







## Appendix B Exploratory Hole Records

• Home Zones 3 Logs

**BOREHOLE RECORD** - Cable Percussion Draft Engineer Borehole **BH303** GRAVEN HILL, BICESTER, LAND TRANSFER WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No 458128.9 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 66.68 m OD Coordinates COMPANY LIMITED 220820.4 Strata Sampling **Properties** Scale 1:50 Sample Strength W Description Depth Depth Leaend Type kPa % m OD G.L. 66.68 0.10- 0.60 В MADE GROUND: Firm brown slightly sandy gravelly clay with a low cobble content of angular to subangular brick and limestone. Gravel is angular ES 0.30 PID=<0.1 to subangular fine to coarse brick limestone. 0.50 D 0.50 ES PID=<0.1 0.80 65.88 1.00 ח MADE GROUND: Soft brown mottled grey slightly sandy ES slightly gravelly clay. Gravel is angular to subrounded fine to coarse brick and limestone 1.00 1.00 PID=<0.1 1.90 1.20-1.20- 1.65 D 1.20 **S**1 (DRY) 64.78 1.90 Firm light brown mottled grey slightly sandy slightly gravelly CLAY with rare shell fragments (up to 5mm in size). Gravel is angular to 1.90- 2.50 2.00 ES PID=<0.1 2.20 subangular fine to medium limestone. 2.50- 2.95 D 1.20 s10 (DRY) 3.00 . ES 3.00 PID=<0.1 3.10 63.58 3.10-3.60 Stiff dark brown mottled grey sandy CLAY with occasional pockets (up to 25mm in size) of orangish brown sandy clay, occasional pockets (up to 30mm in size) of decomposed organic material and an organic 3.30 D 36 3.60- 4.05 - UT19 1.20 87 35 3.60 63.08 (DRY) odour. 4.00- 4.70 4.05- 4.20 Stiff dark grey CLAY with many shell fragments (up to  $40\,\mathrm{mm}$  in size). В At 4.50m, with occasional pockets (up to 20mm in 4.50 D size) of orangish brown sandy clay. 4.70- 5.15 S21 D 1.20 (DRY) 5.50 D 6.00- 6.45 UT37 1.20 141 26 (DRY) 6.45- 6.60 D 7.10 D 7.50- 7.95 D 1.20 S22 (DRY) 7.60 59.08 Stiff grey slightly sandy CLAY with many shell fragments (up to 35mm in size). 8.00- 9.00 В 8.50 At 8.50m, with are pockets (up to 20mm in size) of D orangish brown sandy clay. 9.00- 9.45 UT41 1.20 (DRY) 9.45- 9.60 D S50/ 10.00-10.36 D 1.20 (DRY) 210 Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time Water Cased Mins Sealed Dia of Hole Cased Struck Groundwater Inspection Pit 06/08/20 None encountered MR/SS G.L 08:00 10.36 0.15 Cable Percussion MR/SS 10.36 1.20 DRY 06/08/20 18:00 during boring.

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No Remarks

Symbols and abbreviations are explained on the

accompanying key sheet.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Water was added to assist boring between 1.20 and 10.00 m.
A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: bentonite up to 6.00m, gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.

1 of 2

11/11/2020

Logged by

Figure

All dimensions

are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH303** Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458128.9 220820.4 Client Ground Level 66.68 m OD Sampling **Properties** Strata Scale 1:50 Depth Cased & (to Water) Level m OD Sample Strength w SPT N Depth Description Depth Legend % Type kPa 56.32 End of Borehole Boring Progress Groundwater Hole Dia Depth of Hole Depth Cased Depth to Water Depth Cased in Mins Depth Sealed Remarks on Groundwater Time Rose to Depth Technique Crew Date Struck Remarks Remarks Logged by MM Figure Symbols and 2 of 2 abbreviations are 11/11/2020 explained on the accompanying key sheet. geolectimies

**BOREHOLE RECORD** - Cable Percussion Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer Borehole **BH304** WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No GRAVEN HILL VILLAGE DEVELOPMENT National Grid 458143.7 Client Coordinates Ground Level 66.14 m OD COMPANY LIMITED 220732.4 Strata Scale 1:50 Sampling **Properties** Sample Strength W Depth Description Depth Leaend Type kPa % m OD 66.14 G.L. TOPSOIL. \*\* 0.10 66.04 0.20 ES 0.20 PID=<0.1 Soft orangish brown mottled greyish brown slightly sandy CLAY with occasional pockets (up to 20mm in size) of soft dark grey clay. 0.50- 1.00 B D 0.50 65.64 0.50 0.50 ES PID=<0.1 Firm orangish brown slightly sandy slightly 1.00 ES gravelly CLAY. Gravel is angular to subangular fine to medium limestone. 1.00 PID=<0.1 1.20 (DRY) 1.20 1.20- 1.65 D S8 64.94 Firm brown mottled grey slightly sandy CLAY. Below 1.60m, with occasional shell fragments (up to 3mm in size). 1.50 ES PID=<0.1 1.50 1.60 D Below 2.30m, becoming stiff. 2.30- 2.75 UT29 1.50 86 25 (DRY) 2.80 D 3.50- 3.95 s16 D 1.50 (DRY) 3.80 62.34 Stiff grev CLAY with many shell fragments (up to 15mm in size) and occasional pockets (up to 2mm in 4.20- 4.70 size) of grey silt. В 4.70- 5.15 UT45 1.50 (DRY) 5.20 D 6.00- 6.45 D 1.50 S22 (DRY) 6.45 59.69 End of Borehole Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time Water Mins of Hole Cased Struck Cased Sealed Groundwater Dia

Inspection Pit 06/08/20 08:00 None encountered KR/JT G.L 6.45 0.15 Cable Percussion KR/JT 6.45 1.50 DRY 06/08/20 18:00 during boring.

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

activity detected.
\*\* Drillers description. abbreviations are

Backfill details from base of hole: bentonite up to ground level.

accompanying key sheet. All dimensions

Symbols and

are in metres.

explained on the

Logged in accordance with BS5930:2015

Logged by

Figure 1 of 1 11/11/2020



GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH305** Project No PC207899

National Grid Coordinates GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED 458214.1 220683.9 Client Ground Level 67.92

S = I!		NY LIMI	TED	L D			Coordinates 220683.9 N Ground Level 67.92 m OD								
Samplin	ıg	Cample	Depth	Prope		 	Strat		Scale 1:50						
Depth		Sample Type	Cased & (to Water)	Strength kPa	n W %	SPT N	Descri	tion	Depth	Legend	m OD				
0.00		ES		מדת	<b>=&lt;0.1</b>		MADE	GROUND: Asphalt.**	G.L. 0.10		67.9				
0.30		ES			=<0.1		MADE	GROUND: Compact road subbase.**	0.30		67.6				
0.50 0.50 0.50 0.70-	1.20	- D - ES - - B			=<0.1			GROUND: Grey and brown sandy silty gravel. l is angular to subangular fine to coarse ete.	0.70		67.2				
1.00 1.00 1.20- 1 1.50- 2	1.65	- ES - D - B - D	1.20 (DRY)	PID	=<0.1	s9	slig to 5 organ	GROUND: Firm grey mottled brown slightly sandy tly gravelly clay with occasional pockets (up m in size) of soft dark grey clay and an ic odour. Gravel is angular to subangular fine arse limestone and clinker.	1.50		66.4				
1.50 1.50		ES - -		PID	=<0.1		clay	brown mottled orangish brown slightly sandy with many pockets (up to 40mm in size) of ish brown sandy clay.	2.00		65.9				
2.30- 2	2.75	UT28	1.50 (DRY)	43	30		sand size root	brown mottled light brown and grey slightly CLAY with occasional pockets (up to 5mm in of soft dark grey clay, occasional decomposed ets, occasional gypsum crystals (up to 2mm in and a moderate organic odour.	- - - - - -						
3.40- 3	3.85	- - - - - D	1.50 (DRY)			S14	Belo	3.40m, becoming stiff.							
3.90 4.00-	4.50	- - D - B						fissured grey CLAY. Fissures are extremely ly spaced, subhorizontal, smooth and dull.	3.90		64.0				
4.50-	4.95	_ _UT46 -	1.50 (DRY)	33	31				<u> </u>						
5.10		_ - D						5.10m, with occasional pockets (up to 2mm in of grey silt.	<u>-</u>						
		- - - -							<u></u>						
6.00- (	6.45	D - - -	1.50 (DRY)			S25					61.4				
		-  -  -  -						End of Borehole	6.45		61.4				
		- - - -													
		- - - -													
		- - - -							<u>-</u> - -						
		- - - -							<del>-</del>						
		- - - -							t E						
		-  -  -  -							<u> </u>						
oring						Progre	ess	Groundwater							
	Hole Dia	-	Technique	e	Crew	Depth of Hole		Depth to Water Date Time Depth Depth Rose to Mins	Depth Sealed		rks on dwater				
1.20		Inspect	ion Pit ercussi	;	KR/JT KR/JT	G.L.		DRY 06/08/20 08:00 DRY 06/08/20 18:00	Jealeu	None end	ountere				

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

\*\* Drillers description.

A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with flush lockable protective cover. Backfill details from base of hole: gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to 0.10m, asphalt up to ground level.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

abbreviations are explained on the accompanying key sheet.

MM

1 of 1

Logged by

Figure

**BOREHOLE RECORD** - Cable Percussion Draft Engineer Borehole **BH308** GRAVEN HILL, BICESTER, LAND TRANSFER WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No 458439.8 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 72.36 m OD Coordinates COMPANY LIMITED 220755.6 Strata Sampling **Properties** Scale 1:50 Sample Strength W Depth Description Depth Leaend Type kPa % m OD 72.36 G.L. TOPSOIL: Firm dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse sandstone. ES 0.15 72.21 0.10 PID=<0.1 0.20-1.00 0.20 ES PID=<0.1 Firm dark brown slightly sandy CLAY. 0.50 D 1.20 ES 1.20- 1.65 UT10 1.20 52 31 (DRY) PID=<0.1 1.60 70.76 1.20 1.60- 2.40 1.65- 1.80 Firm to stiff brown and grey slightly sandy CLAY with occasional pockets (up to 2mm in size) of D 2.00 D brown silt. 2.40- 2.55 Between 2.50-2.70m, driller notes the presence of a D 1.20 S50/75 (DRY) sandstone boulder. 3.10 69.26 Stiff dark brownish grey slightly sandy slightly gravelly CLAY with occasional shell fragments (up to 20mm in size) and occasional pockets (up to 2mm in size) of brown silt. Gravel is angular to 3.30 D B UT13 3.50- 4.50 3.50- 3.95 1.20 84 32 (DRY) subangular fine to coarse mudstone. 3.95- 4.10 D 4.00 4.50- 4.95 S20 D 1.20 (DRY) 5.20- 6.00 в 5.20 67.16 Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size). 5.50 D 1.20 (DRY) 6.00- 6.45 UT37 6.45- 6.60 D 6.60 65.76 End of Borehole

Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time of Hole Cased Water Cased Mins Sealed Dia Struck Groundwater Inspection Pit 23/07/20 None encountered MR/SS G.L 08:00 6.60 0.15 Cable Percussion MR/SS 6.60 1.20 DRY 23/07/20 18:00 during boring.

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2x vial, 1 x plastic jar and 2amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

abbreviations are explained on the accompanying key sheet.

Symbols and

All dimensions Logged in accordance with BS5930:2015 are in metres.

Water was added to assist boring between 1.20 and 6.00 m. Backfill details from base of hole: bentonite up to ground level.

11/11/2020 geolecimies esimbeloeg

1 of 1

Logged by

Figure

**BOREHOLE RECORD** - Cable Percussion Draft Engineer Borehole **BH309** GRAVEN HILL, BICESTER, LAND TRANSFER WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 70.38 m OD Coordinates COMPANY LIMITED 220748.9 Strata Sampling **Properties** Scale 1:50 Sample Strength W Description Depth Depth Leaend Type kPa % m OD 70.38 G.L. TOPSOIL: Firm dark brown slightly sandy clay with 0.10 70.28 0.00 B D many rootlets. 0.00- 0.10 0.00-0.10 ES 0.40 69.98 Firm light brown slightly sandy CLAY with occasional rootlets. 0.00-0.10 PID=<0.1 0.10-0.40 В 0.10-0.10-0.20 ח ES Soft light orangish brown slightly sandy CLAY. 0.10-0.20 PID=<0.1 1.00 69.38 0.40-0.60 в Soft light brown mottled grey slightly sandy CLAY. 0.50- 0.60 0.50- 0.60 0.50- 0.60 ES PID=<0.1 1.50 68.88 Firm orangish brown mottled grey slightly sandy CLAY with rare gypsum crystals (up to 2mm in size). 1.00-1.20 в 1.00- 1.10 27 1.00-1.10 ES 1.00- 1.10 PID=<0.1 2.00 68.38 - UT23 1.20- 1.65 1.65- 1.70 Stiff dark brownish grey slightly sandy CLAY with rare gypsum crystals (up to 2mm in size). 1,20 37 42 (DRY) 2.10 2.10 2.00-D 2.00-ES 2.10 2.55 2.00-PID=<0.1 2.10-1.50 s8 2.60- 3.00 3.00- 3.10 (DRY) 3.20- 3.65 UT55 1.50 102 29 (DRY) 3.65- 3.70 D 4.00- 4.30 4.00- 4.10 66.38 4.00 В Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size) and occasional gypsum crystals (up to 2mm in size). 4.30- 4.75 D 1.50 S24 (DRY) 5.00- 5.10 D 5.30- 5.75 UT70 1.50 (DRY) 5.75- 5.80 D 6.00- 6.10 D Below 6.80m, becoming very stiff. S30 6.80- 7.25 ת 1.50 (DRY) 7.30- 7.40 D 8.30- 8.75 UT100 1.50 (DRY) 8.75- 8.80 D 9.30- 9.40 9.50- 9.95 D 1.50 S42 (DRY) 10.00 60.38 End of Borehole Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time of Hole Water Cased Mins Sealed Dia Cased Struck Groundwater Inspection Pit 27/07/20 None encountered DC/LC G.L 08:00 10.00 0.15 Cable Percussion DC/LC 10.00 1.50 DRY 27/07/20 18:00 during boring.

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No Backfill details from base of hole: bentonite up to ground level.

explained on the

accompanying key sheet. All dimensions

Symbols and

abbreviations are

Logged in accordance with BS5930:2015 are in metres.

Logged by

Figure 1 of 1



**BOREHOLE RECORD** - Cable Percussion Draft Project Engineer **Borehole BH311** GRAVEN HILL, BICESTER, LAND TRANSFER WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 458252.9 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 68.12 m OD Coordinates COMPANY LIMITED 220719.6 Strata Sampling **Properties** Scale 1:50 Sample Strength W Description Depth Depth Leaend Type kPa % m OD 68.12 G.L. 0.00 ES MADE GROUND: Asphalt \*\* 0.00 PID=<0.1 0.30 67.82 0.30 PID=<0.1 MADE GROUND: Compact orangish brown subbase.\*\* 0.50 ES 0.60 67.52 0.50 PID=<0.1 Soft orangish brown mottled grey slightly sandy 0.60- 1.00 В CLAY. D 1.00 ES Below 1.20m, becoming firm. 1.00 PID=<0.1 1.20- 1.65 UT26 1.20 47 28 (DRY) 1.50 66.62 Firm dark brown mottled greyish brown slightly sandy CLAY with occasional pockets (up to 20mm in size) of soft brown clay and occasional gypsum crystals (up to 20mm in size). 1.70 D 1.70 ES PID=<0.1 2.00- 2.45 S12 D 1.50 (DRY) 2.50 D 2.80 65.32 3.00- 3.45 UT37 1.50 74 25 Firm dark grey slightly sandy CLAY. (DRY) 3.50- 4.00 В 3.50 4.00- 4.45 S23 1.50 Below 4.00m, becoming stiff. D (DRY) 5.00- 5.45 LUT31 1.50 (DRY) Below 5.45m, with many shell fragments (up to 30mm 5.45- 5.60 D in size). 6.00 D 6.50- 6.95 1.50 S34 Below 6.50m, with rare gypsum crystals (up to 2mmD (DRY) in size). 7.20 D 8.00- 8.45 UT49 1.50 (DRY) 8.45- 8.60 D 9.00 D 9.50- 9.95 D 1.50 S40 (DRY) 58.17 9.95 End of Borehole Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time of Hole Water Cased Mins Sealed Dia Cased Struck Groundwater

Inspection Pit 06/08/20 None encountered KR/JT G.L 08:00 9.95 0.15 Cable Percussion KR/JT 9.95 1.50 DRY 06/08/20 18:00 during boring.

Remarks

activity detected. Water was added to assist boring between 4.00 and 9.95m.

explained on the \*\* Drillers description. accompanying

Symbols and

abbreviations are

Backfill details from base of hole: bentonite up to 0.50m, concrete up to 0.30m, asphalt up key sheet. to ground level.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Figure 1 of 1 11/11/2020

Logged by

وعنصفي وعوره

**BOREHOLE RECORD** - Cable Percussion Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Project Engineer Borehole **BH312** WATERMAN INFRASTRUCTURE & PC207899 ENVIRONMENT LIMITED Project No 458329.4 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Coordinates Ground Level 67.71 m OD COMPANY LIMITED 220893.4 Strata Sampling **Properties** Scale 1:50 Sample Strength W SPT N Depth Description Depth Leaend Type (to Water) kPa % m OD 67.71 G.L. MADE GROUND: Concrete. 0.20- 0.40 В 0.20 67.51 MADE GROUND: Grey slightly clayey slightly sandy gravel. Gravel is angular to subangular fine to 0.30 D 0.40 67.31 0.30 ES 0.30 PID=<0.1 coarse granite and rare concrete. B D 0.40- 0.90 0.50 MADE GROUND: Grey and black sandy gravel with a low 0.90 66.81 0.50 ES cobble content of subangular sandstone and concrete. Gravel is angular to subangular fine to 0.50 PID=<0.1 1.00 ES coarse brick, concrete and sandstone. PID=<0.1 1.00 1.20- 1.90 В Firm light orangish brown slightly sandy CLAY with 1.20- 1.65 1.20 s10 D rare gypsum crystals (up to 60mm in size). 1.50 D (DRY) 35 65.81 1.90 1.90-2.50 в Stiff dark greyish brown slightly sandy CLAY. 2.00 ES PID=<0.1 2.30 2.50- 2.95 UT17 1.20 (DRY) 2.95- 3.10 D 3.10- 3.50 в 3.10 64.61 Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size). 3.30 D 3.50- 3.95 S29 D 1.20 (DRY) 4.20 D 4.50- 4.95 LUT59 1.20 (DRY) 4.95- 5.10 D 5.50 D 1.20 (DRY) 6.00- 6.45 D S28 6.45 61.26 End of Borehole Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time of Hole Cased Water Mins Sealed Groundwater Dia Struck Cased Inspection Pit 24/07/20 20 MR/SS G.L 08:00 0.80 NII Seepage. 6.45 0.15 Cable Percussion MR/SS 6.45 1.20 DRY 24/07/20 18:00

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

Activity detected.

Water was added to assist boring between 1.20 and 6.00 m.

At 4.50m, UT shoe damaged during the driving of the sampler.

A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with flush lockable protective cover. Backfill details from base of hole: bentonite

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

key sheet.

abbreviations are

explained on the accompanying

Figure 1 of 2 11/11/2020

Logged by

Logged in accordance with BS5930:2015

are in metres.

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH312** Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458329.4 220893.4 Client Ground Level 67.71 m OD Sampling **Properties** Strata Scale 1:50 Depth Cased & (to Water) Level m OD Sample Strength w SPT N Depth Description Depth Legend % Type kPa Progress Boring Groundwater Hole Dia Depth of Hole Depth Cased Depth to Water Depth Cased in Mins Depth Sealed Remarks on Groundwater Technique Rose to Depth Crew Date Time Struck Remarks Into 6.00m, gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level. Logged by Figure 2 of 2 abbreviations are 11/11/2020 explained on the accompanying key sheet. geolectimies All dimensions

**BOREHOLE RECORD** - Cable Percussion Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer **Borehole BH313** WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 68.89 m OD Coordinates COMPANY LIMITED 220849.0 Strata Scale 1:50 Sampling **Properties** Sample Strength W Depth Description Depth Leaend Type kPa % m OD 68.89 G.L. 0.00 ES MADE GROUND: Asphalt. 0.10 PID=<0.1 0.20 68.69 ES MADE GROUND: Compact subbase\*\*. 0.40 68.49 PID=<0.1 0.30 1.00 В MADE GROUND: Grey and black sandy silty gravel. Gravel is angular to subangular fine to coarse clinker, brick, concrete and ash. 0.50 0.50 D ES 0.90 67.99 0.50 PID=<0.1 1.00 ES Firm brown mottled orangish brown and grey slightly sandy CLAY with occasional pockets (up to 30mm in size) of soft dark brown clay and rare gypsum crystals (up to 2mm in size). 1.00 PID=<0.1 S8 1.65 1.20 1.20-1.50- 2.00 В (DRY) 1.50 D 1.50 ES PID=<0.1 1.50 2.30- 2.75 UT27 1.50 37 28 (DRY) Below 2.80m, with gypsum crystals (up to 30mm in size), occasional pockets (up to 50mm in size) of soft clay and an organic odour. 2.80 D 3.30 65.59 3.40- 3.85 s15 Stiff grey CLAY with occasional shell fragments (up D 1.50 (DRY) to 4mm in size). 4.00- 4.50 В 4.50 4.50- 4.95 UT41 1.50 (DRY) 5.10 D 6.00- 6.45 D 1.50 S22 (DRY) 6.45 62.44 End of Borehole Boring Progress Groundwater Denth Remarks on Depth Crew Date Rose to Technique Time of Hole Cased Water Cased Mins Sealed Dia Struck Groundwater Inspection Pit 17/08/20 None encountered KR/JT G.L 08:00 17/08/20 6.45 0.15 Cable Percussion KR/JT 6.45 1.50 DRY 18:00 during boring.

Remarks

abbreviations are explained on the Backfill details from base of hole: bentonite up to 0.50m, concrete up to 0.20m, tarmacadam accompanying up to ground level.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

key sheet.

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

activity detected. \*\* Drillers description.



1 of 1

Logged by

Figure

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH314** Project No PC207899

GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458462.9 220919.4 Client Ground Level 69.15 m OD

ampli	ng		ITED	Prope	rties		Strata	a							Scale 1	:50
Depth	9	Sample	Caseu &	Strength	n W	SPT N	Descrip							Depth	Legend	Level
серии		Туре	(to Water)	kPa	%		Descrip	7.1011						_ G.L.	Legend	m OD 69.1
0.10 0.10 0.20- 0.30	0.60	ES B D		PID	=<0.1		MADE	GROUND: Asphal GROUND: Light cobble content	brown s				vith a	0.20		68.9
0.30 0.30	0.90	ES B		PID	<b>=&lt;0.1</b>		limes	stone. Gravel i se limestone, s	s angul sandston	ar to see and 1	subangu brick.	lar fin	/	0.60		68. 68.
0.60 0.60 0.60 L.00 L.00		— D - ES - ES			=<0.1 =<0.1		claye subar to su	GROUND: Dark of gravel with any gravel with any lar fine to ubangular fine stone and clink	a low c coarse to coar	obble obrick.	content Gravel	of is ang	_			
	2.40 1.65	- B - D - D - ES	1.20 (DRY)		27	<b>ຮ</b> 9	CLAY grey	light orangish with occasions silt and occasion size).	ıl pocke	ts (up	to 2mm	insiz	e) of	<u>-</u>		
2.00	2 95		1.20	PID 85	=<0.1 24			w 2.40m, becomi	ng stif	f.				ļ F		
2.70-	3.50 3.00	B D	(DRY)	83	24		Stiff	f dark greenish sional shell fr	n grey s	lightly	y sandy o 20mm	CLAY w	rith	2.70		66.
3.50-	3.95	- - - - D	1.20 (DRY)			s19								Ē Ē		
1.00		_ D												<u> </u>		
.50-	4.95		1.20 (DRY)	112	21									Ė		
.95-	5.10	_ D												<u> </u>		
.50		_ D												<u> </u>		
5.00-	6.45	_ D	1.20 (DRY)			S23								<u> </u>		
								I	and of B	orehole	e			6.45		62.
		<u></u>												<u></u>		
		_ _ _														
														<u>E</u>		
														<u> </u>		
		<u> </u>												Ė.		
		[ 														
oring		<u></u>	-			Progre	ess			Grour	ndwate	r				
pth	Hole Dia		Technique	e	Crew	Depth of Hole		Depth to Water Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed		rks on dwater
.20			cion Pit Percussi		MR/SS MR/SS	G.L. 6.45			0 08:00 0 18:00						None end	ounter

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Water was added to assist boring between 1.20 and 6.00 m.
Backfill details from base of hole: bentonite up to 0.20m, asphalt up to ground level. explained on the accompanying

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

key sheet.

abbreviations are

Figure 1 of 1

11/11/2020



Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **BH315** Project No PC207899

GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458521.4 220824.4 Client Ground Level 71.24 m OD

	NY LIM	ITED												Level 71.24 m OD   Scale 1:50				
Sampling		Lienth	Prope			Strata								ı	:50			
Depth	Sample Type	Cased & (to Water)	Strength kPa	n w %	SPT N	Descri	otion			Depth	Legend	Level m OD						
0.10- 0.40 0.10 0.10 0.10 0.20- 0.40 0.40- 1.20	- B - D - ES - B		PID	=<0.1		grave to st sands	elly cla ubangula stone.	: Dark bray with rar fine t	many ro to coar	otlets. se brid	. Grave	l is ar	ngular	G.L. 0.40		71.24		
0.50 0.50 0.50 0.50	D D ES		PID	<b>=&lt;0.1</b>			sional p	brownish pockets						<u> </u>				
1.20- 1.65 1.20- 1.65 1.30- 2.30 1.50 1.50 1.80	D D B ES D	1.20 (DRY)	PID	=<0.1 37	s13	Firm	dark b	rown sli	ghtly s	andy CI	LAY.			1.30		69.94		
2.30- 2.75		1.20 (DRY)		3,	<b>s</b> 5										<b>□</b>			
2.70- 3.50 3.00 3.10- 3.50	В _ D _ В					crys	tals (uj	rey slig p to 60m up to 10m	n in si	ze) and	AY with d occas	rare g	gypsum shell	2.70		68.54		
3.30 3.50 3.50- 3.95	D D UT21	1.20 (DRY)	65	26										<u></u>				
3.95- 4.10 4.20	_ D													<u> </u>				
4.30 4.50- 4.95	D D	1.20 (DRY)			s20			greenish shell fra						4.50		66.74		
4.95- 5.10 5.30	<u>-</u>													<u> </u>				
5.50 5.50- 5.95 5.95- 6.10	_ _ D	1.20 (DRY)					w 5.95m in size	, with o	ccasion	al gyps	sum cry	stals (	(up to	<u>+</u> -				
6.00- 6.45 6.50	- D - - D -																	
7.00- 7.45	_ D	1.20 (DRY)			s31	Below abser		becoming	g very	stiff.	Shell	fragmer	nts					
8.00	- - - - - -													<u></u>				
8.50- 8.95	UT49	1.20 (DRY)				Dele				la aba				E				
8.95- 9.10 9.00-10.00	_ D - B					De10/	w o.yom	, gypsum	CLYSTA	.is aDS6	511 <b>6</b> •			<u></u>				
9.50	D -													<u> </u>				
10.00-10.45	_ D	1.20 (DRY)			S40													
Boring Hole					Progre		Depth to	I -		Grour Depth	ndwate Depth	1	in	Depth	Rema	irks on		
Depth Dia		Technique		Crew	of Hole	Cased	Water	Date	Time	Struck	Cased	Rose to	Mins	Sealed	Groun	dwater		
		tion Pit Percussi		MR/SS MR/SS			DRY	23/07/20			1.20				Seepage.	•		

Inspection pit hand excavated to 1.20m depth and no services were found.

ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No Remarks

Symbols and

key sheet. All dimensions

are in metres.

A 50mm standpipe was installed to 3.00m with a geowrapped slotted section from 1.00m to 3.00m with upright lockable protective cover. Backfill details from base of hole: bentonite up to 3.00m, gravel filter up to 1.00m, bentonite up to 0.30m, concrete up to ground level. abbreviations are explained on the accompanying

Logged in accordance with BS5930:2015

Figure 1 of 2 11/11/2020 وعنصفي وعوره

11/11/2020

esimbeloeg

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH315** Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458521.4 220824.4 Client Ground Level 71.24 m OD Sampling **Properties** Strata Scale 1:50 Depth Cased & (to Water) Level m OD Sample Strength w SPT N Depth Description Depth Legend % Type kPa 60.79 10.45 End of Borehole Boring Progress Groundwater Hole Dia Depth of Hole Depth Cased Depth to Water Depth Cased in Mins Depth Sealed Remarks on Groundwater Rose to Depth Technique Crew Date Time Struck Remarks Remarks Symbols and Figure 2 of 2 abbreviations are

explained on the accompanying key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH601** Project No PC207899

National Grid Coordinates GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED 458040.0 220528.8 Client Ground Level 67.04

	LIMITED				Coordinates 220528.8 N Ground Level 67.04 m OD Strata Scale 1:50										
Sampling	omanio   Depi	Prope			Strata	a								Scale 1	1
l lanth	ample Cased Type (to Wa	Strengtl (& kPa	1 W %	SPT N	Descrip	otion							Depth	Legend	m OD
0.20	ES				MADE	GROUND	: Topsoil	L**				/	G.L. 0.10		66.9
0.20 0.20 0.50- 1.00	В	PID	=<0.1		MADE	GROUND	: Loose 1	orown s	andy to	psoil*	*		0.30		66.7
0.50 0.50 0.50	D ES D 1.:	PID	=<0.1 =<0.1	s29	grave subre subar	el with ounded l ngular t	: Greyish medium o limestone to subrou alt and o	cobble and b unded f	content rick. ( ine to	of su Fravel	bangula is	r to	1.40		65.6
1.40 - 1.50 - 1.50 -	D ES		=<0.1		silty size; clay;	y gravel ) of gre . Gravel	: Greyish l with or eyish bro l is subs stone, br	casion own sli angular	al pock ghtly s to sub	ets (u sandy g orounde	p to 40 ravelly	mm in			
2.30- 2.75   - 2.50   - 2.50   - 2.80- 3.00   -	D 1.1 ES (DR)	Y)	=<0.1	s13	sligh	htly gra	sh grey navelly Cl	LAY. Gr	avel is	s suban	gular t	:0	2.30		64.7
3.40- 3.85 U			28				, with oo	ccasion	al pocl	cets (u	p to 15	5mm in			
4.30 4.50- 5.00 4.50- 4.95	D B D 1.1			S22	CLAY of Close	. Fissum ely spac	red dark res are s ced, smoo , with ra	subhori oth and	zontal undula	extremating.	ely to	very	4.30		62.7
5.50 5.50- 5.95 - U	D JT42 1.: (DR:						To a	d of B	orehole				6.00		61.0
								a or b	orenore	-					
oring				Progré		Depth to	) 	T	Grour Depth	ndwate Depth		in	Depth	Rema	rks on
Dia Dia	Techni		Crew	of Hole	Cased		Date	Time	Struck	Cased	Rose to	Mins	Sealed	Groun	dwater
	aspection lable Percu	ssion	KR/JT KR/JT	G.L. 6.00			12/08/20	18:00		3				None end during b	

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Addicactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

\*\* Drillers description.

A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

key sheet.

abbreviations are

explained on the accompanying

Logged by Figure 1 of 1 11/11/2020



**BOREHOLE RECORD** - Cable Percussion Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer Borehole **BH604** WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No GRAVEN HILL VILLAGE DEVELOPMENT National Grid 458228.3 Client Ground Level 69.23 m OD COMPANY LIMITED Coordinates 220622.0 Strata Scale 1:50 Sampling **Properties** Sample Strength W Description Depth Depth Leaend Type kPa % m OD 69.23 G.L. 0.10 0.25 MADE GROUND: Asphalt. 69.13 B D 0.10- 0.20 0.10- 0.20 68.98 ES MADE GROUND: Concrete 68.83 0.10- 0.20 PID=<0.1 0.25-0.40 В MADE GROUND: Soft light greyish brown slightly sandy slightly gravelly clay. Gravel is angular to subangular fine to coarse brick, sandstone and 0.35 0.25-ח 0.25-ES 0.25-0.35 PID=<0.1 0.40 - 0.70в 0.50- 0.60 38 Soft light orangish brown, occasionally mottled 0.50- 0.60 0.50- 0.60 ES grey, slightly sandy CLAY. PID=<0.1 1.00-1.20 В 1.00- 1.10 1.00- 1.10 1.90 67.33 ES 1.00- 1.10 PID=<0.1 Firm dark brownish grey slightly sandy CLAY with 1.65 2.00 **S**5 occasional pockets (up to 1mm in size) of grey 1.20-D 1.20 1.90-(DRY) 2.00 2.00 1.90-ES 1.90-PID=<0.1 2.30- 2.75 2.75- 2.80 UT44 1.50 2.60 66.63 (DRY) Firm dark greenish grey slightly sandy CLAY with D 2.80- 3.10 В occasional shell fragments (up to 30mm in size). 3.10- 3.20 D S10 3.40- 3.85 D 1.50 (DRY) 3.90- 4.30 В 4.20- 4.30 4.30- 4.75 UT50 1.50 (DRY) 4.75- 4.80 D 5.20- 5.30 D 5.50- 5.95 D 1.50 S30 Below 5.50m, becoming stiff. (DRY) 6.00 63.23 End of Borehole Progress Groundwater Denth Remarks on

Boring Depth Crew Date Rose to Technique Time of Hole Water Mins Sealed Groundwater Dia Cased Struck Cased Inspection Pit 27/07/20 DC/LC G.L 08:00 0.30 NII Seepage 6.00 0.15 Cable Percussion DC/LC 6.00 1.50 DRY 27/07/20 18:00

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Backfill details from base of hole: bentonite up to 0.40m, concrete up to 0.20m, asphalt up to ground level.

explained on the accompanying key sheet. All dimensions are in metres.

Symbols and

abbreviations are

Logged in accordance with BS5930:2015

Logged by

Figure 1 of 1 11/11/2020



Logged by

Figure

JD

esimbeloeg

1 of 1

11/11/2020

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole **BH605** Project No PC207899

GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458162.3 Client Ground Level 69.23 m OD 220647.5

amnlina		Y LIMI		Prope	rtios		trata	d Level 69.23 m OD Scale 1:50				
ampling	(	Sample	Depth Cased &	Strength		SPT N					:50 Level	
epth	,		Cased & (to Water)	kPa	%	SPIN	escription		Depth	Legend	m OD	
0.10- 0.4 0.20 0.20 0.20 0.20 0.50	40	B D ES D		PID	=<0 <b>.</b> 1		silt with many rootlets 35mm in size) of orangis	tly sandy slightly gravelly and rare pockets (up to n grey clay. Gravel is fine to coarse limestone	G.L. 0.40		69.2	
0.50 1.00 1.00 1.20- 1.0	65	- ES D	1.20 (DRY)		=<0.1 =<0.1	s7	sand with many pockets (				68.0	
1.50 1.50 1.50 1.70- 2.	30	ES B		PID	=<0.1		slightly sandy slightly relic root (up to 4mm in	gravelly CLAY with rare				
2.30- 2.	75 [1	UT28	1.50 (DRY)	80	22					0 0 0		
2.80		D -							3.40	0 0	65.8	
3.40- 3.8	Ė	D	1.50 (DRY)			S14	rare shell fragments (up	slightly sandy CLAY with to 4mm in size). Fissures mely to very closely spaced	F			
4.00- 4.9 4.00 4.50- 4.9		D DUT46	1.50	49	28						:	
		-	(DRY)									
5.20	- - -	D									:	
6.00- 6. <i>4</i>	45 <u>-</u>	D D	1.50 (DRY)			S28	Below 6.00m, with many g in size).	ypsum crystals (up to 4mm	-		; ; ;	
	-						End of	Borehole	6.45		62.	
		-										
	-	-							F			
		_										
	-								Ė			
	-	-										
oring	lo '					Progre		Groundwater	Dorth	D	rko c:-	
epth Ho		7	Technique	•	Crew	Depth of Hole	epth Depth to ased Water Date Time	Depth Depth Rose to Mins	Depth Sealed		rks on dwater	
1												

Remarks

| Inspection pit hand excavated to 1.20m depth and no services were found.
| Es sample = 2 x vial, 1 x plastic jar and 2 amber jar
| Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Radioactive screening at discrete sample depths, using a incline scientific first scale activity detected.

A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Symbols and

key sheet.

abbreviations are

explained on the accompanying

Engineer Borehole BH306 GRAVEN HILL, BICESTER, LAND TRANSFER WATERMAN INFRASTRUCTURE & Project No National Grid GRAVEN HILL VILLAGE DEVELOPMENT Client m OD COMPANY LIMITED Coordinates 220664.0 Ground Level 70.78 Sampling Scale 1:50 Strata Properties Depth Cased & (to Water) Sample Strength SPT N Level Depth Description Denth Legend Type kPa % m OD G.L. 70.78 0.00- 0.20 0.10- 0.20 0.10- 0.20 В MADE GROUND: Dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse sandstone. D 0.20 70.58 ES 0.10- 0.20 0.20- 0.50 PID=<0.1 0.50 70.28 MADE GROUND: Firm brownish grey slightly sandy В 0.20- 0.30 0.20- 0.30 slightly gravelly clay with rare rootlets. Grais angular to subangular fine to coarse brick. ES 0.20- 0.30 0.50- 0.80 PID=<0.1 В Stiff orangish brown mottled grey slightly sandy 0.50- 0.60 CLAY with rare rootlets 0.50- 0.60 ES Below 0.90m, rootlets absent. 0.50- 0.60 PID=<0.1 1.00- 1.10 D 1.60 69.18 1.00- 1.10 1.00- 1.10 ES Soft light orangish brown slightly sandy CLAY. PID=<0.1 1.20- 1.65 UT40 1.20 2.00 68.78 1.65- 1.70 1.70- 2.00 D B Firm light brown slightly sandy CLAY with occasional gypsum crystals (up to 20mm in size). (DRY) 2.00- 2.10 2.00- 2.10 2.00- 2.10 ES PID=<0.1 2.20-2.65 1.50 S10 2.80- 3.20 2.80- 2.90 (DRY) 2.80 67.98 Firm dark brownish grey slightly sandy CLAY with occasional shell fragments (up to 20mm in size) and occasional gypsum crystals (up to 3mm in size). 3.20- 3.65 UT60 70 32 1.50 (DRY) 3.65- 3.70 D 3.90- 4.00 D Below 4.30m, becoming stiff. 4.30- 4.75 D 1.50 S22 (DRY) 5.00- 5.50 5.00- 5.10 5.00 65.78 Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to  $40\,\mathrm{mm}$  in size). 5.50- 5.95 LUT65 1.50 (DRY) 5.95- 6.00 D 6.00 64.78 End of Borehole Boring Progress Ground water Depth Depth to Water Remarks on Depth Crew Date Time Rose to Technique Mins Dia of Hole Cased Cased Sealed Ground water Struck 28/07/20 Inspection Pit None encountered 6.00 0.15 6.00 1.50 Cable Percussion DC/LC DRY 28/07/20 18:00 during boring Inspection pit hand excavated to 1.20m depth and no services were found.

ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No Remarks Logged by Symbols and A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.00m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.00m, bentonite up to 0.30m, concrete up to ground level. Figure 1 of 1 abbreviations are 11/11/2020 explained on the accompanying وعفاهط أأنعه

key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer

WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED

Trial Pit Project No **RC301** PC207899

GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED Client

National Grid Coordinates

458320.9 220760.6

Ground Level 69.45 m OD

	MY LIMI	ITED			oordinates 22	0760.6 N			roui	na Leve		1.F0
Samples and	Tests			Strata							Scale	
Depth	Туре	Stratum No	Results	Description					[	Depth	Legend	Level m OD
0.10 0.10 0.10 0.10 0.30 0.30 0.50	D ES B D B		PID=<0.1	MADE GRO sandy gr to suban	OUND: Asphalt.  OUND: Yellowish avel with a megular limeston to subangular le.	dium cobble c e and sandsto	ontent ne. Gra	of angular vel is		G.L. 0.20 0.35 0.60 0.75	3 4	69. 69. 69. 68.
- 0.50 0.50 0.70 0.70 0.70	ES B D ES		PID=<0.1	with cob	DUND: Dark grey obles with much Gravel is sub	angular to s	ubangul	ar slag and		1.20		68.
0.70 0.80 1.00	HV B		PID=<0.1 Av=49kPa		OUND: Reddish g to subangular							
1.00 1.00 1.00	D ES		PID=<0.1		MADE GROUND:	Firm greenish	grey m	ottled grey				
					End	of Excavation			' <u> -</u>			
									-			
									Ė			
									Ė			
									E			
									-			
									Ė			
									Ē			
									=			
									Ē			
									-			
									E			
									Ė			
									-			
xcavation						Ground	water					
ant Hand				Width (B)	0.30	Depth Observed	Depth of Pit	Details				
ate 23/07 noring None.	/2020			Length (C)	0.30	Observed		None encounte	red	during	excavatio	n .

Stability Stable during excavation.

Shoring None.

Symbols and abbreviations are

explained on the

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Symbols and Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

Date Backfilled 23/07/2020

activity detected.

Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.20m, asphalt up

accompanying to ground level. key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

Logged by EPS

Figure

None encountered during excavation.

1 of 1 11/11/2020



GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole CC301 Project No PC207899

GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458197.9 220769.5 Client Ground Level 66.70 m OD

Sampl		WA LIW	1160	Prope	rties	ļ	Strata		220769.5	IV				Ground	Level 6	Scale 1	:50
Depth		Sample Type	Depth Cased & (to Water)	Strength		SPT N	Descrip								Depth	Legend	Level m OD
		- Туре	(to water)	KFa	76										_ G.L.		66.7
0.25- 0.25- 0.25- 0.35- 0.35-	0.35 0.35 0.35 0.35 0.70 0.70	D ES ES			=<0.1 =<0.1		MADE claye	GROUND ey grave rete and	: Concret : Reddish el with c d granite fine to c	brown obbles	with mel is a	much su angular	ibangula to	r	0.21		66.4
0.90-	1.10 1.65	- D	1.00 (DRY)			ន5	sligh	ntly sam	: Soft da ndy sligh e to medi	tly gr	avelly				1.05		65.
							occas		mottled g pockets ( clay.								
2.00-	2.20 2.45 3.00	D - D - B -	1.00 (DRY)		27	s5											
	3.20 3.45	_ D	1.00			S10	Below	v 3.00m	, becomin	g firm	•				<u> </u>		
	4.00		(DRY)			510									3.60		63.3
	4.20		1 00			geo /			sh grey s gypsum cr					•	<u> </u>		
	4.34 5.00	- D - В	1.00 (DRY)			190	shell	fragm	grey slig ents (up tals (up	to 45m	m in s	ize) an			4.10		62.6
		[ _ _							En	d of B	orehole	e			5.00		61.
		<u>-</u> - -													<u> </u>		
															<del> -</del>		
		- - -													<u> </u>		
		- - -													<u> </u>		
		[ [ -													<u> </u>		
		- - -															
		-  -  -  -													<u>+</u>		
		_													<u> </u>		
						Progre		Depth to			Grour Depth	ndwate Depth		in	Depth	Rema	rks on
Ť					_				Date	Time			Rose to				
oring epth	Hole Dia	<b>-</b>	Techniqu		Crew SF/LC	of Hole	Cased	Water	21/07/20		Struck	Cased	Rose to	Mins	Sealed	Groun	dwater

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.

Symbols and abbrevialions are explained on the explained on the

explained on the accompanying key sheet.

All dimensions Logged in accordance with BS5930:2015 are in metres.

Figure

1 of 1 11/11/2020



GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole CC302 Project No PC207899

GRAVEN HILL VILLAGE DEVELOPMENT National Grid 458255.7 E Client Ground Level 67 13

Client COMP	EN HILL		. DEVEL	OPMENT		Coordin		220831					Ground	Level 6	7.13 m	
Sampling	_		Prope			Strata	a								Scale 1	:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	n w %	SPT N	Descrip	otion							Depth	Legend	Level m OD
0.25 0.40						MADE	GROUND	: Concre	te.					G.L.	₽	67.13
0.25- 0.40 0.25- 0.40 0.25- 0.40 0.25- 0.40	-		PID	=<0.1		angu]	lar to	: Black subangul nd gran	ar fine				nker,	0.25		66.88 66.73
0.40- 0.90 0.40- 0.90 0.40- 0.90 0.40- 0.90 0.90- 1.20	D ES B		PID	=<0.1		sligh angul	ntly sam lar to	: Very andy slig subangul	htly gr ar fine	avelly	clay.	Gravel		0.90		66.23
0.90- 1.20 0.90- 1.20	_ ES		DID	<b>=&lt;0.1</b>		Very	soft g	rey mott	led bro	own sli	ghtly s	andy CI	LAY.	1.35		65.78
0.90- 1.20 1.20- 1.65 1.30- 2.00 2.00- 2.20	- D - B - D	NIL (DRY)	FID		s1	occas	sional p	ottled b pockets to mediu	(up to	15mm i				1.95		65.18
2.00- 2.45 2.20- 3.00		2.00 (DRY)			ន5			mottled gypsum o								
3.00- 3.20	- - - D															
3.00- 3.45 3.20- 4.00	- D	2.00 (DRY)			s13			lightly up to 30			th occa	sional	shell	3.15		63.98
4.00- 4.20	- - - D					Polo:	. 4 00m	, becomi	na atif	· £						
4.00- 4.20 4.00- 4.45 4.20- 5.00	- D	2.00 (DRY)			S21	Belov	w 4.00m	, become	ing stil							
	-															
5.00- 5.45	_ D - -	2.00 (DRY)			s20											
	[- -							I	ind of E	Borehol	e		-	5.45	* .	61.68
	<u> </u>															
	- -															
	- - -													-		
	-															
	-															
	- -															
	[- - -													<u>-</u>		
Boring					Progra	266				l Groun	ndwate	r				
Denth Hole	-	Technique	e	Crew	Depth	Depth	Depth to	Date	Time	Depth	Depth	Rose to	in Mine	Depth		rks on
1.20 2.00 0.09 3.00 0.07	Inspect Dynamic Dynamic Dynamic	ion Pit Sample Sample	er er	SF/LC SF/LC SF/LC SF/LC	of Hole G.L. 5.45		Water	22/07/2	00:80		Cased		Mins	Sealed		dwater countered ampling.
5.45 0.06	Dynamic	Sample	er	SF/LC		1 20-	1									

Remarks

Inspection pit hand excavated to 1.20m depth and no services were found.

ANSES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

Backfill details from base of hole: bentonite up to ground level.

abbreviations are explained on the accompanying key sheet.

Symbols and

All dimensions Logged in accordance with BS5930:2015 are in metres.

Logged by EPS Figure 1 of 1



Logged in accordance with BS5930:2015

Project

Engineer

WATERMAN INFRASTRUCTURE &

TP302

Trial Pit

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Project No National Grid GRAVEN HILL VILLAGE DEVELOPMENT Client Coordinates COMPANY LIMITED 220740.0 Ground Level 66.90 m OD Samples and Tests Scale 1:50 Strata Level Stratum Depth Type Results Depth Legend Description m OD Νo G.L. 66.90 1 MADE GROUND: Reinforced concrete 0.20 66.70 66.65 MADE GROUND: Firm dark reddish brown slightly sandy 3 0.40 B ES 0.50 66.40 clay. 0.40 MADE GROUND: Black very gravelly silty sand with a medium cobble content of angular to subangular PID=<0.1 HV Av=64kPa 0.60 D limestone. Gravel is angular to subangular fine to ES 0.60 coarse limestone. 4 0.60 PID=<0.1 1.00 1.00 1.00 1.00 в Firm dark greenish grey mottled orangish brown slightly sandy  ${\tt CLAY}.$ ES HV Av=54kPa Below 0.75m, becoming light grey mottled light PID=<0.1 orangish brown. 1.80 65.10 D 1.50 2.00 2.00 2.00 2.00 2.50 2.70 HV Av=60kPa Below 1.50m, becoming dark grey. Firm dark greyish brown, occasionally mottled dark reddish brown, slightly sandy CLAY with many relict rootlets and many gypsum crystals (up to 4mm in D ES Av=61kPa 5 HV PID=<0.1 size). D HV Av=82kPa 3.00 ח 3.40 63.50 Stiff grey slightly sandy CLAY with occasional gypsum crystals (up to 5mm in size) and occasional shell fragments (up to 50mm in size). 3.50 HV Av=111kPa 3.80 B D 6 3.80 4.30 D 62.40 4.50 End of Excavation Excavation Groundwater Depth Depth Plant Width (B) JCB 3CX 24/07/2020 0.60 Details of Pit Observed Date Length (C) 111 deg 24/07/2020 Shoring Orientation 0.50 0.60 Slow inflow. Date Backfilled Stability Stable during excavation. Remarks

Es sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by M.T Figure 1 of 1 11/11/2020 explained on the accompanying key sheet. ezimbelbeg All dimensions

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Trial Pit **TP303** Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid 458258.1 Client COMPANY LIMITED Ground Level m ODCoordinates 220682.5 69.42 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Depth Legend Description m OD Νo G.L 69.42 MADE GROUND: Dark brown gravelly slightly silty sand 0.10 69.32 with many rootlets. Gravel is angular to subangular fine to coarse clinker, slag, brick and plastic. 0.05 ES PID=<0.1 0.50 в MADE GROUND: Brown mottled grey sandy slightly silty gravel a high cobble content of angular to subangular brick and limestone. Gravel is angular to subangular 0.65 68.77 0.70 0.70 B D 1.00 1.00 1.00 1.00 1.50 ΗV Av=82kPa fine to coarse limestone and brick. в Stiff light grey mottled light orangish brown slightly sandy  ${\tt CLAY}.$ D mc=34% 3 ES HV Av=49kPa PID=<0.1 Below 1.40m, becoming firm. D HV 67.52 Av=44kPa Below 1.60m, becoming dark greyish brown. 1.90 1.50 2.00 2.00 2.00 2.00 2.00 2.50 2.50 в Firm dark greyish brown mottled light orangish brown slightly sandy CLAY with many relict rootlets, occasional pockets (up to 50mm in size) of orangish brown silty sand and many gypsum crystals (up to 5mm ES HV Av=52kPa PID=<0.1 D in size). HV Av=81kPa Below 2.50m, becoming stiff. 3.00 D 3.00 HV Av=87kPa 3.50 D 3.60 65.82 Stiff grey slightly sandy CLAY with occasional gypsum crystals (up to  $45\,\mathrm{mm}$  in size) and occasional shell fragments (up to  $150\,\mathrm{mm}$  in size). 3.80 3.80 D 5 4.00 ΗV Av=99kPa 4.30 D 64.92 4.50 End of Excavation Excavation Groundwater Width (B) Denth Denth JCB 3CX 24/07/2020 0.60 of Pit Observed Length (C) 300 deg 24/07/2020 Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. Remarks

ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No

abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 11/11/2020

explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:2015

ووطاوطنمانه

All dimensions are in metres.

Logged in accordance with BS5930:2015

Engineer

WATERMAN INFRASTRUCTURE &

TP304

Trial Pit

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 458278.2 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level Coordinates m ODCOMPANY LIMITED 220744.0 68.27 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Depth Legend Description  $m\ O\,D$ Νo G.L. 68.27 18 ES MADE GROUND: Asphalt. 0.10 PID=<0.1 0.20 68.07 MADE GROUND: Light brown sandy slightly silty gravel with a high cobble content of angular to subangular limestone. Gravel is angular to subangular fine to 0.45 0.55 67.82 67.72 0.50 ES PID=<0.1 0.70 HV Av=81kPa coarse limestone. 1.00 MADE GROUND: Black very gravelly silty sand. Gravel is angular to subangular fine to coarse slag, ash and 1.00 1.00 1.00 4 ES PID=<0.1 1.50 D Firm grey mottled orangish brown slightly sandy CLAY. HV 1.50 Av=65kPa Below 1.60m, becoming sandy with many gypsum crystals 66.37 (up to 4mm in size). 1.90 2.00 2.00 2.00 2.00 2.50 2.50 Below 1.80m, becoming dark grey. ES Firm dark greyish brown mottled orangish brown slightly sandy CLAY with many gypsum crystals (up to  $15\,\mathrm{mm}$  in size). PID=<0.1 D HV Av = 77kPa3.00 D 3.00 HV Av=81kPa 3.40 64.87 Stiff grey slightly sandy CLAY with occasional shell fragments (up to  $100\,\mathrm{mm}$  in size) 3.50 в 3.50 D HV Av=78kPa 6 D 4.00 63.77 4.50 D 4.50 End of Excavation Excavation Groundwater Width (B) Denth Denth 0.60 2.50 224 deg 23/07/2020 JCB 3CX 23/07/2020 of Pit Observed Length (C) Shoring None. Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. Remarks

ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No
activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 11/11/2020 explained on the accompanying ووطاوطنمانه key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Trial Pit TP305 Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level m OD Coordinates COMPANY LIMITED 220800.2 67.55 Samples and Tests Strata Scale 1:50 Stratum Depth Type Results Depth Legend Description  $m\ O\,D$ Νo 67.55 G.L. ES MADE GROUND: Concrete. 0.10 PID=<0.1 0.30 2 💥 MADE GROUND: Black gravelly very silty sand. Gravel is angular to subangular fine to coarse brick, clinker, ash, slag and concrete. 0.40 D 0.50 67.05 0.40 0.70 B D 0.85 66.70 1.00 1.00 1.00 1.60 POSSIBLE MADE GROUND: Soft to firm greenish grey mottled brown slightly sandy CLAY. HV Av=77kPa в 4 . mc=45% ES PID=<0.1 1.50 66.05 HV Av=48kPa Firm dark brown mottled orangish brown slightly sandy CLAY with many gypsum crystals (up to  $15\,\mathrm{mm}$  in size) and occasional pockets (up to  $4\,\mathrm{mm}$  in size) of light D ΗV Av=67kPa 2.00 2.00 2.00 2.50 D ES grey silt. PID=<0.1 ΗV Av=92kPa 3.00 D 3.00 HV Av=65kPa 3.30 64.25 Stiff grey slightly sandy CLAY with occasional shell fragments (up to 150mm in size). 3.50 3.50 D HV Av=93kPa 6 D 4.00 63.05 4.50 D 4.50 End of Excavation Excavation Groundwater Denth Width (B) Denth 0.60 2.60 126 deg 23/07/2020 JCB 3CX 23/07/2020 of Pit Observed Length (C) Shoring None. Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. Remarks

ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No
activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 11/11/2020 explained on the accompanying وعقامتها وعواوي key sheet.