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Our ref: GCE00234/lpc

T Baker Esq Waddeton Park Ltd Greendale Court Clyst St Mary Exeter EX5 1AW

28th November 2012

Dear Tim

Re: Tiverton EUE – Soakaway Testing

Introduction

Geo Consulting Engineering Ltd was commissioned by Waddeton Park Limited to undertake soakaway tests in trial pits at the Tiverton EUE site.

Location

The site is located immediately west of Tiverton Golf Club. The A361 forms the north boundary and Blundells Road is located to the south. Uplowman Road runs across the north half of the site. A site location plan is included in Figure 1.

Description

The site consists of four main fields, labelled clockwise from north. Field 1 is located to the north of Uplowman Road, Field 2 is located south of Uplowman Road and occupies the eastern quarter of the site; Field 3 is located south of Field 2 and Field 4 is located north of Field 3 and west of Field 2. An additional field was accessed by the archaeologists, which is located to the east of Field 1 and located north of Uplowman Road and south of the A361. A site layout plan is presented in Figure 2, which shows Trial Pit Locations.

Geology

The site is underlain by the Exeter Group Sandstones, which are predominantly Breccia with subordinate sandstone. Superficial geology is mapped in Fields 2 and 3 and part of Field 4, described as River Terrace Deposits – Sand and Gravel.



Trial Pitting

Six Trial Pits were excavated for soakaway testing on the 30th October 2012 and testing continued until the 2nd November 2012. An additional seventh trial pit was excavated into the field to the east of Field 1, following access agreement for the archaeological investigations on the 2nd November 2012. The Trial Pit was placed at the north end of their central trench and was used to allow the strata to be recorded. The following table details the location of the trial pits, depths and strata:

Trial Pit	1	2	3	4	5	6	7
Field	3	4	4	2	1	1	5
Topsoil	GL-0.4	GL-0.45	GL-0.2	GL-0.2	GL-0.05	GL-0.3	GL-0.3
Subsoil	-	0.45-0.55	0.2-0.3	0.2-0.35	0.05-0.3	-	0.3-1.1
Made Ground 1	-	-	-	-	0.3-1.4	-	-
Made Ground 2	-	-	-	-	1.4-2.0	-	-
Colluvium	-	0.55-1.4	0.3-1.5	-	2.0-2.1	0.3-1.3	1.1-2.1
Head	-	-	-	0.35-1.1	-		-
River Terrace 1		-	-	-	-	1.3-2.4	2.1-2.5
River Terrace 2	0.4-0.9	-	-	-	-	-	-
Weathered	0.9-2.3	1.4-2.1	-	-	2.1-2.4	-	-
Breccia							
Weathered	-	-	1.5-2.2	1.1-2.2	-	-	-
Sandstone							
Groundwater	NE	NE	NE	NE	NE	NE	NE

The Trial Pit locations are shown on Figure 2.

Topsoil

The topsoil was typically ploughed except in the area of TP5, which had an established cover of grass.

Made Ground

Trial Pit 5 encountered two layers of made ground:

- Made Ground 1: Described as stiff red brown very sandy slightly gravelly clay/silt, with gravel of sub rounded to sub angular Culm Sandstone.
- Made Ground 2: Soft to firm red brown very sandy silty slightly gravelly clay. Occasional plastic bag. This may represent a relic topsoil layer.

Colluvium

This was typically described as firm red brown very gravelly silty sandy clay. This is probably washed down from Terrace Gravel 2 located topographically higher.



Head deposits

These were typically described as soft to firm red brown very sandy slightly gravelly clay with gravel of sub angular Culm Sandstone. Bioturbation was noted within the Head deposits in TP3.

River Terrace Deposits

Two areas of River Terrace Deposits have been identified.

River Terrace 1 was encountered in Trial Pit 6 was described as a very compact sandy gravel located in the valley bottom. This is not shown on the geological mapping within Field 1 but is mapped to the immediate north of the A361 and is likely to be associated with the River Lowman.

River Terrace 2 was encountered in Trial Pit 1 within Field 3 at the topographic high on the site. The deposit was described as compact light brown clayey silty sandy gravel of sub angular to sub rounded Culm Sandstone and quartzite.

Exeter Group Sandstone and Breccia

Weathered Breccia was encountered in Trial Pits 1, 2 and 5. This was described as very stiff red brown very gravelly sandy silty CLAY. The gravel is sub-rounded to sub angular quartzite and Culm Sandstone, with occasional cobble of sandstone.

Weathered Sandstone deposits were encountered in Trial Pits 3 and 4. These were variably described as moderately compact red brown clayey silty SAND. The sand was fine to coarse and rounded.

Soakaway Testing

Six soakaway tests were conducted in general accordance with BRE365. The following table presents the results of the testing:

Trial Pit	1	2	3	4	5	6
Depth	2.3	2.1	2.2	1.65	2.4	2.4
Stratum	Terrace 2 /Breccia	Breccia	Sandstone	Sandstone	Breccia	Terrace 1
Test 1 (m/s)	75% Effective Depth not reached	22hrs to reach 75% Effective Depth	Collapsed half way through test. Extrapolated result 2.5E-06	2.48E-06	75% Effective Depth not reached 60mm drop in 2.8hrs before side wall collapse.	3.05E-05
Test 2 (m/s)	-	-	1.38E-06	2.02E-06	-	4.62E-05
Test 3 (m/s)	-	-	-	_	-	1.86E-05

The above results confirm that the clayey matrix of Terrace Deposits 2, weathered Breccia and Sandstone limit the soil infiltration characteristics, particularly when CIRIA 156 soakaway factors of safety are taken into consideration.



The relatively clean sandy gravels encountered in Trial Pit 6 provide soil infiltration factors that are considered viable. A similar stratum was observed in TP7 in the field to the east of Field 1. This area is relatively low lying and may be prone to seasonal fluctuations in groundwater levels. It is recommended that groundwater monitoring wells are installed within the lower area to determine depth of unsaturated zone and therefore likely storage potential for soakaways.

Please do not hesitate to call if you have any queries.

Yours sincerely

Philip Curtis – Director for and on behalf of Geo Consulting Engineering Ltd

Enc. Site Location and Layout Plans, Soakaway Test Results, Trial Pit Records

General data

Title of investigation:	Tiverton EUE
Report number:	GCE00234
Name of client:	Wadderton Park Ltd
Date:	30/10/2012

Samples	Symbol
Soils	
Disturbed small bag	D
Glass Jar disturbed	GJ
Plastic Jar disturbed	PJ
Bulk bag disturbed	В
Undisturbed 100mm	U
Undisturbed Piston 100mm	Р
Waters	
Water Glass	WG
Water Plastic	WP
Volatile Vial	WV

Test Results	
Standard Penetration Test split spoon	S
Standard Penetration Test solid cone	С
Field Vane	V

Drilling Records	
Total core recovery %	TCR
Solid core recovery %	SCR
Rock quality designation %	RQD
Fracture spacing mm	lf

Title of investigation:	Report number:	Name of client:
Tiverton EUE	GCE00234	Wadderton Park Ltd
Ground Level (mASD):		Trial Pit:1

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed soft brown gravelly clayey
					sandy silt with occasional cobble.
		0.4	-0.4		(Topsoil)
					Compact light brown clayey silty sandy
					GRAVEL. Gravel sub-angular to sub-
					rounded Culm Sandstone and
					quartzite. (Terrace Deposits)
		0.9	-0.9		
					Very stiff red brown very gravelly
					sandy silty CLAY. Gravel sub rounded
					to sub angular quartzite, Culm
					Sandstone. Occasional cobble of
					blocky sandstone. (Exeter Group -
					Weathered Breccia)
		2.3	-2.3		

Stability		Generally stable		
Groundwater		lone encountered		
General Remarks		Soakaway test undertaken.		
		Pit 2.5m long and 0.6m wide.		
Date:	30/10/2012			

Title of investigation:	Report number:	Name of client:
Tiverton EUE	GCE00234	Wadderton Park Ltd
Ground Level (mASD):		Trial Pit:2

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed soft brown gravelly sandy
		0.45	-0.45		clayey silt. (Topsoil)
					Firm light brown slightly gravelly
		0.55	-0.55		clayey silt (Sub-soil)
					firm red brown very gravelly silty
		1.4	-1.4		sandy CLAY. (Colluvium)
					Firm to Stiff red brown gravelly silty
					CLAY with partings of fine rounded
					sand. (Exeter Group- Weathered
		2.1	-2.1		Breccia)

Stability		Generally stable		
Groundwater		None encountered.		
General Remarks		Soakaway test undertaken.		
		Pit 2.3m long and 0.6m wide.		
Date:	30/10/2012			

Title of investigation:	Report number:	Name of client:	
Tiverton EUE	GCE00234	Wadderton Park Ltd	
Ground Level (mASD):		Trial Pit:3	

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed soft brown gravelly sandy
		0.2	-0.2		clayey silt. (Topsoil)
					Firm light brown gravelly sandy clayey
		0.3	-0.3		silt (Sub-soil)
					Soft to firm red brown very sandy
					slightly gravelly silty CLAY. Gravel sub-
					angular Culm Sandstone. Vertical
					Bioturbation burrows evident. (Head)
		1.5	-1.5		
					Moderately compact red brown clayey
					silty SAND. Sand fine to coarse
					rounded within laminations of clay.
					(Exeter Group - Weathered Sandstone)
		2.2	-2.2		

Stability		Generally stable		
Groundwater		None encountered		
General Remarks		Soakaway test undertaken.		
		Trial pit 2.5m long and 0.6m wide.		
Data	20/40/2042			

Date: 30/10/2012

Title of investigation:	Report number:	Name of client:	
Tiverton EUE	GCE00234	Wadderton Park Ltd	
Ground Level (mASD):		Trial Pit:4	

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed soft brown gravelly sandy
		0.2	-0.2		clayey silt. (Topsoil)
					Firm light brown gravelly sandy clayey
		0.35	-0.35		silt (Sub-soil)
					Moderately compact red brown very
					clayey silty SAND. Sand fine rounded
					and gravel fine to medium. (Head)
		1.1	-1.1		
					Moderately compact red brown
					slightly clayey very silty SAND. Sand
					fine to coarse rounded. (Exeter Group -
					Weathered Sandstone)
		2.2	-2.2		

Stability		Generally stable			
Groundwater		None encountered			
General Remarks		Soakaway test undertaken.			
		Trial pit 2.1m long and 0.6m wide.			
Date:	30/10/2012				

Title of investigation:	Report number:	Name of client:	
Tiverton EUE	GCE00234	Wadderton Park Ltd	
Ground Level (mASD):		Trial Pit:5	

Sampling		Base Depth	Base	Legend	Description
Depth	Type	m	mASD		
		0.05	-0.05		Grass over wet brown gravelly sandy silty clay with rootlets. (Topsoil)
		0.3	-0.3		Firm brown friable gravelly sandy silty clay with occasional rootlets (Sub-soil)
		1.4	-1.4		Made Ground: Stiff red brown very sandy slightly gravelly clay/silt. Gravel sub rounded to sub angular Culm Sandstone.
		2			Made Ground: soft to firm red brown very sandy silty slightly gravelly clay. Occasional plastic bag.
		2.1			Firm to stiff apparent laminations, red brown slightly gravelly silty CLAY with partings of fine rounded sand. Occasional cobble of Culm Sandstone. (Head)
		2.4	-2.4		Stiff red brown apparent laminations slightly gravelly silty clay with partings of sand. Gravel and cobble of sub rounded Culm Sandstone. (Exeter Group - Weathered Breccia)

Stability		Generally stable		
Groundwater		None encountered		
General Remarks		Soakaway test undertaken.		
		Trial pit 2.2m long and 0.6m wide.		
Date:	30/10/2012			

Title of investigation:	Report number:	Name of client:	
Tiverton EUE	GCE00234	Wadderton Park Ltd	
Ground Level (mASD):		Trial Pit:6	

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed brown friable slightly
					gravelly slightly sandy clayey silt with
		0.3	-0.3		mixed rootlets. (Topsoil)
					Compact brown clayey sandy GRAVEL
					of sub angular and sub rounded Culm
					Sandstone. (Colluvium)
		0.8	-0.8		
					Firm to stiff red brown mottled orange
					brown fissured slightly sandy silty
					slightly gravelly CLAY with gravel size
					lenses of fine rounded sand.
		1.3	-1.3		(Colluvium)
					Compact light brown and red brown
					silty very gravelly SAND. Gravel sub
					angular to sub rounded blocky Culm
					Sandstone. (River Terrace - Sand)
		1.8	-1.8		
					Very compact brown 'wet' slightly
					clayey very sandy GRAVEL. Occasional
					cobble of sub rounded sub angular
					Culm Sandstone. (River Terrace -
		2.4	-2.4		Gravel)

Stability		Generally stable				
Groundwater		lone encountered				
General Remarks		oakaway test undertaken.				
		Trial pit 2.2m long and 0.6m wide.				
Date:	30/10/2012					

Title of investigation:	Report number:	Name of client:
Tiverton EUE	GCE00234	Wadderton Park Ltd
Ground Level (mASD):		Trial Pit:7

Sampling		Base	Base	Legend	Description
		Depth	Level		
Depth	Туре	m	mASD		
					Ploughed brown friable slightly
					gravelly slightly sandy clayey silt with
		0.3	-0.3		mixed rootlets. (Topsoil)
					Firm light brown slightly gravelly
		1.1	-1.1		slightly sandy silty CLAY. (Head
					Firm to stiff red brown mottled orange
					brown fissured slightly sandy silty
					slightly gravelly CLAY with gravel size
					lenses of fine rounded sand.
		2.1	-2.1		(Colluvium)
					Very compact brown 'wet' slightly
					clayey very sandy GRAVEL. Occasional
					cobble of sub rounded sub angular
					Culm Sandstone. (River Terrace -
		2.5	-2.5		Gravel)

Stability		Generally stable				
Groundwater		one encountered				
General Remarks		xcavated at north end of archaeological excavation mid way				
		along field.				
Date:	02/11/2012					

Soakaway Test:							
Trial Pit.	1						
Test No.	1						
Dimensions:		-	_				
Length	2.5	m					
Width	0.6	m					
Depth	2.3	m					
Start water depth	0.65	m					
Effective Depth	1.65	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
30 October 2012	41212.458	0	0.65	1.65	1.65	0.1	1
30 October 2012	41212.459	60	0.655	1.645	1.645	60	0.99697
30 October 2012	41212.460	120	0.66	1.64	1.64	120	0.993939
30 October 2012	41212.518	5160	0.68	1.62	1.62	5160	0.981818
30 October 2012	41212.607	12840	0.69	1.61	1.61	12840	0.975758
30 October 2012	41212.633	15120	0.69	1.61	1.61	15120	0.975758
31 October 2012	41213.358	77760	0.71	1.59	1.59	77760	0.963636
31 October 2012	41213.431	84000	0.72	1.58	1.58	84000	0.957576
	Depth	Time		Effecti	ve depth v	/ Time	
Effective Depth %	m	Seconds	1.6		-		
75	1.2375	0	Ê 1.0				
25	0.4125	0	<u>ب</u> 1.237	5			
	Vp75-25	tp75-25		5			
Sum	1.2375	0	e si				
Base	1.5	m2	t 0.412	.5			
Side long	2.0625	m	Eff	0			
Side short	0.495	m		0 200	00 40000 6	50000 80000	0 100000
ap50	6.615	m2			Time	(S)	
Soil Infiltration Rate	#DIV/0!	m/s					





Soakaway Test:		_					
Trial Pit.	2						
Test No.	1						
Dimensions:							
Length	3	m					
Width	0.6	m					
Depth	2.1	m					
Start water depth	0.66	m					
Effective Depth	1.44	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
30 October 2012	41212.475	0	0.66	1.44	1.44	0.1	1
30 October 2012	41212.513	3300	0.69	1.41	1.41	3300	0.979167
30 October 2012	41212.602	10980	0.74	1.36	1.36	10980	0.944444
30 October 2012	41212.628	13260	0.76	1.34	1.34	13260	0.930556
31 October 2012	41213.363	76740	1.02	1.08	1.08	76740	0.75
31 October 2012	41213.435	82980	1.05	1.05	1.05	82980	0.729167
						÷	·
	Depth	Time					
Effective Depth %	m	Seconds		Effect	ive depth	v Time	
75	1.08	80000	1.44	1			
25	0.36		<u> </u>				
	Vp75-25	tp75-25	^{1.08} ب	3			
Sum	1.296	-80000	b 0.72	2			
Base	1.8	m2	tive	_			
Side long	2.16	m	ຍ 1 ອີກ ຍິງ	D			
Side short	0.432	m)			
ap50	6.984	m2		0 2000	0 40000 6	60000 80000	100000
Soil Infiltration Rate	-2.32E-06	m/s			Time	(S)	





Soakaway Test:							
Trial Pit.	3						
Test No.	1						
Dimensions:			_				
Length	2.5	m					
Width	0.6	m					
Depth	2.2	m					
Start water depth	0.87	m					
Effective Depth	1.33	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
30 October 2012	41212.465	0	0.87	1.33	1.33	0.1	1
30 October 2012	41212.467	120	0.88	1.32	1.32	120	0.992481
30 October 2012	41212.516	4380	1.1	1.1	1.1	4380	0.827068
30 October 2012	41212.605	12060	1.27	0.93	0.93	12060	0.699248
30 October 2012	41212.631	14340	1.3	0.9	0.9	14340	0.676692
30 October 2012	41212.677	18300	1.38	0.82	0.82	18300	0.616541
31 October 2012	41213.360	77340	1.4	0.8	0.8	77340	0.601504
				Effect	ive depth	v Time	
			1	33			
			E T				
	Depth	Time	0.997 ب	75			
Effective Depth %	m	Seconds		55			
75	0.9975	10000					
25	0.3325	80000	1 1 0.332	25			
	Vp75-25	tp75-25		0			
Sum	0.9975	70000		0 200	00 40000	60000 8000	0 100000
Base	1.5	m2			Time	(S)	
Side long	1.6625	m				. ,	
Side short	0.399	m					
ap50	5.623	m2					
Soil Infiltration Rate	2.5342E-06	m/s	*Extrapolat	ted			





TPS3 (2)

Trial Pit.	3						
Test No.	2						
Dimensions:			_				
Length	2.5	m					
Width	0.6	m					
Depth	2.2	m					
Start water depth	1.24	m					
Effective Depth	0.96	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
31 October 2012	41213.406	0	1.24	0.96	0.96	0.1	1
31 October 2012	41213.408	180	1.25	0.95	0.95	180	0.989583
31 October 2012	41213.433	2340	1.3	0.9	0.9	2340	0.9375
31 October 2012	41213.481	6480	1.37	0.83	0.83	6480	0.864583
31 October 2012	41213.525	10320	1.45	0.75	0.75	10320	0.78125
31 October 2012	41213.570	14220	1.49	0.71	0.71	14220	0.739583
31 October 2012	41213.615	18060	1.54	0.66	0.66	18060	0.6875
31 October 2012	41213.658	21780	1.56	0.64	0.64	21780	0.666667
01 November 2012	41214.360	82500	1.82	0.38	0.38	82500	0.395833
01 November 2012	41214.630	105780	1.91	0.29	0.29	105780	0.302083
02 November 2012	41215.382	170760	2.05	0.15	0.15	170760	0.15625
				Effect	ive depth	v Time	
			0.96	•			
			Ē				
	Depth	Time	0.72 ي				
Effective Depth %	m	Seconds	b b 0.48				
75	0.72	14220	<u>š</u>				
25	0.24	130000	0.24				
	Vp75-25	tp75-25	0 ^E				
Sum	0.72	115780		0 500	000 10000	0 150000	200000
Base	1.5	m2			Time (S)	
Side long	1.2	m				-	
Side short	0.288	m					
ap50	4.476	m2					
Soil Infiltration Rate	1.3893E-06	m/s	ļ				





Soakaway Test:				
Trial Pit.	4			
Test No.	1			
Dimensions:		-		
Length	2.5	m		
Width	0.6	m		
Depth	1.65	m		
Start water depth	0.64	m		
Effective Depth	1.01	m		
			Depth	Effect
Time	Time	Seconds	m	Depth
30 October 2012	41212.493	0	0.64	1.01
30 October 2012	41212.499	540	0.69	0.96
30 October 2012	41212.520	2340	0.76	0.89
30 October 2012	41212.613	10380	0.92	0.73
30 October 2012	41212.638	12540	0.95	0.7
30 October 2012	41212.680	16140	1	0.65
31 October 2012	41213.372	75900	1.42	0.23
31 October 2012	41213.410	79260	1.44	0.21
				Effe
				-
			Ê 1.0	
	Depth	Time	تے 0.75	75
Effective Depth %	m	Seconds		
75	0.7575	10000	9 0.50	
25	0.2525	75900	: 0.252	25
	Vp75-25	tp75-25	U U U	
Sum	0.7575	65900		0 2
Base	1.5	m2		
Side long	1.2625	m		
Side short	0.303	m	·	
ap50	4.631	m2		
Soil Infiltration Rate	2.4821E-06	m/s		



Head

1.01

0.96

0.89

0.73

0.7

0.65

0.23

0.21

Seconds

0.1

540

2340

10380

12540

16140

75900

79260

H/Ho

1

0.950495

0.881188

0.722772

0.693069

0.643564

0.227723

0.207921





TPS4 (2)

Trial Pit.	4						
Test No.	2						
Dimensions:			_				
Length	2.5	m					
Width	0.6	m					
Depth	1.65	m					
Start water depth	0.46	m					
Effective Depth	1.19	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
31 October 2012	41213.413	0	0.46	1.19	1.19	0.1	1
31 October 2012	41213.446	2820	0.55	1.1	1.1	2820	0.92437
31 October 2012	41213.488	6480	0.6	1.05	1.05	6480	0.882353
31 October 2012	41213.529	10020	0.65	1	1	10020	0.840336
31 October 2012	41213.575	13980	0.7	0.95	0.95	13980	0.798319
31 October 2012	41213.618	17700	0.75	0.9	0.9	17700	0.756303
31 October 2012	41213.662	21480	0.81	0.84	0.84	21480	0.705882
01 November 2012	41214.357	81540	1.24	0.41	0.41	81540	0.344538
01 November 2012	41214.630	105120	1.35	0.3	0.3	105120	0.252101
02 November 2012	41215.375	169500	1.65	0	0	169500	0
				Effect	ive depth	v Time	
			1 1	19			
			E II				
	Depth	Time	0.892 ي	25			
Effective Depth %	m	Seconds		95			
75	0.8925	20000	<u>s</u>				
25	0.2975	105120	5 0.297	75			
	Vp75-25	tp75-25	₩	0			
Sum	0.8925	85120		0 5	0000 1000	00 150000	200000
Base	1.5	m2			Time	(S)	
Side long	1.4875	m					
Side short	0.357	m					
ap50	5.189	m2					
Soil Infiltration Rate	2.0207E-06	m/s					





Soakaway Test:							
Trial Pit.	5						
Test No.	1						
Dimensions:			_				
Length	2.5	m					
Width	0.6	m					
Depth	2.4	m					
Start water depth	1.2	m					
Effective Depth	1.2	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
30 October 2012	41212.508	0	1.2	1.2	1.2	0.1	1
30 October 2012	41212.567	5100	1.25	1.15	1.15	5100	0.958333
30 October 2012	41212.598	7740	1.26	1.14	1.14	7740	0.95
30 October 2012	41212.625	10080	1.26	1.14	1.14	10080	0.95
				Effect	ive depth	v Time	
			12				
			Ē				
	Depth	Time	0.9 g				
Effective Depth %	m	Seconds	b 0.6				
75	0.9		ive				
25	0.3		0.3 ect				
	Vp75-25	tp75-25	<u></u> п				
Sum	0.9	0		D	5000	10000	15000
Base	1.5	m2			Time (S	5)	
Side long	1.5	m			•		
Side short	0.36	m					
ap50	5.22	m2					
Soil Infiltration Rate	#DIV/0!	m/s					





Soakaway Test:		_	
Trial Pit.	6		
Test No.	1		
Dimensions:			
Length	2.5	m	
Width	0.6	m	
Depth	2.4	m	
Start water depth	1.2	m	
Effective Depth	1.2	m	
			Depth
Time	Time	Seconds	m
13:11:00	0.549	0	1.2
13:12:00	0.550	60	1.3
13:13:00	0.551	120	1.4
13:14:00	0.551	180	1.5
13:15:00	0.552	240	1.55
13:17:00	0.553	360	1.6
13:22:00	0.557	660	1.7
13:24:00	0.558	780	1.75
13:27:00	0.560	960	1.78
13:30:00	0.563	1140	1.81
13:40:00	0.569	1740	1.9
13:47:00	0.574	2160	1.93
14:14:00	0.593	3780	2
14:48:00	0.617	5820	2.1
	Depth	Time	e
Effective Depth %	m	Seconds	ਾ ਦੇ 0
75	0.9	180	dep
25	0.3	5820	ke C
	Vp75-25	tp75-25	0 ecti
Sum	0.9	5640	Eff
Base	1.5	m2	
Side long	1.5	m	
Side short	0.36	m	
ap50	5.22	m2	
Soil Infiltration Rate	3.057E-05	m/s	



Effect

Depth

1.2

1.1 1

0.9

0.85

0.8

0.7

0.65

0.62

0.59

0.5

0.47

0.4

0.3

Head

1.2

1.1

1

0.9

0.85

0.8

0.7

0.65

0.62

0.59

0.5

0.47

0.4

0.3

Seconds

0.1

60

120

180

240

360

660

780

960

1140

1740

2160 3780

5820

H/Ho

1

0.916667

0.833333

0.75

0.708333

0.666667

0.583333

0.541667

0.516667

0.491667

0.416667 0.391667

0.333333

0.25

m/s





TPS6 (2)

Trial Pit.	6						
Test No.	2						
Dimensions:							
Length	2.5	m					
Width	0.6	m					
Depth	2.3	m					
Start water depth	0.5	m					
Effective Depth	1.8	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
30 October 2012	41212.618	0	0.5	1.8	1.8	0.1	1
30 October 2012	41212.619	60	0.55	1.75	1.75	60	0.972222
30 October 2012	41212.622	300	0.75	1.55	1.55	300	0.861111
30 October 2012	41212.672	4620	1.79	0.51	0.51	4620	0.283333
30 October 2012	41212.674	4800	1.81	0.49	0.49	4800	0.272222
30 October 2012	41212.684	5700	1.87	0.43	0.43	5700	0.238889
30 October 2012	41212.689	6120	1.89	0.41	0.41	6120	0.227778
31 October 2012	41213.368	64800	2.3	0	0	64800	0
					· 		
				Effect	ive depth	v Time	
			1.8				
			Ê 1.0				
	Depth	Time	<u>ب</u> 1.35				
Effective Depth %	m	Seconds	de de de				
75	1.35	500	e o.o				
25	0.45	4620	5 0.45				
	Vp75-25	tp75-25					
Sum	1.35	4120		0 200	00 4000	0 60000	80000
Base	1.5	m2			Time (S)	
Side long	2.25	m				/	
Side short	0.54	m					
ap50	7.08	m2					
Soil Infiltration Rate	4.6281E-05	m/s					





TPS6 (3)

Trial Pit.	6						
Test No.	2						
Dimensions:		-	_				
Length	2.5	m					
Width	0.6	m					
Depth	2.3	m					
Start water depth	0.37	m					
Effective Depth	1.93	m					
			Depth	Effect	Head		
Time	Time	Seconds	m	Depth		Seconds	H/Ho
09:13:00	0.384	0	0.37	1.93	1.93	0.1	1
09:18:00	0.388	300	0.55	1.75	1.75	300	0.906736
09:20:00	0.389	420	0.6	1.7	1.7	420	0.880829
09:23:00	0.391	600	0.64	1.66	1.66	600	0.860104
10:37:00	0.442	5040	1.48	0.82	0.82	5040	0.42487
11:37:00	0.484	8640	1.72	0.58	0.58	8640	0.300518
12:31:00	0.522	11880	1.86	0.44	0.44	11880	0.227979
13:36:00	0.567	15780	1.96	0.34	0.34	15780	0.176166
14:37:00	0.609	19440	2.02	0.28	0.28	19440	0.145078
15:37:00	0.651	23040	2.17	0.13	0.13	23040	0.067358
				Effect	ive depth	v Time	
			1.0	93			
			Ē				
	Depth	Time	<u>ب</u> 1.447	75			
Effective Depth %	m	Seconds	1 1 1 1 1 1 1 1 1 1	55			
75	1.4475	1500	ive				
25	0.4825	11880	ບັບ.482 ອ	25			
	Vp75-25	tp75-25		0			
Sum	1.4475	10380		0 50	00 10000	15000 2000	00 25000
Base	1.5	m2			Time	(S)	
Side long	2.4125	m					
Side short	0.579	m					
ap50	7.483	m2					
Soil Infiltration Rate	1.8636E-05	m/s					









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