

								UKEL	IULE							
Project	: Norths	stowa										·		BORE	OLE	No
Job No			Tr	Date .		·	10							WW	C0'	22
	21706	26	-	- 2	25-0	8-06 8-06	Groui	nd Level (m	AOD)	Co-Ordinates				***	CUA	23
	ising Er				.5-0	0-06	l	9.873		E 540760	.957 N	266026.06	9			
		LF/C	۱ ۱۸۸				e.	Cllen					s	heet		
			_		-	,		Galla	gher Esta	ates & English	Partnershi	ps		1 (of 1	
SAIVI	IPLES	& TE		·	<u>ē</u>	<u> </u>			S	TRATA				ville:		J.S.
Depth	Type No	Test Resuit	PID Depti	Resul ppmv		Reduced Level	Depth (Thick- ness)			DESCRIPTI	ON			Legend	Geology	Instrument
			-:			9.47	0.40	MADE GR	OUND: (Concrete.					MG	
						9.11	(0.80)	MADE GR	OUND: 0	Grey slightly gr ubangular filnt	avelly clay. , tarmac an	Gravel is fin d concrete.	e to			
20	11100	b				8.67	1.20								MG	
U	1111						(0.50) 1.70	MADE GR	OUND: F	Reworked blac vel size pocke	k/brown gra	velly clay wit	h		140	:
	ľ				\$	8.17	1.70	Glaveils II	nedium to	coarse flint.	_		1.	<u> </u>	MG	l: l
					=		(1.70)	irequent co	parse grav	ed brown slight vel size pocked dlum flint and EPOSITS).	te of orange	house sond	l. from		TD	
		*			±	6.47	3.40							<u></u>		
					-	5.87	(0.60)	Soft light br size pocket filnt (TERR	s or anev	gravelly CLA'	Y with frequence medium to	ent medlum coarse angi	gravel ular	<u>-</u>	TD	
					,	3.91	(1.10)	Brown oran	ge very s	andy GRAVE se angular to	L. Sand is r subrounded	nedium to ∞ d flint (TERR	arse ACE	0000	TD	
	WILL STATE					4.77	5.10							0.00		ŀĖ
	333700					; ; ;	(1.40)	Grey slightly brown sand (KIMMERID	ilenses. (CLAY with fre Gravel Is fine a Y).	equent thini angular to s	y bedded fine ubangular ch	e nalk		кім	111111111111111111111111111111111111111
				.		3.37	6.50									
- 5						2.87	(0.50) 7.00	Very stiff gre	y CLAY	(KIMMERIDG	E CLAY).				KIM	-
													-			_
		-														
						<u> -</u> -										
Bor	ing Pro	ogress	and	Wate		bservati			Chisell	ing	Water	Added		SEVIED		_
te	Time	De	pth	Dep	Cas th	ing Dia. mm	Water Dpt	From	То	Hours	From	To		GENER REMAR		
													Groundw 3.4m - fas	ater encour	ntered a	at
_	Time -	1														
-06	Time	Stri		Minut 20	tes	Standing 1.92	Casing 3.00									
	sions in le 1:62.		Co	ntracto	or / Di	riller		Meth	nod/Plant				ogged E	 Bv	 _	
الفناد	1.02.			· · · · ·						Cable Percu	ussive Rig		-5500	LF/RLC	;	



			KEHULI			BOREHOLE No
roject						
Northstowe	<u> </u>		14 100	On Ordinatos (OS)		WWC024
b No	Date 24-08-06	6 l	Level (m AOD)	Co-Ordinates (OS)	N 265980.262	
12170626	24-08-06	3	10.790	E 540769.630	N 200900.202	Sheet
upervising Engineer			Client	states & English Partne	rshins	1 of 1
JMC / LF / CW	/ / RLC		Gallagrier			1 2
SAMPLES & TES	rs 5			STRATA		- 1 og e =
	PID Result ppmv Rec	educed educed (Thick- ness)		DESCRIPTION	11 -1	Legend Ceology
		10.39 0.40	with frequent root subangular flint.	D: Grass over brown slig otlets. Gravel is fine to n red brick, bitumen and	nedium angular to tarmac.	
70 1111//		t (o cox 1)	Firm orange brov	wn slightly gravelly CLA ets of buff clavev sand (Y with rare medium TERRACE DEPOSIT	S) 1D
		(0.60) 9.19 1.60	frequent coarse medium angular	ght brown clayey slightly gravel size pockets of to to subangular chalk (TI	ERRACE DEPOSITS	<u>"·</u>
50 JJJJVV 60 V	‡	(1.00)	Orange brown c	layey slightly gravelly S to subangular flint. Bec RACE DEPOSITS).	AND Gravel is fine to	
.co July	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8.19 2.60	Firm buff mottle fine angular to s DEPOSITS).	d orange brown slightly subangular chalk and fli	gravelly SILT. Grave nt (TERRACE	I is ×o _× × × TD ×o _× × ×
		7.29 3.50	Firm orange bro	own mottled light grey C	LAY (TERRACE	— <u>× × </u>
	\$.	(0.90) 6.39 4.40		L. C. bib.	evelly SILT Gravel is	
4.50		(0.60) 5.79 5.00	coarse angular	slightly sandy slightly grav to subangular flint grav	ei (TERRACE	x x x
		5.29 (0.50) 5.50	to subangular f	d grey GRAVEL. Grave fint (TERRACE DEPOS fine to coarse SAND ar	of GRAVEL. Gravel is	s fine 82 80
		(0.80)	to coarse angu	alar to subangular flint (1	ERRACE DEPOSITS	S). 000 TD
6.50 3111/V		4.49 6.30 (0.70) 3.79 7.00	Stiff grey grave subangular silt	elly CLAY. Gravel is fine stone (KIMMERIDGE C	to coarse angular to CLAY).	
				iv.		
Roring Progr	ess and Water	Observations		Chiselling	Water Added	GENERAL
Date Time	Depth Depth	Casing VV	ater From	To Hours	From To	REMARKS Groundwater seepage at 2.
						Groundwater encountered 4.3m - fast.
Date Time	Strike Minutes	0 1000	asing			
24-08-06 24-08-06	2.10 20 4.30 20	3.15 4	.50			Logged By
All dimensions in m Scale 1:62.5	etres Contractor	r / Driller	Met	thod/Plant Used Cable Perc	sussive Rig	LF/RLC



									71-11		LUG						
Project															BOREH	OLE	E No
Job No	Norths	towe													VADA/	~^	. _
	21706	200				8-06	Groun		evel (m A	OD) (Co-Ordinates				WW	CUZ	25
Supervi				2	3-0	8-06		1	1.706		E 540744	.659 N :	265916.9	12			
	JMC /	-		DI C					Client					SI	neet	,	
				RLC					Gallagi	her Esta	tes & English	Partnershi	ps		1 0	of 1	
SAM	PLES	& TE	$\overline{}$		- E	ļ				S	TRATA			F.			ig S
Depth	Type No	Test Result	PID Depti	Resuli ppmv		Reduced Level	Depth (Thick- ness)				DESCRIPTI	ION) is		Legend	Geology	Instrument
+					,	11.21	(0.50) 0.50	M	ADE GRO	UND: G	rass over gra	evelly topsoi	l.			MG	
							(0.70)	M/ me	ADE GRO	UND: Bi parse ar	rown slightly ngular to sub	sandy clay angular flint	with occasion	onal		MG	
1.20	with					10.51		D		II-b#		<u> </u>			$\otimes\!\!\!\otimes\!\!\!\otimes$		
1.50	אררור .					10.21	1.50	me	xalum grav	vei size r	y sandy sligh ockets of ye	llow brown	velo vbnes	Crowd		TD]:[
_							(0.70)	/ is i	ine to me POSITS).	dium ang	gular to suba	ingular flint	(TERRACE			10	
2.20	Mrrit					9.51		Bro	wn black	mottled	slightly sand	y slightly gr	avelly CLAY	/ with		TD	
						9.41	2.30	gra	quent blac ivel. Gravi	x coars∈ el is fine	e gravel size to coarse an	pockets of t	fine subang	ular	8 =	TD	7. E
						1		Suc	ong nyaro	camoon c	odour (TERR	ACE DEPO	SITS).	1		•	
							-	Ime	ıdıum grav	/ei size p	lightly sandy lockets of bu	slightly grav ff silt. Slight	elly CLAY hydrocarbo	with rare	<u> </u>		
		- 1						1/10	RRACE	PEPOSI	TS). velly CLAY. (- 1			
							(2.00)	ang	gular to su	ibangula	r chalk (KIMI	Gravei is fin MERIDGE (e to mediur CLAY).	m			
							(3.20)			,			·		- 2	KIM	:E
		ĺ															[:E
		l													- <u>-</u>		<u> </u>
		ľ		1			-										
				ŀ	-	6.21	5.50								<u>-</u>		
5.50	nmvv							Stiff	grey very	gravelly	CLAY. Grav	vel is fine to	coarse and	nular	8 9		I.E
		- 1				Ė	-	silts	tone (KIM	MERID	GE CLAY).			,			: <u> </u>
				- 1	- }	- E	(1.50)								<u> </u>	KIM .	E
				.		E											
			-	ĺ		4.71	7.00								<u> </u>		
						Ē											Ë
						E	-							-			
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			İ			F											
						Ę											
Bor	ing Pr	ogres	s and	Wat	er C) bservat	ions	T		Chiselli	na	Water	Added		SENED		-
Date	Time	De	epth	Dep	Ca:	sing Dia. mm	Water Dpt	7	From	То	Hours	From	To		GENER REMAR		
								7	_					 	dwater end		ed .
																	J.4.
Date	Time	St	rike	Minu	tes	Standing	Casing	\parallel									
		Щ.								-							
Il dimens			Co	ontracto	or / D	Oriller			Metho	od/Plant	Used			Logged I	Bv		
	le 1:62.	0									Cable Perc	sussive Rig			LF/RLC		



		ax:						JIL	IIOL	LLO				DC	REHC	NEN	10
oject	_			٠													
No	rthste	owe_								10.0.5	-t (OC)			- 1	NWC	026	-
b No			Da	ite 23	3-08	-06	Groun		m AOD)	Co-Ordina		N OCEOOS	E40				
121	7062	6		2	3-08	-06		11.84	2	E 540	732.863	N 265885	0.010	Shee	nt .		
upervisin	ng Eng	ineer.							ient) Sile	1 of	: 1	
JM	1C / L	.F / C	W/R	RLC				G	allagher E	states & En	glish Partne	erships					5
SAMPL	ES	& TF	STS		Ι.					STRATA	· ·					<u>a</u>	neu
	Type	Test Result	PID	Resulf	Water	Reduced Level	Depth (Thick- ness)			DESCF	RIPTION				Legend	Geology	Instrument
.20	7770					11.34	(0.50) 0.50	eoma	mote Grav	vel is fine to	medium a	ravelly clay to ngular to sub	psoil with angular f	h lint		MG	
,		·				11.54		MADE	COOLING	avel is fine t	ange mottle	ed slightly sai angular to su	ndy slight bangular	ty		мв	
						10.44	<u> </u>								<u> </u>		ĽΕ
			.*			19.71		Firm to mediu fine to		riza nackate	of red how	velly CLAY w vn sandy clay lint and chall	v. Gravei	is ACE			
2.50	אררוי						(2.10)		*							TD	
				1			E				•						ŀĒ
						8.34	F 3.50										ŀĒ
					1	8.14		C Firms	dark brown	n mottled gr	ey slightly g	gravelly CLA chalk (TERR	/. Gravel	is	0	TD	ŀĖ
	l						Ė	1/DEPI	OSITS)	,							: E
,		1	1	1			E	Stiff	rey slightly	y gravelly C	LAY. Grave	el is fine to m RIDGE CLAY	edium		<u></u>	1	l:E
		1	1		1	ì	ŧ	angu	lar to suba	angular chai	K (KIMWER	IDGE CLAT	<i>)</i> .			-	
~					1		E								<u>-</u>	7	l: E
	1						E									KIM	
		1		ŀ			(3.30)							•	<u>-</u>	-	
		1		1		-	E	•								=	
					1	ĺ	<u>F</u>								0	=	
				-	Ì											=	
	1			-			Ę								<u> </u>	3	
						.4.8	4 7.0	00							-0	╄	+
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			.	1			F									1	
	1						F	1								-	
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							F										1
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							F										\perp
	2000	- D=-	aross	-L-	\/\/at	er Obse	rvations			Chiselling		Water A	dded			IERA	
					vval	Casing	1 1	Vater Dpt	From	То	Hours	From	То		REM	IARK	S
Date		Time	De	pth	De	pth Dia	. mm	Upt		 				No g	roundwate	er encou	unter
1.6	*]	53			2					
						.											
Date	_	Time	Str	rike	Min	utes Sta	anding C	Casing									
	\top		\top														
											<u> </u>			4		_	
A 11 _3!	meral	one in	metres	C	ontra	tor / Drille	er		Met	thod/Plant L				Log	ged By	/RLC	
All Off	iliti itiii Seele	ons in 21:62.		. I							Cable Per	cussive Rig			ᇿ	/INLU	



							_	OKER	ULE	LUG						
Projec	t North	stowe	_											BORE	HOLE	- No
Job No		SLOWE		Date			- 1							1454		
	12170	826			22-0	8-06	Grou	nd Level (m A	AOD) (Co-Ordinates	(OS)			WW	CUZ	27
	vising E				22-0	08-06		11.932		E 540718	3.888 N	265910.7	734			
				D: 0				Client					SI	neet		
						-		Gallaç	her Esta	tes & Englisi	h Partnersh	lps		1	of 1	
SAN	1PLES	3 & TE	$\neg -$		_ ե	i		legi.	S	TRATA	 i 	1-10			T	ΤŞ
Depth	Type No	Test Resu			_	Reduced Level	Depth (Thick- ness)			DESCRIPT	ION			Legend	Geology	Instrument
-						11.73		Grass over	brown sa	indy TOPSC	IL.			38.30		
Ē							(0.70)	Dark brown	slightly o	ravelly CLA	Y with from	ent rootlets	and rare	<u></u>	1153	
0.70	JJV		ł	1		11.03	· '	subangular	flint (TEF	is fine to me RRACE DEP	dium. Grav 'OSITS),	el is mediur	n		TD	
-	1:	-					(0.00)	Firm brown	slightly s	andy slightly	oravelly C	LAY with oc	casional	<u> </u>	-	
-				ŀ		10.43	(0.60) 1.50	i locasis. Gi	avensnii	חפתוות מזונמטוי	gular to an	gular flint			TD	
1.50	71/							Firm to stiff	orange b	mwn very ar	avelly CLA	Y. Gravel is	medium	<u>-</u>	-	╁┋
<u>-</u>						1 1	_ (1.20)	1.5m (TERF			lint. Becom	ing gravelly	from		}	
							(1.20)							_ -	TD	
			1		1	9.23	2.70								-	:目
- - 3.00	711				₹	8.93	3.00	Firm brown	mottled g	rey slightly g	ravelly CL	AY with poc	kets of	8	Ð	目
	""						(0.70)	fine silt. Gra DEPOSITS)					/			
2000						8.23	3.70	Firm brown :	slightly sa	andy slightly	gravelly CL	AY with rar	e light		TD	:目
								(DELO2112)					/	o —		:目:
			ĺ			! E		Stiff grey slig from 4.5m (F	ghtly grav	elly CLAY.	Gravel is fin	e flint and c	halk			:目:
4.50-5.00	JJ\	-							(IIIVIIVIEI (I	DGL CLAT)				<u></u>		
						[}			· ii
•						<u> </u>	•						-	<u></u>		
					,	Ė	(3.30)						į		KIM	目:
				i		Ė							ŀ	<u></u>	Kilvi	: []:
6.00	JJV				i		ĺ									目:
						Ė							· [· []:
		İ				Ē	j								ł	:目:
						4.93	7.00						E		[.目.
				- 1	- 1	Ę										- اجات
						E								- 1	1	
		.				E									1	
				- 1		E							ĺ			
			- 1			E										(3)
						Ė										
	-					F										
	- 1															
				- 1.		Ę										
Bor	ing Pr	ogres	s and	Wat	er O	bservati	one	T	Obi III						\perp	
Date	Time		epth	T	Cas	sing Dia. mm	Water Dot	From	Chisellir	Ť		Added	G	ENER	AL	
				Dep	יינות איני	Dia. mm	Dpt	FIOR	То	Hours	From	То	R	EMARI	KS	
													Groundwat	er seepag	e at 2.9	m.
													!			
Date	Time		rile -	• • •				4								
-08-06	inile		rike 90	Minu	tes	Standing	Casing	41								
		-	50				2.20									
ul dimens	ions in	metres		ntracto)r / D	riller		11 1		<u> </u>	لصد					
	e 1:62.				ر ر ، ، .			Metho	d/Plant L	Ised Cable Percu	issive Di-		Logged By	/	1	Ť
											-soive Mg			.r/KLC		- 1



Project						BOREHOLE No
Northstowe						BHD001
Job No	Date 08-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПОООТ
12170626	08-09-05	10	0.340	E 539196.664	N 265890.721	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	1 of 1		

SAMF			STS					STRATA			 _ _
Depth	Type No		PID Depth	Result	Water	Reduced Level	(Inick-	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-	140	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				9.84	ness) - - (0.50) - 0.50	Brown sandy clayey TOPSOIL.	1/2 · 2/1/2 · 2/1/2	TPS	E W
- 0.50-1.00 - 0.50 - 1.00 - 1.00-1.40	B D D	31 blows					_ _(0.90)	Firm yellow brown slightly gravelly sandy CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.50	D	51 blows				8.94	- 1.40 -	Soft becoming firm grey mottled orange brown CLAY with rare white selenite crystals (AMPTHILL CLAY).			
_ - 2.00-2.50 -	BSD	3,3,2 1,2,2 N=7					(1.80)			AMP	
2.50	D U	39 blows				7,14	3.20				
3.50	D D	oo biowe				7.14	- - - - - -	Firm thinly laminated grey CLAY with rare fine pyrite crystals. Becoming stiff at 5.0m. With ammonite fossils at 6.5m. Becoming firm below 6.5m (AMPTHILL CLAY).			
4.00-4.50	BSD	3,3,4 3,3,4 N=14					-	, ,			
4.50	D						-				
5.00-5.40 5.00 - 5.50	U D D	71 blows					(3.80)			AMP	
6.00	D						-				
6.50-7.00	BSD	3,4,4 5,4,4 N=17				3,34	7.00				
7.00	D					5,51					

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL
Date	Time	Depth	Casing Depth Dia. mm		ng Water Dia. mm Dpt		То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD002
Job No	Date 08-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПООО
12170626	08-09-05	10	0.860	E 539032.897	N 265685.390	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	1 of 1		

SAMP	LES	& TE	STS					STRATA)ut
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						10.36	(0.50) 0.50	Brown sandy dayey TOPSOIL.	17 · 71 · 17 · 71	TPS	
- 0.50-1.00 - 0.50 - 0.90 - 1.00-1.50 - 1.50 - 1.50	B D B D	7,6,5 4,3,2 N=14				8.66	(1.70)	Firm brown very sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded chalk and flint (TERRACE DEPOSITS).		TD	
2.20	D	5,3,4 3,4,3 N=14				0100		Firm grey mottled orange brown CLAY. Becoming very stiff from 5.0m (AMPTHILL CLAY).			
- 3.00-3.40 - 3.50	U	30 blows	;								
4.00-4.50	BSD	7,4,3 4,5,4 N=16					-				
4.50 - 5.00-5.40	D U	86 blows	:				(4.80)			AMP	
- - 5.50 -	D						-				
6.00 - - - - 6.50 - 6.50-7.00	D D B						-				
- 7.00 - 7.00 	D					3.86	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD003
Job No	Date 07-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рприоз
12170626	07-09-05	10	0.850	E 539198.175	N 265704.087	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	LES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.40 0.50-1.00 0.80 - 1.00	D B D	2,3,6 6,4,5				0.45	(1.40)	Firm to stiff brown sandy slightly gravelly CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.50	D U	N=21 43 blows	:			9.45	- -(1.20)	Firm to stiff grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD	
2.50 - 3.00-3.50 - 3.50	D BSD D	3,3,5 5,6,6 N=22				8.25	2.60	Stiff grey green mottled orange brown CLAY with rare selenite crystals. Becoming grey mottled orange brown from 4.0m (AMPTHILL CLAY).		AMP	
4.00-4.40	U	61 blows				6.65	4.20	Stiff becoming very stiff grey CLAY (AMPTHILL CLAY)			
5.00-5.40	U D	83 blows					(2.80)			AMP	
6.50-7.00 - 7.00	BCD D	4,4,7 8,9,8 N=32				3.85	- - - 7 <u>.</u> 00				

Во	ring Prog	ress and	l Water C	bservatio	ons	Chiselling Water				Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD003A
Job No	Date 08-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРООЗА
12170626	08-09-05	10	0.490	E 539394.141	N 265579.091	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

JIV	10 7	LF / C	V V / I	·LO				Gallagher Estates & English Partnerships		1 1	
SAMP	LES	& TES	STS					STRATA		>	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument Backfill
0.40	D					9.99	(0.50) 0.50	Firm sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.50-1.00 - 0.70	B D					9.49	(0.50) 1.00	Firm becoming stiff grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine subangular to subrounded chalk (TERRACE DEPOSITS).		TD	
- 1.00 - - - 1.50	6 D	2,3,4 4,3,5 N=16					-	Firm becoming stiff grey mottled orange brown CLAY with rare selenite crystals present. Becoming green grey mottled orange brown from 3.0m (AMPTHILL CLAY).			
2.00-2.40		73 blows					-	SIGNITION COM (WITH THEE CENTY).			
2.50	D						(3.20)			AMP	
3.00-3.50	BSD	3,3,9 5,8,9 N=31									
4.00-4.40	U	83 blows				6.29	4.20	Stiff grey CLAY (AMPTHILL CLAY).			
4.50	D							Our groy OLAT (AWIT THILL OLAT).			
- 5.00-5.50	BSD	4,5,8 7,8,9 N=32					(2.80)			AMP	
-							-				
6.50-6.90		96 blows				3.49	7.00				
7.00	D										
-							-				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL						
Date	Time	Depth	Casing Depth Dia, mm		Casing Depth Dia. mm		Casing Depth Dia. mm		Casing V		Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.						
Date	Time	Strike	Minutes	Standing	Casing												

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD004
Job No	Date 09-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПО004
12170626	09-09-05	13	3.220	E 539097.771	N 265155.918	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

								Canagnar Estates a English Farmorships			_
SAMP	LES	& TE	STS		٦.			STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/
						12.87 12.62		Firm brown sandy slightly gravelly clay TOPSOIL with rare rootlets. Gravel is fine to medium angular to subrounded flint and rarely chalk.		TPS T	
0.50-1.00 0.50 1.00-1.40	B D U	27 blows				12.62	0.60	Firm to stiff grey brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint and rare quartzite (TERRACE DEPOSITS).	/ = =		
1.00	D D						-	Firm green grey mottled grey CLAY (KIMMERIDGE CLAY)			\$20 \$20 \$30 \$30 \$30 \$30 \$30 \$30 \$30 \$30 \$30 \$3
2.00-2.50	BSD	222					- - -		<u> </u>		
2.00-2.50	Б БО	3,3,3 2,2,3 N=10					(3.40)			KIMM	
3.00-3.40 3.00	U D	41 blows					- - - - -				2000
3.50	D					9,22	4.00				
4.00-4.50	ESD	3,3,2 2,3,2 N=9				9.22	4.00	Firm grey mottled orange brown CLAY with rare white selenite crystals (KIMMERIDGE CLAY).			2020 2020 2020 2020 2020 2020 2020 202
5.00-5.40	U	61 blows					- (2.00)				
5.50	D						(3.00)			KIMM	
6.00	D						E				
6.50-7.00	BSD	3,3,3 2,3,3 N=11				6,22	7.00				
- - -	D	N-11				0.22	7.00			M	O.

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL	
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS	
											No groundwater encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD005
Job No	Date 09-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРООЗ
12170626	09-09-05	13	3.210	E 538926.047	N 265123.573	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMPLES & TESTS STRATA								STRATA			ınt/
Depth	Type No		P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- - 0.40 - 0.50-1.00	D B					12.91	-	Firm dark brown slightly sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium angular to subrounded flint with rare rootlets. Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to		TPS	
- 0.80 - 1.00	D B	2,3,5 4,4,3 N=16				11.81	(1.10) - 1.40	medium angular to subrounded flint (TERRACE DEPOSITS).	- <u>·</u> <u>·</u> -	TD	
1.40 - - - 2.00-2.50	D B	3,3,5					- (1.20)	Stiff light grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular. rare bands of siltstone (REWORKED KIMMERIDGE CLAY).		KIMM	
2.60	D	6,6,7 N=24				10.61	2.60	Stiff green grey mottled grey CLAY with rare white selenite			
- - 3.00-3.40	U	57 blows					-	crystals. Becoming grey with rare fossils with depth (KIMMERIDGE CLAY).			
- 3.50 - - - 4.00-4.50	D BSD	4,4,9					-				
		7,6,8 N=30					(4.40)			KIMM	
5.00-5.40	U	76 blows									
- 6.50-7.00 - 6.50	B D					6.21	7.00				
- 7.00	D										

Во	ring Prog	ress and	l Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL
Date	Time	Depth	Cas Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD006
Job No	Date 09-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРООО
12170626	09-09-05	13	3.920	E 538761.397	N 265040.622	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TE	STS		يا			STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						13.62	0.30	Grass over slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint.	<u> </u>	TPS	
0.50-1.00	B D					13.02	(0.60) 0.90	Firm orange brown mottled grey sandy slightly gravelly CLAY, Gravel is fine to coarse angular to subrounded flint (TERRACE DEPOSITS).	<u></u>	TD	
- 0.90 - 1.00-1.50 - 1.50	B D	6,2,3 2,3,2 N=10				11,82	(1.20)	Loose to medium dense brown very clayey gravelly SAND. Gravel is fine to medium angular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
2.00 2.10-2.50 2.10	C B D	5,3,3 2,3,2 N=10				11.02	2.10	Firm to stiff grey mottled orange brown slightly sandy CLAY (KIMMERIDGE CLAY).			
3.00-3.40	U	46 blows	;				(1.90)			KIMM	
4.00-4.50	BSD	7,3,4 3,4,5 N=16				9.92	4.00	Firm becoming stiff green grey mottled grey CLAY with rare white selenite crystals. Becoming very stiff from 5.0m (KIMMERIDGE CLAY)			
- 4.80-5.20 - 5.00 - 5.50	B D	8,9,12 8,10,8 N=38					(3.00)			KIMM	
6.00	D						-				
6.50-6.90		89 blows	:			6.92	7.00				
7.00	D										

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD007
Job No	Date 12-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРООТ
12170626	12-09-05	15	5.650	E 538737.214	N 264744.034	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

									_		
SAMP	LES	& TE	STS					STRATA		>	eut
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.40 - 0.50-1.00	D B					14.85	(0.80)	Soft brown sandy slightly gravelly CLAY. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
- 0.80 - 1.00-1.50	D BCD	3,3,5 4,5,5 N=19				14.65	(1.00)	Medium dense buff brown dayey gravelly SAND. Gravel is fine to medium angular to subangular flint and chalk. With rare to frequent pockets of grey sandy day (TERRACE DEPOSITS).		TD	
- - - 2.00-2.40	U	43 blows				13.85 13.45	_	Firm to stiff brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and quartzite (TERRACE		TD	
2.50	D	246						DEPOSITS). Stiff dark grey slightly gravelly CLAY with rare fine to medium sand sized angular selenite crystals. Gravel is fine subangular to subrounded of a pyretic material. Becoming grey with depth. Becoming very stiff from 6.5m (KIMMERIDGE CLAY)			
- 3.00-3.50 - - - - -	B\$D	3,4,6 5,5,4 N=20					-	Decoming very sum from 0.5m (KilwiwiERIDGE CLAT)			
4.00-4.50	BSD	3,3,6 7,6,5 N=24					(4.80)			KIMM	
5.00	U						-		- <u>-</u> -		
5.50	D						-				
6.50-7.00	BCD	4,4,9 9,8,7 N=33				8.65	7.00				
7.00	D										
	<u> </u>			<u> </u>							

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	9	Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD008
Job No	Date 14-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПР000
12170626	14-09-05	16	3.670	E 538556.289	N 264604.797	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	LES	& TE	STS					STRATA			nt/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						16.17	(0.50) - 0.50	Dark brown slightly sandy clay TOPSOIL.	\(\frac{1}{1}\), \(\frac{1}\), \(\frac{1}{1}\), \(\frac{1}\), \(\frac	TPS	
0.50 0.50-1.00 I	B111AA D				1 ≟	15.77	_	Soft dark brown slightly gravelly sandy CLAY. Gravel is fine subrounded chalk with many rootlets (TERRACE DEPOSITS).		TD	
- 0.90 - 1.00	D C	6,0,3 3,2,3 N=11			<u></u>		(0.90)	Soft to firm orange grey mottled yellow sandy slightly gravelly CLAY. Gravel is fine to medium subangular chalk (TERRACE DEPOSITS).		TD	
1.20-1.50	В					14.87	1.80	·			
1.80 2.00-2.45 2.50	D U D	29 blows	5					Soft to firm grey mottled yellow CLAY with frequent selenite crystals. Becoming firm from 2,5m. With no yellow mottling from 4.5m. Becoming stiff with rare fossils and frequent pyrite from 5.0m. With yellow mottling and selenite crystals from 6.0m bgl (KIMMERIDGE CLAY).			
3.00-3.50	BSD	5,0,4 3,3,4 N=14					- - - - - - - -				
4.00-4.45 - 4.50	U	87 blows	\$				(5.20)			KIMM	
5.00-5.50 B		6,0,3 3,5,2 N=13					-				
- 6.00	D						- - -				
6.50-7.00	BSD	7,0,3 5,4,5 N=17				9.67	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL	
Date	Time	Depth	Cas Depth	Casing Depth Dia. mm		From	То	Hours	From	То	REMARKS	
											Groundwater encountered at 1.2m risng to 0.9m after 15 mins.	
Date	Time	Strike	Minutes	Standing	Casing							
		1.20	15	0.90								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD009
Job No	Date 13-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРООЭ
12170626	13-09-05	18	3.450	E 538351.994	N 264214.796	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

	, _, ,						Callagrior Estates a English Fartherships			
SAMPLES	S & TE	STS					STRATA		_	ent/
Depth Typ			Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
					18.15	0.30	Dark brown slightly gravelly sandy clay TOPSOIL. Gravel is fine to medium angular to subangular flint.	77 77	TPS	
0.30 D 0.50-1.00 BJJJV 0.80 D - 1.00-1.50 B	5,0,4 3,4,3 N=14					(2.90)	Firm orange and brown with rare grey pockets slightly gravelly sandy CLAY. Gravel is fine to medium subrounded chalk (TERRACE DEPOSITS).		TD	
2.00-2.45 U	32 blov	rs				-				
3.00-3.50 BBD	5,0,3 3,2,3			1 2	15.25	3.20				
4.00-4.45 U 4.50 D 5.00-5.50 BJ.StV	N=11 46 blov 4,0,5 6,3,5 N=19					(3.80)	Firm grey mottled orange brown CLAY. With yellow mottling from 3.0m bgl. Becoming firm to stiff, grey and with rare fossils from 5.0m bgl. Becoming stiff with frequent fossils from 6.5m bgl (KIMMERIDGE CLAY).		КІММ	
7.00 D	N=12				11.45	7.00				· . · . .

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Casing Water Depth Dia. mm Dpt			From	То	Hours	From	То	REMARKS
					·						Groundwater encountered at 3.2m risng to 3.0m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing						
13-09-05		3.20	15	3.00	1.00						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD010
Job No	Date 14-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		טוטטוט
12170626	14-09-05	18	3.610	E 538752.135	N 263748.806	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TE	STS		۰			STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.30	D					18.31	0.30	Soft to firm dark brown slightly gravelly sandy CLAY. Gravel is fine to medium angular to subangular flint (TERRACE		TD	
0.50-1.00 - 0.80 - 1.00-1.50		3,0,2 2,3,3 N=10				16.81	(1.50)	DEPOSITS). Soft orangish brown sandy slightly gravelly CLAY. Gravel is fine to coarse subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
1.80 - 2.00-2.50	D BCD	3,0,4 3,2,4 N=13			<u>₹</u>		(0.70)	Medium dense orange clayey SAND (LOWER GREENSAND).		LGS	
2.50-2.80	D B111/V	25,0,50 N=50/ 0			<u> </u>	11.61	(4.50)	Moderately compact orange clayey slightly gravelly SAND. Gravel is fine to medium subrounded flint (LOWER GREENSAND).		LGS	

Во	ring Prog	ress and	Water C)bservatio	ons	Chiselling			Water	Added	GENERAL	
Date	Time	Depth	Casing Depth ∣ Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS	
											Groundwater encountered at 2.6m risng to 2.3m after 15 mins.	
Date	Time	Strike	Minutes	Standing	Casing							
14-09-05		2.60	15	2.30	2.50							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD011
Job No	Date 08-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		ווטטחם
12170626	08-09-05	17	7.220	E 539121.163	N 263438.630	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	1 of 1	

SAMF	PLES	& TE	STS		ڀ			STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.30	JJJVV					16.82	0.40	Grass over stiff sandy slightly gravelly clay TOPSOIL. Gravel is fine and angular to subrounded flint.	17. 21.7	TPS	
- 1.00	7171/A 722.4.A							Dark green brown slightly gravelly SAND. Gravel is fine and subangular to subrounded flint (LOWER GREENSAND).	0		
3.00	111 / /				1		(4.60)			LGS	
- - - - - - - - - - - - - - - - - - -	111/v					12.22	5.00	Firm to stiff grey CLAY with rare pyrite and unidentified fossils (KIMMERIDGE CLAY).			
-						10,22	-(2.00) -7.00			KIMM	

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL	
Date	Time	Depth	Casing Depth Dia, mm		Water Dpt	From	То	Hours	From	То	REMARKS	
					·						Groundwater encountered at 2.9m risng to 2.7m after 15 mins. Approximate finish depth of greensand was 5.0m.	
Date	Time	Strike	Minutes	Standing	Casing							
08-09-06		2.90	15	2.70								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD012
Job No	Date 14-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПОСТ
12170626	14-09-05	20	0.100	E 539569.270	N 263111.057	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TE	STS					STRATA			ant/
Depth	Type No	Test Result	P I D Depth	Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						19.60	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.	7. 7.1. 7.1.	TPS	
0.50-1.00						19.10	(0.50)	Soft to firm brown and grey slightly gravelly sandy CLAY with many rootlets. Gravel is fine to medium subrounded chalk (TERRACE DEPOSITS).		TD	
1.00	С	4,0,5 3,3,4 N=15			<u>‡</u>		(1.00)	Soft to firm light brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium subrounded flint and chalk (TERRACE DEPOSITS).		TD	
2.00	S	4,0,5 6,5,4 N=20			Ţ	18.10	2,00	Firm grey mottled yellow CLAY. Becoming stiff from 2.5m and with orange mottling from 3.5m (GAULT CLAY).			
4.00-4.50	BJÆSVV	5,0,5 7,6,7 N=25					(5.00)			GLT	
5.00	S	6,0,6 7,7,6 N=26				13.10	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL	
Date	Time	Depth	Casing \ Depth Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS	
					·						Groundwater encountered at 2.0m risng to 1.5m after 15 mins.	
Date	Time	Strike	Minutes	Standing	Casing							
14-09-05		2.00	15	1.50								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD014
Job No	Date 07-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		BND014
12170626	07-09-05	15	5.240	E 539848.230	N 263327.305	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMP	LES	& TE	STS		ڀ			STRATA		>	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						14.74	(0.50) 0.50	Soft brown sandy TOPSOIL.	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	TPS	
- 0.50-1.00 - 0.50 - 1.00 - 1.00-1.40	B D D U	39 blows					-	Firm very closely fissured grey mottled orange brown sandy slightly gravelly CLAY with rare fine white rootlets and quartz belemnite fossils. Gravel is fine to medium angular to subrounded quartzite (GAULT).			
1.50	D						- (3.00)			GLT	
2.00	B	1,2,2 4,2,4 N=12					_(3.00) - -			GLI	
2.50 - - - - 3.00 - - 3.00-3.40	D D U	87 blows					- - - - -				
3.50	D					11.74	3.50	Firm becoming stiff dark grey slightly sandy CLAY with rare quartz belemnite fossils (GAULT).			
4.00	В	3,3,3 3,2,4 N=12					(1.50)			GLT	
4.50	D	442				10.24	5.00	Madisus dans adada bassus ta dada sasa diabita dasas CAND			
5.00-5.50 - - - 5.50	BSD D	4,4,3 3,2,4 N=12						Medium dense dark brown to dark grey slightly clayey SAND (LOWER GREENSAND)			
- 6.00	D				1 1		(1.60)			LGS	
6.50	В	9,10,18 17,18,17			₹	8.64	-	Moderately weak dark green grey SANDSTONE. Recovered as	[. 	LGS	
		N=70				8.29	6.95	fine to medium subangular to subrounded gravel sized fragments with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).		LGS	

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	Casing Water Depth Dia. mm Dpt			То	Hours	From	То	REMARKS
											Groundwater encountered at 6.5m rising to 6.1m after 15mins.
Date	Time	Strike	Minutes	Standing	Casing						
07-09-05		6.50	15	6.10	1.50						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD015
Job No	Date 07-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		פוטטוס
12170626	07-09-05	12	2.210	E 540166.287	N 263536.345	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	LES	& TE	STS					STRATA			ut/
Depth	Type No	Test Result	P I D Depth	Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
E						11.91	0.30	Grass over TOPSOIL.	71 71 1/V	TPS	
- 0.50-1.00 - 0.50 - 0.50 - 1.00-1.50	B D	5,5,9					-	Dense brown slightly clayey gravelly SAND. Gravel is fine to medium angular to subrounded of sandstone quartzite and flint (LOWER GREENSAND).			N≡N
1.50	D	10,12,10 N=41)				(0.00)		0		
2.00-2.50	BSD	7,8,13					(2.90)		0	LGS	
2.40	D	9,12,15 N=49									
3.00-3.20	BCD	9,9,25 25,25			₽	9.01					
3.20	С	N=75/ N=75/ 85 25,25,25 N=25/ 20	;			8.86	3.35	Moderately weak dark green grey SANDSTONE. Recovered as fine to medium subangular to subrounded gravel sized fragments with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).		LGS	. □ . `

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL		
Date	Time	Depth	Cas Depth	Casing Depth ∣ Dia, mm				From	То	Hours	From	То	REMARKS
					·						Groundwater encountered at 3.2m risng to 3.1m after 15 mins.		
Date	Time	Strike	Minutes	Standing	Casing								
07-09-05		3.20	15	3.00	1.00								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD016
Job No	Date 05-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		סוטטחם
12170626	05-09-05	11	1.270	E 540272.425	N 263678.356	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMP	LES	& TE	STS					STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
						10.87	0.40	Grass over TOPSOIL.	12.34 A	TPS	
0.40 0.50-1.00 0.80	D B D					10.27	(0.60)	Firm orange brown very sandy CLAY (TERRACE DEPOSITS).		TD	
1.00-1.50	BCD	7,4,3 4,3,6 N=16				9.77	(0.50) 1.50	Medium dense orange brown slightly clayey SAND (LOWER GREENSAND).		LGS	
2.00-2.50	В	8,3,4 4,3,4 N=15				3.77		Medium dense dark green brown slightly gravelly SAND. Gravel is fine and subangular to subrounded of quartzite and sandstone. Becoming loose at 2.5m. Becoming very dense at 4.0m (LOWER GREENSAND).	0		
- 2.50-3.00 - 3.00	BSD D	2,1,1 2,3,2 N=8					(2.70)			LGS	
3.50-4.00	BSD BSD	3,2,1 2,1,1 N=5 25,25,25				7.07	4.20		0		
Ē		N=25/ 30				6.87		Moderately weak dark green grey SANDSTONE. Recovered as fine to medium subangular to subrounded gravel sized fragments	Ι α .	LGS	
4.20	С	25,25,25 N=25/ 30						with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).			
							-				

Во	ring Prog	ress and	l Water C)bservatio	ons		Chiselling]	Water	Added	GENERAL
Date	Time	Depth	Casing Depth ∣ Dia, mm		ing Water Dia. mm Dpt		То	Hours	From	То	REMARKS
						4.2	4.4	1			No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD017
Job No	Date 06-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		וויטטחם
12170626	06-09-05	10	0.730	E 540298.896	N 263792.002	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TE	STS		يا			STRATA		_	ent
Depth	Type No	Test Result	P I D Depth	Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/
0.20	D					10.43	0.30	Grass over TOPSOIL.	717 717	TPS	
0.50-1.00	В						-	Stiff brown very sandy CLAY (TERRACE DEPOSITS).			
0.50-1.00	"				1		<u> </u>				
1.00-1.50	BSD	3,4,4			\\ \rightarrow{1}{2}		_(1.30)			TD	
		5,6,7 N=22			1	9.13	160				
1.50	D				Ţ	9.13	<u>1.60</u>	Medium dense dark green brown slightly clayey SAND. Sand is	† = :	•	
	BSD	400					<u> </u>	fine to medium of quartz and a black mineral (LOWER GREENSAND).		1	:
2.00-2.50	B90	1,2,2 20,3,4					[(4 00)	GREENSAND).			ŀĖ
2.50	D	N=29					(1.60)			LGS	
							-		<u> </u>		ŀ
3.00-3.50	BCD	3,3,3 2,2,2				7.53	3.20		<u> </u>		
3.20	D	N=9					-	Firm grey CLAY (KIMMERIDGE CLAY).			
3.20	"						Ė		<u> </u>		
4.00-4.50	BSD	3,4,4					(1.60)			KIMM	
1.00 1.00		3,2,4 N=13					Ė		<u> </u>		
		11-13				5.93	4.80		<u> </u>		
4.80	D					3.93		Very stiff grey sandy slightly grayelly CLAY. Grayel is fine to			
5.00-5.50	В	6,7,9 8,10,8				5.43	(0.50) 5.30			KIMM	
5.30	D	N=35					<u> </u>	Stiff grey thickly laminated slightly gravelly CLAY. Gravel is fine to medium and angular (KIMMERIDGE CLAY).			ŀĒ
5.80	D					4 72	(0.70) 6.00	- '		KIMM	∴‡
6.00	ם	25,25,25	;			4.73 4.58			× × ×	KIMM	
		25,25 N=75/									
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Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling]	Water	Added	GENERAL
Date	Time	Depth	Casing Depth Dia, mm		Water Dpt	From	То	Hours	From	То	REMARKS
						6	6	1			Groundwater encountered at 1.6m risng to 1.0m after 15 mins. Sealed off at 4.0m.
Date	Time	Strike	Minutes	Standing	Casing						
06-09-05		1.60	15	1.00	1.60						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD018
Job No	Date 15-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРОТО
12170626	15-09-05	11	1.620	E 540251.103	N 263901.401	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

							Canagnor Estates a English Fartherships			=
SAMPLES	& TE	STS		 			STRATA		<u></u>	ent
Depth Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/
					11.12	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.	7.7.7.7	TPS	
0.50-1.00 BJJJVV					10,62	(0.50)	Loose grangish brown slightly clayey slightly grayelly SAND with		LGS	
1.00-1.50 B						-	Loose orange SAND (LOWER GREENSAND).			
						- - - -				
2.00-2.50 B						(3.00)			LGS	
3.00-3.50 BJJJVV	,			\\ \frac{1}{\sqrt{2}}						
0.00-0.00 0000				1		-				
4.00 S	7,0,4			<u></u>	7.62	4.00	Firm grey CLAY with rare fossils. Becoming very stiff from 5.5m			
4.00	3,4,4 N=15						bgl (KIMMERIDGE CLAY).			
5.00-5.45 U	70 blows					-				
5.55 5.16	, o blowe					(3.00)			KIMM	
-						-				
6.50 S	8,0,5					-				
	8,0,5 4,5,5 N=19				4.62	7.00				10
										1
						- - -				1
						-				Ī
						-				1
						-				

Во	ring Prog	ress and	Water C	bservatio	ons	(Chiselling)	Water	Added	GENERAL
Date	Time	Depth	Casing Depth Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS
					·						Groundwater encountered at 3.7m risng to 3.0m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing						
15-09-05		3.70	15	3.00							

All dimensions in metre Scale 1:62,5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DB
Coale 1.02.0		Cable 1 Grodosive 1 kg	



Project						BOREHOLE No
Northstowe						BHD019
Job No	Date 07-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		פוטטופ
12170626	07-09-05	12	2.740	E 540010.315	N 263693.432	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

JI	,,,,,,		V V / I	\LO				Gallagrier Estates & English Fartherships	1 (ו וע	
SAMP	LES	& TE	STS					STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.50-1.00	В					12.14	(0.60) - 0.60	Grass over brown slightly clayey SAND. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.60	B D BCD	3,4,6					- - - -	Medium dense orange brown slightly gravelly SAND. Gravel is fine to medium angular to subrounded flint (LOWER GREENSAND).			iii
1.50	D	8,7,6 N=27					-				
2.00-2.50	BCD	3,3,5 5,6,7					(2.80)			LGS	
2.50	D	N=23			<u></u>		- - - - -				
3.00-3.50	BOD	2,3,5 4,7,6 N=22			<u>‡</u>	9.34 9.29		∖Dark green brown SAND (LOWER GREENSAND).	· · · · · · · · · · · · · · · · · · ·	LGS	
-						9.29		Firm to stiff grey CLAY (KIMMERIDGE CLAY).			
4.00-4.50	В	3,3,5 5,6,6 N=22					(1.95)			KIMM	
- - 5.00 - 5.00-5.40 - 5.00-5.40	D U B	76 blows	;			7.34	5.40				
5.30 5.40	D C	50 N=50/ 0				7.14	5.60	Moderately strong grey SILTSTONE. Recovered as fine to coarse angular to subangular gravel sized fragments in a clay matrix to 5.5m (KIMMERIDGE CLAY).	* * *	KIMM	
							-				
							- - - -				
							-				
-							- - - - -				
							- - - - -				
							-				
-							<u> </u>				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Casing Water Depth Dia, mm Dpt			From	То	Hours	From	То	REMARKS
											Groundwater encountered at 3.4m risng to 2.9m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing						
07-09-05		3.40	15	2.90							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD020
Job No	Date 07-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ020
12170626	07-09-05	14	1.180	E 539828.595	N 263849.526	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMP	LES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.40	D					13.78	0.40	Grass over brown slightly clayey slightly gravelly SAND. Gravel is fine to medium angular to subrounded flint (TERRACE \DEPOSITS).	· · · · · · · · · · · · · · · · · ·	TD	
1.00-1.50	B BCD	3,3,5 4,5,5					-	Medium dense becoming dense orange brown slightly gravelly SAND. Gravel is fine and subangular to subrounded flint and quartzite (LOWER GREENSAND).	0		
- - 1.50	D	N=19					- (2.80)		0	LGS	
2.00-2.50	BOD	2,3,6 6,5,7 N=24					-				
3.00-3.50	BOD	3,3,5 5,7,7				10.98	3.20	Stiff grey CLAY (KIMMERIDGE CLAY).	· · · · · · · · · · · · · · · · · · ·		
3.20	D	N=24						Stiff grey CLAY (KIMIMERIDGE CLAY).			
4.00-4.50	BD	3,4,7 8,6,8 N=29					- - - -				
4.50	D						(3.80)			KIMM	
5.50-6.00 5.50	B D						-				
6.50-7.00 6.50	B D					7.18	7.00				
7.00	D										

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL		
Date	Time	Depth	Casing Depth Dia. mm		Casing Depth Dia, mm		Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.		
Date	Time	Strike	Minutes	Standing	Casing								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD021
Job No	Date 15-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБОТІ
12170626	15-09-05	11	1.560	E 540201.727	N 264034.598	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						11.26	0.30	Dark brown slightly sandy clay TOPSOIL.	717	TPS	
0.50-1.00	BJJJAA					10.76	(0.50) - 0.80	Soft dark brown mottled red slightly gravelly sandy CLAY. Gravel is fine to medium subrounded flint with frequent rootlets (TERRACE DEPOSITS).		TD	
1.00	С	3,0,2 2,3,3 N=10						Soft to firm orange mottled grey slightly gravelly sandy CLAY. Gravel is medium subrounded flint. Becoming very sandy and slightly gravelly from 2.0m bgl (TERRACE DEPOSITS).		TD	
- 1.50-2.00 - - - - 2.00	В	2,0,3								וט	
3.00-3.50	В	4,3,4 N=14 4,0,4 5,5,4 N=18				9.26	2.30	Firm grey mottled yellow CLAY with rare fossils and no mottling from 3.0m bgl. With brown sandy pockets and stiff cobbled sized clay pockets from 4.0m bgl. Becoming stiff from 6.0m bgl (KIMMERIDGE CLAY).			
4.00-4.50	v∨are	9,0,8 7,8,9 N=32					(4.70)			KIMM	
5.00-5.50	В	8,0,9 7,6,8 N=30									
6.00-6.50	В						-				
6.50	S	6,0,5 4,3,4 N=16				4.56	7.00				
	ring [)roare		nd \//	otor.	Ohseni	etions.	Chiselling Water Added	CENE		

Во	Boring Progress and Water Observations						Chiselling			Added	GENERAL
Date	Time	Depth	Casing Depth Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD022
Job No	Date 15-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ022
12170626	15-09-05	11	1.290	E 540328.395	N 264555.537	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TE	STS		L			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
						10.79	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.	\(\lambda \cdot \frac{7}{7} \c	TPS	
0.50-1.00	B B111//	3,0,2 4,3,3 N=12					(2.20)	Firm brown gravelly slightly sandy CLAY. Gravel is fine to medium subangular chalk. Becoming orangish brown slightly gravelly and very sandy from 1.0m bgl. With cobble sized chalk from 2.5m bgl (TERRACE DEPOSITS).		TD	
2.00-2.50	8	3,0,4 4,5,4 N=17				8.59	2.70				
3.00-3.50	B1723∕∧	6,0,3 4,3,4 N=14					-	Firm grey mottled yellow CLAY with selenite crystals. Becoming firm to stiff light grey with brown sandy pockets and fine to medium subangular chalk from 4.0m bgl. With rare selenite crystals from 4.9m bgl (KIMMERIDGE CLAY).			
4.00-4.50	В	9,0,8 7,7,6 N=28					(4.30)				
- 4.90-5.40 5.00	ВС	7,0,4 5,4,5 N=18					- (4.30) 			KIMM	
6.50-7.00	В	7,0,4 5,4,6 N=19				4.29	- - - - 7.00				
-											

Во	Boring Progress and Water Observations						Chiselling			Added	GENERAL	
Date	Time	Depth	Casing Water Depth Dia. mm Dpt		From	То	Hours	From	То	REMARKS		
											No groundwater encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD023
Job No	Date 19-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ023
12170626	19-09-05	10	0.680	E 540501.591	N 264949.621	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

	VIO 7		••, .	·					Callagnor Estates a English r artheremps			,, ,	
SAMF	LES	& TE	STS						STRATA				ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)		DESCRIPTION		Legend	Geology	Instrument/ Backfill
-						10.18	(0.50) 0.50	Da	rk brown slightly sandy clay TOPSOIL.		1/ · 7/ · / · / · / · /	TPS	
0.50-1.00	BJJV					9.68	(0.50)	So fine	it dark brown and grey sandy slightly gravelly C e to medium subangular flint and chalk (TERRA POSITS).			TD	
1.00-1.50	В						-	So	it to firm grey mottled orange and brown sandy enite crystals from 2.0m bgl. Becoming firm to (KIMMERIDGE CLAY).				
	В						(3.00)					KIMM	
- - - - 4.00-4.50	В					6.68	4.00		f light grey mottled brown CLAY (KIMMERIDG	F CLAY)			
						5,68	(1.00)			,		KIMM	
5.00-5.50	BJJV						-(2.00)	Fir sul Be	m greyish brown very gravelly CLAY. Gravel is cangular flint. Becoming stiff with selenite crystocoming dark grey mottled brown with frequent gubangular flint from 6.5m (KIMMERIDGE CLA	a l s from 6.0m. ıravel. Grave l		KIMM	
						3.68	7.00						
Вс	ring F	Progre	ess a	nd Wa	ater	Observ	ations		Chiselling Water Ad	dded	GENE	RAI	

Во	ring Prog	ress and		bservatio		Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	Casing Wate Depth Dia.mm Dpt		From	То	Hours	From	То	REMARKS
					,						
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD024
Job No	Date 19-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ024
12170626	19-09-05	12	2.020	E 540398.955	N 265066.857	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TE	STS					STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						11.52	(0.50) - 0.50	Dark brown slightly sandy clay TOPSOIL.	1/ · 7/ · · · · · · · · · · · · · · · · ·	TPS	
0.50-1.00	BJJV					11.02	(0.50) 1.00	Firm dark brown mottled grey sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint (TERRACE DEPOSITS).		TD	
1.00-1.50	В	9,6,7 6,5,6 N=24					(1.00)	Firm to stiff orangish brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
2.00-2.50	B.CJV	769				10.02	2.00	Chiff have an abiff areas months of sellous across allights, areas all. CLAV			
2.00-2.50	BJMA	7,6,8 6,7,6 N=27			1 1		- - - - - - -	Stiff to very stiff grey mottled yellow sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and chalk. With selenite crystals from 2.8m bgl. Becoming dark grey with fossils and pyrite from 4.0m bgl. Gravel subrounded from 5.0m bgl (KIMMERIDGE CLAY).			
3.00-3.50	В	11,8,6 7,8,9 N=30			<u>¥</u>		-				
4.00-4.50	В	9,7,6 6,8,8 N=28					(5.00)			KIMM	
5.00-5.50	В	7,8,9 8,9,9 N=35					-				
6.50-7.00	В	18,13,9 12,15,16 N=52	ò			5.02	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
					·						Groundwater encountered at 3.1m risng to 2.5m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing						
19-09-05		3.10	15	2.50							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD025
Job No	Date 15-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ023
12170626	15-09-05	14	1.010	E 540073.689	N 264783.332	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TE	STS					STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result		Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
-						13.71	0.30	Brown sandy TOPSOIL.	711/2 VIV	TPS	
0.50-1.00	C	4,0,3 3,2,3 N=11			1		(2.10)	Soft to firm orange gravelly very sandy CLAY. Gravel is fine to medium subrounded chalk and flint (TERRACE DEPOSITS).		TD	
 - 2.00 -	С	5,0,3 2,2,4 N=11			₹	11.61	2.40	Firm grey mottled yellow CLAY with frequent selenite crystals.			
3.00	S	4,0,5 5,3,5 N=18					-	With no mottling and selenite crystals from 3.0m bgl. With brown mottling, pyrite and frequent fossils from 4.0m bgl (KIMMERIDGE CLAY).			
4.00-4.50	B .S IV	5,0,5 6,4,5 N=20					(4.60)			KIMM	
5.00 - 5.00 	S	7,0,7 6,6,8 N=27									
- 6.50 -	s	7,0,8 6,6,8 N=28				7.01	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Casing Water Depth Dia. mm Dpt			From	То	Hours	From	То	REMARKS
											Groundwater encountered at 2.2m risng to 1.8m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing						
15-09-05		2.20	15	1.80							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD026
Job No	Date 13-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		DUD020
12170626	13-09-05	15	5.240	E 539624.044	N 264805.397	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	LES	& TE	STS					STRATA			nt/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
						14.94	0.30	Dark brown slightly sandy clay TOPSOIL.	<u> </u>	TPS	
- 0.30 - 0.50-1.00 - 0.50 - 0.80	D BJJJAAA D					14.34	(0.60)			TD	
1.00	BCD	4,0,3 3,2,3 N=11				14.04	- 1.20	Soft light brown and orange slightly gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular chalk and flint (TERRACE DEPOSITS).	 	TD	
2.00	BCD	4,0,4 3,4,5 N=16					(1.60)	Loose light brown very gravelly SAND with pockets of firm grey clay. Gravel is fine to medium subangular chalk and flint (TERRACE DEPOSITS).	· · · · · · · · · · · · · · · · · · ·	TD	
3.00	BSD	5,0,5 6,5,4 N=20				12.44	(1.20)	Firm to stiff grey mottled yellow and orange gravelly CLAY with some selenite crystals. Gravel is fine to medium subrounded chalk and flint (KIMMERIDGE CLAY).		KIMM	
- - 4.00-4.50 I	B1723/A/	6,0,7				11.24	4.00	Stiff dark grey CLAY with selenite crystals and rare fossils			[:目:]
4.00	BSD	7,6,5 N=25 6,0,7 7,6,5 N=25					-	(KIMMERIDGE CLAY).			
5.00	U						E			-	
- 5.50 	D						(3.00)			KIMM	
- 6.50 - 6.50	U D					8,24	7.00				
7.00	D										

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL								
Date	Time	Depth	Casing Depth Dia. mm		Casing Depth Dia. mm		Casing Depth Dia. mm		Casing Depth Dia. mm		Casing Depth Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.								
Date	Time	Strike	Minutes	Standing	Casing														

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD027
Job No	Date 13-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПО021
12170626	13-09-05	15	5.100	E 539276.605	N 264809.469	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.50-1.00	D.L.I.VA/					14.50	(0.60) 0.60	Dark brown slightly sandy clay TOPSOIL.	1/ . 1/ . 1/	TPS	
- 1.00-1.45 - 1.50		30 blows				13.40	(1.10) 1.70	Soft to firm dark brown slightly gravelly sandy CLAY. Gravel is frequent fine to medium subangular to angular flint with frequent roots (TERRACE DEPOSITS).		TD	
[1.50						13.40		Loose brownish orange clayey gravelly SAND. Gravel is fine to	<u> </u>	TD	
- 2.00 - 3.00-3.45	BCD	3,0,2 2,3,2 N=9					(2.10)	medium subangular chalk (TÉRRACE DEPOSITS). Soft to firm brown and grey gravelly CLAY with some selenite crystals. Gravel is subrounded chalk (KIMMERIDGE CLAY).		KIMM	
3.50	D					11.10	4.00				
4.00-4.50	BBD B1723∧∧	4,0,3 2,3,5 N=13 4,0,3 2,3,5 N=13					-	Firm to stiff grey mottled orange brown CLAY. Becoming grey mottled yellow from 6.5m bgl (KIMMERIDGE CLAY).			
5.00-5.45	U D	89 blows					(3.00)			KIMM	
6.00	D						- - - - - -				
6.50	BSD	5,0,3 2,3,5 N=13				8.10	7.00			-	
7.00	D										

Во	ring Prog	ress and	l Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Cas Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD028
Job No	Date 13-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ020
12170626	13-09-05	16	6.680	E 539241.703	N 264625.896	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMP	LES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.40	6					16.18	(0.50) 0.50	Dark brown slightly sandy slightly gravelly clay TOPSOIL.	17 - 71 - 71	TPS	
- 0.40 - 0.50-1.00 E - 0.80	D					15.68	(0.50)	Soft brown and orange slightly gravelly sandy CLAY. Gravel is fine to medium subrounded to subangular chalk and flint with frequent rootlets (TERRACE DEPOSITS).		TD	
- 1.00 - - - -	BD						(4.00)	Soft orange brown gravelly clayey SAND. Gravel is fine to medium subrounded to subangular chalk and flint (TERRACE DEPOSITS).	0		
	s1∕¤√√	4,0,3 5,3,2 N=13				13.88	2.80			TD	
3.00-3.45		32 blows				13.00	(1.20)	Firm brown and grey mottled yellow gravelly CLAY with some selenite crystals. Gravel is fine subrounded chalk (KIMMERIDGE CLAY).		KIMM	
- 3.50 -	D					12.68	4.00				
4.00	BCD	7,0,5 3,4,6 N=18					-	Firm dark grey CLAY with frequent fossils (KIMMERIDGE CLAY).			
	U	57 blows					-				
5.50	D						(3.00)			KIMM	
6.50	BSD	7,0,4 4,6,7 N=21				9.68	7.00				
- 7.00	D										

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	Added	GENERAL						
Date	Time	Depth	Casing Depth Dia. mm		Casing Depth Dia. mm		Casing Depth Dia. mm		Casing Depth ∣ Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS
											No groundwater encountered.						
Date	Time	Strike	Minutes	Standing	Casing												

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD029
Job No	Date 12-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПБ029
12170626	13-09-05	15	5.570	E 539137.462	N 264740.655	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

								Callagrici Estates a English i artifetonips			
SAMP	LES	& TE	STS		<u></u>			STRATA		_ >	ent
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.30	D					15.07	(0.50) 0.50	Firm brown sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium subangular to subrounded flint and chalk.	1/2 · 2/1/2 · 2/1/2	TPS	
- 0.50-1.00 - 0.60 - 0.90 - 1.00-1.50	B D B	3,3,2 3,3,2 N=10					(2.00)	Firm to stiff brown very sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
2.00-2.50	В	2,2,5 6,5,4 N=20				13.07	2.50	Medium dense brown clayey gravelly SAND. Gravel is fine to		-	
3.00-3.20	В	3,4,4 3,4,3				12.37	(0.70) - 3.20	medium angular to subangular flint (TERRACE DEPOSITS).		TD	
3.20	D U	3,4,3 N=14	.				-	Firm becoming stiff grey CLAY with rare fossils and pyrite (KIMMERIDGE CLAY).			
- - 4 .50	D										
5.00-5.50	BCD	3,4,3 4,5,4 N=16			<u></u>		(3.80)			KIMM	
6.00	D				<u>‡</u>		- - - - -				
- 6.50 - 6.50-6.90 - 7.00	D U D	69 blows	5			8.57	7.00				
	J										

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Casing Water Depth Dia. mm Dpt			From	То	Hours	From	То	REMARKS
					·						Groundwater encountered at 6.3m rising to 5.9m after 15mins.
Date	Time	Strike	Minutes	Standing	Casing						
13-09-05		6.30	20	5.90	3.00						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF/DB



Project						BOREHOLE No
Northstowe						BHD030
Job No	Date 13-09-05	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпрозо
12170626	13-09-05	15	5.470	E 538899.609	N 264749.980	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMP	PLES	& TF	STS					STRATA			ı£
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/
						14.97	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.	11.11.11.11	TPS	
0.50 1.00-1.50 I	BJ 73 /V/	6,0,3 2,3,3 N=11						Soft orange mottled brown and grey slightly gravelly very sandy CLAY with frequent selenite crystals. Gravel is fine subangular flint (KIMMERIDGE CLAY).			
2.00-2.45	U	39 blows					(2.70)			KIMM	
3.00	BSD	5.0.4				12.27	3.20				
		5,0,4 3,3,4 N=14					-	Stiff grey and brown mottled yellow CLAY with selenite crystals. Becoming grey with rare fossils between 3.5 and 5.0m bgl (KIMMERIDGE CLAY).		-	
4.00-4.45	U	67 blows					-				
4.50	D						-				
5.00-5.50 I	B1783∧∧	7,0,4 4,5,4 N=17								KIMM	
6.00	D						-				
6.50-6.95	U	81 blows				8.47	7.00				
7.00	D					5					

Boring Progress and Water Observations							Chiselling Water Added			Added	GENERAL
Date	Time	Depth	Cas Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											Groundwater encountered at 5.7m rising to 5.4m after 15mins.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	DB



Project						BOREHOLE No
Northstowe						BHD031
Job No	Date 03-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпроз і
12170626	03-07-07	15	5.494	E 539741.213	N 263927.433	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAME	PLES & TESTS STRATA						nt/				
OAIVIE			PID		ter		Depth	SIIMIA		gy	mei
Depth	Type No	Test Result	Depth	Result ppmv		Reduced Level	(Thick- ness)	DESCRIPTION		Geology	Instrument/ Backfill
0.00-0.50	В						(0.50)	Grass over firm dark brown very sandy clay TOPSOIL.	1.11/2 X11/2	TPS	
0.30-0.50	JJV		0.30	0		14.99	(0.50) 0.50	Firm brown sandy slightly gravelly CLAY. Gravel is medium	1. 7.1.		
- 1.00-1.50 - 1.00-1.45	B U	35 blows					(1.00)	subrounded flint and ironstone. Brown and red mottled and thinly laminated orange brown and grey from 1m (TERRACE DEPOSITS).		TD	
1.45	D					13.99	1.50	Firm dark grey mottled orange and yellow CLAY. Becoming firm	==		
2.00-2.50	SPET	1,1,1 1,2,2 N=6					-	to stiff dark grey from 3-5m with rare fine to medium angular gravel sized selenite crystals. Stiff to very stiff from 5.5m. Bands of grey moderately weak siltstone from 4.3m (KIMMERIDGE CLAY).			
3.00-3.45	U	45 blows					-				:目:
Ė									<u> </u>		₽
3.45	D								<u> </u>		
Ē							E				
4.00-4.50	SPT	2,2,2 3,4,4 N=13					(5.50)			KIM	
5.00-5.45	U	60 blows					- - -				
5.45	D										
6.50-7.00	SBT	4,3,4 4,6,7 N=21				8.49	7 <u>.</u> 00				
						I			1		

Boring Progress and Water Observations						Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											Groundwater not encountered. Pushing a boulder from 6.4-7.0m.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project							BOREHOLE No
Northstowe							BHD032
Job No Date 06-07-07 Ground				evel (m AOD)	Co-Ordinates (OS)		БПБОЗД
12170626		6-07-07	14	1.003	N 264032.974		
Supervising Engineer				Client	•		Sheet
JMC / LF / CW / RLC				Gallagher Es	states & English Partne	erships	1 of 1
CAMDLES & TESTS					STDATA		4

								Callagror Estates & English Fartherships			
SAMF	PLES	& TE	STS					STRATA		_	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.20-0.80 - 0.20-0.80	JJJV B					13.80	(0.80)	MADE GROUND: Slightly clayey gravelly sand topsoil. Sand is fine to coarse. Gravel is fine to medium angular brick. MADE GROUND: Red brown very gravelly sand. Sand is fine to coarse. Gravel is fine to coarse angular to subangular brick, flint and concrete with rare cobbles of brick and concrete. Also with		MG MG	
- 1.00-1.50 - 1.50	CIBT D	1,0,1 1,1,1 N=4					(0.90)	rare pockets of soft brown mottled grey clay. Soft thinly laminated brown mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and ironstone (TERRACE DEPOSITS).		TD	
2.00-2.45	U D	20 blows	;			12.10	- 1.90	Soft to firm grey mottled brown and yellow CLAY with rare to rare fine to coarse sand pockets and fine to medium angular gravel sized selenite crystals. Stiff from 5.5m. Becoming dark grey (not mottled) from 3.5m with rare selenite crystals and rare pyritic fossils. With rare bands of weak siltstone from 6.4m			
3.00-3.50	Ј \$ЈРИ В В	1,1,2 1,2,3 N=8					-	(KIMMERIDGE CLAY).			
4.00-4.45	U	40 blows					(5.10)			KIM	
5.00-5.50	SPT	1,1,3 3,4,4 N=14					-				
6.50-7.00	SPT	10,5,4 4,4,6 N=18				7.00	7.00				
-							- - - - - -				

Во	Boring Progress and Water Observations						Chiselling			Added	GENERAL	
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS	
			·								Groundwater not encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD033
Job No	Date 12-09-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпроз
12170626	12-09-07	15	5.939	E 539760.280	N 264057.549	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

					1						_
SAMF	LES	& TES	STS		<u></u>			STRATA		У	ent
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- 0.50	JJJ///		0.50	0		15.64		Grass and hay stubble over brown compact very clayey slightly gravelly fine SAND with occasional rootlets. Gravel is fine subangular to rounded flint (TERRACE DEPOSITS).		TD	
0.60	D					14.94	(0.70) 1.00			TD	
- 1.00-1.45 -		80 blows	1.50	0		14.44		Orange brown mottled red brown light grey and brown slightly gravelly sandy CLAY. Gravel is fine to medium angular to rounded flint and chalk (TERRACE DEPOSITS).		TD	
- 1.60 - - 2.00-2.45	JJJVV	1,1,2	1.00			13.94	(0.50) 2.00			TD	
2.00-2.50	SBT	2,2,3 N=9 1,1,2 2,2,3 N=9				12,94	(1.00)	(TERRACE DEPOSITS). Soft thinly laminated grey mottled orange and light yellow CLAY with occasional selenite crystals and red decomposed woody plant remains (KIMMERIDGE CLAY).		KIM	
3.00-3.45	111/\ \	70 blows	3.00	0		12,01		Firm thinly laminated grey CLAY with occasional fine angular selenite crystals, fine gravel sized pyrite nodules. Rare white shell fragments at 3.5m. Becoming stiff from 5m (KIMMERIDGE CLAY).			
4.00-4.50	SBT	1,2,2 3,3,4 N=12					-				
4.00-4.45	SET	1,2,2 3,3,4 N=12					(3.70)			KIM	
5.00-5.45	U	100 blows					-				
- 5.50 - - -	111//		5.50	0			-				
- 6.00 - - - 6.50-6.95	D SEPT	2.4.14				9.24	6.70				
- 0.50-0.55	OD!	12,8,8 N=42				9.14		Weak light grey SILTSTONE (KIMMERIDGE CLAY).	XXX	KIM	
-		111-42				8.94	Г	Stiff grey CLAY (KIMMERIDGE CLAY).	 	KIM	

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL		
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS		
			•								Groundwater not encountered.		
Date	Time	Strike	Minutes	Standing	Casing								

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	CW



Project						BOREHOLE No
Northstowe						BHD034
Job No	Date 04-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПР034
12170626	04-07-07	15	5.969	E 539597.949	N 264055.630	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	1 of 1	

SAMPLES & TESTS STRATA								Ę			
Depth	Type No		PID Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.30	В					15.67		Grass over firm to stiff brown sandy slightly gravelly clay TOPSOIL. Gravel is fine angular to subrounded flint.	<u> </u>	TPS	
- 0.30-0.80	В					14.97	(0.70)	Firm orange mottled brown sandy CLAY (TERRACE DEPOSITS).		TD	
- 1.00-1.45 - 1.45	U	35 blows	5			14.47	(0.50)	Soft to firm brown mottled grey CLAY with frequent medium to coarse angular gravel sized selenite crystals (KIMMERIDGE CLAY).		KIM	
	SPT	1,1,2 2,3,3 N=10					- - - - - - - - - - - -	Firm dark grey mottled orange and yellow CLAY with rare fine to medium sand and angular medium to coarse gravel sized selenite crystals. Dark grey mottled yellow from 2.7m. Not mottled yellow from 4m and rare fine subangular pyritic fossils. Close fissuring noted towards base at ~ 6.8m (KIMMERIDGE CLAY).			
- - 3.00-3.45 - - - - - 3.45	U	45 blows	>				-				
- - 4.00-4.50	SBT	2,2,3 4,4,4 N=15					(5.50)	4.00 mbgl, not mottled yellow.		KIM	
5.00-5.45 - 5.45	U	55 blows	ò				-				
6.50-7.00	SBT	2,3,4					- - - - - - - - - -				
-		5,6,6 N=21				8.97	7.00				[:]目:
							- - - - -				
-							-				
							-				
<u>:</u>		Dua aura		n al \ \ / /			<u>-</u>	Chicalling Metas Added			

Во	Boring Progress and Water Observations						Chiselling			Added GENERAL		
Date	Time	Depth	Casing Depth Dia, mm		Water Dpt	From	То	Hours	From	То	REMARKS	
											Groundwater not encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD035
Job No	Date 04-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпроээ
12170626	04-07-07	15	5.817	E 539384.167	N 264245.927	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	PLES	& TES	STS					STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.30	В					15.62	0.20		717. 717.	TPS	
0.30-0.80	n 1111// B	20 blows	0.70	0		14.52	(1.10)	Firm orange brown mottled brown sandy slightly gravelly CLAY. Gravel is fine subangular sandstone and angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.50-1.95	U	55 blows				11.02	- (1.00)	Loose brown clayey gravelly SAND. Sand is medium to coarse. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD	
						13.52	2.30		[·] · ·		
2.50	1731AAB	1,1,1 2,3,2 N=8	2.50	0			-	Firm to stiff grey mottled yellow and orange CLAY with frequent medium to coarse sand and firm angular gravel sized selenite crystals. Dark grey mottled yellow from 2.5m. Dark grey only from 3m (KIMMERIDGE CLAY).			
3.50-3.95	U	55 blows					-				
		•					Ė				
3.95	D						-		<u> </u>		
· ·							-				
4.50-5.00	SBT	2,3,4 4,4,6 N=18					(4.70)			KIM	
5.50-5.95	U	60 blows					-				
5.95	D						F				
6.50-7.00	SBT	2,2,12 9,4,5 N=30				8.82	7.00				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL	
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS	
											Groundwater not encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD035A
Job No	Date 12-09-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпроза
12170626	12-09-07	15	5.817	E 539383.660	N 264245.430	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1
				·	·	

SAMPLES & TESTS STRATA											
SAMF	PLES	& TES	STS		<u>_</u>			STRATA		<u>~</u>	jent
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
						14 22	(1.50)	Grass over brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).	· · · · · · · · · · · · · · · · · · ·	TD	
						14.32 13.87 13.82	1.95	Compact yellow brown slightly clayey gravelly fine to medium SAND. Gravel is fine to medium angular to rounded flint (TERRACE DEPOSITS). Soft grey mottled orange brown CLAY (KIMMERIDGE CLAY).		TD KIM	
l Bo	rina F	roare	ss ar	nd Wa	ater	Observ	ations	Chiselling Water Added	GENE	DΔI	

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	Casing W Depth Dia, mm [From	То	Hours	From	То	REMARKS
					,						
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	CW



Project						BOREHOLE No
Northstowe						BHD036
Job No	Date 11-09-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРОЗО
12170626	11-09-07	14	1.866	E 539574.054	N 264217.516	
Supervising Engineer			Client			Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

								Canagnor Estates a English Fartherships			
SAMF	PLES	& TES	STS		_			STRATA		^	ent
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- - - - 0.40	JJJ///		0.40	0		14.37	(0.50) 0.50	Brown clayey fine sand TOPSOIL with rare fine to medium subangular to subrounded flint and chalk gravel.	\(\frac{1}{2}\cdot\frac{1}{2}\	TPS	
0.50 - 0.80	D D					14.17	- 0.70 - -	Recovered as firm brown mottled red sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint, chalk and phosphate nodules (TERRACE DEPOSITS).		TD	
1.00-1.45 - - - - 1.50	111// 1	80 blows	1.50	0			-	Soft grey mottled orange CLAY with rare fine angular selenite (KIMMERIDGE CLAY). 1.00 - 5.00 mbgl, becoming friable			
- 2.00-2.50	SBT	1,1,2 2.2.6	1.00				_(2.50)	2.00 mbgl, thinly laminated with orange mottling on layer faces		KIM	
2.00-2.45	SET	N=12 1,1,2 2,2,6 N=12					- - - -	and occasional red brown woody plant remains.			
2.90-3.00 3.00-3.45	n 111//	70 blows	2.90	0		11.67	- 3.20	3.00 mbgl, no mottling. Stiff blue grey CLAY (KIMMERIDGE CLAY).			
- - - - - - - 4.00-4.50	SBT	1,2,2					-	Still blue grey CLAT (KIIVIIVILINIDGE CLAT).			
4.00-4.45	SET	3,3,5 N=13 1,2,2 3,3,5					- - - -				
5.00-5.45	U	N=13 90 blows	;				(3.50)			KIM	
- - - 6.00	D						-				
6.50-6.95	SIÐT	6,5,6 6,7,8 N=27				8.17 8.07	6.70 6.80	Recovered as weak grey SILTSTONE (KIMMERIDGE CLAY).	<u> </u>	KIM	
- - - -		10-27				7.87	7.00/	Stiff blue grey CLAY (KIMMERIDGE CLAY).		KIM	
· · · - -							- - - -				
· · · · · · · · · · · · · · · · · · ·							-				
- - - -							- - - - - -				
: : :							- - - -				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	GENERAL	
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											Groundwater not encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD037
Job No	Date 11-09-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		ририз <i>і</i>
12170626	11-09-07	14	1.455	E 539750.100	N 264196.452	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TES	STS				STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/
0.30	111//		0.30	0	13.96	(0.50) 0.50	Recovered as stiff brown sandy slightly gravelly clay TOPSOIL. Sand is fine. Gravel is fine angular to subrounded flint and phosphate nodules. Becoming orange brown with depth.	\(\frac{1}{2\frac{1}{2}\cdot \frac{1}{2\frac{1}{2}\cdot \frac{1}{2\frac{1}{2\cdot \frac{1}{2\cdot 1\finit \frac{1\fine \frac{1\finter \frac{1\fine \frac{1\fine \frac{1\fine \frac{1\fine \frac{1\fine \frac{1\fine	TPS	200
0.60 1.00-1.45	U	80 blows				-	Firm grey mottled orange CLAY with rare to occasional selenite crystals (KIMMERIDGE CLAY).			
2.00	J SJPA V	1,1,2 2,3,3 N=10	2.00	0		(2.80)			KIM	
2.00-2.50	SBT	1,1,2 2,3,3 N=10 1,1,2 2,3,3			11.16	3.30	3.00 mbgl, grey mottled yellow and orange.			
3.00-3.45	U	N=10 60 blows			71110	0.00	Firm dark grey slightly friable CLAY with rare selenite crystals (KIMMERIDGE CLAY).			
4.00-4.45	SPT J SP TV	1,2,2 3,4,5 N=14 1,2,2 3,4,5	4.00	0						SECTION AND ADDRESS OF THE PROPERTY OF THE PRO
4.00-4.50 5.00-5.45	SBT	N=14 1,2,2 3,4,5 N=14 100 blows	\$			(3.30)	5.00 - 5.50 mbgl, fine angular to subangular pyrite gravel .		KIM	155555 1555 1555 15555 15555 15555 15555 15555 15555 15555 15555 15555 15555 1
6.00	D				7.86	6.60				
6.50-6.95	SIÐT	12,13,5 5,5,7 N=22			7.76 7.46	6.70	Recovered as moderately weak grey SILTSTONE (KIMMERIDGE CLAY).	<u> </u>	KIM KIM	
							Firm dark grey slightly friable CLAY with rare selenite crystals (KIMMERIDGE CLAY).	/		
						-				

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Cas Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											Groundwater not encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD038
Job No	Date 05-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		рпрозо
12170626	05-07-07	14	1.036	E 539902.239	N 264182.935	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partne	erships	1 of 1

SAMF	PLES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.50	В					13.84	0.20		717 717	TPS	
- 0.50-1.00 - 1.00-1.45	В	20 blows					(1.70)	Firm brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and sandstone (TERRACE DEPOSITS).		TD	
1.45	D										
2.00-2.50	SBT	1,1,1 2,2,2 N=7				12.14	1.90	Soft to firm grey mottled brown and yellow CLAY (KIMMERIDGE CLAY).			
- - 3.00-3.45	U	45 blows	;				_(2.10)			KIM	
3.45	D					10.04	4.00				
4.00-4.50	SBT	1,2,3 4,4,5 N=16				10.04	4.00	Firm to stiff dark grey CLAY with rare bands of moderately weak siltstone (KIMMERIDGE CLAY).			
5.00-5.45	U	60 blows	;								
6.50-7.00	D SBT	2,3,4 4,32 N=40/				7.04	(3.00)			KIM	
		215				7,04	7.00				

Во	Boring Progress and Water Observations Data Time Depth Casing Water						Chiselling	9	Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	Casing Depth Dia, mm		From	То	Hours	From	То	REMARKS
											Groundwater not encountered.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD039
Job No	Date 04-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПРОЗЭ
12170626	04-07-07	13	3.991	E 539753.124	N 264321.385	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

SAMF	LES	& TES	STS				STRATA				
Depth	Type No	I	P I D Depth	Result ppmv	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill	
					13.79	0.20	Grass over dark brown very sandy clay TOPSOIL.	717. 717.	TPS		
- 0.50 - 0.50 - 0.50 - 1.00-1.45	B JJJA	50 blows	0.50	0	12.79	(1.00)	Soft to firm brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and sandstone (TERRACE DEPOSITS).		TD		
1.00 1.10		00 510110			12.75	1.20	Firm grey mottled yellow and orange CLAY with frequent				
1.60	D					-	medium to coarse sand and fine to medium gravel sized selenite crystals from 2m (KIMMERIDGE CLAY).				
2.00-2.50	SEPEDT	2,1,2 3,3,3 N=11	2.10	0		-					
2.10	JJJV										
3.00-3.45	U					- (4.70)	3.00 mbgl, becoming stiff dark grey with rare selemite and pyritic fossils.		IZINA		
3.60	D					(4.70)		<u> </u>	KIM	:目:	
<u> </u>						_					
4.00-4.50	SSFEDT	1,2,2 3,4,4 N=13									
5.00-5.45	U ·	150 blows	\$ \$			- - - -					
5.60	D				8.09	5.90					
<u>-</u> - -					7.59	(0.50)	Moderately weak grey SILTSTONE (KIMMERIDGE CLAY).	× × × × × × × × ×	KIM		
6.50-7.00	SEREDT	2,2,4 46 N=50/ 140			6.99	(0.60)	Stiff dark grey CLAY with rare pyritic fossils (KIMMERIDGCE CLAY).		KIM		
		140									

Во	ring Prog	ress and	Water C	bservatio	ons		Chiselling	3	Water	ater Added GENERAL		
Date	Time	Depth	Casing Depth Dia. mm		Water Dpt	From	То	Hours	From	То	REMARKS	
											Groundwater not encountered.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD040
Job No	Date 05-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БП ЈЈ
12170626	05-07-07	14	1.974	E 539490.658	N 264338.597	
Supervising Engineer			Client			Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partn	erships	1 of 1

CAMP	I EC	0 TE	OTO					CTDATA			7:
SAMP	LES	& IE		1	ē		- ·	STRATA		ЭŞ	nen II
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.30	В					14.77	0.20	Grass over very soft dark brown slightly sandy clay TOPSOIL.	711/2 VIV.	TPS	
0.30 0.30-0.80 - - - 1.00-1.35	JJV B U	60 blows	0.30	0	<u>‡</u>	13.37	(1.40) (1.60	Firm brown mottled red brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD	
-						13.17		Medium dense orange brown gravelly SAND. Sand is fine to		TD	
2.00-2.50	SPT	1,1,1 2,1,2 N=6				13.17	- 1.00	medium. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS). Firm grey mottled orange and yellow CLAY, with rare to frequent medium to coarse sand and fine to medium angular gravel sized			
3.00-3.45		35 blows					- - - - - - - -	selenite crystals. Becoming dark grey with rare pyritic fossils and bands of moderately weak siltstone from 4m. Becoming stiff from 5m (KIMMERIDGE CLAY).			
3.45	D								<u> </u>		:目:
4.00-4.50	SBT	1,2,2 3,3,4 N=12					(5.20)			KIM	
_ - 5.00-5.45	U	65 blows					-		<u> </u>		:: 目 ::
5.45	D SBT	4,4,5 6,7,7									
-		N=25				7.97	- 7 <u>.00</u>				:: <u> </u> ::
						l			-		

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
											Groundwater seepage at 1.35m.
Date	Time	Strike	Minutes	Standing	Casing						
05-07-07		1.35									

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						BHD040A
Job No	Date 12-09-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		БПО040А
12170626	12-09-07	14	1.974	E 539491.158	N 264338.597	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	/ RLC		Gallagher Es	states & English Partn	erships	1 of 1

			••,.					Callagrior Estates a English Fartherships			
SAMP	LES	& TE	STS		_			STRATA			ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
						13.97	(1.00)	Brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
-						13.47	(0.50)	Yellow brown slightly clayey gravelly SAND. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).	. —a .	TD	
-						13.02 12.97/		Soft light grey mottled orange brown CLAY with fine to medium gravel sized pockets of orange sand (TERRACE DEPOSITS). Soft thinly laminated grey mottled yellow CLAY (KIMMERIDGE		TD KIM /	
						12.91	- 2.00/ 	CLAY).			
-											
-											
-							-				
_							-				
-											
-											
-											
Во	ring I	Progre	ess a	nd Wa		Observ		Chiselling Water Added	GENE	 .RAL	
	1	- 1		1	\sim	acina	\\/at	or II I I I II II		DIZO	

Во	ring Prog	ress and	Water C	bservatio	ons	Chiselling			Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	From To Hour		From	То	REMARKS
					,						
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	CW



Project							BOREH	OLE No
Northstowe							DTM	1012
Job No	Date 05-0	4-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		PIN	1012
12170626		4-07	15	5.474	E 539845.775	N 263833.393		
Supervising Engineer				Client			Sheet	
JMC / LF / CW	//RLC			Gallagher E	states & English Partne	1 0	of 1	
SAMPLES & TESTS					STRATA			ı£

										=		
SAMF	PLES	& TES	STS		<u>_</u>			STRATA			>	ent
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION		Legend	Geology	Instrument/ Backfill
						15,22	0.25	Soft to firm dark brown sandy slightly Gravel is fine to medium angular to s	gravelly clay TOPSOIL. subangular flint.	\(\frac{1}{2}\), \(\frac{1}{2}\), \(\frac{1}{2}\).	TPS	
						13.97	(1.25) - 1.50	Stiff dark brown sandy to very sandy Gravel is fine to medium angular to s DEPOSITS).	ubangular flint (TERRACE		TD	
E						13.77		Soft brown very sandy slightly gravell	ly CLAY. Gravel is fine to		TD	
_							- - -	∖ medium angulár to súbangulár flint.	Dark grey organic band at			
-							(1.60)	Brown to dark green slightly gravelly medium. Gravel is fine to medium, at GREENSAND).	SAND. Sand is fine to ngular flint (LOWER	0	LGS	
Ė						12.17	3.30	Firm to stiff blue to dark grey CLAY v	with rare puritie feasile and	. · . · · · · · · · · ·		· = :
- - -								medium to coarse sand sized selenite CLAY).	e crystals (KIMMERIDGE			
							(2.00)				KIM	
-						10.17	- - - - -					
						10.17	5.30					
<u></u>	unius au F			n al \ \ / /	<u> </u>		<u></u>	Chinalling	Mater Added			

Во	Boring Progress and Water Observations						Chiselling			Added	GENERAL	
Date	Time	Depth	Ca: Depth	sing Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS	
					·						Strata damp from 1.6m.	
Date	Time	Strike	Minutes	Standing	Casing							

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project						BOREHOLE No
Northstowe						PTM013
Job No	Date 04-07-07	Ground Le	evel (m AOD)	Co-Ordinates (OS)		P I IVIU I 3
12170626	04-07-07	15	5.460	E 539841.909	N 263836.716	
Supervising Engineer			Client	•		Sheet
JMC / LF / CW	//RLC		Gallagher Es	states & English Partne	erships	1 of 1

	VIO 7 I							Callagror Estates & English Fartherships			_
SAMF	LES	& TES	STS					STRATA		^	ent/
Depth	Type No	Test Result	P I D Depth	Result ppmv	Water	Reduced Level	Depth (Thick- ness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
- - -						14.96	(0.50) 0.50	Dark brown slightly gravelly fine to medium sand TOPSOIL. Gravel is fine subrounded flint. Becoming brown from 0,2m.	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	TPS	
-							(1.00)	Soft to firm brown mottled orange brown very sandy slightly gravelly CLAY. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
F						13.96	1.50	Orange has un fine to medium CAND (LONED OREENCAND)			
						11.96	(2.00)	Orange brown fine to medium SAND (LOWER GREENSAND).		LGS	
						8.46	(3.50)	Very stiff very closely to closely fissured dark grey blue CLAY (KIMMERIDGE CLAY).		KIM	

Во	ring Prog	ress and	Water C	Observation	ons		Chiselling	3	Water	Added	GENERAL
Date	Time	Depth	Ca: Depth	sing ∣ Dia. mm	Water Dpt	From	То	Hours	From	То	REMARKS
					·						Slight groundwater seepage at 1.5m.
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres	Contractor / Driller	Method/Plant Used	Logged By
Scale 1:62.5		Cable Percussive Rig	LF



Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 539243.29

Ground Level (mAOD) 14.87 Northing (OS mN) 264744.41

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 1 of 3

SAMPL	.ES		TE	STS		es	PROGF	OGRESS STRATA								Depth		Inst	all/
Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water			Descriptio	n			Legend	/Thistones	Level	Bac	
0.00 - 0.40 0.10 - 0.40 - 0.40 - 0.90	B4 ES1	- - -					14/12/2016 13:00	0.00	Grass and turf of gravelly CLAY. S medium of flint. \[TOP SOIL]						18 16 16 16 16 16 16 16 16 16 16 16 16 16	(0.40)	14.47	A P	A A A
- 0.50 - 0.60 - 0.80	D13 ES2	- - - -							Soft to firm, oral Gravel is sub-ar [RIVER TERRA	ngular to su	b-rounded				* * * * * * * * * * * * * * * * * * * *	(0.60)			7
-1.00 - 1.20 - 1.00 - 1.20 - 1.20 - 1.20 - 1.40 - 1.20 - 1.40 - 1.40 - 2.00 - 1.60 - 1.80	B6 ES3 D14 B10 ES7 B11 ES8	- - - 1.20 - - -	SPT(S)	N=9 (1,2/2,2,	2,3)				Loose, orangish occasional pock [RIVER TERRA Firm, light grey to coarse.	ets of grey, CE DEPOS mottled ora	silty clay. sITS] nge, slight					1.00 - (0.20) 1.20 (0.20) 1.40	13.87 13.67 13.47		
2.00	D15	- - - - -							∖[RIVER TERRA Firm, dark grey occasional gyps rounded, fine to [RIVER TERRA	mottled yell sum crystals coarse of r	ow, slightl s. Gravel is nixed litho	sub-angu				-			
_ _ 2.50 - 3.00 _	B12	- - - - -														(2.20)			1/1/
-3.00 - 3.45	UT1	- - - - -					14/12/2016 17:00 15/12/2016 09:00	2.50 2.50							0 + 1 0 0 + 1 0 0 + 1 0	-			
- 3.50 - 3.60 - 4.00 - 3.70 - 3.90 -	D4 B7 ES9	- - - - -							Firm to stiff, gre siltstone, shells [KIMMERIDGE	and shell fr	agments.	with occa	isional g	ravel of	×	3.60	11.27		1/1/1
- 4.50 - 4.50 - 5.00	D5 B8	- - - - - - - - - -	SPT(S)	N=10 (1,2/2,2	2,3,3)										X X X X X X X X	-			
- 5.50 - 5.50 - 6.00 	D6 B9	- - - - - - -													XXXXXXXXXX_	(4.00)			1.07/1.07/1.
- - - - 6.50 - 6.50 - 7.00	D7 B10	- - - - - -														-			1/1/1/1/1/
- 7.50 - 7.60 - 7.90	D8 B11	- - - - 7.50	SPT(S)	N>50 (5,20 fo 25mm/50 for	or 35mm)				Grey SILTSTON						X X X X X_XXXX	7.60	7.27		1.1/1.1/
		- - - - - -							[KIMMERIDGE Stiff to very stiff, of siltstone. [KIMMERIDGE	grey, fissu	red, silty C	LAY with	occasior	al gravel	××××× ×- × × ×	7.90	6.97		11/1/1
- 8.50 - 8.70 - 8.80 - 9.00 - 9.45	B12 D9 UT3	- - - - -							Grey SILTSTON [KIMMERIDGE Stiff to very stiff, of siltstone.	CLAY FOR		LAY with	occasior	al gravel	X	(0.20) 8.70	6.17 6.17		11/11/11
- - - 9.50 - - - - -	D10 B13	- - - - - - -							or sitistione. [KIMMERIDGE	CLAY FOR	MATION]				XXXXXXXXXX	-	-		11.77.77
- DR	 RILLING	- TECHNIC	UE	 c	HISELLII	NG		V	VATER OBSERVA		inued on nex		_E/CASI	NG DIAMI	_	WATE	R ADD	ED	
From 0.00 1	To 1,20	Ty Inspec	rpe tion Pit		Strata To 7.90 8.70	Duratio 00:30 00:30	Daterii		trike At Time Elapsed		asing Seale		Depth 1.20 25.00	Casing Dia. 200	Depth 3.00			/olume	(ltr)
1.20 2	5.00	Cable P	ercussion	16.10 19.80	16.40 20.20	00:30 00:30 00:45						200	25.00						

Remarks

No groundwater encountered.

No groundwater encountered. Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.

UT1 (3.00-3.45) - 100% recovery, 38 blows. UT2 (6.00-6.45) - 100% recovery, 68 blows. UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery, 100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:

25.00m





BH1201

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 539243.29

Ground Level (mAOD) 14.87 Northing (OS mN) 264744.41

Start Date 14/12/2016 End Date 15/12/2016

Sheet 2 of 3

SAMPLE	ES .		TE	STS	<u>ب</u>	g PROG	RESS			STRA	ГА				D- : "		Install/
Depth	Type/ No.	Depth	Type/ No.	Results	Water	Date Time	Casing Water		Desc	cription				Legend	Depth (Thicknes	Level	Backfill
- - - - 10.50 -10.50 - 11.00	D11 B14	- - - 10.50 - - - -	SPT(S)	N=25 (4,4/5,6,7,	7)									X x X x X X X X		+	
- - 11.50 - 11.50 - 12.00 -	D12 B15	- - - -												×			
-12.00 - 12.45 - - - - - - - 12.50		- - - -												- x - x		†	
- 12.50 -12.50 - 13.00 - - - - - - -	B16	- - - - -												× × -× × ×	(7.40)	+	
_ 13.50 -13.50 - 14.00 - - - -	D14 B17	- - 13.50 - - - -	SPT(S)	N=37 (4,8/8,9,10),10)											+	
- - - 14.50 -14.50 - 15.00	D15 B18	- - - - - -												X			
-15.00 - 15.45 - - - - - - - - 15.50 -15.50 - 16.00	D16	- - - - -												X X X X		†	
-16.10 - 16.40		- - - - -						Grey SILTSTON	E. CLAY FORMAT	ION]				× × × ××××× ×××××	16.10 (0.30)	-1.23	1111
- 16.50 -16.50 - 17.00 -	D17 B21	- - 16.50 - - - - -	SPT(S)	N=41 (4,8/7,9,11	,14)			Very stiff, grey, fi siltstone. [KIMMERIDGE 0			occasion	nal grav	el of	X	16.40	-1.53	
- - - 17.50 -17.50 - 18.00	D18 B22	- - - - -															
- -18.00 - 18.45 - - - - - - 18.50	UT6	- - - - -													(3.40)	+	
-18.50 - 19.00 - - - - - - -		- - - - -												X X X X X X		+	
- - - 19.50 - - - - - 19.80 - - 20.20		- - - 19.50 - - -	SPT(S)	N>50 (8,12/13,13,14,1 45mm)	0 for			Grey SILTSTON		ION1				× × × × × × × × × × × × × × × × × × ×	19.80	-4.93	
-								[MWWLNIDGE (Continued		age			××××× ×××××	20.20	-5.33	11.4
	LLING To	TECHNIQ Ty		Hard Stra		ration Date(WATER OBSERVA		Sealed			VG DIAME	TER Depth	WAT From	ER ADD	ED /olume (ltr)
0.00 1.	.20 5.00	Inspec Cable Pe	tion Pit	8.50 16.10	7.90 0 8.70 0 16.40 0	Date/10:30 0:30 0:30 0:30 0:45	ime S	Fille Liapsed	. doc 10 Casilly	ocaled	300 200	1.20 25.00	200	3.00	. 1011	10	oume (III)

Remarks

No groundwater encountered.

No groundwater encountered.

Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.

UT1 (3.00-3.45) - 100% recovery, 38 blows, UT2 (6.00-6.45) - 100% recovery, 68 blows, UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery,

100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8

(24.00-24.45) - 100% recovery, 100 blows.

Termination Depth: 25.00m





BH1201

Northstowe Phase 2

Homes and Communities Agency

Project No. **UA008426-01** 539243.29

Ground Level (mAOD) 14.87 Northing (OS mN) 264744.41

Start Date 14/12/2016 End Date 15/12/2016

Sheet 3 of 3

SAME	PLES		TE	ESTS	ي پ	PROGE	RESS		S ⁻	TRATA					1.
Depth	Type No.	Depth	Type/ No.	Results	Water Strikes	Date Time	0:		Descrip			Legend	Depth (Thickne	ss) Leve	Install/ Backfill
	1	-						Very stiff, grey, fiss	sured, silty CLAY	with occasiona	gravel of	x_^_	,	+	1711
20.50	D21	E						siltstone. [KIMMERIDGE CL	AY FORMATION	1]		<u> </u>		Ŧ	1.5%
[E										<u>x</u>		Ī	11/11
21.00 - 21.4	45 UT7	<u> </u>												‡	22.5
-		-										<u>x</u> _		‡	1/1/
		-										×_		ļ	1511
- 21.50 -21.50 - 22.0	00 B26	E												Ī	1,5%
-		-										×		1	11/1/
-		-										×		†	12/1
-		-												†	1911
- 22.50 -22.50 - 23.0	D23	22.50	SPT(S)	N>50 (7,7/10,13,13,14 for 60mm)								×	(4.80)	Ŧ	3573
22.50 - 25.0	00 627	-		lor somm)								×	(4.00)	1	1,5%
-		-										×		‡	11/11
-		ļ										×		†	17/1
22.50	D24	F										×		İ	11/1/
- 23.50 -23.50 - 24.0	00 B28	E										×		Ŧ	1/1/
-		-										××		ļ	1,57
24.00 - 24.4	45 UT8	-										<u> </u>	-	†	11/1
F		F										<u>x</u> _		ļ	11/1
24.50	D25	24.50	SPT(S)	N=55 (8,12/10,14,14,17)								<u>×</u> _		Ŧ	91,5
-		-		(0,12/10,14,14,17)								<u> </u>	1	-	1711
-		F				15/12/2016	3.00						25.00	-10.1	3///
F		F				17:00								ļ	
E		E												Ī	
-		-												-	
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E		E												Ţ	
<u> </u>	NOU - 12:2	<u> </u>				<u> </u>	<u> </u>	MATER OFFER (177)	ONO		CACING DIA:	<u> </u>	18.5	TERAS	
From	То	TECHNIC Ty	<u>∤UE</u> ype	CHISELLII Hard Strata From To	Duratio			VATER OBSERVATI strike At Time Elapsed R		ealed Hole Dia. [CASING DIAMI Depth Casing Dia.	Depth	From	TER AD To	Volume (Itr)
0.00 1.20	1.20 25.00	Inspec	ction Pit ercussion	7.60 7.90 8.50 8.70	00:30 00:30					300 200 2	1.20 200 25.00	3.00			
			·	16.10 16.40 19.80 20.20	00:30 00:45										

Remarks

No groundwater encountered.

No groundwater encountered.

Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.

UT1 (3.00-3.45) - 100% recovery, 38 blows, UT2 (6.00-6.45) - 100% recovery, 68 blows, UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery,

100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8

(24.00-24.45) - 100% recovery, 100 blows.

Termination Depth: 25.00m

AM







Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539286.48

Ground Level (mAOD) Northing (OS mN) **264751.56**

Start Date 13/12/2016 End Date 14/12/2016

Scale 1:50 Sheet 1 of 3

SAMI	PLES		TE	ESTS		er	PROGF										Depth		Ins	tall/
Depth	Type No.	Depth	Type/ No.	Resu	ults	Water Strikes	Date Time	Casing Water			Descripti	on				Legend	(Thicknes	s) Level		ckfill
0.00 - 0.30 0.10 - 0.30 - 0.30 - 0.80 - 0.40 - 0.60 0.50	0 ES1 0 B6	-					13/12/2016 09:00	0.00	Turf over soft to sandy CLAY with [TOP SOIL] Soft to firm, oran	h frequent	rootlets.	grey, sli	ightly s	andy sli	ghtly	Mic Mi	0.30		AB	A d
- 0.80 - 1.20		- - - -							gravelly CLAY. S sub-rounded, fin IRIVER TERRA Soft to firm, grey	ne to coars CE DEPO y mottled o	se of flint. (SITS] orangish br	own, sl	nal roo lightly s	tlets. andy sli	ghtly		0.50)	<u> </u>		1
- 1.20 - 1.20 - 1.41 - 1.20 - 1.70	D31 0 ES3 0 B8	1.20	SPT(S)	N=7 (1,2/1,2,:	2,2)				gravelly CLAY. S sub-rounded, fin [RIVER TERRA	ne to coars	se of flint.	e. Grave	el is sul	o-angula	ar to		(1.20)	†		
2.00 - 2.00 - 2.50 - 2.30 - 2.50		-							Firm, dark grey of gypsum cryst [RIVER TERRA	als.		with oc	ccasion	al fragm	nents		2.00	† 		
-3.00 - 3.4	5 UT6	-															(1.50)	 		11/11
- - 3.50 - 3.50 - 4.00	D33 B10	-							Firm to stiff, fiss fragments, up to [RIVER TERRA	1cm in w	idth.	ı occasi	ional fir	ne shell			3.50			
- - - - 4.50 - 5.00	D34 0 B11	- - - - 4.50	SPT(S)	N=11 (1,2/2,3	3,3,3)												(2.80)			
- - - - 5.50 - 5.50 - 6.00	D35 0 B12	-															 			
-6.00 - 6.30 - 6.30 - 6.86	D36	- - - -							Grey SILTSTON								6.30	+		
-		-							[KIMMERIDGE Stiff, fissured, gr	rey CLAY	·	ional fin	ne shell	fragme	nts, up	*****	(0.50)	†		
7.00 7.00 - 7.50		- - - -							to 1cm in width. [KIMMERIDGE		RMATION]						(0.70)	†		
- 7.50 - 7.50 - 7.80	D38 0 B15	- 7.50 - - - - -	SPT(S)	N>50 (25 for for 35mm)	30mm/50				Grey SILTSTON [KIMMERIDGE Stiff, fissured, gr to 1cm in width. [KIMMERIDGE	CLAY FOI rey CLAY	with occas		ne shell	fragme	nts, up	***** ***** 	7.50 (0.20) 7.70	† † †		- - - -
- - 8.50 - 8.50 - 9.00	D39 B16	-															(1.60)			
9.00 - 9.30 - 9.30 - 9.30 - 9.90	D40	- - - - -							Grey SILTSTON		RMATION]					×××× ××××× ×××××	9.30	+		
- - -		- - - -							Stiff, fissured, gr	•			ne shell	fragme	nts, up	*****	9.90	+	7	<u></u>
		TECHNIC		C Hard	HISELLII		1		I WATER OBSERVA	ATIONS	ntinued on ne	H		CASING				ER ADE		_
From 0.00	To 1,20		ype ction Pit	From 6.30	To 6.80	Duratio 00:45	Daterii	me S	Strike At Time Elapsed	Rise To	Casing Sea	30	00 -	1.20	sing Dia. 200	Depth 3.00	From	То	Volume	(ltr)
1.20	25.00		Percussion	7.50 9.30 15.80	7.70 9.90 16.30	00:30 00:45 00:45						20	00 2	5.00						

Remarks

100 blows. UT53 (15.00-15.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth: 25.00m





Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 539286.48

Ground Level (mAOD) Northing (OS mN) **264751.56**

Start Date 13/12/2016 End Date 14/12/2016

Sheet 2 of 3

SAMPL	.ES		TE	STS		es	PROGF	RESS	ESS STRATA									Depth		Install/
Depth	Type/ No.	Depth	Type/ No.	Res	ults	Water Strikes	Date Time	Casing Water				Descr	iption				Legend	/TIn: -1	ss) Leve	Backfill
- - - - 10.50 -10.50 - 11.00 - -	D41 B18	- - - - 10.50 - - -	SPT(S)	N=23 (3,3/5,	5,6,7)		13/12/2016 17:00 14/12/2016 09:00	3.00	[KIM	em in width. MERIDGE	CLAY FO	RMATIC	DN]							
- - - - - - - - - - - - - - - - - - -		- - - - - - - - -																		
- - - - - - - - - - - - - - - - - - -	D43 B20	- - - - - - -																(5.90)		
- - - - - - - - - - - - - - - - - - -	D44 B21	- - - - - - - - - -	SPT(S)	N=26 (4,5/6,	6,6,8)															
- 14.50 -14.50 - 15.00 - - - -15.00 - 15.45		- - - - - -																	† † † †	
- - - - - - - - - - - - - - - - - - -	D46	- - - - - - -								· SILTSTON MERIDGE ·		PRMATIC	DN]				×××× ×××× ××××	15.80	† † †	
- - - - 16.50 -16.50 - 17.00 - - -	D47 B24	- - - 16.50 - - - -	SPT(S)	N=37 (6,7/7,	9,9,12)				fragn	stiff, fissure ments, up to MERIDGE	1cm in v	vidth.		occasi	onal fine	shell	***** *****	16.30		
-17.50 - 18.00 -17.50 - 18.00 -17.50 - 18.45		- - - - - - -																-		
- 18.50 - 18.50 - 19.00	D48	- - - - - - -																-] - (3.70) 		
	D49 B27		SPT(S)	N=36 (6,7/7,	8,10,11)														+	
20.00 - 20.30		TECHNIQ	UE		CHISELLIN	VG.		\		SILTSTON	C	ontinued or	n next pa		F/CAS	ING DIAM	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	20.00 (0.30)	FER ADI)ED
	To To		rpe		Strata	Duratio	n Date/Ti			Time Elapsed		Casing	Sealed	Ho l e Dia		Casing Dia.		From		Volume (Itr)
0.00 1	1.20 5.00	Inspec	tion Pit ercussion	6.30 7.50 9.30	6.80 7.70 9.90	00:45 00:30 00:45	Buttern							300 200	1.20 25.00	200	3.00			

100 blows. UT53 (15.00-15.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth: 25.00m

AM





BH1202

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539286.48

Ground Level (mAOD) Northing (OS mN) **264751.56**

Start Date 13/12/2016 End Date 14/12/2016

Sheet 3 of 3

Company Type Company Type Company Type Company Type Company Type Company Type Company Type Company Type	SAMPL	ES		TF	ESTS	L W	PROGF	RESS	STRATA				
Commence Commence			Depth	Type/		Water Strikes			Description	_	Depth (Thickness	Level	Install/ Backfill
21.00 028 22.50 059 22.50 SPT(S) N=42 (0.048,10,10) 44 (2.0048,10)	- - - - -		-						Very stiff, fissured, dark grey CLAY with occasional fine shell fragments, up to 1cm in width	*****	20.30		
22.50 - 22.50 SSP - 22.50			- - - -								-	<u> </u>	
### PASSO 25.00 1856	- 21.50 -21.50 - 22.00 - - - -	D50 B57	- - - - - -								-	† 	
24.50 092 24.50 SPT(S) N=42 (0.870.9.10.14) 14.1220 16 17.00 3.00 25.00 17.00 3.00 25.00 17.00 3.00 25.00 3.00 25.00 3.0	- - - 22.50 -22.50 - 23.00	D51 B58	- 22.50 	SPT(S)	N=42 (6,6/8,10,11,13)						(4.70)	 	
24.50 DS2		B59	-								-	<u> </u> 	
14/12/2016 3,00 25,00	- - - - 2 4.00 - 24.45 - -	UT56	- - - - -									+	
	- - 24.50 - - - -	D52	- - 24.50 - - - -	SPT(S)	N=42 (5,8/9,9,10,14)		14/12/2016	3.00			25.00		
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - - -		-				17:00						
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - - -		-									† †	
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - - -		- - - - -									†	
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - -		- - - - -									† †	
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - -		- - - - -									<u> </u>	
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - - - -		- - - - -									<u> </u>	
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	- - - -		- - - -										
From To Type Hard State Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth Casing Dia. Depth From To Volume (tropy of the property of the pro	-		- - -						, , , , , , , , , , , , , , , , , , ,				
From To Dutation Date/Time Strike At Time Etabsed Rise 10 Casing Seated Hote Dia, Depth Casing Dia, Depth From To Volume (III					CHISELLII Hard Strata								
	0.00 1	.20	Inspec	tion Pit	From To 6.30 6.80 7.50 7.70 9.30 9.90	00:45 00:30 00:45	- Batton	me S	300 1.20 20		From	10	volume (Itr)

Remarks

100 blows. UT53 (15.00-15.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth: 25.00m

AM



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BH1203

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539232.81

Ground Level (mAOD) Northing (OS mN) **264657.32**

Start Date 13/12/2016 End Date 13/12/2016

Scale 1:50 Sheet 1 of 3

SAMP	LES		TE	STS		er	PROGR	RESS	ESS STRATA										Depth		Ins	stall/
Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water				Descri	iption					egend	(Thickne	ss) Lev		ckfill
0.00 - 1.00 0.10 - 0.30 0.20 - 0.30		- - - -					13/12/2016 12:30	0.00	coars	brown, slig e. Gravel i nudstone. SOIL] um dense,	s angular	to sub-r	ounded	, fine to	o coar	se of flint		ale	(0.30) 0.30		A	\$.*.
-1.00 - 1.50 - 1.10 - 1.30		- - -							SANE fine to	D. Sand is to coarse of	ine to co flint and	arse. Gra mudstor	avel is s	ub-ang	gu l ar to	rounded			(1.70)	 		
- - 1.50 - 1.70	UT8	- - - - -																	-	† † †		
2.00 - 2.00 - 2.50	D9 B10								with lo	o firm, brov ow cobble ar to sub-r	content.	Sand is f	ine to co	oarse.	Grave	l is sub-			2.00	+		
- 2.60 - 2.60 - 3.00 - 2.80 - 3.00		-							Cobbl [RIVE	les are sub R TERRA to stiff, blui	-angular CE DEPO	of flint. DSITS]					×		2.60	‡		
3.00 - 3.40										MERIDGE	CLAY FO	RMATIC	ON]				X.	_ <u>×</u> _		†		
- - 3.50 - 3.50 - 4.00 - -	D14 B15	- - - - -															X. X. X.			† † † †		77.001.0
- - - - - - - - - - - - - - - - - - -	B16	- - - - 4.50	SPT(S)	N=15 (3,3/3,4	1,4,4)												X. X.			† - 		
-		- - - - -															X_ X_ X_ X_	_ <u>×</u>	(5.00)	† † †	//	
5.50 - 6.00		- - - -															X. X.	- <u>×</u> -		I I I		
-6.00 - 6.45 - - - - - 6.50	D19	- - - -															X. X.			T I I		
- 6.50 - 7.00 - - - -	B20	-															X. X. X.	_ <u>×</u> _		‡ ‡ †		
- - - 7.50 - 7.95 - 7.60	B21 D22	- - - 7.50 -		N>50 (6,8/29 20mm)	,21 for					hered, grey							X. X.		7.60	‡ ‡		
- 	B23	- - -							Stiff, k	MERIDGE bluish grey MERIDGE	, silty CL	AY with c	occasion	nal grav	vel of s	siltstone.	X >	× × × × × × × × × × × × × × × × × × ×	(0.40) 8.00	+		
-		- - - -								hered, grey			NAIT.				×- ×- ×- ×-	<u>×</u>	(0.60) 8.60	‡		
- 8.80 - 9.00 - 9.45	D24 B25	- - 9.00 -	SPT(C)	N>50 (25 for for 70mm)	40mm/50				Stiff to	very stiff,	bluish gr	ey, silty	CLAY.				× > × > × >	× × × × × × × × × × × × × × × × × × ×	9.20	‡		
<u>-</u>		- - - - -							[KIMN	MERÍDGE	CLAY FC	RMATIC	DN]				X_ X_ X_	_ <u>×</u> _		† † †		
10.00 - 10.50		-										ontinued or	n next pag					<u>-x</u> -			//	//
From	RILLING To	TECHNIC Ty	(UE /pe	Hard From	HISELLIN Strata I To	NG Duratio	n Date/Ti			OBSERVA	TIONS Rise To	Casing	Sea l ed H	HOL lo l e Dia.	E/CAS Depth	Casing Di			From	TER AD	DED Volum	e (Itr)
0.00	1.20 25.45	Inspec	ction Pit ercussion	110111	10		Date/II							300 200 50	1.20 25.00 25.45	200	4.5					

Remarks

No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 45 blows.

Termination Depth: 25.45m



Arcadis Consulting (UK) Ltd.

SC/VP AM



BH1203

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539232.81

Ground Level (mAOD) Northing (OS mN) **264657.32**

Start Date 13/12/2016 End Date 13/12/2016

Scale 1:50 Sheet 2 of 3

SAME	PLES		TE	STS		es es	PROGF	RESS				STRAT	Ā				Dooth		Install/
Depth	Type,	Depth	Type/ No.	Res	ults	Water Strikes	Date Time	Casing Water	1		Desc	ription				Legend	Depth (Thickne	ss) Leve	Backfill
10.50	B27	- - - - 10.50		N=26 (4,5/6,	6,7,7)											X X 			
- - - -		- - - - -																†	
-11.50 - 12.0	00 B28	- - - -														<u>×_</u>		†	
12.00 - 12.4	15 UT29	- - -					13/12/2016 17:00 14/12/2016	4.50 4.50 11.00	ıl —								- - - -	†	
- - 12.50 - -	D30						08:30									X X X			
		- - - -															-	+	
-13.50 - 13.9 -13.50 - 13.9 -	95 D31	- 13.50 - -	SPT(S)	N=30 (5,6/7,	7,8,8)											x			
-14.00 - 14.5	50 B33	- - - - - -														X X X X X X			
- -15.00 - 15.4 - -	15 UT34	-															(13.20		
15.50 -15.50 - 16.0	D35 B36	- - - - - -														× × -× × ×		 	
-16.50 - 16.9	95 B37	- - - 16.50 -	SPT(S)	N=27 (4,5/6,	6,7,8)														
-																<u>x</u>	· ·	+	
-17.50 - 18.0 - - - -		- - - -														<u>×_</u>	-	†	
-18.00 - 18.4 - - - -		- - - -															; ;	†	
- 18.50 - - -	D40	- - - -														X X	-	†	
-19.00 - 19.5 - - -		- - - -	a ·															†	
-19.50 - 19.9	95 B42	- 19.50 - - - - -	SPT(S)	N>50 (11,11/13,13, 55mm)	14,10 for											× × × × × x_		†	
£		-									ontinued o	on next pa							11,11
From	RILLING To	TECHNIQ	UE rpe	Hard	HISELLIN Strata	NG Duration	1 - :			OBSERVA Fime Elapsed	Casing	Sealed	HOLI Hole Dia.		NG DIAME Casing Dia.	TER Depth	From	TER ADI	OED Volume (Itr)
0.00	1.20 25.45	nspec	tion Pit ercussion	From	То	_ 5.500	Date/Ti	me '		Liapoca	 _ 20119	- 50.00	300 200 50	1.20 25.00 25.45	200	4.50			(m)

Remarks

No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 45 blows.

Termination Depth:

25.45m





BH1203

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539232.81

Ground Level (mAOD) Northing (OS mN) **264657.32**

Start Date 13/12/2016 End Date 13/12/2016

Scale 1:50 Sheet 3 of 3

SAMPL	ES		TE	STS		er	PROGR	RESS				(STRATA					Depth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	Its	Water Strikes	Date Time	Casing Water				Descri	ption				Legend		Level	Backfill
-20.50 - 21.00 -21.00 - 21.45		- - - - - - 21.00 - - -	SPT(S)	N=40 (6,8/8,1	0,11,11)												X		+	
- 22.00 - 22.50 - 22.40 - 22.50 - 22.95 	D46 B47	- - - - - - - - - - - - - - - - - - -	SPT(C)	N>50 (25 for 4 for 65mm)	40mm/50				[KIMI Very	hered, gre MERIDGE stiff, bluish MERIDGE	grey, silt	RMATIO					×	22.40 (0.30) 22.70		
-24.00 - 24.45 24.50 - 25.00	B50	- - - - - - - - - - - - -	SPT(S)	(10,11/12,12,1 70mm)	14,12 for												X	(2.75)	† † † † †	
-25.00 - 25.45 - - - - - - - - - - - - -	D51	- 25.00 	SPT(S)	N=48 (9,10/11,12,12	2,13)		14/12/2016 15:00	4.50									x x	25.45	† † † † † †	
- - - - - - - - - - - - - - - - - - -		-																	+	
- - - - - - - - - - - - - -		-																	† † † † †	
- - - - - - - - - - - - - - - - - - -	ILLING	- - - - - - - - - - - - - - - - - - -	UE_	CI	HISELLIN	√G			WATER	OBSERV/	ATIONS		T	HOLE	:/CASIN	IG DIAM	ETER	WAT	T T T ER ADD	eED_
From	To .20	Ту	ре	Hard S From	Strata To	Duration	Date/Ti			Time E l apsed		Casing S				Casing Dia. 200	Depth 4.50	From		Volume (Itr)
0.00 1 1.20 25	5.45	Cable Pe	tion Pit ercussion											200	25.00 25.45	200	4.50			

Remarks

No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 45 blows.

Termination Depth:

25.45m





BH1204

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539275.73

Ground Level (mAOD) Northing (OS mN) **264653.94**

Start Date 13/12/2016 End Date 14/12/2016 Scale 1:50 Sheet 1 of 3

SAMP	LES		TE	STS	er	PROGE	RESS				STRA	ГΑ					Depth		Ins	stall/
Depth	Type/ No.	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Desc	ription					Legend	(Thickne	ss) Leve		ckfill
0.10 - 0.30 0.10 - 0.30		-				13/12/2016 09:00	0.00	Grass over firm Sand is fine to r		slightly s	sandy C	LAY wit	th thin	ootlets.	ý	¹ ∠ ₀	(0.40)	1	Ą	4
0.40 - 1.20	B2	-						[TOP SOIL]			al. Cl /			f E 1 -	Į.	lizaalo	0.40	†	2	1
0.60 - 0.80		-						Firm to stiff, ora coarse sand an	d occasio	nal fine			оскет	s of fine to	, [†	3	18
ļ.		-						[RIVER TERRA	CE DEP	OSITS]					1			‡	2	
F		Ė													1		(1.10)	‡		46
F		1.20	SPT(C)	N=9 (3,2/2,2,3,2)														Ŧ	l.=	
1.50 - 2.00	B3	E													1		1.50	I		
1.70 - 1.90		_						Firm, bluish gre CLAY. Sand is f	y mottled ine to coa	brown, arse. Gr	slightly avel is	sandy s angular	slightly to sub	gravelly rounded.			1.50	Ī		
-		-						fine to coarse of	f siltstone	and gy				,			,	1	ŀ	
- 2.00 - 2.00	B10 D9	- 2.00 -	SPT(S)	N=10 (1,1/2,2,3,3)				[RIVER TERRA	CE DEP	ردادی								†	1	1
2.00 - 3.00	B4	-																†	13	12
-		-																‡	1/	1/
-		-															(2.50)	†	11	11
F		-															(2.55)	†	1	18
-3.00 - 3.45	UT11	-																Ť	11	12
E		[1	1/1	13
3.45	D12	-																Ŧ	11	12
Ŀ		_																ł	1	
- - 4.00	B13	- - 4.00	SPT(S)	N=15 (2,2/3,3,4,5)													4.00	1	1/	16
- 4.00 - 4.20 - 4.40	D14		0(0)					Firm to stiff, dar [KIMMERIDGE				frequen	nt shell	fragments	s.			†	11	1/
1.20 1.10		_									•				H			†	1	18
-		-																†	11	12
F		-													F			†	1/1	10
5.00 - 5.45	UT15	_																†	11	32
E		[E			Ī	1	10
5.45	D16																	Ī	1/	16
5.50	B17	-																-	11	1/
ļ.		_													F		(3.00)	†	1/	18
-		_															(3.90)	†	11	12
F		-													E			‡	1/1	10
6.50	D18	6.50	SPT(S)	N=20 (2,3/4,4,6,6)											F			†	11	\mathcal{H}
E		-																Ì	13	12
7.00	B19														F			Ī	1	16
- 7.00		_																†	11	4/
ţ		-													F	===		†	1	18
<u> </u>		-													F	-==		†	11	12
-		-													ļ			†	1/	313
8.00	D20	- - 8.00	SPT(S)	N=29 (17,8/10,7,7	,5)			Dark grey SILTS	STONE.	D14^T1	ONI					(7.90 (0.30)	‡	11	18
E		Ē						[KIMMERIDGE Stiff to very stiff			-	with free	guent (ravel of	×	2222	8.20	Ì	13	12
E		[siltstone					,	,	F			Ī	1	16
8,60	B21	-						[KIMMERIDGE	CLAY FC	KMAH	ONJ				F			Ī	11	13
ţ		-													þ			†	1	1
-		-													þ		(0.50)	†	11	12
‡		-													E		(2.50)	†	11	\mathbb{H}^{2}
9.50	D22	- - 9.50	SPT(S)	N=50 (6,7/18,13,1	0,9)										F	-===		‡	11	18
F		<u> </u>													F			†	13	12
10.00	Doc.	F													þ	<u></u>		†	1	3 K
- 10.00 -	B23	Ē							C	ontinued o	on next p	age			Ⅎ					<u> </u>
		TECHNIC		CHIS Hard Strata	ELLING		_	WATER OBSERV	ATIONS			HOL		SING DIA				TER AD		
0.00	To 1,20	Inspec	ype ction Pit	From 17.70 1	To Duration 7.90 00:40) Date/	ime S	trike At Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	1.20	200		Depth 1.65	From	То	Volum	ie (Itr)
1.20	25.33	Cable P	ercussion	23.70 2	3.90 00:40	·						200 50	25.00 25.33							

Remarks

No groundwater encountered.
UT11 (3.00-3.45) - 100% recovery, 28 blows. UT15 (5.00-5.45) - 100% recovery, 35 blows. UT24 (11.00-11.45) - 100% recovery, 50 blows. UT29 (14.00-14.45) - 100% recovery, 74 blows. UT34 (17.00-17.10) - 25% recovery, 100 blows. UT37 (19.00-19.45) - 100% recovery, 110 blows. UT42 (24.00-24.40) - 90% recovery, 115 blows.

Termination Depth: 25.33m





BH1204

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 539275.73

Ground Level (mAOD) Northing (OS mN) **264653.94**

Start Date 13/12/2016 End Date 14/12/2016

Scale 1:50 Sheet 2 of 3

SAM	1PLES		TE	ESTS		er	PROGE	RESS					STRAT	Ā				Depti		Insta	=== all/
Depth	Type No.	Depth	Type/ No.	Resul	lts	Water Strikes	Date Time	Casing Water				Desc	ription				Leger		ss) Lev	Back	cfill
11.45	.45 UT24	-							[KIMI Very	SILTSTON MERIDGE stiff, dark b MERIDGE	CLAY FO luish gre	y CLAY	with fre	quent g	ravel of	siltstone.	×××× ×××× ×××××				
11.50	D27	- - - - - - - - 12.50	SPT(S)	N=42 (6,7/9,10	0,10,13)		13/12/2016	1.65 1.65											+ + + + + + + + + + + + + + + + + + + +		
14.45	.45 UT29						17:00 14/12/2016 09:00	1.65										(6.10)			
14.50	D32	- - - - - - - - - 15.50	SPT(S)	N=50 (6,9/11, ⁻	13,14,12)																
- 16.00 -	B33	- - - - - - - - - - -							Grey [KIMN	SILTSTON MERIDGE	E. CLAY FO	•RMATI					×××× ×××××	17.00	†		
- 17.50 - 18.00 - 18.00		- - - - - - - - - - - - - -	SPT(S)	N>50 (14,11 fo 40mm/29,16,5 5mm)	or 5 for				Very : [KIMN	stiff, dark b MERIDGE	luish gre CLAY FC	y CLAY PRMATI	with fre ON]	quent g	ravel of	siltstone.	× × × × × × × × × × × × × × × × × × ×	×	-		
-19.00 - 19 -19.45 -19.50	D38 B39	-																	+ + + + + + + + + + + + + + + + + + + +		
	 DRILLING	TECHNIC	L	CH	HISELLIN	 G		\ \	<u>WATE</u> R	OBSERVA		ontinued o	on next pa		. <u>E/CA</u> SI	NG DIAM	IETER_		TER AD	DED	
From 0.00 1.20	To 1.20 25.33	Ty Inspec	ype ction Pit ercussion	Hard S From 17.70 23.70	To 17.90 23.90	Duration 00:40 00:40	Date/T			Time Elapsed	Rise To	Casing	Sealed	Hole Dia. 300 200 50	Depth 1.20 25.00 25.33	Casing Dia		From	То	Volume ((ltr)

Remarks

No groundwater encountered.
UT11 (3.00-3.45) - 100% recovery, 28 blows. UT15 (5.00-5.45) - 100% recovery, 35 blows. UT24 (11.00-11.45) - 100% recovery, 50 blows. UT29 (14.00-14.45) - 100% recovery, 74 blows. UT34 (17.00-17.10) - 25% recovery, 100 blows. UT37 (19.00-19.45) - 100% recovery, 110 blows. UT42 (24.00-24.40) - 90% recovery, 115 blows.

Termination Depth: 25.33m





BH1204

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539275.73

Ground Level (mAOD) Northing (OS mN) **264653.94**

Start Date 13/12/2016 End Date 14/12/2016

Scale 1:50 Sheet 3 of 3

SAMPI	_ES		TE	STS		es	PROGR	RESS			(STRATA					Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	ts	Water Strikes	Date Time	Casing Water			Descri	ption				Legend	Depth (Thickne	ss) Leve	Backfill
- - 20.50	D40	- - - 20.50 -		N=50 (8,9/10,	16,20,4)														
21.00	B41	- - - -																+	
- - - - - - 2 2.00 - 22.40) UT42	- - - - -																† 	
- - 22.45 22.50	D43 B44	- - - - -																†	
-		- - - - -															(7.33)	+	
23.50 - - - - 24.00	D45 B46	- - 23.50 - - -	SPT(S)	N>50 (25,0 for 0mm/38,12 for	- r 35mm)														
	D40	- - - -																	
- - 2 5.00 - 25.33	B D47	- - - 25.00 -	SPT(S)	N>50 (14,11/1 for 0mm)	9,21,10,0		14/12/2016	1.65									25.33	+	
- - - -		- - - - -					14/12/2016 17:00	1.00									23.30		
- - - -		- - - -																Ţ	
-		- - - - -																+	
- - - - - -		- - - - -																	
-																		†	
- - - - -		- - - - -																+	
- - - - - -		- - - - -																†	
	RILLING	_ - - - TECHNIQ	UE	CH	HISELLIN	IG			WATER OBSEF						IG DIAM	ETER	WA	TER AD	DED
0.00	To 1.20 25.33	Inspec	rpe tion Pit ercussion	Hard S From 17.70 23.70	To 17.90 23.90	00:40 00:40	Datesti	me S	Strike At Time Elaps	ed Rise To	Casing S		300	1.20 25.00 25.33	Casing Dia. 200	Depth 1.65	From	То	Volume (Itr)
													50	25,33					

Remarks

No groundwater encountered.

Termination Depth: 25.33m

AM





BH1205

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539238.34

Ground Level (mAOD) Northing (OS mN) **264696.65**

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 1 of 3

SAMP	LES		Т	ESTS		er	PROGR	RESS				(STRAT	Ā					Depth		Ins	tall/
Depth	Type No.		Type/ No.	Resu	ults	Water Strikes	Date Time	Casing Water				Descri	ption				Le	egend	(Thickne:	(ss) Leve		ckfill
0.00 - 1.00 - 0.20 - 0.40	B1 D2 D3	-					14/12/2016 13:00	0.00	CLA'		sub-angı	ular to su	b-roun	ded, fir	e to me	dium of	X	\bigotimes	(0.40) 0.40		A	4.
- 0.40									is su	i, light browr ib-angular to ER TERRA	sub-rou	nded, fin				\Y. Grave	X-	<u>×</u> -	(0.70)	<u> </u>	11:11	
- 1.50 - 1.95	D5	- - - 1.50	SPT(C)	N=23 (3,4/5,6	s 6 6)				coan		s sub-an	gular to s	avelly ub-rou	CLAY. Inded, f	Sand is ine to m	fine to ledium of	X		1.10		275.2	
2.00	D7	- 1.50		14-25 (0,475,0	5,0,0)				[RIV	ER TERRA	CE DEPO	OSITS]							(0.90)			
2.00 - 2.50	B8	- - -							CLA'	to stiff, dark Y. Sand is fi ided, fine to ER TERRA	ne to coa coarse o	irse. Grav f flint.	ntly sar vel is s	ndy slig ub-ang	htly grav ular to s	/elly sub-			2.00	Ţ		
- 2.50 - 3.00 - - - - - - 3.00 - 3.36		-										•							(2.00)	+		
3.50	D11	-					14/12/2016 17:00	3.00 3.00												ļ		
4.00 - 4.50	B12	-					15/12/2016 09:00	3.5	Stiff	dark bluish IMERIDGE							×	×	4.00	+	//	
- - 4.50 - 4.95	D13	- - 4.50	SPT(S)	N=19 (3,4/4,5	5,5,5)												×.	_ <u>×</u>		†		
-5.00 - 5.50 	B14	- - - - -															X. X. X. X.		(3,30)	+		
		- - - - - - -															X. X. X. X.	_ <u>×</u>	(6.55)	+		
- - - - -7.00 - 7.50	B17	-															\(\frac{\lambda}{\text{\ti}\text{\texi{\text{\texi{\text{\texi\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\texi}\tint{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\texi}\tint{\text{\texi}\tint{\text{\texi}\text{\texi}\text{\texin	_ <u>×</u> _ _ <u>×</u> _		+		23/2/2
- 7.30 - 7.50 - 7.95	D18	- - 7.50 -	SPT(S)	N>50 (25 for 70mm,27/25					[KIM Very band		CLAY FO	RMATIO y, slightly	silty C	CLAY w	th siltste	one	X	××× ×××× ×××× ×××× ×××× ×××× ×××× ××××	7.30 (0.30) 7.60	†		
	B20	- - - -							[KIM	IMERIDGE (CLAY FO	RMATIO	N]				X. X.			†		
- - - - - - 9.00 - 9.45	D21	9.00	SPT(S)	N=30 (5,5/6,7	7,8,9)												X. X. X.			+		10000
_ _ _ _ _		-															X. X. X.					
10.00 - 10.5		-										ontinued on	ı next pa				~	<u>-x</u> -		+	11	10
From	RILLING To	3 TECHN	IQUE Type	Hard	HISELLIN Strata	VG Duration	n			R OBSERVA	TIONS Rise To	Casing S	Sea l ed	HOL Ho l e Dia.	E/CAS Depth	NG DIAN Casing Dia			From	TER AD	DED Vo l um	e (ltr)
0.00	1.20 25.00	Insp	ection Pit Percussion	From	То		n Date/Ti	me C		iapood				300 200	1.20 25.00	200	4.5					1/

Remarks

No groundwater encountered.
UT10 (3.00-3.36) - 80% recovery, 35 blows. UT15 (6.00-6.45) - No recovery, 34 blows. UT26 (12.00-12.45) - 100% recovery, 57 blows. UT31 (15.00-15.45) - 100% recovery, 61 blows. UT36 (18.00-18.45) - 100% recovery, 65 blows.

Termination Depth: 25.00m





BH1205

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539238.34

Ground Level (mAOD) Northing (OS mN) **264696.65**

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 2 of 3

SAMPLE	ES		TE	STS		er	PROGR	RESS		,	STRATA	4			Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Res	ults	Water Strikes	Date Time	Casing Water		Descri	ption			Legend	Depth (Thickne	ss) Lev	Backfill
- -10.50 - 10.95 - 10.60 - - -11.00 - 11.50	D23 D24	-												X	1731 - 1731 - 1731 - 1731 - 1731		
- - - - - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -												x	-		
-13.50 - 13.95 -13.50 - 13.95 -13.50 - 15.00		- - - - - - - - - - - - - - - -	SPT(S)	N=26 (5,5/6,	9,7,7)									X	에 -		
15.00 - 15.45 - 15.50 - 15.50 - 16.00	D32	-												X	(17.40)		
-16.50 - 16.95 	B35	- 16.50 - - - - - - - - - - - -	SPT(S)	N>50 (25 for for 20mm)	20mm/50										*		
-	D37 B38	- - - - - - - - - - - - - - - - - - -	SPT(S)	N=51	44.45										₹N.		
From 7 0.00 1.	ILLING To .20 .5.00	Inspec		(8,10/10,12,7	CHISELLIN Strata To	NG Duration	Date/Ti		R OBSERVA	Casing 5			IG DIAME Casing Dia. 200		WA	FER AD	DED Volume (ltr)

Remarks

No groundwater encountered.
UT10 (3.00-3.36) - 80% recovery, 35 blows. UT15 (6.00-6.45) - No recovery, 34 blows. UT26 (12.00-12.45) - 100% recovery, 57 blows. UT31 (15.00-15.45) - 100% recovery, 61 blows. UT36 (18.00-18.45) - 100% recovery, 65 blows.

Termination Depth: 25.00m

AM



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BH1205

Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 539238.34

Ground Level (mAOD) Northing (OS mN) **264696.65**

Start Date 14/12/2016 End Date 15/12/2016

Scale 1:50 Sheet 3 of 3

SAMPL	ES		TE	STS		_ s	PROGF	RESS			STRA	TA						
Depth	Type/ No.	Depth	Type/ No.	Resul	ts	Water	Date Time	Casing Water		D	escription				Legend	Depth (Thickne	ss) Leve	Install/ Backfill
		- - - - -	140.					VVator							X - X X - X			
	D41	21.00 21.00	SPT(S)	N>50 (10,10/1: for 30mm)	2,22,16										×x ×x			
- - - 2 2.00 - 22.50	B42	- - - - -													X_X_X_X_X_X_X_X_X_X_X_X_X_X_X_X_X_X_X_			
-22.50 - 22.95	D43	- - - 22.50 - -	SPT(S)	N>50 (10,10/12,12,1 70mm)	3,13 for												†	
- -23.00 - 23.50 - -	B44	- - - - -													X		+	
- - - 24.00 - 24.45	D45	- - - - - 24.00	SPT(S)	N=50 (8,10/11,12,13	14)												†	
- - -24.50 - 25.00	B46	- - - - -		(0,10,11,12,10	,,,,,													
- - - - -		- - - - -					15/12/2016 17:00	4.50 25							<u> </u>	25.00	†	11.5
		- - - - -																
- - - - -		- - - -															†	
-		- - - - -															+	
-		- - - - -																
- - - - -		- - - - -															+	
- - - -		- - - - -															†	
- - - - -		- - - - -																
-		- - - -					T			 NIC .			F/C : -:	10.5:::		,	+	
	ILLING To	TECHNIQ Ty	(UE rpe	CH Hard S From	ISELLING trata To	3 Duration	Date/Ti		NATER OBS	ONS se To Cas	ing Sea l ed	HOL Hole Dia.		IG DIAMI Casing Dia.	Depth	From	TER AD To	DED Volume (Itr)
0.00 1	.20		ction Pit ercussion	From	10		Date/11	1110				300 200	1.20 25.00	200	4.50			. ,

Remarks

No groundwater encountered.
UT10 (3.00-3.36) - 80% recovery, 35 blows. UT15 (6.00-6.45) - No recovery, 34 blows. UT26 (12.00-12.45) - 100% recovery, 57 blows. UT31 (15.00-15.45) - 100% recovery, 61 blows. UT36 (18.00-18.45) - 100% recovery, 65 blows.

Termination Depth: 25.00m

AM





BH1206

Northstowe Phase 2

Homes and Communities Agency

Project No. **UA008426-01** 539281.02

Ground Level (mAOD) Northing (OS mN) **264696.67**

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 1 of 3

	SAMF	PLES			TE	STS		er	PROGF	RESS					STRA	TA				Depth		In	stall/
	Depth	Typ No		Depth	Type/ No.	Res	ults	Water Strikes	Date Time	Casing Water				Desci	ription				Legend	(Thickne	ss) Lev		ackfill
	0.10 0.10 - 0.30 0.40	B5 ES1 B6	-						14/12/2016 13:00	0.00	with fine	ss over soft to roots and ro to coarse of P SOIL]	ootlets. G mixed lit	ravel is hologies	sub-ar s.	igular to	sub-rou	inded,	alle al	(0.40)		4	4.4.
- '	0.60 - 0.80	ES2	-								to co	n, orangish b parse. Grave ER TERRA	el is sub-	angular						(1.00)	+		
F	1.20	D7	-	1.20	SPT(S)	N=9 (1,1/2,2	2,2,3)													÷ 1	Ī	4	12
-	1.40 1.60 - 1.80	B8 ES3	-								with	i, bluish grey occasional f ER TERRA	fragment	s of gyp		vn, sligh	itly sand	y CLAY		1.40	†		
	2.00 2.00	B10 D9	- :	2.00	SPT(S)	N=9 (1,2/2,2	2,2,3)													(2.40)	 		
	3.00 3.00 - 3.45 3.45	B12 UT11	-						14/12/2016 17:00	1.65 1.65										시 1	 - - - - -		
-	4.00	B15	-	4.00	SPT(S)	N=16 (2,2/3	.3.5.5)		15/12/2016 09:00		Stiff,	, dark bluish ments.	grey, sliç	ghtly silty	y CLAY	with oc	ccasiona	l shell	×	3.80			
	4.00 4.00 - 4.20	D14	-		(-,		, , ,				[KIM	IMERIDGE (CLAY FC	RMATIO	ON]								
-	5.00 - 5.45	5 UT16	; 																× ×	71 171	+		
	5.45 5.50	D17 B18	-																X X X X X X X X X	(4.00)			1000000
	6.50 7.00	D19	-	6.50	SPT(S)	N=19 (3,3/4	,4,5,6)												X X —X X X	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			7 7 7 7 7 7
	3.00 - 8.45	5 UT21	-									y SILTSTON IMERIDGE (DRMATIC					X	(0.20)			
F	8.45	D22	· [-								Very	stiff, dark b I fragments IMERIDGE	luish gre	y, slightl	y silty (CLAY wi	ith occas	sional	-x- x x x	1			
	8.50	B23	-																		† - -		
	9.50	D24	- '	9.50	SPT(S)	N>50 (8,10/ for 50mm)	12,22,16													1			
F	10.00	B25	<u>-</u> -										Cr	ontinued o	n next n	age			<u>x</u>	- <u>1</u> - -	†	1	1
			IG TE	CHNIQ		(1)	CHISELLIN d Strata					R OBSERVA	TIONS			HOL		NG DIAM			ΓER AD		
	From 0,00	To 1,20		Ty	pe tion Pit	From 7.70	7.80	Duratio 00:15		me S	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia. 300	Depth 1.20	Casing Dia. 200	Depth 1.65	From	То	Volum	ne (Itr)
		25.45		Cable Pe	ercussion	18.70	18.90	00:30								200 50	25.00 25.45	200					

Remarks

No groundwater encountered.

NO groundwater encountered. Util 10.00-3.45) - 100% recovery, 27 blows. UT16 (5.00-5.45) - 100% recovery, 38 blows. UT21 (8.00-8.45) - 100% recovery, 49 blows. UT26 (11.00-11.40) - 90% recovery, 78 blows. UT30 (14.00-14.45) - 100% recovery, 86 blows. UT34 (17.00-17.45) - 100% recovery, 59 blows. UT38 (20.00-20.45) - 100% recovery, 66 blows. UT42 (23.00-23.45) - 100% recovery, 97 blows.

Termination Depth:

25.45m Checked By





BH1206

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539281.02

Ground Level (mAOD) Northing (OS mN) **264696.67**

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 2 of 3

SAMPLI	ES		TE	STS		er es	PROGF	RESS					STRATA	١				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water				Descri	iption				Legend	Depth (Thicknes	s) Leve	Backfill
	UT26																X			
	D28	- 12.50 - 12.50 	SPT(S)	N=28 (5,5/6,6	5,8,8)												X		+	
-14.00 - 14.45 - - - 14.50	UT30	- - - - - - - - - - - - - - - - - - -															X	(10.90)		
15.50 - 16.00	D32	- - - - - - - - - - - - - -	SPT(S)	N=29 (5,6/6,7	7,8,8)												X		+	
17.00 - 17.45 - 17.50	UT34	- - - - - - - - - - - - - - - - - - -															X			
19.00	D36	- - - - - - - - - - - - - -	SPT(S)	N>50 (25 for 70mm/39,11 f	for 35mm)				[KIM	V SILTSTON MERIDGE stiff, dark b fragments. MERIDGE	CLAY FO	v. sliahtly	siltv CL	.AY witt	h occasio	onal	× × × × × × × × × × × × × × × × × × ×	18.70 (0.30) 19.00	+	
20.00 - 20.45				T =					A / C = =	000000		ontinued or	next page		-10 * 6	0.514::-	×	1	<u> </u>	31.5
	ILLING To	TECHNIC Ty	DE rpe	Hard From	HISELLIN Strata	JG Duration	n Date/Ti			R OBSERVA Time Elapsed		Casing	Sea l ed Ho	HOLE ole Dia.		G DIAME	TER Depth	From VVAT	ER ADI	OED Volume (Itr)
0.00 1	.20 5.45	Inspec	tion Pit ercussion	7.70 18.70	To 7.80 18.90	00:15 00:30	Date/11							300 200 50	1.20 25.00 25.45	200	1.65			. ,

Remarks

No groundwater encountered.

NO groundwater encountered. Util 10.00-3.45) - 100% recovery, 27 blows. UT16 (5.00-5.45) - 100% recovery, 38 blows. UT21 (8.00-8.45) - 100% recovery, 49 blows. UT26 (11.00-11.40) - 90% recovery, 78 blows. UT30 (14.00-14.45) - 100% recovery, 86 blows. UT34 (17.00-17.45) - 100% recovery, 59 blows. UT38 (20.00-20.45) - 100% recovery, 66 blows. UT42 (23.00-23.45) - 100% recovery, 97 blows.

Termination Depth:

25.45m





BH1206

Northstowe Phase 2 Homes and Communities Agency Project No. **UA008426-01** 539281.02

Ground Level (mAOD) Northing (OS mN) **264696.67**

Start Date 14/12/2016 End Date 15/12/2016 Scale 1:50 Sheet 3 of 3

SAM	PLES		TE	ESTS		es es	PROGE	RESS				STRAT	Ā				D		Install/
Depth	Type No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water			Desc	ription				Legend	Depth (Thicknes	(s) Leve	Backfill
- - 20.50 -	B39	-														X X X X		 	
21.50	D40		SPT(S)	N=44 (5,7/9,1	0,12,13)											X			
-23.00 - 23	.45 UT42																(6.45)		
25.00	D44	_ 25.00	SPT(S)	N>50 (7,9/10, for 5mm)	11,12,13		15/12/2016 17:00	1.65	5							——————————————————————————————————————	25.45		
From	DRILLING To	TECHNIC	UE ype	Hard \$	HISELLIN Strata	VG Duration	n -			OBSERV/	Casing	Sealed	HOL Hole Dia.		NG DIAME	TER Depth	WA ⁻ From	ER ADD	Volume (Itr)
0.00	1.20 25.45	Inspec	ction Pit ercussion	From 7.70 18.70	7.80 18.90	00:15 00:30	Batteri	irne		Ziapocu	 _ 2011g		300 200 50	1.20 25.00 25.45	200	1.65			(M)

Remarks

No groundwater encountered.
UT11 (3.00-3.45) - 100% recovery, 27 blows. UT16 (5.00-5.45) - 100% recovery, 38 blows. UT21 (8.00-8.45) - 100% recovery, 49 blows. UT26 (11.00-11.40) - 90% recovery, 78 blows. UT30 (14.00-14.45) - 100% recovery, 86 blows. UT34 (17.00-17.45) - 100% recovery, 59 blows. UT38 (20.00-20.45) - 100% recovery, 66 blows. UT42 (23.00-23.45) - 100% recovery, 97 blows.

Termination Depth:

25.45m





BH1101

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 540778.32

Ground Level (mAOD) Northing (OS mN) **266197.28**

Start Date **06/12/2016** End Date **07/12/2016**

Sheet 1 of 2

SAM	IPLES		Т	ESTS		es es	PROGF	RESS					STRA	TA					D		Inc	toll/
Depth	Type No.		Type/	Resi	ults	Water Strikes	Date Time	Casing Water				Desc	cription					Legend	Depth (Thicknes	Leve		stall/ ckfill
0.00 - 1.0 0.10 - 0.3 0.20	00 B1	- - - -					06/12/2016 13:00	0.00	roots	to firm, yello s and rootlet P SOIL]					AY with	frequent		Alte Ale Alte Ale Alte Ale Alte Ale	(0.70)		4.0	*
- 0.70 - 0.90 - 1.2	D4 20 ES5	E								ı, light orang occasional							_	316	0.70	-	1	1
1.00 - 1.9		_ - - -							roun	ided, fine to ER TERRA	coarse o	f flint.		0,10 00	z angun	10 000				+		
1.50 - 1.9	95 B7	- - 1.50	SPT(S)	N=13 (1,2/3,	3,3,4)	•													(1.60)	‡		
2.00 - 2.5	50 B8	[_ _																		-		
- 2.30 - 2.50 - 2.8	D9 80 ES11	E								to firm, grey			sh brow	n, si l ty	CLAY.				2.30	1	1	1
2.50 - 3.0		-							[, 4, 4	ZIV IZIVIV		JO[10]						<u>×</u> ×	(1.20)			
3.00 - 3.4	45 UT12	- - -																×	(1.20)	+		1
- 3.50 - 3.50 - 4.0 - 3.60 - 3.0	D13 B14 B0 ES15	- - -							Very [RIV	soft to soft,	grey sar	ndy CL <i>F</i> DSITS]	AY. San	d is fine	to coar	se.		x_^_	3.50			1
- - -		- - -																	(0.80)	†		
4.30	D16	ŧ				\subseteq				lium dense,									4.30	-	//	- /
- 4.50 - 4.9 - 4.70 - 4.9		- 4.50 -	SPT(S)	N=14 (2,3/3,	4,3,4)				to ro	cobble cont ounded, fine							lar			†		
-	2010	-								ided of flint. 'ER TERRA	CE DEPO	OSITS]							(0.90)	+		
5.20	D19	F								to stiff, blui								×_	5.20	Ī	11	13
5.50 - 6.0	00 B20	- - - -					06/12/2016 16:30 07/12/2016	5.50 4.5 5.50		IMERIDGE (JLAY FO	IKIVIATI	ONJ					<u> </u>		†		
6.00 - 6.4	45 B21	6.00	SPT(S)	N=23 (3,4/5,	5,6,7)		08:00	5.5										×	(2.00)	+		
6.50 - 7.0	00 B22	- - -																× ××	(2.00)	 		
[[X			11	
7.20	D23	Ė							Wea	ak, grey SILT	STONE.								7.20	-	11	11
7.50 7.50 - 7.5	D24 UT25	-							Stiff,	MERIDGE of the state of the sta	silty CL	AY.						XXXXX X	(0.30) 7.50	†	11	1
8.00	D26	- -							[KIIVI	IMERIDGE	JLAI FO	TIVIALL	ONJ					×— — ×— —		+	11	
- 8.00 - 8.9 -	50 B27	-																×			1/	
-		- - - -																		†	1/	11
9.00 - 9.4	45 B28	9.00	SPT(S)	N=26 (3,4/5,	5,7,8)													×		†		11
-		- - - -																×_×_		†		11
10.00 - 10	50 820	- - -																<u>×</u>		1	1/	1/
		C TECLIA	IIOUE	1	HICELLIA					R OBSERVA		ontinued o	on next p		LE/CAS	INC DIA	VVI.	~	10/0-	TER ADI	Y/	11
From	То	G TECHN	Туре	Hard From	HISELLIN Strata To	Duration		me S	Strike At	Time Elapsed	Rise To	Casing	Sealed	Ho l e Dia	. Depth	Casing D		Depth	From	To To	Vo l um	e (Itr)
0.00 1.20	1,20 15.00	Ins Cable	ection Pit Percussion				06/12/2016	5 15:00	4.30	20	1.70	4.00	5.00	300 200 50	1.20 15.00 15.45	200		7.50				

Remarks

UT12 (3.00-3.45) - 100% recovery, 17 blows. UT25 (7.50-7.95) - 100% recovery, 40 blows. UT30 (10.50-10.95) - 100% recovery, 65 blows. UT35 (13.50-13.95) - 100% recovery, 73 blows.





BH1101

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 540778.32

Ground Level (mAOD) Northing (OS mN) **266197.28**

Start Date **06/12/2016** End Date **07/12/2016** Scale 1:50 Sheet 2 of 2

SAMPLE	ES		TE	STS	er	PROGR	RESS			STRA	TA				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Description				Legend	Depth (Thickness	Level	Backfill
- - -10.50 - 10.95	UT30	-												X X X X			
11.00 - 11.00 - 11.50 -	D31 B32	- - - - - -												XXXXXXXXXX_		 	
- - -12.00 - 12.45 - -	B33	- - - - 12.00 - - -	SPT(S)	N=28 (4,4/5,7,8,8)										X	(7.00)	† †	
- - - - - - - - - - 3.00 - 13.50	B34	- - - - - -												x_^_ x x x x x		 	
- -13.50 - 13.95 - - - - - 14.00 -14.00 - 14.50	D36	- - - - - -														† † †	
-	D38		ent(e)	N. 50 /9 for 0 mm//) for			Weak to mediun [KIMMERIDGE of Stiff to very stiff,	CLAY FOF	RMATION]				X X	14.50 (0.40) 14.90		
	D39	- 15.00 - - - - - - -	51(5)	N>50 (8 for 0mm/10 0mm)	O TOF	07/12/2016 15:00	7.50 15	[KIMMERIDGE	CLAY FOR	RMATION]				<u>×</u>	(0.55) 15.45		
-		- - - - -														 	
- - - - -		- - - - - - -														† †	
-		- - - - - -														† 	
-		- - - - - -														† † † †	
-		- - - - - -															
-		_ - -														<u> </u>	
		TECHNIQ		CHISE Hard Strata				WATER OBSERVA					NG DIAME			ER ADD	
0.00 1.	To .20 5.00	Inspec	rpe tion Pit ercussion	From To	Duratio	Date/T 06/12/2016	ime S 3 15:00	Strike At Time Elapsed 4.30 20	Rise To	Casing Sealed 4.00 5.00	300 200	1.20 15.00	Casing Dia.	Depth 7.50	From	To '	volume (Itr)
Romorko											50	15.45					

Remarks

UT12 (3.00-3.45) - 100% recovery, 17 blows. UT25 (7.50-7.95) - 100% recovery, 40 blows. UT30 (10.50-10.95) - 100% recovery, 65 blows. UT35 (13.50-13.95) - 100% recovery, 73 blows.





BH1102

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540875.06

Ground Level (mAOD) 9.57 Northing (OS mN) 266199.51

Start Date **07/12/2016** End Date **08/12/2016**

Sheet 1 of 2

SAM	PLES		TE	ESTS		Water Strikes	PROGF	RESS		STRATA								Depth			Instal	1/
Depth	Type No.						Date Time	Casing Water										(Thicknes	s) Lev		Backfi	
-		-					07/12/2016 13:00	0.00	MADE GROUND: Grass over CONCRETE fill.									(0.30)		4		4
- 0.30 - 0.30 - 0.5	D2 0 ES3	-							Soft to firm, ora	ngish brov	wn, sligh	tly silty	CLA	Y with	occas	sional		0.30	9.	27	H)
0.30 - 1.0	0 B1	-							roots and rootle	ts [POSS	IBLE MA	DE G	ROUN	ND].				(0.70)	†	7	1 1	/
E		E																Ž ` ´	Ī	1	T)	1
1.00 - 1.5						Firm, light orang		n mottled	grey,	slight	ly san	idy CL	AY.		1.00	+ 8.	57	ı II	1			
								Sand is fine to a		OSITS]						===	-	†	1	H	/	
- 1.50 - 1.88 UT5 -																	(1.00)	Ŧ	2	H	1	
-		-																-	-	()	Πİ	/
2.00	D6	-							Orangieh brown	Orangish brown, slightly clayey gravelly fine to coarse SAND.								2.00	‡ 7.	57		1
- 2.00 - 2.5 - 2.20 - 2.4		Ė							Gravel is sub-a	ngular to r	ounded,	fine to	coars	se of	flint.	IND.		. (0.60)	Ì		Ηl	
E		[[RIVER TERRA	CE DEPC	osiisj							(0.60)	Ī	. *	П	
2.60	D9	t							Soft, grey to da			ilty CL	_AY.					2.60	6.	97	Ħ٢	۰
2.90	D10	1 200	CDT/C)	N=2 (1,0/0,1,	0.4\				[RIVER TERRA	CE DEPC	osirsj							(0.60)	†		Яl	
-3.00 - 3.4 - 3.20	5 B11 D13	3.00	381(3)	N-2 (1,0/0,1,	0, 1)													3.20	T ₆	37	dl.	٠
3.20 - 3.4		ţ							Very soft to soft [RIVER TERRA			ey fibro	ous Pl	EAT.			د عادد ه عاده عاده	(0.50)	† "	1	1	1
F		-															د ماند ه ماند ماند	114	† _	()	17	1
3.70	D14	E							Soft, grey, sligh angular to sub-						el is su	b-	<u> </u>	3.70	j 5.	87	1	1
-4.00 - 4.2 - 4.00 - 4.5		-				$\overline{}$			[RIVER TERRA	CE DEPC	SITS]							(0.50)	†	1	1	1
4.20	D17	-							Medium dense,									4.20	5.	37		
4.50 - 4.9	5 B18	4.50	SPT(S)	N=12 (2,2/3,2	2,3,4)				cobble content. sub-rounded, fir	ne to coar								(0.80)	Ì			٠
-		-							rounded of flint.		OSITS]							. (0.00)	-		·:E	
5.00	D20	-							Firm, brownish	grov silty	CLAY							5.00	+ 4.	57		Ŀ
5.00 5.00 - 5.5	- 5.00 ES19 - 5.00 - 5.50 B21 -							[KIMMERIDGE			N]					===	1	Ì	1	11	1	
E		-																(1.00)	1	1	113	/
-																FE	-	†	1	11	1	
6.00 - 6.4	5 B22	- 600	CDT/C)	N=02 /4 2/5 6	: 6.7\		07/12/2016	6.00									===	6.00	‡ 3.	- /	11	11
-0.00 - 0.4	3 622	6.00	381(3)	N=23 (4,3/5,5	5,0,7)		16:00 08/12/2016	6.00 6.00	Stiff to very stiff [KIMMERIDGE								-==	-] ^{6.00}	Ţ °.	2	11	/
-		-					08:00					•						-]	†	1	11	1
F		F															===	-	ŧ	1	1/1	1
E		E															===	-	Ī	1	1%	1
<u>-7.00 - 7.5</u>	0 B23	-															===	-	†	1	11	1
F		F																-	†	1	11;	/
7.50 - 7.9	5 UT24	F															===	1	†	/	11	1
-		ļ															==	-1	†	1	11	1
8.00	D25 0 B26	F																1	†	1	11:	/
8.00 - 8.5	V D20	ţ																-1	-	1	11	1
Ė		<u> </u>																-1	‡	1	11	1
Ė		E															===	1	1	1	1%	1
9.00 - 9.9	5 B27	9.00	SPT(S)	N=26 (3.4/5.6	5,7,8)												<u> </u>	1	1	1	11	1
9.00 - 9.95 B27 - 9.00 SPT(S) N=26 (3,4/5,6,7,8)			,												===	-]	†	1	11	/		
																-	İ	/	11	1		
ļ.								===	-	-	1	11	1									
‡		ţ.																-	†	1	11:	/
-10.00 - 10.50 B28									Co	ontinued or	next pa	age							1	1,9	/	
From	DRILLING To	G TECHNI		Hard	HISELLIN Strata	IG Duratio	n .		WATER OBSERV	ATIONS		Sealed				G DIAM asing Dia.	ETER Depth	WA ⁻ From	ER AD) ume (I tr	r)
0.00	1,20	Inspe	Type ection Pit	From	То	Duratio	n Date/Ti 07/12/2016	IIIIC	4.20 20	1.65	Casing 5	5.00	300	1	.20	200	15.00	FIOITI	10	VOIL	me (III	-
1.20	15.45	Cable f	Percussion										200 50	15	5.00 5.45							

Remarks

UT5 (1.50-1.88) - 85% recovery, 34 blows. UT24 (7.50-7.95) - 100% recovery, 53 blows. UT29 (10.50-10.95) - 100% recovery, 53 blows. UT35 (13.50-13.95) - 100% recovery, 65 blows.





BH1102

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 540875.06

Ground Level (mAOD) 9.57 Northing (OS mN) 266199.51

Start Date **07/12/2016** 08/12/2016 Scale 1:50 Sheet 2 of 2

SAMPLES			TE	ESTS	ee	PROGF	RESS	STRATA						Donth		Inetall/	
Depth	Type/ No	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Description	1			Legend	Depth (Thicknes	s) Leve	Install/ Backfill
-10.50 - 10.95	No. UT29 D30 B31	Depth	No.	Results N=28 (4,4/5,7,8,8		Date Time	Water			Description	1			Legend	(Ihicknes	s)	Backfill
-13.50 - 13.50 -13.50 - 13.50 -13.50 - 13.95 -13.50 - 14.00 -14.00 - 14.50	UT34	- - - - - - - - - - - - - - - - - - -													(8.70)		
- 14.50 - 14.50 	D37	- - - - - - - - - - - - - - - - - - -	SPT(S)	N=45 (8,8/10,11,	2,12)	08/12/2016 15:00	7.50	Weathered, gre [KIMMERIDGE Very stiff, bluist [KIMMERIDGE	ey SILTSTO CLAY FO In grey, silty CLAY FO	ONE. RMATION] / CLAY. RMATION]				××××× ××××× ××××× ××××× ×××××	14.70 (0.30) 15.00 (0.45) 15.45	-5.13 -5.43 -5.86	
		- - - - - - - - - - - - - - - - - - -															
-		- - - - - - - - - - - - - - - - - - -															
From -	ILLING To	Inspec	PUE rpe ction Pit ercussion	Hard Strata	ELLING To Duratio	n <u>Date/T</u> 07/12/2016	ime S	MATER OBSERV strike At Time Elapsed 4,20 20		Casing Sealer 4.00 5.00			NG DIAME Casing Dia.	TER Depth 15.00	WAT From	ER ADC	DED Volume (ltr)

Remarks

UT5 (1.50-1.88) - 85% recovery, 34 blows. UT24 (7.50-7.95) - 100% recovery, 53 blows. UT29 (10.50-10.95) - 100% recovery, 53 blows. UT35 (13.50-13.95) - 100% recovery, 65 blows.





BH1103

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 541001.35

Ground Level (mAOD) 9.42 Northing (OS mN) 266263.30

Start Date 12/12/2016 End Date 13/12/2016

Sheet 1 of 2

SAM			TE	STS		er	PROGF	RESS	STRATA								Depth		Ins	stall/			
Depth	Typ No	pe/ De	TESTS PROGRESS STRATA Depth No. Results No. Results Description									Legend	(Thicknes	s) Leve		ckfill							
0.10 - 0.		-						12/12/2016 08:00	0.00	MAD	MADE GROUND: CONCRETE. MADE GROUND: Soft, light brown, slightly sandy slightly gravelly								d d	0.10	9.32	2 4	4.
F 0.10 1.		F						00.00		CLA	CLAY, Sand is fine to coarse, Gravel is sub-angular to sub- rounded, fine to coarse of sandstone, flint and mudstone. Firm, orangish brown, slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]							(0.30)	1		4 3		
F		F								round								0.40	9.02		1 2		
F		F								to co									1	1	13		
F 4 00 4	20	F																(4.00)	1	/	12		
- 1.00 - 1. - 1.00 - 1.		F								[(1.20)	Ŧ	1	13		
F		F																		1		18	
1.50 - 1.	82 UT7	F																	1.60	7.82	1		
E		E									Medium dense, becoming dense, yellowish brown, sandy GRAVEL. Gravel is angular to sub-rounded, fine to coarse of flint.							1.60	· · · · ·		1		
2.00	D8	E									ER TERRA				ucu, iiii	C 10 CO	130 01 111	ш.			Ŧ	2	1 4
2.00 - 2.	50 B9	Ŀ																			1		
Ŀ		Ŀ																			1	ŀŀ	
-		-																			†	Ŀ	
ţ		Ė																			1		
-3.00 - 3.	20 ES3	<u> </u>	00	SPT(C)	N=13 (2,2/2,3	3,3,5)	\subseteq														‡		
3.00 - 3.	45 B10	ļ		. ,																	†	\vdash	
ļ		-																		(3.40)	†		
F		-																			†		
ļ		ļ																			†		
4.00 - 4.	50 B11	F																			‡	ŀ	
F		F																			†		
-	05 040	Ŧ,		CDT(C)	N-05 (0.7/0.	0.40															1		
4.50 - 4.	95 B12	- 4.	50	SPI(C)	N=35 (6,7/8,8	3,9,10)															Ŧ		
F		F																			Ŧ	$ \cdot $	
- 5.00 - 5.1 - 5.00 - 5.	20 ES4 50 B13									Medi	Medium dense, yellowish brown, gravelly fine to coarse SAND.								5.00	4.42			
3.00 - 3.	50 613	Ŀ								Grav	el is sub-an	gular to	sub-rou	ınded, f								13	1 1
Ł		Ŀ								[RIVI	[RIVER TERRACE DEPOSITS]									1	1%	1/2	
ţ		ţ																		†	11		
ţ		ţ																		(1.80)	‡	1	18
6.00 - 6.	45 B14	- 6.	00	SPT(C)	N=25 (3,4/5,6	5,7,7)														<u> </u>	†	11	1/
ļ		ļ																			1	1/	13
ļ.		Ļ																			‡	11,	12
ļ		F																			İ	11	13
6.80	D15	-									to stiff, blui								×_	6.80	2.62	1/	11
7.00 - 7.	50 B16	F								[KIIVI	MERIDGE	JLAY FC	JRIVIATI	IONJ					×		Ŧ	11	1
F		F																	×		Ŧ	1	1/
7.50 - 7.	95 UT1	7 [×		Ŧ	//	4 4
E		E																	×		Ī		Hil
8.00	D18	Ŀ																	×_×_		1		H:
8.00 - 8.	50 B19																		×_×_		†		\exists
ţ		Ė																			†		
ļ.		-																	×_		†		H.]
ţ		ŀ																			†		\mathbb{H}^{1}
9.00 - 9.	45 B20	- 9.	00	SPT(C)	N=19 (3,4/4,5	5,5,5)													X		‡		$ \cdot $
ļ.		ļ		`	,														×		†		
ļ.		Ė																	<u>~_*</u> _		†		
F		F																	<u> </u>		Ť	11	1/
F		F																	<u>×</u> _		†	11,	17
10.00 - 10).50 B21	F								L									×_		+	11	1/2
	DRILLIN	JG TEC	HNIO	LIE.		HISELLIN	l IG		<u> </u>	Λ/ΔΤΕΕ	R OBSERVA		ontinued	on next p		E/C^S	ING DIA	ME.	TER T	1 10/07	ER ADI		
From	То		Ту	ре	Hard From	Strata To	Duration	Daterii	me	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing E		Depth	From	To To	Vo l um	e (Itr)
0.00 1.20	1,20 15.45	Ca	nspect	tion Pit ercussion				12/12/2016	3 10:00	3.00	20	2.4	3.00	6.80	300 200 50	1.20 15.00 15.45	200	T	7.50				

Remarks

UT7 (1.50-1.82) - 70% recovery, 37 blows. UT17 (7.50-7.95) - 100% recovery, 39 blows. UT22 (10.50-10.95) - 100% recovery, 64 blows. UT27 (13.50-13.95) - 100% recovery, 88 blows.





BH1103

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541001.35

Ground Level (mAOD) 9.42 Northing (OS mN) 266263.30

Start Date 12/12/2016 End Date 13/12/2016

Scale 1:50 Sheet 2 of 2

Homes a				_				341001:33		200203.3				2/2010			01 2
SAMPLI	ES		TE	ESTS	_ s	PROGF	RESS			STE	RATA						
Depth	Type/ No.	Depth	Type/	Results	Water Strikes	Date Time	Casing Water			Description				Legend	Depth (Thickness	Level	Install/ Backfill
Бериі	No.	Бериі	No.	Results	> s	Date Time	Water			Description	JII			Legena	,	1	
E		t												×		1	11.57
40.50 40.05	LUTOO	-												××		+	1,7%
-10.50 - 10.95	0122	-												×_		Ţ	1111
ţ		_												^		‡	15%
- 11.00	D22	_												<u> </u>		Ţ	1773
- 11.00 -11.00 - 11.45	B24	-												×_		Ţ	11.5
ļ.														×_	1	1	15/1
_		_												×		1	915
-		-												×_×_		+	11/1
F		-												<u>×</u> _		1	1/1/
12.00 - 12.45	B25	- - 12.00	SPT(C)	N=20 (3,4/4,5,5,6)										^		‡	11.57
t		<u> </u>	(,	,										×		1	11,71
-		-												×_×_		+	17/1
F		-												×_	(8.20)	‡	11.11
ţ		_												×	(0.20)	1	1/1/
t		Ŀ												×		1	11/1
13.00 - 13.50	B26	_												x		+	1,5%
-		F												×_	1	‡	17/1
‡		ţ												×	1	‡	1,5%
-13.50 - 13.95	UT27	-												×		+	1911
F		F												X		Ī	11.5
-		ļ.													1	1	1,571
- 14.00 -14.00 - 14.50	D28	_												×		†	1111
14.00 - 14.50	1029	-												×_×		+	11,11
-		-												<u>×</u> _	1	1	15/1
14.50 - 15.00	B30	-												×	1	†	57,57
-		-												×_^_		+	11/11
F		F												<u>×</u> _		Ī	1//
15.00 - 15.45	D31	— 15.00 -	SPT(C)	N>50 (25 for 30mm/50 for 50mm)	15.00			Weathered grey [KIMMERIDGE	SILTST	ONE.				X X X X X	15.00	+ -5.58	11.57
<u> </u>		<u> </u>		,				[KIMMERIDGE	CLAY FO	RMATION]				**** **** **** ****	(0.45)	1	1,5%
-		-				12/12/2016	7.50							2222	15.45	-6.03	11/1
F		_				16:30										1	
ţ		Ė														1	
-		-														+	
F		-														Ţ	
ļ		-														1	
Ł		L														1	
-		-														+	
F		-														1	
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E		_														1	
F		-														1	
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t		<u> </u>														1	
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H		⊢														+	
F		F														Ŧ	
-		ļ.														1	
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F		F														†	
-		-															
DR	<u>ILLING</u>	TECHNIC	UE	CHISELLIN	IG		V	VATER OBSERV	ATIONS		HOL	E/CASIN	IG DIAME	TER		ER ADD	ED
From	То	Ty	/ре	Hard Strata From To	Duratio			trike At Time Elapsed		Casing Seal			Casing Dia.	Depth	From	То	Volume (Itr)
0.00 1 1.20 15	.20 5.45	Inspec Cable P	ction Pit ercussion			12/12/2016	3 10:00	3.00 20	2.4	3.00 6.8	200	1.20 15.00	200	7.50			
		Judio F	_,0000011								50	15,45					
Remarks																	

UT7 (1.50-1.82) - 70% recovery, 37 blows. UT17 (7.50-7.95) - 100% recovery, 39 blows. UT22 (10.50-10.95) - 100% recovery, 64 blows. UT27 (13.50-13.95) - 100% recovery, 88 blows.





BH1107

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 541077.58

Ground Level (mAOD) 9.30 Northing (OS mN) 266125.61

Start Date **28/11/2016** End Date 29/11/2016 Scale 1:50 Sheet 1 of 2

SAM	PLES		TE	STS		es	PROGF	RESS					STRAT	ГА					Donth		Inc	tall/
Depth	140.	/ Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water					ription					Legend	Depth (Thicknes	s) Leve		ckfill
0.00 - 0.5 0.00 - 0.5 - - - 0.50 - 1.2 - 0.52 - 1.2	52 ES1 20 B4	- - - -					28/11/2016 13:00	0.00	fine to of mix [TOP Media	s over dark I o coarse SA xed lithologi 'SOIL]] um dense, y el is sub-ang	ND. Graes. Occa	avel is s asional brown	ub-angu rootlets , gravell	ular to s up to 2 y fine to	mm wic	nded, fir le.	ne	Alle Ale		8.78	A.	4.4.
- - - 1.20 - 1.6	55 D20	- 1.20	SPT(S)	N=22 (2,3/4,5	5,6,7)	1.20			lithold				,						(1.38)	+		
- - - -		- - -																		†		
- 1.90 - 2.5 - 1.90 - 2.5 - 1.90 - 2.5		- - - - - - -				•			cobbl	um dense, y le content. S ded, fine to c ER TERRAC	and is fi oarse o	ine to co f mixed	oarse.	Gravel i			b-		1.90	7.40		
- -3.00 - 3.4	15 D19	3.00	SPT(C)	N=13 (3,3/3,3	3,3,4)	3.00													(1.90)	+		
- 3.80 - 3.80 - 4.5 - 3.80 - 4.5 - 4.00 - 4.4	50 ES7	-							Grave	to stiff, light el is sub-ano MERIDGE C	gular to s	sub-rou	nded, fi	htly gra	velly C ixed lith	LAY. Iologies			3.80	5.50		
4.50 - 4.7	73 UT23	-								ig, grey SILT								****	4.50	4.80	22	
5.00	D24	-								MERIDGE C				htly silty	y CLAY			×××× ×××× ×××××	(0.45) 4.95	4.35		H:
- 5.10 - - - 5.50 - 6.0 - 5.50 - 6.0		-							[KIMI	MERIDGE C	LAY FO	RMATI	ON]					×——×— ×——×— ×——×—		†		
- - - - - - - - - - - - - - - - - - -	15 D26	6.00	SPT(S)	N=23 (3,4/5,5	5,6,7)	5.10												x x x	(2.05)	†		
- - - -		-																× × ×_		† †		
7.00 - 7.5	50 B11	-								dark bluish (MERIDGE C				-				<u>x</u> x	7.00	2.30		
- 7.50 - 7.9 -	95 UT27	-																×_×_		+		
	50 B12	- - - - -																× × × × ×		+		
- - - - - 9.00 - 9.5 - -		9.00	SPT(S)	N=23 (3,4/5,5	5,6,7)													X X X X X		+		
- - - - - - - - - - - - - - - - - - -	.50 B14	- - -																×——×— ×——×— ×——×—		† 		
	DRILLING	TECHNIC	DUE		HISELLIN	L NG		\	WATER	OBSERVA		ontinued o	on next pa		E/CAS	ING DIA	AME.	TER	1 WAT	ER ADI	ED.	, ,
From	То	T	уре	Hard From	Strata To	Duration	Daterii	me S	Strike At	Time E l apsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing I	Dia.	Depth	From	To	Volume	(itr)
0.00 1.20	1.20 15.45		ction Pit ercussion				28/11/2016 29/11/2016	5 10:00 5 12:00	2.00 4.70	20 20	3.90 2.00	2.00 4.50	5.10	300 200 50	1.20 15.00 15.45	200		7.50				

Remarks

UT23 (4.50-4.73) - 50% recovery, 64 blows. UT27 (7.50-7.95) - 100% recovery, 42 blows. UT29 (10.50-10.82) - 70% recovery, 62 blows. UT31 (13.50-13.77) - 60% recovery, 67 blows.





BH1107

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** Easting (OS mE) **541077.58**

Ground Level (mAOD) 9.30 Northing (OS mN) 266125.61

Start Date 28/11/2016 End Date 29/11/2016

Sheet 2 of 2

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SAMPLE	ΞS		TE	ESTS	se se	PROGE	RESS			STRA	ATA				Dooth		. Install/
Depth	Type/ No.	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Description				Legend	Depth (Thicknes	s) Leve	Backfil
	140.	-	140.				VValor							x_^_		+-	171
		ļ														‡	1.57
10.50 - 10.82	UT29	-												×_	1	†	111
		-												^×		1	1,5%
- 11.00 11.00 - 11.50	D30	-												×		‡	11,4
11.00 - 11.50	B15	F												×		†	111
		F												×		1	1/1/
		E												××		Ŧ	1.57
		E												××		Ŧ	11/3
12.00 - 12.45 12.00 - 12.50	D34	12.00	SPT(S)	N=27 (4,5/6,6,7,8	8)									<u>×</u>		+	1/1/
2.00 12.00	Біо	<u> </u>												×_		1	7.57
		-													2	‡	111
		-												××		†	1/2
		-												×	(8.45)	1	11,9
13.00 - 13.50	B17	-												×		†	111
		<u> </u>												<u>×</u>		†	1/1
3.50 - 13.77	UT31	ļ.												<u> </u>		‡	11/1
		ļ.												× ×		†	11/1
14.00	Dac	F														†	1/1
14.00 4.00 - 14.50	D32 B18	-														Ŧ	1,17
		[×		Ŧ	114
		-												×		Ŧ	1/2
		E												×		ł	1/1
15 00 - 15 45	B33	_ 15.00	SPT(S)	N=27 (3,4/6,6,7,8	8) 15.00									<u> </u>		1	11,1
5.00 - 15.45 5.00 - 15.45	D10	- 10.00	01 1(0)	27 (0,-10,0,7,0	10.00									X		1	197
		-				20/44/2046	7.50							<u>×</u>	45.45	1	1,57
		-				29/11/2016 13:00	7.50 15								15.45	-6.1	
		-														†	
		-														‡	
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DDI	LLING	TECHNIC) I E	Child	SELLING	1	<u> </u>	 NATER OBSERV	ATIONS		יסם	E/C \ SIN	NG DIAME	TEP T	10/07	ER ADI)ED
	To LLING		ype ype	Hard Strat	SELLING ta To Duratio		ime S	Strike At Time Elapsed	Rise To	Casing Sea l ed			Casing Dia.	Depth Depth	From	To ER ADI	Volume (Iti
0.00 1. 1.20 15	.20 i.45	Inspec	ction Pit ercussion			28/11/2016 29/11/2016	6 10:00 6 12:00	2.00 20 4.70 20	3.90 2.00	2.00 4.50 5.10	300 200	1.20 15.00	200	7.50			
	.,.	Cable F	5.04031011								50	15.45					
								1									

Remarks

UT23 (4.50-4.73) - 50% recovery, 64 blows. UT27 (7.50-7.95) - 100% recovery, 42 blows. UT29 (10.50-10.82) - 70% recovery, 62 blows. UT31 (13.50-13.77) - 60% recovery, 67 blows.





BH1108

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540894.25

Ground Level (mAOD) 9.85 Northing (OS mN) 266074.59

Start Date **29/11/2016** End Date 30/11/2016

Sheet 1 of 2

SAMF	PLES		TE	STS		es	PROGF	RESS			5	STRATA	Ą				Depth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resul	lts	Water Strikes	Date Time	Casing Water			Descri	ption				Legend	/Thistones	Leve	Backfill
0.10 - 0.20 0.10 - 1.00 0.10 - 1.00 0.20 - 0.60	B3	-					29/11/2016 09:00	0.00	MADE GROUN MADE GROUN gravelly CLAY v Gravel is sub-ar lithologies.	D: Soft, o vith a low	rangish b cobble co	ontent.	Sand is	s fine to	ightly coarse.		0.10	9.75	
1.00	B22	-															(1.40)	†	
- 1.50 - 1.95 - 1.50 - 1.95 - 1.50 - 1.95 - 1.50 - 1.95	B5 D23 ES4	- - - 1.50 - -	SPT(S)	N=13 (2,2/3,3,	3,4)				Firm, reddish br is fine to mediu to coarse of mix	m. Gravel ced litholo	is sub-ar gies. Occ	ngular t	o sub-r	ounded	medium		1.50	8.3	
1.50 - 1.95 2.00 - - 2.40	D25	- - - -							bands, up to 1c [RIVER TERRA Soft, brownish o	CE DEPO	OSITS]	LAV					(0.90)	7.4	
- - - - -3.00 - 3.45	5 UT26	- - - - - -							[RIVER TERRA	grey, slign .CE DEP(OSITS]	LAY.						†	
- 3.50 - 3.50 - 4.00 - 3.50 - 4.00 - 3.50 - 4.00 - 3.50 - 4.00	B7 ES6	- - - - - -															(2.40)	† †	
4.50 4.50 - 4.95	D28	- - - - 4.50	SPT(S)	N=11 (1,1/2,2,:	3,4)	2.70													
- - - - - - - - - - - - - - - - - - -	D29 B9	- - - - -							Medium dense, fine to coarse. (coarse of mixed mixed lithologie [RIVER TERRA	Gravel is s I lithologie s.	sub-angul es Low c	lar to si	ıb-roun	ded, fin	e to		4.80	5.05	
	5 ES10 D30	- - - - 6.00	SPT(S)	N=20 (2,3/4,5,	5,6)	6.00			Stiff, bluish grey					lar to sı	ıb-		6.10	3.75	
-		- - - - -							rounded gravel [KIMMERIDGE	of siltston CLAY FC	ne, up to 1 PRMATIO	I-2cm v N]	vide.				-		
7.00 7.00 - 7.45	D31 B11																	 	
- 7.50 - 7.95	5 B12	- 7.50 - - - - - - - - -	SPT(S)	N=30 (0,5/7,7,	8,8)													+ + + + + + + + + + + + + + + + + + + +	
- - - - - - 9.00 - 9.45 - 9.00 - 9.45		- - - - - - - -																† 	
- - 9.50 - - - - - - - - - - - - - - - - - - -	D33	- - - - -															-	†	
		TECHNIC	LIE		HISELLIN	le Te		1,	WATER OBSERVA		ontinued on	next pag		=/CASIN	NG DIAMI	ETER	10/07	T ER ADI	DED.
From	То	Ту	уре	Hard S From	Strata To	Duratio	Daterii		Strike At Time Elapsed		Casing S	Sea l ed H	lo l e Dia.	Depth	Casing Dia.	Depth	From	To To	Volume (Itr)
0.00 1.20	1.20 15.95	Inspec Cable P	ction Pit ercussion	15.10	15.30	00:30							300 200 50	1.20 15.50 15.95	200	7.50			

Remarks

No groundwater encountered.
UT26 (3.00-3.45) - 100% recovery, 12 blows.
UT32 (9.00-9.45) - 100% recovery, 54 blows.
UT36 (12.00-12.45) - 100% recovery, 48 blows.
UT40 (15.00-15.45) - No recovery (broken), 100 blows.

Termination Depth: 15.95m



Unless otherwise stated: Depth (m), Diameter (mm), Time (hhmm), Thickness (m), Level (mOD).

Equipment Used Dando 2000

Logged By VΡ

Checked By ΑM



BH1108

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 540894.25

Ground Level (mAOD) 9.85 Northing (OS mN) 266074.59

Start Date **29/11/2016** End Date 30/11/2016 Scale 1:50 Sheet 2 of 2

SAMPLE	≣S		TE	STS		es	PROGR	RESS			STR	ATA				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water			Descriptio	n			Legend	Depth (Thicknes	s) Level	Backfill
- - - - 10.50 -10.50 - 10.95 - - - - -	D34 B15	- - - 10.50 - - - - -	SPT(S)	N=23 (3,4/5,5	,6,7)												-	
- - - - - - - - - - - - - - - - - - -	D35 B16 UT36															(9.00)	+ + + + + + + + + + + + + + + + + + + +	
- -13.00 - 13.45 - - - -13.50 - 13.95 - 13.50 - 13.95		- - - - - - 13.50	SPT(S)	N=28 (4,5/6,7	,7,8)												+ + + + + + +	
- -14.00 - 14.45 - - - - - - -	B19	-															† † † † †	
- 15.00 -15.00 - 15.45 - 15.10 			SPT(S)	N=31 (5,6/7,7	,8,9)	15.50	30/11/2016 17:00	7.50 15.5	Weathered, gre [KIMMERIDGE Very stiff, bluish [KIMMERIDGE	CLAY FO	RMATION]_ AY.				*****	15.10 (0.20) 15.30 (0.65)	-5.25 -5.45 -6.10	
-		-																
-		-															† † † † †	
-		-															+ + + + + + + + +	
-		-															† † † †	
	LLING To	TECHNIQ Ty		Hard From	HISELLIN Strata To	Duration	Date/Ti		VATER OBSERV		Casing Seale			NG DIAME Casing Dia.	Depth	From	ER ADE	Volume (Itr)
0.00 1.	20 i.95	Inspec	tion Pit ercussion	15.10	15.30	00:30	Dater					300 200 50	1.20 15.50 15.95	200	7.50			

Remarks

No groundwater encountered.
UT26 (3.00-3.45) - 100% recovery, 12 blows.
UT32 (9.00-9.45) - 100% recovery, 54 blows.
UT36 (12.00-12.45) - 100% recovery, 48 blows.
UT40 (15.00-15.45) - No recovery (broken), 100 blows.

Termination Depth: 15.95m

AM





BH1109

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540774.76

Ground Level (mAOD) 9.43 Northing (OS mN) 266109.05

Start Date **05/12/2016** End Date **06/12/2016** Scale 1:50 Sheet 1 of 2

	SAMPL	.ES		TE	STS		er es	PROGF	RESS			S	TRATA	١					Depth		Install
D	Depth	Type/ No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water			Descript	tion				Lege	nd	(Thickness) Leve	Backfi
Ε,	0.20	D19	-					05/12/2016 15:30	0.00	MADE GROUN	D: CONC	RETE.					4 1	4	(0.30)	1	4 .
0.30	0.30 0 - 1.00 0 - 1.00	D20 B1 ES2	- - - - - - -							MADE GROUNI slightly silty CLA medium of mixe	Y. Gravel	is angula	r to su	b-roun					0.30	9.13	
- - - 1.50 -	0 - 1.95	D29	- - - 1.50 -	SPT(S)	N=11 (1,2/2,3	,3,3)	•			Soft to firm, ligh organic material fine to medium s [RIVER TERRA	l (up to 1ci sand (up t	m thick) a	and fre				××- × ×		1.30	8.13	
	0 - 2.45 0 - 2.45	B3 ES4															× × × ×		(2.40)	 	
3.00	2.70 0 - 3.45 0 - 4.00	D21 UT3 B30	- - - -														X_X X_X X_X X_X			† - -	
;	3.50	D22	- - - - -							Soft to firm, darl			vith free	quent բ	pockets	of organi	c		3.70	5.73	
	0 - 4.45 0 - 4.50	ES7 B6	-							material (up to 1 [RIVER TERRA	CE DEPO	SITS]							(0.60)	†	3
ŀ	4.30 0 - 4.95	D23 ES8	4.50	SPT(C)	N=10 (1,2/2,2	:,3,3)	4.30			Medium dense, angular to sub-r [RIVER TERRA	ounded, fi	ne to coa	GRA'	VEL. G mixed	Gravel i	s sub- gies.			4.30	5.13	
- - - -5.00	0 - 6.00	B10	- - -							INIVER TERRA	CE DEFO	3113]							(1.00)	<u> </u>	
- ;	5.30	D24	-							Stiff, dark bluish	arov CL A	<u> </u>							5.30	4.13	
5.6	5 - 6.00	ES11	- - -							[KIMMERIDGE			1]							‡	
- -6.00	0 - 6.45	D25	- - 6.00 - - - -	SPT(S)	N=19 (3,4/4,4	-,5,6)	2.30														
7.00	0 - 7.50	B13	- - - -																	+	
7.50	0 - 7.95	UT14	-																(9.20)	1	
- 8.00	0 - 8.50	B15	- - - - - - - -																	† † †	
- - - - - - - -	0 - 9.45	D27	9.00 - - - - -	SPT(S)	N=18 (3,3/4,4	.,5,5)														<u></u>	
10.00	0 - 10.50	B17	- - - -									ntinued on n	next pag	e						<u> </u>	
			TECHNIC		C Hard	HISELLIN Strata				NATER OBSERVA	ATIONS			HOL		ING DIAM		Ė		R ADE	
0.0 1.2	00	To 1.20 5.45	Inspec	ype ction Pit ercussion	From	To	Duration	Date/Ti 05/12/2016		Strike At Time Elapsed 4.30 20	Rise To	Casing Se	ealled H	300 200 50	1.20 15.00 15.45	Casing Dia	7.50		From	То	Volume (Itr

Remarks

UT3 (3.00-3.45) - 100% recovery, 16 blows. UT14 (7.50-7.95) - No recovery, 52 blows. UT28 (10.50-10.95) - 100% recovery, 46 blows. UT31 (13.50-13.95) - 100% recovery, 54 blows.

Termination Depth: 15.45m



Unless otherwise stated: Depth (m), Diameter (mm), Time (hhmm), Thickness (m), Level (mOD).

Equipment Used Dando 2000

Logged By

VΡ

Checked By



BH1109

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540774.76

Ground Level (mAOD) 9.43 Northing (OS mN) 266109.05

Start Date **05/12/2016** End Date **06/12/2016** Scale 1:50 Sheet 2 of 2

SAMPLI	ES		TE	STS	e	es	PROGF	RESS			S	TRATA				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Result	s Wate	Strikes	Date Time	Casing Water			Descrip	tion			Legend	Depth (Thickness	Level	Backfill
- - -10.50 - 10.95	UT28	- - - - -																
- 11.00 -11.00 - 11.50	D29 B18	- - - - - - -															+	
- -12.00 - 12.45 - - - -	D30	- - - 12.00 - - - -	SPT(S)	N=24 (3,4/5,6,6	5,7)												+	
- -13.00 - 13.50 -	B27	- - - -															 - -	
-13.50 - 13.95 - - -14.00 - 14.50		- - - - -															<u> </u>	
- - - - - - - - - - - - - - - - - - -	D32 B29	- - - - - -							Weathered, g	SE CLAY FO	RMATION V CLAY.	۷]			***** *****	14.50 (0.20) 14.70	-5.07 -5.27	11/1
-15.00 - 15.45 - - - - - -	D33	- 15.00 - - - - - -	SPT(S)	N=46 (9,9/9,11,	,13,13) 15	.00	06/12/2016 17:00	7.50 15	[KIMMERIDG	SE CLAY FO	JRMATION	N J				(0.75) 15.45	-6.02	
-		- - - - -															<u> </u> 	
-		- - - - -															† 	
-		- - - - -																
-		- - - - -																
-		- - - - - -																
-		- - - - - -															<u> </u>	
		TECHNIQ		CH Hard Str	ISELLING rata				NATER OBSER		- -			NG DIAME			R ADD	
0.00 1	.20 5.45	Inspec	tion Pit ercussion	From	То О	uration	Date/Ti 05/12/2016	me S 5 15:00	Strike At Time Elaps 4.30 20	sed Rise To	Casing Se	300 200 50	1.20	Casing Dia.	7.50	From	То	Volume (Itr)

Remarks

UT3 (3.00-3.45) - 100% recovery, 16 blows. UT14 (7.50-7.95) - No recovery, 52 blows. UT28 (10.50-10.95) - 100% recovery, 46 blows. UT31 (13.50-13.95) - 100% recovery, 54 blows.

Termination Depth: 15.45m



Arcadis Consulting (UK) Ltd.

ΑM



BH1110

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540940.77

Ground Level (mAOD) 9.64 Northing (OS mN) 266158.99

Start Date **08/12/2016** 09/12/2016 Scale 1:50 Sheet 1 of 2

SAM	PLES		TE	STS		es	PROGE	RESS					STRA	ΤA					Donth			Inst	tall/
Depth	Type No.		Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water				Desc	ription					Legend	Depth (Thickne	Less)	evel	Bac	
0.00 - 1.0		-					08/12/2016 11:00	0.00		ss over soft,	sandy C	LAY wit	h frequ	ent ro	ot and	l rootle	ets.	NZN				4	4
0.20 - 0.20 - 0.4	D4						11.00		Soft with roun	P SOIL] to firm, orar occasional ided, fine to ER TERRA	roots and coarse o	d rootlet of sands	s. Grav	ndy slig /el is s	ghtly (ub-an	gravell gular	ly CLAY to sub-		`0.20°	† '	9.44		2.77
-		-										•							1	†		11	1
1.00 - 1.5	50 B	-																	(1.70)	†		11	13
-		-																<u> </u>		†	-		1
1.50 - 1.7	73 UT5	-																F		‡		1	3
F		-																===		‡		H	-/
ļ		F							Loos	se, orangish	hrown s	andy G	RAVFI	Sano	l is fir	ne to c	narse	60.18.0	1.90	1	7.74	4	
2.00		F							Grav	vel is sub-an	gular to	rounded	d, fine to	o coar	se of	flint ar	nd			Ŧ		H	
2.00 - 2.5	50 B7	Ē								dstone. 'ER TERRA	CE DEPO	OSITSI								Ŧ		П	
F		F							•											Ŧ		H	
E		E																		Ŧ		H	
3.00 - 3.4	15 B9	3.00	CDT/C)	N=9 (1,1/2,2,	2.2/														(2.00)	I		\mathbf{H}	
3.20 - 3.4		- 3.00	JSF 1(3)	14-9 (1,1/2,2,	2,3)															Ŧ		H	
5.20 - 5		_																		ł		Н	
3.50 - 4.0	00 B11	-																		ł		H	
-		-																		ł		P	
- 3.90 -4.00 - 4.5	D12 50 B14	-							Soft,	, orangish g	ey, sligh	tly sand	y slight	tly silty	CLA	Y.			3.90		5.74	7	
4.20	D13	-							[RIV	ER TERRA	CE DEPO	OSITS]							(0.30)	I	5.44	11	1
4.30 - 4.5		-								soft to soft,			slightly	silty C	LAY.			<u> </u>	-	1		11	1
4.50 - 4.9	95 B16	- 4.50	SPT(S)	N=4 (1,0/1,1,	1,1)													===	(0.80)	, †		11	-3
-		-																		†		13	1
5.00	D17	-							Orie	d = -1	:14 . O. A.								5.00	‡.	4.64	1	1
- 5.00 - 5.5 - 5.10 - 5.3		-								, dark grey, s IMERIDGE (ON]					×		‡		11	1
-		-																×	3	‡	-	1/	1
-		-																×		†		11,	1
-		-																<u>x_</u>	-	‡		1	
6.00 - 6.4	15 B20	6.00	SPT(S)	N=21 (2,3/5,5	5,5,6)													<u>×</u> _		‡		11	3
-		-																×_	1	†		/1	1
-		-																	(2.60)	†		11	1
F		F																×	1	Ť	-	11	1
F		-																×	1	†		1	1
7.00 - 7.5	50 B21	Ē																×	1	Ŧ	1	11	13
F		F																××_	-	Ŧ	-	1	1
7.50 - 7.9	95 UT22	E																×_×	-	ł		11	-3
7.60	D23	_							Wea	ak, grey SILT	STONE.							****	7.60	- 1	2.04		
<u> </u>		Ł							[KIM	MERIDGE (CLAY FO	RMATI						×××××	(0.30)	T	1.74		
8.00 - 8.5	50 B24	F					08/12/2016 16:30	7.50 7.50		, dark bluish IMERIDGE (grey, silt	y CLAY RMATI	ONI						1	†			H:H
ţ		ļ.					09/12/2016 08:00	8					- 4					×	1	†			∏ :,
Ļ		_					00.00											×	1	‡			H:
ļ		ţ																××_	1	‡	ļ		Hil
ļ		ļ.																<u>x</u> _		‡			H:
9.00 - 9.4	15 B25	- 9.00 -	SPT(S)	N=24 (4,4/5,6	5,6,7)													<u>x</u> _	1	†	[口。
-		-																	-	†			
F		Ė																×	1	‡	- [//	H
F		Ė																	1	†		11	11
-	50 255	F																×	1	†	- 1	//	11
10.00 - 10	.50 826	E							<u> </u>		Co	ontinued o	on next p	age				x_			_	11,	11
		3 TECHNIC		C	HISELLIN Strata					R OBSERVA	TIONS			НС			G DIAME			TER A	_		
9.00	To 1,20		ype ction Pit	From	То	Duratio	n Date/T 08/12/2016		Strike At 2.00	Time Elapsed 20	Rise To 1.60	Casing 1.50	Sealed 5.00	Hole Di 300	1	20	asing Dia. 200	Depth 7.50	From	То	- Vo	lume	(Itr)
1.20	15.45		ercussion											200 50	15	5.00 5.45							

Remarks

UT5 (1.50-1.73) - 50% recovery, 21 blows. UT22 (7.50-7.95) - No recovery, 100 blows. UT27 (10.50-10.95) - 100% recovery, 53 blows. UT32 (13.50-13.95) - 100% recovery, 65 blows.





BH1110

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 540940.77

Ground Level (mAOD) 9.64 Northing (OS mN) 266158.99

Start Date **08/12/2016** End Date 09/12/2016 Scale 1:50 Sheet 2 of 2

SAMPLE	ES		TE	STS		es es	PROGR	ESS			STI	RATA				Death		Install/
Depth	Type/ No.	Depth	Type/ No	Resul	lts	Water Strikes	Date Time	Casing Water			Description	on			Legend	Depth (Thicknes	s) Level	Backfill
-10.50 - 10.95 -10.50 - 10.95 -10.50 -11.00 -11.00 - 11.50	UT27	- - - - - - - - - -													X			
- - - - - - - - - - - - - -	D30	- - - - - - - - - - - - - - - - - - -	SPT(S)	N=24 (4,5/5,6,	6,7)										X	(7.10)	+ + + + + + + + + + + + + + + + + + + +	
- -43.00 - 13.50 - - - - -13.50 - 13.95		- - - - - - -													X		† + + + +	
- - - - 14.00 - -	D33	- - - - - - -													X X X X X X X X X X X X X X X X X X X		† - - - -	
-14.50 - 15.00 - - - - - -15.00 - 15.45 - -		- - - - - - 15.00	SPT(S)	N>50 (25 for 6 for 0mm)	55mm/0				Weathered, gre	y SILTST CLAY FC	ONE. PRMATION]				× – × – × – × – × – × – × – × – × – × –	15.00 (0.45)	-5.36	
- - - - - - -		- - - - - -					09/12/2016 16:00	7.50 15							××××	15.45	-5.81	777.7
-		- - - - - - -															† † † †	
- - - - - - -		- - - - - - -															† † †	
-		- - - - - -															 	
- - - - - -		- - - - -															+	
- - - - - DRI	LLING	TECHNIQ	UE	CH	HISELLIN	IG			VATER OBSERV			HOL		IG DIAME	TER	WAT	ER ADD	DED
0.00 1.	Го 20 .45	Inspec	rpe ction Pit ercussion	Hard S From	Strata To	Duration	Date/Ti 08/12/2016	me S i 12:30	2.00 20	Rise To	Casing Seal		Depth 0 1.20 15.00 15.45	Casing Dia. 200	Depth 7.50	From	То	Volume (Itr)

Remarks

UT5 (1.50-1.73) - 50% recovery, 21 blows. UT22 (7.50-7.95) - No recovery, 100 blows. UT27 (10.50-10.95) - 100% recovery, 53 blows. UT32 (13.50-13.95) - 100% recovery, 65 blows.

Termination Depth: 15.45m

ΑM





BH1111

Project
Northstowe Phase 2
Client
Homes and Communities Agency Project No. **UA008426-01** 540700.56

Ground Level (mAOD) 9.48 Northing (OS mN) 266151.06

Start Date 30/11/2016 End Date 01/12/2016 Scale 1:50 Sheet 1 of 2

SAMP	PLES		TE	STS			PROGF	RESS					STRA	TΑ								
Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water					ription				Legen			.evel	Ins Bac	tall/ :kfill
0.20 0.20 - 0.30 0.40	D1 ES1 D2	- - - -					30/11/2016 13:00	0.00	is fin [TOF Firm	ss over stiff, te to coarse. PSOIL] to stiff, light asional roots	to dark l	orown, s	slightly	sandy g	ravelly (CLAY with		(0.2 0.2	0)	9.28	4.	4.4.
1.00	B3 ES2	- - - - -								to coarse of ER TERRA		OSITS]						(1.5	0)			27/1/2
1.50 - 1.95 - 1.70	D6	- - 1.50 - - -	SPT(S)	N=18 (3,4/4,4	4,5,5)	•			Soft, [RIV	, light grey, s ER TERRAG	ilty CLAN	r. DSITS]					×	1.7	0	7.78		27/27
-2.00 - 2.10 - 2.00 - 2.40 - 2.40		-							0-#	4- fine have			21.424				X	(0.7		7.08		1337
- 3.00 - 3.00 - 3.41 	В9						01/12/2016 09:00 30/11/2016 17:00	3.00 3.00 3.5	[RIV	to firm, brov ER TERRA(CLAY.				X	(2.0	+			CANCANCANCA
- 4.40 - 4.50 - 4.60 - 4.50 - 4.95		- - 4.50 -	SPT(C)	N=14 (2,3/3,3	3,4,4)				coar	ium dense, se. Gravel is ER TERRAG	sub-ang	gular, fir	dy GRA	NEL. Sa parse of t	and is fii flint.	ne to		4.4	0	5.08		
-5.00 - 5.70	B16	-																(1.3	0) +	=		
- 5.70 	D17 D17 D18	- 6.00 	SPT(S)	N=27 (2,4/5,7	7,7,8)	5.70			Stiff, [KIM	dark grey, s MERIDGE (ilty CLAY CLAY FO	r. RMATIO	ON]				X	5.7	0 1	3.78		7627627637
7.00 - 7.50 - - - 7.50 - 7.95		- - - - -																 -	† -	-	//	
8.00 8.00 - 9.00	D22 B23	-															-x- xx- xx- xx- xx- xx-		+			
- - - - - - - - - - - -	5 D24	- - - - - - - - - - -	SPT(S)	N=18 (3,4/4,4	1,5,5)												X	باحيا باحيا باحيا باحيا باحي	+			
10.00	D26	TEO: 11:13								000000		ontinued o	n next p		E/OAS:	NO PLAT			<u> </u>	4000	11	1/
From	RILLING To	TECHNIC TV	<u>(UE</u> /pe	Hard	HISELLIN Strata	VG Duratio	n		WATEF Strike At	Time Elapsed	TIONS Rise To	Casing	Sealed	HOL Hole Dia.	E/CASI Depth	NG DIAM Casing Dia.	ETER Depth	From	/ATER To		D o l ume	(Jtr)
0.00	1.20 15.45	Inspec	ction Pit ercussion	From	То		Date/Ti	iiiie	4.40	20	1.80	4.00	5.20	300 200 50	1.20 15.00 15.45	200	6.00					. /

UT10 (3.00-3.41) - 90% recovery, 30 blows. UT21 (7.50-7.95) - 100% recovery, 32 blows. UT27 (10.50-10.95) - 100% recovery, 37 blows. UT33 (13.50-13.95) - 100% recovery, 49 blows.





BH1111

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 540700.56

Ground Level (mAOD) 9.48 Northing (OS mN) 266151.06

Start Date 30/11/2016 End Date 01/12/2016

Sheet 2 of 2

SAMPLE	≣S		TE	STS	Jo Si	PROGF	RESS			STRA	ГА					lead W
Depth	Type/ No.	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Description			Legend	Depth (Thickness	Level	Install/ Backfill
-10.50 - 10.95 -10.50 - 10.95 -10.50 - 10.95 -10.50 - 10.95	UT27	- - - - - - - - - - - - - - - - - - -	NO.				vvater						×			
-12.00 - 12.45		- - - - - - - - - - - - - -	SPT(S)	N=29 (4,5/6,7,8,8)									X	(9.00)	† † † † † †	
-13.00 - 13.50 - - - -13.50 - 13.95 - - - - - - - -14.00 -14.00 - 14.70	UT33 D34												X X X X X X X X X			
-	D36 B37 D38	- - - - - - - - - - - - - - -	SPT(S)	N=38 (6,7/8,9,10,11)		01/12/2016 17:00	6.00 15.00	Very weak, ligh [KIMMERIDGE Very stiff, dark [KIMMERIDGE	CLAY FORM bluish grey, s	MATION]	TONE.		X	14.70 (0.30) 15.00 (0.45)	-5.22 -5.52 -5.52	
- - - - - - - - - - -		- - - - - - - - - - - - -													† + + + + + + +	
-		- - - - - - - - - - - - - - - - - - -													† † † † † †	
From	Го .20	Inspec	pe tion Pit	CHISELLIN Hard Strata From To	NG Duratio	n Date/Ti	me S	WATER OBSERV Strike At Time Elapsed 4.40 20	Rise To Ca	asing Sealed	Hole Dia. Dept	200	TER Depth 6.00	WAT From	ER ADD	DED Volume (ltr)
	i.45	Cable Pe	ercussion								200 15.0 50 15.4	0				

Remarks

UT10 (3.00-3.41) - 90% recovery, 30 blows. UT21 (7.50-7.95) - 100% recovery, 32 blows. UT27 (10.50-10.95) - 100% recovery, 37 blows. UT33 (13.50-13.95) - 100% recovery, 49 blows.





BH1112

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 540851.75

Ground Level (mAOD) 9.24 Northing (OS mN) 266298.65

Start Date **02/12/2016** 02/12/2016

Sheet 1 of 2

SAM	PLES			TE	STS		er es	PROGR	RESS			ST	RATA					Dep	ıth		Insta	all/
Depth		/pe/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water			Description	on				Leger	d (Thick	ness)	Level	Back	
0.00 - 1.0 0.00 - 1.0 0.20 - 0.30		2 9								Grass over brovoccasional rootl Gravel is sub-ar lithologies. [TOP SOIL] Brown, slightly o	ets (up to ngular to s clayey sai	2mm thick) sub-rounded) Sai d, fine L Sa	nd is fi to co	ine to co arse of	parse.	ale ale	46 (C.C	Į	8.74		4.4.
1.50 - 1.9	5 B3		- 1.50	SPT(C)	N=27 (6,7/7,6	5,7,7)	1.20			Gravel is sub-ar lithologies. [RIVER TERRA Medium dense,	CE DEPO	OSITS]						(1.0		7.74		
- 1.50 - 1.9 - 1.50 - 1.9	5 D2 5 ES		-							slightly silty GR angular to sub- [RIVER TERRA	AVEL. Sa ounded, t	and is fine to fine to coars	coar	se . G	ravel is	sub-		0 4 4 0 4 4 0 4 4 0 0 4 4 0 0 4 4 0 0 4 4 0 0 4 4 0 0 4 4 0	+	-		
-3.00 - 3.4 -3.00 - 3.4	5 B5 5 D2	2 -	- 3.00	SPT(C)	N=12 (2,2/3,3	3,3,3)	1.20											* * * * * * * * * * * * * * * * * * * *	+	-		
4.00 - 4.4	.5 B6	-	-															(5.3	0)	-		
- 4.50 - 4.9 - - -		3 -	4.50	SPT(C)	N=9 (1,1/2,2,	2,3)	1.20											*				
-5.00 - 5.4	.5 B7	-																0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
-6.00 - 6.4 - 6.00 - 6.4	5 D2	4 -	- 6.00	SPT(C)	N=16 (3,3/3,4	l,4,5)	1.20			Becoming grey	B , sandy gi	lowing sand ravel with oc	casio	nal sul	b-angula	o 2.00m. ar to sub- siltstone.		***************************************		-		. // . // . /
- 6.80 -7.00 - 7.4 - 7.00 - 7.4		Ė	-							Stiff, dark bluish siltstone (up to [KIMMERIDGE	3cm in wi	dth).		asiona	l gravel	of fine	x 	6.8	0	2.44		11.11
7.50 - 7.9	15 UT	26															——————————————————————————————————————					17/1/1
8.00 8.00 - 8.4	D2 D2 B1	8 F															X X X X X			-		
- -9.00 - 9.4 - 9.00 - 9.4	.5 B1: .5 D2		- 9.00	SPT(S)	N=19 (2,3/4,4	l,5,6)											X			-		
10.00 - 10.	.45 B1	3 [-														——————————————————————————————————————		+]:
1,	DRILLI	ING T	ECHNIQ	UE		HISELLIN	NG		۱ 	I. NATER OBSERV	ATIONS	ontinued on ne	xt page		E/CASII	NG DIAM	ETER	l v	/ATE	R ADD	ED	
From 0.00	To 1,20	_	Ty	pe tion Pit	From 14.10	Strata To 14.30	Duration 00:15	Daterii	IIIC	Strike At Time Elapsed	Rise To 2.00	Casing Seal		le Dia. 300	Depth 1.20	Casing Dia. 200	Depth 7.50	From 1.20	3.		o l ume (l	ltr)
1.20	15.45		Cable Pe	ercussion	14.10	14.50	30,13	32, 12,2010		20		5.55		200	15.00 15.45	250	1.50	20] "		, 0	

UT26 (7.50-7.95) - 100% recovery, 47 blows. UT30 (10.50-10.95) - 100% recovery, 51 blows. UT33 (13.50-13.95) - 100% recovery, 66 blows.





BH1112

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540851.75

Ground Level (mAOD) 9.24 Northing (OS mN) 266298.65

Start Date **02/12/2016** 02/12/2016

Sheet 2 of 2

SAMPLE	ES		TE	STS		es	PROGF	RESS				,	STRATA	4				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water				Descri	ption				Legend	Depth (Thicknes	s) Leve	Backfill
	UT30	- - - - - - - - - - - - - - - - - - -															X		+	
- -42.00 - 12.45 -12.00 - 12.45 - - - - - -		- - - - - - - - - - - -	SPT(S)	N=25 (4,5/5,6	7,7,7)												X	(7.30)		
-13.00 - 13.45 - - - - -13.50 - 13.95		- - - - - - -															× × × × ×			
- 14.00 -14.00 - 14.45 - - -	D34 B17	- - - - - - -							Very	hered, gre MERIDGE stiff, dark b MERIDGE	luish gre	y, silty CL	LAY.				× × × × × × × × × × × × × × × × × × ×	14.10 (0.30) 14.40	-4.80	1111
-15.00 - 15.45 -	D35 B18 D36	15.00 - - - - - -	SPT(S)	N=30 (4,6/6,7	(,8,9)													(1.05) 15.45	-6.2	
-		- - - - - - - - - - - - -																		
-		- - - - - - - - - -																		
-		- - - - - - - - -																	†	
		TECHNIQ		Hard :	HISELLIN Strata					OBSERV/		Coning	Poole 1			IG DIAME			ER ADI	
0.00 1.	20 .45	Inspec	rpe tion Pit ercussion	From 14.10	To 14.30	Duration 00:15	Date/Ti 02/12/2016		3,00	Fime Elapsed 20	Rise To 2.00	Casing S	Sealed H	300 200	1.20 15.00 15.45	Casing Dia. 200	Depth 7.50	1.20	To 3,00	Volume (ltr) 70

Remarks

UT26 (7.50-7.95) - 100% recovery, 47 blows. UT30 (10.50-10.95) - 100% recovery, 51 blows. UT33 (13.50-13.95) - 100% recovery, 66 blows.

Termination Depth: 15.45m

ΑM





BH1001

Project
Northstowe Phase 2
Client

Project No. **UA008426-01** 540834.37 Homes and Communities Agency

Ground Level (mAOD) 9.10 Northing (OS mN) 266684.59

Start Date **09/12/2016** End Date 12/12/2016 Scale 1:50 Sheet 1 of 2

SAME	PLES		TE	STS		es	PROGR	RESS					STRA	TA				Depth		In	stall/
Depth	Type, No.	Depth	Type/ No.	Resu	ults	Water Strikes	Date Time	Casing Water				Desc	ription				Legend	/This alone	Leve		ckfill
0.10 - 0.40 0.10 - 0.40		- - - -					09/12/2016 09:00	0.00	with r	s over orange ootlets and el is sub-an	roots (<	1cm in v	width).	Sand is	fine to c	oarse.	512 - 316 512 - 316	(0.40)	ł	0	4.
0.50 - 1.20		-							\[TOP	stone. SOIL]							<u> </u>		†	3	12
- 0.70 - 1.00	0 ES15	-							occas	orangish b sional pocke el is angula	ets of dar	k brow	n clay.	Sand is	fine to c	oarse.		(0.80)	+		
1.20 - 1.65	5 D3	1.20	SPT(C)	N=12 (2,3/3,3	3,3,3)				[RIVE	R TERRA								1.20	7.9	ᆙ	
1.50 - 1.70	0 ES16	-							SANE	um dense, o D. Gravel is	sub-ang								‡		
E		E								d lithologies ER TERRAC		SITS]						(0.80)	†		
- -2.00 - 2.45	5 D4	2.00	SPT(C)	N=13 (3,4/3,4	1,3,3)	1.80				um dense, y								2.00	7.1		
- 2.40 - 2.60	0 ES17	-							to coa	arse of mixe	ed litholog	gies.		J		,		(0.80)	, ‡		
E		E								in rend w	JE BEI C	, o, i o,							Ţ		
ţ		-								to stiff, bluis								2.80	6.3	0	# #
3.00 - 3.45	5 D20	3.00	SPT(S)	N=10 (3,3/2,2	2,3,3)	1.80			KIMI	MERIDGE (CLAY FO	RMATI	ONJ						Ť	11	
 		-															<u> </u>		†	11	10
- 3.50 - 3.70	0 ES18	E															===		İ	1	H_{4}
ļ		-															===		†	11	12
-4.00 - 4.45 - 4.00 - 5.00		E																	Ť	11	10
- 4.45	D21	-																	1	12	1 4
E 4.43		Ė																	İ	11	
E		[EE		Ī	11	2 2
-5.00 - 5.45	5 D22	- 5.00 -	SPT(S)	N=21 (7,9/9,5	5,4,3)	1.80													†		
E		-																	-		
- 5.50 - 6.50	0 B7	-																	†		
E		E															===		-		
F		-																	†		
E		E																(7.20)	. 🚶		
- 6.50 - 6.95	5 UT23	-																	†		
-	D0.4	E																	Ī		
6.95 7.00 - 8.00	D31 0 B8	-															===		†		
E		Ę																	-		
F		F															E		†		\mathbb{H}
[Ē																	-		H.
-8.00 - 8.45	5 D25	8.00	SPT(S)	N=20 (3,3/4,5	5,5,6)	1.80													†	1	1/3
-		Ė																	-	11	11
- 8.50 - 9.50	0 B9	Ė																	İ	11	1
[E																	-	1	113
F		E															F==		Ť	11	11
[Ē																	-	11	1
9.50 - 9.95	5 UT26	F																	†	1	11
- 0.05	D24	-																	Ī	11	11
9.95 10.00 - 11.0	00 B10	<u> </u>	L								Co	ntinued o	on next p	age				10.00	+ -0.9	0//	11
From	DRILLING To	TECHNIC	QUE ype	Hard	HISELLIN Strata	IG Duration				OBSERVA		Casing	Sealed		E/CASII	VG DIAME	Depth	W/A	TER AD	DED Vo l um	ie (ltr)
0.00	1.20	Inspec	ction Pit	From	То	Duration	Date/Ti	iiie	1.32	20	1.30	1.65	3.15	300 200	1.20 15.00	200	3.15	TOIL	10	volun	ic (m)
1.20	15.45	Cable P	ercussion				1							50	15.45						

Remarks

UT6 (4.00-4.45) - 100% recovery, 39 blows. UT23 (6.50-6.95) - 100% recovery, 66 blows. UT26 (9.50-9.95) - 100% recovery, 62 blows. UT27 (12.50-12.95) - 100% recovery, 73 blows.





BH1001

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540834.37

Ground Level (mAOD) 9.10 Northing (OS mN) 266684.59

Start Date **09/12/2016** End Date 12/12/2016 Scale 1:50 Sheet 2 of 2

SAMPLI	ES		TE	STS		es	PROGF	RESS			9	STRATA					Denth		Install/
Depth	Type/ No.	Depth	Type/ No.	Result	ts	Water Strikes	Date Time	Casing Water			Descrip	ption				Legend	Depth (Thickne	ss) Leve	Backfill
		- 11.00 	SPT(S)	N=26 (4,5/6,6,	7.7)	1.80			Stiff to very up to 1cm ir [KIMMERID	ı width.			asional :	shell fra	gments,				
- -12.50 - 12.95 - - - - - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -															(5.45)		
-44.00 - 14.45 -14.00 - 15.00 - - - - - - - - - - - - - - - - - -		- 14.00 - 14.00 		N=28 (4,5/6,6,1		1.80													
							12/12/2016 17:00	3.151 1.30									15.45	-6.3	
From 0.00 1	ILLING To .20 5.45	Inspec	UE pe tion Pit ercussion	CH Hard St From	IISELLIN Irata To	IG Duration	Date/Ti 09/12/2016	me	MATER OBSE Strike At Time Ela 1.32 20			3.15	le Dia.		G DIAMI Casing Dia. 200	ETER Depth 3.15	WA From	TER AD	DED Volume (ltr)

Remarks

UT6 (4.00-4.45) - 100% recovery, 39 blows. UT23 (6.50-6.95) - 100% recovery, 66 blows. UT26 (9.50-9.95) - 100% recovery, 62 blows. UT27 (12.50-12.95) - 100% recovery, 73 blows.





BH1002

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 540963.63

Ground Level (mAOD) 9.29 Northing (OS mN) 266805.40

Start Date **09/12/2016** 09/12/2016

Scale 1:50 Sheet 1 of 2

	uu •	ommun	1100718	, o o j					3703			20000					12/2010		Office			_
SAMP	LES		TE	ESTS		ا آ	PROGF	RESS					STRA	TA								
Depth	Type/	Depth	Type/ No.	Resul	lts	Water Strikes	Date Time	Casing Water					ription				Legend	Dept (Thickne			Inst Bac	
0.00 - 0.30 0.00 - 0.30 - 0.30	B1 ES1 D19	-					09/12/2016 09:00	0.00	[TOP	s over soft, 'SOIL]			•				116 - 1	(0.30		.99		4
- 0.50 - 0.70 - 0.50 - 1.00	ES2	- - -							angu	gish brown lar to sub-re ER TERRA	ounded, f	fine to co			Gravel i	s sub-						4
1.00	D20	-																,	1	/		1
1.20	D21	-																				
- 1.50 - 2.00	B4	- 1.50 -	SPT(C)	N=22 (3,3/5,6,	5,6)	1.00													Ī	•		
2.00	D22	- -																(3.00	†			.,
2.50 - 3.00	B5	- - - -																	1			*
3.00	D23	3.00	SPT(C)	N=24 (3,4/5,6,	7 6)	2.00																•
- 3.30	D24	- 5,55	01 1(0)	21 (6, 116,6,	,,,,,,	2.00			Stiff	orangish bi	own mot	tled are	enish a	rev slin	htly san	dv		3.30	5	.99	1	
- 3.30 - 3.70 - 3.40 - 3.60	B6 ES3	F							grave	elly CLAY w	ith sandy	pocket	s. Sand	d is fine	to coars	e. Gravel		(0.40	1	1	/	/
3.70	D25	E							[RIVE	b-angular to ER TERRA	CE DEPO	OSITS]				_		3.70	- F	.59	1	1
- 3.70 - 4.50 - 3.80 - 4.00	ES4	E							Stiff t	o very stiff, nents (up to	grey, slig	htly silty							Ŧ	1	11	
4.00	D26	E							grey	mudstone.				asiona	Danus C	i weak,	<u> </u>	-	Ŧ	1	1/	1
[E							[KIMI	MERIDGE	CLAY FO	RMATIC	[NC					-	ł		11	
- 4.50 - 4.95 - 4.50 - 5.00	UT41 B8	F																-	ł	1	1	-1
4.50 - 5.00		E																-	ł	1	11	1
- - 5.00 -	D27	- - - -																-	+			
- - 5.50 - 6.00	B9	- - - -																-	† †			1
6.00	D28	6.00	SPT(S)	N=39 (2,3/9,10	0,10,10)													- - - - - -	†		//	
- 6.50 - 7.00	B10	_ _ _ _																-		•		= : - : - :
7.00	D29	- - - -																(11.75)			_: _:
7.50 - 8.00	B11	- 7.50 -	SPT(S)	N=36 (4,4/8,8,	10,10)													-	‡			<u> </u>
8.00	D30	- - - - -																-[-[-] -[‡			
- - 8.50 - 9.00	B12	- - - -																-	‡			
9.00 9.00 - 9.33	D31 UT42	- - -																	‡			
9.50 9.50 - 10.00	D32 B13	- - - -																-	<u> </u>		1	
10.00	D33	<u>-</u>										ontinued o	n next pa	age				-		2	11,	1
		TECHNIC		Ch Hard S	HSELLIN Strata					OBSERVA	TIONS			HOL		NG DIAM			TER A			\Box
0.00	To 1,20		/pe ction Pit	From 4.00	To 4.20	Duration 00:30	Daterii	iiie	Strike At 1,30	Time Elapsed 20	Rise To	Casing 1.70	Sealed	Hole Dia.	Depth 1,20	Casing Dia. 200	Depth 3,00	From	То	Vo	lume	(ltr)
	15.45	Cable P	ercussion	6.70	6.90	00:30	33.722310							200 50	15.00 15.45							

Remarks

UT41 (4.50-4.95) - No recovery, 100 blows. UT42 (9.00-9.33) - 75% recovery, 83 blows. UT43 (12.00-12.45) - 100% recovery, 100 blows. UT44 (15.00-15.45) - 100% recovery, 95 blows.





Homes and Communities Agency

ARCADIS Percussive Borehole Log

BH1002

Project
Northstowe Phase 2
Client

Project No. **UA008426-01** 540963.63

Ground Level (mAOD) 9.29 Northing (OS mN) 266805.40

Start Date **09/12/2016** End Date 09/12/2016 Scale 1:50 Sheet 2 of 2

SAMPL	ES		TE	STS	er	PROGF	RESS			(STRATA					Denth		Install/
Depth	Type/ No.	Depth	Type/ No.	Results	Water Strikes	Date Time	Casing Water			Descri	ption				Legend	Depth (Thickne	ss) Leve	Backfill
- - -10.50 - 11.00		- - - 10.50		N=38 (4,5/8,10,10,10) 10.00													
- - 11.00	D34	- - - - -															+	
-11.50 - 12.00	B18	- - - -															-	
12.00 -12.00 - 12.45	D35 UT43	- - -														-	+	
- 12.50 -12.50 - 13.00		- - - -																
	D37	- - - -															†	
-13.50 - 14.00 - - - - - - 14.00	B21	- 13.50 - - - -	SPT(S)	N=37 (4,4/8,9,10,10)	10.00													
14.50 - 15.00		- - -																
- - - - 15.00	D39	- - - -															<u> </u>	
15.00 - 15.45 - - 15.45	D40	- - - -				09/12/2016 17:00	3.00 1.30									15.45	-6.1	6
-		- - - -															+	
-		- - - -															† †	
-		- - - -															+	
- - - -		- - - -																
- - -		- - - -															+	
- - -		- - - -															+	
<u>-</u> - -		- - - -															†	
-		- - - -															1	
DR	ILLING	TECHNIQ	UE	CHISEL	ING			WATER OBSERV	ATIONS			HOLE/	CASIN	G DIAMI	ETER	WA	TER AD	DED
From	То	Ту	ре	Hard Strata From To	Duratio			Strike At Time Elapsed	Rise To		Sealed Hol	e Dia. [Depth C	Casing Dia.	Depth	From	To	Volume (Itr)
0.00 1 1.20 1	.20 5.45	Inspec Cable Pe	tion Pit ercussion	4.00 4.20 6.70 6.90	00:30 00:30	09/12/2016	5 10:00	1.30 20	1.30	1.70	2	300 200 50	1.20 15.00 15.45	200	3.00			

Remarks

UT41 (4.50-4.95) - No recovery, 100 blows. UT42 (9.00-9.33) - 75% recovery, 83 blows. UT43 (12.00-12.45) - 100% recovery, 100 blows. UT44 (15.00-15.45) - 100% recovery, 95 blows.





BH1003

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 540992.31

Ground Level (mAOD) 9.16 Northing (OS mN) 266653.44

Start Date **08/12/2016** End Date **09/12/2016**

Sheet 1 of 2

SAM	/IPLES	S		TE	STS			se se	PROGF	RESS					STRA	ΑTA							D4			Inst	oll/
Depth		Type/ No.	Depth	Type/ No.		Resu	lts	Water Strikes	Date Time	Casing Water				Desc	ription						Leç	jend	Dept (Thickno	ess) l	_evel	Bac	
0.10		35 S1							08/12/2016 08:00	0.00	,	brown, slig	htly sand	ly CLAY	with fi	requ	ent r	ots a	nd ro	otlets.	SIL.	-Alé	(0.40	,		N.	4
			-								Soft t	to firm, orai	naish bro	wn slia	htly sa	ndv	slinh	lv ora	velly	CLAY	VIS	sde		· +	8.76	7	1
0.50	В	86	-								with f	frequent ro	ots and ro	ootlets.	Sand i	is fin	e to c	oarse				_		Ī			(
-			-								[RIVE	ER TERRA	CE DEPO	OSITS]	10 00	arsc	OI IIII	ıt.			=	_		-		4	1
- 1.20 - 1.		:S2)7	- - 1.20	SPT(S)	N=11 /	1 2/2 2	2 2)																(1.40	, †		: []:	
1.20 - 1.	03	,,	- 1.20	SF 1(3)	11-11 (1,2/2,3	,3,3)															_		-		: []:	
-			-																					†			
1.80	В	88										, brownish (dy CL/	AY. 5	Sand	s fine	to c	oarse.	=		1.80	1	7.36	$: \square$	
-2.00 - 2. - 2.00 - 2.	45 D	S3 9	- 2.00 -	SPT(S)	N=12 (2,2/2,3	,3,4)				[RIVE	ER TERRA	CE DEPO	OSITS]							=			+		$\cdot \Box$	
2.00 - 3.	00 B	310																			=	=		-			
-			-																		=	==		†			
Ė																					=		(1.80	" ‡			
-3.00 - 3. - 3.00 - 4.		JT11 312	-																		=			+		\cdot \exists :	
-			-																		E			†			
3.45	D	013													01.437	_							3.60	, ‡	5.56	ij	
-			-								\ sub-r	to stiff, blui ounded, fir	ne to coar	se of m	udstor		ivel is	sub-a	angu	lar to	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(3.60 3.70 (0.20) 	5.46	11	1
-4.00 - 4. 4.00 - 5.	45 D	014 815	4.00	SPT(S)	N=13 (6,3/2,3	,3,5)				\ Grey	MERIDGE SILTSTON	IE.								/	• '	`3.90	' ‡	5.26	11	
4.10 - 4.		S4	-								Stiff t	MERIDGE to very stiff,	bluish gr	ey grav	elly CL			el is s	sub-a	ngular	/	• '		-		1/	1
-												b-rounded, MERIDGE				tone	€.							Ŧ		11	1
-			-																					-		11	3
5.00 - 5.	45 U	JT16																						+		11	
-			-																					-		11	1
5.45 5.50 - 6		017 818	_																		-			ŧ		11	
-			_																					-		11	-/
-			-																					+			H
-																								-			∃ .:
6.50 - 6.	95 D	019	- - 6.50	SPT(S)	N=37 (4,10/7,	8,11,11)																(5.20	, †			:
[I			٦: :
7.00 - 8.	00 в	320	-																					+			d:¹
-			-																					-			d:¹
-			-																					‡			∄:
[-			∄:
- 	45 U	JT21	<u>-</u>																					‡			
E																								İ] :]
8.45 8.50 - 9.	50)22 323	<u>-</u>																					‡			∄: <u>`</u>
0.50 - 9.	20 B	123	<u>-</u>																					†			∄: <u>.</u>
-			<u> </u>																					1			J:
-			<u>-</u>									SILTSTON		ידאומו	ONII						X X I	< x x	9.10 (0.20 9.30) †	0.06	11	1
9.50 - 9.	95	024	- - 9.50	SPT(S)	N=24 (4,4/5 6	.6,7)				Stiff t	MERIDGE to very stiff,	bluish gr	ey grav	elly CL			el is s	sub-a	ıngular	-	· ·	9.30	'	-0.14	1/	11
-			-	(0)		,,0						b-rounded, MERIDGE				ione	.						(0.90	, †		13	11
10.00 - 11	1.00 R	325																						1		11	1/
			<u>-</u>		<u> </u>		#OE: · ·				<u></u>	000000		ontinued	on next p	page		- 10 1	011.5	- DI				1	455	11,	//
From	То	,		ре	F	Hard :	To	Duratio				R OBSERVA Time Elapsed		Casing	Sealed		e Dia.	Depth	n Ca	DIAM sing Dia.	Depti		From	ATER To		<u>−D</u> ⁄olume	(ltr)
0.00 1.20	1.20 15.4		Inspec Cable Pe	tion Pit ercussion	- (3.70 9.10	3.90 9.30	00:50 00:50								2	300 200 50	1.20 15.00 15.45)	200	1.65	T					

Remarks

No groundwater encountered.
UT11 (3.00-3.31) - 70% recovery, 36 blows.
UT16 (5.00-5.45) - 100% recovery, 91 blows.
UT21 (8.00-8.45) - 100% recovery, 62 blows.
UT22 (11.00-11.45) - 100% recovery, 79 blows.
UT33 (14.00-14.45) - 100% recovery, 92 blows.

Termination Depth: 15.45m



Checked By



BH1003

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 540992.31

Ground Level (mAOD) 9.16 Northing (OS mN) 266653.44

Start Date **08/12/2016** 09/12/2016

Scale 1:50 Sheet 2 of 2

SAMPL	ES		TE	STS		es es	PROGR				STRA	ATA				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resu	Its	Water Strikes	Date Time	Casing Water			Description				Legend	Depth (Thicknes	ss) Leve	Backfill
-	110.	- - - -	7.6.					, ruto.	Stiff to very stiff, [KIMMERIDGE	dark gre CLAY FO	y CLAY. RMATION]					10.20	-1.0	4
11.00 - 11.45 - 11.45 - 11.50 - 12.50		- - - - - -															+	
11.50 - 12.50	B24	- - - - -															+	
-12.50 - 12.95 -13.00 - 14.00		- - 12.50 - - - -	SPT(S)	N=30 (6,6/7,7	,8,8)											(5.25)	+	
-																		
-14.00 - 14.45 -14.00 - 15.00	UT33 B27	- - - - -															+	
- -15.00 - 15.45 - - -	D28	- - - 15.00 - - - -	SPT(S)	N=35 (6,6/7,8	,10,10)		09/12/2016	1.65								15.45	-6.2	
-		- - - - - -					16:30										+	
-		- - - - - -															+	
-		- - - - -															† †	
-		- - - - -															†	
- - - - - -		- - - - - -															<u> </u>	
- - - - -		- - - - -															+	
	ILLING To	TECHNIQ		Hard			,	_	NATER OBSERVA		Caeing Soal			IG DIAME			TER ADI	
0.00 1	.20 5.45	Inspec	rpe ction Pit ercussion	3.70 9.10	To 3.90 9.30	Duration 00:50 00:50		me S	Time Etapsed	NISE 10	Casing Sealed	300 200 50	1.20 15.00 15.45	200	Depth 1.65	From	10	Volume (ltr)

Remarks

No groundwater encountered.
UT11 (3.00-3.31) - 70% recovery, 36 blows.
UT16 (5.00-5.45) - 100% recovery, 91 blows.
UT21 (8.00-8.45) - 100% recovery, 62 blows.
UT22 (11.00-11.45) - 100% recovery, 79 blows.
UT33 (14.00-14.45) - 100% recovery, 92 blows.

Termination Depth: 15.45m

AM





BH1004

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541168<u>.85</u>

Ground Level (mAOD) Northing (OS mN) **266601.52**

Start Date **08/12/2016** End Date 08/12/2016

Scale 1:50 Sheet 1 of 2

SAMP	PLES		TE	STS		rs s	PROGF	RESS					STRA	TA							1.	-4-11/
Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water				Desc	ription					Legend	Depti (Thickne			stall/ ickfill
- 0.20 - 0.20 - 0.40 - 0.30 - 0.40 - 0.50	B27	- - - -					08/12/2016 09:00	0.00	roots a to rour TOP S	rown, slig and rootlet nded, fine SOIL] ish brown . Gravel is	s. Sand ito coarse	is fine to e of flint. clayey s	coars	e. Grav	el is su	b-angul	lar	ME ME	(0.40	ł	A . A . A	4 . 0 4
- 1.00 - 1.00 - 1.00 - 1.20	B29 D7 ES2	- - - - - - - 1.50	SPT(C)	N=10 (2,2/2,3	3,2,3)					R TERRA			ounce	u, iiilo	to cours	e or ijii				+		
- 2.00 - 2.00 - 2.00	B30 D8	- - - - - - - -				\													(2.80)	+		
3.00 - 3.20 - 3.30 - 3.50	D9 B31 ES3	- - - 3.00 - -	SPT(C)	N=18 (2,2/4,4	l,5,5)					reenish gr Sand is f							elly		3.20	+		
- - - - - 4.00	B32 D10	- - - - -							rounde	ed, fine to R TERRA	coarse o	f flint.	averis	sub-ar	igujar to	Sub-			(1.10)	† †		
- 4.40 - 4.50 - 4.84	D11	- - - - -							[KIMM Stiff, g	grey MUI ERIDGE reenish gr ERIDGE	CLAY FC	RMATIO	n CLAY	7.					4.30 (0.20 4.50) 		
5.00 5.00 5.00 - 5.20	B33 D12 ES4	- - - - - -							CV:# 1-	Liff.		44l			OL AV				(1.00)			
- - - - - - 6.00	B34 D13	- - - - 6.00	SPT(C)	N>50 (10,10/2 for 5mm)	20,20,10				[KIMM	grey MUI	OLAY FO	RMATI	ON]	brown	GLAY.				(0.50) 6.00	Į		
		- - - - -							fragme		•		-	/ with c	occasion	ıal shell			(0.70) 6.70	†		
7.00 7.00 7.00 7.50 - 7.95	B23 D14 UT24	- - - - - -							[KIMM	ERIDGE (CLAY FC	RMATI	ON]									
- - - - - - - - - - -	B24 D15	- - - - - - -																		+		
9.00	B25 D16	- - - 9.00 - - - -	SPT(S)	N=17 (2,3/4,4	ł,4,5)															+		
- - - - 10.00 - 10.00	B26 D17	TECHNIC	OUF		HISELLIN	JG		1.	WATER	OBSERVA		ontinued o	on next p		DLE/CAS	SING D	IAME	TER	10//	TER AD	DED.	
From	То	Ту	/ре	Hard From	Strata To	Duration	Daterii	me S	Strike At Ti	ime E l apsed	Rise To	Casing	Sealed	Ho l e Dia	a. Depth	Casing	Dia.	Depth	From	To	Volum	ne (Itr)
0.00 1.20	1.20 15.45		ction Pit ercussion	4.30 6.00	4.50 6.20	00:30 00:30	08/12/2016	5 12:30	2.50	20	2.20	1.50		300 200 50	1.20 15.00 15.45		0 T	1.50				

Remarks

UT23 (4.50-4.84) - 75% recovery, 55 blows. UT24 (7.50-7.95) - 100% recovery, 85 blows. UT25 (10.50-10.95) - 100% recovery, 85 blows. UT26 (13.50-13.95) - No recovery, 100 blows.





BH1004

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 541168.85

Ground Level (mAOD) Northing (OS mN) **266601.52**

Start Date **08/12/2016** 08/12/2016 Scale 1:50 Sheet 2 of 2

SAMPL	ES		TE	STS		es	PROGR						STRA	ГА				Donth		Install/
Depth	Type/ No.	Depth	Type/ No.	Resul	ts	Water Strikes	Date Time	Casing Water	9			Desc	ription				Legend	Depth (Thickne	ss) Leve	Backfill
- -10.50 - 10.95	UT25	- - - - -																		
- 11.00 - 11.00 - - - - -	B13 D18	- - - - - -																	† 	
12.00 12.00	B14 D19	- - 12.00 - - - - - -	SPT(S)	N=26 (3,4/4,6,	8,8)														+	
E	B15 D20	- - - - - -																(8.75)	+	
-13.50 - 13.95 - - - - - - - 14.00 - 14.00	UT26 B16 D21	- - - - -																	† 	
-	B17 D22	- - - - - - - - - - - - - - - - - - -	SPT(S)	N=40 (5,5/10,	10,10,10)															
15.00	D22	- - - - - - -					08/12/2016 17:00	1.50 2.2	2									15.45		<u> </u>
- - - - - -		- - - - - -																	+	
-																				
- - - - -		- - - - - -																	+	
- - - - -		- - - - - -																	+	
		- - - - -																		
E		<u> </u>																	†	
		<u> TECHNIQ</u>		Ch Hard	HSELLIN itrata	IG				OBSERV						NG DIAME			TER ADI	
0.00 1	.20 5.45	Inspec	rpe tion Pit ercussion	From 4.30 6.00	To 4.50 6.20	00:30 00:30		me 5 6 12:30	Strike At 2.50	Time Elapsed 20	Rise To 2.20	Casing 1.50	Sealed	300 200 50	1.20 15.00 15.45	Casing Dia. 200	Depth 1.50	From	То	Volume (ltr)

Remarks

UT23 (4.50-4.84) - 75% recovery, 55 blows. UT24 (7.50-7.95) - 100% recovery, 85 blows. UT25 (10.50-10.95) - 100% recovery, 85 blows. UT26 (13.50-13.95) - No recovery, 100 blows.





BH601

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541209.72

Ground Level (mAOD) 5.85 Northing (OS mN) 267262.02

Start Date **07/12/2016** End Date **07/12/2016** Scale 1:50 Sheet 1 of 1

SAM	PLES			TE	STS		er	PROGR	RESS					STRAT	Ā			_	Depth			nstall
Depth	1	ype/ No.	Depth	Type/ No.	Result	ts	Water Strikes	Date Time	Casing Water				Descr	iption				Legend	(ss) Lev		Backfil
0.00 - 0.3 - 0.00 - 0.3 - 0.30 - 0.30 - 0.8 - 0.30 - 0.8	0 ES D1 0 B2	315 17 -	-					07/12/2016 08:00	0.00	MAE	DE GROUNI DE GROUNI ular to sub-ru uding an iron	D: Firm, o	lark brov	vn grav	elly CL f mixed	.AY. Gr	gies,		0.10 × × (0.70)	5.	75	
- 1.00 - 1.00 - 2.0 - 1.00 - 2.0 - 1.20	0 B3 0 ES D1	3 313	- - 1.50	SPT(S)	N=12 (1,1/3,3,3	3 3)					to firm, brov ER TERRA			ish grey	/, silty (CLAY.			0.80	5.	05	
- 2.00 - 2.00 - 3.0	D2 0 B4	20 -	1,550	31 1(3)	14-12 (1, 115,5,5	5 ,5 <i>)</i>												X X X X X X X X	(2.80)	+ + + + + + + + + + + + + + + + + + + +		
3.00 - 3.00 - 3.4 - 3.00 - 3.8 - 3.50	5 U1 0 B5	T30 -	· · · · · · · · · · · · · · · · · · ·															X X X X X X X	38	+	25	
- 3.80 - 4.5 - 3.80 - 4.5 - 4.00		314	-							[KIM Stiff	y SILTSTON IMERIDGE to very stiff, IMERIDGE	CLAY FO	y CLAY.					*****	3.60 (0.20) 3.80	2.	05	
4.50 - 5.5	0 В7	,	- 4.50		N>50 (2,3/7,8,2 60mm)	25,40 for													(1.20)		20	
5.00	D2	24	· - ·							LIKIM	/ SILTSTON IMERIDGE (grey CLAY	CLAY FO	RMATIC	DN]	of siltsto	one and	shells (un	×××××	5.00 (0.20) 5.20	0.	85 65	
- 5.50 - 6.5	0 В8	, [to 10	cm x 1cm x	1cm).	-	-	i ontott	one and	oriono (up		-			
- 6.00 - 6.3 - 6.50 - 7.5		Г31 - -																	-	+		
7.00	D2		· · ·																	+	1	
- - - 7.50 - 8.5	0 B1	10	- 7.50	SPT(S)	N=27 (4,4/5,7,7	7,8)													(4.80)			
8.00	D2	27	· - ·																-	+		
- - 8.50 - 9.5 - -																			-	‡		
9.00 - - - 9.50 - 9.50 - 9.9	D2		-																-	†	* ,	
10.00	D2	-	-					07/12/2016 15:00	1.50										10.00	-4.	15	
		ING 1	rechniq		CH Hard St	HSELLIN					R OBSERVA						ING DIAM			TER AL		
0.00	To 1,20	+	Ty Inspec	tion Pit	3.60	To 3.80	Duration 00:30	Date/Ti	me S	orikė At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth 1.20	Casing Dia.	Depth 1.50	From	То	volu	ıme (İtr)
1.20	10.00)	Cable Pe	ercussion	5.00	5.20	00:30								200	10.00						

Remarks

No groundwater encountered. UT30 (3.00-3.45) - 100% recovery, 25 blows. UT31 (6.00-6.33) - 75% recovery, 85 blows. UT32 (9.50-9.95) - 100% recovery, 100 blows.





BH602

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 541375.29

Ground Level (mAOD)
7.68
Northing (OS mN)
267143.84

Start Date **06/12/2016** End Date 06/12/2016 Scale 1:50 Sheet 1 of 2

SAM	IPLE	S		TE	STS		er es	PROGF	RESS			,	STRAT	Α					Depth		In	stall/
Depth	- 1	Type/ No.	Depth	Type/ No.	Resu	llts	Water Strikes	Date Time	Casing Water			Descri	ption					gend	(Thicknes	Leve		ackfill
0.00 - 0.4		ES1 B2	-					06/12/2016 11:00	0.00	Grass over brown to <1mm). Sand				.AY witl	n fine ro	otlets (up) (1/2)		(0.40)		Ŋ	
- 0.40 - 1.2 - 0.50 1.00		ES3 D14 D15	- - - - - -							[TOPSOIL] Firm, orangish thin lenses of gangular to sub-	rey clay rounded, f	Sand is f fine to co	ine to	coarse.	Gravel	is sub-			0.40 (0.70)	7.28		
1.20 - 1.20 - 1.7		D16 B4	- - 1.20 - - - -	SPT(C)	N=5 (2,3/1,1,2	2,1)				Loose, orangisl fine to coarse. (coarse of mixed [RIVER TERRA	Gravel is s d lithologie	sub-angu es.	ayey sa lar to s	andy G ub-rou	RAVEL nded, fi	Sand is ne to			(0.70)	6.58		
- 1.80 - 2.3 - 1.80 - 2.3 - 1.80 - 2.3	30 I	D17 B5 ES6	- - - - - - - -							Soft to firm, bro Gravel is sub-a lithologies. [RIVER TERRA	ngular to s	sub-roun					× × × × × × × × × × × × × × × × × × ×	× · · · · · · · · · · · · · · · · · · ·	1.80 (1.40)	5.88	3123123	
3.00 - 3.2 3.00 - 3.5 3.00 - 3.5 3.00 - 3.5 3.50 - 4.0	20 1 50 1 50 1 1 00	D18 UT28 B7 ES8 D19 D20 B9	- - - - - - - - 3.50	SPT(S)	N>50 (5,5/4,4 55mm)	.,4 for				Grey SILTSTOI [KIMMERIDGE Firm to stiff gregypsum crystal coarse of mixed [KIMMERIDGE Grey SILTSTOI	CLAY FO y silty sligh s. Gravel i d lithologie CLAY FO	htly grave is sub-an es	elly CL igular t	AY with	occasi ounded	onal sma , fine to	<u> * </u>	**** **** **** ****	3.20 (0.20) 3.40 (0.20) 3.60 (0.20) 3.80	4.48		
- 4.50 - 4.9 - 5.00 - 5.00 - 5.5		UT29 D22 B10	- - - - - - - -							\[KIMMERIDGE Firm to stiff, grecrystals and an [KIMMERIDGE]	CLAY FO y, silty CL gular grav	.AY with rel of silts	occasione (X_ X_ X_ X_ X_ X_	-XXXXXXXXXXXXX-	(1.80)	† † † †		
- 6.00 - 6.00 - 6.5		D23 B11	- - - - - - - - - 6.00	SPT(S)	N=21 (3,3/4,4	,6,7)				Stiff, dark grey, [KIMMERIDGE			DN]				X_ X_ X_ X_ X_	<u>X</u> -X	5.60	2.08		
- - - - - - - - - - - - - - - - - - -		D24	- - - - - - - - - -														×_ ×_ ×_ ×_ ×_ ×_	× × × × ×				
- 7.50 - 7.9		D25 B12	- - - - - - -														X_ X_ X_ X_ X_	× -× -× -× -×	(4.85)	† - - - -		
- - - - - 9.00	ļ	D26	- - - - - - 9.00	SPT(S)	N=23 (2,3/4,5	i,7,7)											X_ X_ X_ X_ X_	×		† † †		
-9.50 - 10.0		B13 D27	- - - - - - 10.00	SPT(S)	N=24 (3,3/4,6	i,6,8) 					Co	ontinued or	ı next pa	ge			X	<u>×</u> -		† † †		
			TECHNIQ		C Hard	HISELLIN Strata				NATER OBSERV	ATIONS			HOL		ING DIAM				ER ADE		
9.00	1,2			rpe tion Pit	From 3.20	To 3.40	Duration 00:30	Daterii	IIIC	trike At Time Elapsed	Rise To	Casing S	Sealed	Hole Dia.	Depth 1.20	Casing Dia 200	a. Dept		From	То	Volun	ne (Itr)
1.20	10.	.45	Cable Pe	ercussion	3.60	3.80	00:30		2.50			1		200 50	10.00 10.45	200	1.00					

Remarks

Groundwater seepage at 4.50m bgl.
UT16 (3.00-3.20) - 44% recovery, 100 blows.
UT29 (4.50-4.95) - 100% recovery, 75 blows.
UT30 (7.50-7.95) - 100% recovery, 100 blows.





BH602

Project
Northstowe Phase 2
Client Homes and Communities Agency Project No. **UA008426-01** 541375.29

Ground Level (mAOD)
7.68
Northing (OS mN)
267143.84

Start Date **06/12/2016** End Date **06/12/2016** Scale 1:50 Sheet 2 of 2

SAMPL	ES			STS		er	PROGF					STRAT	Ā				Donth		Inetall/
Depth	Type/ No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water			Descr	iption				Legend	Depth (Thickness) Level	Install/ Backfill
-	110.	-	140.					vator								×_^_		+	17/3
-		-					06/12/2016	1.00								<u>x_^</u> _	10.45	2.77	259
-		-					06/12/2016 16:00	1.00									10.45	† -2.//	
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	ILLING:	TECHNIQ	<u> </u>		LIGELLIN	IG.			VATER OBSERV	ATIONS		ı	ПОП	EICAGIA	NG DIAME	TED	10/07	R ADD	<u> </u>
From	То	Ту	ре	Hard From	HISELLIN Strata To	Daration			Strike At Time Elapsed		Casing	Sealed	Ho l e Dia.	Depth	Casing Dia.	Depth Depth	From		<u>ED</u> √olume (ltr)
0.00 1 1.20 10	.20 0.45		tion Pit ercussion	3.20 3.60	3.40 3.80	00:30 00:30		3 12:00	4.50		1.00		300 200	1.20 10.00 10.45	200	1.00			
"		_ =====================================					1						50	10.45					
Remarks				•			•		•					- 1					

Remarks

Groundwater seepage at 4.50m bgl.
UT16 (3.00-3.20) - 44% recovery, 100 blows.
UT29 (4.50-4.95) - 100% recovery, 75 blows.
UT30 (7.50-7.95) - 100% recovery, 100 blows.





BH603

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541475.10

Ground Level (mAOD) 6.98 Northing (OS mN) 267014.93

Start Date **06/12/2016** End Date **06/12/2016** Scale 1:50 Sheet 1 of 1

06/12/2016 0.00 MADE GROUND: Grass over soft, brown slightly silty CLAY. (0.20)	SAME	PLES		TE	STS		ter	PROGF						STRAT	ГА					Depth	Π.		Instal	=
AGE SECOND Second Seco	Depth		Depth		Resi	ults	Water Strikes	Date Time					Desci	ription					Legend	/This store	ss) Le	vel		
Control and an employer to sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted. The to course of record info local sub-counted free to course of record info local sub-counted. The to course of record info local sub-counted free to course of record info local s			-						0.00											(0.20)		78		1
1.00 1.00	0.30 - 1.00	0 B3	- - -							Grav	vel is sub-ar							Y.			-			· d. d
1.00 1.00	F		-																		-	1	T	1
1,00 - 1,00 1,	1.00 - 1.20	0 ES5	-							Soft,	, light grey n	nottled bi	own, sil	ty CLA	Y.				X	1.00	† 5	.98	11	1
2,00 C6 C7 C7 C7 C7 C7 C7 C7	1.20 - 1.65	5 B8	-							Į (NV	LICILITY	OL DLI (55115]						×		Ī	1	11	1
2.00 03 03 0.00	1.20 - 1.00	3 017	-																× ×	(1.20)	†			1//
Soft birm, reyr motified brown, alightly growthy sity CLAY. 3.00 4	2.00	D9	-																×		Ŧ	4	1	/
2.50	2.20 - 2.50	0 B10	-													y silty (LAY.		X	7	- 1	.78	H	
300 012 3.00 013 3.00 014 3.00 015 3.00	2.50	D11	F							LIKIM	MERIDGE !	CLAY FO			tone.				****	2.50	Į,	.48	H	
3.00 2012 3.00 SPT(S) N=15 (2.29.3.4.5) FIGURE REDISC CLAY FORMATION	E		-							/[KIM	IMERIDGE :	CLAY FC	RMATIO	ON]					<u> </u>	2.70		.28	H	٠
2.50-4.00 B14			3.00	SPT(S)	N=15 (2,2/3,3	3,4,5)												_	×	,	‡		Hj	,
2.50 - 4.00 D16	3.00 - 3.45	5 D13	E											•					×-×-	,	Ì	1	23	/
4.00 D16			-																×		-	1	1	1
4.50 - 4.95 UT17	3.50 - 4.00	0 ES15	-																×		†		1	1
4.50 - 4.95 UT17	4.00	D16	E																×	(0.70)	1	1	11	/
4.50 - 4.95 UT17 5.00 D18 5.00 D18 5.00 D18 5.00 D20 5.00 D21 5.00 D22 6.00 D22 6.00 D22 6.00 D22 6.00 D24 6.00 D25 6.00 D25 6.00 D25 6.00 D26 6.00 D26 6.00 D27 7.00 D28	F		-																×	(2.70)	-	1	1	1
- 5.50 - 6.00 B20	4 50 - 4 9	5 UT17	E																×		1	3	11	1
Suff_grey_silty_CLAY_ Suff	-		-																×		-	1	11	/
Suff_grey_silty_CLAY_ Suff	5.00	D18	Ė																×		1	Ź	1	1
Sun	5.00	018	E																×		Ţ		11	1
Sign Sign	-		-							Ctiff	grov silty (יו אע							×	5.40		.58	1	/
Column C	5.50 - 6.00	0 ES19	Ė							[KIM	IMERIDGE	CLAY FC	RMATIO	[NC				_	X	(0.20) 5.60	† .	.38	1	1
- 6.50 - 6.00	ļ		-							/[KIM	MERIDGE !	CLAY FO	RMATIO	[NC					1^	5.80	'	.18	11	1
- 7.50			6.00	SPT(S)	N=23 (2,2/5,5	5,5,8)								[NC					×		†	1	1	1
- 7.50	E		E																×)	Ī	1	1	1
7,50 = 8,00 D28	6.50 - 7.00	0 B24	-																×		†	1	23	/
7,50 = 8,00 D28	E		E																×		İ	1	1	1
- 8.00 D28 -	7.00	D25	-																×		+	•		۲.
- 8.00 D28 -	F		F																×		†	*		
8.50 - 9.00 B29			f																×		Ţ			
- 9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) - 9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) - DRILLING TECHNIQUE CHISELLING WATER OBSERVATIONS HOLE/CASING DIAMETER WATER ADDED From To Type From To Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth From To Volume (Itr 0,00 1,20 Inspection Pit 2,50 2,70 0,030 0,00 1,20 200 3,00			†																x		†			
- 9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) - 9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) - DRILLING TECHNIQUE CHISELLING WATER OBSERVATIONS HOLE/CASING DIAMETER WATER ADDED From To Type From To Duration Date/Time Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth From To Volume (Itr 0,00 1,20 Inspection Pit 2,50 2,70 0,030 0,00 1,20 200 3,00	8.00	D28	F																	(4.20)	†			
9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) O6/12/2016 3.00	-		<u> </u>																×		†			
9.50 - 10.00 B31 - 9.50 SPT(S) N=30 (2,3/7,7,8,8) DRILLING TECHNIQUE CHISELLING WATER OBSERVATIONS HOLE/CASING DIAMETER WATER ADDED	8.50 - 9.00	0 B29	Ė																×		†	*		
9,50 - 10,00 B31	-		F																		Ī	*		Ů
9.50 - 10.00 B31 9.50 SPT(S) N=30 (2,3/7,7,8,8) 06/12/2016 3.00 17:00 10.00 -3.02 DRILLING TECHNIQUE	9.00	D30	F																×		‡	*	·: F	
DRILLING TECHNIQUE CHISELLING WATER OBSERVATIONS HOLE/CASING DIAMETER WATER ADDED	-		E																×		Ì			
DRILLING TECHNIQUE CHISELLING WATER OBSERVATIONS HOLE/CASING DIAMETER WATER ADDED	9.50 - 10.0	00 B31	9.50	SPT(S)	N=30 (2,3/7,7	7,8,8)													×		‡			
DRILLING TECHNIQUE CHISELLING Strike At Time Elapsed Rise To Casing Sealed Hole Dia. Depth From To Unspection Pit 2.50 2.70 00:30 0.30 0.30 0.120 200 3.00 0.30 0	Ė		Ė																		†			
17:00 17:00 17:00 17:00 17:00	_		E					06/12/2016	3.00										×	10.00	ļ <u>.</u> :	.02		ŀ
From To Type Hard Strata From To Duration Date/Time Strike At Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To Casing Time Elapsed Rise To	-)	TECHNIC			Herry					D ODGED: "	TIONIO			1101	E/C ^ 2	INC DIA	NA	L ,					_
0.00 1.20 Inspection Pit 2.50 2.70 00:30 300 1.20 200 3.00					Hard	Strata	Duration	Daterii					Casing	Sealed	Ho l e Dia.		Casing Di							r)
					2.50	2.70											200		3.00					

Remarks

No groundwater encountered.
UT7 (1.20-1.65) - No recovery, 50 blows.
UT17 (4.50-4.95) - 100% recovery, 50 blows.
UT27 (7.50-7.95) - 100% recovery, 59 blows.





BH604

Project
Northstowe Phase 2
Client

Homes and Communities Agency

Project No. **UA008426-01** 541619.68

Ground Level (mAOD) 6.30 Northing (OS mN) 266665.77

Start Date 12/12/2016 End Date 13/12/2016 Scale 1:50 Sheet 1 of 2

SAMPI	LES		TE	STS		er	PROGR	RESS					STRATA	4					Depth		Ins	stall/
Depth	Type No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water				Descr	iption				ı	Legend	(Thicknes	Leve		ckfill
0.10 - 0.30 0.10 - 0.30 - 0.30 - 0.85 - 0.50 - 0.50 - 0.80	ES4 B2 D7	-					12/12/2016 08:00	0.00	fine r roun [TOF Stiff,	ss over firm, rootlets. Sanded, fine to SOIL] orangish bi	nd is fine coarse of own, slig	to coars f flint and htly sand	se. Grav d sands dy grave	el is su tone.	b-angu AY San	ar to sub	to	sile ale	(0.30) 0.30 (0.55)	6.00	4	4.4.
0.85 - 1.20	В3								mud	se. Gravel i stone.	_		sub-rour	nded, fi	ne to m	edium of	f		0,85	5.4		
0.90 1.00 - 1.20 1.20 1.20 - 1.70	D9	- 1.20 1.20	SPT(S)	N=12 (1,2/2,3	,3,4)				Soft, occa to co of mi	ER TERRA brown mot sional sand parse. Grave udstone. ER TERRA , grey mottle	tled grey, pockets el is sub-a	slightly (up to 2) angular t	mm x 1r to sub-ro	nm x 1 ounded	mm). S , fine to	and is fin medium			(0.35) 1.20	5.10	111.111	(
- -2.00 - 2.50	B14	-							Sand	d is fine to n se of flint. ER TERRA	nedium. G	Fravel is	sub-an	gular to	round	ed, fine to	0		(0.00)	+		
- - 2.50 - - - - - - - - - - - - - - - - - - -	D10 UT16	- - - - -																	(2.30)	† † †		
- 3.50 - 3.50 - 4.00	D11 B15	-							roun	to firm, dark	ded, med	ium to c	oarse o			sub-			3.50	2.80		
- 4.50	D12	- - - - 4.50	SPT(S)	N=17 (2,3/3,4	,5,5)				(KIM	MERIDGE	ULAY FO	RMATIC	ON]							<u>+</u> +		10000
4.50 - 5.00	B7	-																	(2.40)	+		Kenner.
- - 5.50 -	D7	-																		† 		
	UT2	- - - -								to firm, fissi MERIDGE			DN]				É		5.90	0.40		
6.50 6.50 - 7.00	D8 B8	-																		<u> </u>		
- 7.50 - 7.50 - 8.00 	D9 B9	- 7.50 	SPT(S)	N=15 (1,2/3,3	,4,5)														(4.55)	 		
- 8.50 - 8.50 - 9.00	D10 B10	-																				
9.00 - 9.45	UT3	-															F			1		
9.50 - 9.50 - 10.00	D11 B11	_ - -															F					
10.00	D12	10.00	SPT(S)	N=20 (4,2/4,5	,5,6)				lacksquare		Co	ntinued or	n next pac	je			_			<u> </u>	11	1/1
From	RILLING	TECHNIC	QUE ype	Hard S	HISELLIN Strata	IG Duration	1 -			R OBSERVA					E/CASI Depth	NG DIAN Casing Dia		ER epth	WAT From	ER ADI	DED Volum	e (ltr)
0.00	1.20 10.45	Inspec	ction Pit ercussion	From	То	Saranoi	Date/Ti	IIIC	1.10	шароса	1100 10	Sacrity	- 50.150	300 200 50	1.20 10.00 10.45	200		3.00			7.040111	- (151)

Remarks

Groundwater seepage at 1.1m bgl.

Wire-line piezometer installed to 7.50m bgl (base of tip). Pluviated sand response zone from 7.00m to 8.00m bgl.

UT16 (3.00-3.45) - 100% recovery, 75 blows.

UT2 (6.00-6.45) - 100% recovery, 65 blows.

UT3 (9.00-9.45) - 100% recovery, 100 blows.

Equipment Used Pilcon 2000

Logged By VΡ Arcadis Consulting (UK) Ltd.

Termination Depth: 10.45m

Checked By ΑM



BH604

Project
Northstowe Phase 2
Client
Homes and Communities Agency 541619.68

Project No. **UA008426-01** Ground Level (mAOD) 6.30 Northing (OS mN) 266665.77

Start Date 12/12/2016 End Date 13/12/2016

Scale 1:50 Sheet 2 of 2

Dept	SAMPLE	ES		TE	STS		z s	PROGF	RESS		S	TRATA				_		
Company Comp			Depth			Its	Wate Strike								Legend	Depth (Thickness)	Level	Install/ Backfill
Delition Technology Deli	-		-															17.57
DRILING TECHNIQUE	- -		-					12/12/2016	3.00							10.45	-4.15	1.57
From To Type	- - -		-					10.00									İ	
From To Type	<u>-</u>		-														‡	
From To Type	-																İ	
From To Type	_																1	
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0.00 1.20 Inspection Pit 12/12/2016 09:00 1.10 300 1.20 200 3.00 10.45 Cable Percussion					Hard	HISELLIN Strata		n _{Date/T}			Casing Se	ea l ed Ho						
90 10,45	0.00 1.	.20			FIOM	10		12/12/2016	5 09:00				300	1.20 10.00				
Remarks													50	10.45				

Groundwater seepage at 1.1m bgl.

Wire-line piezometer installed to 7.50m bgl (base of tip). Pluviated sand response zone from 7.00m to 8.00m bgl.

UT16 (3.00-3.45) - 100% recovery, 75 blows.

UT2 (6.00-6.45) - 100% recovery, 65 blows.

UT3 (9.00-9.45) - 100% recovery, 100 blows.





BH605

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** Easting (OS mE **541663.57**

Ground Level (mAOD) 5.93 Northing (OS mN) 266440.74

Start Date 12/12/2016 End Date 12/12/2016 Scale 1:50 Sheet 1 of 2

SAME	PLES			TE	ESTS		er es	PROGR	RESS					STRAT	A				Depth			Insta	all/
Depth	l N	/pe/ No.	Depth	Type/ No.	Resi	ults	Water Strikes	Date Time	Casing Water				Descri	ption				Legend	(Thickne	ss) L	evel	Back	
0.10 - 0.30 - 0.10 - 0.30 - 0.30 - 0.75 - 0.40 - 0.60 - 0.50	0 ES 5 B6	i1 [i2 -						12/12/2016 08:00	0.00	Sand to coa width [TOP	SOIL]	oarse. G dstone. F	ravel is s Roots and	ub-ang d rootle	ular to ts pres	sub-rou ent (up	nded, fine to 1cm in	Me al	– 1 ∩ 3∩	Ī	5.63	4	4.4.
0.75 - 1.20 0.80 0.90 - 1.10	D2 ES	_ [-							to coa	orangish b arse Grave ind sandsto	lis sub-	angular t	o sub-r	ounded	, fine to	coarse of		0.75	+	5.18		1//
- 1.20 - 1.65 - 1.20 - 1.70	0 B8	-	1.20	SPT(S)	N=5 (1,1/1,1,	1,2)				Soft to slight angul	ER TERRAI o firm, bluis ly gravelly lar to sub-re ER TERRAI	sh grey m CLAY, Sa ounded,	nottled or and is fin- fine to c	e to coa	arse. G	ravel is	sub-		합 또 파이탈 또 파이탈 또 교육하	+			
- 2.00 - 2.00 - 2.50 -	0 B9																		(3.75)	†			
-3.00 - 3.48			-																15일 각 및 각동일 각 및 각동을 각 및	<u> </u>			
3.50 3.50 - 4.00	D5 0 B1		-																기속을 하 되었다. 하 되었다. 하 되었다.	† 			
- 4.50 - 4.99 - 4.50 - 5.00 - 4.60 - 4.80	0 B1	1 F	4.50	SPT(S)	N=14 (1,2/3,3	3,4,4)				fragm	o firm, fissu nents. MERIDGE			-	Y with	occasio	nal shell	X	4.50	† † † †	1.43	H	
5.50 - 5.50 - 6.00	D7 0 B1:																	× × × × × × × × × × × × × × × × × × ×	721 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
6.00 - 6.48			-																	+			3/1/1/
- 6.50 - 6.50 - 7.00	D8 0 B1	3 -	-															× × × × × × ×					
- 7.50 - 7.99 - 7.50 - 8.00			7.50	SPT(S)	N=14 (1,2/2,3	3,4,5)												X X X X X X X X X	(5.95)	† † † †			
- - - - 8.50 - 9.00	D1 B1																	<u>×</u> <u>×</u> x	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	†			
- 9.00 - 9.45 - -	5 UT	3 -	-															×x-		+			
- - 9.50 - 9.50 - 10.0	D1 B1																		7	†			
10.00 - 10.4		-	- 10.00		N=21 (2,3/4,								ontinued or	next pa						\perp	2	11,	//
From	ORILLI To	ING T	ECHNIQ Ty		Hard	HISELLIN Strata	NG Duration	1			OBSERVATime Elapsed	TIONS Rise To	Casing	Sea l ed I	HOL Ho l e Dia.	E/CASI Depth	NG DIAME Casing Dia.	TER Depth	WA From	TER A		D olume ((ltr)
0.00 1.20	1.20 10.45			tion Pit	From	То	Daration	Date/Ti	me S	ZVINO AL	по шарэеч	1100 10	Sushing	oouicu I	300 200 50	1.20 10.00 10.45	200	1.50	TIVIII	10	1	oranie (,

Remarks

No groundwater encountered.
UT1 (3.00-3.45) - 100% recovery, 95 blows.
UT2 (6.00-6.45) - 100% recovery, 75 blows.
UT3 (9.00-9.45) - 100% recovery, 100 blows.





BH605

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** Easting (OS mE **541663.57**

Ground Level (mAOD) 5.93 Northing (OS mN) 266440.74

Start Date 12/12/2016 End Date 12/12/2016

Scale 1:50 Sheet 2 of 2

SAMPLE Depth	Type/ No.	Depth	Type/ No.	STS Resu	lts Water	strikes	PROGR ate Time	Casing Water		S' Descrip	TRATA		Legend	Depth (Thickness)	Level	Install Backfi
Depth	Type/ No.	Depth	Type/	Resu	Its Š	iğ [L	ate Time	Casing		D	tion		Logond	(Thickness)	Level	IIIStali
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DRIL	LLING -	rechniqi	JE	С	HISELLING Strata To Du				VATER OBSERVATIO	NS	HOLE/CAS	ING DIAME	ΓER	WATE	R ADDI	ED
		Тур		Hard	Strata Du	ration	Date/Ti	١.		To Casing Se						∕olume (It
				From	10											
From To 0.00 1.2 1.20 10.4		Inspect Cable Pe	ion Pit	From	10						300 1.20 200 10.00 50 10.45	200	1.50			

No groundwater encountered.
UT1 (3.00-3.45) - 100% recovery, 95 blows.
UT2 (6.00-6.45) - 100% recovery, 75 blows.
UT3 (9.00-9.45) - 100% recovery, 100 blows.





BH606

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541644.09

Ground Level (mAOD)
7.40
Northing (OS mN)
266165.27

Start Date **07/12/2016** End Date **07/12/2016**

Scale 1:50 Sheet 1 of 2

SAMPL	ES		TE	STS		is se	PROGR	RESS			ST	TRATA								In at all /
Depth	Type/ No.	Depth	Type/ No.	Resu	lts	Water Strikes	Date Time	Casing Water			Descript	tion				Legen	d (Thick		Level	Install/ Backfill
0.00 - 0.30 0.00 - 0.30 - 0.30	B1 ES4 D16	-					07/12/2016 09:00	0.00	Grass over fir thick). [TOPSOIL]		-					112 - 11 112 - 11	(0.3	· T	7.10	4
- 0.30 - 1.00 - 0.30 - 1.00 	B2 ES3 D17	- - - - -							Firm, orangisl slightly gravel angular to sub [RIVER TERF	ly CLAY. Sa -rounded,	ind is fine t	to coar	se. Gra	avel is s	ub-		(0.9	90)	-	
1.20 - 1.20 - 1.70 - 1.20 - 1.70	D18 B6 ES5	- 1.20 -	SPT(S)	N=12 (4,4/5,2	.,3,2)				Firm, orangish pockets of sot sub-angular to	t, grey, silty	clay. Sand	d is fin	e to coa	arse. Gi	avel is		1.2	20	6.20	
-		- - -							[RIVER TERF			mediu	III OI III	iixea jiii	ologies.		(0.9	90)		
2.00	D19 B7	<u> </u>							Firm, grey, silt	v CLAY.							2.1	10	- 5.30	
2.10 - 2.50	ES8	[[KIMMERIDG		RMATION]				×	(0.4	10)		12 7
2.50	D20 B9	-							Grey SILTSTO		DMΔTIΩN	11				X X X X X X X X X X X X X X X X X X X	× 2.5 × (0.2 × 2.7	50 20)	4.90 4.70	24
2.50 - 3.00	ES10								Firm to stiff, g	rey, silty CL	AY with oc	casior	al ban	ds of sil	tstone.			١ [4.70	91
-3.00 - 3.30 - - - - 3.50 - 3.50 - 4.00	D21 B11	- - - - - -							[KIMMERIDĞ	E CLAY FO	RMATION]				× × × × ×	بأبيا بالمايات		-	
- 4.50 - 4.50 - 5.00	D22 B12	- - - - - - 4.50	SPT(S)	N=21 (2,3/4,5	5,5,7)											-x- -x- -x- -x- -x- -x- -x-	(3.6	50)		
- - - - - 5.50	D23	- - - - - - - -														X	.		-	
- -6.00 - 6.45 -	UT30	- - - -															4		-	
- 6.50 - 6.50 - 7.00	D24 B13	- - - - - -							Firm to stiff, fi fragments (up [KIMMERIDG	to 1cm in v	vidth).		occas	ional sh	ell			30	1.10	
- 7.50 - 7.50 - 8.00	D25 B14	- - - 7.50 - - - -	SPT(S)	N=20 (4,4/4,5	,5,6)															
8.50	D26	- - - - -															(4.1 	15)		
9.00 - 9.50	B15	9.00 -	SPT(S)	N=15 (2,2/3,3	,4,5)												11111		-	
9.50	D27	- - - - -															 - - - - - - -			
— 10.00 -	D28	— 10.00 -	SPT(S)	N=19 (2,2/4,3	,5,7)					Co	ontinued on n	ext page	<u> </u>				1	†		71,5
From	RILLING To	TECHNIQ		Hard		VG Duration	n .		VATER OBSER	VATIONS					IG DIAM Casing Dia.	ETER Depth	From		R ADDI	ED ′olume (Itr)
0.00	1.20 0.45	Inspec	rpe tion Pit ercussion	2.50	7o 2.70	00:30		ime S	Time Elaps	Nise II	Casiny Se		300 200 50	1.20 10.00 10.45	200	2.60	1 10111	<u> </u>	- '	orume (III)

Remarks

No groundwater encountered. UT29 (3.00-3.30) - 67% recovery, 100 blows. UT30 (6.00-6.45) - 100% recovery, 100 blows.





BH606

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541644.09

Ground Level (mAOD)
7.40
Northing (OS mN)
266165.27

Start Date **07/12/2016** End Date 07/12/2016

Scale 1:50 Sheet 2 of 2

SAMPLE	ES		TE	STS		is SS	PROGF	RESS			ST	TRATA				-		1
Depth	Type/ No.	Depth	Type/ No.	Resu	llts	Water Strikes	Date Time	Casing Water			Descript				Legend	Depth (Thickness)	Level	Install/ Backfill
		-																1257
-		-					07/12/2016 15:30	2.60							 -	10.45	-3.05	1.57
-		-					13.30										İ	
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	ILLING To	TECHNIQ		Hard	HISELLIN Strata		,	_	VATER OBSERVA		Casing Sea	aled Hole		SING DIAME	TER Depth		R ADD	
0.00 1.	.20 0.45		pe tion Pit ercussion	2.50	To 2.70	Duratio 00:30		me S	Time Elapsed	1/196 10	Casing Se	30	0 1.20	200	2.60	110111	,,	/olume (ltr)
20		Jabie Pt										20 50	0 10.45					
Remarks																		

No groundwater encountered. UT29 (3.00-3.30) - 67% recovery, 100 blows. UT30 (6.00-6.45) - 100% recovery, 100 blows.





BH607

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** Easting (OS mE **541646.15**

Ground Level (mAOD) 6.69 Northing (OS mN) 266261.96

Start Date **08/12/2016** End Date 08/12/2016

Sheet 1 of 2

SA	AMPLE	ES		TE	STS		es	PROGR	RESS					STRAT	Ά				Depth		T	nstall/	<u>=</u>
Dep		Type/ No.	Depth	Type/ No.	Resu	ults	Water Strikes	Date Time	Casing Water				Descri	iption				Legend	(Thicknes	s) Lev	el E	Backfil	JI
0.10 - 0.10 - 0.30 - 0.30 - 0.50 - 0.50 - 0.60 -	0.25 0 0.50 0.50 0.80 0.80 0	B2 ES1 D18 B3 ES5 B4 ES6 D19 B17	- - - - - -					08/12/2016 09:00	0.00	rootle angu [TOF Firm occa sub-	ss over firm, ets (up to 1) ular to sub-ro SOIL] , orangish b asional fine r angular to ro ER TERRA	nm thick ounded, rown, sli ootlets (ounded, CE DEPO). Sand is fine to co ghtly gra <1mm). S fine to co DSITS]	s fine to parse of velly sa Sand is parse of	o coars f mixed andy C fine to f mixed	se. Grav I litholog LAY with coarse I litholog	el is sub- ies. I Gravel is ies.	Me MI	(0.30) 0.30 (0.20) 0.50 (0.30) 0.80	6.	39 19		1.3. /////
- 0.80 - - 1.20 - - 1.20 -	1.65	ES7 D20 B8	- - 1.20 - - -	SPT(S)	N=10 (3,2/3,3	3,2,2)				occa coar lithol [RIV	, dark brown ssional pock se. Gravel i logies. ER TERRA ium dense,	ets of blu s angular CE DEP0	ish grey to subro	silty cl ounded	ay. Sar , fine to	nd is fine coarse	to of mixed		(1.10)				
- - 1.9 - 1.90 -		D21 B9	- - - - - -							fine for coars	to coarse. G se of mixed ER TERRA , bluish grey asional grave	iravel is s lithologie CE DEPO occasion el of silts	sub-angues. OSITS] nally mo one (up	ttled but	own, s	ilty CLA	ne to	/×	1.90	4.	79		
- 2.5 - - - -3.00 -		D22 UT31	- - - - - -							[KIM	ERIDGE CI	AY FOR	MATION]				X X X X X X	(1.90)	+			
- - 3.5 - 3.50 - - 3.50 -	4.00	D23 B10 ES11	- - - - - - -							[KIM	/ SILTSTON ERIDGE CI to firm, bluis	AY FOR	MATION ccasiona	l] ally mo	ttled br	own, silt	y CLAY	X	3.80 (0.20) 4.00	ł	89		
- 4.50 - - 4.50 - - 4.50 - -		D24 B11	- - - 4.50 - - -	SPT(S)	N=13 (1,2/3,3	3,3,4)					occasional ERIDGE CI				1cm x	2cm x 1	cm).	- x - x - x - x - x - x - x - x - x -	(1.80)	† † † †	V. XXX XXX		11:11/1/1/
- - - - - 5.8 - 5.80 -	6.00	D25 B12 UT32	- - - - - - -							fragr	, fissured, d nents (up to	1cm in v	vidth).		occas	iona l sh	əll	X- X	5.80	0.	89		111/11/11
6.50 - 6.50 -	6.80	D26 ES15 B13	- - - - - -							Į (KIM	ERIDGE CI	AY FOR	MAHON	IJ				——————————————————————————————————————	1 - 1 -	 			1111111
- - - - 7.50 - - 7.50 - - - -		D27 B15	- 7.50	SPT(S)	N=16 (3,2/3,3	3,5,5)												X X X X X X X X	(4.65)	+ + + + + + + + + + + + + + + + + + + +			In any har and any of
- - - 8.5	0	D28	- - - - -															X X X X		† †	*.		** *** ***
- -9.00 - - - - - 9.5		UT33														x_^_ x x x		+	•				
9.50 -	10.00 B16 - -10.45 D30 - 10.00 SPT(S) N=19 (3,2/4			N=19 (3,2/4,3	3,5,7)						Ci	ontinued or	next pa	ige_					<u> </u>				
	DRILLING TECHNIQUE			HISELLIN Strata					R OBSERVA	TIONS			НО		NG DIAM			ER A			_		
0.00 1.20	1,	.20).45	Inspec	rpe ction Pit ercussion	From 3.80	To 4.00	Duration 00:30	Daterii	me S	Strike At	Time Elapsed	Rise To	Casing	Sealed	Ho l e Dia. 300 200 50	1.20 10.00 10.45	Casing Dia. 200	Depth 4.00	From	То	Vol	ume (l tr)	4

Remarks

No groundwater encountered.
UT31 (3.00-3.45) - 100% recovery, 43 blows.
UT32 (6.00-6.45) - 100% recovery, 65 blows.
UT33 (9.00-9.45) - 100% recovery, 80 blows.





BH607

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** Easting (OS mE **541646.15**

Ground Level (mAOD) 6.69 Northing (OS mN) 266261.96

Start Date **08/12/2016** End Date **08/12/2016**

Scale 1:50 Sheet 2 of 2

SAMPLI	ES		TE	STS		is se	PROGF	RESS			(STRAT.	A				_		La committee
Depth	Type/ No.	Depth	Type/ No.	Resu	Its	Water Strikes	Date Time				Descri					Legend	Depth (Thickness	Level	Install/ Backfill
																<u>×_~~</u>	,	1	11.57
							08/12/2016 16:00	4.00								<u>×</u> -×-	10.45	3.76	1.57
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	ILLING To	TECHNIQ Tv	UE pe	Hard	HISELLIN Strata	IG Duration	n	_	VATER OBSERVA trike At Time Elapsed		Casing S	Sea l ed H	HOLE Hole Dia.		NG DIAME Casing Dia.	Depth		To ,	ED Volume (ltr)
0.00 1	.20		tion Pit ercussion	3.80	To 4.00	00:30		ine C	Liapood	10	9		300	1.20 10.00	200	4.00			(***/
1.20		Cable Ft	,, 54331011										200 50	10.45					
Remarks																			

Remarks

No groundwater encountered.
UT31 (3.00-3.45) - 100% recovery, 43 blows.
UT32 (6.00-6.45) - 100% recovery, 65 blows.
UT33 (9.00-9.45) - 100% recovery, 80 blows.





BH608

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No. **UA008426-01** 541483.61

Ground Level (mAOD)
7.91
Northing (OS mN)
266348.99

Start Date **08/12/2016** End Date 08/12/2016 Scale 1:50 Sheet 1 of 2

Ī	SAMPI	LES		TE	STS		es	PROGF	RESS					STRAT	Ā				Depth		Inst	tall/
	Depth	Type/ No.	Depth	Type/ No.	Resu	ılts	Water Strikes	Date Time	Casing Water				Descri	iption				Legend	/Thistones	Level		kfill
F	0.10 - 0.30 0.20 - 0.30 0.30 - 1.20 0.40 - 0.60	ES12 B2	- - - - - - -					08/12/2016 09:00	0.00	freque angul [TOP Brown angul	s over soft, ent roots and ar to sub-ro SOIL] n, sandy G ar to sub-ro ER TERRA	nd rootlet ounded, t RAVEL. : ounded, t	ts. Sand fine to co Sand is f fine to co	is fine parse o	to coars f flint. coarse. (e. Grave	el is sub-	are are	(0.30) 0.30 (0.90)	7.61	W	4.4.
	1.20 1.20 - 2.00 1.30 - 1.50 2.00 - 3.00	ES14	- - 1.20 - - - - - -	SPT(C)	N=8 (3,3/2,2,;	2,2)	•			to coa	e to mediur arse. Grave nd sandsto ER TERRA	el is sub-a ne.	angular t						1.20	6.71		
-	3.00 3.00 - 4.00	D17	- - - - - - - - - 3.00	SPT(C)	N=16 (3,3/4,4	4,4,4)	\searrow												(2.80)			***************************************
	4.00 - 5.00 4.30 - 4.50 4.50 - 4.95 5.00 - 6.00	ES15 D18	- 4.50	SPT(S)	N=16 (3,4/4,4	ł,4,4)				shell	o firm, fissi fragments. MERIDGE		-		th occas	ional sh	ells and	X X X X X X X X X X X X X X X X X X X	4.00	3.91		XXXXXXXXXX
	6.00 - 6.45 6.00 - 7.00 6.45 7.00 - 8.00	D19																X	(6.45)	† † † † † † † † † †		
	7.50 - 7.95 8.00 - 9.00 9.00 - 10.00 9.00 - 9.45	B10	- 7.50 - 7.50 	SPT(S)	N=17 (3,4/4,4	.(4,5)																
1 1 1 1	9.45 0.00 - 10.45		- - - - - - - 10.00		N=17 (1,2/3,4								ontinued or	next pa				× × × × × ×		<u> </u>		
-	From DF	RILLING To	TECHNIC		Hard	HISELLIN Strata	NG Duration		-		OBSERVA	TIONS Rise To	Casina	Sealed	HOLE Hole Dia.		IG DIAME Casing Dia.		From	ER ADD	ED Vo l ume	(ltr)
	0.00	1.20 10.45	Inspec	ype ction Pit ercussion	From	То	Duration	Date/Ti 08/12/2016	ille	3.00	20	1.50	3.00	4.00	300 200 50	1.20 10.00 10.45	200	Depth 4.50	1.20	4.00	50	

UT23 (6.00-6.45) - 100% recovery, 65 blows. UT24 (9.00-9.45) - 100% recovery, 95 blows.

