Appendix C – Infiltration Test Results



C/o Matt Bartram
Barwood Land
Grovelands Business Park
West Haddon Road
East Haddon
Northamptonshire
NN6 8FB

Date: 18th January 2024 Our ref: 18012024 CC-1187 CS MB

Dear Matt,

Re: Mounton Road, Chepstow - Infiltration Assessment

On behalf of Barwood Development Securities Ltd (the 'client'), T&P Regeneration Ltd (T&P) is pleased to provide the results of a ground investigation undertaken at Mounton Road, Chepstow (the Site).

Background and Context

The site occupies an area of approximately 13 hectares (ha) and is located around the National Grid Reference (NGR): 352411, 193317 within Chepstow, Monmouthshire. The nearest postcode is NP16 5BJ. A site location plan is included in Appendix A.

At the time of issuing the report it was understood that the proposed development is intended to comprise the construction of residential dwellings, a hotel/commercial office spaces and a retirement/care home, each with associated areas of communal and private soft landscaping with hard landscaped access and parking. A development layout plan is included in Appendix A although this will likely be subject to change following completion of master planning.

Objectives

The purposed of this letter is to summarise the findings of the recent ground investigation and infiltration assessment completed at the site.

Geological setting

Geological mapping published by the British Geological Survey indicates that Superficial Deposits are absent across the investigation area.

The entire site is indicated to be underlain by limestone of the Black Rock Limestone Subgroup formed during the Carboniferous Period.

Scope of work

A ground investigation was carried out by T&P between 10th and 13th January 2024 and comprised the following:

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- Excavation of 6No. trial pits using a tracked 8 tonne excavator to a maximum depth of 1.80m below ground level (bgl);
- Infiltration testing within 6No trial pits in accordance with BRE 365 guidance; and,
- Logging of holes by an experienced engineer in general accordance with BS5930.

An exploratory hole location plan is included within Appendix A, a selection of photographs from the ground investigation are included within Appendix B with exploratory hole logs in Appendix C.

Ground conditions

The results of the ground investigation confirmed the published geology. The geological sequence encountered during this supplementary ground investigation is summarised in Table 1.

Table 1: Summary of Ground Conditions

Stratum	Top depth range (mbgl)	Base depth range (mbgl)	Exploratory holes	Area of site	General description/comments
Topsoil	0.00		All holes	General	Silty CLAY / slightly sandy slightly gravelly CLAY with frequent rootlets.
	0.2	0.4	TP01	North	Firm slightly sandy slightly gravelly CLAY.
Black Rock Limestone Subgroup	0.2	0.9 – 1.50	TP03 & TP05	North and Central	Soft to firm silty CLAY.
	0.2 – 1.50	>0.90 - >1.80	All holes	General	Extremely weak (medium strong at base) LIMESTONE

Topsoil

Topsoil was encountered within all exploratory holes with a typical thickness of 0.20-0.40m, comprised brown silty clay and slightly sandy slightly gravelly clay with frequent rootlets.

Black Rock Limestone Subgroup

Beneath the topsoil, the weathered Black Rock Limestone Subgroup was encountered within all exploratory holes. This predominantly comprised extremely weak light grey limestone was encountered recovered as slightly clayey, slightly sandy limestone gravel with a medium - high cobble content. This graded into medium strong limestone with depth. All exploratory holes were terminated within this strata due to effective refusal.

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Within 3N° exploratory hole locations (TP01, TP03 and TP05) a soft to firm slightly sandy slightly gravelly silty clay was encountered to a maximum thickness of 1.30m overlaying the limestone bedrock.

Infiltration testing

Summary of Field Testing

Infiltration testing was undertaken within the $6N^{\circ}$ exploratory hole locations across the site to a maximum depths ranging from 0.90-1.80mgbl. Three repeat tests were conducted within all exploratory hole locations.

Graphical representations of the data are contained within Appendix D.

The infiltration testing and subsequent calculation of soil infiltration rates were carried out in general accordance with the methodologies detailed within BRE 365¹.

Soil Infiltration Rate Calculations

A summary of the results of the infiltration tests and calculated infiltration rates is provided in Table 2.

Table 2: Summary of Calculated Infiltration Rates

Exploratory Location	Date	Total Measured water level change (m)	Time Period (mins)	Calculated infiltration rate (m/s)	Design infiltration rate (m/s)
TP01 (Test 1)	10/01/2024	0.87	134	3.76E-05	
TP01 (Test 2)	11/01/2024	0.76	158	3.20E-05	3.13E-05
TP01 (Test 3)	12/01/2024	0.66	121	3.13E-05	
TP02 (Test 1)	11/01/2024	0.45	13	3.25E-04	
TP02 (Test 2)	11/01/2024	0.51	37	1.15E-04	1.15E-04
TP02 (Test 3)	12/01/2024	0.55	22	1.89E-04	
TP03 (Test 1)	11/01/2024	0.94	720	5.94E-06	
TP03 (Test 2)	11/01/2024	0.96	870	5.18E-06	5.18E-06
TP03 (Test 3)	12/01/2024	0.75	400	1.13E-05	
TP04 (Test 1)	11/01/2024	0.49	54	7.74E-05	
TP04 (Test 2)	11/01/2024	0.59	108	4.06E-05	3.70E-05
TP04 (Test 3)	12/01/2024	0.65	125	3.70E-05	
TP05 (Test 1)	10/01/2024	0.56	43	1.02E-04	9.40E-05
TP05 (Test 2)	11/01/2024	0.66	63	1.22E-04	5.40⊑-05

¹ Soakaway Design BRE Digest DG-365 (2016).

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Exploratory Location	Date	Total Measured water level change (m)	Time Period (mins)	Calculated infiltration rate (m/s)	Design infiltration rate (m/s)
TP05 (Test 3)	12/01/2024	0.7	62	9.40E-05	
TP06 (Test 1)	10/01/2024	0.63	1230	2.51E-06	
TP06 (Test 2)	11/01/2024	0.6	311	1.23E-05	2.51E-06
TP06 (Test 3)	12/01/2024	0.51	326	1.24E-05	

Due to the relatively quick infiltration rates observed while filling the trial pits using a 1000l ICB, TP02 and TP03 in particular were unable to fill completely before starting the test.

Discussion

The calculated infiltration rates indicate the strata beneath the site have relatively good infiltration characteristics which is reflective of the fractured limestone encountered. Based upon the test results and site observations it is considered that traditional soakaways or infiltration basins are likely to offer a viable solution for surface water discharge. Further assessment may, however, be required by the regulators to demonstrate that long-term groundwater levels are present at an acceptable depth below proposed new drainage once formation levels have been established.

We trust these details are acceptable and sufficient for your purposes. However, if you have any queries or would like to discuss any of the details above then please feel free to contact us.

Yours sincerely,

Calum Stewart

For T&P Regeneration Ltd

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Appendix A – Drawings

Appendix B – Photographs

Appendix C - Exploratory hole logs

Appendix D - Infiltration results





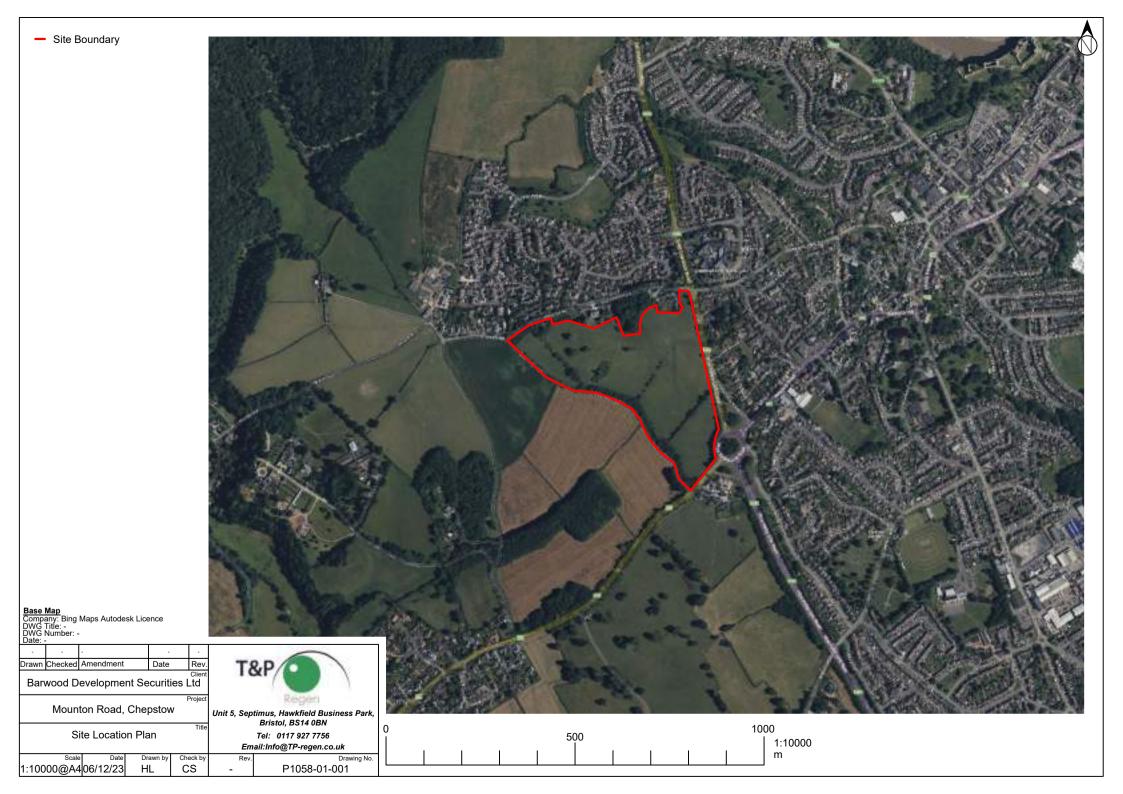








Appendix A – Drawings



Site Boundary T&P Investigation ■ Trial Pit Locations (TP01 - TP06) ■TP01 **■**TP02 **■**TP03 **■**TP04 **■**TP05 ■TP06 Base Map Company: Bing Maps Autodesk Licence DWG Title: -DWG Number: -T&P Barwood Development Securities Ltd Mounton Road, Chepstow Unit 5, Septimus, Hawkfield Business Park Bristol, BS14 0BN

200 1:2500 m

Tel: 0117 927 7756 Email:Info@TP-regen.co.uk

P1058-01-003

Exploratory Hole Location Plan

Scale Date Drawn 1:2500@A3 15/01/24 HL



The scaling of this drawing cannot be assured

LEGEND



Site Boundary



Residential Development



Community Hub



Hotel/Commercial Office Space



Retirement/Care Home



Main Access



Pedestrian/Cycle Access



Secondary Access



Public Right of Way



St Lawrence Lane



National Cycle Route (4)



Local Equipped Areas of Play



Natural Play



Indicative Roadside Swale



Indicative Roadside Underdrained Swale



Indicative Infiltration Basin



Mountain Road, Chepstow

Concept Masterplan - Hybrid Option

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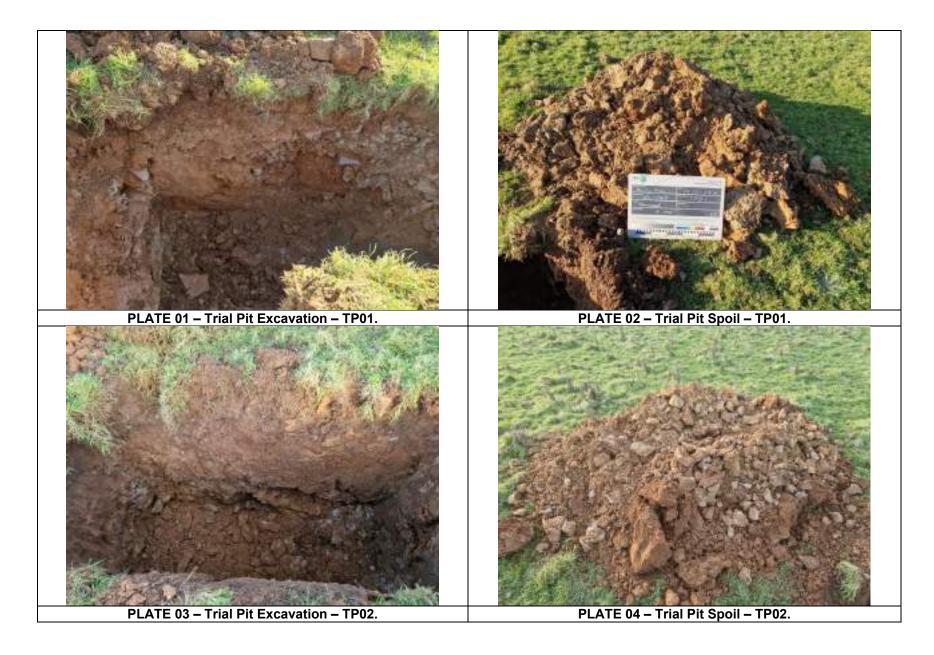


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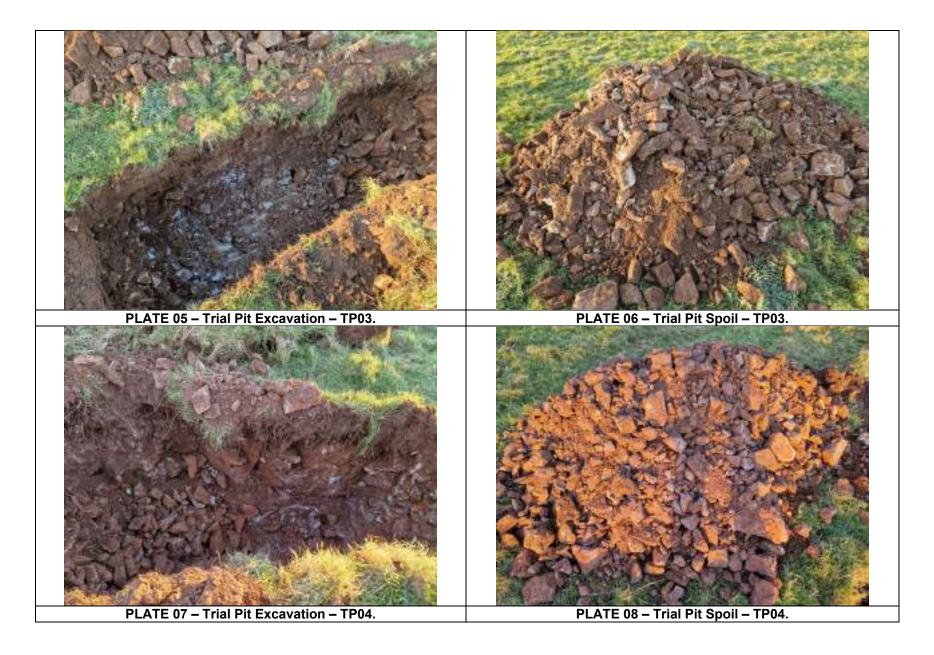
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	Regen	1	Contract Numbe		ate Starte	-	Logged By:	Checke		Status:		TP06	3
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			Easting:		orthing:		Ground Level:	Plant l		1	Scale:	. 01 1	
Tria	l Pit Lo	g	352545.8			49.74	79.03mOE			e Excavator		1:25	
Weather: Cl	lear		1	Te	erminatio	on: Effecti	ve Refusal		Stability	y: Stable			
	Samples &	In Situ Tes	sting				St	rata Details					
Depth	Sample ID	Т	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend		Stra	ta Description			Water	Backfill
				(IIIAOD)	(111101111000)	X//X/	Brown silty CLAY	with frequent	rootlets.		-		XXXXX
							(TOPSOIL)				ļ		
				78.83	0.20					overed as slightly clayey	, <u> </u>		
							slightly sandy ang COBBLES. Cobble	es are angula	r of limestone	e GRAVEL and	E		
-							(BLACK ROCK LII	MESTONE SI	UBGROUP)		Ļ		
					(0.80)						F		
											-		
											-		
				78.03	1.00						•		
				76.03	1.00			End of	Trial Pit at 1.00)m	1		
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<u> </u>											E		
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									_				
Sample Key: Remarks:	B = Bul	k Disturbed	D = Small Dis	sturbed	U = Un	disturbed Op		Vater G = mensions:	Gas ES =	Environmental Soil	W = Envir	onmental	Water
	encounter	red at bas	se. Effective refus	al on med	dium stro	ng Limesto			50m				
					•	5 10		Length: 1.6		Orienta	ition: °		
								Width: 0.6	60m	■			
							Г	epth encounter	red (m)	Groundwater Details Rema	rks		
								1.00	` '	Slight see			
								T&P Regenera	ation TP Templa	ate Issue Number: 1	Issue	Date: Jun	e 2016





		Regen					DN	ED	iges	כייי	05.2	OΤ	U						
	Project	Name:	on Roa	d, Chepstow	1						Proje	ect ID:	P10	58					
		Client:	Barwoo	od Deve	lopment	t Securities I	_td								•				
	ŀ	Hole ID:	TP01			Test Date:	10/01/2	2024			Logged:	: (CS		Che	cked:	JD		
Te	st 1	Te	st 2	Te	st 3		•						engt	h (m)		1	.60		
Time	Depth	Time	Depth	Time	Depth								Widt	h (m)		C	.70		
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaw	ay Dir	nensio	ons:	Test	:1-1	Dept	th (m)		1	.20		
0	0.33	0	0.34	0	0.23			•						h (m)			.10		
1	0.34	1	0.35	1	0.24								-	:h (m)			.10		
2	0.35	2	0.36	2	0.24						1001			st 1		est 2	_	est	3
3	0.36	3	0.36	3	0.25		Denth	to wa	ater at	etar	t of test ((m)		.33		0.34		0.23	
4	0.37	4	0.37	4	0.26		•				of test (` ′ ⊢		20		.10		0.89	
5	0.38	5	0.37	5	0.26		Бері	ii to w			ad drop (87		0.76	+	0.6	
							Don	th to v				` ' -					-		
6	0.38	33	0.51	6	0.27		-				% level (` ' -		.55		0.53		0.4	
35	0.58	78	0.72	17	0.34		-				% level (` ' -		.77).72		0.6	
134	1.20	126	0.97	37	0.45		Dep	th to v	vater a	at 25	% level ((m)	0.	.98	C).91		0.8	8
		158	1.10	65	0.60							2			1		_		
				121	0.89						a of pit (r			.12		.12		1.12	
						Compu	ited Inte	ernal S	urface	e Are	a A _{p50} (r	m²)	3.	12	2	2.87		3.12	2
						Ef	fective	Storag	e Volu	ıme	V _{p75-25} (r	m ³)	0.	49	C	.43		0.49	9
							Elaps	ed tim	e at 7	5% I	evel (mi	ns)	3	30		37		37	
						Elapsed time at 25% level (mins)						ns)	Ć	99	,	114		120)
						Total discharge during te							10	0%	1	00%		76%	%
						50% discharge in 24 Hou						_	Υ	es	`	⁄es		Yes	 s
						Soil infiltration rate f (m/						n/s)	3.76	6E-05	3.2	0E-05	3.	13E	
							esign s	soil in	filtrati	on r	ate f (m	ı/s)			_	3E-05			
											-								
							Elapsed	time (min)										
	0		20		40	60		80		100)	12	20		14	0		16	0
C	0.00														\top			\Box	
C	0.20							\perp				-					_	Ш	
_	0.40		\rightarrow																
	7.40																		
(lg				\longrightarrow	+														
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vel				\Box	ŦĦ			\Rightarrow	Q :	Į Į		\Box	$ \exists$	ŦΕ	17	\mp	7 -	F ‡	
Water level (mbgl)	0.80		+		+				*					++		+	-	H	
Vati								*											
-	1.00												\	$\downarrow \downarrow$				Ш	
	1.00														\supset	+-	\downarrow		
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1	1.20									$ \uparrow $			\vdash		+		+	Н	
1	L.40																		
				— Т	est 1			_	— Те	est 1	- 50% eff	ectiv	e sto	rage					
				—т	est 2			_	— Те	est 2	- 50% eff	ectiv	e sto	rage					
					est 3			_			- 50% eff			_					
				- 11	.J. J				16		20/0 EII	CCLIV	- 316	, ugc					



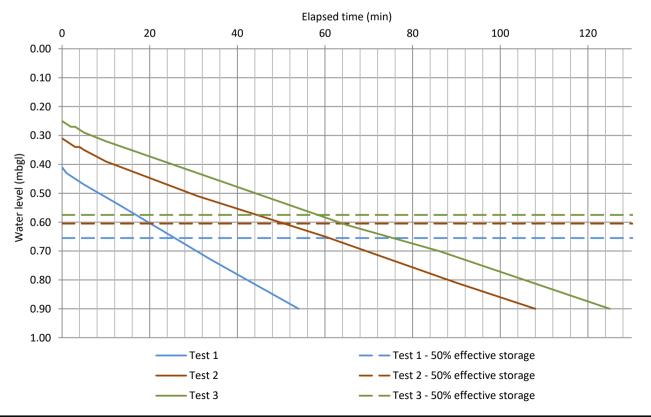
		Regen					BK	EU	iges	τ3	לס:	.ZUJ	.6					
	Project	Name:	Land o	ff Mount	on Roa	d, Chepstov	V						Projec	ct ID:	P105	58		
		Client:	Barwoo	od Deve	lopmen	t Securities	Ltd											
	ŀ	Hole ID:	TP02			Test Date:	10/01/2	2024			Logg	ed:	CS		Chec	cked:	JD	
Te	st 1	Te	st 2	Te	st 3							ı	_ength	(m)		1.	.80	
Time	Depth	Time	Depth	Time	Depth								Width	(m)		0.	.70	
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaw	/ay Di	mensio	ns:	Т	est 1 -	Depth	(m)		1.	.00	
0	0.50	0	0.39	0	0.35						Т	est 2 -	Depth	(m)		0.	.90	
1	0.51	1	0.41	1	0.38						T	est 3 -	Depth	(m)		0.	.90	
2	0.55	2	0.43	2	0.41								Tes	t 1	Те	st 2	Te	est 3
3	0.60	3	0.47	3	0.43		Depth	n to wa	ater at	start	of te	st (m)	0.5	0	0.	39	0	.35
4	0.63	4	0.50	4	0.46		Dept	h to w	<i>ı</i> ater at	end	of te	st (m)	0.9		0.	90	0	.90
5	0.69	5	0.52	5	0.49							p (m)	0.4			51	1	.55
9	0.84	10	0.65	6	0.51		-		water a			, ,	0.6			52	0	.49
13	0.95	37	0.90	12	0.65		-		water a			, ,	0.7	_		65		.63
				22	0.90		Dep	th to v	water a	t 25%	% lev	el (m)	0.8	88	0.	77	0	.76
												0		1			1	
												it (m²)	1.2			26		.26
							uted Inte						2.5	51	2.	54	2	.64
						Ef	ffective	Storaç	ge Volu	ıme \	/ _{p75-2}	₅ (m ³)	0.3	32	0.	32	0	.35
							•		ne at 7				4			5		5
						Elapsed time at 25% level (mins) Total discharge during test							10	_		23	1	16
													909			0%	1	00%
						50% discharge in 24 Hot Soil infiltration rate <i>f</i> (m							Ye			es	1	es_
						_	. !						3.25	E-04		5E-04	1.8	9E-04
						_	Design s	son m	illitratio	on ra	ate 1	(111/5)			1.15	E-04		
							Elapsed	l time l	(min)									
	0			5		10				.5			2	0				25
C	0.00																	\dashv
	2.10																	
	0.10																	
C	0.20															_	-	
	0.30																	
bgl)	0.40																_	
<u>E</u>																		
leve	0.50																	
Water level (mbgl)	0.60																	\perp
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	0.70																	
c	0.80	\perp	\Box			\downarrow											+	\dashv
	0.90																	
1	1.00																	
				— т	est 1			_	– — Те	est 1 -	50%	effecti	ve stor	age				
				—_т	est 2			_	– — Те	est 2 -	50%	effecti	ve stor	age				
				—т	est 3			_	– — Те	est 3 -	50%	effecti	ve stor	age				
i																		



		Vellen							1 \ L	D18	, C	,	<u> </u>	رر	.20.									
	Project	Name:	Land o	ff Mount	on Roa	d, Chep	stow									Pr	oje	ct II	D: F	P10	58			
		Client:	Barwoo	od Deve	lopment	Securi	ties L	.td																
	H	Hole ID:	TP03			Test D	ate:	10/0	1/2024	4			L	ogg	ed:	CS	S		(Che	cke	d: J	JD	
Te	st 1	Te	st 2	Te	st 3											Ler	ngth	h (n	(m) 1.70					
Time	Depth	Time	Depth	Time	Depth											W	'idtl	n (n	า)			0.6	0	
(mins)	(m)	(mins)	(m)	(mins)	(m)		5	Soak	away	Dime	nsi	ons	:	Т	est 1	- De	eptl	n (n	า)			1.6	0	
0	0.66	0	0.54	0	0.65									T	est 2	- De	eptl	h (n	า)			1.5	0	
1	0.66	1	0.55	1	0.66									Т	est 3	- De	eptl	n (n	ո)			1.4	0	
2	0.67	2	0.56	2	0.67											•	Tes	st 1		Te	est 2	2	Te	est 3
3	0.68	3	0.56	3	0.67			De	pth to	wate	r at	sta	art c	of te	st (m)		0.6	66		0	.54		0	.65
4	0.69	4	0.56	4	0.68			De	epth to	wate	er a	t er	nd c	of te	st (m)		1.6	60		1	.50		1	.40
5	0.70	5	0.57	5	0.68					-	Tota	al he	ead	dro	op (m)		0.9	94	_	0	.96		0	.75
10	0.72	10	0.60	10	0.71			D	epth t	o wa	ter a	at 7	5%	lev	el (m)		0.9	90	_	0	.78		0	.84
30	0.81	26	0.67	79	0.92			D	epth t	o wa	ter a	at 5	0%	lev	el (m)		1.	13		1	.02		1	.03
54	0.88	870	1.50	126	1.03			D	epth t	o wa	ter a	at 2	5%	lev	el (m))	1.3	37		1	.26		1	.21
147	1.03			194	1.13																			
211	1.10			400	1.40		Base area of pit (m²)							1.0	02	1	1.02 1		1	.02				
297	1.18					Co	Computed Internal Surface Area A _{p50} (m ²))	3.	18		3.23			2.75				
352	1.23						Eff	fectiv	e Sto	rage	Vol	ume	e V	p75-2	₂₅ (m ³))	0.4	48		0	.49		0	.38
720	1.60																							
						Elapsed time at 75% level (mins))	6	3		1	38		52			
						Elapsed time at 25% level (mins)									48	36		6	326		257			
						Total discharge during test							t	100	0%		10	00%		10	00%			
						50% discharge in 24 Hours								S	Ye	es		Υ	es/		Υ	'es		
						Soil infiltration rate f (m/s) 5	.94	E-0	16	5.1	.8E-(06	1.1	3E-0		
							D	esig	n soil	infil	trat	ion	rat	te f	(m/s))				5.18	8E-0)6		
	•		100	200		200			ed tim							_				_	00			
r	0 0.00 +		100	200)	300		400		50	0			600			700			- 8	00			900
	,,,,,																							
C	0.20 📙									\dashv	+	+	H	+		\vdash	+	\square	+	+	\vdash	+	\vdash	-
(0.40										+	+	\vdash	+			+		+	+	\vdash	+	\vdash	
,	0.60																							
	7.00																							
Water level (mbgl)	0.80										_	Ш	Н	+			+	Ш	_	\perp	\sqcup	_	1	
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r le	۱.00 ⊨						-			+	-	+	+	+	-	-	+-		+	+		+	-	4
Vate		+	+ -			\vdash	<u> </u>				4	+		+	H			+	\dashv	+	-	+	-	+
> 1	L.20 													+			T			\top	\Box		П	
1	L.40 —									+		Ш	Ш	\perp	Ш		+		$ \bot $		Ш		Ш	
_													+	+	$ \downarrow\downarrow $						$\uparrow \uparrow$	+		
1	L.60 							+	H	\dashv	+	+	\dashv	+	+	\Rightarrow	+	\sqcup	\dashv	+		+	\vdash	4
1	L.80 [⊥]																							
					est 1										effect									
				—_т	est 2						— T	est 2	2 - 5	50%	effect	tive	sto	rage	5					
				T	est 3						— T	est :	3 - 5	50%	effect	tive	sto	rage	5					



		A TOTAL STATE											
	Project	Name:	Land of	ff Mount	on Roa	d, Chepstow	I	Project ID: P1058					
		Client:	Barwoo	d Deve	lopment	Securities I	Ltd						
	H	lole ID:	TP04			Test Date:	10/01/2024	Logged:	CS	Checked:	JD		
Te	st 1	Tes	st 2	Tes	st 3				Length (m)	2.5	20		
Time	Depth	Time	Depth	Time	Depth				Width (m)	0.	70		
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaway Dimensions:	Test 1 -	Depth (m)	0.9	90		
0	0.41	0	0.31	0	0.25			Test 2 -	Depth (m)	0.9	90		
1	0.43	1	0.32	1	0.26			Test 3 -	Depth (m)	0.9	90		
2	0.44	2	0.33	2	0.27				Test 1	Test 2	Test 3		
3	0.45	3	0.34	3	0.27		Depth to water at star	t of test (m)	0.41	0.31	0.25		
4	0.46	4	0.34	4	0.28		Depth to water at end	d of test (m)	0.90	0.90	0.90		
5	0.47	5	0.35	5	0.29		Total he	ad drop (m)	0.49	0.59	0.65		
13	0.54	10	0.39	10	0.32		Depth to water at 75	5% level (m)	0.53	0.46	0.41		
34	0.73	31	0.51	29	0.42		Depth to water at 50	% level (m)	0.66	0.61	0.58		
54	0.90	60	0.65	65	0.61		Depth to water at 25	5% level (m)	0.78	0.75	0.74		
		90	0.81	86	0.70								
		108	0.90	125	0.90		Base are	a of pit (m²)	1.54	1.54	1.54		
						Compu	uted Internal Surface Are	ea A _{p50} (m²)	2.96	3.25	3.43		
						E1	fective Storage Volume	$V_{p75-25} (m^3)$	0.38	0.45	0.50		
							Elapsed time at 75%	level (mins)	12	22	28		
							Elapsed time at 25%	level (mins)	40	79	93		
							Total discharge	during test	100%	100%	100%		
							50% discharge	in 24 Hours	Yes	Yes	Yes		
							Soil infiltration	rate f (m/s)	7.74E-05	4.06E-05	3.70E-05		
							Design soil infiltration i	rate f (m/s)		3.70E-05			





		Regen					L	INE	DIB	C 3	l J	כטו	.20	то								
	Project	t Name:	Land o	ff Mount	on Roa	d, Chepsto	DW .							Proj	ect	ID:	P10	58				
		Client:	Barwoo	od Deve	lopment	t Securitie:	s Ltd															
	ŀ	Hole ID:	TP05			Test Date	e: 10/0)1/202	4			Logo	ged:	CS			Che	cked:	: JD)		
Te	st 1	Te	st 2	Те	st 3									Leng	jth (i	m)						
Time	Depth	Time	Depth	Time	Depth									Wic	lth (ı	m)		C	0.60			
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soal	kaway	Dime	nsio	ns:	1	Test 1	- Dep	th (i	m)		1	.80			
0	1.24	0	1.14	0	1.10							7	Test 2	- Dep	th (i	m)		1	.80			
1	1.27	1	1.16	1	1.12							7	Test 3	- Dep	th (i	m)		1	.80			
2	1.29	2	1.18	2	1.15										est 1	1	Test 2			Test	t 3	
3	1.32	3	1.21	3	1.18		De	epth to	wate	r at s	start	t of te	est (m) 1	.24		1	.14		1.1	0	
4	1.35	4	1.23	4	1.20		D	epth to	o wate	er at	end	l of te	est (m) 1	.80		1	.80		1.8	0	
6	1.40	5	1.25	5	1.22				Т	otal	hea	ad dr	op (m) (.56		0	.66		0.7	0	
13	1.55	11	1.39	10	1.32			epth :	to wat	er at	t 75°	% le	vel (m) 1	.38		1	.31		1.2	8	
43	1.80	29	1.68	40	1.72			epth	to wat	er at	t 50°	% le	vel (m) 1	.52		1	.47		1.4	5	
		63	1.80	62	1.80			epth	to wat	er at	t 25°	% le	vel (m) 1	.66		1	.64		1.6	3	
									В	ase	area	a of p	oit (m²) 1	.38		1.38			1.38		
						Com	puted	Interna							3.00			.29	1	3.4		
							Effecti								.39	-		.46	\top	0.4		
												pr 5-	25 (/								
						Elapsed time at 75% level (mins) 5 7 Elapsed time at 25% level (mins) 26 26 Total discharge during test 100% 100%)	5	\neg		7	Т	8		
																\dashv	26		†	33		
															†	100%						
							50% discharge in 24 Hours								⁄es	\dashv	_	'es	†	Ye		
						Soil infiltration rate f (m/s))2E-	04		2E-04	1 9		E-05	
							Desig	ın soi	l infilt	ratio	on r	ate f	f (m/s				9.40E-05		_			
							Elap	sed tin	ne (mi	n)												
	0		1	10		20		30				40				50	,			60	O	
C	0.00															+				\neg		
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Water level (mbgl)	0.80							+		\vdash		+		\vdash	+	+	+	+	\vdash	_		
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				т	est 1					– Te	st 1	- 50%	6 effec	tive st	orag	ge						
					est 2								6 effec		_							
					est 3								6 effec		_							
					est 3					- 16	3ι 3	- 30%	o enec	uve St	oi dg	;e						



		Kegen					DILL DISC.	JL L	00.201	LU		
	Project	Name:	Land o	ff Mount	on Roa	d, Chepsto	w			Project ID:	P1058	
		Client:	Barwoo	od Deve	lopment	Securities		<u> </u>				
	H	Hole ID:	TP06			Test Date	CS	Checked:	JD			
Te	st 1	Te	st 2	Te	st 3					Length (m)	1.9	50
Time	Depth	Time	Depth	Time	Depth					Width (m)	0.0	60
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaway Dimensi	ons:	Test 1 -	Depth (m)	1.0	00
0	0.24	0	0.24	0	0.34				Test 2 -	Depth (m)	0.9	90
1	0.25	1	0.24	1	0.34				Test 3 -	Depth (m)	0.9	90
2	0.26	2	0.25	14	0.38					Test 1	Test 2	Test 3
3	0.26	3	0.25	22	0.41		Depth to water a	t star	t of test (m)	0.24	0.24	0.34
4	0.26	4	0.25	91	0.57		Depth to water a	at end	d of test (m)	0.87	0.84	0.85
5	0.27	5	0.26	154	0.71		Tota	al he	ad drop (m)	0.63	0.60	0.51
6	0.27	50	0.38	326	0.85		Depth to water	at 75	5% level (m)	0.43	0.41	0.48
7	0.27	119	0.54				Depth to water	at 50	% level (m)	0.62	0.57	0.62
8	0.28	192	0.67				Depth to water	at 25	5% level (m)	0.81	0.74	0.76
33	0.36	311	0.84									
53	0.41						Base	e are	a of pit (m²)	0.90	0.90	0.90
168	0.62					Comp	outed Internal Surfac	e Are	ea A _{p50} (m²)	2.50	2.29	2.08
1230	0.87					Е	Effective Storage Vol	ume	$V_{p75-25} (m^3)$	0.34	0.30	0.25
							Elapsed time at 7	75%	level (mins)	64	61	52
							Elapsed time at 2	25%	level (mins)	975	238	215
							Total disch	narge	during test	83%	91%	91%
							50% discha	arge	in 24 Hours	Yes	Yes	Yes
									rate f (m/s)		1.23E-05	1.24E-05
							Design soil infiltrat	ion i	rate f (m/s)		2.51E-06	
	•		_	00		100	Elapsed time (min)		000			4200
	0		2	00		400	600		800	100	U	1200

