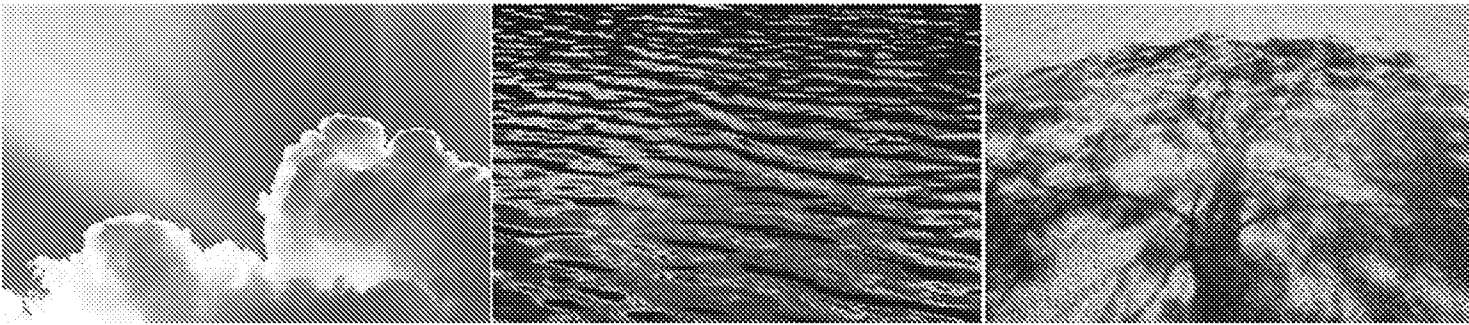


Soakage Test Report



Desk Studies | Risk Assessments | Site Investigations | Geotechnical | Contamination Investigations | Remediation Design and Validation

Site: Land South of Mayflower Way, Angmering

Client: Angmering Community Land Trust

Report Date: November 2017

Project Reference: J13227



FS 29280

EMS 506775

OHS 506776



A INTRODUCTION

1 Authority

Our authority for carrying out this work is contained in a signed order form from Bruce Howse of The Howse Wallis Partnership on behalf of their client, the Angmering Community Land Trust.

2 Location

The site, which comprises an existing field, is located to the south of Mayflower Way, approximately 500m north east of Angmering Railway Station, Littlehampton, BN16 4AY. The approximate National Grid Reference of the site is TQ 07262 03274.

3 Investigation Brief

In accordance with the Client's instructions, and our quotation, the following was included in our brief for this soakage investigation:

6 No. soakage tests were carried out across the site using the BRE365 method.

The fieldwork was carried out on 29th November 2017 at which time the weather was generally dry. The rainfall in the South of England for the preceding three months was average, with approximately 42-123% of the normal.

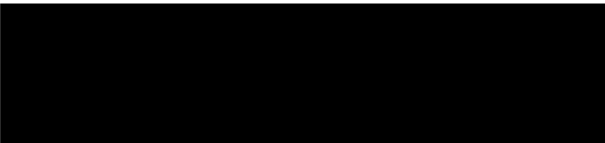
4 Scope

This report presents our exploratory hole logs and test results only. As with any site there may be differences in soil conditions between exploratory hole positions.

This report is not an engineering design and the figures and calculations contained in the report should be used by the Engineer, taking note that variations will apply, according to variations in design loading, in techniques used, and in site conditions. Our figures therefore should not supersede the Engineer's design.

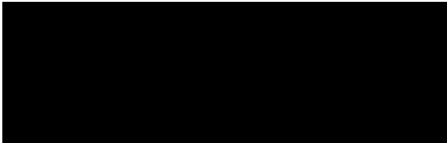
Contamination issues are not considered in this report.

The site investigation was conducted and this report has been prepared for the sole internal use and reliance of Angmering Community Land Trust and their appointed Engineers. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Southern Testing Laboratories Limited. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.



Morris Stevenson MICE
(Countersigned)

For and on behalf of Southern Testing Laboratories Limited



Darryl Kelly MGeol FGS
(Signed)

B FIELDWORK

5 General Site Description

The site comprises a broadly rectangular plot of land, which at the time of our investigation was predominantly overgrown grass.

The northern boundary of the site contains a soil bund approximately 1.2m in height, beyond which Mayflower Way is situated and to the north of this is an area of land, which is disused and is covered in piles of scrap metal, soil and demolition rubble. The western and eastern site boundaries comprise residential properties with associated garden areas while the southern site boundary comprises an overgrown section of woodland, with an old dirt BMX bike track.

6 Geology

The British Geological Survey Map indicates that the site geology consists of Brickearth over River Terrace deposits over New Pit Chalk Formation.

Brickearth

Brickearth (loess deposit) is a recent deposit which is so called as it is suited to brick manufacture. It is predominantly an Aeolian deposit; formed during cold, dry climatic conditions. There is evidence that Brickearth has been reworked as part of 'sheet flooding' which helped incorporate flint gravels into the deposit. Brickearth consists mainly of ferruginous silty clay, which is often sandy and may contain some finely divided chalk, scattered flints and gravelly seams, or other locally derived material.

Terrace Gravels

Terrace gravels are sheets of irregular and sub-rounded gravel and sand, laid down as terraces alongside rivers. There is usually a covering of sandy silty clay, termed brickearth, and old backfilled gravel workings are sometimes found.

Middle Chalk

Chalk is a well-known soft white friable limestone consisting of over 95% of calcium carbonate. It is of organic origin and is composed of shell debris embedded in a fine matrix of microscopic calcareous bodies produced by planktonic algae (coccoliths).

Flints are largely absent in the Middle Chalk, except in the upper beds, and there is a hard band of chalk, the Melbourne Rock, at the base of the division.

While Upper Chalk frequently has excellent soakage properties, this is not the case in the Middle Chalk, where soakage may be poor.

7 Soils as Found

The soils encountered are described in detail in the attached exploratory hole logs (Appendix A), but in general comprised a covering of Made Ground/Topsoil over orange brown silty sandy Clay.

A summary is given below.

Depth	Thickness	Soil Type	Description
GL to 0.3m (TP105 Only)	0.3m	Topsoil	Grass over brown sandy clayey TOPSOIL with occasional roots and flint gravel.
GL to 0.4m/1.0m	0.4m to 1.0m	Made Ground	MADE GROUND comprising brown silty CLAY with frequent brick, concrete, metal, ash and flint gravel.
0.25m/0.5m to 1.0m	0.5m to 0.75m	Silty/Sandy Clay	Stiff, high strength pale orange brown gravelly sandy CLAY. Gravels comprise fine to coarse subrounded to subangular flint

8 Soakage Test Method

Soakage Tests after BRE365 (1991)

The BRE365 paper on soakaway design allows for the design of trench soakaways as well as traditional square and circular soakaways.

The test to measure the soil infiltration rate is carried out in pits which are excavated to the full depth of the proposed soakaway. The trial pits are filled and allowed to drain to empty or near empty, three times, on the same day or on consecutive days.

The pit is considered full when the water level is the same as the proposed inlet invert. The time for the water level to fall from $\frac{3}{4}$ full to $\frac{1}{4}$ full is obtained and the soil infiltration rate is obtained from the following formula:

$$f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$$

Where: f = soil infiltration rate (in this case expressed in l/m²/minute)

V_{p75-25} = the effective storage volume of water in the trial pit between 75% and 25% effective depth;

a_{p50} = the internal surface area of the trial pit up to 50% effective depth and excluding the base area;

t_{p75-25} = the time for the water level to fall from 75% to 25% effective depth.

The soakage rate in this report is expressed as l/m²/minute, which is a convenient rate to use. The BRE use a unit of m/sec, which is the value in l/m²/minute divided by 60,000.

Because of time and cost constraints testing was restricted to one day only.

9 Soakage Test Results & Discussion

A total of six soakage tests were carried out across the site, at the locations shown on the attached site plan (Figure 1). Two of the trial pits (TP101 and TP106) were excavated during previous works in July 2017 and were gravel filled for soakage testing at the time. Both of these pits were retested during this additional investigation.

July 2017 Results

Results of BRE 365 Soakage tests				
Pit	Depth (m)	f l/m ² /min	BRE Units (m/sec)	Comments
TP101 (test1)	3.4	4.14	6.9E-5	
TP101 (test2)	3.4	2.85	4.74E-5	
TP101 (test3)	3.4	1.62	2.69E-5	
TP106 (test1)	3.0	5.21	8.68E-5	
TP106 (test2)	3.0	3.31	5.57E-5	
TP106 (test3)	3.0	3.01	5.02E-5	

The full results of the soakage tests undertaken in November 2017 are appended and the soakage rate from each trial hole is summarised in the table below.

November 2017

Results of BRE 365 Soakage tests				
Pit	Depth (m)	f l/m ² /min	BRE Units (m/sec)	Comments
TP101 (test1)	3.4	5.58	9.31E-5	
TP101 (test2)	3.4	2.66	4.43E-5	
TP106 (test1)	3.0	5.23	8.72E-5	
TP106 (test2)	3.0	4.18	6.96E-5	
TP201	1.0	0.36	6.00E-06	
TP203 (Test 1)	1.0	1.88	3.13E-05	

TP203 (Test 2)	1.0	0.48	7.99E-6	
TP204	1.0	1.33	2.22E-5	
TP205	1.0	0.364	6.07E-06	

The BRE Digest 365 indicates that 3 fillings must be carried out. Where 3 fillings have not been carried out, a reduction factor should be applied.

Based on the two sets of results carried out at the locations of TP101 and TP106, we would consider an overall design value of between 2l/m²/min to 3 l/m²/min to be appropriate for soakaways set into the underlying gravels (as per TP101 and TP106). Due to the variability in the soils encountered on site consideration should be given to undertaking soakage tests at the proposed depth and location of any soakaways to confirm the design rate.

Where shallow permeable paving type soakaways are to be considered at a depth of 1.0m bgl we would consider a design value of 0.3 l/m²/min to be appropriate, however a further factor of safety may need to be considered by the designers as only one test was undertaken in most of the trial holes excavated on site.

Soakaways should be sited in natural soils only, and where made ground soils are encountered soakaways will require deepening down into natural soils for discharge.

Despite groundwater not being encountered during our investigation to a maximum depth of 3.9m bgl, our works were carried out in the drier summer months and the early winter months which were below average rainfall. Based on historical data from previous reports carried out in this area we would anticipate groundwater levels to rise within the wetter winter months which may have implications on the use of soakaways on the subject site.

Any soakaway scheme will require the approval of the Environment Agency, Building Control and, where applicable, the adopting Highways Authority.

Groundwater levels can vary considerably from season to season and year to year, often rising in wet or winter weather, and falling in periods of drought. As such, a high groundwater table may affect the storage capacity of soakaways (where applicable). In addition, it should be noted that an unsaturated zone may be required between the base of soakaways and the groundwater table, by the Environment Agency.

APPENDIX A – EXPLORATORY HOLE LOGS & SITE PLAN

NB: Positions of Trial Pits are only indicative unless dimensioned

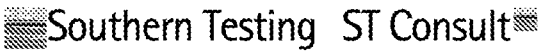
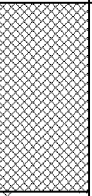
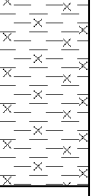
Site: Land off Mayflower Way, Angmering

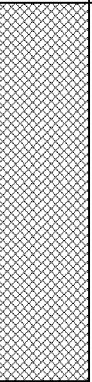
STL: J13227

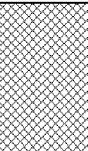
Fig No: 1

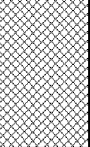
Date: 04 December 2017



				Start - End Date: 29/11/2017		Project ID: J13227		Machine Type: JCB 3 CX		TP201 Sheet 1 of 1	
Project Name: Land Off Mayflower Way				Remarks:		Co-ordinates:		Level (m AOD):		Logger: DK	
Location: Angmering				Dry on completion							
Client: Angmering Community Land Trust											
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m)	Type	Results									
				(0.50)		0.50	Grass over MADE GROUND comprising brown gravelly CLAY with abundant brick and tile fragments, plastic, metal and occasional fine to coarse flint gravel.				
				(0.50)		1.00	Firm, medium strength orange brown slightly fine sandy silty CLAY.				
							Pit terminated at 1.00m.		1		
									2		
									3		
									4		
Pit Dimension (m)			Pit Stability:				Water Strikes:				
Width:	0.45		Stable								
Length:	1.20										
Depth:	1.00										

 Southern Testing ST Consult				Start - End Date: 29/11/2017		Project ID: J13227		Machine Type: JCB 3 CX		TP202 Sheet 1 of 1	
www.southerntesting.co.uk tel:01342 333100 www.stconsult.co.uk tel:01604 500020											
Project Name: Land Off Mayflower Way				Remarks:		Co-ordinates:		Level (m AOD):		Logger: DK	
Location: Angmering				Dry on completion							
Client: Angmering Community Land Trust											
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m)	Type	Results									
				(1.00)		1.00	Grass over MADE GROUND comprising brown gravelly CLAY with abundant brick and tile fragments, plastic, metal and occasional fine to coarse flint gravel.		1		
							Pit terminated at 1.00m.		4		
Pit Dimension (m)			Pit Stability:				Water Strikes:				
Width:		0.45	Stable								
Length:		1.20									
Depth:		1.00									

 Southern Testing ST Consult				Start - End Date: 29/11/2017		Project ID: J13227		Machine Type: JCB 3 CX		TP203 Sheet 1 of 1	
Project Name: Land Off Mayflower Way				Remarks:		Co-ordinates:		Level (m AOD):		Logger: DK	
Location: Angmering				Dry on completion							
Client: Angmering Community Land Trust											
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m)	Type	Results									
				(0.40)		0.40	Grass over MADE GROUND comprising dark brown silty CLAY with frequent brick and concrete rubble, polystyrene, ash and flint gravel.				
				(0.60)		1.00	Firm, medium strength orange brown slightly fine sandy silty CLAY.				
							Pit terminated at 1.00m.		1		
									2		
									3		
									4		
Pit Dimension (m)			Pit Stability:				Water Strikes:				
Width:	0.45		Stable								
Length:	1.20										
Depth:	1.00										

 Southern Testing ST Consult				Start - End Date: 29/11/2017		Project ID: J13227		Machine Type: JCB 3 CX		TP204 Sheet 1 of 1	
Project Name: Land Off Mayflower Way				Remarks:		Co-ordinates:		Level (m AOD):		Logger: DK	
Location: Angmering				Dry on completion							
Client: Angmering Community Land Trust											
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m)	Type	Results									
				(0.40)		0.40	Grass over MADE GROUND comprising dark brown silty CLAY with frequent brick and concrete rubble, blacktop, ash and flint gravel.				
				(0.60)		1.00	Firm, medium strength orange brown slightly fine sandy silty CLAY.				
							Pit terminated at 1.00m.		1		
									2		
									3		
									4		
Pit Dimension (m)			Pit Stability:				Water Strikes:				
Width:	0.45		Stable								
Length:	1.20										
Depth:	1.00										

 Southern Testing ST Consult				Start - End Date: 29/11/2017		Project ID: J13227		Machine Type: JCB 3 CX		TP205 Sheet 1 of 1	
Project Name: Land Off Mayflower Way				Remarks:		Co-ordinates:		Level (m AOD):		Logger: DK	
Location: Angmering				Dry on completion							
Client: Angmering Community Land Trust											
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m)	Type	Results									
				(0.30)		0.30	Grass over brown silty clayey TOPSOIL with frequent fine to coarse flint gravel.				
				(0.70)		1.00	Firm, high strength, orange brown silty, slightly sandy CLAY.				
							Pit terminated at 1.00m.		1		
									2		
									3		
									4		
Pit Dimension (m)			Pit Stability:				Water Strikes:				
Width:	0.45		Stable								
Length:	1.20										
Depth:	1.00										

APPENDIX B – SOAKAGE TEST RESULTS

Summary Sheet

Results of BRE Digest 365 Soakage Tests

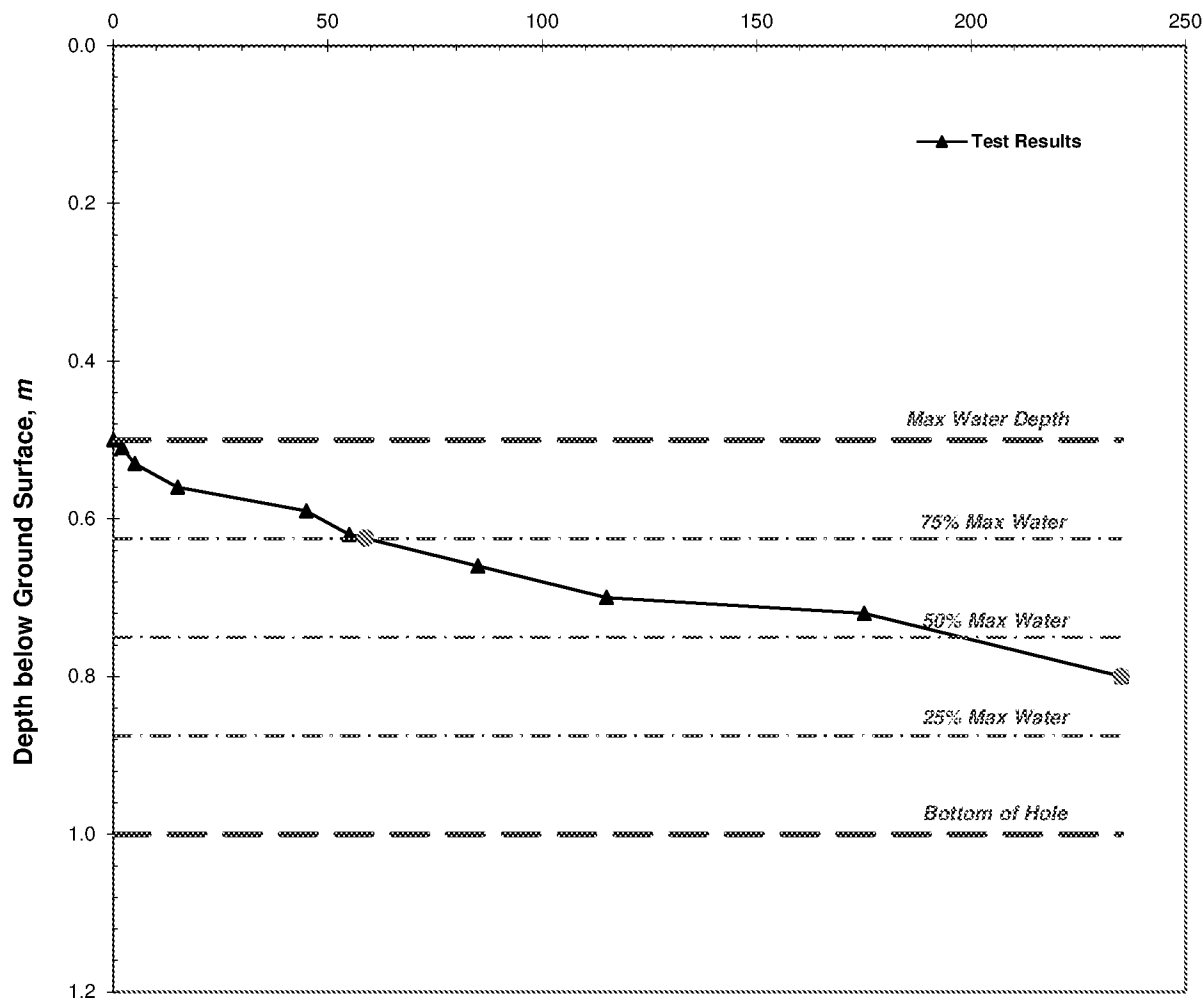
Site : Mayflower Way, Angmering					Job No : J13227		
Client : The Howse Wallis Partnership					O S Reference : TQ 07262 03274		
Tested By : OS				Engineer: DK		Test Date : 29/11/2017	
Hole No	Test No	Hole Depth <i>m</i>	Soakage Rate for Each Test <i>litre/m²/min</i>	Soakage Rate for Each Hole <i>litre/m²/min m/sec</i>		Water Level at Finish of Test	Remarks
TP201	No 1	1.00	0.360	0.360	6.00E-6	Pit was not emptied; Non compliant value was calculated.	28 Seconds to fill, 400Litres used
TP203	No 1	1.00	1.88	0.480	7.99E-6	Empty pit.	350 litres used 38 seconds to fill
TP203	No 2	1.00	0.480			Pit was not emptied; Non compliant value was calculated.	400 litres used 59 seconds to fill
TP204	No 1	1.00	1.33	1.33	2.22E-5	Nearly empty pit.	
TP205	No 1	1.00	0.364	0.364	6.07E-6	Pit was not emptied; Non compliant value was calculated.	1 min 10 secs to fill, 300 litres used
TP101	No 1	3.40	5.58	2.66	4.43E-5	Nearly empty pit.	1 min 20 seconds to fill, 900 litres used Depth to top of permeable soils was 1.4m.
TP101	No 2	3.40	2.66			Nearly empty pit.	48 seconds to fill 700 litres used
TP106	No 1	3.00	5.23	4.18	6.96E-5	Nearly empty pit.	1 min 20 to fill, 800 litres used
TP106	No 2	3.00	4.18			Nearly empty pit.	56 seconds to fill 800 litres used
Mean Value of All Calculated Soakage Rates :				1.56 <i>litre/m²/min</i>	2.60E-5 <i>m/sec</i>		

BRE Digest 365 Soakage Test

Test Hole No: TP201

Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	1.200	Depth to Water at Start of Test, m	0.500
Pit Width, m	0.450	Max Water Dropdown during Test, m	0.300
Depth to Pit Base, m	1.000	Total Soakage Test Time, min	235.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	1.489
Depth to Groundwater Surface, m		Discharge Rate, litre/min	0.536
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	0.360
Void Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	6.00E-06

Comments: 28 Seconds to fill, 400Litres used

Water level fell to 50% -- 25% max water depth, calculations were based on actual fall of water level achieved.

Result not compliant with BRE365 requirement since water did not fall to 25% max water depth.

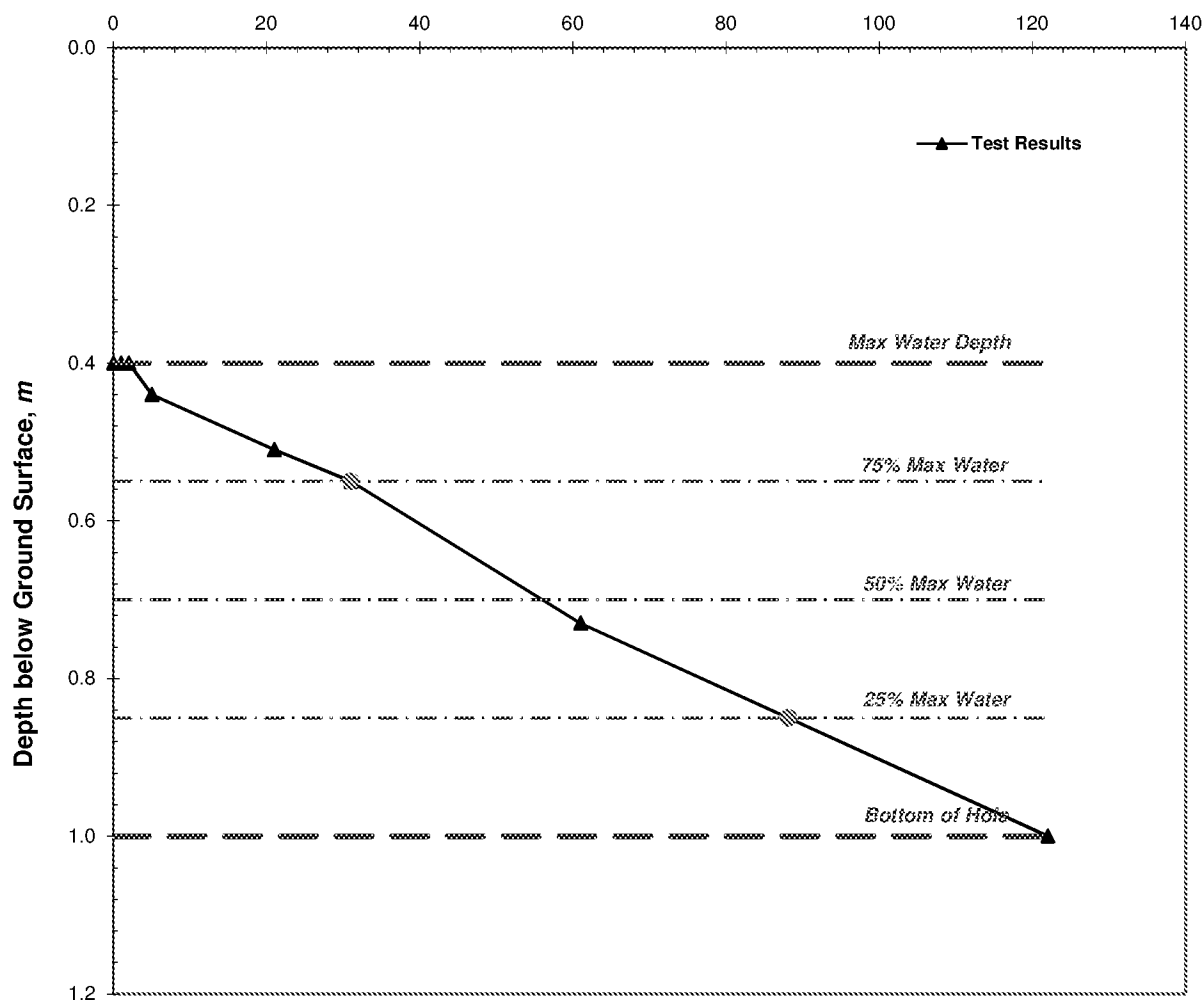
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S2

BRE Digest 365 Soakage Test

Test Hole No: TP203

Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	1.300	Depth to Water at Start of Test, m	0.400
Pit Width, m	0.450	Max Water Dropdown during Test, m	0.600
Depth to Pit Base, m	1.000	Total Soakage Test Time, min	122.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	1.635
Depth to Groundwater Surface, m		Discharge Rate, litre/min	3.073
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	1.88
Voids Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	3.13E-05

Comments: 350 litres used 38 seconds to fill
Pit was emptied at finish of test.

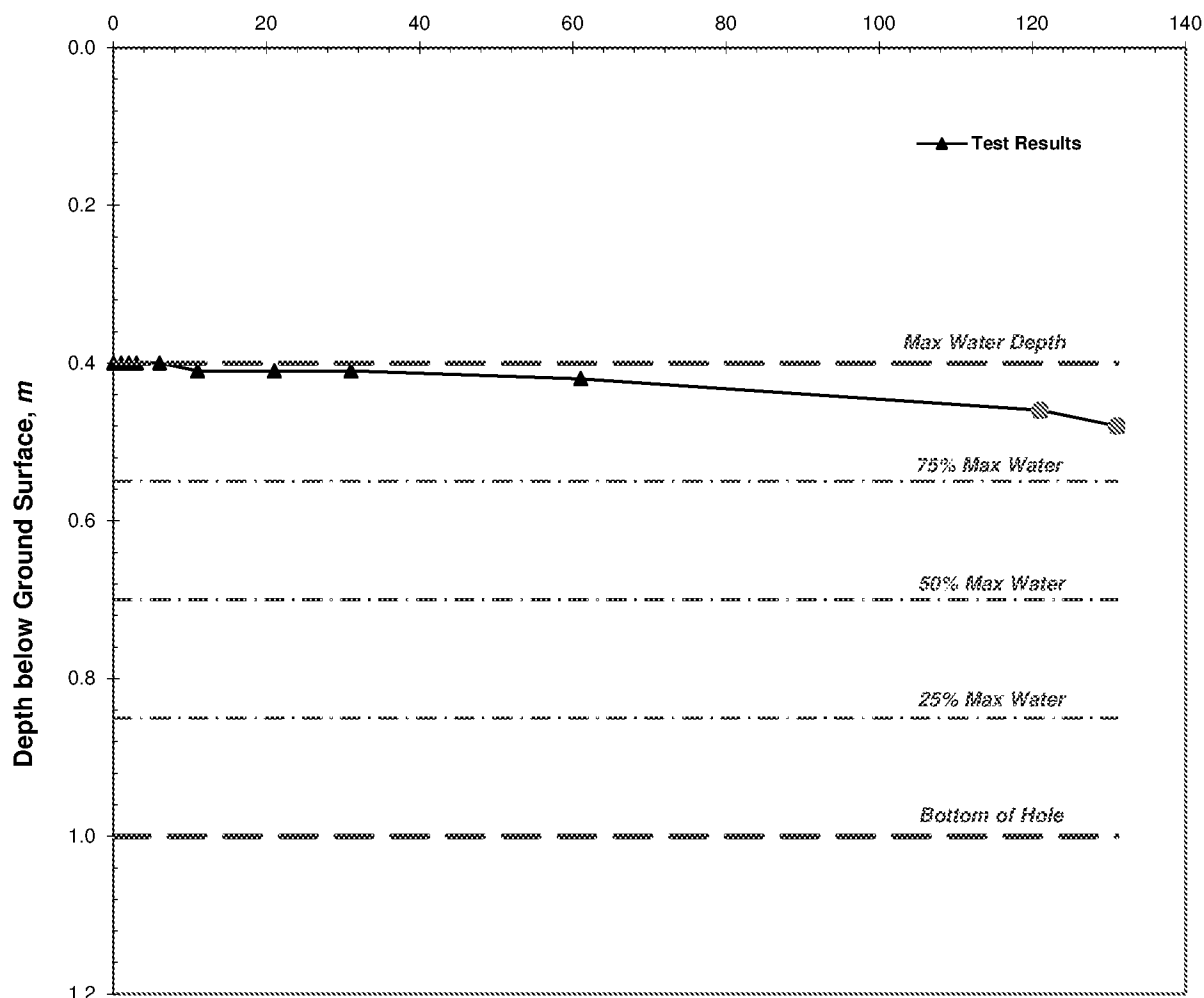
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S6

BRE Digest 365 Soakage Test

Test Hole No: TP203

Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	1.300	Depth to Water at Start of Test, m	0.400
Pit Width, m	0.450	Max Water Dropdown during Test, m	0.080
Depth to Pit Base, m	1.000	Total Soakage Test Time, min	131.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	2.440
Depth to Groundwater Surface, m		Discharge Rate, litre/min	1.170
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	0.480
Void Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	7.99E-06

Comments: 400 litres used 59 seconds to fill

Water level did not fall to 75% max water depth, calculations were based on actual fall of water level achieved.

Result not compliant with BRE365 requirement since water did not fall to 25% max water depth.

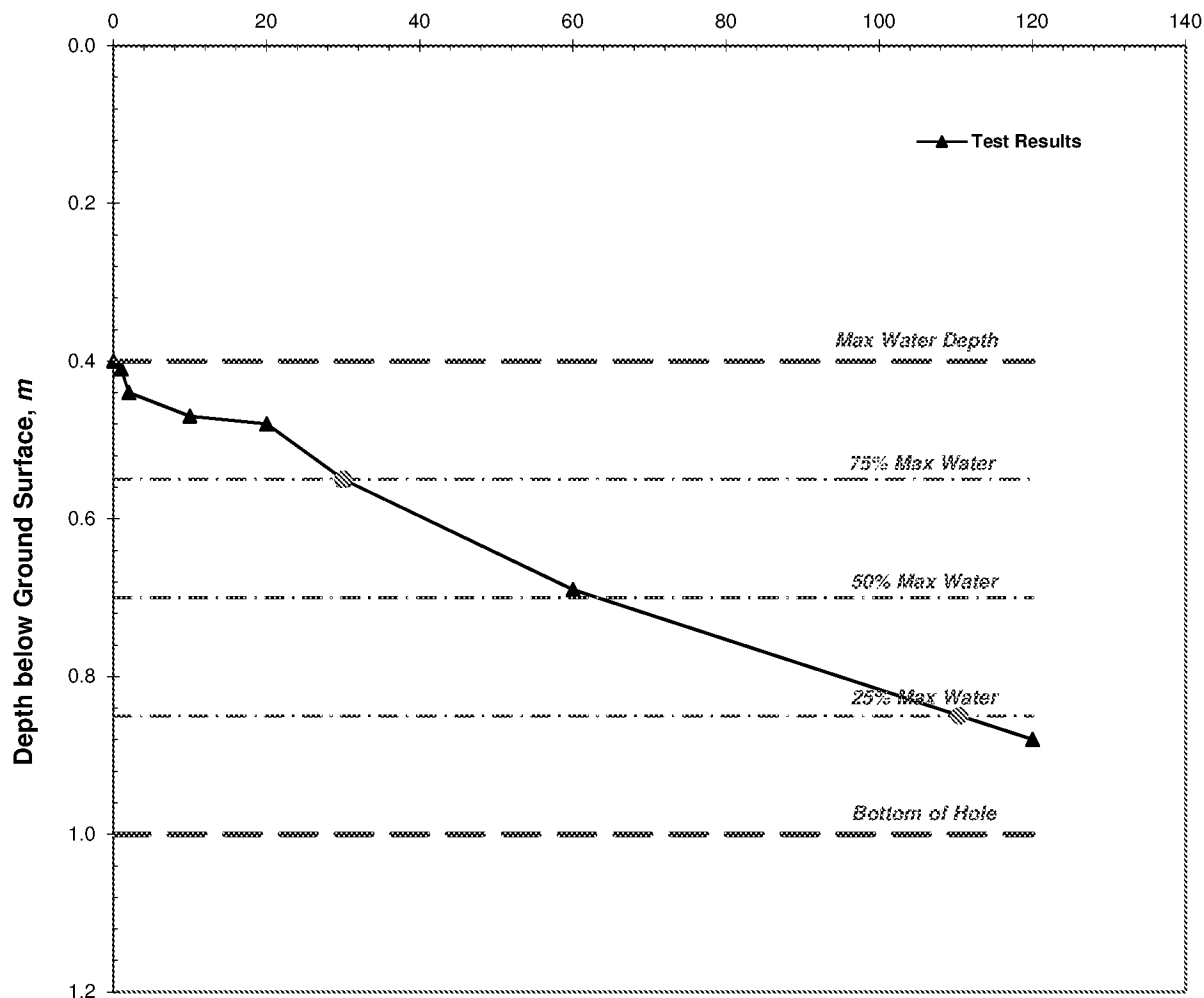
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S7

BRE Digest 365 Soakage Test

Test Hole No: TP204

Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	1.300	Depth to Water at Start of Test, m	0.400
Pit Width, m	0.450	Max Water Dropdown during Test, m	0.480
Depth to Pit Base, m	1.000	Total Soakage Test Time, min	120.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	1.635
Depth to Groundwater Surface, m		Discharge Rate, litre/min	2.179
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	1.33
Voids Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	2.22E-05

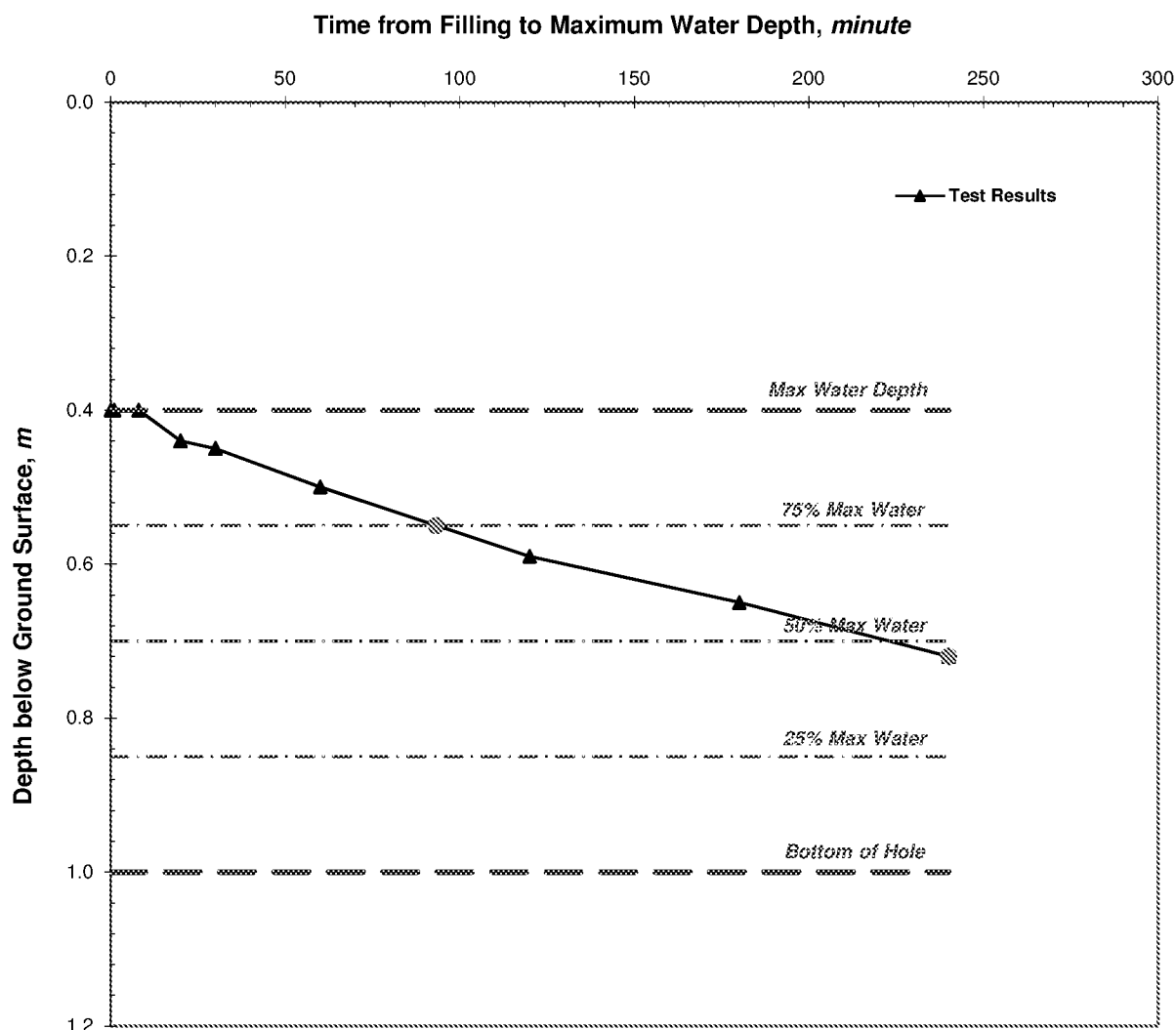
Comments: 38 Seconds to fill, 300Litres used
Pit was nearly emptied at finish of test.

Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S1

BRE Digest 365 Soakage Test

Test Hole No: TP205

Test No: Test No 1 (Initial)



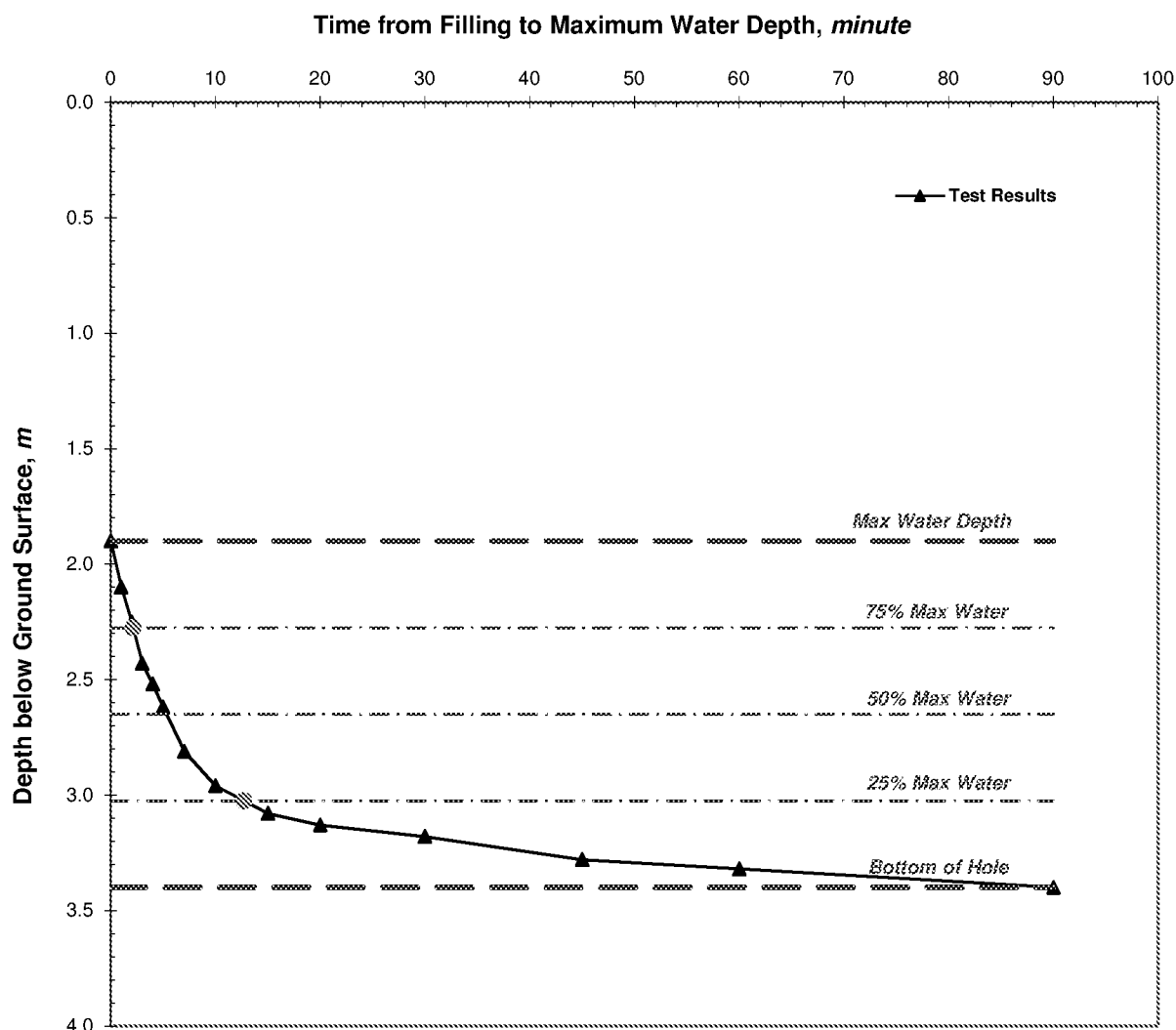
Pit Length, m	1.300	Depth to Water at Start of Test, m	0.400
Pit Width, m	0.450	Max Water Dropdown during Test, m	0.320
Depth to Pit Base, m	1.000	Total Soakage Test Time, min	240.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	1.863
Depth to Groundwater Surface, m		Discharge Rate, litre/min	0.678
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	0.364
Void Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	6.07E-06

Comments: 1 min 10 secs to fill, 300 litres used
 Water level fell to 50% -- 25% max water depth, calculations were based on actual fall of water level achieved.
 Result not compliant with BRE365 requirement since water did not fall to 25% max water depth.

Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK Fig. S3

BRE Digest 365 Soakage Test

Test Hole No: TP101
Test No: Test No 1 (Initial)



Pit Length, m	2.000	Depth to Water at Start of Test, m	1.900
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.500
Depth to Pit Base, m	3.400	Total Soakage Test Time, min	90.0
Depth to Top of Permeable Soils, m	1.400	Mean Internal Discharge Area, m ²	4.575
Depth to Groundwater Surface, m		Discharge Rate, litre/min	25.545
Depth to Top of Granular Fill, m	1.500	Soakage Rate, litre/m ² /min	5.58
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	9.31E-05

Comments: 1 min 20 seconds to fill, 900 litres used
Pit was emptied at finish of test.

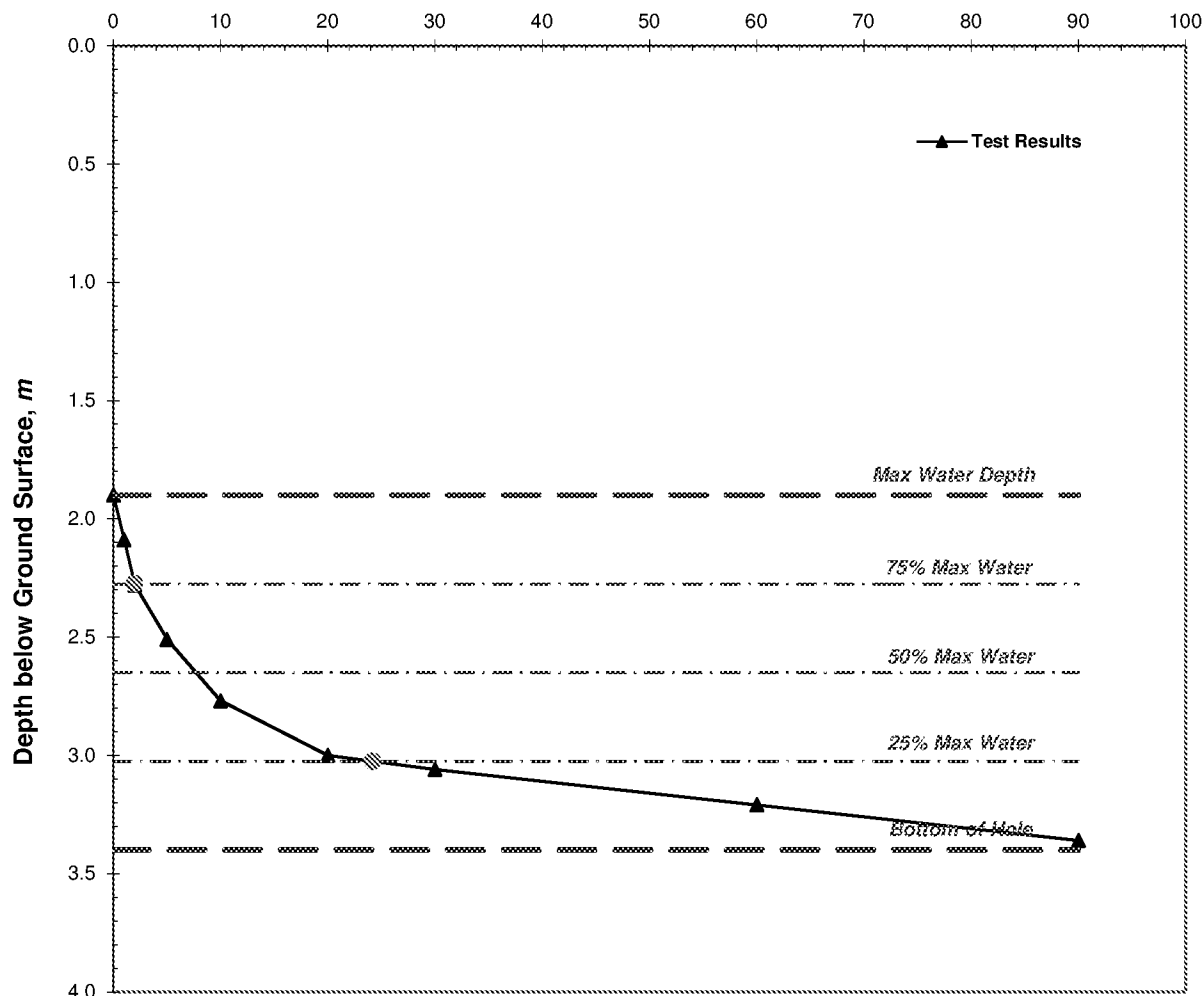
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK Fig. S8

BRE Digest 365 Soakage Test

Test Hole No: TP101

Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	2.000	Depth to Water at Start of Test, m	1.900
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.460
Depth to Pit Base, m	3.400	Total Soakage Test Time, min	90.0
Depth to Top of Permeable Soils, m	1.400	Mean Internal Discharge Area, m ²	4.575
Depth to Groundwater Surface, m		Discharge Rate, litre/min	12.166
Depth to Top of Granular Fill, m	1.500	Soakage Rate, litre/m ² /min	2.66
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	4.43E-05

Comments: 48 seconds to fill 700 litres used
Pit was nearly emptied at finish of test.

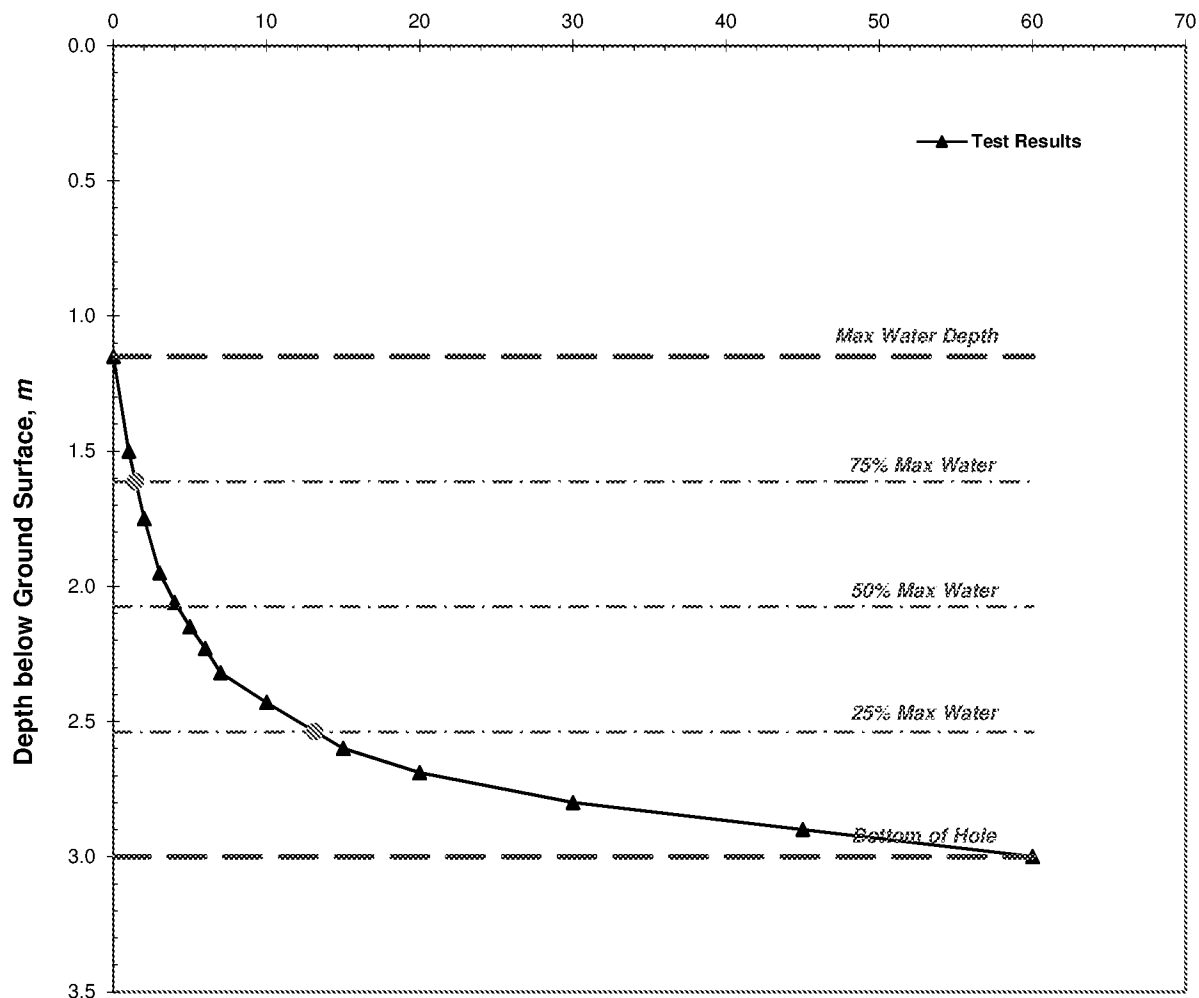
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S9

BRE Digest 365 Soakage Test

Test Hole No: TP106

Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	2.000	Depth to Water at Start of Test, m	1.150
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.850
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	60.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	5.433
Depth to Groundwater Surface, m		Discharge Rate, litre/min	28.433
Depth to Top of Granular Fill, m	1.100	Soakage Rate, litre/m ² /min	5.23
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	8.72E-05

Comments: 1 min 20 to fill, 800 litres used
Pit was emptied at finish of test.

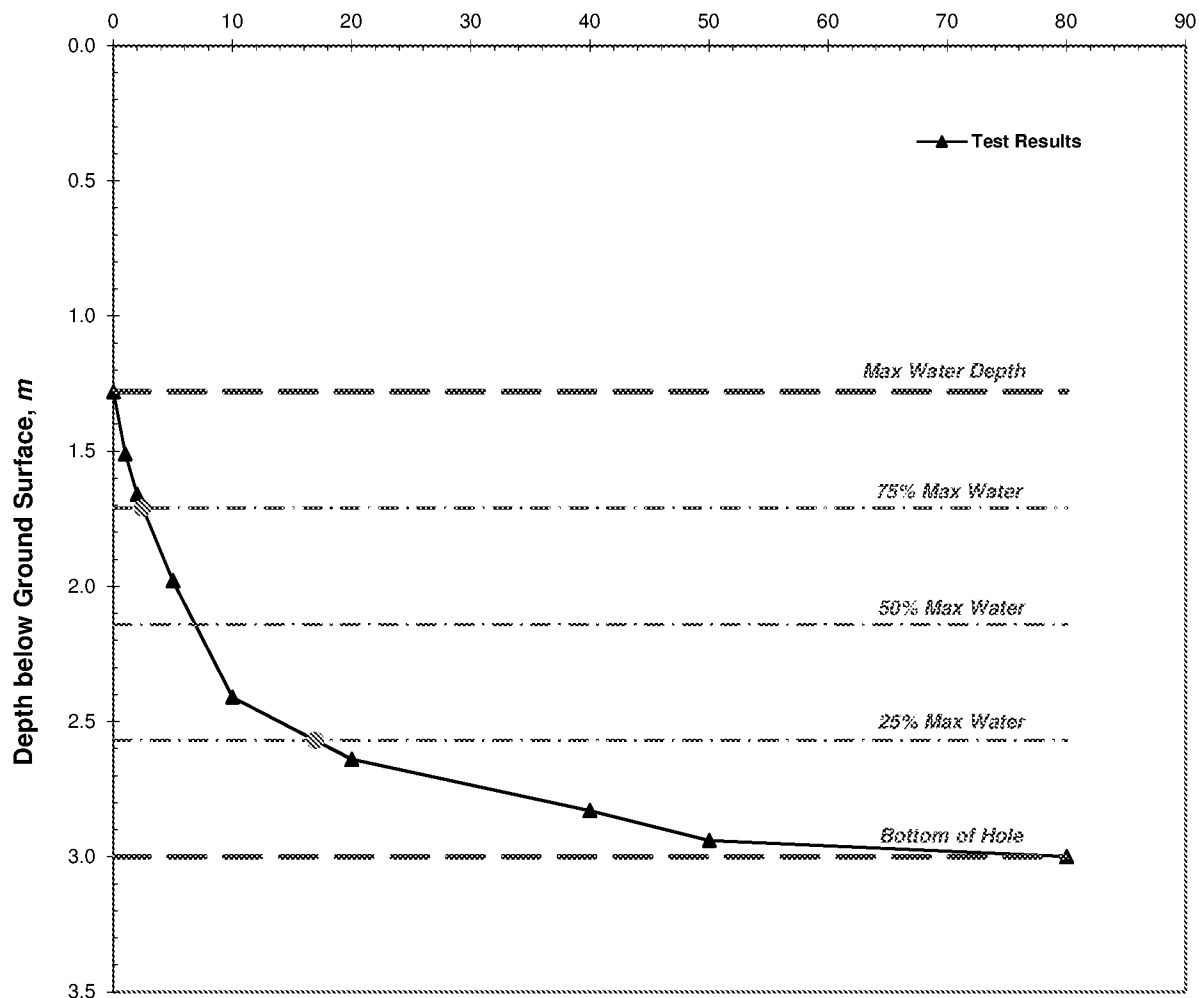
Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S4

BRE Digest 365 Soakage Test

Test Hole No: TP106

Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, *minute*



Pit Length, m	2.000	Depth to Water at Start of Test, m	1.280
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.720
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	80.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	5.114
Depth to Groundwater Surface, m		Discharge Rate, litre/min	21.370
Depth to Top of Granular Fill, m	1.100	Soakage Rate, litre/m ² /min	4.18
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	6.96E-05

Comments: 56 seconds to fill 800 litres used
Pit was emptied at finish of test.

Client: The Howse Wallis Partnership	Job No: J13227	Test Date: 29/Nov/2017
Site: Mayflower Way, Angmering	Tested By: OS	Engineer: DK
		Fig. S5