

28th February 2018

Our ref: GE16334/JT01/180228

Mr Gerald Guma
OdysseyConsulting
Tuscany House
White Hart Lane
Basingstoke
Hampshire
RG21 4AF



Dear Gerald,

Rustington Convalescent Home – Soakage Testing

Further to your instruction, we write to report on the BRE365 trial pit soakage testing undertaken on the above named site on 15/02/18.

At the time of the investigation, the site comprised part of Rustington Convalescent Home, Sea Road, Rustington, West Sussex, BN16 2LZ. The areas investigated all comprised areas of lawn, and were all positioned close to the access road running from Sea Road to the south in a northerly direction through the western part of the site. The topography of the site appeared to slope very gently down towards the north with an overall estimated change in level of between 1-1.50m between the southern and northern boundaries of the site. The site location is presented on Figure 1 appended.

The ground conditions recorded within the trial pit comprised turf and Topsoil overlying River Terrace Deposits. The River Terrace Deposits were described variously as silty gravelly CLAY and slightly gravelly clayey SAND and was encountered to depths of between 2.10mbgl and 2.90mbgl. The River Terrace Deposits were in turn underlain by structureless CHALK. The trial pits each terminated in the White Chalk Subgroup at depths of between 3.00mbgl-3.10mbgl. For further details of the ground conditions encountered and trial pit location plan, please refer to the engineer's trial pit logs and plan appended.

The results of the soakage tests undertaken at each location are presented in the table below:

Location	Calculated Soakage rate (m/s)
TP1	1.9×10^{-5}
TP2	1.9×10^{-5}
TP3	1.4×10^{-5}

Table 1 – BRE365 Soakage Test Rates

In addition to the above full scale tests, groundwater monitoring of standpipes installed in window sampler boreholes has been undertaken on six occasions. The results of the monitoring are presented in Table 2 below:

	19/04/17	25/05/17	21/06/17	11/12/17	08/01/18	01/02/18
WS1	4.44mbgl	3.88mbgl	3.86mbgl	4.00mbgl	3.92mbgl	3.55mbgl
WS2	Dry	4.00mbgl	4.33mbgl	Dry	4.60mbgl	4.21mbgl
WS3	3.05mbgl	2.26mbgl	2.69mbgl	2.53mbgl	2.55mbgl	2.80mbgl

Table 2 - Summary of Water Monitoring Results

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Environmental Consultants | Geotechnical Engineers | Site Investigations

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





We trust that the information provided is sufficient for your present requirements, please do not hesitate to contact us should you require any further information.

Yours sincerely
For and on behalf of Geo-Environmental



JONATHAN TINGLEY C.Env., B.Eng. (Hons), M.Sc. FGS, MEnvSc
Technical Director
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Encs Site Location Plan
 Site Investigation Plan
 Engineer Logs

Project Title: Rustington Convalescent Home
Location : Sea Road, Rustington, BN16 2LZ
Project No. : GE16334
Client : Daniel Watney LLP

Title : Figure 1 - Site Location Plan
Scale: 1:15000
Engineer: DW



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Legend Key

 Project Bounds - Project Bounds



Project Title: Rustington Convalescent Home
Location : Sea Road, Rustington, BN16 2LZ
Project No. : GE16334
Client : Daniel Watney LLP

Title : Figure 2 - Exploratory Hole Location Plan
Scale: 1:2000
Engineer: DW



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Legend Key

-  Locations By Type - TP
-  Locations By Type - WLS





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP1

Sheet 1 of 1

Project Name: Rustington Convalescent Home

Project No.
GE16334

Co-ords: 504220.00 - 101439.00
Level:

Date
15/02/2018

Location: Sea Road, Rustington, BN16 2LZ

Dimensions (m): 2.00

Depth
3.10

0.63

Scale
1:25

Logged
WH

Client: Daniel Watney LLP

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.40 0.50	ES D		0.95			Turf over soft brown silty CLAY with abundant rootlets and occasional fine to medium rounded to angular flint gravel RIVER TERRACE DEPOSITS	
	1.00 1.00	D ES					Light orange brown slightly gravelly clayey SAND with frequent rootlets. Gravel is fine to medium rounded to angular flints. RIVER TERRACE DEPOSITS	1
	1.50	D					...becomes very gravelly with rounded flint cobbles	
	2.00	D						2
	2.50	D		2.90 3.10			...lenses of chalk clay with fine to medium rounded gravel	
	3.00	D					Structureless CHALK composed of white to cream slightly sandy gravelly CLAY. Gravel is fine to coarse rounded to angular chalk with frequent black specks and flints. WHITE CHALK SUBGROUP End of Pit at 3.10m	3
								4
								5
Water Strike								
Depth Strike								
		Remarks	Hole collapses to 2.7m bgl					
		Stability	Sides unstable once water added					





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP2

Sheet 1 of 1

Project Name: Rustington Convalescent Home

Project No.
GE16334

Co-ords: 504313.00 - 101538.00
Level:

Date
15/02/2018

Location: Sea Road, Rustington, BN16 2LZ

Dimensions (m):

2.00

Scale
1:25

Client: Daniel Watney LLP

Depth
3.00

0.63

Logged
WH

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.25			Turf over soft dark brown clayey silt with abundant rootlets and frequent fine to medium rounded to angular flint gravel. Rare tile fragments. TOPSOIL	
	0.50	D					Brown soft silty CLAY with abundant rootlets and frequent fine to medium rounded to angular flint gravel and rare black organic material. RIVER TERRACE DEPOSITS	
	0.50	ES						
	1.00	D						1
	1.50	D		1.40			Orange brown slightly gravelly clayey SAND with occasional rootlets. Gravel is fine to medium rounded to angular flints. RIVER TERRACE DEPOSITS	
	2.00	D		2.10			...lenses of chalk clay with fine to medium rounded gravel	2
	2.50	D					Structureless CHALK composed of white to cream slightly sandy gravelly CLAY with occasional cobbles. Clasts are fine to coarse rounded to angular chalk with frequent black specks and flints. WHITE CHALK SUBGROUP	
	3.00	D		3.00			End of Pit at 3.00m	3
								4
								5

Water Strike	
Depth Strike	Flow to (m/s)
3.00	2.75

Remarks

Stability Sides stable





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP3

Sheet 1 of 1

Project Name: Rustington Convalescent Home

Project No.
GE16334

Co-ords: 504340.00 - 101591.00
Level:

Date
15/02/2018

Location: Sea Road, Rustington, BN16 2LZ

Dimensions (m):

2.00

Depth
3.10

0.63

Scale
1:25

Logged
WH

Client: Daniel Watney LLP

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES					Turf over soft dark brown clayey silt with abundant rootlets and frequent fine to medium rounded to angular flint gravel. Frequent fine to coarse fragments of brick and concrete fragments and occasional whole bricks. RIVER TERRACE DEPOSITS	
	0.50	D					...rubble no longer present	
	1.00 1.00	D ES						1
	1.50	D						
				1.70				
	2.00	D					Orange brown slightly gravelly clayey SAND with occasional rootlets. Gravel is fine to medium rounded to angular flints. RIVER TERRACE DEPOSITS	2
	2.50	D						
				2.50				
	3.00	D					Structureless CHALK composed of white to cream slightly sandy gravelly CLAY. Gravel is fine to coarse rounded to angular chalk with frequent black specks and flints. WHITE CHALK SUBGROUP	3
				3.10			End of Pit at 3.10m	
								4
								5
Water Strike								
Depth Strike	Flare to (mgs)	Remarks						
3.00	2.53	Hole collapses to 2.45m bgl and collapses to 1.1m wide						
		Stability						
		Sides unstable						

