

NORTHSTOWE

Freedom of Information Request - Boreholes

NOR-ARC-P2-XX-XXX-RG-Z-0141-P01

APRIL 2018



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Groundwater Data

1 Introduction

This information has been compiled on request of Home England.

The information within this document relates to available borehole data across the Homes England areas at Northstowe.

Information in this report includes the following;

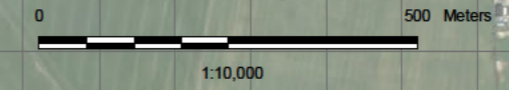
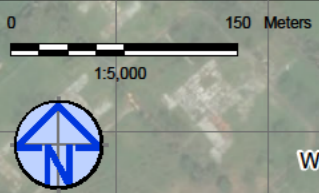
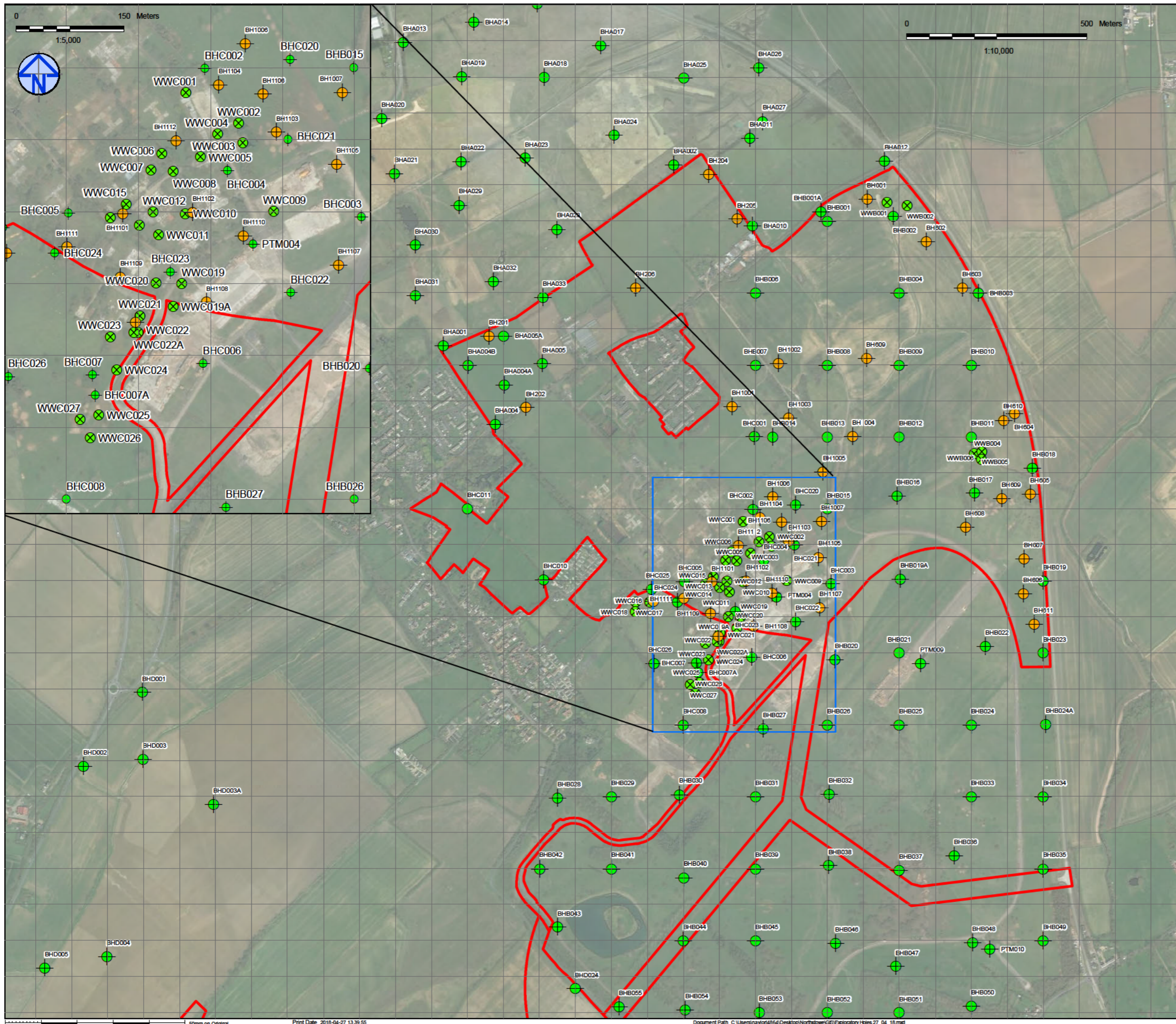
- Plans showing locations of boreholes
- Borehole records / logs
- Groundwater monitoring data

Information has been taken from the following reports;

1. WSP (2007), Interim Factual Report, Northstowe, Cambridgeshire, Zone A (Project Number 12170626)
2. WSP (2007), Interim Factual Report, Northstowe, Cambridgeshire, Zone B (Project Number 12170626)
3. WSP (2007) Interim Factual Report, Northstowe, Cambridgeshire, Zone C (Project Number 12170626)
4. WSP (2007) Interim Factual Report, Northstowe, Cambridgeshire, Zone D (Project Number 12170626)
5. Arcadis Consulting (UK) Limited (2017), Northstowe Phase 2 Ground Investigation Report, (Report Number UA008426-AFS-GLR-G001)

APPENDIX A

Plans



Legend:

- Planning Boundary
- WSP Borehole Locations
- ⊗ WSP Water Well Locations
- ⊗ Arcadis Borehole Locations

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

REV	Date	Description	Drawn	Check	Approv
P1	27/04/2018	FIRST ISSUE	JN	AP	CR

Client

HOMES AND COMMUNITIES AGENCY
NORTHSTOWE PHASE 2

Site: Northstowe Cambridgehire
Client: Fly Building 2 Marsham Street London SW1P 4DF



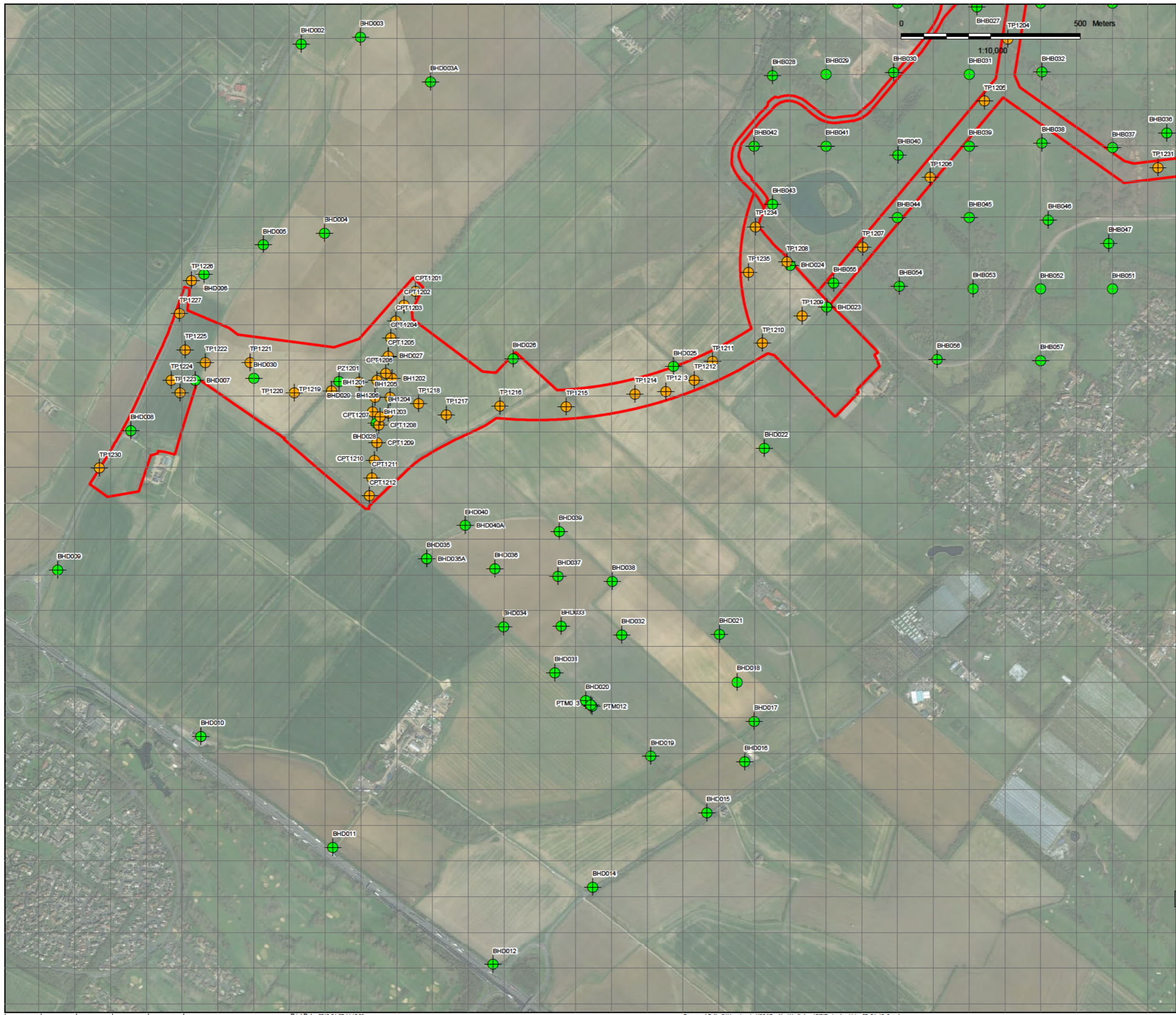
Registered office:
 Arcadis House
 34 York Way
 London N1 9AB
 www.arcadis.com

TITLE

**EXPLORATORY HOLE LOCATION PLAN
 ARCADIS AND WSP
 (Page 1 of 2)**

Designed	[Signature]	Date: 27/04/2018	Signed
Drawn	[Signature]	Date: 27/04/2018	Signed
Checked	[Signature]	Date: 27/04/2018	Signed
Approved	[Signature]	Date: 27/04/2018	Signed
Scale	See Layout	Datum:	AOD
Original Size	A3	Grid:	OS
Suitability Code	S2	Project Number:	UA008426

Suitability Description:		PRELIMINARY NOT FOR CONSTRUCTION	
Drawing Number:	0001-UA008426-01		Revision: P1



Legend:

- Planning Boundary
- WSP Borehole Locations
- ⊗ WSP Water Well Locations
- ⊙ Arcadis Sample Locations

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

REV	Date	Description	Drawn	Check	Approv
P1	27/04/2018	FIRST ISSUE	JN	AP	CR

Client

HOMES AND COMMUNITIES AGENCY

PROJECT: NORTHSTOWE PHASE 2

Site Northstowe, Cambridgeshire

Client Fly Building, 2 Marsham Street, London, SW1P 4DF

ARCADIS Design & Consultancy for natural and built assets

Registered office:
Arcadis House
34 York Way
London
N1 9AB
www.arcadis.com

TITLE:

EXPLORATORY HOLE LOCATION PLAN
ARCADIS AND WSP
(Page 2 of 2)

Designed		Date: 27/04/2018	Signed
Drawn	Rea	Date: 27/04/2018	Signed
Checked	Rea	Date: 27/04/2018	Signed
Approved	Rea	Date: 27/04/2018	Signed
Scale:	See Layout	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008426

Suitability Description: PRELIMINARY NOT FOR CONSTRUCTION

Drawing Number: 0001-UA008426-01

Revision: P1

APPENDIX B

Borehole Logs



WSP Environmental
 One Queens Drive
 B1
 Telephone:
 Fax:

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA001	
Job No 12170626	Date 10-11-05 10-11-05	Ground Level (m AOD) 8.800	Co-Ordinates (OS) E 540033.372 N 266853.581		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.50-1.00	B					8.10	(0.70) 0.70	Soft brown sandy TOPSOIL with roots.		TPS
1.00-1.50	BD	2,2,4 2,3,2 N=11				7.00	(1.10) 1.80	Firm brown mottled grey slightly sandy gravelly CLAY. Gravel is fine and subrounded chalk (TERRACE DEPOSITS).		TD
2.00-2.30	BD	4,2,2 2,2,3 N=9				6.50	(0.50) 2.30	Loose orange brown sandy GRAVEL. Gravel is fine to medium flint (TERRACE DEPOSITS).		TD
3.00-3.50	BD	2,2,2 3,3,4 N=12						Firm grey slightly sandy CLAY (AMPHILL CLAY).		AMP
4.00-4.50	BD	5,4,3 3,3,5 N=14					(4.70)			
5.00-5.50	BD	3,2,3 3,4,5 N=15								
6.00	D									
6.50-6.90	U	76 blows								
7.00	D					1.80	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By MO
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WSP Environmental
 One Queens Drive
 B1
 Telephone:
 Fax:

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA002	
Job No 12170626	Date 10-11-05 10-11-05	Ground Level (m AOD) 6.140	Co-Ordinates (OS) E 540672.796 N 267356.337		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
						6.04	0.10	Grass over brown TOPSOIL.		TPS
0.50-1.00	B						(0.80)	Firm dark grey slightly gravelly CLAY with rootlets (AMPTHILL CLAY REWORKED).		AMP
						5.24	0.90			
1.00-1.50	BD	1,2,2 1,1,2 N=6						Firm becoming stiff fissured grey mottled brown CLAY. Becoming stiff with depth (AMPTHILL CLAY).		AMP
2.00-2.50	BD	1,6,8 4,6,8 N=26								
3.00-3.50	BD	3,4,3 4,4,3 N=14								
4.00-4.50	BD	6,4,3 3,3,3 N=12					(6.10)			AMP
5.00-5.45	U	55 blows								
5.50	D									
6.00	D									
6.50-6.95	U	80 blows								
7.00	D									
						-0.86	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To		
												No groundwater encountered.
Date	Time	Strike	Minutes	Standing	Casing							
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By MO			



WSP Environmental
 One Queens Drive
 B1
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA003	
Job No 12170626	Date 10-11-05 10-11-05	Ground Level (m AOD) 7.710	Co-Ordinates (OS) E 539765.085 N 267661.340		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
						7.01	0.70	Grass over brown TOPSOIL.		AMP	
1.00-1.50	BD	2,3,6 5,6,6 N=23						Medium to dense orange brown SAND and GRAVEL. Gravel is fine to coarse subangular to subrounded flint and chalk. With a band of soft white silt between 3.4m and 3.5m (TERRACE DEPOSITS).		TD	
2.00-2.50	BD	3,4,5 7,7,7 N=26									
3.00-3.50	BD	8,8,9 8,10,4 N=31									
3.70	D					4.01	3.70	Soft to firm grey SILT. Becoming firm to stiff from 6.5m (AMPTHILL CLAY).		AMP	
4.00	S	2,2,2 3,3,4 N=12									
5.00	S	3,2,3 4,3,2 N=12									
6.50	S	5,6,7 9,10,11 N=37									
						0.71	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By MO
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WSP Environmental
One Queens Drive
B1
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA004	
Job No 12170626	Date 19-10-06 19-10-06	Ground Level (m AOD) 9.130	Co-Ordinates (OS) E 540177.000 N 266636.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.40	D					8.73	0.40	TOPSOIL		TPS
0.80	JJVV D					8.33	0.80	Dark brown clayey slightly gravelly SAND (TERRACE DEPOSITS).		TD
1.00-1.50	B	3,6,11 12,15,12 N=50/ 280				8.13	1.00	Firm brown slightly sandy CLAY (TERRACE DEPOSITS).		TD
1.40	D					7.73	1.40	Dense light brown gravelly SAND (TERRACE DEPOSITS).		TD
2.30	JJVV	4,5,4 3,2,1 N=10					(1.50)	Dense black and brown gravelly SAND (TERRACE DEPOSITS).		TD
3.40-3.60	JJVB	1,1,1 1,3,3 N=8				6.23	2.90	Brown gravelly SAND in soft grey clay matrix (TERRACE DEPOSITS).		TD
3.60-3.80	B					5.93	3.20	Soft grey sandy CLAY with organic material. Light grey sandy gravelly pockets (TERRACE DEPOSITS).		TD
3.90	D					5.23	3.90	Firm grey blue organic CLAY (AMPTHILL CLAY).		AMP
4.20-4.65	U	26 blows				4.63	4.50	Firm blue grey CLAY (AMPTHILL CLAY).		AMP
4.90	D						(0.80)	Stiff grey CLAY (AMPTHILL CLAY).		AMP
5.00-5.50	JJVV B	2,2,3 5,4,5 N=17				3.83	5.30	Stiff dark grey laminated CLAY (AMPTHILL CLAY).		AMP
6.10	D						(0.80)			
6.30-6.75	U	40 blows				3.03	6.10			
7.00	D						(0.90)			
						2.13	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
19-10-06		1.60	20								
19-10-06		6.30	20								

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DRILLER
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WSP Environmental
 One Queens Drive
 B1
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA004A	
Job No 12170626	Date 23-10-06 23-10-06	Ground Level (m AOD) 8.900	Co-Ordinates (OS) E 540202.000 N 266745.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
1.50	JJJV				8.20	0.70	Grass over dark brown slightly clayey slightly gravelly fine to medium sandy TOPSOIL. Gravel is fine angular to subangular flint.		TPS		
					8.00	0.90	Brown clayey gravelly fine to coarse SAND. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD		
3.00	JJJV				7.30	1.60	Orange brown gravelly medium to coarse SAND. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD		
					4.90	4.00	Buff brown very gravelly medium to coarse SAND. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DRILLER
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WSP Environmental
 One Queens Drive
 B1
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA004B	
Job No 12170626	Date 23-10-06 23-10-06	Ground Level (m AOD) 9.100	Co-Ordinates (OS) E 540102.000 N 266800.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.50	JJJVV					8.40	(0.70) 0.70	TOPSOIL		TPS	
						8.20	0.90	Firm brown sandy CLAY (TERRACE DEPOSITS).		TD	
						7.80	1.30	Dense light brown grey gravelly SAND (TERRACE DEPOSITS).		TD	
2.00	JJJVV				1 2		(2.20)	Buff brown slightly gravelly to gravelly fine to coarse SAND. Gravel is fine to medium angular to subangular flint. Becoming very gravelly from 1.6m with thin bands or pockets of orange brown and light grey very thinly laminated silty fine SAND (TERRACE DEPOSITS).		TD	
3.50	JJJVV					5.60	3.50				
						5.10	(0.50) 4.00	Grey clayey sandy medium GRAVEL (TERRACE DEPOSITS).		TD	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
		Strike	Minutes	Standing	Casing						
20-10-06		1.70	20	2.20	2.00						
20-10-06		2.20									

Groundwater seepage at 1.7m. Groundwater encountered at 2.2m - very slow. Drillers descriptions.

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

Project Northstowe				BOREHOLE No BHA005	
Job No 12170626	Date 18-10-06 18-10-06	Ground Level (m AOD) 9.450	Co-Ordinates (OS) E 540308.000 N 266804.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.60	D					8.85	0.60	TOPSOIL		TPS
0.90	JJVV D					8.55	0.90	Brown very clayey medium SAND. Occasional very fine gravel (TERRACE DEPOSITS).		TD
1.00-1.50	B	5.7,6 6.5,9 N=26				8.15	1.30	Dense brown/grey slightly clayey slightly gravelly medium SAND. Gravel is fine (TERRACE DEPOSITS).		TD
2.00-2.50	JJVV B	7,10,8 8,6,6 N=28			 		(3.70)	Dense grey and brown SAND and GRAVEL (TERRACE DEPOSITS).		TD
3.00		10,15,15 16,4,0 N=35/ 160								
4.00		6,8,9 12,15,14 N=50/ 285								
5.00-5.45	JJVV	3,3,3 4,4,3 N=14				4.45	5.00	Medium dense brown and grey gravelly medium SAND (TERRACE DEPOSITS).		TD
6.00		2,2,3 4,4,3 N=14					(2.00)			
7.00	D					2.45	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
		Strike	Minutes	Standing	Casing						
18-10-06		2.00	20								
18-10-06		2.40	20	1.95	2.30						

Groundwater seepage at 2.0m. Groundwater encountered at 2.40m - slow. Drillers descriptions.

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DRILLER
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WSP Environmental
 One Queens Drive
 B1
 Telephone:
 Fax:

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA005A	
Job No 12170626	Date 19-10-06 19-10-06	Ground Level (m AOD) 8.960	Co-Ordinates (OS) E 540200.000 N 266881.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend			
0.90	JJJV				↓	8.36	(0.60) 0.60	TOPSOIL		TPS		
						8.16	0.80	Firm brown very sandy slightly gravelly CLAY (TERRACE DEPOSITS).		TD		
						7.86	1.10	Orange brown slightly clayey gravelly SAND (TERRACE DEPOSITS).		TD		
1.90	JJJV				↓	(0.90)		Light grey brown SAND and GRAVEL (TERRACE DEPOSITS).		TD		
						6.96	2.00	Light grey brown sandy medium GRAVEL (TERRACE DEPOSITS).		TD		
						4.96	(2.00) 4.00					

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
19-10-06		1.50	20		1.80						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DRILLER
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WSP Environmental
One Queens Drive
B1
Telephone:
Fax:

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA006	
Job No 12170626	Date 27-10-06 27-10-06	Ground Level (m AOD) 8.230	Co-Ordinates (OS) E 540494.248 N 267004.233		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.70-1.00	JJJV	3,4,4 3,2,3 N=12			↓	7.83	0.40	Grass over dark brown clayey slightly gravelly fine to medium sand TOPSOIL. Gravel is fine to medium angular to subangular flint.		TPS	█
						7.53	0.70			Brown clayey fine to medium SAND. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).	
1.00	JJJV	3,4,4 4,4,4 N=16			↓	7.33	0.90	Medium dense buff and brown very sandy GRAVEL. Gravel is fine angular to subrounded flint and chalk (TERRACE DEPOSITS).			TD
						6.73	(0.60) 1.50			Buff and brown gravelly to very gravelly medium to coarse SAND. Gravel is fine angular to subrounded flint and chalk (TERRACE DEPOSITS).	TD
1.80-2.00	JJJV	3,3,5 5,5,7 N=22			↓	6.23	(0.50) 2.00	Light grey fine to medium SAND (TERRACE DEPOSITS). No core recovery			
							(1.40)				
3.00		3,3,4 4,4,4 N=16			↓	4.83	3.40	Firm to stiff dark grey sandy slightly gravelly CLAY. Gravel is fine angular to subrounded flint and siltstone (AMPTHILL CLAY).		AMP	█
						4.33	(0.50) 3.90			Stiff grey CLAY (AMPTHILL CLAY).	
4.00		2,2,3 5,5,6 N=19			↓		(1.10)				
						3.23	5.00				
5.00		3,3,4 4,5,5 N=18									






Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
27-10-06			1.00								

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Archway Competetor Rig	Logged By LF
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Groundwater encountered at 1.0m. Borehole drilled by window sample rig.

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA007	
Job No 12170626	Date 27-10-06 27-10-06	Ground Level (m AOD) 8.562	Co-Ordinates (OS) E 540740.580 N 267018.237		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.40	JJV					8.16	0.40	MADE GROUND: Grass over dark brown slightly sandy gravelly clay. Gravel is fine to medium angular to subangular flint, granite and brick.		MG	
0.40-1.00	JJV					7.86	0.70		Firm green and grey sandy slightly gravelly CLAY (TERRACE DEPOSITS).		
1.00		2,2,1 1,1,2 N=5				7.36	(0.50) 1.20	Firm to stiff brown mottled orange brown slightly sandy CLAY. Becoming sandy with depth (TERRACE DEPOSITS).		TD	
						7.06	1.50	Orange brown slightly clayey gravelly fine to medium SAND (TERRACE DEPOSITS).		TD	
2.00		1,2,2 2,3,4 N=11					(2.20)	Firm to stiff grey mottled brown CLAY. Slightly sandy in places with fine to coarse selenite crystals (AMPTHILL CLAY).		AMP	
3.00		3,3,3 4,5,6 N=18				4.86	3.70				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS No groundwater encountered. Borehole drilled by window sample rig - refused at 3.8m.
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Archway Competetor Rig	Logged By LF
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA008	
Job No 12170626	Date 27-10-06 27-10-06	Ground Level (m AOD) 7.338	Co-Ordinates (OS) E 540505.363 N 267202.158		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.50-0.70	JJV					6.94	0.40	Grass over firm to stiff dark brown sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium angular flint		TPS	
1.00		5.5,6 5.6,7 N=24					(1.40)	Stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is fine angular to subrounded chalk and flint. Becoming grey mottled orange brown from 0.9m (TERRACE DEPOSITS).		TD	
2.00		2.3,3 3.4,5 N=15				5.54	1.80	Stiff to very stiff grey mottled brown CLAY with occasional medium to coarse selenite crystals. Becoming very stiff and grey from 3m. Dark grey and relic fossils (ammonites) present from 4.0-5.0m (TERRACE DEPOSITS).		TD	
3.00		24.3,4 5,5,6 N=20					(3.20)				
4.00		3.3,4 5,5,6 N=20									
5.00		3.3,4 4,6,6 N=20				2.34	5.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Archway Competetor Rig	Logged By LF
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA009	
Job No 12170626	Date 27-10-06 27-10-06	Ground Level (m AOD) 6.390	Co-Ordinates (OS) E 540711.541 N 267197.866		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.20-0.40	JJJVV				↓ Water	6.34	0.05 (0.55)	Grass over dark brown slightly sandy slightly gravelly clay TOPSOIL. Gravel is medium angular flint.	[Pattern]	TPS
						5.79	0.60 (0.90)	Stiff dark brown slightly sandy slightly gravelly CLAY with fine rootlets. Becoming very stiff from 0.2m and light brown from 0.5m (TERRACE DEPOSITS).		TD
1.00		2,2,3 4,5,12 N=24				4.89	1.50 (0.60)	Stiff to very stiff grey mottled orange/brown CLAY. Slightly sandy in places with selenite crystals (AMPTHILL CLAY).	[Pattern]	AMP
2.00		2,2,2 4,4,6 N=16				4.29	2.10 (0.60)	Weak light grey SILTSTONE recovered as fine to coarse angular gravel (AMPTHILL CLAY).	[Pattern]	AMP
2.30-2.60	JJJV							Stiff to very stiff grey mottled brown CLAY. Slightly sandy in places with selenite crystals. Slightly sandy in places with selenite crystals (AMPTHILL CLAY).	[Pattern]	
3.00		2,2,3 3,5,5 N=16				(2.90)			[Pattern]	AMP
4.00		15,40,8 6,5,6 N=25								
5.00		3,3,4 4,5,6 N=19				1.39	5.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
		Strike	Minutes	Standing	Casing						
27-10-06		2.00									

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Archway Competetor Rig	Logged By LF
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA010	
Job No 12170626	Date 16-10-06 17-10-06	Ground Level (m AOD) 6.033	Co-Ordinates (OS) E 540891.156 N 267187.474		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.50	JJJVVVD					5.63	0.40	TOPSOIL.		TPS	
0.80	D					5.23	0.80	Stiff brown slightly sandy slightly gravelly CLAY (TERRACE DEPOSITS).		TD	
1.00-1.50	B	1,3,6 8,8,9 N=31				5.03	1.00	Firm grey brown slightly sandy slightly gravelly CLAY (TERRACE DEPOSITS).		TD	
							(1.00)	Firm light grey sandy CLAY (AMPTHILL CLAY).		AMP	
2.00-2.45	U	25 blows				4.03	2.00	Stiff blue grey CLAY (AMPTHILL CLAY).		AMP	
2.70	JJJVVVD						(2.00)			AMP	
3.10	D					2.03	4.00	Stiff grey CLAY with thin weak siltstone bands (AMPTHILL CLAY).		AMP	
3.20-3.65	U	30 blows				1.53	(0.50) 4.50	Stiff grey CLAY (AMPTHILL CLAY).		AMP	
3.90	D						(2.50)			AMP	
4.00-4.45	U	42 blows									
4.00	D										
4.50	D										
5.00	JJJVV	1,2,3 4,4,5 N=16									
5.00-5.50	B										
6.20-6.65	U	45 blows									
6.90	D					-0.97	7.00				
7.00		2,3,3 5,6,6 N=20									

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DRILLER		

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA011	
Job No 12170626	Date 17-10-06 17-10-06	Ground Level (m AOD) 5.434	Co-Ordinates (OS) E 540884.077 N 267430.652		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.50	D					4.93	(0.50) 0.50	TOPSOIL.		TPS	
0.80	JJVVD					4.63	0.80	Firm to stiff grey brown CLAY with rootlets (TERRACE DEPOSITS).		TD	
1.00	D					4.43	1.00	Firm light grey slightly gravelly CLAY (TERRACE DEPOSITS).		TD	
1.10-1.60	B	2,2,3 3,3,4 N=13						Firm blue grey CLAY (AMPTHILL CLAY).			
1.80	JJVVD						(2.00)			AMP	
2.00-2.45	U	18 blows									
2.50	D										
2.70	D					2.43	3.00				
3.00-3.50	B	1,1,2 2,2,3 N=9						Firm to stiff grey CLAY. Becoming very stiff with depth (AMPTHILL CLAY).			
3.40	JJV									AMP	
4.00-4.45	U	27 blows									
4.90	D						(4.00)			AMP	
5.00-5.50	B	2,2,4 3,5,5 N=17									
5.80-6.00	JJVVB										
6.30-6.75	U	35 blows									
7.00	D					-1.57	7.00				

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

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

Project Northstowe				BOREHOLE No BHA012	
Job No 12170626	Date 18-10-06 18-10-06	Ground Level (m AOD) 5.592	Co-Ordinates (OS) E 541259.104 N 267367.304		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA							Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend				
0.60	JJJVVD					4.99	0.60	TOPSOIL.		TPS			
0.90	D					4.69	0.90	Firm grey/brown CLAY with occasional fine gravel (TERRACE DEPOSITS).		TD			
1.10-1.60	B	1,2,2 2,2,3 N=9				4.49	1.10	Firm to stiff light blue/grey CLAY (AMPTHILL CLAY).		AMP			
2.00	JVVD						(1.60)	Firm to stiff blue/grey and brown CLAY (AMPTHILL CLAY).		AMP			
2.00-2.45	U	38 blows				2.89	2.70	Firm grey CLAY (AMPTHILL CLAY).		AMP			
3.00-3.50	JJJVVB	1,2,3 3,4,4 N=14				1.99	3.60	Firm grey CLAY (AMPTHILL CLAY).		AMP			
3.80	D					1.69	3.90	Light grey SILTSTONE (AMPTHILL CLAY).		AMP			
4.00-4.45	U	34 blows					(1.00)	Firm grey CLAY (AMPTHILL CLAY).		AMP			
4.70	D					0.69	4.90	Stiff dark grey laminated CLAY (AMPTHILL CLAY).		AMP			
4.90	D						(2.10)						
5.00-5.50	B	1,2,3 3,4,3 N=13					-1.41	7.00					
6.30-6.75	U	35 blows											
6.80	JJVVD												
7.00	D												

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To		
												No groundwater encountered. Drillers descriptions.
Date	Time	Strike	Minutes	Standing	Casing							
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DRILLER			



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA013	
Job No 12170626	Date 20-07-07 20-07-07	Ground Level (m AOD) 8.467	Co-Ordinates (OS) E 539921.497 N 267697.705		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.00-0.30	B							Brown clayey gravelly SAND. Gravel is fine to medium angular to subangular flint with rootlets (TERRACE DEPOSITS). 0.30 mbgl, becoming orange brown very clayey slightly gravelly SAND. Gravel is fine to medium angular to sub-angular flint.		TD	
0.30-0.80	B					7.67	0.80				TD
1.00-1.50	B							(1.10)	Soft Orange brown mottled light grey sandy very gravelly CLAY. Gravel is fine to medium subangular to rounded flint with rare chalk (TERRACE DEPOSITS).		TD
1.50-2.00	SBT	2.2,5 6,8,10 N=29				6.57	1.90		1.50 mbgl, becoming firm.		TD
2.50-3.00	CBT	4.5,2 2,3,5 N=12				5.77	2.70	(0.80)	Medium dense orange brown SAND and GRAVEL. Sand is medium. Gravel is fine to medium angular to subangular of flint (TERRACE DEPOSITS).		TD
3.80-4.00	B	45 blows U/100 failed between 3,8 and 4,3						(4.30)	Stiff dark grey CLAY with rare fossils (AMPTHILL CLAY).		AMP
4.50-5.00	B	49 blows U/100 failed between 4,5 and 5									
5.00-5.50	SBT	1,1,2 2,3,3 N=10									
6.50-7.00	SBT	1,2,3 3,5,6 N=17									
						1.47	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
		Strike	Minutes	Standing	Casing						
20-07-07		2.00		1.68							

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

Project Northstowe				BOREHOLE No BHA014	
Job No 12170626	Date 23-07-07 23-07-07	Ground Level (m AOD) 8.395	Co-Ordinates (OS) E 540117.408 N 267754.059		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.00-0.50	B					7.90	(0.50) 0.50	Grass over dark brown slightly gravelly sandy clay TOPSOIL with rare roots. Gravel is fine to medium subangular to subrounded flint and mixed lithology.		TPS
0.50-1.00	B					7.30	(0.60) 1.10	Soft to firm brown slightly gravelly sandy CLAY with rare roots. Gravel is fine to medium angular to subrounded mixed lithology including flint (TERRACE DEPOSITS).		TD
1.20-1.70	SBT	1,2,2 3,3,4 N=12						Firm to stiff light grey mottled dark grey CLAY with rare brown mottles AMPHILL CLAY).		AMP
2.20-2.70	SBT	1,1,2 2,3,3 N=10					(2.90)			
3.20-3.70	SBT	1,1,1 2,3,3 N=9				4.40	4.00			
4.20-4.70	SBT	2,3,3 4,4,4 N=15						Stiff dark blue grey CLAY with rare orange roots and rare partings of orange silt (AMPHILL CLAY). 4.50 mbgl, becoming fissured with rare fossils. 5.00 mbgl, no orange silt or roots.		AMP
5.20-5.70	SBT	2,2,2 4,4,4 N=14					(3.00)			
6.50-7.00	SBT	3,2,3 4,5,5 N=17				1.40	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA015	
Job No 12170626	Date 18-07-07 18-07-07	Ground Level (m AOD) 7.964	Co-Ordinates (OS) E 540294.159 N 267803.927		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.00-0.40	B					7.56	0.40	Grass over brown sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium angular to subangular flint.		TPS
0.50-1.00	B							Firm light grey mottled Orange brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to rounded flint with siltstone dusting (TERRACE DEPOSITS).		TD
1.00-1.50	SBT	1,3,3 4,3,3 N=13					(1.40)			
2.00	U	80 blows				6.16	1.80	Stiff dark grey fissured CLAY with rare fossils (AMPHILL CLAY).		AMP
3.00-3.50	SBT	1,2,2 3,3,4 N=12								
4.00	U	10 blows					(5.20)			
5.00	SPT	2,2,3 5,5,7 N=20								
6.00-5.50	B									
6.50-7.00	SBT	6,5,6 7,8,9 N=30				0.96	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA016	
Job No 12170626	Date 17-07-07 17-07-07	Ground Level (m AOD) 6.827	Co-Ordinates (OS) E 540508.219 N 267821.046		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.50-0.90	B				5.93	0.90	Grass over firm brown slightly sandy gravelly CLAY. Gravel is fine to medium angular to subrounded of mixed lithology (TERRACE DEPOSITS).		TD		
1.00-1.50	SPT	1,2,3 3,3,2 N=11					Stiff grey mottled brown slightly sandy slightly gravelly CLAY. Gravel is fine subangular to subrounded of mixed lithology. Gravel is very rare 0.9-1.4m (TERRACE DEPOSITS).		TD		
2.00-2.45	U	45 blows				(2.90)			TD		
3.00-3.50	SPT	1,2,2 3,4,5 N=14				3.03	3.80				
4.00-4.45	U	50 blows					Stiff dark grey to grey fissured CLAY with rare fossils. Rare Orange brown mottling to 4.4m (AMPTHILL CLAY).		AMP		
5.00-5.50	SPT	2,3,4 4,5,5 N=18				(3.20)					
6.50-7.00	SPT	2,3,5 6,6,8 N=25				-0.17	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA017	
Job No 12170626	Date 18-07-07 18-07-07	Ground Level (m AOD) 6.379	Co-Ordinates (OS) E 540469.889 N 267688.722		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.00-0.50 0.15	B JJVV					5.98	0.40	Grass over brown slightly gravelly sandy CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.50-1.00	B						(0.80)	Firm brown mottled orange slightly gravelly sandy CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.00-1.45	U	30 blows				5.18	1.20				
2.00-2.50	SBT	1,1,2 2,3,3 N=10									
3.00-3.45	U	30 blows									
3.45	D										
4.00-4.50	SBT	1,2,3 3,3,4 N=13					(5.80)	Firm stiff grey rare mottled orange CLAY with rare selenite crystals becoming stiff from 4m and dark grey from 5m (AMPTHILL CLAY).		AMP	
5.00-5.45	U	70 blows									
5.45	D										
6.50-7.00	SBT	1,2,3 3,5,6 N=17				-0.62	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By CW		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA018	
Job No 12170626	Date 19-07-07 19-07-07	Ground Level (m AOD) 7.826	Co-Ordinates (OS) E 540312.460 N 267599.775		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.00-0.40	B		0.10	0		7.43	0.40	Grass over dark brown sandy slightly gravelly clay TOPSOIL with rootlets. Gravel is fine to medium angular to subrounded flint.		TPS	
0.50-1.00	B							Firm grey mottled orange brown slightly gravelly sandy CLAY. Gravel is fine angular to subangular flint with fissured silt pockets (TERRACE DEPOSITS).		TD	
1.00-1.45	U	30 blows					(2.60)				
1.45	D										
2.00-2.50	SBT	1,1,2 2,3,3 N=10				4.83	3.00	2.00 mbgl, becoming firm to stiff with siltstone dustings with occasional selenite crystals.		AMP	
3.00-3.45	U	40 blows						Stiff dark grey CLAY with rare orange mottling and rare selenite crystals (AMPTHILL CLAY).		AMP	
3.45	D										
4.00-4.50	SBT	1,2,2 3,3,5 N=13					(4.00)				
5.00-5.45	U	50 blows									
5.45	D										
6.50-7.00	SBT	2,2,3 4,4,5 N=16				0.83	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA019	
Job No 12170626	Date 19-07-07 19-07-07	Ground Level (m AOD) 8.798	Co-Ordinates (OS) E 540083.529 N 267601.794		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1














SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend			
0.20-0.40	B		0.15	0	↓	8.40	0.40	Grass over dark brown sandy slightly gravelly clay TOPSOIL with roots. Gravel is fine to medium angular to subrounded flint.		TPS		
						7.80	(0.60) 1.00	Brown mottled orange slightly gravelly sandy CLAY with rare rootlets. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD		
1.00-1.50	SBT	3,6,6 10,10,13 N=39					(1.20)	Dense orange brown slightly clayey very gravelly SAND. Sand is fine to coarse. Gravel is angular to subrounded flint and mixed lithology (TERRACE DEPOSITS).		TD		
2.00	SBT	7,9,7 7,7,6 N=27					6.60	2.20	Firm light grey mottled Orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint with siltstone dustings (TERRACE DEPOSITS).			TD
3.00-3.50	SBT	1,3,3 3,4,5 N=15					5.80	3.00	Stiff dark grey with rare brown mottling CLAY with rare fossils (AMPTHILL CLAY).			AMP
4.00-4.35	U	150 blows										
5.00-5.50	SBT	1,2,3 4,4,6 N=17						(4.00)				
6.50-7.00	SBT	2,3,3 4,5,5 N=17					1.80	7.00				
6.50	SBT	2,3,3 4,5,5 N=17										

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
19-07-07		1.00									

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

Project Northstowe				BOREHOLE No BHA020	
Job No 12170626	Date 13-09-07 14-09-07	Ground Level (m AOD) 8.583	Co-Ordinates (OS) E 539860.842 N 267485.958		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.10-0.30	JJJ					8.48	0.10	Grass over dark brown slightly gravelly fine to medium sand TOPSOIL. Gravel is fine angular to subangular flint.		TPS	
0.50	D					8.08	0.50	Dark brown slightly gravelly fine to coarse SAND subsoil. Gravel is fine angular to subangular flint (TERRACE DEPOSITS).		TD	
1.00-1.50	B	5,9,9 11,12,12 N=44/ 260					(1.30)	Brown slightly clayey gravelly fine to coarse SAND. Gravel is fine angular to subangular flint (TERRACE DEPOSITS).		TD	
1.00-1.45	D	5,9,9 11,12,12 N=44/ 260				6.58	2.00	Orange brown gravelly medium to coarse SAND. Gravel is fine to medium angular to subrounded chalk and flint. Becoming light brown and very gravelly from 1m (TERRACE DEPOSITS).		TD	
2.00-2.50	B						(1.00)	Light brown very sandy GRAVEL. Gravel is fine to coarse angular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
2.50-3.00	B	1,2,5 5,10,11 N=31				5.58	3.00				
2.50-2.95	D	1,2,5 5,10,11 N=31					(4.00)	Soft to firm thinly laminated grey CLAY with occasional pockets of shelly material to 4m. Becoming stiff and dark grey from 4m (AMPTHILL CLAY).		AMP	
3.00-3.50	B										
3.00-3.50	JJV										
3.50-3.95	D	1,1,2 2,3,3 N=10									
3.50-4.00	B	1,1,2 2,3,3 N=10					(4.00)				
5.50		1,2,2 3,3,4 N=12/ 260									
						1.58	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA021	
Job No 12170626	Date 09-07-07 09-07-07	Ground Level (m AOD) 8.545	Co-Ordinates (OS) E 539897.869 N 267331.679		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Legend	Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			
0.00-0.30	B					8.25	0.30	Grass over dark brown clayey gravelly sand TOPSOIL with frequent rootlets. Gravel is fine to medium, angular to subangular of flint.		TPS	
0.30-0.70	JVV		0.30	0		7.85	0.70			TD	
0.30-0.70	B					7.55	1.00		Dark brown and orange brown clayey gravelly SAND with rare rootlets. Gravel is fine to medium, angular to subangular of flint. rare medium gravel sized red brown and black mottles (TERRACE DEPOSITS).		TD
1.00-1.50	CBT	4,12,12 13,13,12 N=50						Orange brown slightly gravelly SAND and GRAVEL. Gravel is fine to medium, angular to rounded of flint. Sand is fine to coarse (TERRACE DEPOSITS).			
1.50	JVV		1.50	0							
2.00-2.50	CBT	1,0,0 2,3,8 N=13						Medium dense orange brown slightly clayey SAND and GRAVEL. Gravel is fine to coarse, angular to subangular flint. Sand is fine to coarse (TERRACE DEPOSITS).			
3.00-3.50	CBT	1,0,0 2,6,9 N=17									
4.00-4.50	CBT	5,10,15 18,17					(5.50)			TD	
5.00-5.50	CBT	2,2,3 5,10,12 N=30									
6.50-7.00	SBT	1,2,3 3,3,4 N=13				2.05	6.50	Dark grey black slightly gravelly, slightly sandy CLAY. Gravel is fine to coarse angular to subangular flint (AMPTHILL CLAY).		AMP	
						1.95	6.60				AMP
						1.55	7.00	Dark grey black CLAY (AMPTHILL CLAY).			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
09-07-07		2.50		1.50							

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

Project Northstowe				BOREHOLE No BHA022	
Job No 12170626	Date 06-07-07 09-07-07	Ground Level (m AOD) 8.943	Co-Ordinates (OS) E 540082.417 N 267365.896		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.50-0.70 0.50-0.90	JJV B		0.50	0	↓	8.74	0.20	Dark brown clayey slightly gravelly fine to medium SAND. Gravel is fine, angular to subangular flint (TERRACE DEPOSITS).		TD	
0.90 1.00	D SBT	2,3,8 13,14,13 N=48					(1.00)	Soft to firm dark brown slightly gravelly sandy CLAY. Gravel is fine angular to subangular flint (TERRACE DEPOSITS). 0.80 mbgl, becoming brown mottled red.		TD	
1.20-1.60	B					7.74	1.20	Medium dense brown gravelly SAND. Sand is fine to coarse. Gravel is fine angular to subangular flint and chalk (TERRACE DEPOSITS).		TD	
2.00	B	6,8,9 7,6,6 N=28					(4.80)			TD	
3.00	B	2,3,4 3,4,4 N=15								TD	
4.00	B	2,4,3 3,3,5 N=14								TD	
5.00	B	2,3,3 4,5,7 N=19								TD	
6.50	B	4,3,3 2,1,2 N=8				2.94	6.00	Loose brown slightly gravelly SAND. Sand is medium to coarse. Gravel is fine angular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
7.80 8.00-8.45	B SBT	3,4,3 5,5,7 N=20				0.94 0.74	8.00 8.20	7.80 mbgl - from 7.8m brown/grey, no gravel occasionally medium gravel sized pieces of grey silt.		AMP	
								Dark grey fissured and very thinly laminated CLAY (AMPTHILL CLAY).			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
06-07-07			1.70								

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

Project Northstowe				BOREHOLE No BHA023	
Job No 12170626	Date 10-07-07 10-07-07	Ground Level (m AOD) 8.476	Co-Ordinates (OS) E 540259.808 N 267375.471		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.00-0.30 0.00-0.30 0.30-0.80	B JJVV B		0.10 0.20	0 0	↓	8.18	0.30	Grass over dark brown slightly gravelly clayey sand TOPSOIL with frequent rootlets. Gravel is fine angular to subrounded flint.		TPS	
1.00-1.45	U	50 blows				6.48	(1.70)	Light orange brown rarely mottled light grey clayey gravelly SAND with rare rootlets. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).		TD	
2.00-3.00	SBT	5,3,2 3,5,3 N=13				5.28	2.00	Soft to firm grey brown slightly sandy gravelly CLAY. Gravel is fine angular to rounded flint (weathered AMPHILL CLAY).		AMP	
2.00-3.00	SBT	5,3,2 3,5,3 N=13				5.28	(1.20)				
3.00-3.50	SBT	3,3,3 3,4,5 N=15				5.28	3.20	3.00 mbgl. water seepage.			
4.00-4.50 4.00-4.50	JJVV B	0 blows U/100 failed between 4.0 and 4.5mbgl.	4.00	0		5.28	3.20	Firm dark grey CLAY with frequent fissures and rare fossils (pyritised belemnites) (AMPTHILL CLAY).			
4.80-5.25	U	55 blows				5.28	(3.80)				
6.50-7.00	SBT	1,2,3 3,4,5 N=15			1.48	7.00					

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
10-07-07		3.00									
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By CW		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA024	
Job No 12170626	Date 16-07-07 16-07-07	Ground Level (m AOD) 6.538	Co-Ordinates (OS) E 540507.090 N 267439.008		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.00-0.40	B					6.14	0.40	Grass over brown slightly sandy slightly gravelly clay TOPSOIL with rare roots. Gravel is fine subangular to rounded of mixed lithology.		TPS	
0.40-0.90	B						(1.10)	Firm brown to light brown slightly sandy slightly gravelly CLAY. Gravel is fine subangular flint (TERRACE DEPOSITS).		TD	
0.60-0.60	JVV										
1.00-1.50	U	45 blows				5.04	1.50				
1.50-1.95	U	43 blows				4.54	(0.50) 2.00	Stiff grey mottled brown closely fissured CLAY (AMPHILL CLAY). 1.60 mbgl, rare light grey/white silty dustings.		AMP	
1.95	D										
2.50-3.00	SBT	1,2,2 8,7,4 N=21					(5.00)	Stiff grey to dark grey fissured CLAY. Rare selenite crystals (AMPHILL CLAY).		AMP	
3.50-3.95	U	50 blows									
3.95	D										
4.50-5.00	SBT	1,3,3 3,4,5 N=15									
5.50-5.95	U	55 blows									
5.95	D										
6.50-7.00	SBT	2,3,3 5,5,5 N=18				-0.46	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA025	
Job No 12170626	Date 16-07-07 16-07-07	Ground Level (m AOD) 5.598	Co-Ordinates (OS) E 540700.223 N 267597.355		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.00-0.40	B							Grass and vegetation over brown slightly sandy clay TOPSOIL with rare roots.		TPS	
0.20	JVVV					5.20	0.40				
0.40-0.90	B							Firm to stiff brown mottled light brown and grey slightly sandy slightly gravelly CLAY. Gravel is fine rounded flint (TERRACE DEPOSITS).		TD	
						4.70	(0.50) 0.90				
1.00-1.45	U	30 blows No Shoe						Firm to stiff dark grey mottled Orange brown slightly sandy CLAY with rare sand bands (AMPTHILL CLAY).		AMP	
						4.40	1.20	Firm to stiff fissured grey mottled orange and brown CLAY (AMPTHILL CLAY).			
2.00-2.50	SBT	1,1,1 1,2,3 N=7						2.00 mbgl, becoming grey only.			
3.00-3.45	U	30 blows									
3.45	J										
4.00-4.50	SBT	1,2,2 2,3,3 N=10					(5.80)			AMP	
4.00	SBT	1,2,2 2,3,3 N=10									
5.00-5.45	U	35 blows									
5.45	J										
6.50-7.00	SBT	2,3,3 4,5,5 N=17									
						-1.40	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA026	
Job No 12170626	Date 18-07-07 18-07-07	Ground Level (m AOD) 5.506	Co-Ordinates (OS) E 540908.799 N 267626.090		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.00-0.30	B							Grass over brown slightly gravelly sandy TOPSOIL with roots.		TPS	
0.20-0.20	JJV				5.11	0.40	Gravel is fine angular to subrounded flint.				
0.50-1.00	JJV							Soft to firm grey mottled orange brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD	
0.50-1.00	B					(1.90)					
1.50-1.95	U	30 blows									
						3.21	2.30				
2.50-3.00	SBT	1,1,1 2,3,3 N=9						Firm dark grey fissured CLAY with rare brown mottles (AMPTHILL CLAY).		AMP	
3.50-3.95	U	50 blows									
3.95	D										
4.00-5.00	JJV										
4.50-5.00	SBT	1,2,2 3,3,3 N=11									
5.50-5.95	U	50 blows									
5.95	D										
6.50-7.00	SBT	1,3,3 4,5,5 N=17									
						-1.49	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA027	
Job No 12170626	Date 17-07-07 17-07-07	Ground Level (m AOD) 5.579	Co-Ordinates (OS) E 540920.405 N 267477.468		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.00-0.50 0.15-0.15	B JJVV					5.08	(0.50) 0.50	Grass over firm brown slightly gravelly sandy clay TOPSOIL. Gravel is fine angular to subrounded mixed lithology including flint.		TPS
0.50-1.00	B						(1.50)	Firm grey mottled brown and orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD
1.00-1.45	U	56 blows								
1.45	D									
2.00-2.50	SBT	1,1,2 2,2,3 N=9				3.58	2.00	Stiff grey CLAY with rare brown mottles (AMPTHILL CLAY).		AMP
2.00-2.50						2.58	3.00			
3.20-3.70	U	40 blows						Stiff dark grey fissured CLAY (AMPTHILL CLAY).		AMP
3.90-4.40	U	50 blows								
4.40-4.90	SBT	1,1,2 2,2,3 N=9					(4.00)	5.00 Rare fine selenite crystals.		AMP
6.50-6.95	U	85 blows								
6.95	D					-1.42	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHA028	
Job No 12170626	Date 10-07-07 10-07-07	Ground Level (m AOD) 8.219	Co-Ordinates (OS) E 540348.459 N 267177.812		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.20-0.70	B				↓ 1 ↑	7.47	0.75	Grass over dark brown slightly gravelly clayey sand TOPSOIL with rare rootlets. Gravel is fine angular to rounded flint.		TPS	
0.70-1.40 0.75-1.40 1.00	B JJVV CPT	1.3,2 2.3,3 N=10	0.75	0		6.82	1.40	Medium dense yellow brown slightly clayey gravelly SAND. Gravel is fine angular to rounded flint. Sand is fine to coarse (TERRACE DEPOSITS).		TD	
1.40-1.80	B							Medium dense yellow brown slightly clayey SAND with rare pockets of light grey very sandy silt (TERRACE DEPOSITS).		TD	
1.80-2.00 1.80-2.00 2.00	JJVV B SPT	1.2,1 3.4,3 N=11	1.80	0		6.02	2.20	Medium dense grey brown thinly laminated clayey SAND and soft SILT (TERRACE DEPOSITS).		TD	
2.20-2.60	B										
3.00-3.50	SBT	1.2,2 3.6,8 N=19						(2.80)			TD
4.00-4.50	SBT	2.2,1 1.2,3 N=7						3.22	4.00 mbgl, 1. bands becoming gravelly. Gravel is fine angular to rounded flint. 2. some black staining in silt bands.		TD
5.00-5.50	B							2.52	Grey slightly clayey SAND and GRAVEL. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).		TD
6.00-6.50	SBT	2.1,3 4.5,5 N=17					1.22	Stiff dark grey CLAY (AMPTHILL CLAY).		AMP	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
10-07-07			1.40								

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

Project Northstowe				BOREHOLE No BHA029	
Job No 12170626	Date 12-09-07 13-09-07	Ground Level (m AOD) 8.683	Co-Ordinates (OS) E 540076.606 N 267244.587		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.00-0.20	BJJJV					8.38	0.30	Grass over dark brown slightly gravelly fine sand TOPSOIL. Gravel is fine angular to subangular flint.		TPS	
0.50	D					7.88	(0.50) 0.80	Brown slightly gravelly fine to medium SAND. Gravel is fine angular to subangular flint (TERRACE DEPOSITS).		TD	
0.80-1.00	BJJJV							Orange brown gravelly fine to coarse SAND. Gravel is fine to medium angular to subrounded flint and chalk. Becoming light brown from 1.1m and very gravelly from 2m (TERRACE DEPOSITS).		TD	
1.00-1.45	CBT	5,10,9 9,10,12 N=40/ 260					(1.50)				
1.00-1.50	CBT	5,10,9 9,10,12 N=40/ 260				6.38	2.30	Light brown very sandy fine to medium angular to subrounded flint and chalk GRAVEL. Rare cobbles of flint at base (TERRACE DEPOSITS).		TD	
2.00-2.45	CBT	1,2,4 5,11,12 N=32					(4.30)				
2.00-2.50	CBT	1,2,4 5,11,12 N=32						Probably moderately strong grey SILTSTONE (KIMMERIDGE CLAY). Stiff blue dark grey CLAY (KIMMERIDGE CLAY).		KIM KIM	
2.30-2.50	JJV						2.08				
3.00-3.50	B						1.98	6.70			
4.00-4.50	B						1.73	6.95			
5.00-5.50	B										
6.00-6.50	B										
6.70-7.15	SBT	3,3,3 5,5,7 N=20									

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By LF		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHA030	
Job No 12170626	Date 16-07-07 16-07-07	Ground Level (m AOD) 8.298	Co-Ordinates (OS) E 539954.244 N 267133.289		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.00-0.30 0.15-0.15	B JJVV				↓ Water		(0.60)	MADE GROUND: grass and vegetation over brown slightly gravelly sand topsoil. Gravel is fine angular flint and brick, 0.10 mbgl, rare charcoal.		MG
0.50-1.00	B					7.70	0.60			
1.00		5,7,12 14,14,15 N=55				7.30	1.00	Orange brown to brown very sandy GRAVEL. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD
1.50-1.95 1.50-1.50	U JJVV	30 blows								
2.00		6,11,21 20,9 N=50/ 185								
2.50-3.00	B						(3.20)			TD
3.00		4,9,16 21,13 N=50/ 210								
3.50-3.95	U	50 blows								
3.95 4.00	D	2,2,3 4,4,3 N=14				4.10	4.20	4.00 mbgl, becoming silty.		
4.50-5.00	B							Firm grey fine sandy SILT (TERRACE DEPOSITS).		TD
5.00	SPT	0,1,2 3,3,3 N=11				(1.90)	5.00 mbgl, becoming pale grey and slightly sandy, slightly gravelly. Gravel is fine subangular/subrounded flint.		TD	
5.50-5.95	U	50 blows								
5.95	D				2.20	6.10				
6.50-7.00	SBT	1,2,3 4,6,6 N=19				(0.90)	Stiff dark grey fissured CLAY with rare fossils (AMPTHILL CLAY).		AMP	
						1.30	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
16-07-07			1.00								

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

Project Northstowe				BOREHOLE No BHA031	
Job No 12170626	Date 13-07-07 13-07-07	Ground Level (m AOD) 8.359	Co-Ordinates (OS) E 539955.059 N 266993.024		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv		Reduced Level	Depth (Thickness)	DESCRIPTION	Legend		
0.20-0.80 0.20-0.80	JVV B		0.20	0			(1.10)	Grass over dark brown slightly clayey slightly gravelly SAND with rare rootlets. Gravel is fine angular to rounded flint, Sand is fine to coarse (TERRACE DEPOSITS).		TD	
1.00	SPT	3,8,11 12,10,6 N=39				7.26	1.10				
1.10-1.60	B						(1.70)	Dense yellow brown slightly clayey SAND and GRAVEL. Gravel is fine angular to rounded flint. Sand is fine to coarse. One band of yellow brown gravelly silt 0.2m thick at 2.3m. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).		TD	
2.00-2.50	JRV	2,3,3 4,3,4 N=14	2.00	0		5.56	2.80	2.30 - 2.80 mbgl, 20cm thick bands of yellow brown gravelly SILT. Gravel is fine angular to rounded flint.		TD	
3.00-3.50	JRV	3,4,5 6,5,4 N=20	3.00	0		4.66	3.70	Soft to firm light grey slightly sandy slightly gravelly SILT. Gravel is fine rarely medium angular to rounded flint (TERRACE DEPOSITS).		TD	
4.00	CPT	2,2,4 8,14,15 N=41				3.86	4.50	Dense yellow orange and brown slightly clayey slightly sandy GRAVEL. Sand is medium to coarse. Gravel is fine to medium angular to rounded flint (TERRACE DEPOSITS).		TD	
5.00	CPT					2.86	5.50	Yellow brown slightly clayey SAND and GRAVEL. Gravel is fine to medium angular to rounded flint, Sand is medium to coarse (TERRACE DEPOSITS).		TD	
5.50-6.00	B					2.26	6.10	Yellow brown slightly clayey very gravelly SAND. Gravel is fine to medium angular to rounded flint. Sand is fine to coarse (TERRACE DEPOSITS).		TD	
6.10-6.60	B					1.36	7.00	Stiff to firm dark grey fissured and very thinly laminated CLAY (AMPTHILL CLAY).		AMP	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
13-07-07		1.10									

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

Project Northstowe				BOREHOLE No BHA032	
Job No 12170626	Date 11-07-07 11-07-07	Ground Level (m AOD) 9.318	Co-Ordinates (OS) E 540171.752 N 267031.989		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.20-0.70	B						(1.20)	Grass over dark brown slightly clayey gravelly sand TOPSOIL with frequent rootlets. Gravel is fine angular to rounded flint.		TPS
1.00	SPT	1.4,4 10,11,10 N=35	1.20	0	↓	8.12	1.20	Yellow brown clayey SAND and GRAVEL. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).		
1.20-1.60	B JJVV							2.00 mbgl, material becoming very wet.		
2.00	SPT	4.8,10 10,11,13 N=44						3.00 mbgl, becoming slightly clayey.		
3.00-3.50	SPT	6.19,30 20 N=50/ 115	3.00	0			(5.50)			TD
4.00-4.50	B									
4.60	CPT	8.9,11 12,22,5 N=50/ 232						4.60 mbgl, grave becomes fine medium with occasional coarse gravel.		
						2.62	6.70			
						2.32	7.00	Stiff dark grey fissured and very thinly laminated CLAY (AMPTHILL CLAY).		AMP

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
11-07-07		1.20									

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

Project Northstowe				BOREHOLE No BHA033	
Job No 12170626	Date 11-07-07 11-07-07	Ground Level (m AOD) 8.962	Co-Ordinates (OS) E 540309.289 N 266987.942		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.20-0.70 0.20-0.70	B JJVV		0.20	0		8.26	0.70	Grass over dark brown slightly clayey gravelly sand TOPSOIL with frequent rootlets. Gravel is fine angular to rounded flint.		TPS	
1.00-1.50	CBT	3,5,6 9,10,10 N=35							Dense yellow brown slightly clayey SAND and GRAVEL. Gravel is fine angular to rounded flint. Sand is fine to coarse (TERRACE DEPOSITS).		TD
1.50-2.00	B										
2.00-2.50	CBT	3,4,8 8,8,13 N=37	2.00	0							
2.00-2.50	CBT	3,4,8 6,8,13 N=37									
3.00-3.50	CBT	4,5,8 11,14,11 N=44									
4.00-4.50	SBT	4,6,9 11,11,8 N=39						4.00 mbgl, gravel becomes fine to medium.			
5.00-5.50	SBT	1,3,7 7,6,6 N=26					5.00 mbgl, becoming grey brown. 5.00 - 5.20 mbgl, band of light grey SILT.				
						2.26	6.70				
						1.96	7.00	Stiff dark grey fissured and very thinly laminated CLAY with rare fossils (Belemnites) (AMPTHILL CLAY).		AMP	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
11-07-07			1.40								

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By CW
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Standing water level after 14 hours is 1.4m.



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BOREHOLE LOG

Project Northstowe				BOREHOLE No PTM001	
Job No 12170626	Date 20-07-07 20-07-07	Ground Level (m AOD) 8.851	Co-Ordinates (OS) E 539695.354 N 267389.565		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.20-0.70	JJJJV						(1.10)	MADE GROUND: Black and brown slightly clayey very gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse angular to subangular roadstone and clinker.		MG	
1.00	SPT	2,2,5 14,19,16 N=54/ 255				7.75	1.10	Brown mottled orange slightly sandy very gravelly CLAY. Gravel is fine to medium angular flint (TERRACE DEPOSITS).		TD	
1.30-1.80	JJV					7.55	1.30				
2.00	SPT	7,8,9 9,10,10 N=38						Dense orange brown SAND and GRAVEL. Gravel is fine to medium angular to subangular of mixed lithology including flint (TERRACE DEPOSITS). 2.00 mbgl, becoming orange brown SAND and GRAVEL. Gravel is fine angular to subangular flint and mixed lithology.		TD	
3.00	SPT	3,7,7 10,11,15 N=43									
4.00-4.50	SPT	5,6,3 5,7,9 N=24						3.00 mbgl, becoming medium dense orange brown slightly gravelly SAND.		TD	
5.00	SPT	1,3,4 4,8,8 N=24									
6.50	SPT	1,3,4 4,8,8 N=24				2.75	6.10	Stiff dark grey CLAY with rare fossils (AMPTHILL CLAY).		AMP	
						1.85	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHB001	
Job No 12170626	Date 26-09-05 26-09-05	Ground Level (m AOD) 5.840	Co-Ordinates (OS) E 541099.561 N 267200.026		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1




SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.40	D					5.44	0.40	Soft brown sandy clayey TOPSOIL.		TPS
0.50-1.00	BJJV						(0.60)	Firm light brown mottled grey and orange slightly gravelly sandy CLAY. Gravel is fine subangular chalk (KIMMERIDGE CLAY).		KIMM
1.00-1.50	DB	3.0,2 2.2,3 N=9				4.84	1.00	Firm friable brown mottled grey and orange slightly sandy gravelly CLAY. Gravel is fine to medium subangular chalk, chalk becoming less frequent from 2.0m bgl. Stiff mottled brown laminated clay with rare gypsum from 3.0m (AMPTHILL CLAY).		AMP
2.00-2.50	DB	3.0,3 2,3,2 N=10				(2.90)				
3.00	U	36 blows								
3.50	D									
3.90-4.40	BJJV					1.94	3.90	Weak light grey SILTSTONE (AMPTHILL CLAY).		AMP
4.00	D	7.0,6 6,7,7 N=26				1.44	(0.50) 4.40	Firm to stiff brownish grey CLAY (AMPTHILL CLAY).		AMP
5.00	U	52 blows				(2.60)				
5.50	D									
6.50-7.00	DB	7.0,6 5,5,6 N=22				-1.16	7.00			
7.00	D									

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

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

Project Northstowe				BOREHOLE No BHB001A	
Job No 12170626	Date 12-06-07 12-06-07	Ground Level (m AOD) 6.628	Co-Ordinates (OS) E 541081.995 N 267226.887		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
						6.43	0.20	Grass over brown sandy clay TOPSOIL.		TPS	
0.40-0.70 0.50-0.70	B JV						(1.10)	Stiff to very stiff slightly sandy slightly gravelly CLAY with rare rootlets. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.00-1.40	U					5.33	1.30	Stiff to very stiff grey mottled orange brown CLAY. Becoming grey mottled dark green brown and with rare selenite crystals from 2m (AMPTHILL CLAY).		AMP	
2.00	JSPW	1,3,4 5,4,5 N=18									
2.00-2.50	SPT	1,3,4 5,4,5 N=18									
3.00-3.45	U										
4.00-4.50	SPT	11,4,3 4,4,6 N=17					(5.70)				
5.00-5.45	U										
6.50-7.00	SPT	1,2,3 5,4,5 N=17				-0.37	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By LF		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB002	
Job No 12170626	Date 08-06-07 08-06-07	Ground Level (m AOD) 8.330	Co-Ordinates (OS) E 541282.423 N 267212.986		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.40-0.60 0.50 0.65-1.00	JJJVV B B		0.50	0		7.68	0.65	MADE GROUND: Grass over dark brown slightly silty gravelly sand. Sand is fine to medium. Gravel is fine to medium angular to subangular flint, chalk and rare black glassy slag.		MG
1.00-1.45	U					6.83	1.50	Orange brown slightly gravelly very clayey SAND. Sand is fine to medium. Gravel is fine subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD
1.60 2.00-2.50	D SPT	1,2,2 2,3,6 N=13						Stiff to very stiff grey mottled Orange brown CLAY. Becoming very stiff and mottled brown with rare selenite crystals from 2.5m (AMPTHILL CLAY).		AMP
3.00-3.45	U									
3.50 3.60	JJJVV D		3.50	0						
4.00-4.50	SPT	14,10,5 3,4,6 N=18					(5.50)			
5.00-5.50	SPT	25,60 N=50/ 30								
6.50-7.00	SPT	4,5,7 9,10,1 N=27				1.33	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres
Scale 1:62.5

Contractor / Driller

Method/Plant Used

Cable Percussive Rig

Logged By

LF

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB003	
Job No 12170626	Date 07-06-07 07-06-07	Ground Level (m AOD) 7.080	Co-Ordinates (OS) E 541519.363 N 267000.028		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.00-0.30	B					6.78	0.30	Grass over brown slightly gravelly sandy clay TOPSOIL with frequent rootlets. Gravel is fine to medium angular to subangular flint.		TPS	
0.30-0.90	B		0.30	0		6.48	0.60			TD	
0.30-0.50	JJVV										
1.00-1.35	U						(1.20)	Soft light brown sandy CLAY with cobble sized pockets of fine to medium subangular to rounded flint gravel (TERRACE DEPOSITS).		TD	
1.20-1.50	JJV		1.20	0				Soft mottled orange and grey sandy slightly gravelly CLAY with rare coarse gravel sized pockets of grey silt. Gravel is fine to medium subangular to rounded (TERRACE DEPOSITS).		TD	
1.50-1.80	B					5.28	1.80			TD	
2.00	SBT	1,2,3 4,4,6 N=17				4.98	2.10	Medium dense brown orange sandy GRAVEL. Gravel is fine flint. (TERRACE DEPOSITS).		AMP	
2.10-2.50	B						(1.00)	Firm grey mottled orange CLAY (AMPHILL CLAY).		AMP	
3.10-3.55	SBT	18,7,5 5,6,6 N=22	3.10	0		3.98	3.10			AMP	
3.10-3.55	SBT	18,7,5 5,6,6 N=22				3.53	3.55	Firm grey CLAY with wood remains and pockets or bands of light grey friable silt (AMPHILL CLAY).		AMP	
4.10-4.35	U							Stiff grey CLAY (KIMMERIDGE CLAY).		KIM	
4.60	D										
5.10-5.55	SBT	2,3,5 6,6,6 N=23					(3.45)				
6.50-7.00	SBT	2,3,5 5,4,5 N=19				0.08	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHB004	
Job No 12170626	Date 23-09-05 23-09-05	Ground Level (m AOD) 8.090	Co-Ordinates (OS) E 541299.543 N 267000.048		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.40	D					7.69	0.40	Firm dark brown sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium subangular flint.		TPS	
0.50-1.00	BJJV										
0.80	D										
1.00-1.50	DB	2.0,3 2.2,3 N=10					(1.60)	Medium dense dark brown clayey SAND and GRAVEL. Gravel is fine to medium subangular chalk and flint. Becoming orange with more gravel from 1.0m. With orange sandy mottling from 1.8m (TERRACE DEPOSITS).		TD	
1.80	D										
2.00-2.50	DB	3.0,2 2.3,3 N=10					6.09	2.00	Firm to stiff dark grey slightly gravelly CLAY. Gravel is fine to medium subangular flint with rare fossils from 3.5m bgl (KIMMERIDGE CLAY REWORKED).		KIMM
3.00	U	47 blows						(2.00)			
3.50	D										
4.00-4.50	DBJV	4.0,5 5.4,5 N=19					4.09	4.00	Stiff dark grey slightly gravelly CLAY. Gravel is fine subangular chalk (KIMMERIDGE CLAY REWORKED).		KIMM
5.00-5.50	DB	5.0,6 4.5,6 N=21					3.09	5.00	Stiff dark grey gravelly CLAY. Gravel is fine to medium subrounded to rounded chalk and flint. With no gravel from 6.5m (AMPTHILL CLAY REWORKED).		AMP
6.50-7.00	DB	6.0,7 6.6,7 N=26						(2.00)			
7.00	D						1.09	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres
Scale 1:62.5










Contractor / Driller

Method/Plant Used
Cable Percussive Rig

Logged By
DB

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB006	
Job No 12170626	Date 22-09-05 22-09-05	Ground Level (m AOD) 7.990	Co-Ordinates (OS) E 540899.566 N 267000.000		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.40	D					7.49	(0.50) 0.50	Soft brown sandy clayey TOPSOIL.		TPS
0.50-1.00	B					6.99	(0.50) 1.00	Firm dark brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint (TERRACE DEPOSITS).		TD
0.60	D									
1.00-1.50	BD	1,2,2 2,3,2 N=9					(1.30)	Firm thickly laminated brown mottled orange and grey sandy slightly gravelly CLAY. Gravel is fine to medium chalk and flint (TERRACE DEPOSITS).		TD
2.00-2.50	BD	2,2,3 3,4,4 N=14				5.69	2.30			
2.60	D					5.39	2.60	Medium dense orange clayey very gravelly fine to coarse SAND. Gravel is fine to medium subangular flint (TERRACE DEPOSITS).		TD
3.00-3.45	U	97 blows				4.69	(0.70) 3.30	Firm brown mottled orange sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint (AMPTHILL CLAY).		AMP
3.50	D					4.39	3.60	Very weak light grey SILTSTONE (AMPTHILL CLAY).		KIMM
4.00-4.50	B	2,3,4 4,3,4 N=15					(2.90)	Firm becoming stiff grey mottled dark grey CLAY with rare selenite crystals from 4.0m bgl (AMPTHILL CLAY).		AMP
4.00	D	2,3,4 4,3,4 N=15								
5.00-5.50	BD	3,3,4 5,5,4 N=18				1.49	6.50			
6.50-7.00	BD	3,4,6 5,6,6 N=23				1.29	6.70	Very weak light grey SILTSTONE (AMPTHILL CLAY).		AMP
7.00	D					0.99	7.00	Stiff grey mottled dark grey CLAY with rare selenite crystals (AMPTHILL CLAY).		AMP

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHB007	
Job No 12170626	Date 23-09-05 23-09-05	Ground Level (m AOD) 9.160	Co-Ordinates (OS) E 540899.566 N 266800.020		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA							
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill	
0.50-1.00	BJJV				↓ Water	8.66	(0.50) 0.50	Soft brown sandy clayey TOPSOIL.		TPS		
1.00		1.2.2 3.2.2 N=9				8.16	(0.50) 1.00	Loose brownish orange gravelly clayey SAND. Gravel is fine to medium subrounded to subangular flint (TERRACE DEPOSITS).		TD		
1.50-2.00	B						(1.30)	Loose to medium dense orange slightly clayey gravelly SAND. Gravel is fine to medium subangular flint and fine subrounded chalk (TERRACE DEPOSITS).		TD		
2.00-2.50	BJJV	1.1.3 3.3.2 N=11				6.86	2.30	Firm grey slightly gravelly CLAY. Gravel is fine subrounded chalk. Becoming dark grey with no gravel from 3m bgl. Becoming stiff from 4.0m bgl (KIMMERIDGE CLAY REWORKED).		KIMM		
3.00-3.50	B	2.2.3 4.4.3 N=14					(2.70)					
4.00-4.50	B	2.2.4 3.4.5 N=16					4.16	5.00	Stiff light grey very gravelly CLAY (KIMMERIDGE CLAY REWORKED).		KIMM	
5.00-5.50	B	2.3.5 6.7.7 N=25					2.96	6.20	Stiff thickly laminated dark grey gravelly CLAY. Gravel is fine subrounded chalk and flint (KIMMERIDGE CLAY REWORKED).		KIMM	
6.00		5.7.6 5.5.6 N=22				(0.80)						
6.50-7.00	BJJV					2.16	7.00					

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
						4.9	5.3	0.5			
Date	Time	Strike	Minutes	Standing	Casing						
		2.20	15	1.60							

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

Project Northstowe				BOREHOLE No BHB008	
Job No 12170626	Date 21-09-05 21-09-05	Ground Level (m AOD) 9.790	Co-Ordinates (OS) E 541099.579 N 266800.029		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Legend	Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			
0.50-1.00	DBJ JV					9.29	(0.50) 0.50	Soft brown sandy clayey TOPSOIL.	[Pattern]	TPS	
1.00-1.50	B	6,0,3 3,4,3 N=13						Soft to firm brown and grey sandy slightly gravelly CLAY. Gravel is fine to medium subrounded to subangular chalk and flint. Becoming firm from 1.1m (TERRACE DEPOSITS).	[Pattern]	TD	
1.10	D						(2.50)				
2.00	U	39 blows									
2.50	D										
3.00-3.50	DBJ JV	8,0,5 4,5,4 N=18				6.79	3.00	Stiff grey very gravelly CLAY with rare fossils. Gravel is fine chalk (KIMMERIDGE CLAY REWORKED).	[Pattern]	KIMM	
4.00	U	39 blows									
4.50	D						(2.80)				
5.00-5.50	DB	7,0,4 5,4,5 N=18									
5.80	D	9,0,9 8,9,9 N=35				3.99	5.80	Weak light grey SILTSTONE (KIMMERIDGE CLAY).	[Pattern]	KIMM	
						3.59	6.20	Stiff grey CLAY (KIMMERIDGE CLAY).	[Pattern]	KIMM	
							(0.80)				
7.00	D					2.79	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS No groundwater encountered.
Date	Time	Depth	Casing Depth	Water Depth	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB009	
Job No 12170626	Date 21-09-05 21-09-05	Ground Level (m AOD) 8.190	Co-Ordinates (OS) E 541299.563 N 266800.035		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA					Legend	Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION				
0.40	D					7.79	0.40	Soft brown sandy clayey TOPSOIL.		TPS		
0.50-1.00	BJJV					7.39	0.80	Firm orange brown sandy slightly gravelly CLAY. Gravel is fine to medium subrounded flint and chalk (TERRACE DEPOSITS).		TD		
0.80	D											
1.00	D	5.0.6 4.4.5 N=19					(1.50)	Medium dense orange brown slightly clayey very gravelly fine to medium SAND. Gravel is fine to medium subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD		
1.50-2.00	B											
2.00-2.50	DBJV	4.0.5 5.4.5 N=19				5.89	2.30	Firm grey CLAY (KIMMERIDGE CLAY).		KIMM		
						5.29	2.90					
3.00-3.50	DB	3.0.2 3.4.4 N=13				4.99	3.20	Firm friable light grey CLAY (KIMMERIDGE CLAY).		KIMM		
4.00-4.50	DBJV	3.0.3 4.4.5 N=16						Firm to stiff dark grey CLAY. With brown mottling from 6.0m (KIMMERIDGE CLAY).		KIMM		
5.00	U	47 blows					(3.80)					
5.50	D											
6.50	DU	73 blows										
7.00	D					1.19	7.00					

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dot	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		1.70	15	1.30							
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		

BOREHOLE LOG


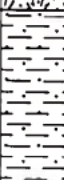
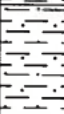

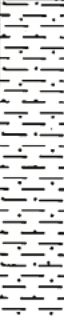


Project Northstowe				BOREHOLE No BHB010	
Job No 12170626	Date 21-09-05 21-09-05	Ground Level (m AOD) 6.760	Co-Ordinates (OS) E 541499.553 N 266800.035		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.50-1.00	DBJV					6.26	(0.50) 0.50	Soft brown sandy clayey TOPSOIL.		TPS	
0.80	D					5.96	0.80	Soft brown mottled orange very sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint and chalk (TERRACE DEPOSITS).		TD	
1.00	U	34 blows									
1.50	D					5.36	(0.60) 1.40	Firm brown mottled orange and grey sandy slightly gravelly CLAY. Gravel is fine subrounded chalk (TERRACE DEPOSITS).		TD	
						5.16	1.60				
2.00-2.50	DB	3,0,2 2,3,2 N=9					(2.20)	Light brown clayey slightly sandy GRAVEL. Gravel is fine to medium subangular flint (TERRACE DEPOSITS). Firm becoming stiff grey sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint (KIMMERIDGE CLAY REWORKED).		KIMM	
3.00	U	48 blows									
3.50	D					2.96	3.80	Firm to stiff dark grey CLAY with rare fossils from 5.9m. No fossils from 6.5m (KIMMERIDGE CLAY).		KIMM	
4.00-4.50	DBJV	4,0,3 4,5,5 N=17					(3.20)				
5.00	U	78 blows									
5.50	D										
6.00		5,0,6 6,7,8 N=27									
6.50-7.00	DB										
7.00	D					-0.24	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		1.50	15	1.20							
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		

BOREHOLE LOG

Project Northstowe				BOREHOLE No	
Job No 12170626		Date 21-09-05 21-09-05	Ground Level (m AOD) 6.630	Co-Ordinates (OS) E 541499.553 N 266600.030	
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.50-1.00	DBJ.V					6.23	0.40	Soft brown sandy clayey TOPSOIL.		TPS	
1.00	U	50 blows					(1.50)	Firm brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint and chalk (TERRACE DEPOSITS).		TD	
1.50	D										
1.90	D					4.73	1.90	Stiff to very stiff grey mottled brown sandy CLAY (KIMMERIDGE CLAY).		KIMM	
2.00-2.50	B	9,0,7 10,8,10 N=35					(1.00)				
3.00-3.50	BJ.V	12,0,7 10,8,10 N=35				3.73	2.90	Weak light grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
4.00-4.50	DB	6,0,3 3,5,3 N=14					(0.50)	Firm to stiff grey mottled brown sandy CLAY. Becoming very stiff and darker with yellow mottling, fossils and fine subrounded chalk from 5.0m (KIMMERIDGE CLAY).		KIMM	
5.00	U	00 blows					(2.80)				
5.50	D										
6.20	D					0.43	6.20	Stiff to very stiff friable light grey sandy CLAY (KIMMERIDGE CLAY).		KIMM	
6.50	D	10,0,5 10,8,10 N=33				-0.07	(0.50) 6.70	Stiff to very stiff dark grey mottled yellow CLAY with fossils and fine subrounded chalk (KIMMERIDGE CLAY).		KIMM	
6.70	D					-0.37	7.00				
7.00	D										

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		2.90	05	2.70	1.00						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB012	
Job No 12170626	Date 20-09-05 20-09-05	Ground Level (m AOD) 7.700	Co-Ordinates (OS) E 541299.557 N 266600.030		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.50-1.00 0.60	BJJV D					7.10	(0.60) 0.60	Soft brown sandy clayey TOPSOIL.		TPS	
1.00-1.50	B	6,0,3 4,3,5 N=15				6.00	(1.10) 1.70	Firm to stiff laminated grey mottled brown and orange slightly sandy slightly gravelly CLAY. Gravel is fine subrounded chalk (TERRACE DEPOSITS).		TD	
1.70	D					4.80	(1.20) 2.90	Firm to stiff brown mottled orange and grey sandy slightly gravelly CLAY. Gravel is fine to medium flint and chalk. Becoming very dark grey with fossils, pyrite and selenite crystals (approximately 2mm in length) from 2.0m (KIMMERIDGE CLAY).		KIMM	
2.00-2.50	B	7,0,3 4,3,5 N=15				4.60	3.10	Weak grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
2.90	D	8,0,5 7,8,7 N=27						Stiff grey slightly sandy CLAY (KIMMERIDGE CLAY).		KIMM	
3.00	D										
3.10	D										
4.00-4.50	DBJV	7,0,3 4,5,5 N=17					(3.20)			KIMM	
5.00	U	99 blows									
5.50	D										
6.30	D					1.40	6.30	Weak grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
6.50	D	9,0,5 4,7,9 N=25				0.90	(0.50) 6.80	Weak grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
7.00	D					0.70	7.00	Stiff grey CLAY (KIMMERIDGE CLAY).		KIMM	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB013	
Job No 12170626	Date 22-09-05 22-09-05	Ground Level (m AOD) 9.080	Co-Ordinates (OS) E 541099.571 N 266600.030		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.50-1.00	DBJV					8.58	(0.50) 0.50	Soft brown sandy clayey TOPSOIL.		TPS	
0.80	D					8.28	0.80	Firm dark brown mottled orange grey sandy slightly gravelly CLAY. Gravel is fine to medium subrounded to subangular flint (TERRACE DEPOSITS).		TD	
1.00-1.50	DB	3.0,2 3.3,2 N=10					(1.80)	Medium dense brown and orange very clayey slightly sandy GRAVEL. Gravel is fine to medium subangular to subrounded flint (TERRACE DEPOSITS).		TD	
2.00-2.50	DB	4.0,2 2.4,3 N=11				6.48	2.60	Firm grey and brown sandy slightly gravelly CLAY. Gravel is fine to medium subrounded flint and chalk. Becoming grey mottled brown with rare fossils from 3.0m bgl (KIMMERIDGE CLAY REWORKED).		KIMM	
3.00-3.50	DBJV	3.0,4 4.3,4 N=15				5.28	3.80	Firm light grey CLAY (KIMMERIDGE CLAY)		KIMM	
4.00-4.50	DB	5.0,4 3.5,3 N=15				4.18	4.90	Stiff grey mottled brown CLAY with rare selenite crystals (approximately 1mm in length). Becoming stiff with no selenite crystals from 5.3m. (KIMMERIDGE CLAY)		KIMM	
4.20	D						(2.10)				
5.00-5.50	DB	6.0,6 5.4,3 N=18					2.08	7.00			
5.30	D										
6.50	D	6.0,5 5.4,5 N=19									
7.00	D										

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHB014	
Job No 12170626	Date 06-06-07 06-06-07	Ground Level (m AOD) 9.248	Co-Ordinates (OS) E 540947.586 N 266600.303		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.00-0.50	B							Grass over firm dark orange brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to rounded flint (TERRACE DEPOSITS).			
0.00-0.50	J/V										
1.00-1.50	SBT	2,2,2 12,12,13 N=39					(2.20)	1.00 mbgl, becoming wet orange brown clay with frequent pockets of light grey clay.		TD	
2.00-2.50	SPT	3,4,2 3,3,4 N=12				7.05	2.20				
2.50-3.00	B							Firm grey slightly gravelly CLAY with rare medium gravel sized pockets of black mottling and pockets of coarse sand. Gravel is fine to medium subangular to rounded chalk and selenite (KIMMERIDGE CLAY). 3.00 mbgl, with rare bands of weak grey siltstone.			
3.30	U										
3.80	B							3.80 mbgl, Gravel is fine to coarse angular siltstone.			
4.30	SBT	2,3,4 5,30,11 N=50/ 236					(4.80)			KIM	
4.30	SBT	2,3,4 5,30,11 N=50/ 236									
5.30	U										
7.00	SBT	8,9,16 35 N=50/ 115				2.25	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		4.20									

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

Project Northstowe				BOREHOLE No BHB015	
Job No 12170626	Date 05-06-07 05-06-07	Ground Level (m AOD) 8.588	Co-Ordinates (OS) E 541098.869 N 266400.093		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
0.00-0.30 0.00-0.40	B JJVVV		0.00	0	↓ Water	8.19	0.40	Firm brown slightly gravelly sandy CLAY with many rootlets and rare black mottling. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).	[Symbol]	TD	
0.90 1.00-1.45	D U					(0.90)		Soft to firm orange brown sandy slightly gravelly CLAY with rare rootlets at 0.4m. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).	[Symbol]	TD	
1.50-2.00 1.50-2.00	JJV B		1.50	0		7.29	1.30	Orange brown clayey SAND and GRAVEL. Gravel is fine to medium angular to subangular. Slightly clayey and gravel is angular to rounded from 2.5m. Becoming light yellow grey with depth (TERRACE DEPOSITS).	[Symbol]	TD	
2.00-2.50	SBT	3,4,4 4,5,5 N=18									
3.00-3.50	SBT	4,11,17 21,12 N=50V 190						(4.50)			TD
4.00-5.00	B										
5.00-5.80	B										
5.80-6.00 6.00-6.50	B SBT	3,4,6 7,7,9 N=29				2.79	5.80	(1.20)	Stiff to very stiff grey CLAY with rare fine sand selenite crystals (KIMMERIDGE CLAY).	[Symbol]	KIM
7.00-7.04	U					1.59	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Opt	From	To	Hours	From	To	
			Strike	Minutes	Standing	Casing					
05-06-07		1.00									

All dimensions in metres
Scale 1:62.5




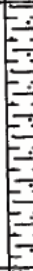

Contractor / Driller

Method/Plant Used
Cable Percussive Rig

Logged By
CW

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB016	
Job No 12170626	Date 04-06-07 05-06-07	Ground Level (m AOD) 8.087	Co-Ordinates (OS) E 541292.879 N 266436.287		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA				Legend	Geology	Instrument/Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			
0.00-0.50 0.00-0.35	JJV B		0.50	0		7.29	0.80	Grass over dark brown sandy slightly gravelly clay TOPSOIL with rootlets. Gravel is fine to medium subangular to subrounded flint.		TPS	
						6.59	1.50	Soft brown mottled orange slightly gravelly sandy CLAY. Gravel is fine to medium angular flint (TERRACE DEPOSITS).		TD	
2.00-2.20 2.00-3.00	SPT SBT	1,2,3 4,4,5 N=16	2.10	0			(2.30)	Firm light grey to grey mottled orange slightly sandy CLAY with rare fine subangular flint and rare rootlets and wood remains (TERRACE DEPOSITS).		TD	
3.00-3.50 3.00-3.45	B U					4.29	3.80				
3.80-4.00 4.00-4.50	B SPT	2,2,2 3,4,4 N=13	3.90	0	↓	4.04	4.05	Light grey to grey friable sandy SILT with coarse gravel size clay pockets (TERRACE DEPOSITS). Stiff light grey CLAY (KIMMERIDGE CLAY).		TD	
5.00-5.03 5.80	U D						(2.95)			KIM	
6.50-7.00	SPT	1,3,4 3,4,5 N=16				1.09	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS No groundwater encountered. Steel liner failed to attach to slide hammer and remained in the ground. Liner dug out by JCB. Sampling resumed after 2m bgl.
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		4.05									

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

Project Northstowe				BOREHOLE No BHB017	
Job No 12170626	Date 01-06-07 04-06-07	Ground Level (m AOD) 7.276	Co-Ordinates (OS) E 541508.999 N 266444.289		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships	Sheet 1 of 1	






SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION		
0.40	D					7.08	0.20	Grass over dark brown very sandy clay TOPSOIL.		TPS
0.80	D						(0.80)	Soft brown mottled grey orange slightly gravelly sandy CLAY. Gravel is fine subangular flint and siltstone (TERRACE DEPOSITS).		TD
0.90	JJV		0.90	0		6.28	1.00	Soft to firm brown orange gravelly very clayey SAND. Gravel is fine subangular to rounded flint (TERRACE DEPOSITS).		TD
1.00-1.45	U					5.68	1.60	1.45 mbgl becoming very gravelly.		TD
1.50	D							Soft to firm light grey mottled orange slightly sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint with frequent large gravel size pockets of silt (TERRACE DEPOSITS).		TD
1.60	B		1.90	0				2.20 mbgl becoming stiff grey slightly sandy clay with occasional medium gravel size pockets of siltstone.		
1.80-2.00	JJV	1,2,2 3,4,5 N=14								
2.00	SPT							4.80 - 5.10 Light grey band of silt containing plant/wood fibres.		
2.70	D									
3.00-3.45	U									
3.60-4.00	BD		3.60	0						
3.60	JJV									
4.00-4.50	SBT	4,3,4 5,5,6 N=20					(5.40)			
5.00-5.45	U									
5.60	D									
6.50-7.00	SPT	2,3,4 5,5,6 N=20				0.28	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	

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

Project Northstowe				BOREHOLE No BHB018	
Job No 12170626	Date 23-09-05 23-09-05	Ground Level (m AOD) 6.070	Co-Ordinates (OS) E 541669.591 N 266513.392		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1





SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.40	D					5.67	0.40	Firm brownish orange sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium subangular to subrounded flint and chalk.		TPS	
0.50-1.00	BJJV						(0.60)				
0.80	D					5.07	1.00	Firm dark brown sandy slightly gravelly CLAY. Gravel is fine to medium subrounded flint and chalk (TERRACE DEPOSITS).		TD	
1.00-1.50	DB	3,0,2 3,3,3 N=11					(0.50)				
						4.57	1.50	Firm brown and grey sandy slightly gravelly CLAY. Gravel is fine subrounded chalk (TERRACE DEPOSITS).		TD	
1.90	D						(1.10)				
2.00-2.50	DB	3,0,3 2,4,3 N=12				3.47	2.60	Medium dense light brown and grey very gravelly slightly clayey fine to coarse SAND. Gravel is fine to medium subrounded flint (TERRACE DEPOSITS).		TD	
2.60	D										
3.00	U	48 blows									
3.50	D										
4.00-4.50	DBJV	5,0,4 2,3,3 N=12					(4.40)				
5.00	U	70 blows									
5.50	D										
6.50-7.00	DB	6,0,5 5,4,5 N=19				-0.93	7.00	Firm brown and grey slightly sandy slightly gravelly CLAY. Gravel is fine subrounded flint. Becoming grey mottled orange from 4.0m. Becoming stiff and dark grey with fossils from 6.0m (KIMMERIDGE CLAY).		KIMM	
7.00	D										

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

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

Project Northstowe				BOREHOLE No BHB019	
Job No 12170626	Date 09-11-05 09-11-05	Ground Level (m AOD) 6.350	Co-Ordinates (OS) E 541699.549 N 266200.032		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.50-1.00	B				↓	5.75	(0.60) 0.60	Soft brown sandy clayey TOPSOIL.		TPS	
0.60	D										
0.80	U				↓						
1.00-1.50	DB	80 blows 1,2,1 2,1,2 N=6				5.25	(0.50) 1.10	Firm brown sandy slightly gravelly CLAY (TERRACE DEPOSITS).		TD	
						4.85	1.50	Soft grey mottled brown sandy slightly gravelly CLAY. Gravel is fine to medium subrounded chalk and subrounded to subangular flint (TERRACE DEPOSITS).		TD	
2.00-2.50	DB	1,2,2 3,5,4 N=14						Firm to stiff fissured grey CLAY with rare shelly fragments. Becoming stiff from 3.5m (KIMMERIDGE CLAY).		KIMM	
3.00-3.50	DB	3,4,3 4,5,3 N=15									
4.00-4.50	DB	1,2,1 10,10,8 N=29					(5.50)				
5.00-5.50	DB	4,4,4 4,5,5 N=18									
6.00	D										
7.00	D					-0.65	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		1.10	15	0.50	1.10						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By MO		



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One Queens Drive
B1
Telephone:
Fax:

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB019A	
Job No 12170626	Date 27-10-05 27-10-05	Ground Level (m AOD) 8.950	Co-Ordinates (OS) E 541302.645 N 266205.264		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
						8.35	(0.60) 0.60	Firm brown silty sandy TOPSOIL		TPS	
						7.95	1.00	Firm to stiff yellow brown sandy slightly gravelly CLAY.		TD	
						6.95	(1.00) 2.00	Moderately compact yellow brown clayey SAND and GRAVEL. Gravel is subangular to subrounded fine to medium flint (TERRACE DEPOSITS).		TD	
						4.15	(2.80) 4.80	Compact yellow brown slightly silty gravelly SAND. Gravel is subangular to subrounded fine to medium flint. Becoming very gravelly with rare cobbles of flint from 2.8m to 3.6m (TERRACE DEPOSITS).		TD	
						2.75	(1.40) 6.20	Firm to stiff brown mottled grey CLAY. Becoming grey from 5.5m with rare gravel size silt pockets (KIMMERIDGE CLAY).		KIMM	
						2.45	6.50	Weak grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
						1.95	(0.50) 7.00	Stiff dark grey CLAY (KIMMERIDGE CLAY).		KIMM	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt.	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By MO
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One Queens Drive
B1
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB020	
Job No 12170626	Date 31-10-05 31-10-05	Ground Level (m AOD) 9.900	Co-Ordinates (OS) E 541120.617 N 265981.674		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.40	D					9.50	0.40	Soft brown sandy slightly gravelly CLAY. Gravel is fine to medium and subangular flint (TERRACE DEPOSITS).		TD	
0.50-1.00	B						(0.80)	Stiff orange brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
1.00-1.40	U	00 blows				8.70	1.20				
1.50	D						(1.30)	Loose orange slightly clayey very gravelly SAND. Gravel is fine to medium angular to subrounded flint. Becoming less gravelly from 2.0m (TERRACE DEPOSITS).		TD	
2.00-2.50	BD	2.1,2 1.2,2 N=7				7.40	2.50	Loose orange medium to coarse SAND (TERRACE DEPOSITS).		TD	
3.00-3.50	BD	3.2,1 2.3,2 N=8					(1.50)			TD	
4.00	D					5.90	4.00	Firm grey SILT. Becoming very sandy from 4.6m (TERRACE DEPOSITS).		TD	
4.00-4.50	B						(2.00)			TD	
4.60-5.10	BD	2.3,3 4.3,3 N=13				3.90	6.00	Stiff dark grey gravelly CLAY. Gravel is fine to medium angular to rounded flint KIMMERIDGE CLAYREWORKED).		KIMM	
6.00	D	3.6,4 5.4,5 N=18					(1.00)			KIMM	
6.70	D					2.90	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
		3.00	15	2.60	3.00						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB		

BOREHOLE LOG

Project Northstowe				BOREHOLE No BHB021	
Job No 12170626	Date 13-10-05 13-10-05	Ground Level (m AOD) 9.670	Co-Ordinates (OS) E 541299.565 N 266000.000		
Supervising Engineer JMC / LF / CW / RLC		Client Gallagher Estates & English Partnerships		Sheet 1 of 1	

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/Backfill
0.50-1.00 0.70	B D					9.17	(0.50) 0.50	Grass over soft dark brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
1.00-1.50	BD	3,3,4 5,6,7 N=22					(1.80)	Medium dense becoming dense orange slightly gravelly fine to coarse SAND. Gravel is fine to medium and subangular flint and chalk. Becoming more gravelly from 0.8m. From 1.2m to 1.5m Becoming clayey with pockets of white sand. From 1.9m Becoming very gravelly and orange brown. Below 2.0m subangular cobbles flint present (TERRACE DEPOSITS).		TD	
2.00-2.50 2.30	BD D	4,5,7 10,8,9 N=34			1	7.37	2.30	Light grey SILT (TERRACE DEPOSITS).		TD	
3.00-3.50	B	6,6,9 11,7,9 N=36			1			Dense very sandy GRAVEL. Gravel is fine to coarse subangular to subrounded flint (TERRACE DEPOSITS).		TD	
4.00-4.50	B	4,5,7 6,10,8 N=31					(3.10)				
5.00-5.50	B	5,5,8 7,6,8 N=29									
5.80 6.00	D D					3.87	5.80	Stiff light grey SILT (TERRACE DEPOSITS).		TD	
6.50-6.90 7.00	U D	42 blows					(1.20) 2.67				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
Date	Time	Strike	Minutes	Standing	Casing						
13-10-05		3.10	15	2.30	3.10						
All dimensions in metres Scale 1:62.5		Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By DB			