

BOREHOLE LOG










Project Northstowe				BOREHOLE No WWC024	
Job No 12170626	Date 24-08-06 24-08-06	Ground Level (m AOD) 10.790	Co-Ordinates (OS) E 540769.630 N 265980.262		
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	JJJJV					10.39	0.40	MADE GROUND: Grass over brown slightly gravelly clay topsoil with frequent rootlets. Gravel is fine to medium angular to subangular flint, red brick, bitumen and tarmac.		MG	
							(0.60)	Firm orange brown slightly gravelly CLAY with rare medium gravel size pockets of buff clayey sand (TERRACE DEPOSITS).		TD	
1.50	JJJJV					9.79	1.00	Brown mottled light brown clayey slightly gravelly SAND with frequent coarse gravel size pockets of buff silt. Gravel is fine to medium angular to subangular chalk (TERRACE DEPOSITS).		TD	
1.60	V					9.19	1.60	Orange brown clayey slightly gravelly SAND. Gravel is fine to medium angular to subangular flint. Becoming slightly clayey from 2.1m (TERRACE DEPOSITS).		TD	
						8.19	2.60	Firm buff mottled orange brown slightly gravelly SILT. Gravel is fine angular to subangular chalk and flint (TERRACE DEPOSITS).		TD	
3.00	JJJJV					7.29	3.50	Firm orange brown mottled light grey CLAY (TERRACE DEPOSITS).		TD	
						6.39	4.40	Firm grey buff slightly sandy slightly gravelly SILT. Gravel is coarse angular to subangular flint gravel (TERRACE DEPOSITS).		TD	
4.50	JJJJV					5.79	5.00	Light brown and grey GRAVEL. Gravel is fine to coarse angular to subangular flint (TERRACE DEPOSITS).		TD	
						5.29	5.50	Orange brown fine to coarse SAND and GRAVEL. Gravel is fine to coarse angular to subangular flint (TERRACE DEPOSITS).		TD	
6.50	JJJJV					4.49	6.30	Stiff grey gravelly CLAY. Gravel is fine to coarse angular to subangular siltstone (KIMMERIDGE CLAY).		KIM	
						3.79	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	Mlnutes	Standing	Casing						
24-08-06		2.10	20		1.50						
24-08-06		4.30	20	3.15	4.00						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By LF/RLC		

BOREHOLE LOG

Project Northstowe				BOREHOLE No WWC025	
Job No 12170626	Date 23-08-06 23-08-06	Ground Level (m AOD) 11.706	Co-Ordinates (OS) E 540744.659 N 265916.912		
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
						11.21	(0.50) 0.50	MADE GROUND: Grass over gravelly topsoil.		MG	
						10.51	(0.70) 1.20	MADE GROUND: Brown slightly sandy clay with occasional medium to coarse angular to subangular flint gravel.		MG	
1.20	JJJVV					10.21	1.50	Brown orange slightly sandy slightly gravelly CLAY with rare medium gravel size pockets of yellow brown sandy clay. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD	
1.50	JJJJV					9.51	(0.70) 2.20				TD
2.20	JJJVV					9.41	2.30	Brown black mottled slightly sandy slightly gravelly CLAY with frequent black coarse gravel size pockets of fine subangular gravel. Gravel is fine to coarse angular to subangular flint. Very strong hydrocarbon odour (TERRACE DEPOSITS).		TD	
							(3.20)				
						6.21	5.50	Firm brown orange slightly sandy slightly gravelly CLAY with rare medium gravel size pockets of buff silt. Slight hydrocarbon odour (TERRACE DEPOSITS).			
							(1.50)	Firm grey slightly gravelly CLAY. Gravel is fine to medium angular to subangular chalk (KIMMERIDGE CLAY).		KIM	
5.50	JJJVV					4.71	7.00	Stiff grey very gravelly CLAY. Gravel is fine to coarse angular siltstone (KIMMERIDGE CLAY).		KIM	



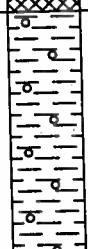

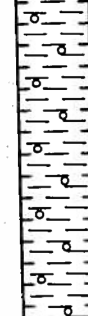
Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	

No groundwater encountered.

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

Project Northstowe				BOREHOLE No WWC026	
Job No 12170626	Date 23-08-06 23-08-06	Ground Level (m AOD) 11.842	Co-Ordinates (OS) E 540732.863 N 265885.518		
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
0.20	JJJJV					11.34	(0.50) 0.50	MADE GROUND: Grass over slightly gravelly clay topsoil with some roots. Gravel is fine to medium angular to subangular flint and chalk and coarse gravel of bitumen/tarmac.		MG	
						10.44	(0.90) 1.40	MADE GROUND: Brown orange mottled slightly sandy slightly gravelly clay. Gravel is fine to medium angular to subangular flint, coke and chalk		MG	
2.50	JJJJV					8.34	(2.10) 3.50	Firm brown orange mottled slightly gravelly CLAY with rare medium gravel size pockets of red brown sandy clay. Gravel is fine to medium angular to subangular flint and chalk (TERRACE DEPOSITS).		TD	
						8.14	3.70	Firm dark brown mottled grey slightly gravelly CLAY. Gravel is fine to medium angular to subangular chalk (TERRACE DEPOSITS).		TD	
						4.84	(3.30) 7.00	Stiff grey slightly gravelly CLAY. Gravel is fine to medium angular to subangular chalk (KIMMERIDGE CLAY).		KIM	

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

BOREHOLE LOG

Project Northstowe				BOREHOLE No WWC027	
Job No 12170626	Date 22-08-06 22-08-06	Ground Level (m AOD) 11.932	Co-Ordinates (OS) E 540718.888 N 265910.734		
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	JJV				↓	11.73	0.20	Grass over brown sandy TOPSOIL.		TPS	
							(0.70)	Dark brown slightly gravelly CLAY with frequent rootlets and rare sand pockets. Sand is fine to medium. Gravel is medium subangular flint (TERRACE DEPOSITS).		TD	
1.50	JJV				↓	11.03	0.90	Firm brown slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is medium subangular to angular flint (TERRACE DEPOSITS).		TD	
							(0.60)	Firm to stiff orange brown very gravelly CLAY. Gravel is medium to coarse subangular to angular flint. Becoming gravelly from 1.5m (TERRACE DEPOSITS).		TD	
3.00	JJV				↓	9.23	2.70	Firm brown mottled grey slightly gravelly CLAY with pockets of fine silt. Gravel is medium subangular flint and chalk (TERRACE DEPOSITS).		TD	
							(0.70)	Firm brown slightly sandy slightly gravelly CLAY with rare light orange brown/red fine to medium sand pockets (TERRACE DEPOSITS).		TD	
4.50-5.00	JJV				↓	8.23	3.70	Stiff grey slightly gravelly CLAY. Gravel is fine flint and chalk from 4.5m (KIMMERIDGE CLAY).		KIM	
							(3.30)				
6.00	JJV				↓	4.93	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	
22-08-06		2.90			2.20						
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/RLC



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD001	
Job No 12170626	Date 08-09-05 08-09-05	Ground Level (m AOD) 10.340	Co-Ordinates (OS) E 539196.664 N 265890.721		
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 0.50	B D					9.84	(0.50) 0.50	Brown sandy clayey TOPSOIL.		TPS
1.00-1.40 1.00-1.40	D U	31 blows				8.94	(0.90) 1.40	Firm yellow brown slightly gravelly sandy CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD
2.00-2.50 2.50	BD D	3,3,2 1,2,2 N=7					(1.80)	Soft becoming firm grey mottled orange brown CLAY with rare white selenite crystals (AMPHILL CLAY).		AMP
3.00-3.40 3.00	U D	39 blows				7.14	3.20	Firm thinly laminated grey CLAY with rare fine pyrite crystals. Becoming stiff at 5.0m. With ammonite fossils at 6.5m. Becoming firm below 6.5m (AMPHILL CLAY).		AMP
4.00-4.50 4.50	BD D	3,3,4 3,3,4 N=14					(3.80)			
5.00-5.40 5.00	U D	71 blows								
6.50-7.00 7.00	BD D	3,4,4 5,4,4 N=17				3.34	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD002	
Job No 12170626	Date 08-09-05 08-09-05	Ground Level (m AOD) 10.860	Co-Ordinates (OS) E 539032.897 N 265685.390		
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					10.36	(0.50) 0.50	Brown sandy clayey TOPSOIL.		TPS
0.50	D									
0.90	D									
1.00-1.50	B	7,6,5 4,3,2 N=14					(1.70)	Firm brown very sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded chalk and flint (TERRACE DEPOSITS).		TD
1.50	D									
2.00	D	5,3,4 3,4,3 N=14				8.66	2.20	Firm grey mottled orange brown CLAY. Becoming very stiff from 5.0m (AMPTHILL CLAY).		AMP
2.20	D									
3.00-3.40	U	30 blows								
3.50	D									
4.00-4.50	BD	7,4,3 4,5,4 N=16					(4.80)			
4.50	D									
5.00-5.40	U	36 blows								
5.50	D									
6.00	D									
6.50	D									
6.50-7.00	B					3.86	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						
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 BHD003	
Job No 12170626	Date 07-09-05 07-09-05	Ground Level (m AOD) 10.850	Co-Ordinates (OS) E 539198.175 N 265704.087		
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		
0.40 0.50-1.00	D B							Firm to stiff brown sandy slightly gravelly CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.80 1.00	D B	2,3,6 6,4,5 N=21			9.45	1.40					
1.50 2.00-2.40	D U			43 blows				Firm to stiff grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine and angular to subrounded flint (TERRACE DEPOSITS).		TD	
2.50 3.00-3.50	D BD				8.25	2.60					
3.50 4.00-4.40	D U	3,3,5 5,6,6 N=22			6.65	4.20		Stiff grey green mottled orange brown CLAY with rare selenite crystals. Becoming grey mottled orange brown from 4.0m (AMPTHILL CLAY).		AMP	
4.50 5.00-5.40	D U			61 blows							
5.50 6.50-7.00	D BD			83 blows				Stiff becoming very stiff grey CLAY (AMPTHILL CLAY)		AMP	
7.00	D	4,4,7 8,9,8 N=32			3.85	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 LF
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD003A	
Job No 12170626	Date 08-09-05 08-09-05	Ground Level (m AOD) 10.490	Co-Ordinates (OS) E 539394.141 N 265579.091		
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 0.50-1.00 0.70	D B D					9.99	(0.50) 0.50	Firm sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
1.00	B	2,3,4 4,3,5 N=16				9.49	(0.50) 1.00	Firm becoming stiff grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine subangular to subrounded chalk (TERRACE DEPOSITS).		TD	
1.50	D							Firm becoming stiff grey mottled orange brown CLAY with rare selenite crystals present. Becoming green grey mottled orange brown from 3.0m (AMPTHILL CLAY).		AMP	
2.00-2.40	U	73 blows								AMP	
2.50	D						(3.20)			AMP	
3.00-3.50	BD	3,3,9 5,8,9 N=31								AMP	
4.00-4.40	U	83 blows				6.29	4.20	Stiff grey CLAY (AMPTHILL CLAY).		AMP	
4.50	D									AMP	
5.00-5.50	BD	4,5,8 7,8,9 N=32					(2.80)			AMP	
6.50-6.90	U	96 blows				3.49	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						

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 BHD004	
Job No 12170626	Date 09-09-05 09-09-05	Ground Level (m AOD) 13.220	Co-Ordinates (OS) E 539097.771 N 265155.918		
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 0.50	B D					12.87	0.35	Firm brown sandy slightly gravelly clay TOPSOIL with rare rootlets. Gravel is fine to medium angular to subrounded flint and rarely chalk.		TPS	Instrument/Backfill
1.00-1.40 1.00	U D	27 blows				12.62	0.60			TD	
1.50	D							Firm to stiff grey brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint and rare quartzite (TERRACE DEPOSITS). Firm green grey mottled grey CLAY (KIMMERIDGE CLAY)		KIMM	
2.00-2.50	BD	3,3,3 2,2,3 N=10					(3.40)				
3.00-3.40 3.00	U D	41 blows									
3.50	D										
4.00-4.50	BD	3,3,2 2,3,2 N=9				9.22	4.00	Firm grey mottled orange brown CLAY with rare white selenite crystals (KIMMERIDGE CLAY).		KIMM	
5.00-5.40	U	61 blows									
5.50	D						(3.00)			KIMM	
6.00	D										
6.50-7.00	BD	3,3,3 2,3,3 N=11				6.22	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						

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 BHD005	
Job No 12170626	Date 09-09-05 09-09-05	Ground Level (m AOD) 13.210	Co-Ordinates (OS) E 538926.047 N 265123.573		
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					12.91	0.30	Firm dark brown slightly sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium angular to subrounded flint with rare rootlets.		TPS	
0.50-1.00	B						(1.10)	Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.80	D										
1.00	B	2,3,5 4,4,3 N=16				11.81	1.40				
1.40	D										
2.00-2.50	B	3,3,5 6,6,7 N=24					(1.20)	Stiff light grey mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular. rare bands of siltstone (REWORKED KIMMERIDGE CLAY).		KIMM	
2.60	D					10.61	2.60				
3.00-3.40	U	57 blows						Stiff green grey mottled grey CLAY with rare white selenite crystals. Becoming grey with rare fossils with depth (KIMMERIDGE CLAY).		KIMM	
3.50	D										
4.00-4.50	BD	4,4,9 7,6,8 N=30					(4.40)				
5.00-5.40	U	76 blows									
6.50-7.00	B										
6.50	D					6.21	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						
All dimensions in metres Scale 1:62.5			Contractor / Driller			Method/Plant Used Cable Percussive Rig			Logged By LF		



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Project Northstowe				BOREHOLE No BHD006	
Job No 12170626	Date 09-09-05 09-09-05	Ground Level (m AOD) 13.920	Co-Ordinates (OS) E 538761.397 N 265040.622		
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					13.62	0.30	Grass over slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subrounded flint.		TPS	
0.50	D						(0.60)	Firm orange brown mottled grey sandy slightly gravelly CLAY. Gravel is fine to coarse angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.90	D						0.90				
1.00-1.50	B	6,2,3 2,3,2 N=10									
1.50	D						(1.20)	Loose to medium dense brown very clayey gravelly SAND. Gravel is fine to medium angular to subrounded flint and chalk (TERRACE DEPOSITS).		TD	
2.00	C	5,3,3 2,3,2 N=10				11.82	2.10	Firm to stiff grey mottled orange brown slightly sandy CLAY (KIMMERIDGE CLAY).		KIMM	
2.10-2.50	B										
2.10	D						(1.90)				
3.00-3.40	U	46 blows									
3.50	D										
4.00-4.50	BD	7,3,4 3,4,5 N=16				9.92	4.00	Firm becoming stiff green grey mottled grey CLAY with rare white selenite crystals. Becoming very stiff from 5.0m (KIMMERIDGE CLAY)		KIMM	
4.80-5.20	B										
5.00	D	8,9,12 8,10,8 N=38					(3.00)				
5.50	D										
6.00	D										
6.50-6.90	U	39 blows									
7.00	D					6.92	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 LF			



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD007	
Job No 12170626	Date 12-09-05 12-09-05	Ground Level (m AOD) 15.650	Co-Ordinates (OS) E 538737.214 N 264744.034		
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						(0.80)	Soft brown sandy slightly gravelly CLAY. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
0.50-1.00	B					14.85	0.80				
0.80	D						(1.00)	Medium dense buff brown clayey gravelly SAND. Gravel is fine to medium angular to subangular flint and chalk. With rare to frequent pockets of grey sandy clay (TERRACE DEPOSITS).		TD	
1.00-1.50	BD	3,3,5 4,5,5 N=19				13.85	1.80				
2.00-2.40	U	43 blows				13.45	2.20	Firm to stiff brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and quartzite (TERRACE DEPOSITS).		TD	
2.50	D							Stiff dark grey slightly gravelly CLAY with rare fine to medium sand sized angular selenite crystals. Gravel is fine subangular to subrounded of a pyretic material. Becoming grey with depth. Becoming very stiff from 6.5m (KIMMERIDGE CLAY)			
3.00-3.50	BD	3,4,6 5,5,4 N=20									
4.00-4.50	BD	3,3,6 7,6,5 N=24					(4.80)			KIMM	
5.00	U										
5.50	D										
6.50-7.00	BD	4,4,9 9,8,7 N=33				8.65	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 LF			



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD009	
Job No 12170626	Date 13-09-05 13-09-05	Ground Level (m AOD) 18.450	Co-Ordinates (OS) E 538351.994 N 264214.796		
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			
0.30	D					18.15	0.30	Dark brown slightly gravelly sandy clay TOPSOIL. Gravel is fine to medium angular to subangular flint.		TPS	
0.50-1.00	BJJVVV							Firm orange and brown with rare grey pockets slightly gravelly sandy CLAY. Gravel is fine to medium subrounded chalk (TERRACE DEPOSITS).		TD	
0.80	D						(2.90)				
1.00-1.50	B	5.0,4 3.4,3 N=14									
2.00-2.45	U	32 blows									
2.50	D										
3.00-3.50	BD	5.0,3 3.2,3 N=11				15.25	3.20	Firm grey mottled orange brown CLAY. With yellow mottling from 3.0m bgl. Becoming firm to stiff, grey and with rare fossils from 5.0m bgl. Becoming stiff with frequent fossils from 6.5m bgl (KIMMERIDGE CLAY).		KIMM	
4.00-4.45	U	46 blows									
4.50	D										
5.00-5.50	BJJVVV	4.0,5 6.3,5 N=19					(3.80)				
6.50-7.00	BD	6.0,6 3.2,1 N=12									
7.00	D					11.45	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		
												Groundwater encountered at 3.2m rising to 3.0m after 15 mins.
Date	Time	Strike	Minutes	Standing	Casing							
13-09-05		3.20	15	3.00	1.00							

All dimensions in metres 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 BHD011	
Job No 12170626	Date 08-09-05 08-09-05	Ground Level (m AOD) 17.220	Co-Ordinates (OS) E 539121.163 N 263438.630		
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		
0.30	JJJV					16.82	0.40	Grass over stiff sandy slightly gravelly clay TOPSOIL. Gravel is fine and angular to subrounded flint.		TPS	
1.00	JJJV			(4.60)			Dark green brown slightly gravelly SAND. Gravel is fine and subangular to subrounded flint (LOWER GREENSAND).		LGS		
3.00	JJJV			12.22		5.00	Firm to stiff grey CLAY with rare pyrite and unidentified fossils (KIMMERIDGE CLAY).		KIMM		
5.00	JJJV					10.22	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						
08-09-06		2.90	15	2.70							

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 BHD012	
Job No 12170626	Date 14-09-05 14-09-05	Ground Level (m AOD) 20.100	Co-Ordinates (OS) E 539569.270 N 263111.057		
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	BJJJVV					19.60	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.		TPS	
1.00	C	4.0,5 3,3,4 N=15				19.10	(0.50) 1.00	Soft to firm brown and grey slightly gravelly sandy CLAY with many rootlets. Gravel is fine to medium subrounded chalk (TERRACE DEPOSITS).		TD	
2.00	S	4.0,5 6,5,4 N=20				18.10	(1.00) 2.00	Soft to firm light brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium subrounded flint and chalk (TERRACE DEPOSITS).		TD	
4.00-4.50	BJJVV	5.0,5 7,6,7 N=25					(5.00)	Firm grey mottled yellow CLAY. Becoming stiff from 2.5m and with orange mottling from 3.5m (GAULT CLAY).		GLT	
5.00	S	6.0,6 7,7,6 N=26				13.10	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						
14-09-05		2.00	15	1.50							

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 BHD014	
Job No 12170626	Date 07-09-05 07-09-05	Ground Level (m AOD) 15.240	Co-Ordinates (OS) E 539848.230 N 263327.305		
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 0.50	B D					14.74	(0.50) 0.50	Soft brown sandy TOPSOIL.		TPS
1.00-1.40 1.00-1.40	D U	39 blows						Firm very closely fissured grey mottled orange brown sandy slightly gravelly CLAY with rare fine white rootlets and quartz belemnite fossils. Gravel is fine to medium angular to subrounded quartzite (GAULT).		GLT
1.50	D									
2.00	B	1,2,2 4,2,4 N=12					(3.00)			
2.50	D									
3.00-3.40 3.00-3.40	D U	87 blows				11.74	3.50			
3.50	D									
4.00	B	3,3,3 3,2,4 N=12					(1.50)	Firm becoming stiff dark grey slightly sandy CLAY with rare quartz belemnite fossils (GAULT).		GLT
4.50	D									
5.00-5.50 5.50	B D	4,4,3 3,2,4 N=12				10.24	5.00	Medium dense dark brown to dark grey slightly clayey SAND (LOWER GREENSAND)		LGS
5.50	D						(1.60)			
6.00	D									
6.50	B	9,10,18 17,18,17 N=70				8.64	6.60	Moderately weak dark green grey SANDSTONE. Recovered as fine to medium subangular to subrounded gravel sized fragments with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).		LGS
						8.29	6.95			

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						
07-09-05		6.50	15	6.10	1.50						
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 BHD015	
Job No 12170626	Date 07-09-05 07-09-05	Ground Level (m AOD) 12.210	Co-Ordinates (OS) E 540166.287 N 263536.345		
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		
						11.91	0.30	Grass over TOPSOIL.		TPS	
0.50-1.00 0.50	B D							Dense brown slightly clayey gravelly SAND. Gravel is fine to medium angular to subrounded of sandstone quartzite and flint (LOWER GREENSAND).		LGS	
1.00-1.50	BD	5,5,9 10,12,10 N=41				(2.90)					
1.50	D										
2.00-2.50	BD	7,8,13 9,12,15 N=49									
2.40	D										
3.00-3.20	BD	9,9,25 25,25 N=75/ 85				9.01	3.20	Moderately weak dark green grey SANDSTONE. Recovered as fine to medium subangular to subrounded gravel sized fragments with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).		LGS	
3.20	C	25,25,25 N=25/ 20				8.86	3.35				

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						
07-09-05		3.20	15	3.00	1.00						

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 BHD016	
Job No 12170626	Date 05-09-05 05-09-05	Ground Level (m AOD) 11.270	Co-Ordinates (OS) E 540272.425 N 263678.356		
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		
0.40	D					10.87	0.40	Grass over TOPSOIL.		TPS	
0.50-1.00	B						(0.60)	Firm orange brown very sandy CLAY (TERRACE DEPOSITS).		TD	
0.80	D					10.27	1.00				
1.00-1.50	BD	7.4,3 4.3,6 N=16					(0.50)	Medium dense orange brown slightly clayey SAND (LOWER GREENSAND).		LGS	
2.00-2.50	B	8.3,4 4.3,4 N=15					(2.70)	Medium dense dark green brown slightly gravelly SAND. Gravel is fine and subangular to subrounded of quartzite and sandstone. Becoming loose at 2.5m. Becoming very dense at 4.0m (LOWER GREENSAND).		LGS	
2.50-3.00	BD	2.1,1 2.3,2 N=8									
3.00	D										
3.50-4.00	BD	3.2,1 2.1,1 N=5									
4.00-4.20	BD	25,25,25 N=25/ 30				7.07	4.20				
4.20	C	25,25,25 N=25/ 30				6.87	4.40	Moderately weak dark green grey SANDSTONE. Recovered as fine to medium subangular to subrounded gravel sized fragments with some fine to medium subangular to subrounded gravels of quartzite (LOWER GREENSAND).		LGS	

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		
						4.2	4.4	1				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 LF			



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD017	
Job No 12170626	Date 06-09-05 06-09-05	Ground Level (m AOD) 10.730	Co-Ordinates (OS) E 540298.896 N 263792.002		
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	D					10.43	0.30	Grass over TOPSOIL.		TPS	
0.50-1.00	B							Stiff brown very sandy CLAY (TERRACE DEPOSITS).		TD	
1.00-1.50	BD	3,4,4 5,6,7 N=22					(1.30)				
1.50	D					9.13	1.60	Medium dense dark green brown slightly clayey SAND. Sand is fine to medium of quartz and a black mineral (LOWER GREENSAND).		LGS	
2.00-2.50	BD	1,2,2 20,3,4 N=29					(1.60)				
2.50	D										
3.00-3.50	BD	3,3,3 2,2,2 N=9				7.53	3.20	Firm grey CLAY (KIMMERIDGE CLAY).		KIMM	
3.20	D						(1.60)				
4.00-4.50	BD	3,4,4 3,2,4 N=13									
4.80	D					5.93	4.80	Very stiff grey sandy slightly gravelly CLAY. Gravel is fine to medium and angular siltstone (KIMMERIDGE CLAY).		KIMM	
5.00-5.50	B	6,7,9 8,10,8 N=35					(0.50)				
5.30	D					5.43	5.30	Stiff grey thickly laminated slightly gravelly CLAY. Gravel is fine to medium and angular (KIMMERIDGE CLAY).		KIMM	
5.80	D						(0.70)				
6.00	D	25,25,25 25,25 N=75/ 145				4.73	6.00	Moderately weak grey SILTSTONE (KIMMERIDGE CLAY).		KIMM	
						4.58	6.15				

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	
						6	6	1			
Date	Time	Strike	Minutes	Standing	Casing						
06-09-05		1.60	15	1.00	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 BHD018	
Job No 12170626	Date 15-09-05 15-09-05	Ground Level (m AOD) 11.620	Co-Ordinates (OS) E 540251.103 N 263901.401		
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		
0.50-1.00	BJJJV					11.12	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.		TPS	
1.00-1.50	B					10.62	(0.50) 1.00	Loose orangish brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is fine to medium subangular flint (LOWER GREENSAND).		LGS	
2.00-2.50	B						(3.00)	Loose orange SAND (LOWER GREENSAND).		LGS	
3.00-3.50	BJJJV										
4.00	S	7.0.4 3.4.4 N=15				7.62	4.00	Firm grey CLAY with rare fossils. Becoming very stiff from 5.5m bgl (KIMMERIDGE CLAY).		KIMM	
5.00-5.45	U	70 blows					(3.00)				
6.50	S	8.0.5 4.5.5 N=19				4.62	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	
		Strike	Minutes	Standing	Casing						
15-09-05		3.70	15	3.00							

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 BHD019	
Job No 12170626	Date 07-09-05 07-09-05	Ground Level (m AOD) 12.740	Co-Ordinates (OS) E 540010.315 N 263693.432		
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 0.60	B D					12.14	(0.60) 0.60	Grass over brown slightly clayey SAND. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD
1.00-1.50 1.50	BD D	3,4,6 8,7,6 N=27					(2.80)	Medium dense orange brown slightly gravelly SAND. Gravel is fine to medium angular to subrounded flint (LOWER GREENSAND).		LGS
2.00-2.50 2.50	BD D	3,3,5 5,6,7 N=23								
3.00-3.50	BD	2,3,5 4,7,6 N=22				9.34	3.40			
4.00-4.50	B	3,3,5 5,6,6 N=22				9.29	3.45	Dark green brown SAND (LOWER GREENSAND). Firm to stiff grey CLAY (KIMMERIDGE CLAY).		LGS KIMM
5.00 5.00-5.40 5.30 5.40	D U B D C	76 blows 50 N=50/ 0				7.34	5.40			
						7.14	5.60	Moderately strong grey SILTSTONE. Recovered as fine to coarse angular to subangular gravel sized fragments in a clay matrix to 5.5m (KIMMERIDGE CLAY).		KIMM

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						
07-09-05		3.40	15	2.90							

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By LF
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Groundwater encountered at 3.4m rising to 2.9m after 15 mins.



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD020	
Job No 12170626	Date 07-09-05 07-09-05	Ground Level (m AOD) 14.180	Co-Ordinates (OS) E 539828.595 N 263849.526		
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 0.50-1.00	D B					13.78	0.40	Grass over brown slightly clayey slightly gravelly SAND. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD
1.00-1.50	BD	3,3,5 4,5,5 N=19					(2.80)	Medium dense becoming dense orange brown slightly gravelly SAND. Gravel is fine and subangular to subrounded flint and quartzite (LOWER GREENSAND).		LGS
1.50	D									
2.00-2.50	BD	2,3,6 6,5,7 N=24								
3.00-3.50	BD	3,3,5 5,7,7 N=24				10.98	3.20	Stiff grey CLAY (KIMMERIDGE CLAY).		KIMM
3.20	D									
4.00-4.50	BD	3,4,7 8,6,8 N=29					(3.80)			
4.50	D									
5.50-6.00	B D									
5.50										
6.50-7.00	B D									
6.50						7.18	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						
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 BHD021	
Job No 12170626	Date 15-09-05 15-09-05	Ground Level (m AOD) 11.560	Co-Ordinates (OS) E 540201.727 N 264034.598		
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
						11.26	0.30	Dark brown slightly sandy clay TOPSOIL.		TPS	
0.50-1.00	BJJJVV					10.76	(0.50) 0.80	Soft dark brown mottled red slightly gravelly sandy CLAY. Gravel is fine to medium subrounded flint with frequent rootlets (TERRACE DEPOSITS).		TD	
1.00	C	3,0,2 2,3,3 N=10									
1.50-2.00	B						(1.50)	Soft to firm orange mottled grey slightly gravelly sandy CLAY. Gravel is medium subrounded flint. Becoming very sandy and slightly gravelly from 2.0m bgl (TERRACE DEPOSITS).		TD	
2.00	C	2,0,3 4,3,4 N=14				9.26	2.30				
3.00-3.50	B	4,0,4 5,5,4 N=18						Firm grey mottled yellow CLAY with rare fossils and no mottling from 3.0m bgl. With brown sandy pockets and stiff cobbled sized clay pockets from 4.0m bgl. Becoming stiff from 6.0m bgl (KIMMERIDGE CLAY).		KIMM	
4.00-4.50	BJJJVV	9,0,8 7,8,9 N=32					(4.70)				
5.00-5.50	B	8,0,9 7,6,8 N=30									
6.00-6.50	B										
6.50	S	6,0,5 4,3,4 N=16				4.56	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD022	
Job No 12170626	Date 15-09-05 15-09-05	Ground Level (m AOD) 11.290	Co-Ordinates (OS) E 540328.395 N 264555.537		
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	BJJJVV					10.79	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.		TPS
1.00-1.50	B	3,0,2 4,3,3 N=12					(2.20)	Firm brown gravelly slightly sandy CLAY. Gravel is fine to medium subangular chalk. Becoming orangish brown slightly gravelly and very sandy from 1.0m bgl. With cobble sized chalk from 2.5m bgl (TERRACE DEPOSITS).		TD
2.00-2.50	B	3,0,4 4,5,4 N=17				8.59	2.70			
3.00-3.50	BJJJVV	6,0,3 4,3,4 N=14					(4.30)	Firm grey mottled yellow CLAY with selenite crystals. Becoming firm to stiff light grey with brown sandy pockets and fine to medium subangular chalk from 4.0m bgl. With rare selenite crystals from 4.9m bgl (KIMMERIDGE CLAY).		KIMM
4.00-4.50	B	9,0,8 7,7,6 N=28								
4.90-5.40 5.00	B C	7,0,4 5,4,5 N=18								
6.50-7.00	B	7,0,4 5,4,6 N=19				4.29	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD023	
Job No 12170626	Date 19-09-05 19-09-05	Ground Level (m AOD) 10.680	Co-Ordinates (OS) E 540501.591 N 264949.621		
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	BJJV					10.18	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.		TPS
1.00-1.50	B					9.68	(0.50) 1.00	Soft dark brown and grey sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint and chalk (TERRACE DEPOSITS).		TD
2.00-2.50	B						(3.00)	Soft to firm grey mottled orange and brown sandy CLAY. With selenite crystals from 2.0m bgl. Becoming firm to stiff from 3.5m bgl (KIMMERIDGE CLAY).		KIMM
4.00-4.50	B					6.68	4.00	Stiff light grey mottled brown CLAY (KIMMERIDGE CLAY).		KIMM
5.00-5.50	BJJV					5.68	5.00	Firm greyish brown very gravelly CLAY. Gravel is fine to medium subangular flint. Becoming stiff with selenite crystals from 6.0m. Becoming dark grey mottled brown with frequent gravel. Gravel is subangular flint from 6.5m (KIMMERIDGE CLAY).		KIMM
						3.68	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD024	
Job No 12170626	Date 19-09-05 19-09-05	Ground Level (m AOD) 12.020	Co-Ordinates (OS) E 540398.955 N 265066.857		
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	BJJV					11.52	(0.50) 0.50	Dark brown slightly sandy clay TOPSOIL.		TPS
1.00-1.50	B	9,6,7 6,5,6 N=24				11.02	(0.50) 1.00	Firm dark brown mottled grey sandy slightly gravelly CLAY. Gravel is fine to medium subangular flint (TERRACE DEPOSITS).		TD
2.00-2.50	B	7,6,8 6,7,6 N=27				10.02	(1.00) 2.00	Firm to stiff orangish brown sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and chalk (TERRACE DEPOSITS).		TD
3.00-3.50	B	11,8,6 7,8,9 N=30						Stiff to very stiff grey mottled yellow sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint and chalk. With selenite crystals from 2.8m bgl. Becoming dark grey with fossils and pyrite from 4.0m bgl. Gravel subrounded from 5.0m bgl (KIMMERIDGE CLAY).		KIMM
4.00-4.50	B	9,7,6 6,8,8 N=28					(5.00)			
5.00-5.50	B	7,8,9 8,9,9 N=35								
6.50-7.00	B	18,13,9 12,15,16 N=52				5.02	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						
19-09-05		3.10	15	2.50							
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 BHD025	
Job No 12170626	Date 15-09-05 15-09-05	Ground Level (m AOD) 14.010	Co-Ordinates (OS) E 540073.689 N 264783.332		
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	BJJV					13.71	0.30	Brown sandy TOPSOIL.		TPS
1.00	C	4.0,3 3.2,3 N=11					(2.10)	Soft to firm orange gravelly very sandy CLAY. Gravel is fine to medium subrounded chalk and flint (TERRACE DEPOSITS).		TD
2.00	C	5.0,3 2.2,4 N=11				11.61	2.40	Firm grey mottled yellow CLAY with frequent selenite crystals. With no mottling and selenite crystals from 3.0m bgl. With brown mottling, pyrite and frequent fossils from 4.0m bgl (KIMMERIDGE CLAY).		KIMM
3.00	S	4.0,5 5.3,5 N=18					(4.60)			
4.00-4.50	B.SIV	5.0,5 6.4,5 N=20								
5.00	S	7.0,7 6.6,8 N=27								
6.50	S	7.0,8 6.6,8 N=28				7.01	7.00			

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						
15-09-05		2.20	15	1.80							

All dimensions in metres Scale 1:62.5	Contractor / Driller	Method/Plant Used Cable Percussive Rig	Logged By DB
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Groundwater encountered at 2.2m rising to 1.8m after 15 mins.



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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD026	
Job No 12170626	Date 13-09-05 13-09-05	Ground Level (m AOD) 15.240	Co-Ordinates (OS) E 539624.044 N 264805.397		
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		
0.30	D					14.94	0.30	Dark brown slightly sandy clay TOPSOIL.		TPS	
0.50-1.00	BJJVVV						(0.60)	Soft brown gravelly slightly sandy CLAY with frequent rootlets. Gravel is fine to medium flint and chalk. Slight hydrocarbon odour (TERRACE DEPOSITS).		TD	
0.50	D					14.34	0.90				
0.80	D										
1.00	BD	4.0,3 3.2,3 N=11				14.04	1.20	Soft light brown and orange slightly gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular chalk and flint (TERRACE DEPOSITS).		TD	
							(1.60)	Loose light brown very gravelly SAND with pockets of firm grey clay. Gravel is fine to medium subangular chalk and flint (TERRACE DEPOSITS).		TD	
2.00	BD	4.0,4 3.4,5 N=16				12.44	2.80				
3.00	BD	5.0,5 6.5,4 N=20					(1.20)	Firm to stiff grey mottled yellow and orange gravelly CLAY with some selenite crystals. Gravel is fine to medium subrounded chalk and flint (KIMMERIDGE CLAY).		KIMM	
						11.24	4.00				
4.00-4.50	BJJVVV	6.0,7 7.6,5 N=25					(3.00)	Stiff dark grey CLAY with selenite crystals and rare fossils (KIMMERIDGE CLAY).		KIMM	
4.00	BD	6.0,7 7.6,5 N=25									
5.00	U										
5.50	D										
6.50	U										
6.50	D										
7.00	D					8.24	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		
												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 BHD027	
Job No 12170626	Date 13-09-05 13-09-05	Ground Level (m AOD) 15.100	Co-Ordinates (OS) E 539276.605 N 264809.469		
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		
0.50-1.00	BJJJVV					14.50	0.60	Dark brown slightly sandy clay TOPSOIL.		TPS	
1.00-1.45	U	30 blows					(1.10)	Soft to firm dark brown slightly gravelly sandy CLAY. Gravel is frequent fine to medium subangular to angular flint with frequent roots (TERRACE DEPOSITS).		TD	
1.50	D					13.40	1.70				
2.00	BD	3.0,2 2.3,2 N=9				13.20	1.90	Loose brownish orange clayey gravelly SAND. Gravel is fine to medium subangular chalk (TERRACE DEPOSITS).		TD	
3.00-3.45	U	33 blows					(2.10)	Soft to firm brown and grey gravelly CLAY with some selenite crystals. Gravel is subrounded chalk (KIMMERIDGE CLAY).		KIMM	
3.50	D										
4.00-4.50	BJJJVV	4.0,3 2.3,5 N=13				11.10	4.00	Firm to stiff grey mottled orange brown CLAY. Becoming grey mottled yellow from 6.5m bgl (KIMMERIDGE CLAY).		KIMM	
4.00	BD	4.0,3 2.3,5 N=13									
5.00-5.45	U	39 blows					(3.00)			KIMM	
5.50	D										
6.00	D										
6.50	BD	5.0,3 2.3,5 N=13				8.10	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						
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 BHD028	
Job No 12170626	Date 13-09-05 13-09-05	Ground Level (m AOD) 16.680	Co-Ordinates (OS) E 539241.703 N 264625.896		
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		
0.40	D					16.18	(0.50) 0.50	Dark brown slightly sandy slightly gravelly clay TOPSOIL.		TPS	
0.50-1.00	BJJJVV										
0.80	D					15.68	(0.50) 1.00	Soft brown and orange slightly gravelly sandy CLAY. Gravel is fine to medium subrounded to subangular chalk and flint with frequent rootlets (TERRACE DEPOSITS).		TD	
1.00	BD										
2.00-2.50	BJJJVV	4.0.3 5.3.2 N=13					(1.80)	Soft orange brown gravelly clayey SAND. Gravel is fine to medium subrounded to subangular chalk and flint (TERRACE DEPOSITS).		TD	
3.00-3.45	U	32 blows					(1.20)	Firm brown and grey mottled yellow gravelly CLAY with some selenite crystals. Gravel is fine subrounded chalk (KIMMERIDGE CLAY).		KIMM	
3.50	D										
4.00	BD	7.0.5 3.4.6 N=18				12.68	4.00	Firm dark grey CLAY with frequent fossils (KIMMERIDGE CLAY).		KIMM	
5.00-5.45	U	57 blows					(3.00)				
5.50	D										
6.50	BD	7.0.4 4.6.7 N=21				9.68	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						

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 BHD031	
Job No 12170626	Date 03-07-07 03-07-07	Ground Level (m AOD) 15.494	Co-Ordinates (OS) E 539741.213 N 263927.433		
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	B							Grass over firm dark brown very sandy clay TOPSOIL.		TPS	
0.30-0.50	JJV		0.30	0	14.99	(0.50) 0.50		Firm brown sandy slightly gravelly CLAY. Gravel is medium subrounded flint and ironstone. Brown and red mottled and thinly laminated orange brown and grey from 1m (TERRACE DEPOSITS).		TD	
1.00-1.50	B					(1.00)					
1.00-1.45	U	35 blows			13.99	1.50					
1.45	D										
2.00-2.50	SBT	1,1,1 1,2,2 N=6						Firm dark grey mottled orange and yellow CLAY. Becoming firm to stiff dark grey from 3-5m with rare fine to medium angular gravel sized selenite crystals. Stiff to very stiff from 5.5m. Bands of grey moderately weak siltstone from 4.3m (KIMMERIDGE CLAY).		KIM	
3.00-3.45	U	45 blows									
3.45	D										
4.00-4.50	SBT	2,2,2 3,4,4 N=13				(5.50)					
5.00-5.45	U	60 blows									
5.45	D										
6.50-7.00	SBT	4,3,4 4,6,7 N=21			8.49	7.00					





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						

Groundwater not encountered. Pushing a boulder from 6.4-7.0m.

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 BHD032	
Job No 12170626	Date 06-07-07 06-07-07	Ground Level (m AOD) 14.003	Co-Ordinates (OS) E 539928.158 N 264032.974		
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		
0.20-0.80	B					13.80	0.20	MADE GROUND: Slightly clayey gravelly sand topsoil. Sand is fine to coarse. Gravel is fine to medium angular brick.		MG
0.20-0.80	JJVV						(0.80)	MADE GROUND: Red brown very gravelly sand. Sand is fine to coarse. Gravel is fine to coarse angular to subangular brick, flint and concrete with rare cobbles of brick and concrete. Also with rare pockets of soft brown mottled grey clay.		MG
1.00-1.50	CBT	1,0,1 1,1,1 N=4				13.00	1.00	Soft thinly laminated brown mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and ironstone (TERRACE DEPOSITS).		TD
1.50	D					12.10	1.90			
2.00-2.45	U	20 blows						Soft to firm grey mottled brown and yellow CLAY with rare to rare fine to coarse sand pockets and fine to medium angular gravel sized selenite crystals. Stiff from 5.5m. Becoming dark grey (not mottled) from 3.5m with rare selenite crystals and rare pyritic fossils. With rare bands of weak siltstone from 6.4m (KIMMERIDGE CLAY).		KIM
2.45	D									
3.00-3.50	JSPVB	1,1,2 1,2,3 N=8								
3.50-4.00	B									
4.00-4.45	U	40 blows								
4.45	D						(5.10)			
5.00-5.50	SBT	1,1,3 3,4,4 N=14								
6.50-7.00	SBT	10,5,4 4,4,6 N=18				7.00	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS Groundwater not encountered.
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 BHD033	
Job No 12170626	Date 12-09-07 12-09-07	Ground Level (m AOD) 15.939	Co-Ordinates (OS) E 539760.280 N 264057.549		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1




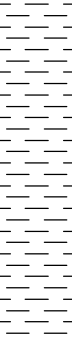

SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.50	JJJVV		0.50	0		15.64	0.30	Grass and hay stubble over brown compact very clayey slightly gravelly fine SAND with occasional rootlets. Gravel is fine subangular to rounded flint (TERRACE DEPOSITS).		TD	
0.60	D						(0.70)			TD	
1.00-1.45	U	30 blows				14.94	1.00	Soft brown mottled orange and grey slightly sandy CLAY (TERRACE DEPOSITS).			
1.60	JJJVV		1.50	0		14.44	(0.50) 1.50	Orange brown mottled red brown light grey and brown slightly gravelly sandy CLAY. Gravel is fine to medium angular to rounded flint and chalk (TERRACE DEPOSITS).		TD	
2.00-2.45	SBT	1,1,2 2,2,3 N=9				13.94	(0.50) 2.00	Soft orange brown mottled brown light grey and red sandy CLAY with occasional fine to medium angular to rounded flint (TERRACE DEPOSITS).		TD	
2.00-2.50	SBT	1,1,2 2,2,3 N=9					(1.00)	Soft thinly laminated grey mottled orange and light yellow CLAY with occasional selenite crystals and red decomposed woody plant remains (KIMMERIDGE CLAY).		KIM	
3.00-3.45	U	70 blows	3.00	0		12.94	3.00	Firm thinly laminated grey CLAY with occasional fine angular selenite crystals, fine gravel sized pyrite nodules. Rare white shell fragments at 3.5m. Becoming stiff from 5m (KIMMERIDGE CLAY).			
3.45-3.55	JJJVV										
4.00-4.50	SBT	1,2,2 3,3,4 N=12									
4.00-4.45	SBT	1,2,2 3,3,4 N=12					(3.70)			KIM	
5.00-5.45	U	100 blows									
5.50	JJJVV		5.50	0							
6.00	D										
6.50-6.95	SBT	2,4,14 12,8,8 N=42				9.24	6.70				
						9.14	6.80	Weak light grey SILTSTONE (KIMMERIDGE CLAY).	x x x	KIM	
						8.94	7.00	Stiff grey CLAY (KIMMERIDGE CLAY).		KIM	

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 BHD034	
Job No 12170626	Date 04-07-07 04-07-07	Ground Level (m AOD) 15.969	Co-Ordinates (OS) E 539597.949 N 264055.630		
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					15.67	0.30	Grass over firm to stiff brown sandy slightly gravelly clay TOPSOIL. Gravel is fine angular to subrounded flint.		TPS	Instrument/ Backfill
0.30-0.80	B					(0.70)	Firm orange mottled brown sandy CLAY (TERRACE DEPOSITS).		TD		
1.00-1.45	U	35 blows				14.97	1.00	Soft to firm brown mottled grey CLAY with frequent medium to coarse angular gravel sized selenite crystals (KIMMERIDGE CLAY).		KIM	
1.45	D					14.47	(0.50)				
2.00-2.50	SBT	1,1,2 2,3,3 N=10						Firm dark grey mottled orange and yellow CLAY with rare fine to medium sand and angular medium to coarse gravel sized selenite crystals. Dark grey mottled yellow from 2.7m. Not mottled yellow from 4m and rare fine subangular pyritic fossils. Close fissuring noted towards base at ~ 6.8m (KIMMERIDGE CLAY).		KIM	
3.00-3.45	U	45 blows									
3.45	D										
4.00-4.50	SBT	2,2,3 4,4,4 N=15					(5.50)	4.00 mbgl, not mottled yellow.		KIM	
5.00-5.45	U	55 blows									
5.45	D										
6.50-7.00	SBT	2,3,4 5,6,6 N=21				8.97	7.00				

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS Groundwater not encountered.
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 BHD035	
Job No 12170626	Date 04-07-07 04-07-07	Ground Level (m AOD) 15.817	Co-Ordinates (OS) E 539384.167 N 264245.927		
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				15.62	0.20	Grass over firm brown sandy clay TOPSOIL.		TPS		
0.30-0.80	B					(1.10)	Firm orange brown mottled brown sandy slightly gravelly CLAY. Gravel is fine subangular sandstone and angular to subrounded flint (TERRACE DEPOSITS).		TD		
0.70	JJVV		0.70	0							
1.00-1.45	U	20 blows			14.52	1.30	Loose brown clayey gravelly SAND. Sand is medium to coarse. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD		
1.50-1.95	U	55 blows				(1.00)					
1.95	D				13.52	2.30					
2.50	JJVB	1,1,1 2,3,2 N=8	2.50	0			Firm to stiff grey mottled yellow and orange CLAY with frequent medium to coarse sand and firm angular gravel sized selenite crystals. Dark grey mottled yellow from 2.5m. Dark grey only from 3m (KIMMERIDGE CLAY).		KIM		
3.50-3.95	U	55 blows									
3.95	D										
4.50-5.00	SBT	2,3,4 4,4,6 N=18				(4.70)					
5.50-5.95	U	60 blows									
5.95	D										
6.50-7.00	SBT	2,2,12 9,4,5 N=30			8.82	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD035A	
Job No 12170626	Date 12-09-07 12-09-07	Ground Level (m AOD) 15.817	Co-Ordinates (OS) E 539383.660 N 264245.430		
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
						14.32	1.50	Grass over brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is fine angular to rounded flint (TERRACE DEPOSITS).		TD	
						13.87	1.95	Compact yellow brown slightly clayey gravelly fine to medium SAND. Gravel is fine to medium angular to rounded flint (TERRACE DEPOSITS).		TD	
						13.82	2.00	Soft grey mottled orange brown CLAY (KIMMERIDGE CLAY).		KIM	

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 BHD036	
Job No 12170626	Date 11-09-07 11-09-07	Ground Level (m AOD) 14.866	Co-Ordinates (OS) E 539574.054 N 264217.516		
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	JJJVV		0.40	0		14.37	(0.50)	Brown clayey fine sand TOPSOIL with rare fine to medium subangular to subrounded flint and chalk gravel.		TPS	
0.50	D					14.17	0.70	Recovered as firm brown mottled red sandy slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded flint, chalk and phosphate nodules (TERRACE DEPOSITS).		TD	
0.80	D							Soft grey mottled orange CLAY with rare fine angular selenite (KIMMERIDGE CLAY).		KIM	
1.00-1.45	U	80 blows						1.00 - 5.00 mbgl, becoming friable			
1.50	JJJVV		1.50	0			(2.50)	2.00 mbgl, thinly laminated with orange mottling on layer faces and occasional red brown woody plant remains.		KIM	
2.00-2.50	SBT	1,1,2 2,2,6 N=12									
2.00-2.45	SBT	1,1,2 2,2,6 N=12									
2.90-3.00	JJJVV		2.90	0		11.67	3.20	3.00 mbgl, no mottling.			
3.00-3.45	U	70 blows						Stiff blue grey CLAY (KIMMERIDGE CLAY).			
4.00-4.50	SBT	1,2,2 3,3,5 N=13									
4.00-4.45	SBT	1,2,2 3,3,5 N=13									
5.00-5.45	U	90 blows					(3.50)			KIM	
6.00	D										
6.50-6.95	SBT	6,5,6 6,7,8 N=27				8.17	6.70				
						8.07	6.80	Recovered as weak grey SILTSTONE (KIMMERIDGE CLAY).		KIM	
						7.87	7.00	Stiff blue grey CLAY (KIMMERIDGE CLAY).		KIM	

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 BHD037	
Job No 12170626	Date 11-09-07 11-09-07	Ground Level (m AOD) 14.455	Co-Ordinates (OS) E 539750.100 N 264196.452		
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		
0.30	JJVVV		0.30	0		13.96	(0.50) 0.50	Recovered as stiff brown sandy slightly gravelly clay TOPSOIL. Sand is fine. Gravel is fine angular to subrounded flint and phosphate nodules. Becoming orange brown with depth.		TPS	
0.60	D							Firm grey mottled orange CLAY with rare to occasional selenite crystals (KIMMERIDGE CLAY).		KIM	
1.00-1.45	U	30 blows					(2.80)				
2.00	JSPV	1,1,2 2,3,3 N=10	2.00	0							
2.00-2.50	SBT	1,1,2 2,3,3 N=10									
2.00-2.45	SBT	1,1,2 2,3,3 N=10									
3.00-3.45	U	30 blows				11.16	3.30	3.00 mbgl. grey mottled yellow and orange.		KIM	
4.00-4.45	SBT	1,2,2 3,4,5 N=14	4.00	0							
4.00	JSPV	1,2,2 3,4,5 N=14									
4.00-4.50	SBT	1,2,2 3,4,5 N=14					(3.30)	5.00 - 5.50 mbgl. fine angular to subangular pyrite gravel .		KIM	
5.00-5.45	U	100 blows									
6.00	D										
6.50-6.95	SBT	12,13,5 5,5,7 N=22				7.86	6.60				
						7.76	6.70	Recovered as moderately weak grey SILTSTONE (KIMMERIDGE CLAY).		KIM	
						7.46	7.00	Firm dark grey slightly friable CLAY with rare selenite crystals (KIMMERIDGE CLAY).		KIM	

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 BHD038	
Job No 12170626	Date 05-07-07 05-07-07	Ground Level (m AOD) 14.036	Co-Ordinates (OS) E 539902.239 N 264182.935		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1




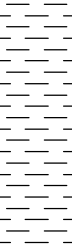


SAMPLES & TESTS					STRATA						
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION	Legend	Geology	Instrument/ Backfill
0.00-0.50	B					13.84	0.20	Grass over very soft to soft dark brown sandy clay TOPSOIL.		TPS	
0.50-1.00	B							Firm brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and sandstone (TERRACE DEPOSITS).		TD	
1.00-1.45	U	20 blows				(1.70)					
1.45	D					12.14	1.90	Soft to firm grey mottled brown and yellow CLAY (KIMMERIDGE CLAY).		KIM	
2.00-2.50	SBT	1,1,1 2,2,2 N=7				(2.10)					
3.00-3.45	U	45 blows						Firm to stiff dark grey CLAY with rare bands of moderately weak siltstone (KIMMERIDGE CLAY).		KIM	
3.45	D					10.04	4.00				
4.00-4.50	SBT	1,2,3 4,4,5 N=16								KIM	
5.00-5.45	U	60 blows				(3.00)					
5.45	D									KIM	
6.50-7.00	SBT	2,3,4 4,3,2 N=40/ 215				7.04	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
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BOREHOLE LOG

Project Northstowe				BOREHOLE No BHD039	
Job No 12170626	Date 04-07-07 04-07-07	Ground Level (m AOD) 13.991	Co-Ordinates (OS) E 539753.124 N 264321.385		
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		
						13.79	0.20	Grass over dark brown very sandy clay TOPSOIL.		TPS
0.50	JJV		0.50	0			(1.00)	Soft to firm brown sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint and sandstone (TERRACE DEPOSITS).		TD
1.00-1.45	U	50 blows				12.79	1.20			
1.60	D							Firm grey mottled yellow and orange CLAY with frequent medium to coarse sand and fine to medium gravel sized selenite crystals from 2m (KIMMERIDGE CLAY).		KIM
2.00-2.50	SPT	2,1,2 3,3,3 N=11	2.10	0						
2.10	JJV									
3.00-3.45	U							3.00 mbgl, becoming stiff dark grey with rare selenite and pyritic fossils.		KIM
3.60	D						(4.70)			
4.00-4.50	SPT	1,2,2 3,4,4 N=13								
5.00-5.45	U	50 blows								
5.60	D									
						8.09	5.90			
							(0.50)	Moderately weak grey SILTSTONE (KIMMERIDGE CLAY).		KIM
						7.59	6.40			
6.50-7.00	SPT	2,2,4 46 N=50/ 140					(0.60)	Stiff dark grey CLAY with rare pyritic fossils (KIMMERIDGE CLAY).		KIM
						6.99	7.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS Groundwater not encountered.
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 BHD040	
Job No 12170626	Date 05-07-07 05-07-07	Ground Level (m AOD) 14.974	Co-Ordinates (OS) E 539490.658 N 264338.597		
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	B					14.77	0.20	Grass over very soft dark brown slightly sandy clay TOPSOIL.		TPS
0.30-0.80	JJV B		0.30	0			(1.40)	Firm brown mottled red brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD
1.00-1.35	U	60 blows								
1.35	D					13.37	1.60			
2.00-2.50	SBT	1,1,1 2,1,2 N=6				13.17	1.80	Medium dense orange brown gravelly SAND. Sand is fine to medium. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD
3.00-3.45	U	35 blows						Firm grey mottled orange and yellow CLAY, with rare to frequent medium to coarse sand and fine to medium angular gravel sized selenite crystals. Becoming dark grey with rare pyritic fossils and bands of moderately weak siltstone from 4m. Becoming stiff from 5m (KIMMERIDGE CLAY).		KIM
3.45	D									
4.00-4.50	SBT	1,2,2 3,3,4 N=12					(5.20)			
5.00-5.45	U	35 blows								
5.45	D									
6.50-7.00	SBT	4,4,5 6,7,7 N=25				7.97	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						
05-07-07		1.35									

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 BHD040A	
Job No 12170626	Date 12-09-07 12-09-07	Ground Level (m AOD) 14.974	Co-Ordinates (OS) E 539491.158 N 264338.597		
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
						13.97	1.00	Brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
						13.47	1.50	Yellow brown slightly clayey gravelly SAND. Gravel is fine to medium angular to subrounded flint (TERRACE DEPOSITS).		TD	
						13.02	1.95	Soft light grey mottled orange brown CLAY with fine to medium gravel sized pockets of orange sand (TERRACE DEPOSITS).		TD	
						12.97	2.00	Soft thinly laminated grey mottled yellow CLAY (KIMMERIDGE CLAY).		KIM	

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 PTM012	
Job No 12170626	Date 05-04-07 05-04-07	Ground Level (m AOD) 15.474	Co-Ordinates (OS) E 539845.775 N 263833.393		
Supervising Engineer JMC / LF / CW / RLC			Client Gallagher Estates & English Partnerships		Sheet 1 of 1


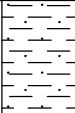
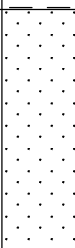

SAMPLES & TESTS					STRATA				Geology	Instrument/ Backfill	
Depth	Type No	Test Result	PID Depth	Result ppmv	Water	Reduced Level	Depth (Thickness)	DESCRIPTION			Legend
						15.22	0.25	Soft to firm dark brown sandy slightly gravelly clay TOPSOIL. Gravel is fine to medium angular to subangular flint.		TPS	
							(1.25)	Stiff dark brown sandy to very sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint (TERRACE DEPOSITS).		TD	
						13.97	1.50	Soft brown very sandy slightly gravelly CLAY. Gravel is fine to medium angular to subangular flint. Dark grey organic band at 1.6m (TERRACE DEPOSITS).		TD	
						13.77	1.70				
							(1.60)	Brown to dark green slightly gravelly SAND. Sand is fine to medium. Gravel is fine to medium, angular flint (LOWER GREENSAND).		LGS	
						12.17	3.30	Firm to stiff blue to dark grey CLAY with rare pyritic fossils and medium to coarse sand sized selenite crystals (KIMMERIDGE CLAY).		KIM	
							(2.00)				
						10.17	5.30				

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 PTM013	
Job No 12170626	Date 04-07-07 04-07-07	Ground Level (m AOD) 15.460	Co-Ordinates (OS) E 539841.909 N 263836.716		
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		
						14.96	(0.50) 0.50	Dark brown slightly gravelly fine to medium sand TOPSOIL. Gravel is fine subrounded flint. Becoming brown from 0.2m.		TPS	
						13.96	(1.00) 1.50	Soft to firm brown mottled orange brown very sandy slightly gravelly CLAY. Gravel is fine angular to subrounded flint (TERRACE DEPOSITS).		TD	
						11.96	(2.00) 3.50	Orange brown fine to medium SAND (LOWER GREENSAND).		LGS	
						8.46	(3.50) 7.00	Very stiff very closely to closely fissured dark grey blue CLAY (KIMMERIDGE CLAY).		KIM	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS Slight groundwater seepage at 1.5m.
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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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539243.29

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

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.40	B4	1.20	SPT(S)	N=9 (1,2/2,2,3)			14/12/2016 13:00	0.00	Grass and turf over soft to firm, brown, slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is rounded, fine to medium of flint.		(0.40)	14.47	
0.10 - 0.40	ES1												
0.40 - 0.90	B5												
0.50	D13												
0.60 - 0.80	ES2								Soft to firm, orangish brown mottled grey, slightly gravelly CLAY. Gravel is sub-angular to sub-rounded, fine to medium of flint. [RIVER TERRACE DEPOSITS]		(0.60)		
1.00 - 1.20	B6								Loose, orangish brown, clayey fine to coarse SAND with occasional pockets of grey, silty clay. [RIVER TERRACE DEPOSITS]		1.00 (0.20)	13.87	
1.00 - 1.20	ES3								Firm, light grey mottled orange, slightly sandy CLAY. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]		1.20 (0.20)	13.67	
1.20 - 1.40	B10								Firm, dark grey mottled yellow, slightly gravelly CLAY with occasional gypsum crystals. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]		1.40 (0.20)	13.47	
1.20 - 1.40	ES7												
1.40 - 2.00	B11												
1.60 - 1.80	ES8												
2.00	D15												
2.50 - 3.00	B12										(2.20)		
3.00 - 3.45	UT1						14/12/2016 17:00	2.50					
3.50	D4						15/12/2016 09:00	2.50					
3.60 - 4.00	B7								Firm to stiff, grey, fissured, silty CLAY with occasional gravel of siltstone, shells and shell fragments. [KIMMERIDGE CLAY FORMATION]		3.60	11.27	
3.70 - 3.90	ES9												
4.50	D5	4.50	SPT(S)	N=10 (1,2/2,2,3)									
4.50 - 5.00	B8												
5.50	D6												
5.50 - 6.00	B9												
6.00 - 6.45	UT2												
6.50	D7												
6.50 - 7.00	B10												
7.50	D8	7.50	SPT(S)	N>50 (5,20 for 25mm/50 for 35mm)									
7.60 - 7.90	B11												
7.60	D9												
7.60 - 7.90	B11												
8.50 - 8.70	B12								Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		7.60 (0.30)	7.27	
8.80	D9								Stiff to very stiff, grey, fissured, silty CLAY with occasional gravel of siltstone. [KIMMERIDGE CLAY FORMATION]		7.90 (0.80)	6.97	
9.00 - 9.45	UT3												
9.50	D10												
9.50 - 10.00	B13												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	7.60	7.90	00:30							300	1.20	200	3.00			
1.20	25.00	Cable Percussion	8.50	8.70	00:30							200	25.00					
			16.10	16.40	00:30													
			19.80	20.20	00:45													

Remarks

No groundwater encountered.
Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.
UT1 (3.00-3.45) - 100% recovery, 38 blows. UT2 (6.00-6.45) - 100% recovery, 68 blows. UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery, 100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m



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

Equipment Used
Pilcon 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539243.29

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

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

Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 10.50 - 11.00	D11 B14	10.50	SPT(S)	N=25 (4,4/5,6,7,7)									
11.50 11.50 - 12.00	D12 B15												
12.00 - 12.45	UT4												
12.50 12.50 - 13.00	D13 B16												
13.50 13.50 - 14.00	D14 B17	13.50	SPT(S)	N=37 (4,8/8,9,10,10)									
14.50 14.50 - 15.00	D15 B18												
15.00 - 15.45	UT5												
15.50 15.50 - 16.00	D16 B19												
16.10 - 16.40	B20												
16.50 16.50 - 17.00	D17 B21	16.50	SPT(S)	N=41 (4,8/7,9,11,14)									
17.50 17.50 - 18.00	D18 B22												
18.00 - 18.45	UT6												
18.50 18.50 - 19.00	D19 B23												
19.50 19.50 - 19.80	D20 B24	19.50	SPT(S)	N>50 (8,12/13,13,14,10 for 45mm)									
19.80 - 20.20	B25												
								Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		16.10 (0.30)	-1.23		
								Very stiff, grey, fissured, silty CLAY with occasional gravel of siltstone. [KIMMERIDGE CLAY FORMATION]		16.40	-1.53		
										(3.40)			
								Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		19.80 (0.40)	-4.93		
										20.20	-5.33		

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	7.60	7.90	00:30							300	1.20	200	3.00			
	25.00		8.50	8.70	00:30							200	25.00					
			16.10	16.40	00:30													
			19.80	20.20	00:45													

Remarks
No groundwater encountered.
Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.
UT1 (3.00-3.45) - 100% recovery, 38 blows. UT2 (6.00-6.45) - 100% recovery, 68 blows. UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery, 100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m



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

Equipment Used
Pilcon 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539243.29

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

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

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
20.50	D21						Very stiff, grey, fissured, silty CLAY with occasional gravel of siltstone. [KIMMERIDGE CLAY FORMATION]		(4.80)	25.00	-10.13		
21.00 - 21.45	UT7												
21.50	D22												
21.50 - 22.00	B26												
22.50	D23	22.50	SPT(S)	N>50 (7,7/10,13,13,14 for 60mm)									
22.50 - 23.00	B27												
23.50	D24												
23.50 - 24.00	B28												
24.00 - 24.45	UT8												
24.50	D25	24.50	SPT(S)	N=55 (8,12/10,14,14,17)	15/12/2016 17:00	3.00							

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit	7,60	7,90	00:30							300	1,20	200	3,00			
1,20	25,00	Cable Percussion	8,50	8,70	00:30							200	25,00					
			16,10	16,40	00:30													
			19,80	20,20	00:45													

Remarks
No groundwater encountered.
Standpipe piezometer installed to 13.00m bgl (base of tip). Pluviated sand response zone from 12.00m to 14.00m bgl.
UT1 (3.00-3.45) - 100% recovery, 38 blows. UT2 (6.00-6.45) - 100% recovery, 68 blows. UT3 (9.00-9.45) - 100% recovery, 100 blows. UT4 (12.00-12.45) - 100% recovery, 100 blows. UT5 (15.00-15.45) - 100% recovery, 100 blows. UT6 (18.00-18.45) - 100% recovery, 100 blows. UT7 (21.00-21.45) - 100% recovery, 100 blows. UT8 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539286.48

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

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.30	B5				13/12/2016	0.00	Turf over soft to firm, dark brown mottled orange grey, slightly sandy CLAY with frequent rootlets.			(0.30)			
0.10 - 0.30	ES1				09:00		[TOP SOIL]			0.30			
0.30 - 0.80	B6						Soft to firm, orangish brown mottled grey, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. Occasional rootlets.			(0.50)			
0.40 - 0.60	ES2						[RIVER TERRACE DEPOSITS]			0.80			
0.50	D29						Soft to firm, grey mottled orangish brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint.			(1.20)			
0.80 - 1.20	B7						[RIVER TERRACE DEPOSITS]			2.00			
1.00	D30	1.20	SPT(S)	N=7 (1,2/1,2,2,2)			Firm, dark grey mottled yellow CLAY with occasional fragments of gypsum crystals.			(1.50)			
1.20	D31						[RIVER TERRACE DEPOSITS]			2.00			
1.20 - 1.40	ES3									(3.50)			
1.20 - 1.70	B8						Firm to stiff, fissured, grey CLAY with occasional fine shell fragments, up to 1cm in width.			(2.80)			
							[RIVER TERRACE DEPOSITS]			3.50			
2.00	D32									(1.50)			
2.00 - 2.50	B9									3.50			
2.30 - 2.50	ES4									(2.80)			
										3.50			
3.00 - 3.45	UT6									(1.60)			
										7.50			
3.50	D33									(0.20)			
3.50 - 4.00	B10									7.70			
										(1.60)			
4.50	D34	4.50	SPT(S)	N=11 (1,2/2,3,3,3)						9.30			
4.50 - 5.00	B11									(0.60)			
										9.90			
5.50	D35												
5.50 - 6.00	B12												
6.00 - 6.30	UT7												
6.30	D36												
6.30 - 6.80	B13												
7.00	D37												
7.00 - 7.50	B14												
7.50	D38	7.50	SPT(S)	N>50 (25 for 30mm/50 for 35mm)									
7.50 - 7.80	B15												
8.50	D39												
8.50 - 9.00	B16												
9.00 - 9.30	UT8												
9.30	D40												
9.30 - 9.90	B17												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	6.30	6.80	00:45							300	1.20	200	3.00			
1.20	25.00	Cable Percussion	7.50	7.70	00:30							200	25.00					
			9.30	9.90	00:45													
			15.80	16.30	00:45													

Remarks
UT6 (3.00-3.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539286.48

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

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

Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 10.50 - 11.00	D41 B18	10.50	SPT(S)	N=23 (3,3/5,5,6,7)		13/12/2016 3.00 17:00 3.00 14/12/2016 10.4 09:00		to 1cm in width. [KIMMERIDGE CLAY FORMATION]					
11.50 11.50 - 12.00	D42 B19												
12.00 - 12.45	UT52												
12.50 12.50 - 13.00	D43 B20										(5.90)		
13.50 13.50 - 14.00	D44 B21	13.50	SPT(S)	N=26 (4,5/6,6,6,8)									
14.50 14.50 - 15.00	D45 B22												
15.00 - 15.45	UT53												
15.50 15.80 - 16.30	D46 B23							Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]	XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX		15.80 (0.50)		
16.50 16.50 - 17.00	D47 B24	16.50	SPT(S)	N=37 (6,7/7,9,9,12)				Very stiff, fissured, dark grey CLAY with occasional fine shell fragments, up to 1cm in width. [KIMMERIDGE CLAY FORMATION]			16.30		
17.50 - 18.00	B25												
18.00 - 18.45	UT54										(3.70)		
18.50 18.50 - 19.00	D48 B26												
19.50 19.50 - 20.00	D49 B27	19.50	SPT(S)	N=36 (6,7/7,8,10,11)									
20.00 - 20.30	B28							Grey SILTSTONE.	XXXXXX XXXXXX		20.00 (0.30)		

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	6.30	6.80	00:45							300	1.20	200	3.00			
1.20	25.00	Cable Percussion	7.50	7.70	00:30							200	25.00					
			9.30	9.90	00:45													
			15.80	16.30	00:45													

Remarks
UT6 (3.00-3.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539286.48

Ground Level (mAOD)
264751.56
Northing (OS mN)

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

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
21.00 - 21.45	UT55						[KIMMERIDGE CLAY FORMATION] Very stiff, fissured, dark grey CLAY with occasional fine shell fragments, up to 1cm in width. [KIMMERIDGE CLAY FORMATION]	xxxxxx	20.30				
21.50 - 22.00	D50 B57												
22.50 - 23.00	D51 B58	22.50	SPT(S)	N=42 (6,6/8,10,11,13)					(4.70)				
23.50 - 24.00	B59												
24.00 - 24.45	UT56												
24.50	D52	24.50	SPT(S)	N=42 (5,8/9,9,10,14)	14/12/2016 17:00	3.00			25.00				

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit	6,30	6,80	00:45							300	1,20	200	3,00			
1,20	25,00	Cable Percussion	7,50	7,70	00:30							200	25,00					
			9,30	9,90	00:45													
			15,80	16,30	00:45													

Remarks
UT6 (3.00-3.45) - 100% recovery, 40 blows. UT7 (6.00-6.30) - 67% recovery, 100 blows. UT8 (9.00-9.30) - 67% recovery, 100 blows. UT52 (12.00-12.45) - 100% recovery, 100 blows. UT53 (15.00-15.45) - 100% recovery, 100 blows. UT54 (18.00-18.45) - 100% recovery, 100 blows. UT55 (21.00-21.45) - 100% recovery, 100 blows. UT56 (24.00-24.45) - 100% recovery, 100 blows.

Termination Depth:
25.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

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AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539232.81

Ground Level (mAOD)
264657.32
Northing (OS mN)

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 1.00 0.10 - 0.30 0.20 0.30	B4 ES1 D5 D6				13/12/2016 12:30	0.00	Soft, brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded, fine to coarse of flint and mudstone. [TOP SOIL]			(0.30)			
1.00 - 1.50 1.10 - 1.30	B7 ES2						Medium dense, orange mottled brown, slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint and mudstone. [RIVER TERRACE DEPOSITS]			(1.70)			
1.50 - 1.70	UT8												
2.00 2.00 - 2.50	D9 B10						Soft to firm, brown mottled orange, slightly sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and mudstone. Cobbles are sub-angular of flint. [RIVER TERRACE DEPOSITS]			2.00 (0.60)			
2.60 2.60 - 3.00 2.80 - 3.00	D11 B12 ES3						Firm to stiff, bluish grey, silty CLAY with occasional shell fragments. [KIMMERIDGE CLAY FORMATION]			2.60			
3.00 - 3.40	UT13												
3.50 3.50 - 4.00	D14 B15												
4.50 - 4.95	B16	4.50	SPT(S)	N=15 (3,3/3,4,4,4)						(5.00)			
5.50 - 6.00	B17												
6.00 - 6.45	UT18												
6.50 6.50 - 7.00	D19 B20												
7.50 - 7.95 7.60	B21 D22	7.50	SPT(S)	N>50 (6,8/29,21 for 20mm)			Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			7.60 (0.40)			
8.00 - 8.50	B23						Stiff, bluish grey, silty CLAY with occasional gravel of siltstone. [KIMMERIDGE CLAY FORMATION]			(0.60)			
8.80	D24						Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			8.60 (0.60)			
9.00 - 9.45	B25	9.00	SPT(C)	N>50 (25 for 40mm/50 for 70mm)			Stiff to very stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]			9.20			
10.00 - 10.50	B26												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion										300 200 50	1.20 25.00 25.45	200	4.50			

Remarks
No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 38 blows. UT39 (18.00-18.45) - 100% recovery, 45 blows.

Termination Depth:
25.45m



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

Equipment Used
Dando 2000

Contractor
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Northing (OS mN)
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Start Date
13/12/2016
End Date
13/12/2016

Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend			
10.50	B27	10.50	SPT(S)	N=26 (4,5/6,6,7,7)								
11.50 - 12.00	B28											
12.00 - 12.45	UT29				13/12/2016 17:00	4.50						
12.50	D30				14/12/2016 08:30	4.50						
13.50 - 13.95	B32	13.50	SPT(S)	N=30 (5,6/7,7,8,8)								
13.50 - 13.95	D31											
14.00 - 14.50	B33											
15.00 - 15.45	UT34											
15.50	D35											
15.50 - 16.00	B36											
16.50 - 16.95	B37	16.50	SPT(S)	N=27 (4,5/6,6,7,8)								
17.50 - 18.00	B38											
18.00 - 18.45	UT39											
18.50	D40											
19.00 - 19.50	B41											
19.50 - 19.95	B42	19.50	SPT(S)	N>50 (11,11/13,13,14,10 for 55mm)								

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion										300	1.20	200	4.50			
1.20	25.45											200	25.00	200				
												50	25.45					

Remarks
No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 38 blows. UT39 (18.00-18.45) - 100% recovery, 45 blows.

Termination Depth:
25.45m



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

Equipment Used
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Easting (OS mE)
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Ground Level (mAOD)
264657.32
Northing (OS mN)

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

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
-20.50 - 21.00	B43												
-21.00 - 21.45	B44	21.00	SPT(S)	N=40 (6,8/8,10,11,11)									
-22.00 - 22.50	B45												
22.40	D46										22.40		
-22.50 - 22.95	B47	22.50	SPT(C)	N>50 (25 for 40mm/50 for 65mm)				Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]	xxxxxx xxxxxx xxxxxx		22.70		
-23.00 - 23.50	B48							Very stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]					
-24.00 - 24.45	B49	24.00	SPT(S)	N>50 (10,11/12,12,14,12 for 70mm)							(2.75)		
-24.50 - 25.00	B50												
-25.00 - 25.45	D51	25.00	SPT(S)	N=48 (9,10/11,12,12,13)		14/12/2016 15:00	4.50				25.45		

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion										300 200 50	1.20 25.00 25.45	200	4.50			

Remarks
No groundwater encountered.
UT8 (1.50-1.70) - 50% recovery, 52 blows. UT13 (3.00-3.40) - 90% recovery, 27 blows. UT18 (6.00-6.45) - 100% recovery, 38 blows. UT29 (12.00-12.45) - 100% recovery, 43 blows. UT34 (15.00-15.45) - 100% recovery, 38 blows. UT39 (18.00-18.45) - 100% recovery, 45 blows.

Termination Depth:
25.45m



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

Equipment Used
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Northstowe Phase 2
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Project No.
UA008426-01
Easting (OS mE)
539275.73

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

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B1						13/12/2016 09:00	0.00	Grass over firm, brown, slightly sandy CLAY with thin rootlets. Sand is fine to medium. [TOP SOIL]		(0.40)		
0.10 - 0.30	ES5												
0.40 - 1.20	B2								Firm to stiff, orangish brown, sandy CLAY with pockets of fine to coarse sand and occasional fine rootlets. [RIVER TERRACE DEPOSITS]		0.40		
0.60 - 0.80	ES6										(1.10)		
		1.20	SPT(C)	N=9 (3,2/2,2,3,2)									
1.50 - 2.00	B3								Firm, bluish grey mottled brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded, fine to coarse of siltstone and gypsum. [RIVER TERRACE DEPOSITS]		1.50		
1.70 - 1.90	ES7												
2.00	B10	2.00	SPT(S)	N=10 (1,1/2,2,3,3)									
2.00	D9										(2.50)		
2.00 - 3.00	B4												
									Firm to stiff, dark bluish grey CLAY with frequent shell fragments. [KIMMERIDGE CLAY FORMATION]		4.00		
3.00 - 3.45	UT11												
3.45	D12												
4.00	B13	4.00	SPT(S)	N=15 (2,2/3,3,4,5)									
4.00	D14										(2.50)		
4.20 - 4.40	ES8												
5.00 - 5.45	UT15												
5.45	D16												
5.50	B17										(3.90)		
6.50	D18	6.50	SPT(S)	N=20 (2,3/4,4,6,6)									
7.00	B19												
8.00	D20	8.00	SPT(S)	N=29 (17,8/10,7,7,5)					Dark grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		7.90		
									Stiff to very stiff, dark bluish grey CLAY with frequent gravel of siltstone. [KIMMERIDGE CLAY FORMATION]		(0.30)		
8.60	B21										8.20		
9.50	D22	9.50	SPT(S)	N=50 (6,7/18,13,10,9)							(2.50)		
10.00	B23												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	17.70	17.90	00:40							300	1.20	200	1.65			
1.20	25.33	Cable Percussion	23.70	23.90	00:40							200	25.00	200	25.33			
												50	25.33					

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

Termination Depth:
25.33m



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

Equipment Used
Dando 2000

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

Start Date
13/12/2016
End Date
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Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
11.00 - 11.45	UT24						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION] Very stiff, dark bluish grey CLAY with frequent gravel of siltstone. [KIMMERIDGE CLAY FORMATION]	XXXXXX XXXXXX XXXXXX	10.70 (0.20) 10.90				
11.45 - 11.50	D25 B26												
12.50	D27	12.50	SPT(S)	N=42 (6,7,9,10,13)									
13.00	B28				13/12/2016 17:00 14/12/2016 09:00	1.65 1.65							
14.00 - 14.45	UT29										(6.10)		
14.45 - 14.50	D30 B31												
15.50	D32	15.50	SPT(S)	N=50 (6,9/11,13,14,12)									
16.00	B33												
17.00 - 17.10	UT34						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]	XXXXXX XXXXXX XXXXXX	17.00				
17.50	D35	17.50	SPT(S)	N>50 (14,11 for 40mm/29,16,5 for 5mm)							(1.00)		
18.00	B36						Very stiff, dark bluish grey CLAY with frequent gravel of siltstone. [KIMMERIDGE CLAY FORMATION]	XXXXXX XXXXXX XXXXXX	18.00				
19.00 - 19.45	UT37												
19.45 - 19.50	D38 B39												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	17.70	17.90	00:40							300	1.20	200	1.65			
1.20	25.33		23.70	23.90								200	25.00					
												50	25.33					

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

Termination Depth:
25.33m



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

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Ground Level (mAOD)
264653.94
Northing (OS mN)
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Start Date
13/12/2016
End Date
14/12/2016

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
20.50	D40	20.50	SPT(S)	N=50 (8,9/10,16,20,4)									
21.00	B41												
22.00 - 22.40	UT42												
22.45	D43												
22.50	B44												
23.50	D45	23.50	SPT(S)	N>50 (25.0 for 0mm/38,12 for 35mm)									
24.00	B46												
25.00 - 25.33	D47	25.00	SPT(S)	N>50 (14,11/19,21,10,0 for 0mm)	14/12/2016 17:00	1.65					25.33		

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	17.70	17.90	00:40							300	1.20	200	1.65			
1.20	25.33		23.70	23.90	00:40							50	25.00					

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

Termination Depth:
25.33m



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

Equipment Used
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Project No.
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Easting (OS mE)
539238.34

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

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 1.00	B1					14/12/2016 13:00	0.00	MADE GROUND: Firm, brown mottled grey, slightly gravelly CLAY. Gravel is sub-angular to sub-rounded, fine to medium of flint.		(0.40)			
0.20	D2										0.40		
0.40	D3							Firm, light brown mottled grey, slightly gravelly silty CLAY. Gravel is sub-angular to sub-rounded, fine to medium of flint. [RIVER TERRACE DEPOSITS]		(0.70)			
1.00 - 1.50	B4										1.10		
1.10	D5												
1.50 - 1.95	D6	1.50	SPT(C)	N=23 (3,4/5,6,6,6)							(0.90)		
2.00	D7										2.00		
2.00 - 2.50	B8							Firm to stiff, dark bluish grey, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]					
2.50 - 3.00	B9												
3.00 - 3.36	UT10										(2.00)		
3.50	D11					14/12/2016 17:00	3.00						
4.00 - 4.50	B12					15/12/2016 09:00	3.5						
4.50 - 4.95	D13	4.50	SPT(S)	N=19 (3,4/4,5,5,5)				Stiff dark bluish grey, slightly silty CLAY. [KIMMERIDGE CLAY FORMATION]			4.00		
5.00 - 5.50	B14												
6.00 - 6.45	B16												
6.00 - 6.45	UT15										(3.30)		
7.00 - 7.50	B17												
7.30	D18										7.30		
7.50 - 7.95	D19	7.50	SPT(S)	N>50 (25 for 70mm, 27/25 for 55mm)				Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			(0.30)		
8.00 - 8.50	B20							Very stiff, dark bluish grey, slightly silty CLAY with siltstone bands. [KIMMERIDGE CLAY FORMATION]			7.60		
9.00 - 9.45	D21	9.00	SPT(S)	N=30 (5,5/6,7,8,9)									
10.00 - 10.50	B22												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion										300	1,20	200	4,50			
1,20	25,00											200	25,00					

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

Termination Depth:
25.00m



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

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264696.65
Northing (OS mN)
264696.65

Start Date
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End Date
15/12/2016

Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend			
10.50 - 10.95 10.60	D23 D24											
11.00 - 11.50	B25											
12.00 - 12.45	UT26											
12.50 12.50 - 13.00	D27 B28											
13.50 - 13.95	D29	13.50	SPT(S)	N=26 (5,5/6,6,7,7)								
14.50 - 15.00	B30											
15.00 - 15.45	UT31											
15.50 15.50 - 16.00	D32 B33											
16.50 - 16.95	D34	16.50	SPT(S)	N>50 (25 for 20mm/50 for 20mm)								
17.50 - 18.00	B35											
18.00 - 18.45	UT36											
18.50 18.50 - 19.00	D37 B38											
19.50 - 19.95	D39	19.50	SPT(S)	N=51 (8,10/10,12,14,15)								

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion										300 200	1.20 25.00	200	4.50			

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

Termination Depth:
25.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

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AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539238.34

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

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

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
-20.50 - 21.00	B40												
-21.00 - 21.45	D41	21.00	SPT(S)	N>50 (10,10/12,22,16 for 30mm)									
-22.00 - 22.50	B42												
-22.50 - 22.95	D43	22.50	SPT(S)	N>50 (10,10/12,12,13,13 for 70mm)									
-23.00 - 23.50	B44												
-24.00 - 24.45	D45	24.00	SPT(S)	N=50 (8,10/11,12,13,14)									
-24.50 - 25.00	B46												
					15/12/2016 17:00	4.50 25					25.00		

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion										300 200	1,20 25,00	200	4,50			

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

Termination Depth:
25.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539281.02

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

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

Scale
1:50
Sheet 1 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B5 ES1				14/12/2016 13:00	0.00	Grass over soft to firm, brown slightly gravelly slightly silty CLAY with roots and rootlets. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [TOP SOIL]			(0.40)			
0.40	B6									0.40			
0.60 - 0.80	ES2						Firm, orangish brown, slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]			(1.00)			
1.20	D7	1.20	SPT(S)	N=9 (1,1/2,2,2,3)						1.40			
1.40	B8												
1.60 - 1.80	ES3						Firm, bluish grey mottled yellowish brown, slightly sandy CLAY with occasional fragments of gypsum. [RIVER TERRACE DEPOSITS]			(2.40)			
2.00	B10	2.00	SPT(S)	N=9 (1,2/2,2,2,3)									
2.00	D9												
3.00	B12												
3.00 - 3.45	UT11												
3.45	D13				14/12/2016 17:00	1.65							
4.00	B15	4.00	SPT(S)	N=16 (2,2/3,3,5,5)	15/12/2016 09:00	1.65	Stiff, dark bluish grey, slightly silty CLAY with occasional shell fragments. [KIMMERIDGE CLAY FORMATION]			3.80			
4.00	D14												
4.00 - 4.20	ES4												
5.00 - 5.45	UT16												
5.45	D17												
5.50	B18									(4.00)			
6.50	D19	6.50	SPT(S)	N=19 (3,3/4,4,5,6)									
7.00	B20												
8.00 - 8.45	UT21						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION] Very stiff, dark bluish grey, slightly silty CLAY with occasional shell fragments. [KIMMERIDGE CLAY FORMATION]			(0.20) 7.80			
8.45	D22												
8.50	B23												
9.50	D24	9.50	SPT(S)	N>50 (8,10/12,22,16 for 50mm)									
10.00	B25												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	7.70	7.80	00:15							300	1.20	200	1.65			
1.20	25.45		18.70	18.90	00:30							200	25.00	200				
												50	25.45					

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

Termination Depth:
25.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

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AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539281.02

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

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

Scale
1:50
Sheet 2 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend			
11.00 - 11.40	UT26											
11.50	B27											
12.50	D28	12.50	SPT(S)	N=28 (5,5/6,6,8,8)								
13.00	B29											
14.00 - 14.45	UT30											
14.50	B31									(10.90)		
15.50	D32	15.50	SPT(S)	N=29 (5,6/6,7,8,8)								
16.00	B33											
17.00 - 17.45	UT34											
17.50	B35											
18.50	D36	18.50	SPT(S)	N>50 (25 for 70mm/39,11 for 35mm)								
19.00	B37									18.70 (0.30) 19.00		
20.00 - 20.45	UT38											

Grey SILTSTONE.
[KIMMERIDGE CLAY FORMATION]
Very stiff, dark bluish grey, slightly silty CLAY with occasional shell fragments.
[KIMMERIDGE CLAY FORMATION]

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	7.70	7.80	00:15							300	1.20	200	1.65			
1.20	25.45		18.70	18.90	00:30							200	25.00	200				
												50	25.45					

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

Termination Depth:
25.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
539281.02

Ground Level (mAOD)

Northing (OS mN)
264696.67

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

Scale
1:50
Sheet 3 of 3

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
20.50	B39												
21.50	D40	21.50	SPT(S)	N=44 (5,7/9,10,12,13)									
22.00	B41												
23.00 - 23.45	UT42										(6.45)		
23.50	B43												
25.00	D44	25.00	SPT(S)	N>50 (7,9/10,11,12,13 for 5mm)		15/12/2016 17:00	1.65					25.45	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	7.70	7.80	00:15							300	1.20	200	1.65			
1.20	25.45		18.70	18.90	00:30							200	25.00	200				
												50	25.45					

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

Termination Depth:
25.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540778.32

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA				Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend					
0.00 - 1.00 0.10 - 0.20 0.20	B1 ES2 D3					0.00	Soft to firm, yellowish brown, slightly sandy CLAY with frequent roots and rootlets. Sand is fine to coarse. [TOP SOIL]				(0.70)			
0.70	D4						Firm, light orangish brown mottled grey, slightly gravelly CLAY with occasional roots and rootlets. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]				0.70			
0.90 - 1.20 1.00 - 1.50	ES5 B6													
1.50 - 1.95	B7	1.50	SPT(S)	N=13 (1,2/3,3,3,4)	▼						(1.60)			
2.00 - 2.50	B8													
2.30	D9													
2.50 - 2.80 2.50 - 3.00	ES11 B10						Soft to firm, grey mottled orangish brown, silty CLAY. [RIVER TERRACE DEPOSITS]				2.30			
3.00 - 3.45	UT12										(1.20)			
3.50 3.50 - 4.00 3.60 - 3.80	D13 B14 ES15						Very soft to soft, grey sandy CLAY. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]				3.50			
4.30	D16				▽						(0.80)			
4.50 - 4.95 4.70 - 4.90	B17 ES18	4.50	SPT(S)	N=14 (2,3/3,4,3,4)			Medium dense, yellowish brown to grey, sandy GRAVEL with high cobble content. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint. Cobbles are angular to sub-rounded of flint. [RIVER TERRACE DEPOSITS]				4.30			
5.20	D19										(0.90)			
5.50 - 6.00	B20					06/12/2016 16:30 07/12/2016 08:00	Firm to stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]				5.20			
6.00 - 6.45	B21	6.00	SPT(S)	N=23 (3,4/5,5,6,7)							(2.00)			
6.50 - 7.00	B22													
7.20	D23													
7.50 7.50 - 7.95	D24 UT25						Weak, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]				7.20			
8.00 8.00 - 8.50	D26 B27						Stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]				(0.30) 7.50			
9.00 - 9.45	B28	9.00	SPT(S)	N=26 (3,4/5,6,7,8)										
10.00 - 10.50	B29													

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				06/12/2016 15:00	4.30	20	1.70	4.00	5.00	300 200 50	1.20 15.00 15.45	200	7.50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
SC
 Checked By
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540778.32

Ground Level (mAOD)

Northing (OS mN)
266197.28

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT30												
11.00	D31												
11.00 - 11.50	B32												
12.00 - 12.45	B33	12.00	SPT(S)	N=28 (4,4/5,7,8,8)							(7.00)		
13.00 - 13.50	B34												
13.50 - 13.95	UT35												
14.00	D36												
14.00 - 14.50	B37												
14.50	D38												
15.00 - 15.45	D39	15.00	SPT(S)	N>50 (8 for 0mm/10 for 0mm)	07/12/2016 15:00	7.50		Weak to medium strong, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			14.50 (0.40)		
						15		Stiff to very stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]			14.90 (0.55)		

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				06/12/2016 15:00	4,30	20	1,70	4,00	5,00	300 200 50	1,20 15,00 15,45	200	7,50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
SC

Checked By
AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540875.06

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.30	D2					07/12/2016 13:00	0.00	MADE GROUND: Grass over CONCRETE fill.		(0.30)			
0.30 - 0.50	ES3							Soft to firm, orangish brown, slightly silty CLAY with occasional roots and rootlets [POSSIBLE MADE GROUND].		0.30	9.27		
0.30 - 1.00	B1									(0.70)			
1.00 - 1.50	B4							Firm, light orangish brown mottled grey, slightly sandy CLAY. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]		1.00	8.57		
1.50 - 1.88	UT5									(1.00)			
2.00	D6							Orangish brown, slightly clayey gravelly fine to coarse SAND. Gravel is sub-angular to rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		2.00	7.57		
2.00 - 2.50	B7									(0.60)			
2.20 - 2.40	ES8												
2.60	D9							Soft, grey to dark brown, slightly silty CLAY. [RIVER TERRACE DEPOSITS]		2.60	6.97		
2.90	D10									(0.60)			
3.00 - 3.45	B11	3.00	SPT(S)	N=2 (1,0/0,1,0,1)									
3.20	D13							Very soft to soft, dark brown, clayey fibrous PEAT. [RIVER TERRACE DEPOSITS]		3.20	6.37		
3.20 - 3.40	ES12									(0.50)			
3.70	D14							Soft, grey, slightly gravelly slightly silty CLAY. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		3.70	5.87		
4.00 - 4.20	ES16									(0.50)			
4.00 - 4.50	B15												
4.20	D17												
4.50 - 4.95	B18	4.50	SPT(S)	N=12 (2,2/3,2,3,4)				Medium dense, brown to black, slightly sandy GRAVEL with high cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. Cobbles are sub-angular to rounded of flint. [RIVER TERRACE DEPOSITS]		4.20	5.37		
5.00	D20									(0.80)			
5.00	ES19							Firm, brownish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		5.00	4.57		
5.00 - 5.50	B21									(1.00)			
6.00 - 6.45	B22	6.00	SPT(S)	N=23 (4,3/5,5,6,7)		07/12/2016 16:00	6.00	Stiff to very stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		6.00	3.57		
7.00 - 7.50	B23					08/12/2016 08:00	6.00						
7.50 - 7.95	UT24												
8.00	D25												
8.00 - 8.50	B26												
9.00 - 9.95	B27	9.00	SPT(S)	N=26 (3,4/5,6,7,8)									
10.00 - 10.50	B28												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER			WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit				07/12/2016 14:30	4.20	20	1.65	4.00	5.00	300	1.20	200	15.00			
1.20	15.45	Cable Percussion										200	15.00	200	15.00			
												50	15.45					

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

Termination Depth:
15.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540875.06

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT29												
11.00	D30												
11.00 - 11.50	B31												
12.00 - 12.45	B32	12.00	SPT(S)	N=28 (4,4/5,7,8,8)							(8.70)		
13.00 - 13.50	B33												
13.50 - 13.95	UT34												
14.00	D35												
14.00 - 14.50	B36												
14.50	D37												
15.00 - 15.45	D38	15.00	SPT(S)	N=45 (8,8/10,11,12,12)	08/12/2016 15:00	7.50	Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]	xxxxxx xxxxxx xxxxxx			14.70 (0.30)	-5.13	
							Very stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]	xx xx			15.00 (0.45)	-5.43	
								xx			15.45	-5.88	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER			WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				07/12/2016 14:30	4,20	20	1,65	4,00	5,00	300 200 50	1,20 15,00 15,45	200	15,00			

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

Termination Depth:
15.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541001.35

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Instal/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30 0.10 - 1.00	ES1 B5					12/12/2016 08:00	0.00	MADE GROUND: CONCRETE. MADE GROUND: Soft, light brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of sandstone, flint and mudstone. Firm, orangish brown, slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]		0.10 (0.30) 0.40	9.32 9.02		
1.00 - 1.20 1.00 - 1.50	ES2 B6										(1.20)		
1.50 - 1.82	UT7												
2.00 2.00 - 2.50	D8 B9							Medium dense, becoming dense, yellowish brown, sandy GRAVEL. Gravel is angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		1.60	7.82		
3.00 - 3.20 3.00 - 3.45	ES3 B10	3.00	SPT(C)	N=13 (2,2/2,3,3,5)							(3.40)		
4.00 - 4.50	B11												
4.50 - 4.95	B12	4.50	SPT(C)	N=35 (6,7/8,8,9,10)									
5.00 - 5.20 5.00 - 5.50	ES4 B13							Medium dense, yellowish brown, gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		5.00	4.42		
6.00 - 6.45	B14	6.00	SPT(C)	N=25 (3,4/5,6,7,7)							(1.80)		
6.80 7.00 - 7.50	D15 B16							Firm to stiff, bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		6.80	2.62		
7.50 - 7.95	UT17												
8.00 8.00 - 8.50	D18 B19												
9.00 - 9.45	B20	9.00	SPT(C)	N=19 (3,4/4,5,5,5)									
10.00 - 10.50	B21												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				12/12/2016 10:00	3,00	20	2,4	3,00	6,80	300	1,20	200	7,50			
1,20	15,45											200	15,00					
												50	15,45					

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541001.35

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT22												
11.00	D23												
11.00 - 11.45	B24												
12.00 - 12.45	B25	12.00	SPT(C)	N=20 (3,4/4,5,5,6)							(8.20)		
13.00 - 13.50	B26												
13.50 - 13.95	UT27												
14.00	D28												
14.00 - 14.50	B29												
14.50 - 15.00	B30												
15.00 - 15.45	D31	15.00	SPT(C)	N>50 (25 for 30mm/50 for 50mm)	15.00						15.00	-5.58	
						12/12/2016 16:30	7.50	Weathered grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			(0.45)	-6.03	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER			WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit				12/12/2016 10:00	3,00	20	2,4	3,00	6,80	300	1,20	200	7,50			
1,20	15,45	Cable Percussion										200	15,00					
												50	15,45					

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

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

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.50 0.00 - 0.52	B3 ES1					28/11/2016 13:00	0.00	Grass over dark brown to black, slightly clayey slightly gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded, fine of mixed lithologies. Occasional rootlets up to 2mm wide. [TOPSOIL]		(0.52)			
0.50 - 1.20 0.52 - 1.20	B4 ES2							Medium dense, yellowish brown, gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded, fine to medium of mixed lithologies. [RIVER TERRACE DEPOSITS]		0.52	8.78		
1.20 - 1.65	D20	1.20	SPT(S)	N=22 (2,3/4,5,6,7)	1.20					(1.38)			
1.90 - 2.50 1.90 - 2.50	B6 ES5							Medium dense, yellowish brown, sandy GRAVEL with a low cobble content. Sand is fine to coarse. Gravel is angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]		1.90	7.40		
3.00 - 3.45	D19	3.00	SPT(C)	N=13 (3,3/3,3,3,4)	3.00					(1.90)			
3.80 3.80 - 4.50 3.80 - 4.50 4.00 - 4.45	D21 B8 ES7 B22							Firm to stiff, light to dark bluish grey, slightly gravelly CLAY. Gravel is sub-angular to sub-rounded, fine of mixed lithologies. [KIMMERIDGE CLAY FORMATION]		3.80	5.50		
4.50 - 4.73	UT23							Strong, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		4.50	4.80		
5.00 5.10	D24 D25							Firm to stiff, light to dark bluish grey, slightly silty CLAY. [KIMMERIDGE CLAY FORMATION]		4.95	4.35		
5.50 - 6.00 5.50 - 6.00	B10 ES9												
6.00 - 6.45	D26	6.00	SPT(S)	N=23 (3,4/5,5,6,7)	5.10					(2.05)			
7.00 - 7.50	B11							Stiff, dark bluish grey, slightly silty CLAY. [KIMMERIDGE CLAY FORMATION]		7.00	2.30		
7.50 - 7.95	UT27												
8.00 - 8.50	B12												
9.00 - 9.45 9.00 - 9.50	D28 B13	9.00	SPT(S)	N=23 (3,4/5,5,6,7)									
10.00 - 10.50	B14												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER			WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				28/11/2016 10:00	2.00	20	3.90	2.00		300	1.20	200	7.50			
1.20	15.45					29/11/2016 12:00	4.70	20	2.00	4.50	5.10	200	15.00	200	15.45			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

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

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.82	UT29												
11.00	D30												
11.00 - 11.50	B15												
12.00 - 12.45	D34	12.00	SPT(S)	N=27 (4,5/6,6,7,8)							(8.45)		
12.00 - 12.50	B16												
13.00 - 13.50	B17												
13.50 - 13.77	UT31												
14.00	D32												
14.00 - 14.50	B18												
15.00 - 15.45	B33	15.00	SPT(S)	N=27 (3,4/6,6,7,8)	15.00								
15.00 - 15.45	D10					29/11/2016 13:00	7.50	15			15.45	-6.15	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit				28/11/2016 10:00	2.00	20	3.90	2.00		300	1.20	200	7.50			
1.20	15.45	Cable Percussion				29/11/2016 12:00	4.70	20	2.00	4.50	5.10	200	15.00	50				

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
 Client
Homes and Communities Agency

Project No.
UA008426-01
 Easting (OS mE)
540894.25

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

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

Scale
1:50
 Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.20	ES1					29/11/2016	0.00	MADE GROUND: CONCRETE.		0.10	9.75		
0.10 - 1.00	B3					09:00		MADE GROUND: Soft, orangish brown, slightly sandy slightly gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, coarse of mixed lithologies.		(1.40)			
0.10 - 1.00	ES2												
0.20	D20												
0.60	D21												
1.00	B22												
1.50 - 1.95	B4	1.50	SPT(S)	N=13 (2,2/3,3,3,4)				Firm, reddish brown, slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is sub-angular to sub-rounded, medium to coarse of mixed lithologies. Occasional light grey, silty clay bands, up to 1cm in width. [RIVER TERRACE DEPOSITS]		1.50	8.35		
1.50 - 1.95	B5												
1.50 - 1.95	D23												
1.50 - 1.95	ES4												
1.50 - 1.95	ES5												
2.00	D24												
2.40	D25							Soft, brownish grey, slightly silty CLAY. [RIVER TERRACE DEPOSITS]		2.40	7.45		
3.00 - 3.45	UT26												
3.50	D27												
3.50 - 4.00	B6												
3.50 - 4.00	B7												
3.50 - 4.00	ES6												
3.50 - 4.00	ES7												
4.50	D28	4.50	SPT(S)	N=11 (1,1/2,2,3,4)	2.70								
4.50 - 4.95	B8												
5.00	D29												
5.00 - 5.50	B9							Medium dense, yellow, slightly clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies.. Low cobble content of subrounded mixed lithologies. [RIVER TERRACE DEPOSITS]		4.80	5.05		
6.00 - 6.45	ES10	6.00	SPT(S)	N=20 (2,3/4,5,5,6)	6.00								
6.10	D30												
7.00	D31												
7.00 - 7.45	B11												
7.50 - 7.95	B12	7.50	SPT(S)	N=30 (0,5/7,7,8,8)				Stiff, bluish grey CLAY with occasional sub-angular to sub-rounded gravel of siltstone, up to 1-2cm wide. [KIMMERIDGE CLAY FORMATION]		6.10	3.75		
9.00 - 9.45	B13												
9.00 - 9.45	UT32												
9.50	D33												
10.00 - 10.45	B14												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	15.10	15.30	00:30							300	1.20	200	7.50			
1.20	15.95	Cable Percussion										200	15.50					
												50	15.95					

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

Termination Depth:
15.95m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540894.25

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 10.50 - 10.95	D34 B15	10.50	SPT(S)	N=23 (3,4/5,5,6,7)									
12.00 12.00 - 12.45 12.00 - 12.45	D35 B16 UT36										(9.00)		
13.00 - 13.45	B17												
13.50 - 13.95 13.50 - 13.95	B18 D37	13.50	SPT(S)	N=28 (4,5/6,7,7,8)									
14.00 - 14.45	B19												
15.00 15.00 - 15.45 15.10	B38 UT40 D39										15.10 (0.20) 15.30	-5.25 -5.45	
15.50 - 15.95	D41	15.50	SPT(S)	N=31 (5,6/7,7,8,9)	15.50						(0.65)		
						30/11/2016 17:00	7.50 15.5				15.95	-6.10	
									Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]	xxxxxx xxxxxx			
									Very stiff, bluish grey CLAY. [KIMMERIDGE CLAY FORMATION]				

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	15.10	15.30	00:30							300 200 50	1.20 15.50 15.95	200	7.50			

Remarks

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

Termination Depth:
15.95m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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 Checked By
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540774.76

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

Start Date
05/12/2016
End Date
06/12/2016

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.20 0.30 0.30 - 1.00 0.30 - 1.00	D19 D20 B1 ES2					05/12/2016 15:30	0.00	MADE GROUND: CONCRETE.		(0.30)			
								MADE GROUND: Soft to firm, orangish brown, slightly gravelly slightly silty CLAY. Gravel is angular to sub-rounded, fine to medium of mixed lithologies and red brick.		0.30 (1.00)	9.13		
1.50 - 1.95	D29	1.50	SPT(S)	N=11 (1,2/2,3,3,3)	▼			Soft to firm, light grey, silty CLAY with occasional pockets of organic material (up to 1cm thick) and frequent bands of orange, fine to medium sand (up to 1cm thick). [RIVER TERRACE DEPOSITS]		1.30	8.13		
2.00 - 2.45 2.00 - 2.45	B3 ES4									(2.40)			
2.70	D21												
3.00 - 3.45 3.00 - 4.00	UT3 B30												
3.50	D22												
4.00 - 4.45 4.00 - 4.50	ES7 B6				▽			Soft to firm, dark grey, silty CLAY with frequent pockets of organic material (up to 1cm thick). [RIVER TERRACE DEPOSITS]		3.70	5.73		
4.30	D23												
4.50 - 4.95	ES8	4.50	SPT(C)	N=10 (1,2/2,2,3,3)	4.30			Medium dense, grey, slightly clayey GRAVEL. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]		4.30	5.13		
5.00 - 6.00	B10												
5.30	D24												
5.65 - 6.00	ES11												
6.00 - 6.45	D25	6.00	SPT(S)	N=19 (3,4/4,4,5,6)	2.30			Stiff, dark bluish grey CLAY. [KIMMERIDGE CLAY FORMATION]		5.30	4.13		
7.00 - 7.50	B13												
7.50 - 7.95	UT14									(9.20)			
8.00 - 8.50	B15												
9.00 - 9.45	D27	9.00	SPT(S)	N=18 (3,3/4,4,5,5)									
10.00 - 10.50	B17												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				05/12/2016 15:00	4.30	20	1.55	3.00		300 200 50	1.20 15.00 15.45	200	7.50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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VP

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540774.76

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

Start Date
05/12/2016
End Date
06/12/2016

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT28												
11.00 11.00 - 11.50	D29 B18												
12.00 - 12.45	D30	12.00	SPT(S)	N=24 (3,4/5,6,6,7)									
13.00 - 13.50	B27												
13.50 - 13.95	UT31												
14.00 - 14.50	B28												
14.50 14.70 - 15.00	D32 B29							Weathered, grey SILTSTONE, [KIMMERIDGE CLAY FORMATION] Very stiff, dark bluish grey CLAY. [KIMMERIDGE CLAY FORMATION]			14.50 (0.20) 14.70	-5.07 -5.27	
15.00 - 15.45	D33	15.00	SPT(S)	N=46 (9,9/9,11,13,13)	15.00		06/12/2016 17:00	7.50 15			(0.75) 15.45	-6.02	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				05/12/2016 15:00	4.30	20	1.55	3.00		300 200 50	1.20 15.00 15.45	200	7.50			

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

Termination Depth:
15.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540940.77

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 1.00 0.10 0.20 0.20 - 0.40	B1 D3 D4 ES2					08/12/2016 11:00	0.00	Grass over soft, sandy CLAY with frequent root and rootlets. [TOP SOIL]		(0.20) 0.20	9.44		
1.00 - 1.50	B							Soft to firm, orangish brown, slightly sandy slightly gravelly CLAY with occasional roots and rootlets. Gravel is sub-angular to sub-rounded, fine to coarse of sandstone. [RIVER TERRACE DEPOSITS]		(1.70)			
1.50 - 1.73	UT5												
2.00 2.00 - 2.20 2.00 - 2.50	D6 ES8 B7							Loose, orangish brown, sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]		1.90	7.74		
3.00 - 3.45 3.20 - 3.40	B9 ES10	3.00	SPT(S)	N=9 (1,1/2,2,2,3)						(2.00)			
3.50 - 4.00	B11												
3.90 4.00 - 4.50 4.20 4.30 - 4.50	D12 B14 D13 ES15							Soft, orangish grey, slightly sandy slightly silty CLAY. [RIVER TERRACE DEPOSITS]		3.90 (0.30)	5.74		
4.50 - 4.95	B16	4.50	SPT(S)	N=4 (1,0/1,1,1,1)				Very soft to soft, greyish brown, slightly silty CLAY. [RIVER TERRACE DEPOSITS]		(0.80)			
5.00 5.00 - 5.50 5.10 - 5.30	D17 B18 ES19							Stiff, dark grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		5.00	4.64		
6.00 - 6.45	B20	6.00	SPT(S)	N=21 (2,3/5,5,5,6)						(2.60)			
7.00 - 7.50	B21												
7.50 - 7.95 7.60	UT22 D23							Weak, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		7.60 (0.30)	2.04		
8.00 - 8.50	B24					08/12/2016 16:30 09/12/2016 08:00	7.50 7.50 8	Stiff, dark bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		7.90	1.74		
9.00 - 9.45	B25	9.00	SPT(S)	N=24 (4,4/5,6,6,7)									
10.00 - 10.50	B26												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				08/12/2016 12:30	2,00	20	1,60	1,50	5,00	300 200 50	1,20 15,00 15,45	200	7,50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540940.77

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT27												
11.00	D28												
11.00 - 11.50	B29												
12.00 - 12.45	D30	12.00	SPT(S)	N=24 (4,5/5,6,6,7)							(7.10)		
13.00 - 13.50	B31												
13.50 - 13.95	UT32												
14.00	D33												
14.50 - 15.00	B34												
15.00 - 15.45	D35	15.00	SPT(S)	N>50 (25 for 65mm/0 for 0mm)	09/12/2016 16:00		7.50 15	Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			15.00 (0.45)	-5.36	
											15.45	-5.81	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				08/12/2016 12:30	2,00	20	1,60	1,50	5,00	300 200 50	1,20 15,00 15,45	200	7,50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540700.56

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.20 0.20 - 0.30 0.40	D1 ES1 D2					30/11/2016 13:00	0.00	Grass over stiff, brown, sandy CLAY with roots and rootlets. Sand is fine to coarse. [TOPSOIL]		(0.20) 0.20	9.28		
1.00 1.00 - 1.10	B3 ES2							Firm to stiff, light to dark brown, slightly sandy gravelly CLAY with occasional roots. Sand is fine to coarse. Gravel is sub-angular, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		(1.50)			
1.50 - 1.95 1.70	D4 D6	1.50	SPT(S)	N=18 (3,4/4,4,5,5)							1.70	7.78	
2.00 - 2.10 2.00 - 2.40	ES3 B7							Soft, light grey, silty CLAY. [RIVER TERRACE DEPOSITS]		(0.70)			
2.40	D8							Soft to firm, brownish grey, silty CLAY. [RIVER TERRACE DEPOSITS]			2.40	7.08	
3.00 3.00 - 3.41	B9 UT10					01/12/2016 09:00 30/11/2016 17:00	3.00 3.00 3.5			(2.00)			
3.50 3.90 4.00	D11 D12 D13												
4.40 4.50 - 4.60 4.50 - 4.95	D14 ES4 B15	4.50	SPT(C)	N=14 (2,3/3,3,4,4)				Medium dense, grey, clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular, fine to coarse of flint. [RIVER TERRACE DEPOSITS]			4.40	5.08	
5.00 - 5.70 5.70	B16 D17									(1.30)			
6.00 - 6.10 6.00 - 6.45	ES5 D18	6.00	SPT(S)	N=27 (2,4/5,7,7,8)	5.70			Stiff, dark grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]			5.70	3.78	
7.00 - 7.50 7.50 - 7.95	B20 UT21												
8.00 8.00 - 9.00	D22 B23												
9.00 - 9.45 10.00	D24 D26	9.00	SPT(S)	N=18 (3,4/4,4,5,5)									

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				01/12/2016 10:00	4,40	20	1,80	4,00	5,20	300 200 50	1,20 15,00 15,45	200	6,00			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540700.56

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT27												
11.00	D28												
11.00 - 12.00	B29												
12.00 - 12.45	D30	12.00	SPT(S)	N=29 (4,5/6,7,8,8)							(9.00)		
13.00 - 13.50	B32												
13.50 - 13.95	UT33												
14.00	D34												
14.00 - 14.70	B35												
14.70	D36												
15.00	B37	15.00	SPT(S)	N=38 (6,7/8,9,10,11)									
15.00 - 15.45	D38				01/12/2016 17:00	6.00 15.00							
									Very weak, light grey, weathered SILTSTONE. [KIMMERIDGE CLAY FORMATION]		14.70 (0.30)	-5.22	
									Very stiff, dark bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		15.00 (0.45)	-5.52	
											15.45	-5.97	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER			WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				01/12/2016 10:00	4.40	20	1.80	4.00	5.20	300 200 50	1.20 15.00 15.45	200	6.00			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540851.75

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

Start Date
02/12/2016
End Date
02/12/2016

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Instal/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 1.00 0.00 - 1.00 0.20 0.30	B1 ES2 D19 D20						Grass over brown, slightly clayey slightly gravelly SAND with occasional rootlets (up to 2mm thick). Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [TOP SOIL]				0.50	8.74	
							Brown, slightly clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]				0.50	8.74	
1.50 - 1.95 1.50 - 1.95 1.50 - 1.95	B3 D21 ES4	1.50	SPT(C)	N=27 (6,7/7,6,7,7)	1.20						1.50	7.74	
							Medium dense, becoming loose, orangish brown, slightly sandy slightly silty GRAVEL. Sand is fine to coarse . Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]						
3.00 - 3.45 3.00 - 3.45	B5 D22	3.00	SPT(C)	N=12 (2,2/3,3,3,3)	1.20								
4.00 - 4.45	B6												
4.50 - 4.95	D23	4.50	SPT(C)	N=9 (1,1/2,2,2,3)	1.20								
5.00 - 5.45	B7												
6.00 - 6.45 6.00 - 6.45	B8 D24	6.00	SPT(C)	N=16 (3,3/3,4,4,5)	1.20								
							Blowing sand from 6.00m, rising to 2.00m. Becoming grey, sandy gravel with occasional sub-angular to sub-rounded cobbles of siltstone.						
6.80	D25												
7.00 - 7.45 7.00 - 7.45	B9 ES10						Stiff, dark bluish grey, silty CLAY with occasional gravel of fine siltstone (up to 3cm in width). [KIMMERIDGE CLAY FORMATION]				6.80	2.44	
7.50 - 7.95	UT26												
8.00 8.00 8.00 - 8.45	D27 D28 B11												
9.00 - 9.45 9.00 - 9.45	B12 D29	9.00	SPT(S)	N=19 (2,3/4,4,5,6)									
10.00 - 10.45	B13												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion	14,10	14,30	00:15	02/12/2016 13:00	3,00	20	2,00	3,00		300 200 50	1,20 15,00 15,45	200	7,50	1,20	3,00	70

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
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Project
Northstowe Phase 2
 Client
Homes and Communities Agency

Project No.
UA008426-01
 Easting (OS mE)
540851.75

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

Start Date
02/12/2016
 End Date
02/12/2016

Scale
1:50
 Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend			
10.50 - 10.95	UT30											
11.00	D31											
11.00 - 11.45	B14											
12.00 - 12.45	B15	12.00	SPT(S)	N=25 (4,5/5,6,7,7)						(7.30)		
12.00 - 12.45	D32											
13.00 - 13.45	B16											
13.50 - 13.95	UT33											
14.00	D34											
14.00 - 14.45	B17											
							Weathered, grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			14.10 (0.30)	-4.86	
							Very stiff, dark bluish grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]			14.40	-5.16	
15.00	D35	15.00	SPT(S)	N=30 (4,6/6,7,8,9)						(1.05)		
15.00 - 15.45	B18											
15.45	D36									15.45	-6.21	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	14.10	14.30	00:15	02/12/2016 13:00	3.00	20	2.00	3.00		300 200 50	1.20 15.00 15.45	200	7.50	1.20	3.00	70

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540834.37

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

Start Date
09/12/2016
End Date
12/12/2016

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.40	B1					09/12/2016 09:00	0.00	Grass over orangish brown, slightly sandy slightly gravelly CLAY with rootlets and roots (<1cm in width). Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone.		(0.40)	8.70		
0.10 - 0.40	ES14							[TOP SOIL]					
0.50 - 1.20	B2							Firm, orangish brown, slightly gravelly sandy CLAY with occasional pockets of dark brown clay. Sand is fine to coarse. Gravel is angular to sub-rounded, fine to coarse of mixed lithologies.		(0.80)	7.90		
0.70 - 1.00	ES15							[RIVER TERRACE DEPOSITS]					
1.20 - 1.65	D3	1.20	SPT(C)	N=12 (2,3/3,3,3,3)	1.80			Medium dense, orangish brown, clayey gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies.		(0.80)	7.10		
1.50 - 1.70	ES16							[RIVER TERRACE DEPOSITS]					
2.00 - 2.45	D4	2.00	SPT(C)	N=13 (3,4/3,4,3,3)	1.80			Medium dense, yellowish brown, slightly clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies.		(0.80)	6.30		
2.40 - 2.60	ES17							[KIMMERIDGE CLAY FORMATION]					
3.00 - 3.45	D20	3.00	SPT(S)	N=10 (3,3/2,2,3,3)	1.80			Firm to stiff, bluish grey CLAY.					
3.50 - 3.70	ES18												
4.00 - 4.45	UT6												
4.00 - 5.00	B31												
4.45	D21												
5.00 - 5.45	D22	5.00	SPT(S)	N=21 (7,9/9,5,4,3)	1.80								
5.50 - 6.50	B7												
6.50 - 6.95	UT23												
6.95	D31												
7.00 - 8.00	B8												
8.00 - 8.45	D25	8.00	SPT(S)	N=20 (3,3/4,5,5,6)	1.80								
8.50 - 9.50	B9												
9.50 - 9.95	UT26												
9.95	D31												
10.00 - 11.00	B10												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				09/12/2016 10:00	1.32	20	1.30	1.65	3.15	300 200 50	1.20 15.00 15.45	200	3.15			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540834.37

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

Start Date
09/12/2016
End Date
12/12/2016

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA				Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description			Legend			
11.00 - 11.45	D28	11.00	SPT(S)	N=26 (4,5/6,6,7,7)	1.80			Stiff to very stiff, dark grey CLAY with occasional shell fragments, up to 1cm in width. [KIMMERIDGE CLAY FORMATION]				(5.45)		
11.50 - 12.50	B25													
12.50 - 12.95	UT27													
12.95 - 13.00	D27													
13.00 - 14.00	B28													
14.00 - 14.45	D29	14.00	SPT(S)	N=28 (4,5/6,6,8,8)	1.80									
14.00 - 15.00	B30													
15.00 - 15.45	D31	15.00	SPT(S)	N=30 (5,5/6,7,7,10)	1.80	12/12/2016 17:00	3.15 1.30					15.45	-6.35	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion				09/12/2016 10:00	1.32	20	1.30	1.65	3.15	300 200 50	1.20 15.00 15.45	200	3.15			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP
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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540963.63

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

Start Date
09/12/2016
End Date
09/12/2016

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.30	B1					09/12/2016 09:00	0.00	Grass over soft, brown CLAY with frequent roots and rootlets. [TOP SOIL]		(0.30)			
0.00 - 0.30	ES1							Orangish brown, gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		0.30	8.99		
0.30	D19												
0.50 - 0.70	ES2												
0.50 - 1.00	B3												
1.00	D20												
1.20	D21												
1.50 - 2.00	B4	1.50	SPT(C)	N=22 (3,3/5,6,5,6)	1.00					(3.00)			
2.00	D22												
2.50 - 3.00	B5												
3.00	D23	3.00	SPT(C)	N=24 (3,4/5,6,7,6)	2.00								
3.30	D24							Stiff, orangish brown mottled greenish grey, slightly sandy, gravelly CLAY with sandy pockets. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]		3.30	5.99		
3.30 - 3.70	B6										(0.40)		
3.40 - 3.60	ES3							Stiff to very stiff, grey, slightly silty CLAY with occasional shell fragments (up to 1mm in width) and occasional bands of weak, grey mudstone. [KIMMERIDGE CLAY FORMATION]		3.70	5.59		
3.70	D25												
3.70 - 4.50	B7												
3.80 - 4.00	ES4												
4.00	D26												
4.50 - 4.95	UT41												
4.50 - 5.00	B8												
5.00	D27												
5.50 - 6.00	B9												
6.00	D28	6.00	SPT(S)	N=39 (2,3/9,10,10,10)									
6.50 - 7.00	B10									(11.75)			
7.00	D29												
7.50 - 8.00	B11	7.50	SPT(S)	N=36 (4,4/8,8,10,10)									
8.00	D30												
8.50 - 9.00	B12												
9.00	D31												
9.00 - 9.33	UT42												
9.50	D32												
9.50 - 10.00	B13												
10.00	D33												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	4.00	4.20	00:30	09/12/2016 10:00	1.30	20	1.30	1.70		300	1.20	200	3.00			
1.20	15.45	Cable Percussion	6.70	6.90	00:30							200	15.00	200				
												50	15.45					

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

Termination Depth:
15.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540963.63

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

Start Date
09/12/2016
End Date
09/12/2016

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 11.00	B14	10.50	SPT(S)	N=38 (4,5/8,10,10,10)	10.00								
11.00	D34												
11.50 - 12.00	B18												
12.00	D35												
12.00 - 12.45	UT43												
12.50	D36												
12.50 - 13.00	B19												
13.00	D37												
13.50 - 14.00	B21	13.50	SPT(S)	N=37 (4,4/8,9,10,10)	10.00								
14.00	D38												
14.50 - 15.00	B20												
15.00	D39												
15.00 - 15.45	UT44												
15.45	D40					09/12/2016 17:00	3.00 1.30				15.45	-6.16	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	4.00	4.20	00:30	09/12/2016 10:00	1.30	20	1.30	1.70		300	1.20	200	3.00			
1.20	15.45		6.70	6.90	00:30							200	15.00					
												50	15.45					

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540992.31

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B5 ES1				08/12/2016 08:00	0.00	Soft, brown, slightly sandy CLAY with frequent roots and rootlets. [TOP SOIL]			(0.40)			
0.50	B6						Soft to firm, orangish brown, slightly sandy slightly gravelly CLAY with frequent roots and rootlets. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]			0.40	8.76		
1.00 - 1.20	ES2									(1.40)			
1.20 - 1.65	D7	1.20	SPT(S)	N=11 (1,2/2,3,3,3)									
1.80	B8									1.80	7.36		
2.00 - 2.20	ES3	2.00	SPT(S)	N=12 (2,2/2,3,3,4)						(1.80)			
2.00 - 2.45	D9												
2.00 - 3.00	B10												
3.00 - 3.31	UT11												
3.00 - 4.00	B12												
3.45	D13												
4.00 - 4.45	D14	4.00	SPT(S)	N=13 (6,3/2,3,3,5)						3.60	5.56		
4.00 - 5.00	B15									(0.20)	5.46		
4.10 - 4.30	ES4									3.90	5.26		
5.00 - 5.45	UT16												
5.45	D17												
5.50 - 6.50	B18												
6.50 - 6.95	D19	6.50	SPT(S)	N=37 (4,10/7,8,11,11)						(5.20)			
7.00 - 8.00	B20												
8.00 - 8.45	UT21												
8.45	D22												
8.50 - 9.50	B23												
9.50 - 9.95	D24	9.50	SPT(S)	N=24 (4,4/5,6,6,7)						9.10	0.06		
										(0.20)	-0.14		
9.50 - 9.95	B24									9.30			
10.00 - 11.00	B25									(0.90)			

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	3.70	3.90	00:50							300	1.20	200	1.65			
1.20	15.45		9.10	9.30	00:50							200	15.00	200				
												50	15.45					

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
540992.31

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill		
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend						
11.00 - 11.45	UT22						Stiff to very stiff, dark grey CLAY. [KIMMERIDGE CLAY FORMATION]				10.20	-1.04			
11.45	D23														
11.50 - 12.50	B24														
12.50 - 12.95	D25	12.50	SPT(S)	N=30 (6,6/7,7,8,8)								(5.25)			
13.00 - 14.00	B26														
14.00 - 14.45	UT33														
14.00 - 15.00	B27														
15.00 - 15.45	D28	15.00	SPT(S)	N=35 (6,6/7,8,10,10)		09/12/2016 16:30	1.65				15.45	-6.29			

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	3.70	3.90	00:50							300	1.20	200	1.65			
1.20	15.45		9.10	9.30	00:50							200	15.00	200				
												50	15.45					

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541168.85

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.20	B27					08/12/2016 09:00	0.00	Soft, brown, slightly sandy slightly gravelly CLAY with frequent roots and rootlets. Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of flint.		(0.40)			
0.20 - 0.40	ES1							[TOP SOIL]		0.40			
0.30	D5							Orangish brown, slightly clayey slightly gravelly fine to coarse SAND. Gravel is sub-angular to rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]					
0.40	B28												
0.50	D6												
1.00	B29												
1.00	D7												
1.00 - 1.20	ES2	1.50	SPT(C)	N=10 (2,2/2,3,2,3)						(2.80)			
2.00	B30												
2.00	D8												
3.00	D9	3.00	SPT(C)	N=18 (2,2/4,4,5,5)									
3.20	B31							Stiff, greenish grey mottled brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint. [RIVER TERRACE DEPOSITS]		3.20			
3.30 - 3.50	ES3									(1.10)			
4.00	B32												
4.00	D10												
4.40	D11							Weak, grey MUDSTONE. [KIMMERIDGE CLAY FORMATION]		4.30 (0.20)			
4.50 - 4.84	UT23							Stiff, greenish grey mottled brown CLAY. [KIMMERIDGE CLAY FORMATION]		4.50			
5.00	B33									(1.00)			
5.00	D12												
5.00 - 5.20	ES4												
6.00	B34	6.00	SPT(C)	N>50 (10,10/20,20,10 for 5mm)				Stiff to very stiff, grey mottled orangish brown CLAY. [KIMMERIDGE CLAY FORMATION]		5.50 (0.50)			
6.00	D13							Weak, grey MUDSTONE. [KIMMERIDGE CLAY FORMATION]		6.00 (0.70)			
7.00	B23							Stiff to very stiff, grey to dark grey CLAY with occasional shell fragments. [KIMMERIDGE CLAY FORMATION]		6.70			
7.00	D14												
7.50 - 7.95	UT24												
8.00	B24												
8.00	D15												
9.00	B25	9.00	SPT(S)	N=17 (2,3/4,4,4,5)									
9.00	D16												
10.00	B26												
10.00	D17												

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	4.30	4.50	00:30	08/12/2016 12:30	2.50	20	2.20	1.50		300	1.20	200	1.50			
1.20	15.45	Cable Percussion	6.00	6.20	00:30							200	15.00					
												50	15.45					

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

Termination Depth:
15.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541168.85

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
10.50 - 10.95	UT25												
11.00	B13 D18												
12.00	B14 D19	12.00	SPT(S)	N=26 (3,4/4,6,8,8)							(8.75)		
13.00	B15 D20												
13.50 - 13.95	UT26												
14.00	B16 D21												
15.00	B17 D22	15.00	SPT(S)	N=40 (5,5/10,10,10,10)		08/12/2016 17:00	1.50 2.2				15.45		

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS						HOLE/CASING DIAMETER				WATER ADDED		
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	4.30	4.50	00:30	08/12/2016 12:30	2.50	20	2.20	1.50		300 200 50	1.20 15.00 15.45	200	1.50			

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

Termination Depth:
15.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541209.72

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

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

Scale
1:50
Sheet 1 of 1

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.30	B1	1.50	SPT(S)	N=12 (1,1/3,3,3,3)		07/12/2016 08:00	0.00	MADE GROUND: Grass over brown, sandy CLAY.		[X-pattern]	0.10	5.75	
0.00 - 0.30	ES15							MADE GROUND: Firm, dark brown gravelly CLAY. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies, including an iron bar (20x1x1 cm), cloth, brick and glass.			(0.70)		
0.30 - 0.30	D17							Soft to firm, brown mottled greenish grey, silty CLAY. [RIVER TERRACE DEPSOITS]			0.80	5.05	
0.30 - 0.80	B2										(2.80)		
0.30 - 0.80	ES12												
1.00	D18												
1.00 - 2.00	B3												
1.00 - 2.00	ES13												
1.20	D19												
2.00	D20												
2.00 - 3.00	B4												
3.00	D21			3.60 (0.20) 3.80	2.25 2.05								
3.00 - 3.45	UT30												
3.00 - 3.80	B5												
3.50	D22												
3.80 - 4.50	B6	4.50	SPT(S)	N=50 (2,3/7,8,25,40 for 60mm)				Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		[X-pattern]	(1.20)		
3.80 - 4.50	ES14							Stiff to very stiff, dark grey CLAY. [KIMMERIDGE CLAY FORMATION]					
4.00	D23												
4.50 - 5.50	B7												
5.00	D24			5.00 (0.20) 5.20	0.85 0.65								
5.50 - 6.50	B8												
6.00	D25			(4.80)									
6.00 - 6.33	UT31												
6.50 - 7.50	B9												
7.00	D26												
7.50 - 8.50	B10	7.50	SPT(S)		N=27 (4,4/5,7,7,8)			Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		[X-pattern]			
8.00	D27							Stiff, grey CLAY with occasional gravel of siltstone and shells (up to 1cm x 1cm x 1cm). [KIMMERIDGE CLAY FORMATION]					
8.50 - 9.50	B11			10.00	-4.15								
9.00	D28												
9.50	B16												
9.50 - 9.95	UT32			07/12/2016 15:00	1.50								
10.00	D29												

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	3.60	3.80	00:30							300	1.20	200	1.50			
1.20	10.00		5.00	5.20								200	10.00					

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

Termination Depth:
10.00m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

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VP

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AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541375.29

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

Start Date
06/12/2016
End Date
06/12/2016

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.40 0.00 - 1.00	ES1 B2				06/12/2016 11:00	0.00	Grass over brown, slightly sandy silty CLAY with fine rootlets (up to <1mm). Sand is fine to medium. [TOPSOIL]			(0.40)	7.28		
0.40 - 1.20 0.50	ES3 D14						Firm, orangish brown, slightly sandy slightly gravelly CLAY with thin lenses of grey clay. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]			(0.70)			
1.00	D15									1.10	6.58		
1.20 - 1.70	D16 B4	1.20	SPT(C)	N=5 (2,3/1,1,2,1)			Loose, orangish brown, slightly clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]			(0.70)			
1.80 - 2.30	D17 B5 ES6						Soft to firm, brown mottled grey, slightly silty gravelly CLAY. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS]			1.80	5.88		
3.00 - 3.20	D18									(1.40)			
3.00 - 3.50	UT28 B7									3.20	4.48		
3.00 - 3.50	ES8									3.40	4.28		
3.20 - 3.50	D19	3.50	SPT(S)	N>50 (5,5/4,4,4 for 55mm)			Firm to stiff grey silty slightly gravelly CLAY with occasional small gypsum crystals. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [KIMMERIDGE CLAY FORMATION]			(0.20)			
3.50 - 4.00	D20 B9						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			3.60	4.08		
4.00	D21						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			3.80	3.88		
4.50 - 4.95	UT29						Firm to stiff, grey, silty CLAY with occasional small gypsum crystals and angular gravel of siltstone (up to 3cm x 1cm x 2cm). [KIMMERIDGE CLAY FORMATION]			(1.80)			
5.00 - 5.50	D22 B10									5.60	2.08		
6.00 - 6.50	D23 B11	6.00	SPT(S)	N=21 (3,3/4,4,6,7)			Stiff, dark grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]						
7.00	D24												
7.50 - 7.95	UT30									(4.85)			
8.00 - 8.50	D25 B12												
9.00	D26	9.00	SPT(S)	N=23 (2,3/4,5,7,7)									
9.50 - 10.00	B13												
10.00	D27	10.00	SPT(S)	N=24 (3,3/4,6,6,8)									

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	3.20	3.40	00:30	06/12/2016 12:00	4.50			1.00		300	1.20	200	1.00			
1.20	10.45		3.60	3.80	00:30							200	10.00	200				
												50	10.45					

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541375.29

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

Start Date
06/12/2016
End Date
06/12/2016

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
						06/12/2016 16:00	1.00				10.45	-2.77	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER			WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion	3,20	3,40	00:30	06/12/2016 12:00	4,50			1,00		300 200 50	1,20 10,00 10,45	200	1,00			

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541475.10

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

Start Date
06/12/2016
End Date
06/12/2016

Scale
1:50
Sheet 1 of 1

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA		Depth (Thickness)	Level	Instal/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend			
0.30	D1				06/12/2016	0.00	MADE GROUND: Grass over soft, brown slightly silty CLAY.		(0.20)	6.78		
0.30 - 1.00	B3				12:00		MADE GROUND: Soft to firm, brown, slightly gravelly, silty CLAY. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies.		0.20			
0.30 - 1.00	ES2								(0.80)			
1.00 - 1.20	B4						Soft, light grey mottled brown, silty CLAY. [RIVER TERRACE DEPOSITS]		1.00	5.98		
1.00 - 1.20	ES5								(1.20)			
1.20	D6											
1.20 - 1.65	B8											
1.20 - 1.65	UT7											
2.00	D9											
2.20 - 2.50	B10						Soft to firm, grey mottled brown, slightly gravelly silty CLAY. Gravel is angular, fine to medium of siltstone. [KIMMERIDGE CLAY FORMATION]		2.20	4.78		
2.50	D11						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		(0.30)			
							Firm to stiff, greyish brown, silty CLAY. [KIMMERIDGE CLAY FORMATION]		2.50	4.48		
3.00	D12	3.00	SPT(S)	N=15 (2,2/3,3,4,5)					(0.20)			
3.00 - 3.45	D13								2.70	4.28		
3.50 - 4.00	B14											
3.50 - 4.00	ES15											
4.00	D16											
4.50 - 4.95	UT17								(2.70)			
5.00	D18											
5.50 - 6.00	B20						Stiff, grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		5.40	1.58		
5.50 - 6.00	ES19						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]		(0.20)			
5.60	D21						Very stiff, grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]		5.60	1.38		
6.00	D22	6.00	SPT(S)	N=23 (2,2/5,5,5,8)					(0.20)			
6.00 - 6.45	D23								5.80	1.18		
6.50 - 7.00	B24											
7.00	D25											
7.50	UT27								(4.20)			
7.50 - 8.00	B26											
8.00	D28											
8.50 - 9.00	B29											
9.00	D30											
9.50 - 10.00	B31	9.50	SPT(S)	N=30 (2,3/7,7,8,8)								
					06/12/2016	3.00			10.00	-3.02		
					17:00							

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	2.50	2.70	00:30							300	1.20	200	3.00			
1.20	10.00	Cable Percussion	5.60	5.80	00:30							200	10.00	200	3.00			

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

Termination Depth:
10.00m

Project
Northstowe Phase 2
 Client
Homes and Communities Agency

Project No.
UA008426-01
 Easting (OS mE)
541619.68

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

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

Scale
1:50
 Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B1					12/12/2016 08:00	0.00	Grass over firm, brown, slightly sandy slightly gravelly CLAY with fine rootlets. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone.		(0.30)	6.00		
0.10 - 0.30	ES4							[TOP SOIL]					
0.30 - 0.85	B2							Stiff, orangish brown, slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to medium of mudstone.		(0.55)			
0.50 - 0.80	D7							[RIVER TERRACE DEPOSITS]			5.45		
0.85 - 1.20	B3							Soft, brown mottled grey, slightly sandy gravelly CLAY with occasional sand pockets (up to 2mm x 1mm x 1mm). Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to medium of mudstone.		(0.35)	5.10		
0.90	D8							[RIVER TERRACE DEPOSITS]					
1.00 - 1.20	ES6	1.20	SPT(S)	N=12 (1,2/2,3,3,4)	▼			Firm, grey mottled brown, slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is sub-angular to rounded, fine to coarse of flint.					
1.20	D9							[RIVER TERRACE DEPOSITS]					
1.20 - 1.70	B13												
2.00 - 2.50	B14												
2.50	D10									(2.30)			
3.00 - 3.45	UT16												
3.50	D11												
3.50 - 4.00	B15							Soft to firm, dark grey, slightly gravelly CLAY. Gravel is sub-rounded to rounded, medium to coarse of siltstone.			2.80		
								[KIMMERIDGE CLAY FORMATION]					
4.50	D12	4.50	SPT(S)	N=17 (2,3/3,4,5,5)									
4.50 - 5.00	B7									(2.40)			
5.50	D7												
6.00 - 6.45	UT2							Soft to firm, fissured, grey CLAY.			5.90	0.40	
								[KIMMERIDGE CLAY FORMATION]					
6.50	D8												
6.50 - 7.00	B8												
7.50	D9	7.50	SPT(S)	N=15 (1,2/3,3,4,5)									
7.50 - 8.00	B9									(4.55)			
8.50	D10												
8.50 - 9.00	B10												
9.00 - 9.45	UT3												
9.50	D11												
9.50 - 10.00	B11												
10.00	D12	10.00	SPT(S)	N=20 (4,2/4,5,5,6)									

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit				12/12/2016 09:00	1.10					300	1.20	200	3.00			
1.20	10.45	Cable Percussion										200	10.00	200				
												50	10.45					

Remarks
 Groundwater seepage at 1.1m bgl.
 Wire-line piezometer installed to 7.50m bgl (base of tip). Pluviated sand response zone from 7.00m to 8.00m bgl.
 UT16 (3.00-3.45) - 100% recovery, 75 blows.
 UT2 (6.00-6.45) - 100% recovery, 65 blows.
 UT3 (9.00-9.45) - 100% recovery, 100 blows.

Termination Depth:
10.45m

Project
Northstowe Phase 2
 Client
Homes and Communities Agency

Project No.
UA008426-01
 Easting (OS mE)
541619.68

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
						12/12/2016 16:00	3.00				10.45	-4.15	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				12/12/2016 09:00	1,10					300 200 50	1,20 10,00 10,45	200	3,00			

Remarks

Groundwater seepage at 1.1m bgl.
 Wire-line piezometer installed to 7.50m bgl (base of tip). Pluviated sand response zone from 7.00m to 8.00m bgl.
 UT16 (3.00-3.45) - 100% recovery, 75 blows.
 UT2 (6.00-6.45) - 100% recovery, 65 blows.
 UT3 (9.00-9.45) - 100% recovery, 100 blows.

Termination Depth:
10.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

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

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B5				12/12/2016	0.00	Grass over firm, brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of sandstone. Roots and rootlets present (up to 1cm in width). [TOP SOIL] Firm, orangish brown, slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone. Occasional roots present (1cm x 2cm x 3cm). [RIVER TERRACE DEPOSITS] Soft to firm, bluish grey mottled orangish brown, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]		(0.30)				
0.10 - 0.30	ES1				08:00								
0.30 - 0.75	B6												
0.40 - 0.60	ES2												
0.50	D1												
0.75 - 1.20	B7												
0.80	D2												
0.90 - 1.10	ES3												
1.20 - 1.65	D3	1.20	SPT(S)	N=5 (1,1/1,1,1,2)									
1.20 - 1.70	B8												
2.00	D4												
2.00 - 2.50	B9												
3.00 - 3.45	UT1												
3.50	D5												
3.50 - 4.00	B10												
4.50 - 4.95	D6	4.50	SPT(S)	N=14 (1,2/3,3,4,4)									
4.50 - 5.00	B11												
4.60 - 4.80	ES4												
5.50	D7												
5.50 - 6.00	B12												
6.00 - 6.45	UT2												
6.50	D8												
6.50 - 7.00	B13												
7.50 - 7.95	D9	7.50	SPT(S)	N=14 (1,2/2,3,4,5)									
7.50 - 8.00	B14												
8.50	D10												
8.50 - 9.00	B15												
9.00 - 9.45	UT3												
9.50	D11												
9.50 - 10.00	B16												
10.00 - 10.45	D12	10.00	SPT(S)	N=21 (2,3/4,5,6,6)									

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit										300	1.20	200	1.50			
1.20	10.45	Cable Percussion										200	10.00					
												50	10.45					

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

Termination Depth:
10.45m



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

Equipment Used
Pilcon 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM

Project
Northstowe Phase 2
 Client
Homes and Communities Agency

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

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

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

Scale
1:50
 Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
						12/12/2016 16:00	1.50				10.45	-4.52	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion										300 200 50	1,20 10,00 10,45	200	1,50			

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

Termination Depth:
10.45m



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

Equipment Used
Pilcon 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541644.09

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.00 - 0.30	B1				07/12/2016	0.00	Grass over firm, brown, sandy CLAY with rootlets (up to 7mm thick).			(0.30)			
0.00 - 0.30	ES4				09:00		[TOPSOIL]			0.30	7.10		
0.30	D16												
0.30 - 1.00	B2						Firm, orangish brown occasionally mottled grey, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to medium of mixed lithologies. [RIVER TERRACE DEPOSITS]			(0.90)			
0.30 - 1.00	ES3												
1.00	D17												
1.20	D18	1.20	SPT(S)	N=12 (4,4/5,2,3,2)			Firm, orangish brown, slightly sandy slightly gravelly CLAY with pockets of soft, grey, silty clay. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to medium of mixed lithologies. [RIVER TERRACE DEPOSITS]			1.20	6.20		
1.20 - 1.70	B6									(0.90)			
1.20 - 1.70	ES5												
2.00	D19												
2.10 - 2.50	B7						Firm, grey, silty CLAY. [KIMMERIDGE CLAY FORMATION]			2.10	5.30		
2.10 - 2.50	ES8									(0.40)			
2.50	D20						Grey SILTSTONE. [KIMMERIDGE CLAY FORMATION]			2.50	4.90		
2.50 - 3.00	B9									(0.20)			
2.50 - 3.00	ES10						Firm to stiff, grey, silty CLAY with occasional bands of siltstone. [KIMMERIDGE CLAY FORMATION]			2.70	4.70		
3.00 - 3.30	UT29												
3.50	D21												
3.50 - 4.00	B11												
4.50	D22	4.50	SPT(S)	N=21 (2,3/4,5,5,7)						(3.60)			
4.50 - 5.00	B12												
5.50	D23												
6.00 - 6.45	UT30												
6.50	D24						Firm to stiff, fissured, dark grey CLAY with occasional shell fragments (up to 1cm in width). [KIMMERIDGE CLAY FORMATION]			6.30	1.10		
6.50 - 7.00	B13												
7.50	D25	7.50	SPT(S)	N=20 (4,4/4,5,5,6)						(4.15)			
7.50 - 8.00	B14												
8.50	D26												
9.00 - 9.50	B15	9.00	SPT(S)	N=15 (2,2/3,3,4,5)									
9.50	D27												
10.00	D28	10.00	SPT(S)	N=19 (2,2/4,3,5,7)									

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit	2.50	2.70	00:30							300	1.20	200	2.60			
1.20	10.45	Cable Percussion										200	10.00					
												50	10.45					

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
 Client
Homes and Communities Agency

Project No.
UA008426-01
 Easting (OS mE)
541644.09

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

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

Scale
1:50
 Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
						07/12/2016 15:30	2.60				10.45	-3.05	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion	2,50	2,70	00:30							300 200 50	1,20 10,00 10,45	200	2,60			

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

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

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill									
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend													
0.10 - 0.25	B2	1.20	SPT(S)	N=10 (3,2/3,3,2,2)		08/12/2016 09:00	0.00	Grass over firm, brown, sandy gravelly CLAY with frequent rootlets (up to 1mm thick). Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [TOP SOIL] Firm, orangish brown, slightly gravelly sandy CLAY with occasional fine rootlets (<1mm). Sand is fine to coarse. Gravel is sub-angular to rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS] Soft, dark brown mottled light brown, sandy gravelly CLAY with occasional pockets of bluish grey silty clay. Sand is fine to coarse. Gravel is angular to subrounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS] Medium dense, orangish brown, clayey sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of mixed lithologies. [RIVER TERRACE DEPOSITS] Firm, bluish grey occasionally mottled brown, silty CLAY with occasional gravel of siltstone (up to 1cm x 2cm x 1cm). [KIMERIDGE CLAY FORMATION]		0.30	6.39											
0.10 - 0.25	ES1									0.30			0.20									
0.30	D18									0.30			0.20									
0.30 - 0.50	B3									0.50			0.30									
0.30 - 0.50	ES5									0.50			0.30									
0.50 - 0.80	B4									0.80			0.30									
0.50 - 0.80	ES6									0.80			0.30									
0.60	D19									1.10			0.30									
0.80 - 1.20	B17									1.90			0.30									
0.80 - 1.20	ES7									1.90			0.30									
1.20 - 1.65	D20	4.50	SPT(S)	N=13 (1,2/3,3,3,4)				Grey SILTSTONE. [KIMERIDGE CLAY FORMATION] Soft to firm, bluish grey occasionally mottled brown, silty CLAY with occasional gravel of siltstone (up to 1cm x 2cm x 1cm). [KIMERIDGE CLAY FORMATION]		3.80	2.89											
1.20 - 1.70	B8									4.00			0.20									
1.90	D21									4.50			0.20									
1.90 - 2.40	B9									5.80			0.20									
2.50	D22									5.80			0.20									
3.00 - 3.45	UT31									6.00			0.20									
3.50	D23									6.00			0.20									
3.50 - 4.00	B10									6.00			0.20									
3.50 - 4.00	ES11									6.00			0.20									
4.50 - 4.95	D24									7.50			SPT(S)	N=16 (3,2/3,3,5,5)				Firm, fissured, dark grey, silty CLAY with occasional shell fragments (up to 1cm in width). [KIMERIDGE CLAY FORMATION]		5.80	0.89	
4.50 - 5.00	B11	5.80	0.20																			
5.80	D25	6.00	0.20																			
5.80 - 6.00	B12	6.00	0.20																			
6.00 - 6.45	UT32	6.00	0.20																			
6.50	D26	6.00	0.20																			
6.50 - 6.80	ES15	6.00	0.20																			
6.50 - 7.00	B13	6.00	0.20																			
7.50 - 7.95	D27	10.00	SPT(S)	N=19 (3,2/4,3,5,7)							7.50	4.65										
7.50 - 8.00	B15										7.50											
8.50	D28									7.50	0.20											
9.00 - 9.45	UT33									7.50	0.20											
9.50	D29									7.50	0.20											
9.50 - 10.00	B16									7.50	0.20											
10.00 - 10.45	D30									7.50	0.20											

Continued on next page

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.20	Inspection Pit Cable Percussion	3.80	4.00	00:30							300	1.20	200	4.00			
1.20	10.45												200	10.00	200			

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
 Client
Homes and Communities Agency

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

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

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

Scale
1:50
Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
						08/12/2016 16:00	4.00				10.45	-3.76	

DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion	3,80	4,00	00:30							300 200 50	1,20 10,00 10,45	200	4,00			

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

Termination Depth:
10.45m

Project
Northstowe Phase 2
Client
Homes and Communities Agency

Project No.
UA008426-01
Easting (OS mE)
541483.61

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

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

Scale
1:50
Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Date Time	Casing Water	Description	Legend				
0.10 - 0.30	B1					08/12/2016 09:00	0.00	Grass over soft, brown, slightly sandy slightly gravelly CLAY with frequent roots and rootlets. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint.		(0.30)	7.61		
0.20 - 0.30	ES12							[TOP SOIL]		0.30			
0.30 - 1.20	B2							Brown, sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]		(0.90)			
0.40 - 0.60	ES13												
1.20	D16	1.20	SPT(C)	N=8 (3,3/2,2,2,2)	▼			Loose to medium dense, light brown, gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint and sandstone. [RIVER TERRACE DEPOSITS]		1.20	6.71		
1.20 - 2.00	B3												
1.30 - 1.50	ES14												
2.00 - 3.00	B4									(2.80)			
3.00	D17	3.00	SPT(C)	N=16 (3,3/4,4,4,4)	▽								
3.00 - 4.00	B5												
4.00 - 5.00	B6												
4.30 - 4.50	ES15							Soft to firm, fissured, grey, silty CLAY with occasional shells and shell fragments. [KIMMERIDGE CLAY FORMATION]		4.00	3.91		
4.50 - 4.95	D18	4.50	SPT(S)	N=16 (3,4/4,4,4,4)									
5.00 - 6.00	B7												
6.00 - 6.45	UT23												
6.00 - 7.00	B8												
6.45	D19												
7.00 - 8.00	B9									(6.45)			
7.50 - 7.95	D20	7.50	SPT(S)	N=17 (3,4/4,4,4,5)									
8.00 - 9.00	B10												
9.00 - 10.00	B11												
9.00 - 9.45	UT24												
9.45	D21												
10.00 - 10.45	D22	10.00	SPT(S)	N=17 (1,2/3,4,5,5)									

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DRILLING TECHNIQUE			CHISELLING			WATER OBSERVATIONS					HOLE/CASING DIAMETER				WATER ADDED			
From	To	Type	From	To	Duration	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0,00	1,20	Inspection Pit Cable Percussion				08/12/2016 12:00	3,00	20	1,50	3,00	4,00	300	1,20	200	4,50	1,20	4,00	50
1,20	10,45											200	10,00					

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

Termination Depth:
10.45m



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

Equipment Used
Dando 2000

Contractor
Arcadis Consulting (UK) Ltd.

Logged By
VP

Checked By
AM