

3rd July 2023

Our ref: GE21681/FG02/230703



Natalie Bond
Eastleigh Borough Council
Eastleigh House
Upper Market Street
Eastleigh
Hampshire
SO50 9YN

By email only

Dear Richard,

RE: STOKE PARK FARM SANG – Preliminary Information

Further to your instruction and our recent investigation works in relation to the intrusive investigation of the above-named site, we write to provide the preliminary information.

The intrusive investigation works were undertaken on 28th and 29th June 2023.

Scope of Works

The scope of the works undertaken comprised:

- Attendance of a specialist surveyor to undertake a buried utilities clearance survey of the proposed exploratory hole locations using radio-detection and ground penetrating radar techniques. The survey included capture of co-ordinates and levels of exploratory holes using GPS surveying where possible.
- Attendance of Geo-Environmental Engineer to set out and supervise the intrusive investigation, undertake sampling, in-situ testing and logging of recovered soils from exploratory holes.
- The construction of 6No. machine dug trial pits (TP01-TP06) to depths between 1.00m and 2.00m bgl located within the proposed car parking area to allow for the collection of bulk soil samples for laboratory CBR analysis.
- Undertake trial pit soakage tests in general accordance with BRE Digest 365, within 2No. trial pits, TP01 and TP06.
- Excavation using hand tools of 4No. shallow trial pits to enable the sampling of Topsoil.
- Construction of 5No. dynamic sampler boreholes (WS01-WS05) to depths of up to 3m bgl.
- Installation of 1No. groundwater monitoring well to a depth of 3m bgl to facilitate return monitoring on six occasions.
- Geotechnical laboratory testing to support the geotechnical assessment for construction of the proposed car parking area, including MCV testing and soaked CBR testing.
- Geochemical laboratory testing for a suite of commonly occurring brownfield contaminants.
- Geochemical laboratory testing for a BS3882 Topsoil nutrient suite on 4No. Topsoil samples.
- Waste Acceptance Criteria (WAC) testing on selected samples representative of soils to be removed from site for disposal as waste.

Geo-Environmental Services Ltd
Unit 7 Danworth Farm, Cuckfield Road, Hurstpierpoint, West Sussex BN6 9GL
+44(0)1273 832972 www.gesl.net

Environmental Consultants | Geotechnical Engineers | Site Investigations

Geo-Environmental Services Ltd incorporated in England number 3214980 VAT number 679544479



Form of Development

The site is understood to form part of 243.23 hectares of agricultural land recently acquired by Eastleigh Borough Council where it is planned to address nitrate mitigation and explore additional environmental benefits such as biodiversity net gain, phosphates, tree planting and woodland creation, solar energy and the creation of a SANG (Suitable Alternative Natural Green Space) . It is understood that an area c.20-25 hectares at Stoke Park Farm has been identified as a favourable location for the proposed SANG.

Site Description

At the time of the investigation works the site comprised an irregularly shaped parcel of land centred on NGR 447904, 119924 and extended to c.22.08 hectares. The site is understood to form part of 243.23 hectares of agricultural land recently acquired by Eastleigh Borough Council.

A detailed site walkover survey was undertaken by Geo-Environmental on 8th June 2023. The site was accessed via a single-track road located off Sewall Drive to the northwest. This single-track access is part of the site and will form the access once the site is developed. The track was bordered by trees and vegetation on both sides with a significant height difference from the track to the land to the north, the track being higher by c.1-2m. A ditch was noted to be present to the south of the track, along the section opposite the fisheries to the north.

The majority of the site comprised open land laid to uncut grass. A tree belt was present in the centre of the site running roughly northwest-southeast from the northern site boundary to roughly the centre of the site. A former farm track comprising some loose sporadic gravel and hardcore and existing soils, ran from the north-eastern site boundary, where Stoke Park Farm was located, in a southerly direction towards the southern site boundary. Two branches came off this track one running to the east and one to the west. It is understood that these tracks were utilised by cattle when the farm was operational to move cattle from the fields to the barns within the farm complex.

Site topography was such that the site rose from the northwest to the centre of the site and fell away from the centre to the south, with the central and eastern portions of the site being at the highest elevation.

The majority of the site boundaries were formed of trees, hedgerows and vegetation the exception being the eastern boundary in the north which was formed of Heras fencing to separate the former farm building from the site, at the time of the site walkover.

Surrounding land uses were noted to comprise a fishery and open fields to the north, Stoke Park Farm to the northeast, open fields and woodland to the east, woodland to the south and woodland with residential development beyond to the west.

Ground Conditions

With reference to British Geological Survey (BGS) mapping, the geology of the site was anticipated to comprise a thickness of Topsoil over sand of the Whitecliff Sand Member and sandy clay of the London Clay Formation. The London Clay Formation was anticipated across the whole site with an outcrop the Whitecliff Sand Member overlying the London Clay approximately across the central and south eastern portion of the site.

The ground conditions encountered within the exploratory holes were noted to be broadly consistent within the anticipated ground conditions, i.e. a thickness Topsoil overlying London Clay Formation in the northern portion of the site and a thickness of Topsoil overlying Whitecliff Sand Member in the southern portion of the site.



A generalised summary of the encountered shallow ground conditions within investigation positions is presented in Table 1.

Top (m bgl)	Base (m bgl)	Geology	Positions
0.00	0.15 – 0.35	TOPSOIL: Grass over dark brown slightly silty CLAY with frequent roots and rootlets.	All
0.15 – 0.20	0.40 – >3m (base of exploratory holes)	WHITECLIFF SAND MEMBER: Light brown fine SAND with varying proportions of clay. Roots and rootlets noted to be present between 0.15m and 1.10m bgl. Orange brown fine SAND with varying proportions of silt. Orange and grey fine SAND with varying proportions of clay.	HP03, WS03, WS05
0.15 – 0.35	>3m (base of exploratory holes)	LONDON CLAY FORMATION: Firm to stiff orange brown CLAY with varying proportions of sand. Roots and rootlets were noted to be present between 0.15m and 1.00m bgl. Visual indicators of desiccated clays were noted within TP02, TP03, TP04, TP06, and WS02, between 0.15m and 1.00m bgl.	HP01-HP04, TP01-TP06, WS01-WS04

Table 1 Ground condition summary

The preliminary exploratory hole logs are presented within Appendix A and the exploratory hole location plans for are presented in Figure 2a and 2b.

Obstructions

A mains water supply pipe, supplying Stoke Park Farm and associated commercial buildings and farmhouse was encountered within TP03 at 0.86m bgl. The water supply pipe was a plastic 63mm diameter pipe which ran in an east-west direction within TP03. The pipe appeared to have been laid by moling as no discernible granular trench fill was encountered and there were no marker tapes or other protection measures encountered over the pipe. The pipe could not be detected or traced due to its composition and lack of granular trench fill which might have provided a contrast for the GPR equipment.

It must be noted that this water supply pipe is located within the area of the site where it is proposed to locate the car park for the SANG. Therefore, if any drainage or construction is proposed to be completed/undertaken with this area of the site at the depth of, or close to the encountered pipe (c.0.8m bgl), consideration for protection of this water supply pipe must be given at design stage. Alternatively, redirection/relocation of this water supply pipe might need to be considered.

Groundwater

During the intrusive investigation works groundwater was encountered as slight seepages in the base of the exploratory hole locations within the following locations TP02, TP06, WS04 and WS05.

It is possible that groundwater could be present at differing depths over time, e.g. during or following prolonged wet periods. The presence of groundwater in excavations could influence suitability and buildability of foundations, services and the like.

A groundwater monitoring well was installed within WS01 and groundwater monitoring is currently ongoing.



The groundwater assessment will be updated following completion of the planned monitoring, to be presented within the final report for the site.

Soakaways and Surface Water Drainage

Soakage testing was undertaken within 2No. trial pits, at 1m bgl in TP01 and at 1.70m bgl in TP06. The soakage testing was undertaken in general accordance with BRE Digest 365.

There was an insufficient fall in head to calculate an infiltration rate for the tests undertaken within location TP01 and TP06 over the testing period and, as such, the tests are deemed to have failed.

The results of the soakage testing indicate that the use of soakaways within the cohesive London Clay Formation would not be suitable and therefore an alternative drainage solution will need to be considered. The results from the soakage testing are presented within Appendix B.

In addition, changes in groundwater levels, such as shallower groundwater during winter months, could reduce storage capacity and performance of soakaways or other storage and infiltration systems. This might also adversely impact the ability of any ponds to drain via infiltration to the ground and thus attenuated discharge to ditches and surface water may be more appropriate under extension of existing riparian rights.

Geotechnical Testing

Laboratory testing is on-going at the time of writing, and the results will be presented in the final report.

Visual and Olfactory Contamination

No visual or olfactory evidence of contamination was identified during the investigation, In addition, Made Ground was not encountered within any of the exploratory hole locations undertaken. Geochemical laboratory testing is currently ongoing, and the results will be presented within the final report.

Closure

We trust we have interpreted your request correctly and provide sufficient information for your current requirements.

Geotechnical and geochemical testing is ongoing, following receipt of which the final report will be compiled and issued.

It must be noted that the comments provided herein are for preliminary purposes only and could change following receipt and review of laboratory testing. As such, detailed design must not be undertaken based on the preliminary findings.



If you have any questions or queries in relation the preliminary information provided at this stage, please do not hesitate to contact the undersigned.

Yours sincerely

For and on Behalf of Geo-Environmental



FIONA GOODE BSc (Hons), MSc, FGS, MEnvSc, RSoBRA

Senior Consultant Engineer

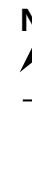
fiona.goode@gesl.net

Enc.	Figure 1	Site Location Plan
	Figure 2a	Exploratory Hole Location Plan (Window Sampler Boreholes and Hand Pits)
	Figure 2b	Exploratory Hole Location Plan (Trial Pits)
	Appendix A	Preliminary Exploratory Hole Logs and in-situ Test Results
	Appendix B	Soakage Test Results



FIGURES





Project:	Stoke Park Farm SANG			Title	Site Location Plan	
Client:	Eastleigh Borough Council			Geo-Environmental Services Ltd Unit 7 Danworth Farm, Cuckfield Road Hurstpierpoint, West Sussex BN6 9GL +44(0)1273 832972 www.gesl.net	 Geo-Environmental	
Ref No:	GE21681	Revision:	0			
Drawn:	FG	Date:	09/06/2023			
Figure:	1	Scale:	Not To Scale			





Project: Stoke Park Farm SANG		Title Proposed Window Sample and Hand Pit Locations	
Client: Eastleigh Borough Council		Geo-Environmental Services Ltd Unit 7 Danworth Farm, Cuckfield Road Hurstpierpoint, West Sussex BN6 9GL +44(0)1273 832972 www.gesl.net	
Ref No: GE21681	Revision: 0		
Drawn: FG	Date: 16/06/2023		
Figure: 2	Scale: Not To Scale		



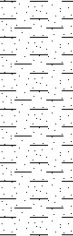


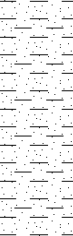
Project:	Stoke Park Farm SANG			Title	Proposed Trial Pit Locations	
Client:	Eastleigh Borough Council			Geo-Environmental Services Ltd Unit 7 Danworth Farm, Cuckfield Road Hurstpierpoint, West Sussex BN6 9GL +44(0)1273 832972 www.gesl.net	 Geo-Environmental	
Ref No:	GE21681	Revision:	0			
Drawn:	FG	Date:	16/06/2023			
Figure:	3	Scale:	Not To Scale			

APPENDIX A

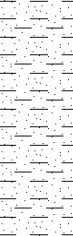
Exploratory Hole Logs



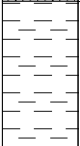
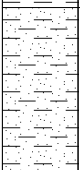
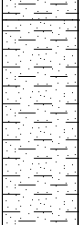
 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: HP01			
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1				
	Easting: 447797.7	Northing: 120216.3	Ground Level: 29.06mOD	Plant Used:	Date Printed: 30/06/2023	Scale: 1:25				
Trial Pit Log				Weather: Overcast, warm, slight breeze		Hole Termination:		Stability: Sides stable		
Samples & In Situ Testing			Strata Details						Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description				
0.10	ES1		28.92	0.15		Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL				
0.30	ES2			(0.85)		Firm to stiff orange brown slightly sandy CLAY with occasional roots and rootlets LONDON CLAY			0.5	
			28.06	1.00		End of Trial Pit at 1.00m			1.0	
									1.5	
									2.0	
									2.5	
									3.0	
									3.5	
Dimensions:					Photo:					
Final Depth:	1.00m				 					
Final Width:										
Final Length:										
Remarks										
Water Strikes (mbgl)										
Depth Strike	Rose to		Time Elapsed (mins)							

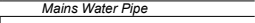
 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: HP02		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447879.8	Northing: 120207.7	Ground Level: 32.64mOD	Plant Used:	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log									
Weather: Overcast, warm, slight breeze			Hole Termination:			Stability: Sides stable			
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.15	ES1		32.44	0.20		Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL			
				(0.80)		Firm orange brown and grey mottled slightly sandy CLAY with occasional roots and rootlets LONDON CLAY		0.5	
			31.64	1.00		End of Trial Pit at 1.00m		1.0	
								1.5	
								2.0	
								2.5	
								3.0	
								3.5	
Dimensions:						Photo:			
Final Depth:	1.00m					 			
Final Width:									
Final Length:									
Remarks									
Water Strikes (mbgl)									
Depth Strike	Rose to		Time Elapsed (mins)						

 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: HP03				
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1					
	Easting: 447747.1	Northing: 119905.9	Ground Level: 42.61mOD	Plant Used:	Date Printed: 30/06/2023	Scale: 1:25					
Trial Pit Log			Weather: Overcast, warm, slight breeze			Hole Termination:			Stability: Sides stable		
Samples & In Situ Testing			Strata Details						Water	Backfill	
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description					
0.20	ES1		42.46	0.15		Grass over dark brown clayey fine SAND with frequent roots and rootlets					
						TOPSOIL					
						Light brown slightly clayey fine SAND with occasional roots and rootlets					
						WHITECLIFF SAND MEMBER					
			42.21	0.40		Firm orange brown sandy CLAY. Sand is fine					
				(0.60)		LONDON CLAY					
			41.61	1.00		End of Trial Pit at 1.00m					
Dimensions:						Photo:					
Final Depth:	1.00m					 					
Final Width:											
Final Length:											
Remarks											
Water Strikes (mbgl)											
Depth Strike	Rose to		Time Elapsed (mins)								

 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: HP04		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447988.1	Northing: 119649.4	Ground Level: 48.05mOD	Plant Used:	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log		Weather: Overcast, warm, slight		Hole Termination:			Stability: Sides stable		
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.10	ES1		47.85	0.20		Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL			
				(0.80)		Firm to stiff orange brown slightly sandy CLAY with occasional roots and rootlets LONDON CLAY		0.5	
			47.05	1.00		End of Trial Pit at 1.00m		1.0	
								1.5	
								2.0	
								2.5	
								3.0	
								3.5	
Dimensions:					Photo:				
Final Depth:	1.00m				 				
Final Width:									
Final Length:									
Remarks									
Water Strikes (mbgl)									
Depth Strike	Rose to		Time Elapsed (mins)						

 Geo-Environmental	Contract Name: Stoke Park Farm		Client: Eastleigh Borough Council			Trial Pit ID: TP01			
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447670.1	Northing: 120213.7	Ground Level: 25.42mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log		Weather: Overcast, warm, slight breeze			Hole Termination:		Stability: Sides stable		
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.50 0.50	B1 D1	PP=4.5kg/cm2	25.27	0.15 (0.40)	  	Grass over dark brown silty CLAY with frequent roots and rootlets TOPSOIL Stiff orange brown CLAY with occasional roots and rootlets and rare flint gravel LONDON CLAY		0.5	
1.00 1.00	B2 D2	PP=1.5kg/cm2	24.87 24.42	0.55 1.00		Firm orange brown slightly sandy CLAY with rare roots and rootlets LONDON CLAY		1.0	
						End of Trial Pit at 1.00m		1.5	
								2.0	
								2.5	
								3.0	
								3.5	
Dimensions:						Photo:			
Final Depth:		1.00m				 PhotoofPit			
Final Width:		0.60m							
Final Length:		1.70m							
Remarks						 PhotoofSpoil			
Soakage									
Water Strikes (mbgl)									
Depth Strike		Rose to		Time Elapsed (mins)					

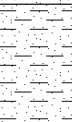
 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: TP02		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447676.8	Northing: 120201.1	Ground Level: 26.36mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log		Weather: Overcast, warm, slight breeze			Hole Termination:		Stability: Sides stable		
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.10	ES1	PP=3.2kg/cm2	26.16	0.20		Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL		0.5	
0.50	B1			(0.50)		Stiff orange brown CLAY with frequent roots and rootlets (possibly desiccated) LONDON CLAY			
			25.66	0.70		Firm orange brown slightly sandy CLAY with rare rootlets LONDON CLAY		1.0	
1.00	B2	PP=1.5kg/cm2	25.06	(0.60)		Firm becoming stiff orange brown slightly sandy CLAY. Sand is fine LONDON CLAY		1.5	
1.50	D1	PP=1.5kg/cm2		(0.70)				2.0	
2.00	D2	PP=1kg/cm2	24.36	2.00		End of Trial Pit at 2.00m		2.0	
								2.5	
								3.0	
								3.5	
Dimensions:					Photo:				
Final Depth:	2.00m				 PhotoofPit				
Final Width:	0.60m								
Final Length:	1.80m								
Remarks					 PhotoofSpoil				
Water Strikes (mbgl)									
Depth Strike		Rose to		Time Elapsed (mins)					

 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: TP03		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447688.6	Northing: 120216.4	Ground Level: 25.70mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log									
Weather: Overcast, warm, slight breeze			Hole Termination:			Stability: Sides stable			
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.30	ES1		25.55	0.15		Grass over dark brown slightly silty CLAY with frequent roots and rootlets		0.5	
0.50	B1			(0.85)		TOPSOIL			
						Stiff orange brown CLAY with occasional roots and rootlets possibly desiccated			
1.00	B2		24.70	1.00		LONDON CLAY		1.0	
						Mains Water Pipe			
						End of Trial Pit at 1.00m			
								1.5	
								2.0	
								2.5	
								3.0	
								3.5	
Dimensions:						Photo:			
Final Depth:	1.00m					 PhotoofPit			
Final Width:	0.60m								
Final Length:	1.60m								
Remarks						 PhotoofSpoil			
Mains water pipe at 0.86m bgl									
Water Strikes (mbgl)									
Depth Strike	Rose to		Time Elapsed (mins)						

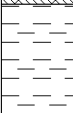
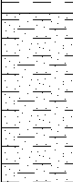
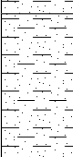
 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: TP04		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447693.5	Northing: 120206.1	Ground Level: 26.30mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log		Weather: Overcast, warm, slight breeze		Hole Termination:		Stability: Sides stable			
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.40 0.50	ES1 B1	PP=3kg/cm2	26.10	0.20 (0.60)	 	Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL Stiff orange brown possibly desiccated CLAY with occasional roots and rootlets and rare flint gravel LONDON CLAY		0.5	
1.00	B2	PP=1.6kg/cm2	25.50 25.30	0.80 1.00		Firm orange brown CLAY with rare rootlets LONDON CLAY End of Trial Pit at 1.00m		1.0	
								1.5	
								2.0	
								2.5	
								3.0	
								3.5	
Dimensions:					Photo:				
Final Depth:	1.00m				 PhotoofPit				
Final Width:	0.60m								
Final Length:	1.60m								
Remarks					 PhotoofSpoil				
Water Strikes (mbgl)									
Depth Strike	Rose to		Time Elapsed (mins)						

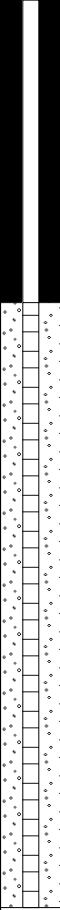
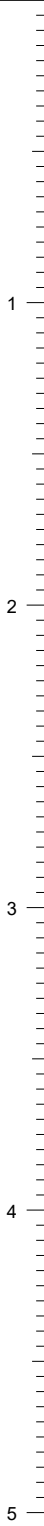
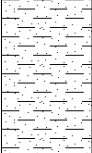
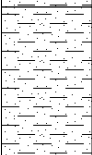
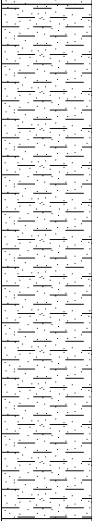
 Geo-Environmental	Contract Name: Stoke Park Farm		Client: Eastleigh Borough Council			Trial Pit ID: TP05	
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1	
	Easting: 447726.9	Northing: 120216.6	Ground Level: 25.29mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25	

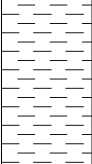
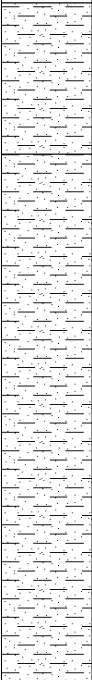
Weather: Overcast, warm, slight breeze		Hole Termination:	Stability: Sides stable
--	--	-------------------	-------------------------

Samples & In Situ Testing				Strata Details				Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.15	ES1	PP=2kg/cm2	25.14	0.15		Grass over dark brown slightly silty CLAY with frequent roots and rootlets TOPSOIL	0.5		
0.50	B1		(0.45)	24.69	0.60				
1.00	B2	PP=1.2kg/cm2	24.29	1.00		Firm orange brown slightly sandy CLAY with rare rootlets LONDON CLAY	1.0		
End of Trial Pit at 1.00m							1.5		
							2.0		
							2.5		
							3.0		
							3.5		

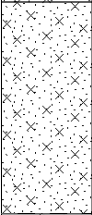
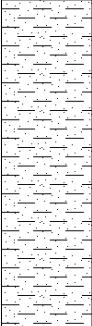
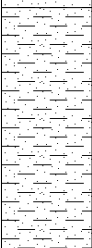
Dimensions:		Photo:
Final Depth:	1.00m	
Final Width:	0.60m	
Final Length:	1.80m	
Remarks		
Clay land drain in base of pit		
Water Strikes (mbgl)		
Depth Strike	Rose to	Time Elapsed (mins)

 Geo-Environmental	Contract Name: Stoke Park Farm			Client: Eastleigh Borough Council			Trial Pit ID: TP06		
	Contract Number: GE21681	Date Started: 28/06/2023	Logged By: FG	Checked By:	Status: PRELIM	Sheet 1 of 1			
	Easting: 447731.5	Northing: 120203.4	Ground Level: 26.06mOD	Plant Used: JCB	Date Printed: 30/06/2023	Scale: 1:25			
Trial Pit Log									
Weather: Overcast, warm, slight breeze			Hole Termination:			Stability: Sides stable			
Samples & In Situ Testing			Strata Details					Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.15	ES1		25.86	0.20		Grass over dark brown slightly silty CLAY with frequent roots and rootlets and rare flint gravel TOPSOIL			
0.50	B1	PP=3.5kg/cm2	25.46	(0.40)		Very stiff possibly desiccated CLAY with occasional roots and rootlets LONDON CLAY		0.5	
1.00	B2	PP=1.5kg/cm2	24.86	(0.60)		Firm orange brown slightly sandy CLAY with occasional rootlets. Sand is fine LONDON CLAY		1.0	
		PP=1.5kg/cm2		(0.50)		Firm becoming stiff orange brown slightly sandy CLAY. Sand is fine LONDON CLAY		1.5	
1.70	D1	PP=1.7kg/cm2	24.36	1.70		End of Trial Pit at 1.70m		2.0	
								2.5	
								3.0	
								3.5	
Dimensions:						Photo:			
Final Depth:	1.70m					 PhotoofPit			
Final Width:	0.60m								
Final Length:	1.70m								
Remarks						 PhotoofSpoil			
Soakage									
Water Strikes (mbgl)									
Depth Strike		Rose to		Time Elapsed (mins)					

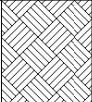
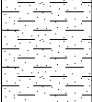
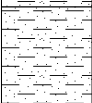
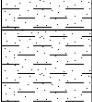
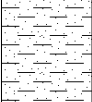
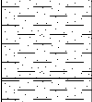
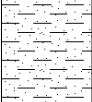
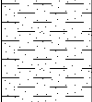
 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. WS01 Sheet 1 of 1		
Project Name: Stoke Park Farm				Project No. GE21681		Co-ords: 447664E - 120210N		Hole Type WLS		
Location: Bishopstoke				Level: 25.35		Scale 1:25				
Client: Eastleigh Borough Council				Dates: 29/06/2023		Logged By FG				
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.10	ES		0.25	25.10		Grass over dark brown slightly silty slightly sandy CLAY with frequent roots and rootlets and occasional flint gravel TOPSOIL		
		0.40	ES							
		0.50	PP	1.0kg/cm2				Firm orange brown slightly sandy CLAY with occasional roots and rootlets LONDON CLAY		
					0.80	24.55		Firm orange brown slightly sandy CLAY. Sand is fine LONDON CLAY		
		1.00	PP	1.5kg/cm2						
					1.30	24.05		Stiff orange brown and grey mottled slightly sandy CLAY. Sand is fine LONDON CLAY		
		1.50	PP	2.2kg/cm2						
	2.00	PP	2.5kg/cm2							
	2.50	PP	2.5kg/cm2							
	3.00	PP	2.0kg/cm2	3.00	22.35		End of Borehole at 3.00m			
Dynamic Sampling Run Details		Water Strike Details (mbgl)		Remarks						
Depth Top	Depth Base	Diameter	Depth Strike							Rose To
										

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net			Borehole Log				Borehole No. WS02 Sheet 1 of 1		
Project Name: Stoke Park Farm			Project No. GE21681		Co-ords: 447677E - 120080N		Hole Type WLS		
Location: Bishopstoke					Level: 33.96		Scale 1:25		
Client: Eastleigh Borough Council					Dates: 29/06/2023		Logged By FG		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20	ES		0.15	33.81		Grass over dark brown slightly silty slightly sandy CLAY with frequent roots and rootlets TOPSOIL	
		0.50	PP	2.5kg/cm2				Stiff brown CLAY with occasional roots and rootlets possibly desiccated LONDON CLAY	
					0.75	33.21		Firm brown slightly sandy CLAY with occasional rootlets LONDON CLAY	1
		1.00	PP	1.6kg/cm2					
					1.25	32.71		Stiff brown slightly sandy CLAY. Sand is fine LONDON CLAY	
		1.50	PP	2.2kg/cm2					
		2.00	PP	2.1kg/cm2					
		2.50	PP	3.1kg/cm2					
3.00	PP	1.7kg/cm2	3.00	30.96		End of Borehole at 3.00m	3		
								4	
								5	
Dynamic Sampling Run Details		Water Strike Details (mbgl)		Remarks					
Depth Top	Depth Base	Diameter	Depth Strike						Rose To



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. WS03 Sheet 1 of 1	
Project Name: Stoke Park Farm				Project No. GE21681		Co-ords: 447980E - 119976N		Hole Type WLS	
Location: Bishopstoke				Level: 45.10		Scale 1:25			
Client: Eastleigh Borough Council				Dates: 29/06/2023		Logged By FG			
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.20	44.90		Grass over dark brown sandy gravelly CLAY with occasional roots and rootlets TOPSOIL	1 2 3 4 5
		0.35	ES		0.40	44.70		Brown silty fine SAND with occasional rootlets WHITECLIFF SAND MEMBER	
								Orange brown silty fine SAND with occasional flint gravel and rare rootlets WHITECLIFF SAND MEMBER	
					1.10	44.00		Firm to stiff orange and grey mottled slightly sandy CLAY with rare flint gravel LONDON CLAY	
		1.50	PP	1.6kg/cm2					
		2.00	PP	1.9kg/cm2	2.20	42.90		Firm orange and grey mottled slightly sandy CLAY. Sand is fine LONDON CLAY	
		2.50	PP	1.1kg/cm2					
		3.00	PP	1.0kg/cm2	3.00	42.10	End of Borehole at 3.00m		
Dynamic Sampling Run Details		Water Strike Details (mbgl)		Remarks					
Depth Top	Depth Base	Diameter	Depth Strike	Rose To					



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net			Borehole Log				Borehole No. WS04 Sheet 1 of 1		
Project Name: Stoke Park Farm			Project No. GE21681		Co-ords: 447794E - 1199734N		Hole Type WLS		
Location: Bishopstoke					Level: 43.78		Scale 1:25		
Client: Eastleigh Borough Council					Dates: 29/06/2023		Logged By FG		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.35	43.43		Grass over slightly silty slightly sandy CLAY with frequent roots and rootlets (possibly desiccated) TOPSOIL	1
		0.50	PP	2.6kg/cm2				Stiff brown slightly sandy CLAY with occasional roots and rootlets LONDON CLAY	
		0.75			43.03		Firm brown slightly sandy CLAY. Sand is fine LONDON CLAY		
		1.00	PP	1.4kg/cm2			Firm orange and grey mottled slightly sandy CLAY. Sand is fine LONDON CLAY		
		1.50	PP	0.8kg/cm2	42.58		Firm orange and grey mottled slightly sandy CLAY. Sand is fine LONDON CLAY		
		2.00	PP	0.9kg/cm2			Firm orange and grey mottled sandy CLAY. Sand is fine LONDON CLAY		
		2.50	PP	1.1kg/cm2	41.68		Firm orange and grey mottled sandy CLAY. Sand is fine LONDON CLAY		
		3.00	PP	0.6kg/cm2			Firm orange and grey mottled sandy CLAY. Sand is fine LONDON CLAY		
				3.00	40.78		End of Borehole at 3.00m	3	
								4	
								5	
Dynamic Sampling Run Details		Water Strike Details (mbgl)		Remarks					
Depth Top	Depth Base	Diameter	Depth Strike						Rose To





Geo-Environmental www.gesl.net

Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.

WS05

Sheet 1 of 1

Project Name: Stoke Park Farm

Project No.
GE21681

Co-ords: 448108E - 119776N

Hole Type
WLS

Location: Bishopstoke

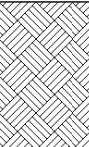
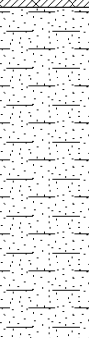
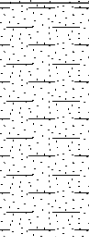
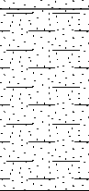
Level: 51.03

Scale
1:25

Client: Eastleigh Borough Council

Dates: 29/06/2023

Logged By
FG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.50	50.53		Grass over dark brown slightly silty CLAY with frequent roots and rootlets and occasional flint gravel TOPSOIL	1
								Brick	
								Orange and grey mottled very clayey becoming clayey fine SAND WHITECLIFF SAND MEMBER	
								Orange and grey clayey fine SAND with bands of orange and grey mottled sandy CLAY WHITECLIFF SAND MEMBER	
								Yellowish brown slightly clayey fine SAND WHITECLIFF SAND MEMBER	
					3.00	48.03		End of Borehole at 3.00m	3



APPENDIX B

Soakage Test Results



- 1 Blue cells require input data
- 2 Infiltration calculated to method in 'BRE Digest 365 (1991) - Soakaway Design'
- 3 First line of table must be depth at time = 0