 2	7.85	CS			100											28
		28.50 - 26 28.50		D SPT	50 (3,7/50 151mm)													29 —
		29.10 - 2	9.33	CS			100											-
		30.00 - 3	0.60	D		}												30 -
	Hole Diam			Casing	Diameter				Chis	elling		<u> </u>			Dri	lling Flush		
Depth E		Diameter	Dept	h Base	Diameter	Dept	th Top	Depth		Duration	Too	ol	Depth Top (m 25.00 25.50 27.00 28.50	Depth Base (r 25.50 27.00 28.50 30.00	Flush Ty Water Water Water Water	/pe Flush Co	100 100 100 100 100	Max (%) 100 100 100 100
Rema	ırks													I	1	 		1
Prior to d instruction slotted pi	rilling the p n of Sweco pe. The bo	the borehole rehole was ba	was te	rminated from gro	s and a hand dug at 30.60 m. The b ound level to 7.00 r with a flush cover o	orehole m bgl wi	was ins ith bento	talled froi nite, from	m ground n 7.00 m	l level to 7.00 i bgl to 9.00 m b	m bgl with բ ogl with gra	plain pipe vel, and	e and from twith benton	7.00 m bgl ite from 9.0	to 9.00 m	bgl with		

	G	7					Эе	ep	Во	reh	ol	e L	og				
Projec	ct Name ementa	: Wansfor	d to Sutte	on Dua ll ing	Clie	nt: Gal	lliford ⁻	Try				Date: 1	4/02/20	022 - 07	/03/202	2	
Locati		,			Con	tractor	: Swe	со				Co-ord	s: E508	3970.99	N29963	9.67	
Projec	et No. : (GT0386			Crev	w Nam	ne: AE	/ LW+	DB / MC			Drilling	Equipr	nent: Fr	aste D	ando 300	00
Bor	ehole N		Ho	ole Type RC			eve l)m AO	D		gged By 3 / MWD			Scale 1:25	•		age Num Sheet 7 o	
Well	Water Strikes			n Situ Testino		TOP	Coring		Legend	Depth (Level)			Stratur	n Descrip	otion		
Well		Depth (in 30.00	m) Typ	e Result	s 50 for	TCR	SCR	RQD	Legend		grey light nodu to 30 mm	slightly t grey slig ules (up t) mm x 1 x 5 mm). x 10 mm	dominar fossilifer phtly cald to 10 mr mm) ar . 3no co	ntly thinly rous CLA careous on m x 10 mind shell fr	laminate Y with occemented m) silt pa ragments i-valves (casional I silt rtings (up i (up to 3	31 - 32 - 34 - 34 - 34 - 34 - 34 - 34 - 34
Depth	Hole Diam Base	ieter Diameter	Casi Depth Bas	ng Diameter e Diameter	Dep	oth Top	Depth		elling Duration	Тос	ol	Depth Top (m)	Depth Base (e	_	ng Flush e Flush Colou	ır Min (%)	35 —
instruction slotted p	drilling the point of Sweco	the borehole rehole was ba	was terminat ckfilled from	ices and a hand du ed at 30.60 m. The ground level to 7.00 d with a flush cove	borehol m bgl v	e was ins vith bento	stalled fro onite, fron	m ground n 7.00 m	l level to 7.00 bgl to 9.00 m	m bgl with p bgl with gra	plain pipe vel, and v	and from 7 vith benton	7.00 m bgl ite from 9	to 9.00 m b	al with		<u> </u>



BH117

Project:

Wansford to Sutton Dualling Supplementary GI

Project I



BH117 6.00 m to 7.50 m



BH117 7.50 m to 9.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH117 Project



BH117 9.00 m to 10.50 m



BH117 10.50 m to 12.00 m



BH117

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH117 12.00 m to 13.50 m





BH117

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386









Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH117

Project ID:



BH117 18.00 m to 19.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH117 Project ID:



BH117 21.00 m to 22.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH117 Project ID:



BH117 24.00 m to 25.50 m





BH117

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

GT0386



BH117 27.00 m to 28.50 m



- (ᆁ					L	Je	ep	Bo	ren	Ole	e L	.og				
Project N Supplem		Wansford v GI	to Suttor	n Dua ll ing	Clier	nt: Ga	l l iford ⁻	Try				Date: '	14/02/2	022 - 16	/03/2022	2	
Location		,			Con	tracto	r: Swe	со				Co-ord	ls: E50	8940.35	N29959	2.82	
Project N	No. : 0	ST0386			Crev	v Nam	ne: DB	/ MC+	AE / LW			Drilling	g Equip	ment: Da	ando 300	00 Fras	te
Boreh	ole N BH118			e Type RC			evel 3m AO	D		gged By 3 / MWD			Scale 1:25			age Num Sheet 1 o	
	Vater trikes	Samp Depth (m)		Situ Testing Results	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratu	m Descrip	otion		
		0.20	В	Results		TOIL	6614	The state of the s		(14.48)	GRA fine t subr	VEL wit to coars	h comm e. Grave	ayey sligh on fine ro el is suba coarse flin	otlets. Sa ngular to	and is	
		0.50	ES							0.50 (13.98)	silty Grav	very gra el is sul	avelly SA	r to subro	d is fine t	o coarse.	
		1.00 1.00 1.50 - 2.00	B ES D B														1
		1.50	cSPT	N=25 (2,4/4,4,5,	12)												2 -
Ad	Vater dded 100 I	2.50 - 3.00 2.50	B cSPT	N=38 (3,5/5,9,10	,14)					2.50 (11.98)	is fin	e to coa	arse. Gra	ery sandy avel is sul coarse lim	bangular	to	3
		3.50 - 4.00 3.50		N=16 (2,3/3,	3,5,5)					3.50 (10.98)	and	GRAVE	L. Sand	ense brow is fine to unded fin	coarse. C	Gravel is	4 —
		4.50 - 5.00 4.50		N=22 (2,4/4,	5,6,7)					4.50 (9.98)		ium den e and m		brown cla	ayey SAN	D. Sand	5
	le Diame			Diameter Diameter		th To-	Darri		elling			Doort T. C.			ng Flush	NA:- (0/)	Mar. (0/)
Depth Bas	ber L	Diameter D	epth Base	Diameter	рер	th Top	Depth	Dase	Duration	Too	JI	Depth Top (m	Depth Base (miriusn lyr	e Flush Colou	m Min (%)	Max (%)
Remark		nosition was	cleared of a	services and a h	and di-	a inena	ction nit	to 1 20 -	n carried co	ıt The harr	ahola wa	e termin	ated at O	5.60 m tha	target		
				services and a n ackfi ll ed with be										o.oo iii, the	arget		

	汇			[Эе	ep	Во	reh	ole	e L	og				
Project Na	ame: Wansfo	rd to Suttor	n Dua ll ing	Client: Ga	lliford ⁻	Try				Date: 1	4/02/20)22 - 16	/03/202	2	
Location:	, , , ,		(Contracto	: Swe	СО				Co-ord	s: E508	940.35	N29959	92.82	
Project No	o. : GT0386		(Crew Nam	ne: DB	/ MC+	AE / LW			Dril l ing	Equipn	nent: Da	ando 30	00 Fras	te
	le Number H118	•	e Type RC		eve l Bm AO	D		gged By 6 / MWD			Scale 1:25			age Num Sheet 2 o	
Well Wa		•	Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
	5.50 - 6 5.50	.00 В	N=24 (2,4/5,5,	6,8)						um dens		orown cla	yey SAN	ND. Sand	-
	6.10	В					X () () () () () () () () () (6.10 (8.38)	grey	mottled				to dark andy very	6
	7.00 - 7 7.00 7.60 - 7	SPT	N=25 (3,5/5,6,	7,7)			XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXX								7
				80			XXXX XXXX XXXX XXXX	7.82 (6.66) 8.20 (6.28)	thickl occas mate Grave	y lamina sional pe rial (up t el is sub se siltsto	ated sligh ockets of to 30 mn pangular	grey and htly grave f black lig n x 15 mi to subro o 40 mm	elly SILT gnitic org m). Sand unded fil	janic d is fine. ne to	8 - 1
	8.50 - 8 8.50	SPT	N=9 (2,2/2,2,2	2,3)				8.50 (5.98)	grey : vertic	slightly : al black	sandy Cl lignitic d	ĹAY/SIĹT	with oc naterial (possible	9
	9.57 - 9 10.00 - 1						R & X & X R & X & X R & X & X	9.80 (4.68) 10.00	AZCI	-					10
Hole Depth Base	Diameter Diameter	Casing Depth Base	Diameter Diameter	Depth Top	Depth		elling Duration	Too	ol T	Depth Top (m)	Depth Base (m	1	ng Flush Flush Colo	ur Min (%)	Max (%)
7.50 9.20	200 168	7.50 9.20	200 168	, <u>19</u>						7.00 8.50	8.50 10.00	Water Water		100	100
	ng the position wa		services and a har									60 m, the	target	1	ı

	Ч					L	Je	ep	Bo	rer	Ol	e L	og						
	t Name	: Wansfor	d to Sut	on Dua ll	ing C	lient: Ga	lliford ⁻	Try				Date: 1	4/02/20	22 - 16/	03/202	22			
Locati	on:	•			C	ontracto	: Swe	co				Co-ord	s: E508	940.35	N2995	92.82			
Projec	et No. : (GT0386			Cı	rew Nam	ne: DB	/ MC+	-AE / LW			Drilling	Equipm	nent: Da	ındo 30	000 Fraste			
Bor	ehole N		Н	ole Type RC			eve l 8m AO	D		gged By i / MWD			Scale 1:25			Page Numb Sheet 3 of			
Well	Water Strikes			In Situ T		TOD	Coring		Legend	Depth (Level)			Stratum	Descrip	tion				
		Depth (r 10.00			Results (1,2/2,3,5,	,7)	SCR	RQD		(4.48)	Stiff	predomi					 		
		10.60 - 10				100	28	14		10.60 (3.88) 11.00 (3.48)	Very grey foss dark 20 n Stiff occa +/- 3 grey with	which is strong to the first of the tone of the first of	o extrem nedium g LIMESTC d class oo occasion (Slightly nantly incher ses) dark (http://orantly.orantl	ely stron rained si DNE with f siltston al calcite weather distinctly ally thinly grey with elly fossi rey cem	g light a lightly inclusive (up to e veins (red Gra laminat selight gliferous ented ca	and dark ons of 40 mm x up to 15 de II). ied ted (up to greenish CLAY alcareous	11 -		
		11.50 - 11 11.50			(3,4/5,6,7,	100					part mm	up to 45 ings of lig). Gravel rse siltsto	ght grey o is subrou	calcareou unded to	us silt (1 rounde	10 mm x 2 d fine to	12 -		
		12.80 - 13				100				12.40 (2.08)	occa +/- 3 grey CLA cem	Very stiff predominantly indistinctly laminated occasionally horizontally thinly laminated (up to +/- 30 degrees) dark grey with slight greenish grey hue fossiliferous slightly sandy very silty CLAY with occasional nodules of light grey cemented calcareous silt (up to 45 mm x 20 mm) and occasional partings of light grey							
		13.00 - 13 13.00	3.45 E	т	N=31 /6,7,8,10)	100									,		13		
		14.20 - 14	i.50 C	6													14 -		
		14.50 - 14 14.50	1.95 E	т	N=33 //7,7,8,11)												15		
	Hole Diam	eter T	Cas	ing Diamete	r I			Chie	elling			I		Drillir	ng Flush				
Depth I		Diameter	Depth Ba			Depth Top	Depth		Duration	Too	ol	Depth Top (m) 10.00 11.50 12.20 13.00	Depth Base (m 11.50 12.20 13.00 14.50		Flush Cold	100 100 100 100 100	Max (%) 100 100 100 100		
Rema	 arks						<u> </u>							,					
Prior to	drilling the	e position wa pleted the bo												60 m, the	target				

	G				L	Эe	ep	Во	reh	ol	e L	.og				
	t Name	: Wansford t	o Suttor	n Dua ll ing	Client: Ga	lliford ⁻	Try				Date: 1	4/02/20	22 - 16	/03/202	2	
Locati		,			Contracto	r: Swe	со				Co-ord	s: E508	940.35	N29959	92.82	
Projec	t No. : (GT0386			Crew Nam	ne: DB	/ MC+	-AE / LW			Drilling	Equipm	nent: Da	ındo 30	00 Frast	e
Bor	ehole N			e Type RC		evel 3m AO	D		gged By i / MWD			Scale 1:25			age Numl Sheet 4 of	
Well	Water Strikes	Sample	e and In	Situ Testing		Coring		Legend	Depth (Level)				n Descrip			
	Otrikos	Depth (m)	Туре	Results	TCR	SCR	RQD		l		/ stiff pre	dominan	tlv indisti	nctly lan	ninated	-
		15.80 - 16.00 16.00 - 16.4 16.00		N=48	100					+/- 3 grey CLA cem mm	asionally 80 degree 4 hue foss Y with oce ented ca) and occ areous s	es) dark (siliferous ccasional lcareous casional p	grey with slightly: nodules silt (up to partings	slight g sandy ve of light of 45 mn	ery silty grey n x 20	16 —
		16.50 - 16.8	O CS	(3,6/6,10,14,	100											17 -
		17.50 - 17.9 17.50		N=22 (2,4/4,4.	,6,8)				17.60 (-3.12)	indis thinl grey grav nodi (up	Stiff becoming very stiff predominantly indistinctly laminated occasionally horizontally thinly laminated (up to +/- 30 degrees) dark grey with slight greenish grey hue slightly gravelly fossiliferous CLAY with occasional nodules of light grey cemented calcareous slit (up to 45 mm x 20 mm) and occasional parting of light grey calcareous silt (10 mm x 2 mm).					
		18.70 - 19.00 19.00 - 19.4			100					silts 17.90 stron grain	tone (up 0 m to 1 g light a ed sligh	to 70 mn 8.10 m v and dark atly fossi	n_x 20 m very stro grey fin liferous	nm) ong to e ne to me limesto	to coarse extremly edium one with f siltstone	
		19.00	SPT	N=43 (5,6/7,8,12,1	100											20
	Hole Diam	eter	Casing	Diameter			Chis	elling		<u> </u>	<u></u>		Drilli	ng Flush		<u> </u>
Depth E			epth Base	Diameter	Depth Top	Depth		Duration	Too	ol	Depth Top (m) 14.50 16.00 17.50	Depth Base (m 16.00 17.50 19.00	Flush Typ polymer polymer polymer	1	ur Min (%) 100 100 100	Max (%) 100 100 100
	drilling the			services and a ha									60 m, the	target	1	

	Ч						L	Je	ep	Bo	reh	ole	e L	og				
	t Name ementa	: Wansfor	d to S	Sutton	Dualling	Client	: Gal	liford ⁻	Ггу				Date: 1	4/02/20	22 - 16/	03/2022	2	
Locati		7-1				Contra	actor	: Swe	СО				Co-ord	s: E508	940.35 I	N29959	2.82	
Projec	t No. : 0	GT0386				Crew	Nam	e: DB	/ MC+	AE / LW			Drilling	Equipm	nent: Da	ndo 300	00 Frast	e
Bor	ehole N BH11				Type RC	1		eve l m AOI	D		gged By 6 / MWD			Scale 1:25			age Numb Sheet 5 of	
Well	Water Strikes			nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratum	Descrip	tion		
		Depth (20.35 - 20 20.50 - 20 20.50	0.50 0.95	CS D SPT	N=49 (3,6/7,11,14,				- New York			indis thinly grey grave nodu (up t of lig Grav	tinctly la y laminat with slig elly fossi ules of lig to 45 mm tht grey o	calcareou	occasion b +/- 30 d ish grey I CLAY with cemented n) and ocus us silt (10 to round	ally horizegrees) The slighth occasion	dark otly onal ous silt I partings	21
		21.86 - 2		CS			100											21
		22.00 - 2: 22.00		D SPT	50 (4,7/50 f 163mm)		100											22
		23.33 - 23 23.50 - 24 23.50	4.16	CS D SPT	N=50 (4,7/50 284mm)) for												11111111111
		24.00 - 2	4.10	cs			100											24 -
		25.00 - 2	5.60	D		\vdash]							25 -
Depth	Hole Diam	eter Diameter	Depth		Diameter Diameter	Depth	Ton	Depth		elling Duration	Too		Depth Top (m)	Depth Base (m		g Flush Flush Colou	ır Min (%)	Max (%)
⊅epth	Dase	Jameter .	∪epth	Dase	Diameter	⊔eptn	гор	Depth	D4SE	Duration	100	JI .	19.00 20.50 22.00	20.50 22.00 25.00	polymer polymer polymer polymer	riusn Colou	100 100 100 100	100 100 100 100
Rema	arke															<u> </u>		
Prior to	drilling the	e position wa pleted the bo	as clear orehole	ed of so was ba	ervices and a ha ackfilled with ben	ind dug itonite. S	insped SPT H	ction pit ammer	to 1.20 Ref: P20	m carried ou 011130 (R9)	t. The bore (Fraste) &	ehole wa 12-4 (D	as termina ando 300	ated at 25.	60 m, the	target		

G					De	ер	Во	reh	ol	e L	og				
Project Name		<u>l</u> rd to Suttor	n Dua ll ing	Client: C	alliford	Try				Date: 1	4/02/20	22 - 16/	03/2022	 2	
Supplemental Location:	гу (ы			Contrac						Co-ord:	s: E508	940.35	N29959	2.82	
Project No. : 0	GT0386			Crew Na	ıme: DB	/ MC+	AE / LW			Drilling	Equipm	nent: Da	ndo 300	00 Fras	te
Borehole N BH11		•	e Type RC	14.	Leve l 48m AO	D		gged By 6 / MWD			Scale 1:25			age Num Sheet 6 o	
Wall Water			Situ Testing		Coring		Legend	Depth				n Descrip			
Strikes	Depth (25.00		Results N=50 (5,8/5		R SCR	RQD	Logona	(Level)	Stiff	becomin		iff predoi			\perp
			228mm)					25.60	indis thinly grey grav nodu (up t of lig Grav	tinctly lar y laminat with slig elly fossi lles of lig o 45 mm ht grey o vel is sub one (up t	minated ed (up to ht green liferous (ht grey o x 20 mr calcareou rounded	occasion o +/- 30 c ish grey CLAY wit cemented n) and ocus us silt (10	ally horizilegrees) hue sligh h occasion calcare casiona mm x 2 led fine to m)	dark atly onal ous silt I partings	26 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3
Hole Diam			Diameter				elling						ng Flush		
Remarks Prior to drilling the	Diameter e position w	Depth Base	Diameter Diameter	Depth To	pection pit	to 1.20	Duration m carried ou	t. The bore	hole wa	Depth Top (m)	ted at 25.	Flush Typ		Min (%)	Max (%)



BH118

Project:

Wansford to Sutton Dualling Supplementary GI

Project



BH118 7.00 m to 8.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH118 Project ID:



BH118 10.00 m to 11.50 m



BH118 11.50 m to 13.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH118 Project ID:



BH118 13.00 m to 14.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH118 Pro



BH118 16.00 m to 17.50 m



BH118 17.50 m to 19.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH118



BH118 19.00 m to 20.50 m





BH118

Project:

Wansford to Sutton Dualling Supplementary GI

Project



BH118 22.00 m to 23.50 m



	뎩						L	Je	ep	BO	rer	101	еL	.og				
Project Supple			rd to S	Suttor	n Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 1	14/03/20	022 - 18/	/03/202	2	
Locatio		y () !				Cont	tractor	: Swe	со				Co-ord	ls: E508	3480.34	N29971	4.13	
Project	No. : 0	GT0386				Crev	v Nam	ie: MG	/ GC				Drilling	Equipn	nent: Be	retta T	14	
Bore	hole N BH11	umber 9			e Type RC			eve l Im AOI	D		gged By 6 / MWD			Scale 1:25			age Num Sheet 1 c	
	Water Strikes	Sar Depth		nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descrip	otion		
		0.10 - 0 0.50 - 0	0.20	ES ES PID	PID = 0 pp	om					0.50 (16.90)	is si flint. Ver	ubangula	ir and su	slightly sa	d fine and	d medium	
		1.20 - 2 1.20 1.30 - 1	2.20	С	N=22 (4,4/4,6	5,6,6)					1.20 (16.20)	Sub Brov grav	engular a	and subro	ounded fi	vey silty vo coarse.	Gravel is	1 -
		1.70 - 1	.80	D B			100				1.90 (15.50)	1.65 1.80 Medicalo	m to 1.8 m to 1.9 lium den areous s	80 m gra 90 m ora se orang slightly sa	_ `	<i>prown, v</i> n slightly VEL with	ery sano	<u>-</u>
		2.20 - 3 2.20		C SPT	N=24 (8,4/3,5,5,1		100					CLA to re lime cald sligh	Y. Sand ounded fi stone. C areous b	is fine to ne and n lay beds brown an elly, some	coarse. nedium c are firm d grey sli etimes la	Gravel is hert and slightly ghtly sar	angular ndy	3
		3.20 - 4 3.20 - 4 3.20	.20	B C SPT	N=28 (4,4/4,6,10,	,8)	100											4-
		4.20 - 5 4.20 4.50 - 4		C SPT D	N=38 (4,6/6,9,11,	12)	85				(13.20) 4.35		<i>m to 4.</i> recovery.		<u> </u>	elly clay		
		4. 90 - 5	5.20	cs							4.80 (12.60)		n grey Cl ings and		light grey ces.	/ and bro	own	5
H Depth Ba	ole Diam	eter Diameter	Depth	Casing Base	Diameter Diameter	Dep	th Top	Depth		selling Duration	То	ol	Depth Top (m 1.20 2.20 3.20) Depth Base (r 2.20 3.20 4.20	Drillin Flush Typ Air/Mist Air/Mist Air/Mist	ng Flush Flush Color yellow yellow yellow	Min (%) 100 100 100	Max (%) 100 100 100
to complete backfilled f	lling the p e the core rom grour	run. The bo	rehole wa 2.00 m bo	as instlle gl with be	es and a hand dug ed from ground leve entonite, from 12.0 tto place with conci	el to 12 0 m bg	2.00 m bo Il to 16.00	l with pla m bgl w	ain pipe a /ith grave	and from 12.00	m bgl to 16	3.00 m b	gl with slotte	ed pipe. Th	e borehole v	was	<u> </u>	I .

	Ч)e	ep	Bo	rer	ol	e L	og				
	ct Name ementa		d to Sutto	n Dua ll ing	Client: Ga	l l iford	Try				Date: 1	4/03/20	22 - 18/	03/2022	2	
Locati		•			Contracto	r: Swe	со				Co-ord	s: E508	480.34 1	N29971	4.13	
Projec	ct No. : 0	GT0386			Crew Nan	ne: MG	G / GC				Drilling	Equipm	nent: Be	retta T4	4	
Bor	ehole N		Но	le Type RC	1	evel Om AO	D		gged By 6 / MWC			Scale 1:25			age Num heet 2 of	
Well	Water Strikes	Sam	·	n Situ Testing		Coring		Legend	Depth (Level)				n Descrip			
		Depth (r	m) Type	Results	TCR	SCR	RQD			Firm	n grey CL	.AY with	ight grey	and bro	wn	+
		5.20 - 6. 5.80 - 6. 6.20 - 7. 6.40 - 6.	10 CS 20 C		100				5.10 (12.30)	Firm grey (<20 (De: 5.20 distu	ings and no stiff ky CLAY wo on the structure m to 5.4 rbed, wire overlying	ocally land with frequently degreed Grade of Grade of Grade of Grade	ninated (5 ent order crumbly D). nificantl	ed lithore texture/f y soften oly brou	elics fabric.	6
					100					6.70 motti	m to 6.8 led	80 m slig	_ ghtly yell	lowish b	rown	7 -
					100											8
		8.20 - 9.			45											
		9.00 - 10	.50 C		100											9
									•							10 -
Depth I	Hole Diam Base	eter Diameter	Casin Depth Base	g Diameter Diameter	Depth Top	Depth		elling Duration	То	ol	Depth Top (m)	Depth Base (m	Drillin Flush Type	g Flush Flush Colou	Min (%)	Max (%)
_ 0,501						20001				-	4.20 5.20 6.20 8.20	5.20 6.20 7.20 9.00	Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist	yellow grey grey grey grey	100 100 100 100 100	100 100 100 100
to comple backfilled	drilling the p ete the core d from grou	e run. The bore nd level to 12.0	ehole was inst 00 m bgl with	ces and a hand dug lled from ground le bentonite, from 12. into place with cond	vel to 12.00 m b 00 m bgl to 16.0	gl with pla 0 m bgl v	ain pipe a vith grave	nd from 12.00	m bgl to 16	6.00 m b	gl with slotte	ed pipe. The	borehole v	vas		

	G)ee	p	Во	reh	ol	e L	og				
Projec	ct Name ementa	: Wansfor	d to Si	utton	Dua ll ing	Clier	ıt: Gal	liford Try	y				Date: 1	4/03/20	22 - 18/0)3/2022	2	
Locat		y v 11				Cont	ractor	: Sweco					Co-ord	s: E5084	480.34 N	129971	4.13	
Proje	ct No. : (GT0386				Crew	/ Nam	e: MG /	GC				Dril l ing	Equipm	ent: Ber	etta T4	4	
Boi	ehole N BH11				e Type RC			eve l m AOD			gged By / MWD			Scale 1:25			ige Num heet 3 of	
Well	Water Strikes	Sam Depth (r		nd In Type	Situ Testing Results		TCR	Coring SCR F	RQD	Legend	Depth (Level)			Stratum	Descript	ion		
		10.50 - 12	2.00	С			100					grey (<20	CLAY w mm). Fr	ith freque	ninated (5 ent ordere crumbly D),	ed lithore	elics	11 11
		12.00 - 13		С			100											12
		13.50 - 18		С			100											14
	Hole Diam				Diameter				Chis	elling					Drilling	g Flush		
Depth	Base	Diameter	Depth I	Base	Diameter 121	Dept	h Top	Depth Ba		Duration	Too	ol	9.00 10.50 12.00 13.50	Depth Base (m 10.50 12.00 13.50 15.00			Min (%) 100 100 100 100	Max (%) 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 26.00 m, slightly below the target depth to complete the core run. The borehole was instilled from ground level to 12.00 m bgl with plain pipe and from 12.00 m bgl to 16.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 12.00 m bgl with bentonite, from 12.00 m bgl with gravel, and with bentonite from 16.00 m bgl to the base of the borehole. The install was finished with a tophat cover secured into place with concrete. SPT Hammer Ref: SIS1.

G	Г			[Deel	o Bo	reh	ole L	og				
Project Name Supplementa	e: Wansfor	d to Suttor	n Dua ll ing	Client: Gal	liford Try		Date: 1	Date: 14/03/2022 - 18/03/2022					
Location:	· y			Contractor	: Sweco		Co-ord:	Co-ords: E508480.34 N299714.13					
Project No. :	GT0386			Crew Nam	ie: MG / G	<u> </u>	Drilling	Drilling Equipment: Beretta T44					
Borehole N BH11		Hole F		evel Im AOD		gged By 3 / MWD		Scale 1:25		Page Number Sheet 4 of 6			
Well Water Strikes	Sam Depth (r		Situ Testing Results		Coring	Legend	Depth (Level)		Stratum	Descripti	on		
	Ворил		7100010	100				Firm to stiff k grey CLAY w (<20 mm). Fr (Destructured	rith freque requently	nt ordere	d lithore	lics	16 —
	16.50 - 17			100									
	17.00 - 18			100									18
	18.50 - 20 20.00 - 21			95									19
Hole Diam	L		Diameter			niselling				Drilling	Flush		1
	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Too	Depth Top (m) 15.00 16.50 17.00 18.50	Depth Base (m) 16.50 17.00 18.50 20.00	Flush Type Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colour grey grey grey grey	Min (%) 100 100 100 100	Max (%) 100 100 100 100

Remarks

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 26.00 m, slightly below the target depth to complete the core run. The borehole was instilled from ground level to 12.00 m bgl with plain pipe and from 12.00 m bgl to 16.00 m bgl with slotted pipe. The borehole was backfilled from ground level to 12.00 m bgl with bentonite, from 12.00 m bgl with gravel, and with bentonite from 16.00 m bgl to the base of the borehole. The install was finished with a tophat cover secured into place with concrete. SPT Hammer Ref: SIS1.

	G						De	ep	Bo	reh	ole L	.og					
Project Name: Wansford to Sutton Dualling Supplementary GI					Client: Galliford Try						Date: 14/03/2022 - 18/03/2022						
Location:						Contractor: Sweco						Co-ords: E508480.34 N299714.13					
Project No. : GT0386						Crew Name: MG / GC						Drilling Equipment: Beretta T44					
Bor	Borehole Number Hole Type BH119 RC					Level Om AC)D		Logged By CG / MWD		Scale 1:25		Page Number Sheet 5 of 6				
Well	Well Water Sa		mple and In Situ Testing (m) Type Results		TCF	Corin		Legend	Depth (Level)	Stratum Description							
		Depth ((11)	туре	results	100		INGE			Firm to stiff k grey CLAY w (<20 mm). Fi (Destructure	rith frequ requently	ent ordere	ed lithore	elics	21 -	
		21.50 - 2	23.00	С		100										22 —	
		23.00 - 2		С		75										23	
Depth E		eter Diameter 121		C Casing h Base	<u>Diameter</u> Diameter	Depth Top	Depth	Chi:	selling Duration	Toc	20.00	Depth Base (n 21.50	Flush Type Air/Mist	grey	Min (%)	25 Max (%)	
											21.50 23.00	23.00 24.50	Air/Mist	grey grey	100 100	100 100	
Rema																	
to complete	ete the core	e run. The bor nd level to 12	rehole v 2.00 m b	vas inst ll e gl with b	ed from ground lev	el to 12.00 m 00 m bgl to 16	bgl with pl .00 m bgl	lain pipe a with grave	and from 12.00	m bgl to 16	inated at 26.00 m, s .00 m bgl with slotte 16.00 m bgl to the l	ed pipe. The	e borehole w	/as			

	Deep Borehole Log											
Project Name: Wansford to Sutton Dualling Supplementary GI					Client: Galliford Try						Date: 14/03/2022 - 18/03/2022	
Location:						Contractor: Sweco						Co-ords: E508480.34 N299714.13
Project No. : GT0386						Crew Name: MG / GC						Drilling Equipment: Beretta T44
Borehole Number Hole Typ BH119 RC				17.		.eve l 0m AOD		Logged B CG / MWI				
Well	Water Strikes			d In	Situ Testing Results	тс	_	Coring	RQD	Legend	Depth (Level)	Stratum Description
		Depth (((1))	уре	Results	10		900	Z D		26.00	Firm to stiff locally laminated (5-10 degrees) grey CLAY with frequent ordered lithorelics (<20 mm). Frequently crumbly texture/fabric. (Destructured Grade D).
												27 — 28 — 29 —
Depth		eter Diameter	C Depth E		Diameter Diameter	Depth To	p	Depth		elling Duration	Тос	Drilling Flush
to compl backfilled	Irilling the pete the core	run. The bo	rehole was 2.00 m bgl v	inst ll e with be	d from ground lev	el to 12.00 m 00 m bgl to 10	bgl : 6.00 i	with pla m bgl w	in pipe a ith grave	nd from 12.00	m bgl to 16	minated at 26.00 m, slightly below the target depth 16.00 m bgl with slotted pipe. The borehole was m 16.00 m bgl to the base of the borehole. The



Project:

Wansford to Sutton Dualling Supplementary GI

BH119 F



BH119 1.20 m to 3.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH119

Project ID:

GT0386







BH119 7.20 m to 9.00 m



BH119

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ject ID: GT0386









BH119

Project:

Wansford to Sutton Dualling Supplementary GI

Project



BH119 12.00 m to 13.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH119 Project







BH119 17.00 m to 18.50 m



BH119

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH119 18.50 m to 20.00 m





Project:

Project ID:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH119





BH119 21.50 m to 23.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH119

Project ID:



BH119 24.50 m to 26.00 m

G				L	Je	ep	, Ro	ren	OI	е∟	og					
Project Name		to Suttor	n Dua ll ing Cli	ient: Ga	lliford ⁻	Try				Date: 0	1/03/20	22 - 08	3/03/20)22		
_ocation:	иу си		Co	ontracto	r: Swe	со				Co-ord	s: E508	943.03	N299	531.6	9	
Project No.:	GT0386		Cr	ew Nan	ne: MG	G / GC				Drilling	Equipm	nent: B	eretta ˈ	T44		
Borehole N			e Type RC		evel 7m AO	D		gged By 3 / MWD			Scale 1:25		_	Page	Numb	
Well Water	Samp		Situ Testing		Coring		Legend	Depth				n Descri	ption	Once	1 01	Ť
Strikes	Depth (m		Results	TCR	SCR	RQD		(Level) (13.47)	Dor	k brown c				ith oon		—
	0.10 0.20 - 0.3 0.30 - 0.7 0.50 0.50 0.60 - 0.7	ES D B B ES						0.50 (12.97)	fine sub-	rootlets. angular to wn and ye velly SAN angular to	Sand is to subrounce the subro	fine to conded fine to conded fine to condens fine to condens to c	oarse, le to co layey s o coars	Gravel arse fli ilty ver se, Gra	is nt. y vel is	-
	1.10 1.20 1.20	B ES SPT	N=24 (3,4/7,6,5,1	6)				1.10 (12.37)	low Gra	nt brown s cobble co vel is sub and limes	ontent. S angular	and is fi to round	ine to c ded fine	oarse. to coa	ırse	1 -
	1.40 - 1.5 1.50 - 2.0			100				1.50 (11.97)	Ligh sand is fir sub	estone. It yellowis It yellow	sh brown EL with I rse. Grav fine to co	and gre ow cobb vel is su parse flir	ey sligh ble cont bangula nt and li	tly clay tent. Sa ar to	ey and	_
	2.00	SPT	N=26 (3,5/6,6,7,													2.
	2.50 - 2.6 2.50 - 3.0	0 B		70				2.70 (10.77)	No	recovery.						_
	3.00	SPT	N=24 (3,4/6,5,7,	6)				3.00 (10.47)	Ligh san	nt brown a	and grey EL with I	slightly ow cobb	clayey	slightly tent. S	, and	3
	3.20 - 3.3	0 D							is fir sub san	ne to coar rounded t dstone ar angular li	rse. Grav fine to co nd mudst	vel is an parse flir tone. Co	gular to nt, limes	stone,		
	3.50 - 4.0	0 B		60				3.60 (9.87)	No	recovery.						-
	4.00	SPT	N=14 (2,3/3,4,3,4	4)				4.00 (9.47)	GR/ mm sub	wn and gr AVEL with). Sand is angular to Iimeston	n pockets s fine to d o rounde	s of dark coarse.	grey s Gravel	ilt (< 5 is		4
	4.50 - 4.6 4.50 - 5.0 4.90 - 5.0	0 B		100												
	<u></u>		<u> </u>				the property the									5 -
Hole Diar			Diameter Diameter D	epth Top	Depth		elling Duration	Too	ı	Depth Top (m)	Depth Base (m	Drill Flush Ty	ing Flush		in (%)	Max (%
Debrii Base	Diameter	Depth Base	Diameter D	еріп ІОР	Depth	Dase	Duration	100	1	vepth lop (m)	vepth Base (m	ariush ly	pe Flush C	piour M	ii1 (%)	iviax (9
level using rotary was terminated a	y techniques, h at 15.00 m whic	owever the l	services and a hand borehole was termin arget depth. The bor the borehole with be	ated at 5.0 ehole was	00 m bgl backfille	I due to ed unde	the casing be r the instruct	ecoming ja ion of Swe	mmed. co fron	The boreh	nole was r	eposition	ed and			

oject Name polementa		rd to Sutto	n Dualling	Clier	nt: Ga	liford ⁻	Try				Date: 0	01/03/2	022 - (08/03	/2022		
ppiemental cation:	гу (ы			1		: Swe	-				Co-ord	ds: E508	3943.0	3 N2	99531	1.69	
ject No. : 0	GT0386			Crev	v Nam	ne: MG	G / GC				Drilling	Equipr	nent: I	Bereti	ta T44		
Borehole N	lumber	Но	le Type			evel			gged By			Scale)		Pa	ge Nu	
3H120 & B			RC		13.47	m AO		CG	6 / MWD) 		1:25			SI	neet 2	of 3
ell Water Strikes	Depth (n Situ Testing Results	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratur	m Desc	riptior	1		
	5.50 - 5 5.70 - 6				0				5.70	GR/ mm subs and 5.00 jamn	AVEL wit). Sand i angular t limestor m bgl - ned cas	BH120 ing - co	ts of da coarse ed fine — termir ntinue	rk gre Grav and m nated d as l	y silt (rel is nedium due t BH12	< 50 n flint o OA.	
	3.70-0	.00						XXXX XXXX XXXX	(7.77)			ey mottle Sand is		grey s	lightly	sandy	
	6.00 - 6 6.00 - 7				60				6.60 (7.47) 6.60 (6.87)	silty		se light l Sand is t				n browr	1
	7.00	SPT	· N=15 (1,1/2,	4,4,5)	0				(0.07)								
	7.50 - 9 7.50 7.82 - 8	SPT	N=19 (2,3/4,	4,6,5)					7.50 (5.97)	occa brov rand	asional p wn silt (u domly ori	ey mottle pockets o p to 15 r ientated I lignite (of ceme nm x 10 elonga	ented of 0 mm ted bla	orangis) and ack org	sh ganic	
	8.83 - 9	.00 CS			100	18	18		8.36 (5.11)	dark wea ligni	c grey fin	reak to m ne graine ossilifero ecompos nm).	d highl ous LIM	y to sli ESTO	ightly NE wi	th blac	
	9.00 - 10 9.00 9.20 - 9	SPT	50 (50 for 0m for 0mm						9.16 (4.31)	Stiff grey	predom occasio	inantly ir onally gre	ndistinc eenish	tly lam grey C	ninateo	d dark	
					80												
Hole Diam			g Diameter	_	4b T	D: "		selling				Ja	_	rilling Fl			<u></u>
oth Base	Diameter	Depth Base	e Diameter	Dep	th Top	Depth	Base	Duration	Too	ol	Depth Top (m 6.00 7.00 7.50	7.00 7.50 7.50 9.00	Flush Air/M Air/M Air/M Air/M	list list	sh Colour grey grey	Min (% 100 100 100	6) M

	G	П						Эе	ep) Bo	reh	10l	e L	.og				
Projec	t Name	: Wansfo	rd to	Suttor	n Dua ll ing	Clie	nt: Gal	liford T	ry				Date: 0	01/03/20	22 - 08/	03/2022	2	
Locati		,				Con	tractor	: Swed	ю				Co-ord	ls: E508	943.03 l	N29953	1.69	
Projec	t No. :	GT0386				Cre	v Nam	ie: MG	/ GC				Drilling	Equipm	nent: Be	retta T4	4	
	ehole N I 20 & B	lumber H120A			e Type RC			evel m AOE)		gged By 3 / MWD			Scale 1:25			ige Num heet 3 o	
Well	Water Strikes	Sar Depth		and In	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
		Берш	(111)	туре	rtesuits		1010	JUN	TOD			Stiff	f predomi y occasio	nantly ind	distinctly enish gre	laminate y CLAY.	d dark	
		10.50 - 1 10.50		C SPT	N=22 (3,4/5,6	5,6,5)					10.20 (3.27) 10.50 (2.97)	AZC Stiff grey	f predomi	inantly inc	distinctly enish gre	laminate	d dark	
		10.88 - 1	11.10	CS			40				11.10 (2.37)	AZC	DL .					11 -
		12.00 - 1 12.00		C SPT	N=23 (3,4/5,8	5,6,7)					12.00 (1.47)	grey	y occasio	nally gree	enish gre	y CLAY	with	12 -
		12.50 - 1	12.80	CS			100										,	13
		13.25 - 1 13.50 - 1		cs c														
		13.50 - 1 13.50	0	SPT CS	N=24 (4,4/5,6	6,6,7)												14 —
		14.72 - 1	15.00	CS			100											111111111111111111111111111111111111111
											15.00		F	nd of Bor	ehole at 1	15.00m		15
	Hole Diam				Diameter					selling				01 DOI	Drillin	ng Flush		
Depth I		Diameter 121		h Base 2.50	Diameter 121	Dep	th Top	Depth I	Base	Duration	Too	o <u>l</u>	9.00 10.50 12.00 13.50	Depth Base (m 10.50 12.00 13.50 15.00	Flush Type Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colou grey grey grey grey	Min (%) 100 100 100 100	Max (%) 100 100 100 100
Rema	L arke				<u> </u>	Ь—					L			1	1		I	

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was originally advanced from ground level using rotary techniques, however the borehole was terminated at 5.00 m bgl due to the casing becoming jammed. The borehole was repositioned and was terminated at 15.00 m which was the target depth. The borehole was backfilled under the instruction of Sweco from ground level to 0.50 m bgl with arisings and from 0.50 m bgl to the base of the borehole with bentonite. SPT Hammer Ref: SIS1 (Beretta) & 12-4 (Dando 3000).



Project:

Wansford to Sutton Dualling Supplementary GI

BH120 & BH120A

Project ID:



BH120 & BH120A 1.20 m to 3.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH120 & BH120A

Project ID:



BH120 & BH120A 5.00 m to 7.00 m



BH120 & BH120A 7.00 m to 9.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH120 & BH120A

Project ID:









Project:

Wansford to Sutton Dualling Supplementary GI

BH120 & BH120A

Project ID:



BH120 & BH120A 12.00 m to 13.50 m



	G						[Эе	ep	Во	reh	ol	e L	.og					
Project Supple			rd to Su	utton	Dualling	Clie	nt: Gal	liford ⁻	Try				Date: 3	30/03/20)22				
Locatio		усы				Con	tractor	: Swe	СО				Co-ord	s: E509	029.6	5 N2	9961	5.08	
Project	No. : 0	GT0386				Crev	v Nam	ne: JC	/ DL+	DB / MC			Drilling	Equipr	nent: E	3eret	tta T4	4 Dan	do 3000
Bore		umber			Туре			eve l Im AOI	n		gged By			Scale	!			ige Nur	
,	BH12 Water		nole an		RC Situ Testing		19.70	Coring			6 / MWD Depth			1:25				heet 1) 3
	Strikes	Depth (уре	Results		TCR	SCR	RQD	Legend	(Level)				n Descr				
		0.20 0.20		B ES							(19.70)	root angi	ets San	y gravell d is fine subangu ie.	to coar	se. G	3ravel	is	
		0.50 0.50		B ES							0.50 (19.20)	is fir subr	ne to coa	own clay rse. Gra fine and	vel is a	ngula	ar to	. Sand	
		1.00 1.00 1.50 - 2		B ES B							1.50								1 -
		1.50	c		N=16 (2,2/3,3	3,5,5)					2.00	clay coar fine	ey very s se. Grav and med	and bluis sandy Gf vel is sub lium flint	RAVEL. pangula and lim	. San r to s nesto	d is fir subrou one.	ne to nded	2
		2.50 - 2 2.50	∴95	D	N=25 (2,3/5,6	3,7,7)					(17.70)	SILT	Sand is	intly grav	coarse.			clayey	-
																			3
		N=50 (20,42 for 0mm)		70	30	0		3.50 (16.20)	with San	orange : d is fine ular and	ng light t staining and med subangu	sandy c lium. Re	oolitic ecov	c LIME ered a	STONE.				
		4.00 - 5 4.00		C SPT	N=50 (50 f 75mm/50 f 0mm)		43	20	20		4.00 (15.70)	more mate yello oolit Rec	e weathe erial is m owish bro ic LIMES overed a	ery. Core ered/wea ledium s bwn with STONE.: s angula 5 - 100 r	iker ma trong lig orange Sand is ar and s	terial ght bi stair fine	I. Reco rown a ning sa and m	overed and andy	- 4
H Depth Ba	Iole Diam ase	eter Diameter	Depth E		Diameter Diameter	Dep	th Top	Depth		selling Duration	Too	ol	Depth Top (m) Depth Base (r	ու Flush T		ush Coloui		
Dom -	rke.												3.50	4.00	Air/Mi	ist N	lo return	0	0
the target was back	rilling the t depth. ⁻ filled fro	Γhe borehol m ground le	e was ins vel to 1.0	sta ll ed 00 m b	ervices and a ha from ground le gl with bentonit ecured into plac	vel to ' e, from	1.00 m b 1.00 m	ogl with posts of the second	olain pir 5.00 m b	oe and from 1 ogl with grave	.00 m bgl I, and fron	to 5.00 n 5.00 n	m bgl witl n bgl to th	n slotted p e base wi	pipe. The	e hole			

	ᆁ				L	Jе	ep	BO	rer	101	е∟	og				
Project Na	ame: Wansfo	rd to Sutto	n Dua ll ing	Client:	Galli	ford 7	Try				Date: 3	30/03/20)22			
Location:	лиги у Си		,	Contra	ctor:	Swed	СО				Co-ord	s: E509	029.65	N29961	5.08	
Project No	o. : GT0386		,	Crew N	lame	: JC	/ DL+[OB / MC			Drilling	Equipn	nent: Be	retta T4	4 Dand	o 3000
	le Number H121	•	e Type RC	19	Le ¹	vel n AOI	D		gged By 6 / MWC			Scale 1:25			ge Num heet 2 o	
Well Wa	ikoo		Situ Testing	4		Coring		Legend	Depth (Level)			Stratun	n Descrip	tion		
		.50 CS .00 C cSPT .96 CS .96 CS		or mm)	CR	65	60	Legend	6.60 (13.10) 6.95 (12.75)	Parit morn mate yello colif Record fragg Very yello Disc spar roug 5.70 suba	e weather erial is mowish browning in LIMES overed a ments (2 / strong to the strong t	ery. Core red/wea edium st wwn with st TONE. s s angula 5 - 100 r o extrem wn ooliti es are 5 s 40/300) ned. (Ere 80 m red ragmen derately v eous SA es absen see to der lightly cla is fine a fine lime 00 m 2 r	e loss preker mate rong ligh orange s Sand is fir and sut nm). ely stron c LIMES - 10 degr probably sh Grade covered ts (20 m weak yell NDSTON t. (Fresh see yellow strone). Sube	sumed to rial. Recot to rown a taining sane and moangular glight brottone. To NE. ees medi open under 1). as angum to 80 owish brottone. Sand Grade I).	own and um dulating lar and mm)	
	9.00 - 10 9.00 - 9	cSPT	N=30 (2,3/5,7,		00											8
Hale	9.00 - 9 9.00 9.70 - 10	D.00 B	N=39 (2,9/9,9,10,1		00		Chin	elling	9.65 (10.05) (9.70)	yello San	owish bro	wn sligh and med	tly gravel ium. Gra stone.	d light gre ly clayey vel is sub	SAND.	10
Depth Base		Depth Base		Depth 1	ор	Depth		Duration	То	ol	Depth Top (m)	Depth Base (n	Flush Typ	Flush Colour	Min (%)	Max (%)
											4.00 5.50 9.00	5.50 7.00 10.00	Air/Mist Air/Mist Air/Mist	brown brown No return	100 100 0	100 100 0
the target de was backfille	ng the position was opth. The boreholed from ground le	e was installe vel to 1.00 m	services and a har d from ground leve bgl with bentonite secured into place	el to 1.00 , from 1.0	m bg 00 m b	I with pogl to 5	olain pip 5.00 m b	e and from 1 gl with grave	1.00 m bgl el, and fro	l to 5.00 m 5.00 r	m bgl with n bgl to the	n slotted p e base wit	ipe. The h	ole		

Project No. 1970/3956 Climit Galliford Try		뎩					L	Je	ep	, Ro	rer	IOI	e L	og				
Contractor Sweec Contractor Contractor Contractor Sweec Contractor				to Sutto	n Dua ll ing	Clie	nt: Gal	lliford [*]	Try				Date: 3	30/03/20	22			
Surphice Number Hole Type Level 13.70m AOD Cores 14.00m AOD 1.25 State Pope Number Pope Nu			у Сп			Con	tractor	: Swe	со				Co-ord	s: E509	029.65	N29961	5.08	
Surphic Number Hule Type Level 18.70m AOD Cog / MWD Scale Page Number Sheet Sheet 3 of 3	Project	No. : (GT0386			Cre	v Nam	ne: JC	/ DL+I	OB / MC			Drilling	Equipn	nent: Be	retta T4	4 Dand	o 3000
Water Water Depth (m) Type Republic Type T																	-	
Strikes Depth (m) Type Results Strikes Strikes Depth (m) Type Results Strikes Strikes Depth (m) Type Results Strikes Type Typ							19.70			CC				1:25		<u> </u>	heet 3 o	f 3
10.00 - 11.00 SPT N=50 N=50 (5.7%, 10.15, 10) SO N=50 (5.7%, 10.15, 10) So N=50							TCR		_	Legend				Stratum	n Descrip	otion		
10,80 - 11,00 B			10.00 - 11.0	0 C								yell	owish bro	wn sligh	tly grave	lly clayey	SAND.	
10,60 - 11,00					(5,7/9,10,15	,16)					10.20	fine	and med	<u>lium lime</u>		vel is sub	rounded	∬ ∄
11.00 - 12.00 Set 11.00 - 12.00 Set 11.00 - 12.00 Set 11.00 - 12.00 Set 12.00 - 13.00 Set 12.00 Set							00					"	10001013.]
11.00 - 12.00 SPT N=75 (5,1478 for 225mm) 100 12.00 - 13.00 B 12.00 - 13.00 C SPT N=63 (4,9/10,13,14,26) 100 13.05 12.00 - 13.00 C SPT N=63 (4,9/10,13,14,26) 100 13.05 13.00 - 13.50 D			10.60 - 11.0	0 B			80											=
11,00 - 12,00 SPT N=75 (5,1476 for 225mm) 100 12,00 - 13,00 B 12,00 - 13,00 C SPT N=63 (4,9/10,13,14,26) 100 12,00 - 13,00 C SPT N=63 (4,9/10,13,14,26) 100 13,00 - 13,50 D 13																		
11,00 - 12,00 SPT N=75 (5,1476 for 225mm) 100 12,00 - 13,00 B 12,00 - 13,00 C SPT N=63 (4,9/10,13,14,26) 100 12,00 - 13,00 C SPT N=63 (4,9/10,13,14,26) 100 13,00 - 13,50 D 13																		1 3
11.00 SPT N=75 (5,14/75 for 225mm) 100 12.00 - 13.00 B 12.00 - 13.00 B 12.00 - 13.00 B 12.00 N=63 (4,9/10,13,14,26) 100 13.00 - 13.50 D 13.00																		11 -
12.00 - 13.00 B 12.00 - 13.00 C 12.00 SFT (4.9/10,13,14.25) 100 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 100 113.70 - 15.00 B 100 113.70 - 15.00 B 100 113.70 - 15.00 B 113.70 - 15.00 B 100 113.70 - 15.00 B 113.70 B																		1 3
12.00 - 13.00 B 12.00 - 13.00 C 12.00 SPT N=63 (4,9/10,13,14,26) 100 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.85 T3.60 m to 13.65 m motified black and orange with angular clasts (<70 mm) of medium strong brown and greylish brown fine and medium strong brown greylish greyline sand, medium strong brown greyline sand, medium strong brown greyline sand, greylish greylish greylish greylish greylish greylish greyline sand, greylish greyl					225mm)													
12.00 - 13.00 B 12.00 - 13.00 C 12.00 SPT N=63 (4,9/10,13,14,26) 100 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.85 T3.60 m to 13.65 m motified black and orange with angular clasts (<70 mm) of medium strong brown and greylish brown fine and medium strong brown greylish greyline sand, medium strong brown greyline sand, medium strong brown greyline sand, greylish greylish greylish greylish greylish greylish greyline sand, greylish greyl							400]
12.00 - 13.00 C N=63 12.00 SPT (4.9/10.13.14.26) 100 100 13.70 - 15.00 B 13.65 m motited black and (6.05) medium SAND 13.70 - 15.00 B 14.80 m to 13.65 m motited black and (6.05) medium dense interbedded light grey and proving sandy colflic limestoned Medium dense interbedded light grey metited dark grey and brown sandy slightly clayey SiLT. Sand is fine and medium. 15.00 Silt and clay. End of Borehole at 15.00 m thinly and thickly internaminated light grey and grey fine sand, slightly clayey SiLT. Silt and clay. Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Silt and Clay. Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Silt and Clay. Remarks Prort of etiling the position was cleared of services and a hared dup inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m within was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slated pipe. The holes were benchmite, from 1.00 m bgl to 5.00 m bgl with slated pipe. The holes were benchmite, from 1.00 m bgl to 5.00 m bgl with slated pipe. The holes were benchmite. The							100											_
12.00 - 13.00 C N=63 12.00 SPT (4.9/10.13.14.26) 100 100 13.65 m motiled black and (6.05) medium SAND 13.70 - 15.00 B 14.80 m to 13.65 m motiled black and (6.05) medium dense interbedded light grey and promise method dark grey and brown sandy slightly clayey SiLT. Sand is fine and medium. 15.00 Sept. Sep																		1 3
12.00 - 13.00 C N=63 12.00 SPT (4.9/10.13.14.26) 100 100 13.65 m motiled black and (6.05) medium SAND 13.70 - 15.00 B 14.80 m to 13.65 m motiled black and (6.05) medium dense interbedded light grey and promise method dark grey and brown sandy slightly clayey SiLT. Sand is fine and medium. 15.00 Sept. Sep																		1 3
13.70 - 15.00 B 13.70												Ver	v dense b	rown an	d arevish	n brown fi	ne and	12
13.00 - 13.50 D 13.70 - 15.00 B 13.70 - 15.00 B 13.65 To m to 13.65 m mottled black and orange with angular clasts (<70 mm) of medium strong brown sandy colific limestong Medium density medium and the medium strong brown sandy slightly clayey Sil.T. Sand is fine and medium. 15.00 Silk and day 15.00 S											(7.70)				a groyioi		no ana	-
13.00 - 13.50 D 13.70 - 15.00 B 13.70 - 15.00 B 13.60 m to 13.65 m mottled black and orange with angular clasts (<70 mm) of medium strong brown sandy collide limestone Medium dense interbedded light grey mottled dark grey and brown sandy slightly clayey SILT. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clav 15.00 End of Borehole at 15.00 m 15.00 End of Borehole at 15.00 m 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 End of Borehole at 15.00 m 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey					(4,9/10,13,14	1,26)]
13.00 - 13.50 D 13.70 - 15.00 B 13.70 - 15.00 B 13.60 m to 13.65 m mottled black and orange with angular clasts (<70 mm) of medium strong brown sandy collide limestone Medium dense interbedded light grey mottled dark grey and brown sandy slightly clayey SILT. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clav 15.00 End of Borehole at 15.00 m 15.00 End of Borehole at 15.00 m 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 End of Borehole at 15.00 m 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey fine sand, silt and clav 15.00 Interlaminated light grey and grey																		1 3
13.70 - 15.00 B 13.70 - 15.00 B 13.65 (6.05) 13.60 m to 13.65 m mottled black and orange with angular classists (<70 mm) of medium strong brown sandy colific limestong Medium dense interhedded light grey mottled dark grey and brown sandy slightly clayey Sil.T. Sand is fine and medium. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fin							100											1 3
13.70 - 15.00 B 13.70 - 15.00 B 13.65 (6.05) 13.60 m to 13.65 m mottled black and orange with angular classists (<70 mm) of medium strong brown sandy colific limestong Medium dense interhedded light grey mottled dark grey and brown sandy slightly clayey Sil.T. Sand is fine and medium. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fin																		1 3
13.70 - 15.00 B 13.70 - 15.00 B 13.65 (6.05) 13.60 m to 13.65 m mottled black and orange with angular classists (<70 mm) of medium strong brown sandy colific limestong Medium dense interhedded light grey mottled dark grey and brown sandy slightly clayey Sil.T. Sand is fine and medium. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 m thinly and thickly interlaminated light grey and grey fin]
13.70 - 15.00 B 13.70 - 15.00 B 13.65 (6.05) 13.60 m to 13.65 m mottled black and orange with angular classis (< 70 mm) of medium strong brown sandy colitic limestong Medium dense interhedded light grey mottled dark grey and brown sandy slightly clayey SiLT. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clay 15.00 End of Borehole at 15.00m 16.00 Interpret Depth Base Diameter Depth Base Diame			13.00 - 13.5	0 D														13
13.70 - 15.00 B 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clav 15.00 B																		
13.70 - 15.00 B 13.70 - 15.00 B 13.70 - 15.00 B 13.65 (6.05) 13.60 m to 13.65 m mottled black and orange with angular clasts (<70 mm) of medium strong brown sandy oplitic limestons Medium dense interbedded light grey mottled dark grey and brown sandy slightly clayey SILT. 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clav 15.00 End Borehole at 15.00m Drilling Flush Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Bas																		=
13.70 - 15.00 B 14.80 m to 15.00 m thinly and thickly interlaminated light grey and grey fine sand, silt and clav 15.00 B																		
13.70 - 15.00 B 13.70 - 15.00 B 100 100 1100							100								_			1 =
Index Inde			13.70 - 15.0	0 В						2514:17								
dark grey and brown sandy slightly clayey SILT. 14 - Sand is fine and medium. 15.00 Hole Diameter Casing Diameter Chiselling End Borehole at 15.00m Hole Diameter Casing Diameter Chiselling Diameter Depth Base Diameter Depth Base Diameter Depth Base Diameter Diame											(0.00)	med	<u>lium stroi</u>	ng brow	n sandy	oolitic İ	imestone	/
Hole Diameter Casing Diameter Chiselling Told Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base Dura												dar	k grey and	d brown	sandy sli			14 -
Hole Diameter Casing Diameter Casing Diameter Chiselling Diameter Depth Base Diameter Depth Base Diameter Depth Top Depth Base												Sar	nd is fine a	and med	ium.			'
Hole Diameter Casing Diameter Casing Diameter Chiselling Diameter Depth Base Diameter Depth Base Diameter Depth Top Depth Base																		1 3
Hole Diameter Casing Diameter Casing Diameter Chiselling Diameter Depth Base Diameter Depth Base Diameter Depth Top Depth Base																		=
Hole Diameter Casing Diameter Chiselling Diameter Depth Base Diame							100											-
Hole Diameter Casing Diameter Chiselling Diameter Chiselling Double Base Diameter Depth Base Diameter Dept																		1 3
Hole Diameter Casing Diameter Chiselling Drilling Flush Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Depth Top Depth Base (m) Flush Colout Min (%) Max (%) 13.00 121 10.50 121 10.50 121 10.50 121 10.00 11.00 Air/Mist brown 100 100 100 Remarks Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with paravel, and from 5.00 m bgl to the base with bentonite. The																		
Hole Diameter Casing Diameter Casing Diameter Chiselling Depth Base Diameter Depth Base Flush Type Flush Colour Flush Colour Flush Type Flush Colour Flush Colour Flush Type Flush Colour Flush Type Flush Type Flush Type Flush Colour Flush Type											15.00		and clav		-		ie saria,	15
Depth Base Diameter Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Depth Top Depth Base (m Flush Type Flush Colour Min (%) Max (%) 13.00 121 10.50 121 10.50 121 10.50 12.00 Air/Mist brown 100 100 100 100 100 100 100 100 100 10	H	ole Diam	eter	Casing	Diameter				Chi	elling		<u> </u>	L	nd of Bor				
Remarks Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl to 5.00 m bgl with gravel, and from 5.00 m bgl to the base with bentonite. The	Depth Ba		Diameter D	epth Base	Diameter	Dep	th Top	Depth			То	ol			Flush Typ	Flush Colou		
Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel, and from 5.00 m bgl to the base with bentonite. The													11.00	12.00	Air/Mist	brown	100	100
Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel, and from 5.00 m bgl to the base with bentonite. The	D = :-:															<u> </u>		
was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel, and from 5.00 m bgl to the base with bentonite. The	Prior to dr	illing the																
	was backt	filled fro	m ground level	to 1.00 m	bgl with bentonit	e, fron	ո 1.00 m	bgl to 5	5.00 m b	gl with grave	el, and froi	m 5.00	m bgl to the	e base wit				



Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH121 Project ID:



BH121 3.50 m to 5.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH121 Project ID:



BH121 7.00 m to 9.00 m





HOLEID

GT0386

BH121

GROUND TECHNOLOGY

Photographic Report

BH121

PROJECT A47 WANSFORD & SUTTON

DEPTH 11 - 0 0 m - 13 - 0 0 m

Grafical Constant

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:

DATE 05 / 04 /22

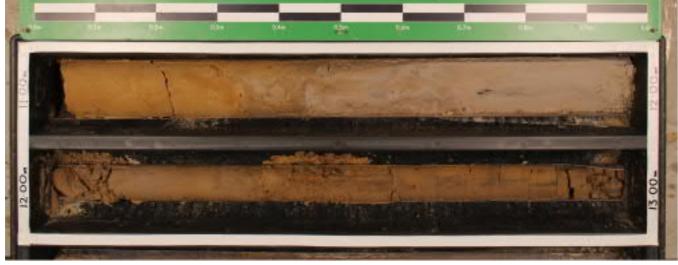
GROUND TECHNOLOGY

Victory Park | Atthiburuugh

Norfolk | NR17 1ZA

+44 (0) 1953 459462

mail@groundtechnology.co.uk www.groundbachnology.co.uk



BH121 11.00 m to 13.00 m



	ct Name ementai	: Wansfoi v Gl	d to	Suttor	n Dua ll ing	Clie	nt: Gal	liford	Try				Date: 2	23/03/20)22 - 25/	03/2022	2	
	ion:	усл				Con	tractor	: Swe	со				Co-ord	ls: E509	148.84	N29960	0.94	
oje	ct No. : 0	GT0386				Cre	v Nam	ne: MG	G / GC				Drilling	Equipn	nent: Be	retta T4	4	
Bor	ehole N				e Type RC			eve l Im AO	D	· `	gged By 6 / MWD			Scale 1:25			age Numl Sheet 1 of	
/ell	Water	San	nple a	and In	Situ Testing			Coring	J	Legend	Depth			Stratun	n Descrip			T
2000	Strikes	Depth (Type B	Results		TCR	SCR	RQD	Logona	(Level) (23.20)	Dorl	ond ligh		slightly s		rhth.	1
		0.00 - 0 0.30 - 1 0.30 - 1	.30	ES B ES							0.30 (22 . 90)	grav is fir subr Med clay- cont	relly Clay ne to coa rounded lium den ey SANE rent, San	with congrees. When we will wish to congrees or when we will be seen to congrees with the wit	mmon fin- vel is sub <u>parse flint</u> ish browi RAVEL wi to coarse	e rootlets cangular t. limesto n and ligh th low co	s, Sand to ne. ht brown obble is	
												occa blac lime (lime	asionally k rinded stone. C estone g	tabular f flint, san obbles a	gular and ine to coa dstone a re subrou ght to mo & III)	arse qua nd occas unded qu	rtzite, sional	
		1.20 - 2 1.20	.20	C cSPT	N=24 (4,4/6,6	6,6,6)												
		1.50 - 1	.60	D			100											
		2.20 - 3	.20	C	N-00 /C 0/4 F	- 0.7\						2.10	to 2.20	reddish	 brown f	ine sand	d	
		2.20 2.60 - 2	N=22 (6,9/4,5	0,0,7)	95													
		3.20 - 3 3.20	.40	C cSPT	N=32		100				3.15 (20.05) 3.20	Den	ecovery. se orang	ish brow	n and lig	ht brown	slightly	
		3.40 - 4 3.50 - 3		B D	(3,4/3,5,14,	10)				X = -x = 3	(20.00) 3.40 (19.80)	cont pred occa blac	ent. San Iominant asionally k rinded	d is fine ly suban tabular f flint, san	SAND wit to coarse gular and ine to coa dstone a re subrou	e. Gravel I subrour arse qua nd occas	is nded rtzite, sional	
		4.10 - 4.50 C 4.10 CSPT N=33								X X X	4.10	wea Stiff sand subr	thering of light gre dy clayes ounded	rade II I y occasio / SILT. Sa fine lime	onally dar and is fin	rk grey g e. Grave	l is	
		4.10		COPI	N=33 (4,6/6,8,9,1	10)	100			X X X	(19.10)	grav suba	elly SILT angular f	/CLAY	Gravells arse qua	are angu	lar to	
		4.60 - 4		CS			70			X——X——X——X——X———X———X———X———X———X———X—	4.85 (18.35)	AZC	;L					
	Hole Diam	5.00 - 6	.5∪	Casing	Diameter				Chic	elling	5.00				Drillie	ng Flush		1
pth		eter Diameter	Dept	h Base	Diameter	Dep	oth Top	Depth		Duration	Too	ol	Depth Top (m 1.20 2.20	Depth Base (r 2.20 3.20	1	1	Min (%) 100 100	N

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the target depth. The borehole was backfilled under the instruction of Sweco from ground level to 0.50 m bgl with arisings and from 0.50 m bgl to the base of the borehole with bentonite. SPT Hammer Ref: SIS1.

G					De	ep	Bo	rer	lOl	e L	og				
Project Name Supplementar		d to Suttor	Dua ll ing	Client: 0	Salliford	Try				Date: 2	3/03/20)22 - 25/	03/2022)	
_ocation:	•			Contrac	tor: Swe	со				Co-ord	s: E509	148.84	N299600	0.94	
Project No. : 0	GT0386			Crew Na	ame: M0	3 / GC				Drilling	Equipm	nent: Be	retta T4	 4	
Borehole N BH12			e Type RC	23.	Level 20m AC)D		gged By 6 / MWD			Scale 1:25			ige Num heet 2 o	
Well Water Strikes	Sam		Situ Testing		Corin	_	Legend	Depth (Level)			Stratum	n Descrip			
	Depth (n		Results	86		g 9		(18.20)	fine with Pred stail (Mo	dium stroi to mediu occasior dominant ning on d iderately de III).	m graine nal dissol ly non in iscontinu	ed Oolitic lution fea tact with uities	LIMESTO tures reddish b	ONE	6 -
								(17.00)	AZC	jL					
	6.50 - 8.6 6.50	cSPT	50 (50 for 75mm/50 f 0mm)		0 53	34		6,50 (16.70)	oolii orar deg mm step	ong light g tic LIMES ngish brov rees very - 220 mr oped. (slig de II and	STONE wwn silt in closely f n) open v ghtly and	vith occas fill. Fract to mediu with fine s	sional void ures are m spaced sand infill	ds with 15-30 d (40 I, rough,	7 -
	8.00 - 9.5 8.00 8.30 - 8.5	cSPT	50 (50 for 75mm/50 f 0mm)		0 58	52									9 -
	9.50 - 11. 9.50	00 C cSPT	50 (50 for 75mm/50 f 0mm)												10 -
Hole Diame			Diameter				selling						g Flush		_
Depth Base [Diameter	Depth Base 10.00	Diameter 121	Depth To	p Depth	n Base	Duration	Too	ol	Depth Top (m) 5.00 6.50 8.00	Depth Base (m 6.50 8.00 9.50	Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colour No return No return yellow	Min (%) 0 0 100	Max (% 0 0 100
Remarks Prior to drilling the the target depth. To the borehole wi	The borehole	was backfille	ed under the instr												

Gr			[Эе	ep	Во	reh	hole Log	
Project Name: Wanst Supplementary GI	ford to Sutto	n Dua ll ing	Client: Ga	lliford T	ry			Date: 23/03/2022 - 25/03/2022	
Location:			Contractor	: Swec	ю			Co-ords: E509148.84 N299600.94	
Project No. : GT0386	i		Crew Nam	ne: MG	/ GC			Drilling Equipment: Beretta T44	
Borehole Number BH122		e Type RC		eve l)m AOD)		gged By 6 / MWD	·	•
Well Water Strikes Depth	•	Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)		
10.10 -		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	53	25	16		10.30 (12.90)		
11.00 - 11. 11.40 -	00 cSPT	N=21 (4,4/5,5	5,5,6)				11.00 (12.20)		11
12.00 - 12. 12.60 -	00 cspt	N=50 (6,11/10,11,13	3,16)				12.00 (11.20)		12
13.00 - 13.		N=44 (4,8/9,10,11,	,14)						13 -
13.50 -	13,60 D		100						
14.00 - 14.50 - 15.00 -	-14.60 D		100						14 — — — — — — — — — — — — — — — — — — —
Hole Diameter		Diameter			Chis	elling		Drilling Flush	
Depth Base Diameter	Depth Base	Diameter	Depth Top	Depth E		Duration	Тос		ax (%) 0 0 0 0 0

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the target depth. The borehole was backfilled under the instruction of Sweco from ground level to 0.50 m bgl with arisings and from 0.50 m bgl to the base of the borehole with bentonite. SPT Hammer Ref: SIS1.

	Ч					L	Je	ep	BO	rer	101	e L	.og				
	t Name	: Wansford	to Sutto	n Dua ll ing	Client	t: Gal	liford ⁻	Try				Date: 2	23/03/20	22 - 25/	03/2022	2	
_ocati		<u>y x 11</u>			Contr	actor	: Swe	со				Co-ord	s: E509	148.84 I	N29960	0.94	
Projec	t No. : (GT0386			Crew	Nam	ie: MG	6 / GC				Drilling	Equipm	nent: Be	retta T4	4	
Bor	ehole N BH12			e Type RC	2		eve l m AO	D		gged By 6 / MWD			Scale 1:25		Pa	ige Num heet 4 o	
Well	Water Strikes		_	Situ Testing			Coring		Legend	Depth (Level)			Stratum	n Descrip	tion		
		Depth (m)	Туре	Results		TCR	SCR	RQD		15.43	Den loca 12.6	nse yellov alised dar 50 m) silty	k reddish y fine SA	n brown n ND.	nottling a	fter	
		15.50 - 15.6 15.80 - 15.9				100				(7.77)	loca dep pred occa san	nse yellow dised dar th) slightl dominant asionally dstone ar	k reddish y gravell ly suban tabular fi าd occas	n brown n y silty SA gular to s ine to coa	nottling w .ND. Gra ubround arse ferru	vith vels are ed Iginous	
		16.00 - 16.5 16.00	60 C cSPT	N=52 (4,16/11,8,13		100					OI C	emented	SIIL.				16 ·
		16.50	cSPT	N=41 (3,3/6,10,11,	14)	0	0	0		16.50 (6.70)	No i	recovery.					
									17.00 (6.20)		nse yellov fine SAN		brown ar	nd reddis	h brown	17	
		17.60 - 17.7	70 D			80	0	0		17.80 (5.40)	No i	recovery.					
		18.00	cSPT	N=50 (8,11/14,11,11	,14)					18.00 (5.20)		nse to ver dish brow				ınd	18
		18.50 - 18.6	60 D			80	0	0		18.80	No	recovery.					
		19.00	cSPT	N=61 (10,10/10,11,7	19,2					(4.40) 19.00 (4.20)	Very brov Gra coa	y dense g wn slightl vels are s	grey occa y gravelly subangul stone and	y silty ŚA ar to sub d cement	ND. San rounded ed silt (u	d is fine. fine to p to 30	19
		19.40 - 19.5	60 D			0	0	0			mm	x 10 mm	and 15	mm x 5 n	nm respe	ectively)	
									V × 3	20.00		•					20
Depth E	Hole Diam Base [Casing epth Base	Diameter Diameter	Depth	т Тор	Depth		elling Duration	То	ol	Depth Top (m) 15.00 16.00	Depth Base (m 16.00 16.50	Drillin Flush Type Air/Mist Air/Mist	g Flush Flush Colou yellow yellow	Min (%) 0 0	Max (% 0 0
the targe	drilling the		as backfille	services and a ha ed under the instr er Ref: SIS1.													

	Ч					L	Je	ep	BO	ren	Ol	е∟	.og				
Projec	ct Name ementa	: Wansfo	ord to Sutt	on Dua ll ing	Clien	t: Gal	liford ⁻	Try				Date: 2	23/03/20	22 - 25	/03/202	2	
Locati		ıy Cı			Contr	ractor	: Swe	СО				Co-ord	s: E509	148.84	N29960	0.94	
		GT0386			+		e: MG								eretta T4		
	ehole N	lumber	Н	ole Type RC		Le	eve l m AO			gged By 6 / MWD			Scale 1:25		Pa	age Num Sheet 5 o	
			mole and	In Situ Testing			Coring									nieel 5 0	Ĭ
Well	Strikes					TCR	SCR	RQD	Legend	(Level)			Stratum	n Descrip	otion		
Well	Water Strikes	Depth 20.0	(m) Typ	e Results	3			_	Legend	Depth (Level)		E	Stratum nd of Bor	ehole at			21
Depth	Hole Diam Base	eter Diameter	Casi	ng Diameter	Depti	h Top	Depth		elling Duration	Too	ol .	Depth Top (m)	Depth Base (m		ng Flush e Flush Colou	ır Min (%)	25 Max (%)
Rema Prior to the targ		e position w	ras cleared c	f services and a hilled under the ins	nand dug	j inspec	ction pit	to 1.20 i	m carried ou level to 0.50	it. The bore	ehole wa	as termina as and fror	ated at 20. m 0.50 m l	00 m which	ch was base		



BH122

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH122 1.20 m to 3.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH122 Project ID:



5004

BH122 4.10 m to 5.00 m





BH122

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH122 6.50 m to 8.00 m





BH122

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH122 9.50 m to 11.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH122

Project ID:



BH122 13.00 m to 15.00 m





BH122

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH122 17.00 m to 19.00 m



	Ч					De	ep	Bo	reh	ole	e L	og				
	ct Name ementa		rd to Sutto	n Dua ll ing	Client: G	alliford	Try				Date: 2	4/03/20	22 - 28	3/03/202	22	
Locati		,			Contracto	or: Swe	co				Co-ord:	s: E509	149.36	N2995	61.47	
Projec	ct No. : (GT0386			Crew Na	me: MC	3 / GC				Drilling	Equipm	nent: Be	eretta T	44	
<u> </u>	rehole N	umber		e Type RC		_evel 5m AO			gged By 6 / MWD	,		Scale 1:25		F	Page Nu Sheet 1	
Well	Water Strikes		nple and Ir	Situ Testing		Coring	_	Legend	Depth (Level)				n Descrij			
	Ou moo	Depth (Results	TCR	SCR	RQD	W/W/	(22.45)		and ligh	it brown	slightly	sandy sli	ightly	
		0.10 - 0 0.40 - 0							0.30 (22.15)	is fine subro Medir slight conte subar quart	e to coar ounded f um dens tly silty v ent. Sand ngular a zite, bla	rse. Gravine to co se orang ery graving is fine ind and subrock rinded	vel is sul varse flin ish brow elly SAN to coarse bunded f d flint, sa	bangular	nestone. ght brow ow cobb el is parse	n le
		1.20 - 2	.00 B		63				1.20 (21.25) (21.25) 1.35	Medio sandy is and limes	y GRAV gular an	EL. Sand d suband d chert/fl	d is fine gular fine	to coars e to coar	htly claye e. Grave rse	
		2.00 - 3 2.00		N=19 (3,4/5,4	100				2.00 (20.45)	GRA\ angu lithold	VEL. Sa lar to su ogies ind	se brown nd is fine brounde cluding c ngineere	e to coar d fine ar hert and	rse. Grav nd mediu	vel is um mixed	2 -
		3.00 - 4 3.00		- N=18 (2,4/4,5	100				3.00 (19.45)	very : Grave medi	sandy G el is ang um mixe	se grey c RAVEL. jular to s ed litholo eworked	Sand is ubround gies incl	fine to d led fine a uding ch	and nert and	3
		4.00 - 4 4.00		- N=27 (3,4/6,6	5,7,8) 15				4.00 (18.45)	more mate coars grey	weathe rial is anse chert	and flint	ker mate well rou GRAVE	erial. Red nded me L, and s	covered edium ar	-
								===								
	Hole Diam			g Diameter		1.		elling		\Box				ing Flush		
Depth	Base I	Diameter	Depth Base	Diameter	Depth Top	Depth	Base	Duration	Too	ol	Depth Top (m) 1.20	Depth Base (m 2.00	Flush Typ Air/Mist			
depth. ⁻ backfille	drilling the The borehe ed from gre	ole was insta ound level to	alled with plai o 1.00 m bgl v	services and a ha in pipe from grour with bentonite, fro a top hat cover se	nd level to 1. m 1.00 m bo	00 m bgl I to 3.50	and slot m bgl wi	ted pipe fron th gravel, an	n 1.00 m b d with ben	gl to 3.50 ntonite fro	m bgl. T	he boreh	ole was	Ĭ		

G	Г				Ре	ep	, Ro	rer	IOI	e L	.og						
Project Name		d to Sutto	n Dualling	Client: Ga	ıl l iford	Try			Date: 2	Date: 24/03/2022 - 28/03/2022							
Location:	11 y X 11		(Contracto	r: Swe	со			Co-ord	o-ords: E509149.36 N299561.47							
Project No.:	GT0386		(Crew Nar	ne: MG	G / GC			Drilling	Equipn	oment: Beretta T44						
Borehole i			e Type RC		evel 5m AO	D		gged By 3 / MWD		Scale Page Number 1:25 Sheet 2 of 4							
Well Water Strikes			Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descrip	tion				
	5.50		N=30 (4,5/7,7,					5.50	mor mat coal grey silty	nimal recovery. Core loss presumed to be ore weathered/weaker material. Recovered aterial is angular to well rounded medium and arse chert and flint GRAVEL, and stiff light by mottled orangish brown slightly calcareous by CLAY.							
	6,30 - 6.	48 CS		67	52	52		6.04 (16.41)	brow LIM (up deg ope with calc impe disc calc	ng to ver vn locally ESTONE to 10 mr rees clos n, undula greyish-	litic voids 10 probably possibly casional casional ees) en with ightly	6 -					
	7.00 8.22 - 8.	cSPT	50 (50 for 25mm/50 fo 0mm)	100	92	55									8		
8.50 cSPT			50 (50 for 15mm/50 fo 0mm)	r 43	30	30		8.50 (13.95)	mor mat - 20 sligh void deg und (Slig	Partial recovery. Core loss presumed to be more weathered/weaker material. Recovered material is strong very thinly to thinly bedded (0 - 20 degree) light brown to yellowish brown slightly sandy oolitic LIMESTONE. Occasional voids (up to 25 mm). Discontinuities are 0 - 10 degrees medium spaced (180/-/330) open undulating rough unstained with sandy veneer. (Slightly weathered Grade II to unweathered Grade I).							
															10		
Hole Diar Depth Base	meter Diameter		Diameter Diameter	Depth Top	Depth		elling Duration	To	ol	Depth Top (m	Depth Base (n	Drillin	ng Flush Flush Colou	m Min (%)	May (0/)		
Debtu Rase	∪iameter	Depth Base	Diameter	Depth Top	Depth	□ase	Duration	100	OI .	4.00 5.50 8.50	5.50 7.00 10.00	Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colou Grey Brown Brown	100 100 100 100	100 100 100 100		
depth. The borel backfilled from g	hole was insta ground level to	illed with plair 1.00 m bgl v	services and a han n pipe from ground vith bentonite, from top hat cover sect	l level to 1.0 n 1.00 m bgl	00 m bgl to 3.50 i	and slot m bgl w	ted pipe from th gravel, an	n 1.00 m b d with ber	gl to 3.5 ntonite fi	i0 m bgl. ⁻	The boreh	ole was	•				

	Ч					L	Je	ep	BO	ren	101	е∟	.og						
Projec	ct Name ementa	: Wansfo	rd to Sutto	n Dua ll ing	Clie	Client: Galliford Try Date: 24/03/2022 - 28/03/2022													
Locati		•			Con	tracto	: Swe	со			Co-ord	Co-ords: E509149.36 N299561.47							
Projec	et No. : (GT0386			Cre	w Nam	ne: MG	/ GC				Drilling	Drilling Equipment: Beretta T44						
Bor	ehole N BH12			e Type RC			eve l im AO	D		gged By 3 / MWD			Scale 1:25	l o					
Well	Water Strikes				Coring TCR SCR RQD			Legend	Depth (Level)			Stratum	Descrip	tion					
		10.00			or	10	550	, read		10.07 (12.38)	mor mat - 20 sligl void deg und (Slig Gra Min mor	tial recovere weather terial is stone terial ter	ered/weal rong very light brow y oolitic L 25 mm). I dium space bugh unst thered G very. Cor ered/weal	ker mater thinly to what to yell IMESTO Discontin ced (180) tained with rade II to re loss pr ker mater	rial. Reconstraint of thinly be lowish bring the lowest public of the lo	overed edded (0 rown casional e 0 - 10 pen veneer. hered to be	11 —		
		11.50	cSPT	N=26 (5,4/6,	6,6,8)	100				11.50 (10.95)		dium dens I medium		se yellov	vish brov	vn fine	12 -		
		12.50	cSPT	N=33 (6,7/7,	8,9,9)	67											13		
		14.00) cSPT	N=42 (6,8/8,10,11	,13)	100											14		
																	=		
	<u> </u>									1							15 —		
Depth	Hole Diam Base I	eter Diameter	Casing Depth Base	Diameter Diameter	Dep	oth Top	Depth		elling Duration	Tod	oll	Depth Top (m)	Depth Base (m	Flush Type	g Flush Flush Colou	m Min (%)	Max (%)		
												10.00 11.50 12.50 14.00	11.50 12.50 14.00 15.00	Air/Mist Air/Mist Air/Mist Air/Mist	No return No return No return No return	0 0	0 0 0		
Rema	arks			•			-			•		•		•		-			

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m, the target depth. The borehole was installed with plain pipe from ground level to 1.00 m bgl and slotted pipe from 1.00 m bgl to 3.50 m bgl. The borehole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 3.50 m bgl with gravel, and with bentonite from 3.50 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with bentonite. SPT Hammer Ref: SIS1.

	Ч		Deep Borenole Log																	
Projec	t Name	: Wansfo	rd to Sutto	n Dua ll ing	Client:	: Gall	liford Tr	'n			Date: 24/03/2022 - 28/03/2022									
		<u> </u>			Contra	actor:	Sweco	o				Co-ords: E509149.36 N299561.47								
Projec	t No. : (GT0386			Crew I	Name	e: MG /	/ GC				Drilling	Equipm	ent: Bei	retta T4	4				
Bor	15.00 CSPT (9,10) 16.00 CSPT (10,10) 17.00 CSPT (111, 18.00 CSPT (110, 19.00 CSPT (10, 19.00 CSPT (10,				2		ve l m AOD	ı		gged By 6 / MWD			Scale Page Number 1:25 Sheet 4 of 4							
Well			·	·			Coring		Legend	Depth (Level)			Stratum	Descript	tion					
	Otrikes				•	TCR	SCR	RQD	129 (-8123)	Level)		ium dens	e to den	se yellow	vish brow	n fine	<u> </u>			
				(9,10/11,10,1		100					and	medium \$	SAND.							
		16.00	O CSPT	N=58 (10,10/12,13 8)		100				16.00 (6.45)	Very fine	dense ye and medi	ellowish um SAN	brown to ID.	orangish	n brown	16			
		17.00) cSPT	N=56 (11,10/13,12 7)		100											17			
		18.00	CSPT	N=61 (10,12/11,14 9)		100											18			
		19.00	CSPT	N=68 (9,12/12,15,1		100				19.00 (3.45)	Very SAN					dium	19			
	Hole Diam	eter	Casing	g Diameter				Chis	elling			Er	na of Bor	ehole at 2	g Flush		1			
Depth F	Base 0	Diameter 121	Depth Base 20.00		Depth	Тор	Depth B		Duration	Too	ol	Depth Top (m) 15.00 16.00 17.00 18.00 19.00	16.00 17.00 18.00 19.00 20.00	Flush Type Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist	Flush Colour No return No return No return No return No return	Min (%) 0 0 0 0 0	Max (%) 0 0 0 0 0 0			

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m, the target depth. The borehole was installed with plain pipe from ground level to 1.00 m bgl and slotted pipe from 1.00 m bgl to 3.50 m bgl. The borehole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 3.50 m bgl with gravel, and with bentonite from 3.50 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with bentonite. SPT Hammer Ref: SIS1.



BH123

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ject ID: GT0386



BH123 1.20 m to 3.00 m





BH123

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH123 5.50 m to 7.00 m





BH123

Project:

Wansford to Sutton Dualling Supplementary GI

Project

Project ID: GT0386



BH123 8.50 m to 10.00 m



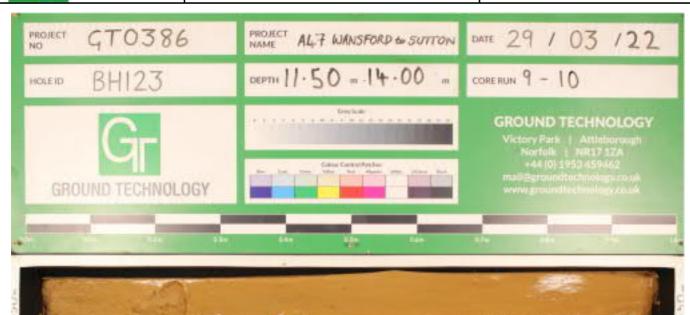


Project:

Wansford to Sutton Dualling Supplementary GI

BH123

Project ID:



BH123 11.50 m to 14.00 m



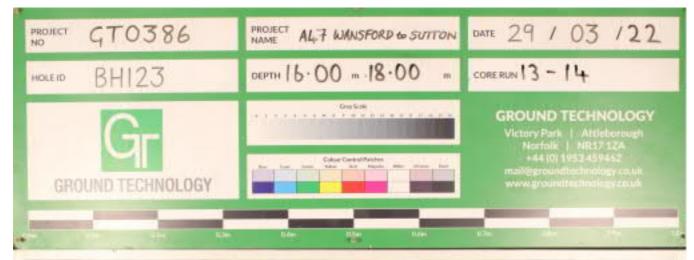


Project:

Wansford to Sutton Dualling Supplementary GI

BH123

Project ID:





BH123 16.00 m to 18.00 m





	G)e	ер	Во	reh	ole) L	og							
	ct Name ementar		d to S	Suttor	Dualling (Client	t: Gal	liford T	√ry				Date: 31/03/2022 - 01/04/2022								
Locati		,			(Contr	actor	: Swed	ю			(Co-ords: E509214.71 N299585.36								
Projec	ct No. : 0	GT0386			C	Crew	Nam	e: MG	/ DC				Drilling Equipment: Beretta T44								
Bor	ehole N BH12				e Type RC			evel m AOI)		gged By 6 / MWD		Scale Page Number 1:25 Sheet 1 of 3								
Well	Water Strikes	San Depth (nd In Type	Situ Testing Results	_	TCR	Coring SCR	RQD	Legend		Stratur	n Descri	ption							
		0.00 - 0		В	. Noodile						(23.18)	grave is fine subar limest	oft light and dark brown slightly sandy slight ravelly CLAY with common fine rootlets. Sar fine to coarse. Gravel is predominantly abangular to subrounded fine to coarse flint, nestone occasionally tabular angular fine to parse flint. rangish brown and light brown slightly silty AND and GRAVEL with low cobble content, and is fine to coarse. Gravel is predominant abangular and subrounded occasionally bular fine to coarse quartzite, black rinded nt, sandstone and limestone. Cobbles are abrounded limestone. (Limestone gravels ight to moderate weathering grades II & III)						-		
		1.00 - 1	.30	В							0.50 (22.68)	SAND Sand subar tabula flint, s subro							1 -		
		1.50 - 1	.80	CS			90			X X X X X X X X X X X X X X X X X X X	1.35 (21.83) 1.45 (21.73)	brown Yellow grey s with o (up to	sandy vish bro slightly ccasion 10 mm	SILT. Sa own occa gravelly nal nodu	asionally and is fir asionally slightly s iles of ce n). Sand estone.	ne. mottle sandy emente	ed or claye	angish ey SILT ey silt			
		2.00 2.50 - 2		CS CS	N=31 (3,4/6,7,	9,9)	90			N	2.00 (21.18)	occas with o	ionally ccasio	mottled	tiff yellov orangish iles of ce	n grey	SILT	/ CLAY	2		
		3.00	C	cSPT	N=38 (4,6/7,9,10,1	2)					2.80 (20.38) 3.00 (20.18)	occas occas 5 mm Very s grey S	ionally ional n x 2 mn stiff yell SILT/CL	mottled odules o n). owish br .AY with	orangish orangish of cemen rown mo occasion up to 5 m	n grey ited gre ttled or nal noo	SILT ey sil rangi dules	with It (up to ish light of	3 -		
		3.50 - 3	.80	CS			53				3.80 (19.38)	AZCL									
		4.50 - 4 4.50		CS cSPT	N=46 (4,7/9,11,12,	14)				X X X X X X X X X X X X X X X X X X X	4.50 (18.68) 4.85 (18.33)	grey S ceme Strong oolitic orang predo mediu fine sa	SILT/CL nted gr g light o ILIMES ish bro minant im space	AY with ey silt (u) grey and STONE vown silt in ly 15-30 ced (40 in l), rough	rown mo occasion p to 5 m grey slig with occa fill. Frac degrees mm - 220 , stepped d Grade	nal noom x 2 ghtly for asional ctures s very of 0 mm) d. (slig	dules mm) void are close oper htly a	s of ferous is with ely to n with	4 5		
	Hole Diam	_{eter} I		Casing	Diameter				Chic	elling		<u> </u>	noderately weathered Grade II and III). Drilling Flush								
Depth		Diameter	Depth		Diameter	Depth	т Тор	Depth		Duration	Тоо	ol c	1.20 2.00 3.00	2.00 3.00 4.50	_	pe Flush (t No re t No re	Colour eturn eturn	Min (%) 0 0 100	Max (%) 0 0 100		
Rema	arks				<u> </u>										•	•	Γ				

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m, the target depth. The borehole was installed with plain pipe from ground level to 5.00 m bgl and slotted pipe from 5.00 m bgl to 10.00 m bgl. The borehole was backfilled from ground level to 5.00 m bgl with bentonite, from 5.00 m bgl to 10.00 m bgl with gravel, and with bentonite from 10.00 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with bentonite. SPT Hammer Ref: SIS1.

	Ч				L	Je	ep) RO	rer	IOI	e L	.og								
	t Name	: Wansford	d to Sutto	n Dua ll ing C	Client: Galliford Try Date: 31/03/2022 - 01/04/2022															
Locati		y CH		С	ontracto	: Swe	со			Co-ord	ls: E509	214.71	N299585.36							
Projec	t No. : 0	GT0386		С	rew Nam	ne: MG	3 / DC				Drilling	Equipr	nent: Be	eretta T4	4					
Bor	ehole N BH12			e Type RC		eve l 8m AO	D	I	gged By 3 / MWD		Scale Page Number 1:25 Sheet 2 of 3									
Well	Water Strikes	Sam Depth (r		Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratur	n Descrip	escription						
		Бориц	.,, .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	resoure	40	0	0		5.10 (18.08)	oolit orar pred med fine mod	Strong light grey and grey slightly fossiliferous oolitic LIMESTONE with occasional voids with orangish brown silt infill. Fractures are predominantly 15-30 degrees very closely to medium spaced (40 mm - 220 mm) open with fine sand infill, rough, stepped. (slightly and moderately weathered Grade II and III). AZCL									
		6.00 - 6. 6.00	cSPT	50 (21,28/50 fc 0mm)	100	31	14		6,00 (17.18)	LIM clas occa occa Frac	oolitic unded m) and (1 mm) illt infill. grees n with ifill,	6-								
		7.50	cSPT	50 (47 for 105mm/50 for 0mm)	95	75	58									8-				
	9.00		cSPT	N=87 (23,14/17,19,24 7)	7			T .	9.00 (14.18) 9.10 (14.08)	fine sub	SAND.	Gravells <u>limeston</u>	are suba	ghtly grav angular to ted silt no		9				
(4)								175								10 -				
	Hole Diam			Diameter	<u> </u>			selling	· · · · ·					ng Flush		<u> </u>				
Depth I		Diameter 121	Depth Base	Diameter [Depth Top	Depth	Base	Duration	То	o <u>l</u>	Depth Top (m 4.50 6.00 7.50	Depth Base (r 6.00 7.50 9.00	Flush Typ Air/Mist Air/Mist Air/Mist	Brown	Min (%) 100 0 0	Max (%) 100 0 0				
depth. T backfille	drilling the he borehord d from gro	ole was insta ound level to	lled with plain 5.00 m bgl w	services and a hand n pipe from ground l vith bentonite, from top hat cover secul	level to 5.0 5.00 m bgl	0 m bgl to 10.00	and slot) m bgl v	ted pipe fron vith gravel, a	n 5.00 m b and with be	gl to 10 entonite	.00 m bgl.	The bore	hole was	Ĭ	<u> </u>	<u> </u>				

	G	7				De	ep	Во	reh	ole	e Lo	g					
	ct Name ementa	: Wansford	to Suttor	n Dua ll ing	Client: C	Galliford	Try				Date: 31/0	3/202	22 - 0	1/04/2	2022		
_ocati		, , , , , , , , , , , , , , , , , , , 		C	Contrac	tor: Swe	eco				Co-ords: E	5092	214.7	1 N29	9585.	36	
Projec	t No. : (GT0386		C	Crew Na	ame: M0	3 / DC				Drilling Equ	uipm	ent: B	eretta	a T44		
Bor	ehole N BH12			e Type RC	23.	Level 18m AC	D		gged By / MWD			cale :25			_	e Numb eet 3 of	
Well	Water Strikes	Samp Depth (m)		Situ Testing Results	тс	Coring	RQD	Legend	Depth (Level)		Str	atum	Descr	iption			
			, ,,,,,,	rtodito						No re	ecovery.						-
		10.50 10.55 - 10.6 10.80 - 10.9 11.50	90 D	N=80 (10,11/15,19,2 6) 111 (14,21/111 218mm)	75	5			10.50 - (12.68) 10.70 (12.48) 11.25 - (11.93) 11.50 - (11.68)	mottll sligh subra Very mottl grave black Grav coars No re	dense orangled dark grey tity gravelly 5 ounded fine dense orangled dark grey elly fine SAN c lells are subr se limestone ecovery. dense orang led dark grey elly fine SAN c lignitic silt (y and sAND and n gish by and ND with tound and gish by and ND with tour and gish by and ND with the sand shall be and shall by and ND with the sand shall be and shall be an and shall be an and shall be an and shall be an	reddis. Sand nedium prown reddisth occa 40 mr ed to r cemer	sh broven is fine in limes occas is broven in x 20 rounded not occas is x 20 rounded not occas in x 20 rounded not occas	vn clay e. Grav stone. ionally vn silty I pocke mm). ed fine odules ionally vn silty I pocke	vel is ets of to of silt.	11 -
		12.50 - 12.6 12.50	60 D cSPT	50 (19,46/50) 39mm)	75	5			12.25 - (10.93) 12.50 - (10.68)	No re	ecovery. dense orang sional reddis mottling.	round	ed to r cemer	rounde ted no	ed fine odules	of silt.	12 -
		13.50 - 13.6	60 D		75	5			13.25 - (9.93)		ecovery.			S 0/	MD		13 -
		13.50 14.50	cSPT	`109mm)	10	0			(9.68)	occa	dense orang sional reddis mottling.						14
Depth	Hole Diam Base	eter		136mm/50 fc 0mm) Diameter Diameter 121	Depth To	p Depth	Chis n Base	elling Duration	15.00 -	ı	Depth Top (m) Depth		ehole a Dril Flush Ty Air/Mia	lling Flus /pe Flush	sh	Min (%)	15 Max (%)
Rema	arke										11.50 13 12.50 13	2.50 2.50 3.50 4.50	Air/Mi: Air/Mi: Air/Mi:	st No	return return return return	0 0 0	0 0 0

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m, the target depth. The borehole was installed with plain pipe from ground level to 5.00 m bgl and slotted pipe from 5.00 m bgl to 10.00 m bgl. The borehole was backfilled from ground level to 5.00 m bgl with bentonite, from 5.00 m bgl to 10.00 m bgl with gravel, and with bentonite from 10.00 m bgl to the base of the borehole. The borehole was finished with a top hat cover secured into place with bentonite. SPT Hammer Ref: SIS1.



BH124

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH124 1.20 m to 3.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH124

Project ID:



BH124 4.50 m to 7.50 m



BH124 7.50 m to 9.00 m



BH124

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

: GT0386



BH124 9.00 m to 10.50 m





BH124

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386



BH124 12.50 m to 14.50 m

	Ч						L	Je	ep	BO	ren	OI	е∟	og				
	: Name: mentar		rd to	Sutton	Dualling	Clien	nt: Gal	liford ⁻	Try				Date: 3	30/03/20	22			
_ocatio		,			,	Cont	ractor	: Swe	со				Co-ord	s: E509	311.24 I	N29956	5.69	
Project	: No. : 0	GT0386				Crew	/ Nam	ie: MG	/ GC				Drilling	Equipm	nent: Be	retta T4	4	
Bore	ehole N BH12				Type RC			eve l m AO	D		gged By 3 / MWD			Scale 1:25			ige Num heet 1 o	
Well	Water Strikes	Sar Depth (Situ Testing	4	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
		0.00 - 0		Type ES	Results		ICK	SCR	RQD		(21.10)	San	t dark bro ld is fine t rounded t	to coarse	. Gravel	is suban	CLAY. gular to	
		0.40 - 0).70	ES							0.30 (20.80)	mot San	y stiff blui tled black d is fine t rounded t	slightly to coarse	gravelly s . Gravel	sandy CL is suban	.AY. gular to	1
		1.20 - 2 1.55 - 1		C CS			100											
		2.00 - 3 2.00		C cSPT	N=28 (3,4/6,7,	,7,8)												2
		2.85 - 2	2.95	D			67	67		X X X X X	2.80 (18.30) 3.00 (18.10)	brov	light grewn sandy	SILT/CL	onally mo	ottled ora	ngish	3
		3.50 - 3 3.50 - 4 3.50	.50	D C cSPT	N=5 (0,1/0,1,2	2,2)					3.50 (17.60)	Loo: SAN	se light g ND.	rey mottl	ed orang	ish grey	fine	_
							50				4.00 (17.10)	Noı	recovery.					4
		4.50 - 5 4.50		C cSPT	N=12 (1,1/2,3,	,3,4)					4.50 (16.60)	san sub	n light gre dy CLAY. angular fi ned sligh	Sand is ne to coa	fine , gra arse fine	avel is an to mediu	gular to m	
	Hole Diame	eter	L	Casing	Diameter				Chi	selling					Drillin	g Flush		بّــــ
Depth B		Diameter	Depti	n Base	Diameter	Dept	th Top	Depth		Duration	Too	ol	Depth Top (m) 1.20 2.00 3.50	Depth Base (m 2.00 3.50 4.50	Flush Type Air/Mist Air/Mist Air/Mist	Flush Coloui brown brown orange	Min (%) 100 100 100	Max (9
he targe	Irilling the	rhe borehol			ervices and a har													

			L										e L					
	ct Name ementa		rd to S	Sutton	Dua ll ing	Clier	nt: Gal	liford 7	Ггу				Date: 3	0/03/20	22			
cati	ion:					Conf	tractor	: Swed	ю				Co-ord	s: E509	311.24 I	N29956	5.69	
		GT0386				Crev		ie: MG	/ GC				Drilling		nent: Be			
Bor	ehole N BH12	5		F	Type RC	<u> </u>		eve l m AOI)		gged By i / MWD			Scale 1:25			age Numl heet 2 of	
/ell	Water Strikes	Sar Depth		ind In Type	Situ Testing Results	-	TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
							100					sand suba	n light gre dy CLAY. angular fi ned sligh	Sand is ne to coa	fine , gra arse fine	avel is ar to mediu	m	
		5.50 - 7 5.50 5.85 - 6	3.09	C cSPT CS	N=50 (5,7/5 195mm)		100	67	49		(15.60)	light foss occa to 19 pred med redo roug	dominant orangish orangish illiferous o asional vo sional vo dominantl lium spac dish brow gh, steppe thered G	n grey mo politic LIN pids with mm). F ly 15-20 ped (40 n n stainin ed. (sligh	ottled ora MESTON orange t ractures degrees nm - 340 g and fin itly and n	ingish bro IE with prown sill are very clos mm) ope e sandy	own t infill (up ely to en with silt infill,	€
		7.00 - 7 7.00 - 8 7.00	3.50	N=50 (17,26/50,0,	,0,0)					7.00 (14.10)	AZC	CL					7	
		0.50	0.00				65	60	25		7.50 (13.60)	light foss occa to 19 pred med redo roug	dominant corangish ifferous califerous califerous califerous califerous califerous califerous to the califerous califerou	n grey mo politic LIN pids with mm). F ly 15-20 ped (40 n n stainin ed. (sligh	ottled ora MESTON orange t ractures degrees nm - 280 g and fin itly and n	ingish bro IE with prown sill are very clos mm) ope e sandy:	own t infill (up ely to en with silt infill,	
		8.50 - 1 8.50 9.24 - 9		C cSPT CS	N=30 (50,0/30,0,0	0,0)	67	50	42									!
						_ }					10.00		E	nd of Bor	ehole at 1	10.00m		10
epth	Hole Diam	Diameter Depth Base Diame				Den	th Top	Depth		elling Duration	Too	ol	Depth Top (m)	Depth Base (m	Drillin Flush Type	g Flush Flush Colou	Min (%)	Max
10.0						Deb	ωι τυμ	- nehiii	Dase	DuratiOII	100	<u> </u>	4.50 5.50	5.50 7.00	Air/Mist Air/Mist	orange white	100 100	10 10
						1							7.00 8.50	8.50 10.00	Air/Mist Air/Mist	white white	100 100	10 10

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.00 m which was the target depth. The borehole was backfilled from ground level to 0.50 m bgl with arisings and from 0.50 m bgl to the base of the borehole with bentonite. SPT Hammer Ref: SIS1.



BH125

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH125 1.20 m to 3.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH125 Project ID:

iect ID: GT0386



BH125 5.50 m to 7.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH125

Project ID: GT0386



BH125 8.50 m to 10.00 m

	Name mentai	: Wansfo	rd to Su	utton	Dua ll ing	Clie	nt: Gal	liford ⁻	Ггу			Date: 28/03/2022		
catio		усл				Con	tractor	: Swe	co			Co-ords: E509409.40	N299538.49	
oject	No. : (GT0386				Cre	w Nam	e: DB	/ MC+	-MG / DC		Drilling Equipment: D	ando 3000 Berett	ta T
	hole N BH12	umber 6			Type C			eve l m AOI	D		gged By i / MWD	Scale 1:25	Page Numb Sheet 1 of	
	Water	San	nple an	d In	Situ Testing			Coring		Legend	Depth	Stratum Descri	ption	
1	Strikes	Depth ((m) T	ype	Results		TCR	SCR	RQD	500000000	(Level) (20.42)	Soft dark grey slightly gravell		-
		0.10 0.10		B ES							(20.42)	Sand is fine to coarse, Grave subrounded fine and medium	l is subangular to	
		0.50 0.50		B ES							0.50 (19.92)	Very stiff bluish grey and orar mottled black slightly gravelly slightly clayey SILT. Sand is f Gravel is subangular to subro medium limestone.	slightly sandy ine to coarse.	
清清清清清清			N=38 (3,3/5,6,9,	18)										
法法法法法法法法		1.50 - 1.95 D SPT (3,3)									2.50 -	Lloyd light growing by brown most	Had vallavich	
		2.90 - 3	.00	В	N=51 (3,8/5 260mm)						(17.92)	Hard light greyish brown mot brown and bluish grey slightly clayey SILT. Sand is fine to co subangular to subrounded fin	y sandy slightly oarse. Gravel is	
		3.00 - 4	.50	С							3.00 (17.42)	Firm to stiff orangish brown n with occasional ordered limes (<70 mm).	nottled grey CLAY stone lithorelics	
		3.90 - 4			67	50	0		3.50 · (16.92)	Weak becoming moderately very thinly to thinly bedded (1 light brown to yellowish brown brown locally sandy and shel LIMESTONE. Sand is mediur Discontinuities are 15 - 20 de spaced (150/340/710) probab undulating rough slightly brow greyish brown clay veneer; 7 probably incipient to open, ur sometimes slightly brown sta brown clay veneer. (Slightly v II).	15 - 20 degrees) In and orangish I fragmental oolitic Im and coarse. In and coarse. If the segrees medium In and coarse with It is a segrees are It is a segree are It is a			
		50 (50 fc 70mm/50 0mm)						(15.92) 4.70	AZCL					
pth Ba	ole Diam ase [Diameter	Depth E	3ase	Diameter Diameter	Der	oth Top	Depth		elling Duration	Too	Depth Top (m) Depth Base (m Flush Ty		Max
3.00		200	3.00)	200							3.00 4.50 Air/Mis	t white 100	10

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.50 m which was the target depth. The borehole was installed from ground level to 0.50 m bgl with plain pipe and from 0.50 m bgl to 2.50 m bgl with slotted pipe. The hole was backfilled from ground level to 0.50 m bgl with bentonite, from 0.50 m bgl to 2.50 m bgl with gravel and from 2.50 m bgl to 10.50 m bgl with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1 (Beretta) & 12-4 (Dando 3000).

		to Sutton	n Dua ll ing	Clica	+· ^-'	liford 3	Γn.				Doto: C	08/03/20	າວວ			
upplementary Gocation:						liford T						28/03/20		NIOOFO	10 40	
	206					: Swed		MC / DC			 		409.40			-#- T
oject No. : GT0 Borehole Num		Hole	е Туре	Crew		e: DB evel	/ IVIC-1	-MG / DC Lo	gged By		Drilling	Scale			00 Bere age Nun	
BH126			RC	:		m AOI)		6 / MWD			1:25			Sheet 2 o	
/ell Water Strikes	-		Situ Testing	-+		Coring		Legend	Depth (Level)			Stratur	n Descrip	tion		
	Depth (m) Type	Results		TCR	SCR	RQD		(2010.)							+
5	5.20 - 5.44	4 CS			67	60	50									
6	6.00 - 7.50 6.00	0 C cSPT							5.95 (14.47)	to th	ninly bed	ded (10 -	15 degr	ees) yello	owish	-
6	3 <u>.</u> 61 - 6.78	to thinly bedded (10 - 15 degrees) yellowish brown and orangish brown locally sandy and shell fragmental colitic LIMESTONE. Sand is medium and coarse. Discontinuities are 10-15 degrees closely spaced (20/140/200) probably open rarely infilled with greyish brown clay (0/0/5) undulating rough, brown stained														
	7.50 - 9.00 7.50 7.99 - 8.29	cSPT	50 (50 fc 30mm/50 0mm)	7.40 (13.02) Thickly interbedded medium strong to strong medium bedded (0 - 5 degrees) light brown and yellowish brown very sandy and shell												
a	00 - 10 5	50 C			33	73	30		8.65 (11.77)		yish brow			gii witti S	igiit.	
	200 - 10.50 C cSPT 50 (50 for 25mm/50 for 0mm) 53 50 40 Thickly interbedded medium strong to strong medium bedded (0 - 5 degrees) light brown and yellowish brown very sandy and shell fragmental colitic LIMESTONE, and extremely weak to very weak medium bedded (0 - 5 degrees) yellowish brown slightly sandy shell fragmental colitic LIMESTONE. Discontinuities are 0 - 5 degrees closely spaced (40/150/440) probably open rarely infilled (0/0/5) with greyish brown clay, undulating rough, occasionally with grevish brown clay veneer.															
				-												 1
Hole Diameter		Casing Depth Base	Diameter Diameter	Depti	h Top	Depth		elling Duration	Тос	ol .	Depth Top (m 4.50 6.00 7.50	Depth Base (r 6.00 7.50 9.00	Drilli Flush Typ Air/Mist Air/Mist Air/Mist	ng Flush Flush Colou white white white	Min (%) 100 100 100	Max 10

Ч					L	Jе	ep	Bo	reh	Ol	e L	og				
Project Name: W Supplementary (Sutton	Dua ll ing	Clie	nt: Gal	liford ⁻	Try				Date: 2	8/03/20)22			
Location:				Con	tractor	: Swe	co				Co-ord	s: E509	409.40	N2995	38.49	
Project No. : GT	0386			Cre	w Nam	e: DB	/ MC+	·MG / DC			Drilling	Equipn	nent: Da	ando 30	000 Bere	etta T44
Borehole Num BH126			e Type RC		Le	eve l m AOI		Lo	gged By 3 / MWD			Scale 1:25		P	age Num	ber
Well Water Strikes	· ·		Situ Testing			Coring		Legend	Depth (Level)			Stratun	n Descrip	otion		
Hole Diameter		Casing	Diameter		TCR	SCR		elling	(Level)	Thic med yello fragi wea degr fragi are (prob	owish bro mental oo k to very rees) yell mental oo 0 - 5 deg vably ope vn clay, u rish brow	pedded noded (0 - : who very blitic LIW weak mowish broblitic LIW rees closen rarely ndulating clay version clay version clay version design reconstant cla	nedium s 5 degree sandy a IESTONI edium be rown slig IESTONI sely spac infilled ((g rough, eneer. rehole at	strong to ss) light the shell E, and e edded (0 htly sand E. Discoced (40/ 0/0/5) wi occasio 10.50m	axtremely 1 - 5 dy shell ntinuities 150/440) th greyish nally with	11 -
		Casing th Base	Diameter Diameter	Den	th Top	Depth		elling Duration	Too	ol	Depth Top (m)	Depth Base (n		ng Flush	our Min (%)	Max (%
	meter Dep	ui dase	Diameter	Dep	ли ТОР	Depth	Dase	Duration	100	∪I	9.00	Depth Base (n	Air/Mist		100	100
Remarks Prior to drilling the po the target depth. The was backfilled from g The borehole was fini	borehole was ground level to	insta ll ed 0.50 m b	l from ground le ogl with bentonit	vel to (e, from	0.50 m b n 0.50 m	ogl with բ bgl to 2	olain pip 2.50 m b	e and from (gl with grave	0.50 m bgl and from	to 2.50 n 2.50 m	m bgl with bgl to 10.	slotted p 50 m bgl	ipe. The h	nole	1	l



BH126

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH126 3.00 m to 4.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH126

Project ID:



BH126 6.00 m to 7.50 m





BH126

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH126 9.00 m to 10.50 m

(Ġг							Эе	ep	Bo	reh	ol	e L	og				
Project N Supplem			d to s	Suttor	Dualling	Clien	ıt: Gal	liford ⁻	Try				Date: 2	21/03/20	22			
Location	•				,	Cont	ractor	: Swe	СО				Co-ord	s: E509	458.95 N	129947	9.25	
Project N	No. : GT	T0386				Crew	/ Nam	e: MG	/ DC				Drilling	Equipm	nent: Bei	etta T4	4	
	ole Nur BH127	mber			e Type RC			evel m AOI	D		gged By 6 / MWD			Scale 1:25			ge Num heet 1 of	
	Vater trikes	Sam Depth (and In Type	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descript	tion		
		0.40 - 1		ES ES							0.40 (19.58)	is fir suba Brov	ie and m angular fi	edium, G ne chert. y calcare	avelly sa Gravel is a cous claye	angular a	nd	
		1.20 - 2 1.20 1.30 - 1		C cSPT B	N=68 (3,13/10,14,14	- 1,30)	65				1.30 (18.68) 1.85 (18.13)	clay coar and 1.60	ey SANE se. Grav medium	and GR el is ang chert and 35 m cal	brown sli AVEL. Sa ular to su d limesto careous	and is fin brounde ne.	e to	1
	•	2.20 - 2. 2.20 - 2. 2.20	.70	B C cSPT	N=54 (8,8/10,14,15	,15)	100				2.20 (17.78)	very Grav	gravelly el is ang	SAND. S	brown ca Sand is fii ubrounde estone.	ne to coa	ırse.	
		2.70 - 3. 2.70 2.90 - 3.		C cSPT B	N=55 (4,6/8,8,19,2	20)	80				2.90 (17.08) 3.10 (16.88)	GRA fine and Very sligh cont angu	WEL. Gr to coarse limeston dense y itly claye ent. San ular to ro	avel is ve e mixed li e. rellowish y sandy (d is fine t unded fin	tly clayey ery angula ithologies brown sli GRAVEL to coarse ne to coar re subanç	ar to sub includinghtly cal with low Gravel se chert	angular g chert careous cobble is and	3 -
		3.70 - 4 3.70		C cSPT	N=60 (13,41/11,14, ⁻ 9)		69				3.70 (16.28) 4.25 (15.73)	very litho 4.15	angular logies ind m suba	to suban cluding cl ngular ca n) very si	brown GF gular fine hert and l _ obble (1 trong lin	e to coars limestone	se mixed e.	4-
Hol Depth Bas	le Diamete se Dia	4.50		Casing n Base	50 (4,9/50 fi 152mm)		h Top	Depth		selling Duration	Toc	ol .	Depth Top (m)	Depth Base (m 2.20	Flush Type Air/Mist	g Flush Flush Colou orange	Min (%)	5 Max (%)
Remark	<u> </u>												2.20 2.70 3.70	2.70 3.70 4.50	Air/Mist Air/Mist Air/Mist	orange orange orange	100 100 100	100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 7.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 7.00 m bgl with gravel and from 7.00 m bgl to 10.00 m bgl with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

	Ч					L	Je	ep	, Ro	rer	101	е∟	og				
	t Name ementar	: Wansford	to Suttor	n Dua ll ing	Clier	nt: Gal	liford 7	Ггу				Date: 2	1/03/20	22			
Location		y			Con	tractor	: Swed	СО				Co-ord	s: E5094	458.95 N	129947	9.25	
Projec	t No. : 0	GT0386			Crev	v Nam	e: MG	/ DC				Drilling	Equipm	ent: Ber	etta T4	4	
Bore	ehole N BH12			e Type RC			evel m AOI	D		gged By 6 / MWD			Scale 1:25			ige Num heet 2 o	
Well	Water Strikes			Situ Testing			Coring		Legend	Depth (Level)			Stratum	Descript	ion		
5 - 5	Ollikes	Depth (m) Type	Results	\dashv	TCR	SCR	RQD		(Level)	No r	ecovery.					
		5.50	cSPT	N=69 (8,10/10,19,19	9,21)	0											6 -
		6.50	cSPT	50 (8,14/50 10mm)	for '	0				7.50							7
		7.50 - 8.5 7.50 7.89 - 8.1	cSPT 0 CS	50 (50 for 140mm/50 0mm)		100	86	70		7.50 (12.48)	brov LIMI degi opei brov degi stair 7.50	vn oolitic ESTONE rees, clos n slightly vn clayey ree fractu ned. (Slig m to 7.6	ng to stro locally sh . Discont sely spac brown st r sand ve ures, prob htly weat ragment	nell fragminuities a ed (50/80 ained with neer. Occording the code of the code	nental re 10 - 2 0/230) pr h yellow casional n, slightl rade II). ed as	0 obably ish 60 - 70	8 -
		8.50 - 10.0 8.50 9.19 - 9.3	cSPT	50 (50 foi 120mm/50 0mm)		83	75	55		8.50 (11.48) (11.48) 8.75	brov LIMI degi opei brov degi	lium stror vn oolitic ESTONE rees, clos n slightly vn clayey ree fractu ned. (Slig	ng to stro locally sh . Discont sely spac brown st sand ve ires, prob htty weat	nell fragm inuities a ed (50/80 ained wit neer. Occ pably ope thered Gr	nental re 10 - 2	0 obably ish 60 - 70	9 -
	Hole Diam	eter T	Casing	Diameter				Chi	elling	10.00		E	nd of Bore		0.00m g Flush		10
Depth B	Base [Depth Base 7,50	Diameter Diameter 121	Dep	th Top	Depth		Duration	То	ol	Depth Top (m) 4.50 5.50 6.50 7.50 8.50	Depth Base (m) 5.50 6.50 7.50 8.50 10.00	Flush Type Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist	yellow yellow yellow yellow yellow yellow yellow	Min (%) 100 100 100 100 100 100	Max (%) 100 100 100 100 100

Remarks

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 7.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 7.00 m bgl with gravel and from 7.00 m bgl to 10.00 m bgl with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.



BH127

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ect ID: GT0386







Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH127 4.50 m to 6.50 m



NO RECOVERY

BH127 6.50 m to 8.50 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH127

Project ID:



BH127 8.50 m to 10.00 m

	Ч					L	Je	ep	Bo	rer	IOI	e L	.og				
	t Name		rd to Sutto	on Dua ll ing	Clien	t: Gal	liford ⁻	Try				Date: 0	04/03/20)22 - 08/	03/2022	2	
Location		y			Contr	ractor	: Swe	СО				Co-ord	s: E507	446.62	N30013	0.95	
Proiec	t No. : (GT0386			Crew	Nam	e: JC	/ DL				Drilling	Equipn	nent: Ted	cop Tec	15	
	ehole N BH12	umber	Ho	le Type RC		Le	eve l m AO			gged By 6 / MWD		Ĭ	Scale 1:25		Pa	age Num	
Well	Water		nple and I	n Situ Testing		10.17	Coring		Legend	Depth				n Descrip		illeet i o	Ť
well	Strikes	Depth (TCR	SCR	RQD	Legena	(Level)							
		0.00 - 0								(19.47) 0.60 (18.87)	is fir subs lime Soft orga	ne to coa angular f estone.	rse. Gra ine to co	avelly sar vel is ang arse sand mottled b th occasio	ular and dy oolitic		
		1.20 - 2 1.20		N=0 (0,0/0,0	,0,0)				X 46 4	1.20 (18.27)	loca	lly mottle	ed black	brown an organic si	ilty CLAY	with	1 7
		1.50 - 1	.60 D			100			AC		pea		(**************************************	inin) or pic	and anno	лрпеас	1
		2.20 - 3 2.20		N=0 (0,0/0,0	,0,0)				8 db	2.20 (17.27) 2.50	AZC						2
		3.00 - 3	.10 D			75			W 480	2.70 (16.77) (16.77)	loca rare pea Very	lly mottle pockets t. soft gre occasion	ed black (< 140 n	brown an organic si nm) of pla d yellowis phous roo	ilty CLAY astic amo	with orphous CLAY]
Ξŧ		3.00 - 3	.10								2.70	m to 2.8		n grey c		us very n oolites	
		3.20 - 4 3.20		N=0 (0,0/0,0	,0,0)						Sana	y Glay. C	Jana 13	me and	median	roomes	111111111111111111111111111111111111111
	•	3.70 - 4 4.20 - 5				90											4 —
		4.20 4.70 - 5	SPI		,1,0)	90											5
	Hole Diam	eter	Cocin	ng Diameter				Chin	elling			I		Deilli-	ng Fluch		
Depth E	Hole Diam Base [eter Diameter	Casir Depth Bas	g Diameter Diameter	Deptl	h Top	Depth		elling Duration	То	ol	Depth Top (m 1.20 2.20 3.20	Depth Base (n 2.20 3.70 4.20	Drillin Flush Type Air/Mist Air/Mist Air/Mist	g Flush Flush Colou grey grey grey	Min (%) 100 100 100	Max (%) 100 100 100
the targe was bac	drilling the et depth. ⁻ kfilled fro	The borehol m ground le	e was insta ll vel to 1.00 n	services and a had a from ground lead from ground lead to be	vel to 1. e, from	00 m b 1.00 m	gl with posts bgl to 5	plain pip 5.00 m b	e and from 1 gl with grave	l.00 m bgl el and fron	to 5.00	m bgl with	n slotted p	ipe. The h	ole		

	G							Эе	ep	Во	reh	ol	e Log		
	t Name ementar	: Wansfor	d to S	utton	Dualling	Clie	nt: Gal	lliford T	ry				Date: 04/03/2022 - 08/0	03/2022	
Locati		,				Con	tractor	: Swed	ю				Co-ords: E507446.62 N	l300130.95	
Projec	t No. : (ST0386				Crev	w Nam	ne: JC /	DL				Drilling Equipment: Tec	op Tec 15	
Bor	ehole N BH12				Type RC			evel 'm AOE)		gged By 6 / MWD		Scale 1:25	Page Numl Sheet 2 of	
Well	Water Strikes	Sam Depth (nd In Type	Situ Testing Results		TCR	Coring	RQD	Legend	Depth (Level)		Stratum Descript	ion	
		5.20 - 6. 5.20	.20	C SPT	N=3 (1,1/1,0	,1,1)	85				5.20 (14.27) 5.35 (14.12)	with trace 5.10 brow (ferru AZC Very CLA	m to 5.20 m heavily mot n, locally extremely wea iginous) c v soft and soft grey mottled	tlets and root tled yellowish kly cemented yellowish brown	
		6.10 - 6. 6.20 - 7. 6.20	.20	D C SPT	N=11 (1,2/2,2	2,3,4)					5.90 (13.57) 6.20 (13.27)	<i>brow</i> (<u>ferru</u> Firm	n, locally extremely wea <u>iginous)</u> indistinctly laminated dark shell fragments (< 15 mm)	grey CLAY with	6 -
					· · ·		75				6.45 (13.02)		n indistinctly laminated dark shell fragments (< 15 mm)		7 -
		7.20 - 8. 7.20		C SPT	N=15 (2,2/2,3	3,4,6)	85				7.20 (12.27) 7.35 (12.12)		CL n indistinctly laminated dark shell fragments (< 15 mm)		
		8.00 - 8. 8.20 - 9 8.20 8.95 - 9.	.20	C SPT	N=24 (3,4/4,4	l,7,9)	100					polisi	m to 9.00 m occasional hed shear surfaces (app ontal, corresponding wit ces)	roximately to	8
		9.20 - 10 9.20 9.90 - 10		C SPT CS	N=21 (3,3/4,5	5,4,8)	100								- 10
	Hole Diam				Diameter					selling			Drilling		
Depth E		Diameter	Depth	Base	Diameter	Dep	oth Top	Depth E	Base	Duration	To	ol	Depth Top (m) Depth Base (m) Flush Type	Flush Colour Min (%) grey 100	Max (%) 100 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel and from 5.00 m bgl to 15.00 m bgl with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

	Ч						L	Jee	Эþ) RO	rer	101	еL	.og				
	t Name		rd to	Suttor	Dua ll ing	Clier	nt: Gal	lliford Tr	у				Date: 0	04/03/20	22 - 08/0	03/2022	2	
Locati		y				Conf	tractor	: Swec)				Co-ord	s: E507	446.62 N	N30013	0.95	
Projec	t No. : (GT0386				Crev	v Nam	ne: JC /	DL				Drilling	Equipm	ent: Tec	ор Тес	15	
Bor	ehole N				e Type RC			eve l 'm AOD			gged By 6 / MWD			Scale 1:25			ige Num heet 3 o	
Well	Water Strikes				Situ Testing			Coring		Legend	Depth (Level)			Stratum	Descript	ion		
15:55		Depth	(m)	Туре	Results		TCR	SCR	RQD			Firr	n indistind	ctly lamin	ated dark	grey Cl	AY with	
											10.20		shell frag				40-50	
11.											(9.27)	deg occ	ırees incli asional sl	ned) darl hell fragn	grey CL	AY with		=
		10.50 - 1 10.5		С	N=32 (5,7/7,7	, , ,)				====		son	netimes p	yritised.				-
4.5		10.5	0	3P1	N-32 (5,777,7	,9,9)				===								
																		=
										====								11 -
										====								''
							100			H==								=
1						11.80 (7.67) Very stiff locally laminated to thinly bedded (40 - 50 degrees inclined) dark grey CLAY with occasional shell fragments (<40 mm).												
		11.50 - 1	11.75	CS														-
1								11.80 (7.67) Very stiff locally laminated to thinly bedded (40 - 50 degrees inclined) dark grey CLAY with										
										===		Ver	v stiff loca	ally lamin	ated to th	inly bed	ded (40 -	
		12.00 - 1	13 50	С							(7.67)	50 (degrees ii	nclined) d	dark grey	CLAY w	ith `	12 -
		12.0		SPT	N=33 (3,7/7,8,8,1	, ₀ ,										- ,		'2 =
					(3,777,0,0,1					====								=
1.5										====			ely space ees corr					, =
		12.45 - 1	12.75	CS									tions app				,	=
(V)																		
							100			====								=
																		13
																		13 -
										====								=
1.0																		
		13.50 - 1 13.5		C SPT	N=35	ŀ												-
		13.3	ا ا	3F1	(4,8/7,8,10,	10)												=
										===								=
										====					_			14 -
													0 m to 1 tly polisi					'4 =
		14.20 - 1	14.50	CS			97			====		corre	esponde tions app	nt with la				=
												Sula	ионъ арр	Jarent				=
																		=
										-5-3-1								=
11.										===		14.8	0 m to 1	5.00 m s	_ stiff, crun	nblv te	ture.	=
						ļ					15.00		ıpted fab	oric			- = 3	15 -
	Hole Diam	eter		Casing	Diameter				Chi	selling	.0.00		E T	nd of Bore	ehole at 1: Drilling	5.00m g Flush		1 '
Depth I	Base I	Diameter 121		h Base 2.00	Diameter 121	Dep	th Top	Depth B		Duration	То	ol	Depth Top (m)	Depth Base (m	Flush Type Air/Mist		Min (%)	Max (%)
													10.50 12.00	12.00 13.50	Air/Mist Air/Mist	grey grey	100 100 100	100 100 100
Rema	rke		<u> </u>										13.50	15.00	Air/Mist	grey	100	100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 15.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 5.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 5.00 m bgl with gravel and from 5.00 m bgl to 15.00 m bgl with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.



BH128

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:

STATE OF THE PARTY


BH128 1.20 m to 3.20 m



BH128 3.20 m to 5.20 m



BH128

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

oject ID: GT0386



BH128 5.20 m to 7.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH128

Project ID:



BH128 9.20 m to 10.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH128

Project ID:



BH128 12.00 m 13.50 m



atio	ementa on:					nt: Ga	lliford	Try				Date: 2	2/03/20)22			
		•			Con	tracto	r: Swe	со				Co-ord	s: E509	456.87	N29947	0.24	
Bore	t No. : (GT0386			Cre	v Nam	ne: MG	J DC				Drilling	Equipn	nent: Be	retta T4	4	
	ehole N		Ho	le Type			evel	<u> </u>		gged By			Scale			ge Numl	
T	BH12	•	nnle and I	RC n Situ Testing		19.83	3m AO Coring		CG	6 / MWD			1:25		<u> S</u>	heet 1 of	<u>3</u>
11	Water Strikes	Depth (TCR	SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
		0.00 - 0 0.10 - 0 0.10 - 0 0.40 - 0	.20 D .20 ES .50 ES .80 B							0.30 (19.53)	CLA' occa is fin well limes Orar	Y with rousional particles and marked model of the second	otlets (< seudo fit edium. 0 fine and wn grave	orous plan Gravel is v I medium elly claye	nd root tra nt remair very ango chert an y SAND.	aces and is. Sand ular to d Sand is	
		0.50 - 0									roun inclu (<15	ded fine ding che	and med rt, limes f firm bro	l is very a dium mixe tone. Occ own slight	ed litholo casional	gies pockets	
		1.20 - 2 1.20 - 2 1.20	.20 C	T N=23 (4,5/5,	5,6,7)	100				1.20 (18.63)	calca Sand roun inclu pock	areous s d is fine t ded fine ding che	lightly cla o coarse to coars rt and lir 0 mm) o	vellowish ayey very e. Gravel e mixed I mestone. f firm bro	sandy G is very a ithologie Occasio	RAVEL. ngular to s nal	
		2.20 - 3 2.20 - 3 2.20	.20 C	T N=27 (5,5/5,	6,8,8)	95											
	•	3.20 - 4 3.20 3.40 - 3 3.70 - 4	.60 CSP	T N=37 (5,9/8,9,9,	11)	80				3.20 (16.63) (16.63) 3.40 3.65 (16.18)	Dark very Grav mixe Occa	se grey a ular to su logies ind yellowis sandy G yel is ven ed litholog	bangula cluding c th brown RAVEL. y angula gies inclu ockets (r fine to othert and slightly of Sand is referenced to round a conding che <150 mm	calcareou fine to co ded fine tert and lir	us clayey parse. to coarse mestone.	
		4.20 - 4 4.20 - 4 4.20 4.50 - 5 4.50 - 6 4.50	.50 C cSP .20 B .00 C	T N=37 (8,8/8,9,10 T 50 (50 for 0n for 0mm	nm/50	100				4.20 (15.63) 4.50 (15.33)	Dens Sand suba Dens clayer	se grey a d is fine t angular fi se dark y ey very s se. Grav	and brow to coarse ne to coarse rellowish andy GF el is very	n clayey	is very a ed litholog lightly ca and is fir and ang	ngular to gies. Icareous ne to	
1	Hole Diam	eter	Casir	ng Diameter				Chi	selling		1			Drillir	ng Flush		L
		Diameter	Depth Bas		Dep	oth Top	Depth		Duration	Too	ol	Depth Top (m)	Depth Base (m		Flush Colou orange	Min (%)	M

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.50 m which was the target depth. The borehole was installed from ground level to 5.00 m bgl with plain pipe and from 5.00 m bgl to 10.00 m bgl with slotted pipe. The hole was backfilled from ground level to 5.00 m bgl with bentonite and from 5.00 m bgl to 10.50 m bgl with gravel. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

	G						[Эе	ер	Во	reh	ol	e L	og				
Project Supple			rd to Su	ıttor	Dua ll ing	Clie	nt: Gal	lliford ⁻	Try				Date: 2	2/03/20	22			
Locatio		у сы				Con	tractor	: Swe	СО				Co-ord	s: E509	456.87	N29947	70.24	
Project	No. : (GT0386				Crev	v Nam	ne: MG	/ DC				Drilling	Equipn	nent: Be	retta T	14	
Bore		umber	ŀ		е Туре			evel	n		gged By			Scale			age Num	
	BH12 Water		nnle and		RC Situ Testing		19.83	oring) / MWE)		1:25] 8	Sheet 2 o	T 3
	Strikes	Depth (уре	Results		TCR	SCR	RQD	Legend	Depth (Level)			Stratun	n Descrip	otion		
		5.20 - 5 5.83 - 6		D			100	32	18		5.20 (14.63) 5.45 (14.38)	clay coar and Ligh med rour lime Mod degr shel void	ey very sees. Grave medium to brown sees. It is to be stone. It is to be sees. It is to be seen. It	andy GF el is very mixed lit slightly si coarse. dium and veak very veak very t yellowi ntal LIME	RAVEL. S / angular hologies andy GR Gravel is coarse of / thinly b sh brown ESTONE d is coarse	AVEL Sand is find and and and and and and and and and a	and is to d = 15 colitic rasional rares are) /
		6.00 - 7 6.00		C SPT	50 (50 for 0m for 0mm		93	80	39			prob sligh	m to 6.8	en, plana n stained 29 m NI	r to undu I.			6
		7.07 - 7 7.50 - 9		CS C							7.35 (12.48)	- 15	degrees) light ye	llowish b	rown mo	dded (10	7 -
		7.50 7.50 8.56 - 8) cs	-	50 (50 for 0m for 0mm		95	93	71			LIMI degi opei stair degi incip stair Grad	ees, clos	Sand is sely space to undul asional setures, in dulating reputible weather to m NI and in the second	s coarse. ced (40/1 ating rou ub vertic npersiste ough, sli	Fracture 20/320), gh slight al (85-90 nt open ghtly bro	es are 10 probably ly brown) to	8
		9.00 - 10 9.00 9.14 - 9) cs	C SPT CS	50 (50 for 0m for 0mm		97	91	61			9.74	m to 9.7	⁷ 9 m NI	_			9
	ole Diam				Diameter					selling						ng Flush		
Depth Ba		Diameter	Depth B 6.00	Base	Diameter 121	Dep	th Top	Depth		Duration	То	ol	Depth Top (m) 4.50 6.00 7.50	Depth Base (m 6.00 7.50 9.00	Flush Typ Air/Mist Air/Mist Air/Mist		Min (%) 100 100 100	Max (%) 100 100 100
the target was back	rilling the depth filled fro	Γhe borehol m ground le	le was inst evel to 5.00	talled 0 m b	ervices and a ha from ground le ogl with bentonit er Ref: SIS1.	vel to s	5.00 m b	gl with p	olain pip	e and from 5	5.00 m bgl	to 10.00	m bgl wi	th slotted	pipe. The	hole		

	ЯП					L	Je	ep	BO	rer	IOI	e L	og				
	Name: Wa nentary GI		Suttor	n Dua ll ing	Clie	nt: Gal	lliford ⁻	Try				Date: 2	2/03/20	022			
Location	•				Con	tractor	: Swe	со				Co-ord	s: E509	456.87	N2994	70.24	
Project N	No. : GT03	886			Cre	w Nam	ne: MG	6 / DC				Drilling	Equipr	nent: Be	eretta T	·44	
	ole Numb BH129	er		e Type RC			eve l 8m AO	D		gged By 3 / MWD			Scale 1:25			Page Num Sheet 3 c	
	Vater trikes			Situ Testing		TCR	Coring		Legend	Depth (Level)			Stratur	n Descri _l	ption		
		epth (m)	Type	Results		TCR	SCR	Chic		10.50	Mec - 15 brov LIMI degi ope stair degi incip stair Grad	degrees vn slightles TONE rees, closen, planar ned. Occrees) fractioned, (Slighte I). 3 m to 1	ng to structure to structure to undu asional setures, ir dulating ghtly we 0.19 m	ong veryillowish to oolitic she so coarse ced (40/) lating rouse by vertian persister ough, shathered of the original persister ough, shathered or or original persister ough, shathered or	thinly borown mall fragri. Fractul 120/320 ugh slighcal (85-Sent open ightly br Grade II 10.50m	res are 10), probably ntly brown 90 ı to	
	le Diameter	tor Don		Diameter Diameter	Dar	oth Ton	Donth		elling	To	ol	Don'th T /	Denth P '		ing Flush	our Min (0/)	May 10/
Depth Bas 10.50	se Diame 121	ter Dep	th Base	Diameter	Der	oth Top	Depth	Base	Duration	Too	O l	Depth Top (m	Depth Base (r	nl Flush Typ Air/Mist			Max (% 100
the target of was backfill	lling the posit	orehole was und level to	installed 5.00 m b	services and a had from ground leading to the services and a had been services and been services	evel to	5.00 m t	ogl with p	plain pip	e and from 5	5.00 m bgl	to 10.0	0 m bgl wi	th slotted	pipe. The	hole	•	•



Project:

Wansford to Sutton Dualling Supplementary GI

BH129

Project ID: GT0386



BH129 1.20 m to 3.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH129

Project ID: GT0386



BH129 4.50 m to 6.00 m





BH129

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH129 7.50 m to 9.00 m



	Name nentai	: Wansfoi	rd to Su	utton	Dualling	Clier	nt: Gal	liford ⁻	Try				Date: 2	8/03/20)22 - 29/	/03/2022	2	
atio		усл				Cont	ractor	: Swe	со				Co-ord	s: E509	234.62	N29997	4.20	
ject	No. : (GT0386			(Crev	v Nam	e: MG	6 / DC				Drilling	Equipn	nent: Be	retta T4	4	
		umber			Туре			evel			gged By			Scale		1	age Num	
	BH13				City To ation	1	30.07	m AO		CG	MWD) 		1:25		<u>l</u> s	heet 1 of	T
	Nater Strikes	Depth (g in ype	Situ Testing Results	\dashv	TCR	Coring	RQD	Legend	Depth (Level)			Stratun	n Descrip	otion		
		0.00 - 0		ES							(30.07)	coar		el is sub	angular t	Sand is f to subrou		Ī
		0.50 - 1	.20	ES							0.50 (29.57)	CLA suba	Y. Sand i	s fine to	coarse.	sandy g Gravel is and me		
		1.20 - 2 1.20 1.70 - 1	C\$	C SPT CS	50 (3,18/50 fo 10mm)	or	55	22	14		1.20 (28.87)	more core yello frequ fragr and	e weathe compris wish bro uent to al ments an occasion	red/wea es stron wn LIME bundant d whole aal calcit	ker mate g light bro ESTONE (20 - 30 bivalve s e veins (•	with loca %) shell shells (<5 <2 mm).	overed illy 55 mm)	
		2.00 - 3 2.00		C SPT	50 (50 for 0mm for 0mm)	- 1/50						and	occasior le matrix	al full co	re piece:	nts (< 90 s (<140 r ghtly calc	nm), with	
							45	8	0									
		3.00 - 4 3.00		C SPT	50 (72 for 90mm/50 fo 0mm)	r	60	21	0			black	m to 4.0 dendrit alcite vo	ic mottl	— avy orai ing on fo	nge staii ossil sur	ning and faces	
		4.00 - 5 4.00		C SPT	50 (50 for 0mm for 0mm)	n/50					4.00 (26.07)		n mottle one			weak ye calcare		
		4.50 - 4 4.80 - 4 5.00 - 6	.90	D D C			40	0	0	ZX- XX- XX- XX-	4.60 (25.47)	Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.						
	ole Diam				Diameter					elling						ng Flush		ㅗ
h Ba	ise [Diameter	Depth E		Diameter 121	Dept	th Top	Depth	Base	Duration	To	ol	Depth Top (m) 1.20 2.00	Depth Base (n 2.00 3.00	Flush Typ Air/Mist Air/Mist	Flush Colou yellow yellow	Min (%) 100 100	M

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 10.00 m which was the target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 6.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 6.00 m bgl with gravel and from 6.00 m bgl to the base of the borehole with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

Sample Sample Depth (m) 5.00 -7.00 -7.00 -7.00 -7.00 -7.00	Hole F and In Type SPT CS	P Type RC Situ Testing Results N=26 (4,6/6,6)	Control Crew	ractor / Nam Le	Iliford Try T: Sweco The: MG / DC The: MG	Log	gged By 6 / MWD Depth (Level) 6.00 (24.07)	Date: 28/03/2022 - 29/03/2022 Co-ords: E509234.62 N299974.20 Drilling Equipment: Beretta T44 Scale Page Number 1:25 Sheet 2 of 2 Stratum Description Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.
Sample Sample Depth (m) 5.00 .56 - 5.73 .00 - 7.00 6.00 .75 - 7.00	CS CSPT	Results N=26 (4,6/6,6) N=20 (3,4/5,5)	Crew (5,6,6,8)	/ Nam Lt 30.07	ne: MG / DC evel 'm AOD Coring	Lo ₀	Depth (Level) 6.00 (24.07)	Drilling Equipment: Beretta T44 Scale Page Number 1:25 Sheet 2 of 2 Stratum Description Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.
Sample Depth (m) 5.00 .56 - 5.73 .00 - 7.00 6.00	CS CSPT	Results N=26 (4,6/6,6) N=20 (3,4/5,5)	5,6,8)	TCR 75	evel 'm AOD Coring	Lo ₀	Depth (Level) 6.00 (24.07)	Scale Page Number 1:25 Sheet 2 of 2 Stratum Description Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.
Sample Depth (m) 5.00 5.00 5.00 5.00 5.00 - 7.00 6.00 6.00	CS CSPT	Results N=26 (4,6/6,6) N=20 (3,4/5,5)	5,6,8)	75	m AOD Coring	CG	Depth (Level) 6.00 (24.07)	Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.
Depth (m) 5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00 6.00 6.00	CS C CSPT	Situ Testing Results N=26 (4,6/6,6) N=20 (3,4/5,5)	5,6,8)	75	Coring		Depth (Level) 6.00 - (24.07)	Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris. AZCL Stiff locally thickly laminated to thinly bedded
5.00 .56 - 5.73 .00 - 7.00 6.00	CS C CSPT	N=26 (4,6/6,6 N=20 (3,4/5,5 50 (30,36/50	3,6,8)	75	SCR RQD		6.00 - (24.07)	Stiff locally thickly laminated to thinly bedded (20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris. AZCL Stiff locally thickly laminated to thinly bedded
.56 - 5.73 .00 - 7.00 6.00	CS C cSPT CS	N=20 (3,4/5,5					6.40	(20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris. AZCL Stiff locally thickly laminated to thinly bedded
6.00 .75 - 7.00	cSPT CS	50 (30,36/50	5,5,5)	60		× × × × × × × × × ×	6.40	Stiff locally thickly laminated to thinly bedded
.00 - 8.00	С			60		X	(23.67)	
			⊢			X-((20 - 30 degrees) grey mottled yellowish brown and black (lignitic) slightly calcareous CLAY with occasional partings and lenses of light grey and brown silt/fine sand. Locally abundant shells and shelly debris.
		10111111)	0 for				7.00 (23.07) 7.35	AZCL Stiff grey mottled dark grey and yellowish
.56 - 7.76 .80 - 8.00	CS			65		X X X	7.80	brown silty CLAY, grading with depth to grey mottled orange clayey SILT.
.00 - 9.00	С		-				8.00 (22.07)	Medium strong light grey mottled orange fine SANDSTONE with pockets of SAND, SILT and CLAY. Sand is fine. No recovery.
.50 - 9,00	В			55			8.45 (21.62)	Medium dense light greyish brown clayey gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine sandstone.
00 - 10 . 00 9.00	C cSPT					100000	9.00 (21.07)	No recovery.
60 - 10.00	В			40			9.60 (20.47)	Very dense light greyish brown and yellowish brown fine SAND.
_						1106/25/12	10.00	End of Borehole at 10.00m
neter Dep		Diameter Diameter	Depti	h Top	Chi Depth Base	selling Duration	Tool	Depth Top (m) Depth Base (m) Flush Type Flush Colour Min (%) Max
66 siib	0 - 10.00 9.00 0 - 10.00 eter De tion was cla	0 - 10.00 C cSPT 0 - 10.00 B Casing ter Depth Base De	0 - 10.00 C 9.00 CSPT 65 (8,19/65 163mm) 0 - 10.00 B Casing Diameter Ster Depth Base Diameter 0 - 10.00 C 9.00 CSPT 65 (8,19/65 for 163mm) 0 - 10.00 B Casing Diameter Depth Base Diameter Depth Base Diameter Depth Diame	0 - 10.00 C 9.00 CSPT 65 (8,19/65 for 163mm) 40 0 - 10.00 B Casing Diameter Depth Base Diameter Depth Top tion was cleared of services and a hand dug inspectorehole was installed from ground level to 1.00 m bund leve	0 - 10.00 C cSPT 65 (8,19/65 for 163mm) 0 - 10.00 B Casing Diameter Chief Depth Base Diameter Depth Top Depth De	0 - 10.00 C cSPT 65 (8,19/65 for 163mm) 40 0 - 10.00 B Casing Diameter Chiselling Chiselli	0 - 10.00 C 9.00 B 9.00 (21.62) 0 - 10.00 C SPT 65 (8,19/65 for 163mm) 40 9.60 (20.47) Casing Diameter Chiselling Chiselling	



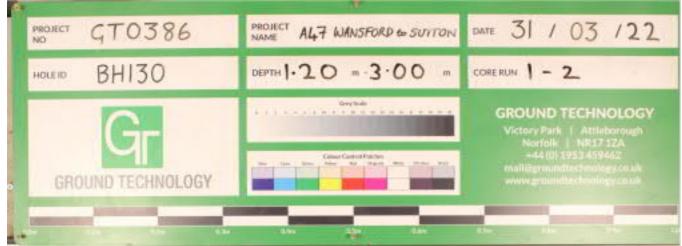
BH130

Project:

Wansford to Sutton Dualling Supplementary GI

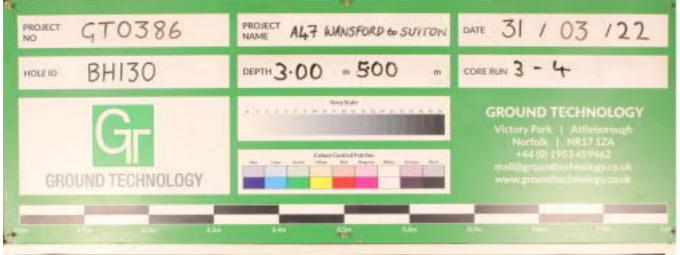
GT0386

Project ID:





BH130 1.20 m to 3.00 m





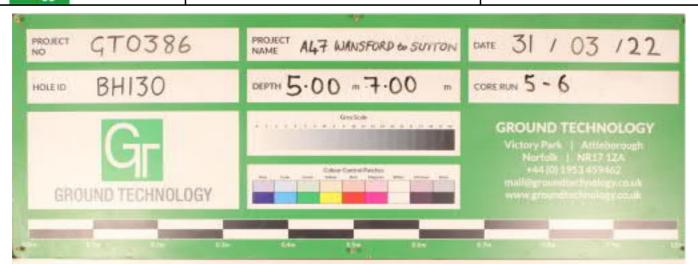


Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

BH130 Project ID:





BH130 5.00 m to 7.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH130

Project ID:



BH130 9.00 m to 10.00 m

	٩							Эе	ep	Во	reh	ol	e L	.og				
Project N Supplem			rd to	Suttor	n Dua ll ing	Clie	nt: Gal	liford ⁻	Try				Date: 2	28/03/20	022 - 30	/03/202	2	
Location		,				Con	tractor	: Swe	СО				Co-ord	ls: E509	332.97	N29977	'3.97	
Project N	No. : G	 3T0386				Crev	v Nam	ne: JC	/ DL				Drilling	Equipr	nent: Te	cop Tec	15	
Boreh E	ole Nu BH131				e Type RC			eve l 'm AO	D		gged By			Scale 1:25	!	1	age Num Sheet 1 o	
Well W	Vater trikes	San		and In	Situ Testing		T00	Coring	_	Legend	Depth (Level)				n Descrip	otion		
		Depth (0.00 - 0 0.30 - 0).30	Type ES ES	Results		TCR	SCR	RQD		(29.37) 0.30 (29.07)	sligh cont coar to co Ligh GRA ango	otly grave ent and se. Grav parse yel t yellowis	elly silty (few fine /el is ang llowish b sh browr and is fin	CLAY wit rootlets. gular and rown lim n slightly e to coar	slightly s th low col Sand is f subanguestone. clayey sa se. Grav and media	oble ine to ular fine andy el is	<u> </u>
	1.50 - 3.00 C											No r	ecovery.					- ' - ' - ' - ' - ' - ' - ' - ' - ' - '
	1.85 - 2.07 CS										1.70 (27.67) 1.85 (27.52)	with x 50 LIMI blac Prok	frequent x 80 mn ESTONE k speckle pably stro	t subang n) of ver E. Clasts ed and b ong (san	ular bloc y strong ; surfaces rown sta npled) be	yellowish are mod ined. coming r	(up to 50 brown lerately nedium] 2
		2.35 - 2 2.80 - 3		CS D			87	25	23		fown LIM math math math math math math math math	d black closely degrees) ly black						
		3.00 - 4 3.00	1.50	С	N=24 (4,4/5,6	6,6,7)					3.00 (26.37)	yellov <u>brow</u> 2.20	wish bro <u>n limest</u> m to 2.3	own spe tone	ckled b	lack and	n strong I stained rough to	3
		3.40 - 3	3.50	D						X X X X X X X X X X	3.25 (26.12)	mott occa wea 2.80 AZC	indistinc led greyinsional o k calcare m thin la	ish brow rdered li eous silty aminatio	n calcare thorelics <u>/ s</u> andsto on of bla		Y with o) of very tic silt	
		3.97 - 4	·.27	CS			83					frequence grey 3.28 Sand	uent poc silt and m to 3.3 is fine m to 4.0	kets and fine san 38 m ora	l lenses (<u>d.</u> angish <i>l</i> : —	(<10 mm) prown, s) of light	4 -
		4.50 - 6 4.50		C cSPT	N=36 (4,5/6,8,10,	12)					(24.87) 4.60		stiff indi			d (10 deg abundan		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
											4.95 (24.42)	shel	debris a	and shel	lv partino	IS.		5 -
	le Diame				Diameter					elling					_	ng Flush	_	
Depth Bas	se D	Diameter		h Base 1.50	Diameter 121	Dep	th Top	Depth	Base	Duration	То	ol	1.50 3.00) Depth Base (r 3.00 4.50	Flush Typ Air/Mist Air/Mist	brown	100 100 100	Max (%) 100 100
the target d was backfill	lling the depth. T lled fron	he borehol n ground le	le was i evel to (installed 0.50 m b	services and a had from ground levelog! with bentonite top hat cover se	vel to (e, from	0.50 m b 1 0.50 m	ogl with posts of the post of	olain pip 2.50 m b	e and from (gl with grave	0.50 m bgl el and fron	to 2.50 n 2.50 m	m bgl with	h s l otted p	ipe. The h	nole		

		rd to Sutto	to Sutton Dualling Client: Galliford Try Date: 28/03/2022 - 30/03/2022 Contractor: Sweco Co-ords: E509332.97 N299773.97															
ipplementa cation:	ry GI			1			_											
	CT0206			+		e: JC										_		
oject No. : Borehole N		Но	le Type	Cie		evel	/ DL	Loc	gged By	,	Drilling	Scale	nent: Ted		age Num	be		
BH13			RC RC	<u> </u>		m AO	D		6 / MWD			1:25			Sheet 2 o			
ell Water Strikes	-		n Situ Testing			Coring		Legend	Depth (Level)			Stratun	n Descrip	tion				
Otrikos	Depth ((m) Type	Results	3	TCR	SCR	RQD		LEGVEI)		stiff indi	istinctly la	aminated	(10 deg	rees)	+		
										dark shell	grey to I debris a	black CL and shell	.AY with a y partings	ibundant s.	white			
	5.24 - 5	.54 CS							5.24 (24.13)	Very	stiff blui	ish grey	slightly m	ottled da	ırk grey ertical	1		
					93						ow trace			•				
								====										
		5.73 m, 5.79 m and 5.85 m (mid points) 3 x parallel shear surfaces 35 to 45 degrees,																
	0.00 7	. 50	undulating polished striated											irees,				
	6.00 - 7 6.00		Γ N=49 (5,7/8,11,1	1 16)														
			(5,776,11,12	+, 10)				===										
								====										
	6.75 - 7	.00 cs			97					6.70	70 m subangular nodule (<35 mm) of light							
								===			70 m subangular nodule (<35 mm) of light own siltstone 82 m to 7.00 m locally thickly laminated							
								====		with s	shelly p	artings		-	degrees			
	7.20 - 7	.50 CS											striated		uog, ooo	,		
	7.50 - 9 7.50		Г N=68							7.50	m to 8.1	10 m be	_ coming :	silty slig	ıhtly			
	7.70 - 7		(7,10/13,16,	18,21)				===			y. Sand		J	, ,	·			
	7.90 - 8	5.00 D											_ casional					
	8.20 - 8	.60 B							8.10 (21.27)	Grey	y streake	ed black t	fine SAND	D. Black		1		
	0.20				98								lt/clay infi ossibly tra					
								2550	8.65	Von	, ctiff dar	k grov C	LAY with	fraguant		4		
	8.82 - 9	.00 CS						===	(20.72)	scat	tered sho degrees)	ells (<30	mm) and	subhori	zontal			
	9.00 - 10	0.50 C						====	(20.37)	8.65	m to 8.8	35 m slig	ghtly san	ndy. Sar	nd is fine			
	9.00		Γ N=74 (7,12/15,18,	20.21)					9.07			35 m ter	 nding to	extreme	ely weak	ı		
			(,,,=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,						muds	mudstone							
						20		====			9.35 m to 9.45 m very weak black organic mudstone with occasional pyritised wood/							
	9.60 - 9	.90 CS			95	63	63			plant debris (<20 mm) AZCL								
												ak CLAV	to extrem	alv waa	le.	╢		
									9.95	MU		Crumb	ly blocky			١		
Hala Bian		Cartin	- Diameter				Cl.:	-11:	(19.42)		I	JCG.	D.:III:	- 51		1		
Hole Diam oth Base	neter Diameter	Depth Base	g Diameter e Diameter	Dep	th Top	Depth		Belling Duration	То	ol	Depth Top (m	Depth Base (n	Drillin Flush Type Air/Mist	g Flush Flush Colou grey	Min (%)	М		
											6.00 7.50	7.50 9.00	Air/Mist Air/Mist Air/Mist	grey grey	100 100			
marks				<u> </u>												L		

G	Γ				L)e	ep	Bo	rer	ol	e L	og				
Project Nam Supplementa		rd to Sutto	n Dua ll ing	Client	: Gall	liford ⁻	Try				Date: 2	8/03/20)22 - 30	/03/202	2	
Location:	-,			Contra	actor	: Swe	СО				Co-ord	s: E509	332.97	N29977	' 3.97	
Project No.:	GT0386			Crew	Nam	e: JC	/ DL				Drilling	Equipn	nent: Te	cop Tec	: 15	
Borehole I			e Type RC	2		eve l m AOI	D		gged By 3 / MWD			Scale 1:25			age Num Sheet 3 o	
Well Water Strikes			Situ Testing		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
	10.10 - 1		resuit	,	TOK	OOK	Ž,			MUI	y stiff blac DSTONE ssy surfac	. Crumb	to extrer ly blocky	nely wea	ık with	-
									10.30 (19.07) 10.50	Very blac	y weak gr k lignitic	ey MUD traces (<	STONE 5	with sub 100 mm	vertical).	
									10.30		E	nd of Bor	ehole at	10.50m		11 —
																13
																14
Hole Dial Depth Base 10.50	neter Diameter 121	Casiny Depth Base	g Diameter Diameter	Depth	Тор	Depth		elling Duration	To	ol	Depth Top (m) 9.00	Depth Base (n 10.50	Drilli Flush Typ Air/Mist	ng Flush e Flush Color grey	ur Min (%) 100	15 Max (%)
Remarks Prior to drilling the target depth. was backfilled frought. bentonite. The bentonite.	The borehole om ground le	e was installe vel to 0.50 m	d from ground le bgl with benton	evel to 0.5 ite, from 0	50 m b).50 m	gl with p bgl to 2	olain pip 2.50 m b	e and from (gl with grave	0.50 m bgl and from	l to 2.50 n 2.50 m	m bgl with	slotted p	ipe. The h	ole		



Project:

Wansford to Sutton Dualling Supplementary GI

BH131

Project ID:







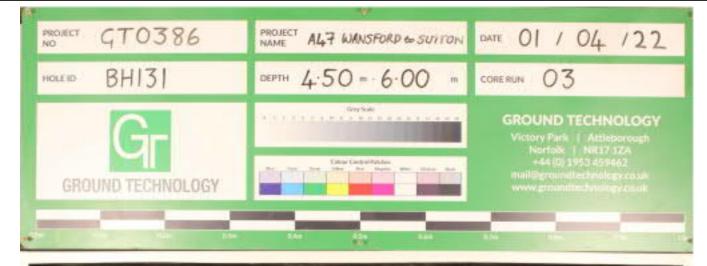


Project:

Wansford to Sutton Dualling Supplementary GI

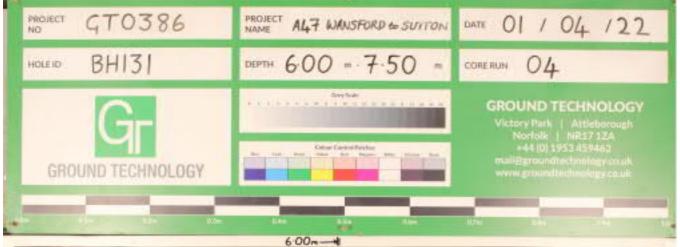
BH131

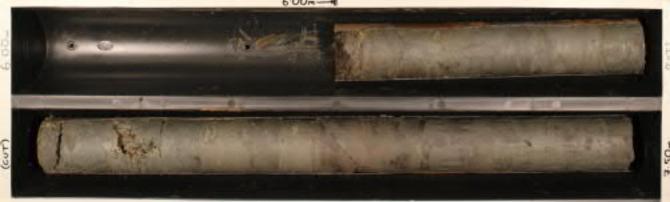
Project ID:





BH131 4.50 m to 6.00 m





BH131 6.00 m to 7.50 m



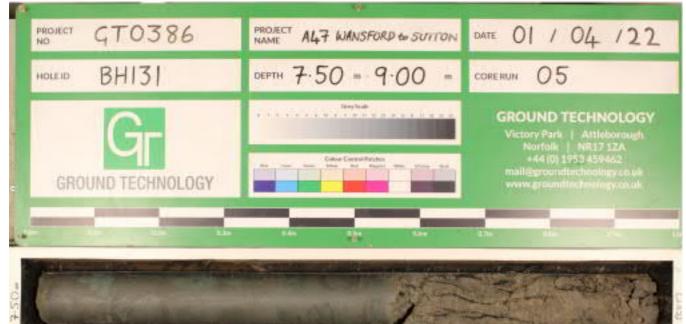
Project:

Wansford to Sutton Dualling Supplementary GI

BH131

Project ID:

GT0386



Car)

BH131 7.50 m to 9.00 m



	G	_					[Эе	ep	Во	reh	ol	e L	og				
	t Name		rd to s	Suttor	n Dua ll ing	Clie	nt: Gal	liford ⁻	Try				Date: 1	4/02/20	22 - 16	/02/202	22	
Locati		•				Con	tractor	: Swe	со				Co-ord	s: E507	928.78	N2996	94.12	
Projec	t No. :	GT0386				Crev	w Nam	e: AE	/ LW				Drilling	Equipm	nent: Fra	aste		
Bor	ehole N BH13				e Type RC			eve l Im AOI	D		gged By 3 / MWD			Scale 1:25		1	age Num Sheet 1 o	
Well	Water	San	nple a		Situ Testing	•		Coring	1	Legend	Depth			Stratum	n Descrip	•		
	Strikes	Depth (0.00 - 0		Type D	Results	i	TCR	SCR	RQD		(Level) (25.39)	Brov	vn slightl	y clayey			with few	+
		0.00 - 0 0.10 - 0 0.20 - 0 0.60 - 0 0.70 - 0 0.80 - 1	0.20 0.60 0.70 0.80	ES D B ES D B							0.10 (25.29) 0.70 (24.69)	is ar yello Yello Sand suba ooliti	ngular an bwish bro bwish bro d is fine a angular fi ic limesto bwish bro	and med ine to coa	gular fine c limesto tly claye ium. Gra arse very tly claye	e and me one. y sandy vel is ar y weak a	GRAVEL. ngular and and weak	<u> </u>
		1.20 - 1 1.20	.65	D	N=18 (3,6/5,4	4,4,5)					1.20 (24.19)	med to co Cobl lime: to fir Firm	ium. Gra parse ver bles are stone. O m greyis to stiff b	ivel is an y weak a very wea	gular and and weak ak and wall pockets clay. grey gra	d subane oolitic leak ooliti eak ooliti s (<50 m	gular fine limestone. tic nm) of soft AY.	1 -
		1.90 - 2	2.00	D			100	0	0		1.50 (23.89)	Med ooliti close infille Reco	ium stroi ic LIMES ely space ed with y overed a	ellowish s angula	ong light ractures omly orie brown to r and sul	yellowis s possibl ntated, o grey sa bangula	h brown ly very open andy clay. r	
	1.90 - 2.00 D 2.00 SPT N=46 (6,8/10,10,12,14) 2.40 - 2.50 CS												2 -					
		3.00 - 3 3.00		D SPT	50 (3,11/50 68mm)						3.00 (22.39)	AZC	:L					3
		3.54 - 3 3.90 - 4	٠.00	CS			90	26	0		3.35 (22.04) 3.80 (21.59)	grain to 15 close sand grey Grad 3.35	ned LIME 5 mm). Fely space dy clay veish-brow de II) m to 3.4	ractures ed (60/-/² eneer, ur n stained 12 m rec	with occ are 15 - 130), pro idulating d. (Slight — covered	asional 25 degr bably op rough, ly weath as ang	voids (up rees, pen with slightly nered	-
	3.90 - 4.00 4.00 - 4.45 4.00 N=15 (3,3/3,4,4,4) N=15 (3,3/3,4,4,4) 30 N=15 (3,3/3,4,4,4) 30 N=15 (3,3/3,4,4,4) N=15 (5 -						
Hole Diameter Casing Diameter Chiselling Drilling Flush																		
Depth 2.0		Diameter 200		h Base :.00	Diameter 200	Dep	oth Top	Depth	Base	Duration	Too	ol	1.20 2.00 3.00 4.00	2.00 3.00 4.00 5.00	Flush Typ Water Water Water Water	Flush Colo	100 100 90	Max (%) 100 100 90
the targ	drilling the et depth. ckfilled fro	The borehol m ground le	e was i vel to 1	installed 1.00 m l	ervices and a had from ground lebogl with bentonit	vel to e, from	1.00 m b n 1.00 m	gl with p bgl to 1	p <mark>l</mark> ain pi I0.00 m	pe and from 1 bgl with grav	1.00 m bgl /el and fro	to 10.00 m 10.00	m bgl wi m bgl to	th slotted	pipe. The	hole	1	

	G						Эе	ep	Во	reh	ol	e Lo	og				
Project Supple			rd to Sutt	on Dua ll ing	Clie	nt: Gal	liford ⁻	Try				Date: 14	/02/20	22 - 16/	02/202	2	
Location		у СП			Con	tractor	: Swe	со				Co-ords:	E507	928.78 1	N29969	94.12	
Project	! No. : (GT0386			Crev	w Nam	ne: AE	/ LW				Drilling E	quipm	nent: Fra	ste		
Bore		umber	Н	ole Type			evel Im AO	_	1	gged By			Scale			age Num	
	BH13 Water		nnle and	RC In Situ Testing		25.38	Coring			6 / MWD Depth) 		1:25			Sheet 2 c	1
Well	Strikes	Depth (m) Typ	e Results	3	TCR	SCR	RQD	Legend	(Level)		5	Stratum	Descript	tion		
		5.00 5.25 - 5		Γ N=16 (2,3/3,	4,4,5)					(20.39)		lium dense relly SAND					
			.95 D			100			****	6.30 (19.09) 6.50	6.15 to ve with	m to 6.00 se fraction bunded m m to 6.30 ry thinly ir grey silt cl m to 6.30 gish to bro	n is more dium mind independent in more diagram in more diagr	ainly ool limesto Listinctly dded (10 ddark b	lites), w ne grav interlar o to 15 rown li	vith rare vel minated degrees gnite	6 -
	6.50 - 6.95 6.50 N=18 (2,3/3,4,5,6) D N=18 (2,3/3,4,5,6) N=18 (2,3/3,4,5,6) D N=18 (2,3/3,4,5,6) N=18												, , , , , , ,				
		7.80 - 7 8.00 - 8 8.00	.45 D	Г N=19 (2,3/4,	4,5,6)					7.70 (17.69)	silty	/ stiff grey s CLAY. Sar	nd is fin	e and me	edium.	y slightly	8.
		8.50 - 8 8.80 - 8				87	9	0		8.70 (16.69)		m to 8.60				Y. Sand is	
		9.20 - 9	.35 CS	3							Jvery suba ferrue Med orar occa	m to 9.15 gravelly. (ngular fine ginous no lium strong ngish browr asional biva	Gravel e and dules to stro fine g alve sh	is angua medium ong light g rained Ll ells and s	lar and limest grey stai MESTC shell frag	one and ined NE with gments (5	
9.50 - 9.95 9.50 SPT N=23 (2,17/7,7,5,4) 9.65 (15.74) 9.65 (15.74) Stiff grey indistinctly laminated locally fissured CLAY. Fissures are planar, smooth, possibly very closely to closely spaced where present.											10						
Hole Diameter Casing Diameter Chiselling Depth Base Diameter Depth Base Diameter Depth Top Depth Base Duration Tool Depth Base (m)FI													_	g Flush	1	<u> </u>	
Depth B		Diameter	Depth Bas	e Diameter	Dep	oth Top	Depth	Base	Duration	To	ol	Depth Top (m) De 5.00 6.50 8.00	epth Base (m 6.50 8.00 9.50	Flush Type polymer polymer polymer	Flush Colo	ur Min (%) 100 90 50	Max (% 100 90 50
the targe was back	drilling the t depth. kfilled fro	Γhe borehol m ground le	e was instal vel to 1.00 r	f services and a h led from ground le n bgl with bentoni I with a top hat co	evel to te, fron	1.00 m k n 1.00 m	ogl with bgl to 1	p <mark>l</mark> ain pi _l I0.00 m	oe and from ´ bgl with grav	l.00 m bgl /el and fro	to 10.00 m 10.00	0 m bgl with) m bgl to the	slotted	pipe. The I	nole		

	Ч						L	Je	ep	RO	rer	101	еL	.og						
	ct Name	: Wansford	d to Su	utton	Dua ll ing C	Client:	Gal	liford ⁻	Try				Date: 1	14/02/20	22 - 16/	02/202:	2			
Locati		. y			C	Contra	ctor	: Swe	со				Co-ord	s: E507	928.78	N29969	4.12			
Projec	ct No. : (GT0386			C	Crew I	Nam	e: AE	/ LW				Drilling	Equipm	nent: Fra	ste				
Bor	ehole N		l		Type RC	2:		eve l m AO	D		gged By 6 / MWD			Scale 1:25			age Numb Sheet 3 of			
Well	Water Strikes				Situ Testing	1	TCB.	Coring		Legend	Depth (Level)			Stratum	n Descrip	tion				
		Depth (r 10.30 - 10 11.00 - 11 11.00	.45 s	CS D SPT	Results N=19 (3,3/4,4,5	5,6)	100 100	10	O O		11.60	10.90 light ferru to co	brown s ginous r garse 5 m to 1 ules of ve one with y stiff indi	1.00 m µ lightly so nodules	anar, sm spaced cocket (andy cla (<10 mr s no. Su k light gi n orangia	<70 mm y with the many vein shtobrounders or the shoot of the shoot o	ssibly resent. a) of soft requent d is fine ed ed white wn sandy ssured k	11		
		12.50 - 12 12.50 13.66 - 13	S	D SPT	N=23 (2,3/4,5,6		100					grey she smo whe	Very stiff indistinctly laminated locally fissured							
		14.00 - 14 14.00		D GPT	N=40 (4,5/7,8,12,13		100						3.80 m to 14.00 m occasional scattered hite shells and shell fragments (<20 mm)							
	Hole Diam				Diameter					elling					T	g Flush				
Depth			Depth B			Depth '	Тор	Depth		Duration	То	ol	9.50 11.00 12.50	Depth Base (m 11.00 12.50 14.00	Flush Type Water Water polymer	1	0 60 80	Max (%) 0 60 80		
the targ	drilling the et depth. ckfilled fro	The borehole m ground lev	was ins	talled 0 m b	ervices and a han from ground leve ggl with bentonite, ith a top hat cover	I to 1.0 from 1.	0 m b .00 m	gl with posting by the second	plain pip I0.00 m	e and from 1 bgl with grav	l.00 m bgl el and fro	to 10.0 m 10.00	vas termina 0 m bgl wi 0 m bgl to	ated at 20.	00 m whic	hole				

G	们					L	Je	ep	RO	rer	IOI	e L	.og				
Project Nan		rd to Sut	ton D	ua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 1	4/02/20)22 - 16/	02/202	2	
Location:	и у Сп			,	Cont	ractor	: Swe	co				Co-ord	s: E507	928.78	N29969	94.12	
Project No.	: GT0386			,	Crew	/ Nam	e: AE	/ LW				Drilling	Equipm	nent: Fra	aste		
Borehole BH	Number	Н	lole Ty RC				eve l m AOI	D		gged By i / MWD			Scale 1:25		Р	age Num Sheet 4 c	
Well Wate				tu Testing		TOR	Coring		Legend	Depth (Level)			Stratum	n Descrip	tion		
		5.95 C SF	pe O	N=39 (4,4/5,8,12,1		100 100	SCR	RQD	Legend		Very CLA muc grey shel smc whee 15.10 subra heav	AY, locally listone, we siltstone, we siltstone, we siltstone if fragmen out, protection of the presence of m to 1 counded illy pyritis of m to 1 diameter graph of the protection of m round calcared of m fossillations.	stinctly lave tending in the remains and the remains are seen nodules seed daries. 6.20 m is seed daries. 6.20 m is remains and the remains are seed daries. 6.20 m is remains and the remains are seed daries.	aminated to extrere subround is (<20 min). Fiss y closely thin bed is (<80 min) and the set of the	locally inely weared light m) and se ures are to close to close to f submy of smudston and ded not get to exterritised of the module of the mo	ak brownish- scattered planar, ly spaced angular t trong ie dule (full remely grey of light	18 -
											calca	areous n	nudston	e			
										20.00			-4 -4 D	ن احاجات	20.00		20 -
Hole Dia	ameter	Car	sing Diar	meter T				Chic	elling			E	nd of Bor		20.00m ng Flush		
Depth Base	Diameter Diameter	Depth Ba		meter Diameter	Dept	h Top	Depth		elling Duration	To	ol	Depth Top (m	Depth Base (m	Flush Typ	1		Max (%)
		,				F						14.00 15.50	15.50 17.00	polymer polymer		50 50	50 50
Remarks Prior to drilling the target depti was backfilled to with bentonite.	n. The borehol from ground le	e was insta vel to 1.00	alled fro m bgl v	om ground leve with bentonite	el to 1 , from	.00 m b	gl with p bgl to 1	olain pip 0.00 m	e and from 1 bgl with grav	.00 m bgl rel and fro	to 10.0 m 10.00	0 m bgl wi) m bgl to	th slotted	pipe. The	hole	1	<u> </u>



BH132

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:

,



BH132 1.20 m to 3.00 m



BH132 3.00 m to 5.00 m



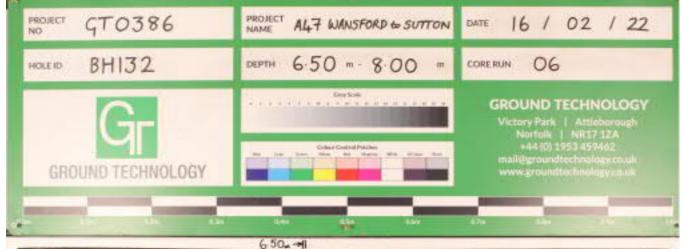
Project:

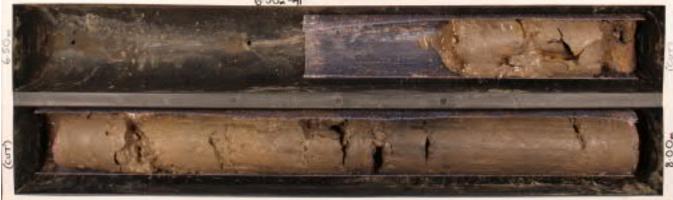
Wansford to Sutton Dualling Supplementary GI

BH132 Proje









BH132 6.50 m to 8.00 m



Project:

Wansford to Sutton Dualling Supplementary GI

BH132 Project ID:





BH132 8.00 m to 9.50 m





HOLEID

GT0386

BH132

GROUND TECHNOLOGY

Photographic Report

BH132

Project:

Wansford to Sutton Dualling Supplementary GI







Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:







BH132

Project:

Wansford to Sutton Dualling Supplementary GI

Projec



BH132 17.00 m to 18.50 m



	Ч					L	Je	ep	BO	rer	10l	e L	og				
	t Name ementa		rd to Sutt	on Dua ll ing	Clier	nt: Gal	liford ⁻	Try				Date: 2	8/02/20	22 - 01	/03/202	22	
Locati		усл			Con	tractor	: Swe	со				Co-ords	s: E507	709.47	N3000	46.94	
Projec	t No. : (GT0386			Crev	v Nam	ne: MG	6 / DC				Drilling	Equipm	nent: Be	eretta T	44	
Bor	ehole N BH13		Но	ole Type RC			eve l m AO	D		gged By 3 / MWD			Scale 1:25		1	age Num Sheet 1 c	
Well	Water Strikes	San Depth (n Situ Testing	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
		0.10 - 0 0.10 - 0 0.25 - 0 0.40 - 0	.30 B							0.30 (17.04)	grav is fir subr Soft dark sligh Grav	ess over de relly SILT ne to coar rounded f yellowish brown sl thy clayer wel is sub rse limest	with correct Gravine to continue to contin	mmon fir vel is sub parse lim slightly r avelly sl and is fi and sub	ne rootle bangular estone mottled c ightly sa ne to co rounded	ts Sand and orangish ndy arse	-
		1.00 - 1 1.15 - 1 1.20	.20 D	Г N=1 (0,0/1,0),0,0)	81				(16.14) 1.35 1.35 (15.99)	amo	L ly interbe irphous P itly organ	EAT and	d soft gre			1
		1.80 - 1 2.00		Γ N=1 (0,1/0,0),1,0)				and the sales of t	(15.34)							2
		2.80 - 2	.90 D			80			chi ale ale ale ale ale ale ale ale ale ale ale ale ale	2.20 2.70 (14.64)	occas 2.65 is ang		<u>nell frag</u> '0 m sai d subar	ments indy ver ngular fi	(<2 mm y grave ine and) Ily. Grave medium	
		3.00 3.90 - 4		Γ N=0 (0,1/0,0	0,0,0)	60				3.85 (13.49)	plan 3.00 cavet from	grey CLA t remains m to 3.4	s. 0 m pro isturbeo g strata	bably A d very s	AZCL w oft peat	t and clay	3 7
		4.00 4.70 - 5),0,1)	95				(.5.15)							4
		5.00	SP.	Γ N=15 (2,2/3,	3.5 41				D-I-E								_ 5 _
	Hole Diam			ng Diameter	J,J,4)			Chic	elling		L			Drilli	ng Flush		
Depth	_	oter Diameter	Depth Bas 5.00		Dep	th Top	Depth		Duration	То	ol	Depth Top (m)	Depth Base (m		ng Flush De Flush Colo	our Min (%)	Max (%)
Rema	_ arks			1	1										 		
Prior to the targ was bad	drilling the et depth. ⁻ ckfilled fro	Γhe borehol m ground le	e was instal vel to 4.00 r	f services and a hed with plain pipe n bgl with bentoni e. SPT Hammer f	from g te and t	round le from 4.0	evel to 4	.00 m b	gl and slotte	d pipe fror	n 4.00 m	bgl to 9.0	0 m bgl.	The boreh	nole		

	Ч						L	Je	ep	BO	rer	101	е∟	og							
	t Name: ementar		rd to	Suttor	Dua ll ing (Client:	Gal	liford ⁻	Try				Date: 2	8/02/20)22 - 01	/03/20	22				
Location		y (11			(Contra	ctor	: Swe	СО				Co-ord	s: E507	709.47	N3000	146.94				
Projec	t No. : 0	ST0386			(Crew N	Nam	ie: MG	/ DC				Drilling	Equipn	nent: Be	eretta T	44				
Bor	ehole N BH13				e Type RC	17		eve l m AOI	D		gged By 6 / MWC			Sca l e 1:25			Page Nur Sheet 2				
Well	Water Strikes	Sar Depth		and In Type	Situ Testing Results		CR	Coring SCR	RQD	Legend	Depth (Level)			Stratun	n Descri _l	otion					
		5.74 - 6		CS		1	00					Firm 5.00 surfa	m to 5.2	ng firm/s 20 m po	tiff with c ssible p	depth gr oolished	ey CLAY. d shear				
		6.00 6.74 - 7		SPT	N=18 (3,5/3,4,		00					6.00 m to 6.40 m abundant possible polished shear surfaces, undulating striated. Zone of disturbance due to SPT, so unable to determine further detail									
		7.00 - 8 7.00		C SPT	N=21 (3,4/4,5,	6,6)					7.00 (10.34)	AZC	AZCL								
		7.90 - 8	3.20	CS			51				7.73 (9.61)	<u>frag</u> 7.73	ments (< m to 7.9	15 mm). 00 m sh	_ ear surl	aces ir	tered shell nclined 4: polished	5 -			
		8.50 - 1 8.50		C SPT	N=28 (4,4/5,7,		00				8.50 (8.84)	grey	y stiff indi / CLAY lo rare sca	cally ext	remely v	veak Ml	grees) JDSTONE	9 -			
		9.50 - 9	9.80	CS							10.00		E	nd of Bor	rehole at	10.00m		10			
	Hole Diame				Diameter					elling					Drilli	ng Flush	_				
Depth E 10.0		Diameter 121	Dept	h Base	Diameter	Depth ⁻	Гор	Depth	Base	Duration	То	ol	7.00 8.50	Depth Base (n 8.50 10.00	Air/Mist Air/Mist Air/Mist	grey	90	90 100			
the targe	drilling the et depth. T kfilled fror	he borehol n ground le	le was evel to	insta ll ed 4.00 m l	ervices and a har d with plain pipe fr ogl with bentonite SPT Hammer Re	om grou and fror	ınd le	evel to 4	.00 m b	gl and slotted	d pipe fror	n 4.00 n	n bgl to 9.0	00 m bgl.	The borel	nole		1			



BH133

Project:

Wansford to Sutton Dualling Supplementary GI

Project



BH133 1.20 m to 3.00 m





BH133

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:









Project:

Wansford to Sutton Dualling Supplementary GI

BH133 Proje



BH133 8.50 m to 10.00 m

G	, I					Эе	ep	Во	reh	ol	e L	og					
Project Nam Supplement		rd to Sutto	n Dua ll ing	Clier	nt: Gal	lliford ⁻	Try				Date: 0	1/04/20	22 - 04	/04/202	22		\exists
Location:	ary Gi			Conf	tractor	: Swe	СО				Co-ord	s: E508	229.31	N2997	04.67		
Project No.	: GT0386			Crev	v Nam	ne: JC	/ DL				Drilling	Equipn	nent: Be	eretta T	44		
Borehole BH1		Но	le Type RC			eve l 9m AOI	n		gged By 6 / MWD			Scale 1:25			Page Nu Sheet 1		
Wate		nple and I i	n Situ Testing		20.00	Coring			Depth				Danamin	•	Oneet 1		
Well Strike	Depth (Results		TCR	SCR	RQD	Legend	(Level)				Descrip				
	0.00 - 0 0.00 - 0 0.20 - 1 0.20 - 1 0.30 - 0	.20 ES .20 ES .20 LB .40 ES							(20.09) 0.20 (19.89)	grav rootl is ar lime Stiff San	estiff dari elly CLA ets (<2 r ngular an stone. brown sl d is fine t	Y with oon mm). Sar d suband ightly sa	ccasiona nd is fine gular fine ndy sligh e. Gravel	I roots a to coar to coar to coar ntly grav is angu	and se. Grav rse relly CLA ılar and	_/	1 -
	1.20 - 2 1.50 - 1	.60 D	N=13 (3,3/3,	3 3 4)	100				1.20 (18.89) (18.89) 1.30	sligh Grav	L to stiff g ntly grave vel is ang lium lime	elly CLAY gular and	. Sand is	s fine to	coarse.		
	1.90 - 2		10 (0,0/0,	0,0,4)	100				1.75 (18.34)	brov San	to stiff y vn calcar d is fine t angular fi	eous slig to coarse	htly san . Gravel	dy gravi is angu	ellý CLA		- - - - -
	2.20 - 3 2.20		N=17 (3,4/4,	4,4,5)													
	2.66 - 2 3.20 - 4				100											3	3 -
	3.20	SPT	N=15 (3,4/3,	4,4,4)	100				3.40 (16 . 69)	sligh coar	to firm y itly grave se. Grav medium	elly silty (el is ang	CLAY. Sa ular to si	ınd is fir	ne to		
	3.90 - 4 4.20 - 5	5.20 C			100				3.85 (16.24)	Sand suba very occa	ngish bro d is fine f angular fi weak fe asional v	to coarse ine and r rruginous ery angu	e. Gravel nedium e s sandste	is angu extreme one and	llar and ly weak l	to 4	1 -
_	4.83 - 5	SPT	N=20 (4,4/4,:	5,5,6)	100				4.55 (15.54)	Firm 4.55	i grey be m to 4.8 m beco	coming o	ttled ye	llowish	n brown		- - - - - - - - -
	Hole Diameter Casing Diameter Chiselling													ng Flush	_		_
Depth Base	Diameter	Depth Base	1	Dep	th Top	Depth		Duration	Too	ol	Depth Top (m) 1.20 2.20 3.20	2.20 3.20 4.20	Flush Typ Air/Mist Air/Mist Air/Mist	Flush Col No retu No retu	rn 0 rn 0	%) Max 0 0 0	
the revised targ The hole was b	et depth. The ackfilled from	borehole was ground level	services and a h s installed from g to 1.00 m bgl with finished with a t	round I	evel to nite, fro	1 00 m b om 1 00	ogl with m bgl to	plain pipe an 4.50 m bgl v	d from 1.0 vith gravel	0 m bgl and fro	to 4.50.00 m 4.50 m) m bgl wi	th slotted	pipe.			

	Ч						L	Je	ep) RO	rer	1OI	еL	.og				
	t Name ementar		rd to	Suttor	n Dua ll ing	Clie	nt: Ga	lliford T	Гry				Date: 0	1/04/20	22 - 04	4/04/202	2	
Location		y (11				Con	tracto	: Swed	ю				Co-ord	s: E508	229.31	N29970	04.67	
Projec	t No. : (GT0386				Cre	v Nam	ne: JC /	/ DL				Drilling	Equipm	nent: B	eretta T₄	14	
Bore	ehole N BH13				e Type RC			evel 9m AO[)		gged By 3 / MWD			Scale 1:25		Р	age Num Sheet 2 o	
Well	Water Strikes				Situ Testing		700	Coring		Legend	Depth (Level)			Stratum	n Descri	iption		
		Depth (<u>(m)</u>	Type	Results		TCR	SCR	RQD		Ì	Firr	n grey be	coming c	lark gre	y CLAY.		-
		5.20 - 6	20	С							5.20	5.10	m to 5.2	20 m bla	ck lign	itic veini	ng] =
		5.20			N=14 (3,3/3,3	3,4,4)					(14.89)	(pos AZC	<i>sible roc</i> CL	<u>it traces</u>)			1 :
																		=
											F 60]]
							100				5.62 (14.47)	Red	covery is	of firm to	stiff yel	llowish br	own slightly	7 :
												gra	velly CLA	Y. Sand i	s fine to	o coarse. and medi	Gravel is	=
										====		lime	estone. P	ossibly m	naterial	pushed d	own from	6 -
										===		san	nples take	en.			Hence no	
		6.20 - 7 6.20		C SPT	N=14 (2,3/2,3	3 4 5)					6.20 (13.89)	(<5	0 mm) of	medium	n is of a strong o	angular fra calcareou	agments Is	1 =
		0.20		. .	(_,0,_,0	,, .,.,					(10100)	silts Firr	stone nod n to stiff i	ules. ndistinctl	y lamina	ated dark	grey	/ 3
													AY with o			d lithoreli		-
							100						·/-					1 3
		6.80 - 7	.10	cs			100											=
										====								7 -
		7.20 - 8	.20	С						===								-
		7.20	1	SPT	N=21 (4,4/3,4	1,6,8)				====								
																		1 3
																		-
		7.00.0		00			100			1-1-1								-
		7.80 - 8	.10	CS						====								
																		8 -
		8.20 - 9	20	С								8 15	m noss	ihla sha	_ ar surf:	ace, 45 d	dearees	1 =
		8.20			N=27 (4,5/5,6	3,7,9)							ılating p		ai Suite	ace, 40 (iegrees	-
] =
										====								-
							100				8.70	Stif	findisting	tly lamin:	ated day	rk grey Cl	ΔV with	
		8.80 - 9	.10	CS							(11.39)	occ	asional s	cattered	shell fra		<10 mm)	=
												and	rare oru	erea mino	relics (~ 20 mm).		9 -
		9.20 - 10 9.20		C SPT	N=31 (4,6/6,8	3.8.9)				-2-2-1								1 3
		0120		0	(1,0/0,0	,,,,,,												3
																		-
							100											
																		-
		9.92 - 10	0.20	cs														=
											•							10 —
Depth E	Hole Diam Base [eter Diameter		n Base	Diameter Diameter	Dep	oth Top	Depth		selling Duration	То	ol	Depth Top (m	Depth Base (m	Flush Ty			Max (%)
			6	.00	121								4.20 5.20	5.20 6.20	Air/Mis Air/Mis Air/Mis	t No retur	n 0	0 0 100
													6.20 7.20 8.20	7.20 8.20 9.20	Air/Mis Air/Mis Air/Mis	st grey	100 100 100	100 100 100
Rema	rke		-													Ť		

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the revised target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 4.50.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 4.50 m bgl with gravel and from 4.50 m bgl to the base of the borehole with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

G	Г						Эе	ep	Bo	reh	ol	e L	.og				
Project Name Supplementa		rd to S	Sutton	Dua ll ing	Clier	nt: Gal	liford T	Ггу				Date: 0)1/04/20	22 - 04	/04/2022	2	
Location:	ту ст				Conf	tractor	: Swed	СО				Co-ord	s: E508	229.31	N29970	4.67	
Project No. :	GT0386				Crev	v Nam	e: JC	/ DL				Drilling	Equipm	nent: Be	retta T4	4	
Borehole N BH13				Type RC			evel m AOI)		gged By i / MWD			Scale 1:25			age Num heet 3 of	
Well Water	· ·	nple a		Situ Testing			Coring		Legend	Depth				n Descrip		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Strikes	Depth (m)	Туре	Results		TCR	SCR	RQD		(Level)	Stiff	indistinc				AY with	 _
	10.20 - 1 10.20 10.20		C SPT	N=28 (4,5/5,5,8,1	0)	100					and	asional so rare orde	ered litho	relics (<	20 mm).		
	11.20 - 1: 11.20	2.20	C SPT	N=39 (6,6/6,13,10,	,10)					11.00 (9.09)	muds veinii (<90 Stiff CLA	stone no ng, reco <u>mm)</u> to very s	odule with vered a	th calcit s angula y lamina	e and p ar fragm ted dark	rite ients	11
	11.67 - 1 12.00 - 1 12.00	3.50	CS N=32 (4,5/5,7,9,11) N=32 (4,5/5,7,9,11) CS N=32 (4,5/5,7,9,11) 12.00 m to 12.30 m approx. 5 rounded nodules (<60 mm) of strong dark grey calcareous mudstone. Possibly pyritic (dense) 12.30 m to 12.40 m possible shear surface, 45 degrees impersistent polished undulating									12 -					
	12.45 - 1:	2.70	CS			100					nodules (<60 mm) of strong dark grey calcareous mudstone. Possibly pyritic (dense) 12.30 m to 12.40 m possible shear surface,						13
	13.50 - 1. 13.50 14.00 - 1:)	C SPT C	N=38 (5,6/6,8,12,	12)	100				14.00	13.50 orien	0 m to 1 tated ap	3.70 m l oprox 50	_ locally la degree	aminate es	d,	
	Very stiff locally laminated dark g extremely weak MUDSTONE with calcareous mudstone nodules, at whole bivalve shells (<30 mm) ar fragments.								with occa , and sca	asional attered	14						
Hole Dian	neter	Casing	Diameter	[Chi	selling					Drillii	ng Flush		15	
	Diameter	Depth		Diameter	Dep	th Top	Depth		Duration	To	ol	9.20 10.20 11.20 12.00 13.50	Depth Base (m 10.20 11.20 12.20 13.50 14.00	Flush Typ Air/Mist Air/Mist Air/Mist Air/Mist Air/Mist		100 100 100 100 100 100	Max (%) 100 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 20.00 m which was the revised target depth. The borehole was installed from ground level to 1.00 m bgl with plain pipe and from 1.00 m bgl to 4.50.00 m bgl with slotted pipe. The hole was backfilled from ground level to 1.00 m bgl with bentonite, from 1.00 m bgl to 4.50 m bgl with gravel and from 4.50 m bgl to the base of the borehole with bentonite. The borehole was finished with a top hat cover secured in place with concrete. SPT Hammer Ref: SIS1.

C	汇			Deep Borehole Log														
Project Na Suppleme	me: Wansfo	rd to Suttor	Client: Ga	lliford	Try			Date: 01/04/2022 - 04/04/2022										
Location:	•			Contracto	Co-ords: E508229.31 N299704.67													
Project No	. : GT0386			Crew Nan	ne: JC	/ DL			Drilling Equipment: Beretta T44									
	Borehole Number Hole Type BH134 RC				evel 9m AO	D	Logged By CG / MWD				Scale 1:25		Page Number Sheet 4 of 4					
Well Wat			Situ Testing		Coring	RQD	Legend	Depth (Level)	Stratum Description									
	Depuir	туре	Results		SUK	RQD		15.50	Very stiff locally laminated dark grey CLAY to extremely weak MUDSTONE with occasional calcareous mudstone nodules, and scattered whole bivalve shells (<30 mm) and shell fragments. AZCL									
								(4.59) 15.60 (4.49)	Very extre calca whole frager	stiff local emely wea areous mu e bivalve nents. m to 17 es (<70 reous mu	ak MUDS udstone shells (< 7.00 m of mm) of	STONE nodules <30 mm - occasio strong	16 —					
	16.64 - 1	6.89 CS						17.00 · (3.09)	AZC	L					17 —			
								17.42 (2.67)	extre scatt	stiff local mely wea ered who fragment	ak MUD: le bivalv	STONE	with occ	asional	_			
	18.09 - 1	8.38 CS						18.50 (1.59)	AZC	L					18			
															19 -			
	19.70 - 1	9.90 D						20.00		En	d of Bore	ehole at:	20.00m		20			
	Diameter		Diameter		I		elling					Drilli	ng Flush					
Depth Base 15.50	Diameter 121	Depth Base	Diameter	Depth Top	Depth	Base	Duration	Tod	ol .	Depth Top (m) [Depth Base (m)	Flush Typ Air/Mist	Flush Colo	our Min (%) 100	Max (%) 100			
Remarks				<u> </u>									<u> </u>					
Prior to drilling the revised ta The hole was	g the position warget depth. The backfilled from bentonite. The	borehole was ground level to	installed from g o 1.00 m bgl with	round level to h bentonite, fro	1.00 m l om 1.00	bgl with m bgl to	plain pipe an 4.50 m bgl v	d from 1.0 with gravel	0 m bgl and froi	to 4.50.00 m 4.50 m b	m bgl wit	h slotted	pipe.					



Project:

Wansford to Sutton Dualling Supplementary GI

BH134

Project ID:



BH134 1.20 m to 3.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH134 Pro



DI 1424 E 20 m to 7 20 m





BH134

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH134 9.20 m to 11.20 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH134

Project ID:



BH134 13.00 m to 14.00 m





BH134

Project:

Wansford to Sutton Dualling Supplementary GI

Pr



BH134 15.50 m to 17.00 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH134

Project ID:



BH134 18.50 m to 20.00 m

	ct Name: <u>ementar</u>		rd to S	Suttor	n Dua ll ing	Clie	nt: Gal	liford	Try			Date: 16/05/2022 - 19/05/2022								
Location:							Contractor: Sweco							Co-ords: E508631.82 N299647.21						
Project No. : GT0386					Crev	Crew Name: MG / GC							Equipn	nent: Be	retta T4	14				
Borehole Number Hole Type BH135 RC							eve l Im AO	D	Logged By MM				Scale 1:25		Page Numbe Sheet 1 of 6					
ell	Water Strikes	San Depth (nd In Situ Testing Type Results		TCR	Coring SCR RQD		Legend	Depth (Level)	Stratum Description								
		.10 .20 .30	10 ES 20 D			TOR	SCR	RQD		(14.43)	with coar	commor	n fine roc el is sub	slightly g tlets. Sar angular t	nd is fine	to				
		0.40 - 0 0.40 - 0 0.40 - 0	.60	ES B D							0.35 (14.08)	cobl suba coal	ole conte angular fi . Cobble	nt. Sand ine to co s are sul	gravelly is fine to arse lime <u>oa</u> ngular nd of co	coarse. stone, fli limeston	Gravel is int and			
		1.20 - 1 1.20 - 2 1.20 1.40 - 1	.20	B C SPT D	N=15 (0,0/2,	3,5,5)							m to 1.3 fragmen		_ nd of su	bangula	ar fine			
									X - X	1.80 (12.63) 2.00 (12.43)	Firm	to stiff in	ndistinctl	vellowish y laminat light gre	ed dark	grey				
		2.20 - 2 2.20		C SPT	N=33 (2,3/7,	9,9,8)	100			X - X - X - X - X - X - X - X - X - X -	0.00		mm x 10		iigiit gio	y cemen	iled Silt			
		2.87 - 3	.20	CS							2,63 (11.80)	light CLA	brown a	nd orang ccasiona	ated dark gish brow I bands c	n slightly	/ silty			
3.20 - 3. 3.20 3.35 - 3. 4.20 - 4. 4.20 4.50 - 4.		3.20		C SPT CS	N=19 (4,4/3,4	4,4,8)	75			X X X X X X X X X X X X X X X X X X X	3.20 (11.23)	brov grey	vn and oi and blacasional b	rangish b ck slightl	inctly lam brown mo y silty CL bonaceou	ottled gre .AY with	enish			
				C SPT	64 (2 42)C4	for	13				4.00 (10.43) 4.20	CLA	Y with freezial (<3	equent b	mottled b ands of b			 		
		.95	C SPT	64 (3,13/64 225mm) N=38						(10.23) 4.47 (9.96)	4.20 shalle	<i>m to 4.4</i> ower de lium stroi	<i>pth</i> ng light y	llapsed i	brown		$\frac{1}{1}$			
		4.50 SP1 N=38 (3,4/9,9,10				,10)				(9.93) LIMESTONE. Recovered as light brown sand GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse limestone. No recovery						el is				
_	Hole Diame	eter		Casing	Diameter	<u>_</u>			Chis	elling					Drillir	ng Flush		上		
th		Diameter	Depth	n Base	Diameter	Dep	oth Top	Depth		Duration	Too	ol	Depth Top (m) 1.20 2.20 3.20	Depth Base (n 2.20 2.65 3.65	Flush Typ Air/Mist Air/Mist Air/Mist	1		Ma		

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.50 m, 0.50 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

	G				Deep Borehole Log														
	t Name ementar	: Wansford	d to Suttor	n Dua ll ing	Client: Galliford Try							Date: 16/05/2022 - 19/05/2022							
Locati		,		[-	Contractor: Sweco							Co-ords: E508631.82 N299647.21							
Projec	t No. : 0	GT0386			Crew Name: MG / GC						Drilling Equipment: Beretta T44								
Borehole Number Hole Type BH135 RC					14.43	Lo	Logged By MM			Scale 1:25	1	Page Number Sheet 2 of 6							
Well Ctrikes		Sam Depth (r		Situ Testing Results	TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratur	n Descrip	otion					
		5.50 - 5.9	95 C		0				5.50		recovery								
	•	5.50 5.56 - 5.4	SPT CS	N=37 (5,6/7,8,11,1	100				(8.93)	occa	asionally	horizont	ntly indisti tally lamin slightly si	nated (up	to 30	6			
		7.00 - 7. 7.00 7.70 - 7.9	SPT	N=63 (3,6/11,16,17,	19)											7			
		9.33 - 9.0			93											9 -			
Hole Diameter			Diameter				elling					_	ng Flush						
Depth			Depth Base	Diameter	Depth Top	Depth		Duration	То	ol	Depth Top (m) 5.50 7.00	Depth Base (r 5.95 7.45	_	Flush Colo	Min (%) 100 100	Max (%) 100 100			
deeper The ins	drilling the than the ta tall was fin	arget depth s nished with a	o that a full fi tophat cover	services and a han nal core run could secured into plac Hammer Ref: SIS	be complete e with concr	ed. The	borehole	e was installe	ed with an	inclinon	neter pipe	with a gro	out surrou	nd.					

	Ч					L	Эe	ер	Во	reh	ol	e L	.og				
Projec	ct Name ementa	: Wansfor	d to Sutto	on Dua ll ing	Clie	nt: Gal	liford 7	Ггу				Date: 1	16/05/20	022 - 19/	05/20	22	
Locati		y			Con	tractor	: Swed	co				Co-ord	ls: E508	3631.82 N	V2996	647.21	
Projec	t No. : (GT0386			Crev	w Nam	ie: MG	/ GC				Drilling	Equipn	nent: Bei	retta 1	Г44	
Bor	ehole N BH13		Ho	lle Type RC			eve l Im AOI	D	Log	gged By MM	'		Scale 1:25	!		Page Nur Sheet 3	
Well	Water Strikes	Sam Depth (r		n Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratun	n Descript	tion		
		10.00 10.85 - 11 11.50 - 13	SP ⁻	47 (4,9/47 225mm	for	100				11.50 (2.93)	occa	asionally rees) da	horizont	ntly indistir ally lamin slightly silt	ated (ı	up to 30	11 -
		11.97 (2.46) Stiff predominantly indistinctly laminated occasionally horizontally laminated (up to 30 degrees) dark grey slightly silty slightly fossiliferous CLAY with occasional bands of dark grey fragmented siltstone (< 30 mm x 20 mm). 12.80 - 12.90 D 13.00 - 14.50 C							up to 30 itly ands of	12 -							
		13.67 - 13				Stiff predominantly indistinctly laminated occasionally horizontally laminated (up to 30 degrees) dark grey slightly slightly fossiliferous CLAY with occasional bands of dark grey fragmented siltstone (< 30 mm x 20 mm).							14 -				
		14.50 - 16 14.50		N=108 (0,19/9,19,3					X X X X X X X X X X X X X X X X X X X		irides	scent na	acre (60	mm x 40	ne sn O mm	x 30 mm,	15
Depth		eter Diameter	Casin Depth Bas 15.00	ng Diameter e Diameter 121	Dep	oth Top	Depth		elling Duration	То	ol	Depth Top (m 10.00 11.50 13.00) Depth Base (r 10.45 13.00 14.50		g Flush Flush Co yellov grey grey	w 100 100	Max (%) 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.50 m, 0.50 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

	Ч	Γ					L)e	ep	Bo	ren	Ol	e L	og				
	t Name		rd to	Suttor	n Dua ll ing	Clier	nt: Gal	liford T	ry				Date: 1	6/05/20)22 - 19,	/05/202	2	
Locati		,				Cont	tractor	: Swec	0				Co-ord	s: E508	631.82	N29964	17.21	
Projec	t No. : (GT0386				Crev	v Nam	e: MG	/ GC				Drilling	Equipm	nent: Be	retta T	14	
Bor	ehole N BH13				e Type RC			eve l m AOE)	Log	gged By MM			Scale 1:25			age Num Sheet 4 o	
Well	Water Strikes	Sar Depth		and In Type	Situ Testing Results	_	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
		15.20 - 1		CS	, (334.6		100			X X X X X X X X X X X X X X X X X X X		occ deg foss	f predominasionally grees) da siliferous (k grey frag	horizonta rk grey s CLAY wit	ally lamir lightly sil th occasi	nated (up ty slightl onal bar	o to 30 y nds of	111111111111111111111111111111111111111
		16.00 - 1	7.00	С		,					16.00 (-1.57)	AZC	CL					16
										X X X	16.45 (-2.02)	occ deg foss	f predominasionally grees) da siliferous (k grey frago).	horizonta rk grey s CLAY wit	ally lamir lightly sil th occasi	nated (up ty slightl onal bar	o to 30 y nds of	- 1
		17.00 - 1 17.00		C SPT	N=79 (5,11/5,11,22	2,41)	78			X X X								17 -
		17.30 - 1		CS														10
		18.00 - 1	9.50	С			100			X X X X X X X X X X X X X X X X X X X								18
		19.17 - 1	9.47	CS						x								
		19.50 - 2 19.50	0	C SPT	50 (10,23/50 75mm)	0 for				X - X - X - X - X - X - X - X - X - X -								
		20.00 - 2	0.30	CS							'							20 —
Depth E	Hole Diam Base	eter Diameter	Dept	Casing h Base	Diameter Diameter	Dep	th Top	Depth E		elling Duration	Too	ol	Depth Top (m)	Depth Base (m		ng Flush e Flush Colo	ur Min (%)	Max (%)
Pomo													14.50 16.00 17.00 18.00	16.00 17.00 18.00 19.50	Air/Mist Air/Mist Air/Mist Air/Mist	grey grey grey grey	100 100 100 100	100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.50 m, 0.50 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

	Ч						De	ep	o Bo	reh	Ol	e L	og					
Projec	t Name ementa	: Wansfo	rd to	Suttor	Dualling	Client: Ga	ıl l iford	Try				Date: 1	6/05/20	22 - 19	/05/20	22		
Locati		уся			1	Contracto	r: Swe	со				Co-ord	s: E508	631.82	N2996	647.21		
Projec	t No. : (GT0386				Crew Nar	ne: MG	6 / GC	;			Drilling	Equipm	nent: Be	eretta T	Г44		
Bor	ehole N BH13				e Type RC		.eve l 3m AO	D	Lo	gged By MM	,		Scale 1:25			Page N Sheet		
Well	Water Strikes	Sar Depth		and In Type	Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion			
		21,00 - 2		C		100			X X X X X X X X X X X X X X X X X X X	21.00	occa degr foss dark mm)	isionally dees) da iliferous grey fra	nantly in horizonta rk grey s CLAY wit gmented	ally lamii lightly si th occas	nated (i Ity sligh ional ba	up to 30 ntly ands of		21 —
		21.81 - 2		CS		40			X - X - X - X - X - X - X - X - X - X -	21.36 (-6.93)	occa degr foss	predomin sionally ees) da iliferous o grey fra	nantly ind horizonta rk grey s CLAY wit gmented	ally lamii lightly si th occas	nated (i Ity sligh ional ba	up to 30 ntly ands of		
		22.50 - 2 22.5		C SPT	50 (8,24/50	for			X X X	22.00 (-7.57) 22.20 (-7.77)	occa	predomi sionally	nantly ind horizonta rk grey s	ally lamii	nated (ı	up to 30		22
		23.20 - 2	23.50	CS	150mm)	60				22.50								23
		24.00 - 2	25.00	С		75				23.50 (-9.07)	Very		stinctly la	aminated	d dark ç	grey CLA	λΥ.	24 -
		24.75 - 2 25.0		D UT														25
	Hole Diam		 L		Diameter		<u> </u>	Ch	iselling					Drilli	ng Flush			
Depth E 25.0	Base I	Diameter 121	Dept	h Base	Diameter	Depth Top	Depth		Duration	Тоо	ol	Depth Top (m) 19.50 21.00 22.50 24.00	21.00 22.50 24.00 25.00	Flush Typ Air/Mist Air/Mist Air/Mist Air/Mist	e Flush Co grey grey grey	/ 10 / 10 / 10	0 0 0	Max (%) 100 100 100 100

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.50 m, 0.50 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

G						Эе	ep	Во	reh	ole	e L	og				
Project Name Supplementar	: Wansford	to Suttor	Dua ll ing	Clien	nt: Gal	liford ⁻	Try				Date: 1	6/05/20	22 - 19	/05/202	2	
Location:	•			Cont	ractor	: Swed	СО				Co-ords	s: E508	631.82	N29964	17.21	
Project No. : 0	GT0386			Crew	/ Nam	e: MG	/ GC				Drilling	Equipm	nent: Be	retta T	14	
Borehole N BH13			e Type RC			eve l m AOI	D	Lo	gged By MM			Scale 1:25			age Num Sheet 6 o	
Well Water Strikes			Situ Testing		_	Coring		Legend	Depth (Level)			Stratum	n Descrip	otion		
Hole Diam	Depth (m) 25.00 25.00 25.00 25.00 25.00 25.00	Casing	Results 50 (19,31/50 0mm)) for	TCR	SCR	Chis	elling	25.50		Er	nd of Bor	ehole at 3	g Flush	ey CLAY.	26 - 28 - 29 - 30 - 30 - 30 - 30 - 30 - 30 - 30 - 3
		Casing epth Base	Diameter Diameter	Dept	h Top	Depth		elling Duration	Too	ol	Depth Top (m)	Depth Base (m	Drillii Flush Typ		ur Min (%)	Max (%)
		. 3. 2000						_ 3. 64011	,,,,					20.0	(70)	(70)
Remarks Prior to drilling the deeper than the ta The install was finduring inclinometer	arget depth so iished with a to	that a fu ll fi phat cover	nal core run cou secured into pla	ld be co	omplete	d. The I	porehole	was installe	ed with an	inclinome	eter pipe v	with a gro	ut surrou	nd.		



BH135

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH135 1.20 m to 3.20 m



BH135 3.20 m to 4.50 m



BH135

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH135 4.50 m to 5.50 m





BH135

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



BH135 7.00 m to 8.50 m





BH135

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:



BH135 10.00 m to 11.50 m





PROJECT GT0386

GROUND TECHNOLOGY

HOLEID BHI35

Photographic Report

BH135

PROJECT A47 Wasterd to Sutten

DEPTH 13.00 m 14.50

Project:

Wansford to Sutton Dualling Supplementary GI

Project





BH135 13.00 m to 14.50 m





Project:

Wansford to Sutton Dualling Supplementary GI

BH135

Project ID:





BH135

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







BH135 23.50 m to 25.00 m

Photographic Report

BH135

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:



Depth (i			Contracto	: Swe	nsford to Sutton Dualling Client: Galliford Try Date: 20/05/2022 - 25/05/2022 Contractor: Sweco Co-ords: E508541.90 N299666.11									
Sam Depth (i										s: E508	541.90 N	129966	6.11	
Sam Depth (1 0.00 - 0.		nber Hole Type Level Logged By Scale Page									nent: Ber	etta T4	4	
Depth (i		e Type RC		eve l Im AO	D	Lo	gged By MM	'		Scale 1:25			ige Num heet 1 c	
0.00 - 0.		Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descript	ion		
0.00 - 0. 0.00 - 0.	10 ES 20 D	ixesuits	TON	SOIX	NQD		(14.34)	root	lets. San	d is fine	SAND with to coarse, nded fine	Gravel		1
0.40 - 0. 0.40 - 0. 0.50 - 0.	.60 D						0.35 (13.99)	SILT	Γ and CL	AY. Sand	tly gravell I is fine to d medium	coarse.		
1.20	SPT	N=31 (3,5/5,8,9	9,9)				1.20 (13.14)	grav	elly CLA	Y. Sand	is fine to c	coarse. (Gravel is	
			80				1.52 (12.82)		AY. ark orangish brown SAND with pockets of firm					
							2.05 (12.29)		dark brown clay (<30 mm). Sand is fine to					
2.20	SPT	50 (50 for 0mm for 0mm)	n/50			X X X	2.20 (12.14)	coar Firm vello 2.40	ark brown clay (<30 mm). Sand is fine to barse. rm light brownish grey mottled dark grey and bellowish brown slightly silty CLAY. O m to 2.50 m cobble of strong light lowish brown and reddish brown					1
254.2	70 00		100	25	25	7	2.70 (11.64)	Stro mott foss	llowish brown slightly silty CLAY. O m to 2.50 m cobble of strong light owish brown and reddish brown estone (90 mm x 60 mm x 45 mm) rong light brown and yellowish brown locally ottled black and reddish brown slightly sandy ssiliferous LIMESTONE. Sand is fine to					
						×	3.70 (10.64)							4
4.10 - 4.	.20 D					X X X	4.20	yello mm)	rey slightly silty CLAY with frequent bands of bellow and orangish brown cemented silt (<10 m).					
4.80 - 5.	10 CS		100			X X X X X X X X X X X X X X X X X X X	(10.14)							
						x;								$\frac{1}{2}$
neter Diameter	Casing Depth Base		Depth Top	Depth		selling Duration	Too	ol	Depth Top (m)	Depth Base (m			Min (%)	М
	2.20	121	,						1.20 2.20	2.20 3.70	Air/Mist	brown yellow	0 100	
	1.20 1.50 - 1. 1.70 - 2. 2.05 - 2. 2.20 - 3. 2.20 2.30 - 2. 3.54 - 3. 3.70 - 5. 4.10 - 4.	1.20 SPT 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT 2.30 - 2.40 D 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 4.80 - 5.10 CS	1.20 SPT N=31 (3,5/5,8,1) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT 50 (50 for 0mm for 0mm) 2.30 - 2.40 D 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 4.80 - 5.10 CS	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT 50 (50 for 0mm/50 for 0mm) 2.30 - 2.40 D 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 100 4.80 - 5.10 CS	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT SPT Joint Spr	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT SO (50 for 0mm/50 for 0mm) 2.30 - 2.40 D 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 100 4.80 - 5.10 CS Diameter Depth Base Diameter Depth Top Depth Base	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT SPT SO (50 for 0mm/50 for 0mm) 100 25 25 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 100 4.80 - 5.10 CS 100 100 100	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT So (50 for 0mm/50 for 0mm) 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 100 25 25	1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT SO (50 for 0mm/50 for 0mm) 2.30 - 2.40 D 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 100 25 25 Stiff CLA String sub: (13.14) Grain sub: (12.82) Stiff CLA (12.82) Stiff CLA (12.82) Stiff CLA (12.82) Stiff CLA (13.14) Grain sub: (1	1.20 SPT N=31 (3,5/5,8,9,9) 1.50 - 1.60 D 1.70 - 2.00 CS 2.05 - 2.20 D 2.20 - 3.70 C 2.20 SPT SO (50 for 0mm/50 for 0mm) 2.30 - 2.40 D 1.00 25 25 3.54 - 3.70 CS 3.70 - 5.20 C 4.10 - 4.20 D 4.80 - 5.10 CS SPT N=31 (3,5/5,8,9,9) 80 (13.14) Stiff brown a gravelly Cash String light brown a gravelly Cash Strong (12.29) 2.05 - 2.20 SPT SO (50 for 0mm/50 for 0mm) 100 25 25 Time light brown a gravelly Cash Strong light in mottled black fossilierous coarse. Occases. Firm light brown a gravelly Cash Strong light in mottled black fossilierous coarse. Occases. Stiff light brown a gravelly Cash Strong light in mottled black fossilierous coarse. Occases. Time light brown a gravelly Cash Strong light in mottled black fossilierous coarse. Occases. String light in mottled black fossilierous coarse. Occases. String light in mottled black fossilierous coarse. Occases. String light in mottled black fossilierous coarse. Occases. Time light brown a gravelly cash shows the properties of th	1.20 SPT N=31 (3.5/5,8,9,9)	1.50 - 1.60 D	1,20	1.20

	G						Эе	ep	Во	reh	ol	e L	og				
Projec	t Name ementai	: Wansford t	o Suttor	n Dua ll ing	Clien	ıt: Gal	liford T	ry				Date: 2	20/05/20	22 - 25/0	5/2022	2	
Locati		•			Cont	ractor	: Swed	ю				Co-ord	s: E508	541.90 N	29966	6.11	
Projec	t No. : 0	GT0386			Crew	/ Nam	ie: MG	/ GC				Drilling	Equipm	nent: Ber	etta T4	4	
Bor	ehole N BH13			e Type RC			evel m AOE)	Log	gged By MM	'		Scale 1:25			age Num heet 2 of	
Well	Water Strikes	Sample Depth (m)	and In	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descripti	on		
		5.20 - 5.65 5.20	C SPT	N=43	11)	1010	GGIK	T C	x	5.20 (9.14)	Stiff CLA	NY.	tly lamina	ated dark (grey slig	ghtly silty	
		5.90 - 6.20	cs	(4,9/10,11,11	,11)	80				5.50 (8.84)	Stiff CLA	f indistinc	tly lamina	ated dark ç	grey slig	ghtly silty	6 -
		6.70 - 8.20 7.25 - 7.55	cs			90				7.72 (6.62) 7.89 (6.45)	occ	y stiff pred asionally	horizonta	tly indistino ally lamina lightly silty	ted (up		7
		8.20 8.70 - 9.70 8.90 - 9.20	SPT C CS CS	40 (8,11/40 150mm)	for •	100				9.70	276						9 —
										(4.64) 9.94 (4.40)	dea	y stiff hori	rk arev s	laminated lightly silt	(up to + slightly	+/- 30	10
	Hole Diam	eter	Casing	Diameter	L			Chis	elling	(0.70)	<u> </u>			Drilling	<u>Flush</u>		
Depth	_		pth Base	Diameter	Dept	h Top	Depth B		Duration	То	ol	3.70 3.70 5.20 6.70 8.70	5.20 5.65 8.20 9.70		Flush Colou yellow yellow yellow yellow	100 100 100 100 100	Max (%) 100 100 100 100
Rema	_ arks			<u> </u>									L				

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.20 m, 0.20 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

G	AL				De	ep	Во	reh	ole	L	og				
Project Nam Supplement		rd to Sutto	on Dua ll ing	Client: Ga	ılliford [*]	Try			D	ate: 2	0/05/20)22 - 25/	05/2022	2	
Location:	,			Contracto	r: Swe	со			С	o-ord	s: E508	541.90	N29966	6.11	
Project No.	: GT0386		,	Crew Nar	ne: MG	G / GC			D	rilling	Equipn	nent: Be	retta T4	4	
Borehole BH1		Но	le Type RC		.eve l 4m AO	D	Log	gged By MM	,		Scale 1:25			age Num heet 3 o	
Well Wate Strike			n Situ Testing Results	TCR	Coring	RQD	Legend	Depth (Level)			Stratum	n Descrip	tion		
	10.40 - 1 11.20 - 1	0.70 CS		85	561	Reb	X X X X X X X X X X X X X X X X X X X			s) dai	k grey s	laminated		+/- 30	11 -
	11.49 - 1 11.90 - 1) SPT	(19,18/18,31,31)	100	8	0	X X X X X X X X X X X X X X X X X X X	11.49 (2.85) 11.62 (2.72) 11.80 (2.54)	orienta Stiff da gravell mediur Very st	ited ca ark grey y CLA' m limes tiff hori es) dar	lcite veir y slightly Y. Grave stone. zontally rk grey s	ESTONE as (<15 m silty sligl I is subar laminated lightly silt	nm wide) htly fossi ngular fin d (up to -	liferous e and	12
	12.70 - 1	3,70 C					W	12.70 (1.64)	AZCL						
	13.70 - 1 13.70		- 50 (13,37/50 0mm)	80				13.16 (1.18)	Very st degree fossilife	s) dai	k grey s	laminated lightly silt	d (up to - y slightly	+/- 30 /	13
	14.44 - 1 14.70 - 1						× × × × × × × × × × × × × × × × × × ×								1
							-x-								15
Hole Dia	meter	Casir	ng Diameter			Chis	elling					Drillin	g Flush		
Depth Base	Diameter	Depth Base		Depth Top	Depth		Duration	Too	Ol De	pth Top (m) 9.70 11.20 12.70	Depth Base (m 11.20 12.70 13.70	Air/Mist Air/Mist Air/Mist Air/Mist	1	Min (%) 100 100 100	Max (%) 100 100 100
deeper than the The install was	target depth : finished with a	so that a full a tophat cove	services and a ha final core run could er secured into plac Hammer Ref: SIS	d be complet be with concr	ed The	borehole	e was installe	ed with an	inclinomete	er pipe	with a gro	ut surroun	ıd.		

	Ч						L	Jе	ep	Bo	ren	ole	e L	og				
	ct Name ementa	: Wansfoi rv Gl	d to	Sutton	Dualling	Client:	Gal	liford 7	Ггу				Date: 20	0/05/20)22 - 25	/05/202	22	
Locati		y				Contra	actor	: Swed	СО			C	Co-ords	s: E508	541.90	N2996	66.11	
Projec	et No. : (GT0386				Crew N	Nam	e: MG	/ GC				Dril l ing	Equipn	nent: Be	eretta T	44	
Bor	ehole N				e Type RC	14		eve l m AOI)	Log	gged By MM	′		Scale 1:25			Page Nun Sheet 4 o	
Well	Water Strikes	San Depth (and In Type	Situ Testing Results		TCR	Coring SCR	RQD	Legend	Depth (Level)			Stratum	n Descrip	otion		
		15.20 - 1		С	Results		100	301	KĢD	X X X X X X X X X X X X X X X X X X X		degree	tiff horiz es) dar ferous C	k grey s	laminate lightly si	ed (up to Ity slight	+/- 30 ly	16
		16.47 - 1 16.70 - 1 16.70	8.20	CS C SPT	50 (8,19/50 150mm)	for					16.20 (-1.86)	occasi degred fossilif suban	ionally l es) dar ferous s	norizonta k grey s lightly g	tly indist ally lami lightly si ravelly C nedium I	nated (u Ity slight CLAY. Gi	p to 30 ly avel is	
		17.50 - 1 18.20 - 1		D C		,	90		16.95 (-2.61) 17.20 (-2.86) Very stiff predominantly indistinctly laminated occasionally horizontally laminated (up to 30 degrees) dark grey slightly silty slightly fossiliferous slightly gravelly CLAY. Gravel is subangular fine and medium limestone.							p to 30 ly avel is e.	17	
		19.20 19.45 - 1	9.70	D C SPT CS C	N=46 (0,0/4,12,12,				18.20 (-3.86)	degree	tiff horiz es) dar rerous C	k grey s	laminate lightly si	ed (up to Ity slight	+/- 30 ly	19 -		
										-X-								
											'							20 —
Depth	Hole Diam Base	eter Diameter	Depth	Casing h Base	Diameter Diameter	Depth ⁻	Тор	Depth		elling Duration	Too	ol	epth Top (m)	Depth Base (m	Flush Typ		our Min (%)	Max (%)
			,- **					,					13.70 15.20 16.70 18.20	15.20 16.70 18.20 19.70	Air/Mist Air/Mist Air/Mist Air/Mist	grey grey grey	100 100 100 100	100 100 100 100
Rema	arks				L					I						'		

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.20 m, 0.20 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

	G						De	ep) Bo	reh	ol	e L	og				
	ct Name ementa	: Wansfo	rd to S	Sutton	Dualling	Client: G	al l iford	Try				Date: 2	0/05/20	22 - 25/0)5/202	22	
Locat		усл				Contract	or: Swe	co				Co-ord	s: E508	541.90 N	12996	36.11	
Proje	ct No. : (GT0386				Crew Na	me: MC	3 / GC				Drilling	Equipm	ent: Ber	etta T	44	
Воі	ehole N BH13				e Type RC		Level 34m AO	D	Lo	gged By MM			Scale 1:25			age Num Sheet 5 c	
Well	Water Strikes	San Depth (nd In Type	Situ Testing Results	TCF	Coring	RQD	Legend	Depth (Level)			Stratum	Descript	ion		
		20.78 - 2		CS		90					deg	y stiff hori rees) da siliferous	rk grey sl	aminated ightly silty	(up to y slight	+/- 30 ly	21
		21.70 - 2 21.70 22.00 - 2	2.20	C SPT CS	50 (10,26/50 0mm)	80											22 —
		22.20 - 2 23.30 - 2		C		90				22.40 (-8.06) 22.80 (-8.46)	occ deg foss sub	y stiff pre asionally grees) da siliferous angular fi y stiff hor grees) da	horizonta rk grey sl slightly gr ne and m zontally l	ally lamina ightly silty ravelly CL nedium lir aminated	ated (upy slight AY. Gr meston	p to 30 ly avel is e. +/- 30	23
		23.70 - 2		C					X X X								
7.0°		24.42 - 2 25.00		cs		90											24
	Hole Diam				Diameter		 		selling					Drilling		1.	<u> </u>
Depth	Base	Diameter	Depth	Base	Diameter	Depth Top	Depth	Base	Duration	Too	<u>ol</u>	Depth Top (m) 19.70 21.70 22.20	Depth Base (m) 21.20 22.20 23.70	Flush Type Air/Mist Air/Mist Air/Mist	grey grey grey grey	100 100 100 100	Max (%) 100 100 100
Rema	<u> </u>		L													1	<u> </u>

Prior to drilling the position was cleared of services and a hand dug inspection pit to 1.20 m carried out. The borehole was terminated at 25.20 m, 0.20 m deeper than the target depth so that a full final core run could be completed. The borehole was installed with an inclinometer pipe with a grout surround. The install was finished with a tophat cover secured into place with concrete. (Note: UT samples at base of log indicate grout samples taken for testing during inclinometer pipe installation). SPT Hammer Ref: SIS1.

	Ч						De	ep	Bo	rer	lOl	e L	og				
	t Name	: Wansfoi	rd to Sut	ton Dua ll	ing (Client: G	al l iford	Try				Date: 2	20/05/20)22 - 25/	/05/202	.2	
Location		y				Contract	or: Swe	co				Co-ord	s: E508	541.90	N2996	36.11	
Proiec	t No. : (GT0386				Crew Na	me: M0	3 / GC				Drillina	Equipn	nent: Be	retta T	44	
	ehole N	umber	Н	ole Type			Level		Lo	gged By	′		Scale		Р	age Num	
I	BH13		anla and	RC In Situ T	acting	14.;	34m AC Corin			MM			1:25		<u> </u>	Sheet 6 o	f 6
Well	Water Strikes	Depth (Results	TCF		RQD	Legend	Depth (Level)			Stratun	n Descrip	otion		
		25.00 25.00							×		Very degi	stiff hori	izontally rk grey s	laminate lightly sil	d (up to ty slight	+/- 30 ly CLAY.	-
		25.00 25.00) U						×	25.20				rehole at 2			
		25.00	D Ū]
																	-
]
																	-
]
																	26
]
																	=
] =
]
																	-
																	=
																	27 —
																	-
																	-
																	1 =
																	-
																	-
																	=
																	28
																	=
																	-
] =
																	=
]
																	-
																	29
																	=
																	=
																	=
							4	_									30 -
	Hole Diam	eter	Cas	ing Diamete	r T			Chis	elling					Drillin	ng Flush		1 50
Depth E	Base I	Diameter 121	Depth Ba			Depth To	Depth		Duration	Too	ol	Depth Top (m)	Depth Base (r 25.20	Flush Typ Air/Mist		ur Min (%) 100	Max (%)
														, ,,,,,,,	,		
D :	. ml c =														<u> </u>		
	drilling the								m carried οι								
The inst	all was fir	ished with a	a tophat cov	er secured	into place	e with con			e was installe amples at ba								
uuring ir	curomete	er pipe insta	nanon). SP	ı ⊓ammer	rei: 5151	•											



BH136

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







Project:

Wansford to Sutton Dualling Supplementary GI

BH136 Proje

Project ID: GT0386







BH136

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







BH136

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







BH136 18.20 m to 19.70 m

Photographic Report

BH136

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:

ID: GT0386







BH136

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID:







PROJECT

HOLEID BHI36

GROUND TE

GT0386

Photographic Report

PROJECT A47 Wasford to Sutten

DEPTH 22.20 = 23.70

Gosylicate at the second secon

Project:

Wansford to Sutton Dualling Supplementary GI

BH136 Proje





BH136 22.20 m to 23.70 m



	G	-						Tr	ial F	Pit Lo	og				
	ct Name lementar		ord to Si	utton	Dua ll ing	Clien	t: Galliford	d Try			Date: 23/02/20)22			
Locat		y				Engir	neer: Swed	со			Co-ords: E507	630.51 N	129971	4.38	
Projec	ct No. : (GT0386				Crew	/ Name: JJ	J / JD			Equipment: JC	В ЗСХ			
Lo	cation No.		L		on Type TP	Γ,	Level 30.90m A0			ged By JJ	Scale 1:25			age Numb Sheet 1 of	
Well	Matar	Sam		nd In	Situ Testing	g	Depth (m)	Level (m)	Legend		Stratum D	escription		MIGGE 1 O.	
	Strikes	Deptil		Type	Results	`	(111)	30.90	V//////	Grass over	dark brown sligh	tly sandy o	clayey	gravelly	
		0.10 - 0 0.10 - 0	0.25	ES B			0.05	00.05		Gravel is s	ommon fine rootl ubangular and su				=
		0.20 - 0).25	D			0.25	30.65		Orangish b	and rare fine flint.				
		0.50 - 0	0.60	ES						sandy GRA subangula	AVEL. Sand is fine and subrounded	to coarse fine to coa	arse lin	estone.	-
		0.60 - 0).90	В											=
															=
		1.00 - 1	1.05	D											1 -
															-
										11 20 m the	re is a high cob	hlo conte	nt Col	hhlac ara	-
000	f						1.40				re is a nigh cobi Limestone (130 End of Trial F	mm x 45	5 mm s		<u> </u>
											EIIU OI IIIai i	71 at 1.40m	1		
															2 -
															=
															1 =
															3 -
															<u> </u>
															<u> </u>
															4 -
															1 :
															1 :
															5 -
Pit Lengt	Dimensions h (m) Pit Wid		rientation ntation (de		Pit Stability	Shor	Trench	1 Support	and Comm	ent Remarks		Date	Pump Rate	oing Data Rema	arks
2.00) 0.4	40	204		Very good		None								
Weath	er:			floor											
Rema		he position	n was cles	ared of	f services. The i	pit was	scheduled tr	o 4.00 m de	epth howeve	r the pit was te	rminated at 1.40 m	due to har	d l		
					r services. The p gs in 300 mm lav					, and pit was te	rimnated at 1.40 III	auc to Hall	٠		



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP107

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386

Trial Pit Photographs



1. Pre condition





Trial Pit Photographic Report

Project:

Wansford to Sutton Dualling Supplementary GI

TP107

Project ID: GT0386



3. Pit side





Trial Pit Photographic Report

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

TP107

Project ID:



5. Natural



Trial Pit Log Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 01/03/2022 Co-ords: E507539.27 N299883.38 Location: Engineer: Sweco Project No.: GT0386 Equipment: JCB 3CX Crew Name: JJ / JD Location Number Location Type Level Logged By Scale Page Number 30.74m AOD **TP108** TP 1:25 Sheet 1 of 1 Sample and In Situ Testing Water Depth Level Well Legend Stratum Description Strikes (m) (m) 30.74 Grass over dark brown slightly sandy clayey gravelly 0.10 - 0.20 SILT with common fine rootlets. Sand is fine to coarse. 0.10 - 0.20 ES Gravel is subangular and subrounded fine to coarse 0.10 - 0.35 В limestone and rare fine flint. 0.30 - 0.35 D 0.35 30.39 Brown clayey very sandy GRAVEL. Sand is fine to 0.40 - 0.50 ES coarse. Gravel is subangular and subrounded fine to 0.50 - 0.80 В coarse limestone. 0.75 m becoming light brown 0.85 - 0.90 D 0.90 End of Trial Pit at 0.90m 2 3 5 Trench Support and Comment Pumping Data Dimensions Orientation Shoring Used Pit Width (Pit Stability Date Rate Remarks Orientation (d Remarks 0.25 Very good None 1.85 11 Weather: Prior to digging the position was cleared of services. The pit was scheduled to 4.00 m depth however the pit was terminated at 0.90 m due to hard ground. The pit was back filled with arisings in 300 mm layers in the order it was removed.



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP108

Project:

Wansford to Sutton Dualling Supplementary GI

GT0386

Project ID:

Trial Pit Photographs



1. Pre condition





Trial Pit Photographic Report

Project:

Wansford to Sutton Dualling Supplementary GI

TP108 Project ID:

oject ID: GT0386



3. Pit side





Trial Pit Photographic Report

TP108

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386



5. Natural



Trial Pit Log Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 25/02/2022 Co-ords: E507596.82 N299865.60 Location: Engineer: Sweco Equipment: JCB 3CX Project No.: GT0386 Crew Name: JJ / JD Page Number Location Number Location Type Level Logged By Scale 30.58m AOD **TP109** TP 1:25 Sheet 1 of 1 Sample and In Situ Testing Water Depth Level Wel Legend Stratum Description Strikes (m) (m) 30.58 Grass over dark brown slightly sandy clayey gravelly 0.10 - 0.20 FS SILT with common fine rootlets. Sand is fine to coarse. 0.10 - 0.30 В Gravel is subangular and subrounded fine to coarse limestone and rare fine flint. 0.30 - 0.35 D 0.35 30.23 Orangish brown and light brown clayey sandy 0.40 - 0.50 ES GRAVEL with low cobble content. Sand is fine to coarse. Gravel is subangular and subrounded fine to coarse limestone. Cobbles are subangular limestones. 0.60 - 0.65 D 1.00 - 1.30 В 1.40 m medium cobble content and low boulder content. Cobbles are subangular and subrounded limestone (< 75 mm x 40 mm x 15 mm). Boulders 1.65 are subangular limestone (< 225 mm x 140 mm x 40 mm) End of Trial Pit at 1.65m 2 5 Trench Support and Comment Pumping Data Dimensions Orientation Pit Width Pit Stability Shoring Used Date Rate Remarks Orientation (d Remarks 2.00 Good None 0.35 103 Weather: Prior to digging the position was cleared of services. The pit was scheduled to 4.00 m depth however the pit was terminated at 1.65 m due to hard ground. The pit was back filled with arisings in 300 mm layers in the order it was removed.



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP109

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386

Trial Pit Photographs



1. Precondition





TP109

Project:

Wansford to Sutton Dualling Supplementary GI



3. Pit side





TP109

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386



5. Natural

Trial Pit Log Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 25/02/2022 Co-ords: E507664.42 N299817.73 Location: Engineer: Sweco Equipment: JCB 3CX Project No.: GT0386 Crew Name: JJ / JD Page Number Location Number Location Type Level Logged By Scale 31.55m AOD **TP110** TP 1:25 Sheet 1 of 1 Sample and In Situ Testing Water Depth Level Well Legend Stratum Description Strikes (m) (m) Туре Depth (m) 0.00 - 0.50 31.55 Grass over dark brown gravelly very clayey SAND with 0.10 - 0.20 ES common fine rootlets. Sand is fine to coarse. Gravel is subangular and subrounded fine to coarse limestone 0.20 - 0.50 В and rare fine flint 0.50 - 0.55 D 0.80 30.75 Orangish brown and light brown clayey sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is subangular and subrounded fine to 1.00 - 1.10 ES coarse limestone. Cobbles are subangular limestone. 1.10 - 1.40 В 1.30 m high cobble content. Cobbles are angular and subangular limestone (< 90 mm x 50 mm x 20 1.95 - 2.00 D 2 2.50 - 2.80 В 2.70 m low boulder content. Boulders are subangular limestone (< 380 mm x 160 mm x 75 3 3.10 End of Trial Pit at 3.10m 5 Trench Support and Comment Pumping Data Dimensions Orientation Pit Width Pit Stability Shoring Used Date Rate Remarks Orientation (d Remarks 2.00 179 Good None 0.35 Weather: Prior to digging the position was cleared of services. The pit was scheduled to 4.00 m depth however the pit was terminated at 3.10 m due to hard ground. The pit was back filled with arisings in 300 mm layers in the order it was removed.



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP110

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386

Trial Pit Photographs



1. Precondition





Project:

Wansford to Sutton Dualling Supplementary GI

TP110 Proje



3. Pit side





Project:

Wansford to Sutton Dualling Supplementary GI

TP110

Project ID:

GT0386



5. Natural



Trial Pit Log Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 15/02/2022 Co-ords: E507647.70 N299650.27 Location: Engineer: Sweco Project No.: GT0386 Equipment: JCB 3CX Crew Name: JJ / JD Location Number Location Type Level Logged By Scale Page Number Sheet 1 of 1 **TP111** TP 27.76m AOD 1:25 Sample and In Situ Testing Water Depth Level Wel Legend Stratum Description Strikes (m) (m) 0.05 - 0.15 27.76 Grass over dark brown slightly sandy clayey gravelly ES SILT with frequent rootlets. Sand is fine to coarse. 0.15 - 0.30 В Gravel is subangular to subrounded fine to coarse limestone and rare flint. 0.30 - 0.35 D 0.35 27.41 Brown and yellowish brown clayey sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is subangular fine to coarse limestone. Cobbles are subrounded to subangular limestone. 0.60 m to 1.50 m some subangular limestone 0.70 - 0.80ES <u>cobbles (70 mm x 50 mm</u> x 20 mm) 0.80 - 1.10 В 0.70 m to 1.30 m becoming light yellowish brown and no longer brown 1.30 26.46 Weak to very weak light yellowish brown and slightly weathered sandy LIMESTONE with rare iron staining. В Sand is fine to coarse. 1.50 - 1.80 1.80 - 1.85 D 1.85 End of Trial Pit at 1.85m 2 3 5 Trench Support and Comment Pumping Data Dimensions Orientation Pit Stability Pit Width (Shoring Used Date Rate Remarks Remarks Unstable None 4.00 0.30 Weather: Prior to digging the position was cleared of services. The pit was scheduled to 4.00 m depth however the pit was terminated at 1.85 m due to hard

ground. The pit was back filled with arisings in 300 mm layers in the order it was removed.



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP111

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386

Trial Pit Photographs



1. Pre condition





TP111

Project:

Wansford to Sutton Dualling Supplementary GI



3. Pit side





Project:

Wansford to Sutton Dualling Supplementary GI

TP111 Project

Project ID: GT0386



5. Natural



Trial Pit Log Project Name: Wansford to Sutton Dualling Client: Galliford Try Date: 16/02/2022 Co-ords: E507680.56 N299620.88 Location: Engineer: Sweco Equipment: JCB 3CX Project No.: GT0386 Crew Name: JJ / JD Location Number Location Type Level Logged By Scale Page Number 25.49m AOD **TP112** TP 1:25 Sheet 1 of 1 Sample and In Situ Testing Water Depth Level Wel Legend Stratum Description Strikes (m) (m) 25.49 Grass over dark brown slightly sandy clayey gravelly 0.10 - 0.20 FS SILT with frequent rootlets. Sand is fine to coarse. 0.10 - 0.30 В Gravel is subangular to subrounded fine to coarse limestone and rare flint. 0.30 - 0.35 D 0.40 25.09 Brown and yellowish brown very sandy GRAVEL. 0.50 - 0.60 ES Sand is fine to coarse. Gravel is subangular fine to coarse limestone 0.60 - 0.90 В 0.60 m to 1.50 m some subangular limestone cobbles (70 mm x 50 mm x 20 mm) 1.00 - 1.05 D 1.00 m to 1.50 m becoming light yellowish brown and no longer brown 1.50 - 1.80 В 1.50 23.99 Weak to very weak light yellowish brown slightly weathered sandy LIMESTONE with rare iron staining. Sand is fine to coarse. 1.95 - 2.00 D 2.00 2 End of Trial Pit at 2.00m 3 5 Trench Support and Comment Pumping Data Dimensions Orientation Pit Stability Shoring Used Date Rate Remarks Remarks Unstable None 4.00 0.30 Weather: Prior to digging the position was cleared of services. The pit was scheduled to 4.00 m depth however the pit was terminated at 2.00 m due to hard

ground. The pit was back filled with arisings in 300 mm layers in the order it was removed.



GROUND TECHNOLOGY Victory Park, Attleborough Norfolk, NR17 1ZA Tel: 01953 459462

Trial Pit Photographic Report

TP112

Project:

Wansford to Sutton Dualling Supplementary GI

Project ID: GT0386

Trial Pit Photographs



1. Pre condition





Project:

Wansford to Sutton Dualling Supplementary GI

TP112 Project ID: GT0386







TP112

Project:

Wansford to Sutton Dualling Supplementary GI



