Date of Test: 10-06-13

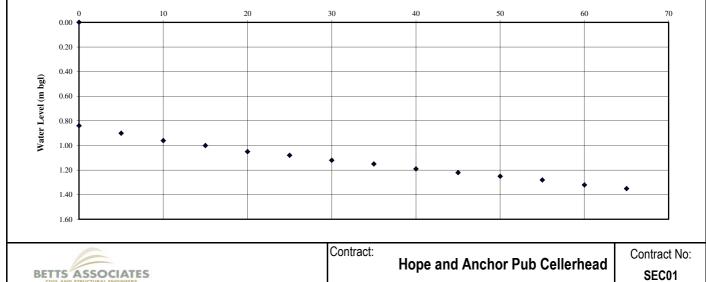
Hole ID: SA1 Start of Test

Test 1 11:35

Trial Pit	Length	Width	Depth	Depth for Analysis
Dimensions (m)	1.00	0.40	1.50	0.66

Time (mins) 0.0 5.0	Depth of water (m bgl) 0.840 0.900	Time (mins)	Depth of water (m bgl)	Effective storage volume in trial pit $V_{(p75-25)}$ = between effective depths 25% to = 0.13 m ³ 75%.
10.0 15.0 20.0 25.0	0.960 1.000 1.050 1.080			Initial surface area of trial pit up to a $_{(p50)}$ = 50% effective depth and including = 1.32 m ² the base area.
30.0 35.0 40.0 45.0	1.120 1.150 1.190 1.220			$t_{(p75\cdot25)} = {Time for the water level to fall from } = 50 min$
50.0 55.0 60.0 65.0	1.250 1.280 1.320 1.350			Soil infiltration rate = $\frac{V_{(p75-25)}}{t_{(p75-25)} \times a_{(p50)} \times 60}$
				Depth (25%) = 1.335 Depth (75%) = 1.005 m
				Soil infiltration rate = 3.3E-05 m/sec
				Remarks * Extrapolated soil infiltration rate

Time (mins)



		Date of Test: 10-06-13				Hole ID: Start of Test	1	SA1 Fest 2 1:35			
		Trial F	Pit	Length	Width	Depth	Depth	for Analysis			
		Dimensior		1.00	0.40	1.50		0.52			
(n	ime nins) 0.0	Depth of water (m bgl) 0.980	Time (mins)	Depth of water (m bgl)	V _(p75-25) =	Effective sto between effe 75%.		ne in trial pit hs 25% to	=	0.10	m ³
	5.0	1.050									
1 2	0.0 5.0 25.0 40.0	1.080 1.100 1.150 1.220			a _(p50) =	Initial surface 50% effective the base are	e depth ar		=	1.13	m²
5	55.0 70.0	1.300 1.350			t _(p75-25) =	Time for the 75 % to 25%	water leve effective	el to fall from depth.	=	55	min
					Soil infil	tration rate =		V _(p75-25) t _(p75-25) x a _(p50)	x 60		-
						Depth (25%) =	1.37	Depth	ו _(75%) =	1.110	m
							Soil infil	tration rate =	2.8	E-05	m/sec
					Remarks * Extrapola	ted soil infiltra	tion rate				
		<u>ι </u> Ν		I	Time (mins)						
	0.00	10	20	30	40	50		60	70		80
	0.20										
0	0.40										
(m bgl	0.60										
Water Level (m bgl)	0.80										
Water	1.00										
-	1.20	• •	•	•	•		•				
	1.40								•		
	1.60		l								
BET		OCIATES			Contract:	Hope and	Anchor	Pub Celler	head		tract No

			SC	AKAWA	Y TEST F	RESULT	S				
		Date of Test:	10-06-13			Hole ID: Start of Test	١	SA1 Fest 3 2:55			
		Trial		Length	Width	Depth		for Analysis			
		Dimensio	ns (m)	1.00	0.40	1.50		0.42			
(r	ime nins) 0.0	Depth of water (m bgl)	Time (mins)	Depth of water (m bgl)	V _(p75-25) =	Effective stor between effe 75%.		ne in trial pit ths 25% to	=	0.08	m ³
	5.0 20.0 35.0 50.0 55.0	1.120 1.180 1.240 1.300 1.350				Initial surface 50% effective the base are	e depth ar		=	0.99	m ²
					t _(p75-25) =	Time for the 75 % to 25%	water leve effective	el to fall from depth.	=	45	min
					Soil infil	tration rate =		V _(p75-25) t _(p75-25) x a _{(p50}	₎₎ x 60		-
						Depth _(25%) =	1.395	Dept	h _(75%) =	1.185	m
							Soil infil	tration rate =	3.1E	-05	m/sec
					Remarks * Extrapolat	ed soil infiltra	tion rate				
	0.00	10	20		Time (mins)	40	50		60		70
	0.20										
bgl)	0.40										
Water Level (m bgl)	0.60										
Vater L	0.80										
Δ	1.20	•	•		•						
	1.40				•		•			٠	

Contract: Hope and Anchor Pub Cellerhead Contract No: SEC01

1.60

		SO	AKAW	AY TES		ULT	S				
	Date of Test: ´	10-06-13			Ho Start o	ole ID: of Test	٦	SA2 Test 1 11:00			
	Trial F	Dit	Length	Width	n De	pth	Depth	for Analysis	5		
	Dimensior		1.00	0.40	1.0	60		0.60			
Time (mins) 0.0 5.0	Depth of water (m bgl) 1.000 1.050	Time (mins)	Depth of water (m bgl)					me in trial pi ths 25% to		0.12	m ⁸
10.0 15.0 20.0 30.0	1.080 1.100 1.120 1.150			a (p	₅₀₎ = 50% e		e depth ar	trial pit up to nd including		1.24	m²
45.0 60.0 75.0 90.0	1.180 1.220 1.250 1.280			t (p75-	₂₅₎ = Time f 75 % t	for the to 25%	water leve effective	el to fall fron depth.	n ₌	150	mi
105.0 120.0 135.0 150.0	1.310 1.340 1.370 1.400			Soi	l infiltration	rate =		V _{(p75} . t _(p75-25) x a			-
165.0 180.0	1.430 1.460				Depth	(25%) =	1.45	De	epth _(75%) =	1.150	m
				_			Soil infil	Itration rate	e = 1.1	E-05	m/
				Remar	ks polated soil	infiltra	tion rate				
				Time (m							
0.00	20	40	50 8	30 10	00	120	140	160	180		2
0.20											
0.40											
0.60											
0.80											

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Contract:

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Hope and Anchor Pub Cellerhead

Water Level (m bgl)

1.00

1.20

1.40 1.60

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0.12 m³

1.24 m²

150 min

m/sec

200

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Time Depth of water Time Depth of water Time (mins) Depth of water Time for the water level to fall form Time for the water level to fall from Time for the water lev	
Dimensions (m) 1.00 0.40 1.60 0.61 Time (mins) Depth of water (mins) Time (mins) Depth of water (mins) Effective storage volume in trial pit (p75-25) = between effective depths 25% to 75%. = 0.12 m 0.0 0.990	
Time (mins) Depth of water (m bgl) Time (mins) water (m bgl) Effective storage volume in trial pit $V_{(p75-25)} =$ between effective depths 25% to $= 0.12$ m 75%. 0.0 0.990 100 <td></td>	
Time (mins) Depth of water (m bgl) Time (mins) water (m bgl) Effective storage volume in trial pit $V_{(p75-25)} =$ between effective depths 25% to $= 0.12$ m 75%. 0.0 0.990 100 <td></td>	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	m ³
30.0 1.060 Initial surface area of that pit up to 45.0 1.090 $a_{(p50)} = 50\%$ effective depth and including = 1.25 m 60.0 1.100 $a_{(p50)} = 50\%$ effective depth and including = 1.25 m 75.0 1.130 $b_{(p75-25)} = 10\%$ 90.0 1.160 $t_{(p75-25)} = 75\%$ to 25% effective depth. 150.0 1.290 $t_{(p75-25)} = 75\%$ to 25% effective depth. 180.0 1.360 $t_{(p75-25)} = \frac{V_{(p75-25)}}{t_{(p75-25)} \times a_{(p50)} \times 60}$	
75.0 1.130 Image: matrix index in the image: matrix index in	m²
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	min
Depth (25%) = 1.4475 Depth (75%) = 1.143 r	_
	m
Soil infiltration rate = 1.2E-05	m/sec
Image: Constraint of the second se	
0 50 100 150 200 0.00 → <t< td=""><td></td></t<>	

0.20 0.40

0.60 0.80 1.00

> 1.20 1.40 1.60

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Water Level (m bgl)

Contract		
	Contract: Hope and Anchor Pub Cellerhead	Contract No: SEC01

	Date of Test: 1	10-06-13			Hole ID: Start of Test	Т	SA3 est 1 2:30			
	Trial F	Pit	Length	Width	Depth	Depth f	or Analysis			
	Dimensior	ns (m)	1.00	0.40	1.60	().44			
Time (mins) 0.0	Depth of water (m bgl) 1.160	Time (mins)	Depth of water (m bgl)	V _(p75-25) =	Effective stor between effe 75%.		ne in trial pit hs 25% to	= 0).09 m	n ³
5.0 10.0 15.0 30.0 45.0	1.180 1.200 1.250 1.320 1.370			a _(p50) =	Initial surface 50% effective the base are	e depth an	ial pit up to d including	= 1	.02 m	n²
60.0 75.0 90.0	1.420 1.450 1.490			t _(p75-25) =	Time for the 75 % to 25%	water leve effective o	l to fall from depth.	=	70 m	nin
				Soil infi	Itration rate =		V _(p75-25) t _(p75-25) x a _(p50)	x 60		
					Depth (25%) =	1.49	Depth	(75%) = 1	.270 m	n
						Soil infilt	ration rate =	2.1E-0)5 m	n/sec
				Remarks * Extrapola	ted soil infiltra	tion rate				
0	10	20	30 40	Time (mins) 50	60	70	80	90		100
0.00										
0.40										
[bf] 0.60 —										_
0900 Water Level (m bgl)										-
										-
1.20	* *		•	•	•		•	•		_
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						v				
	Date of Test:	10-06-13			Hole ID:		SA3 Fest 2			
					Start of Test		2:30			
	Trial F	Pit	Length	Width	Depth	Depth	for Analysis			
	Dimensio	ns (m)	1.00	0.40	1.60		0.36			
Time (mins) 0.0 5.0	Depth of water (m bgl) 1.240 1.270	Time (mins)	Depth of water (m bgl)	V _(p75-25) =	Effective sto = between effe 75%.		ne in trial pit ths 25% to	=	0.07	m³
10.0 30.0 45.0 60.0	1.310 1.350 1.380 1.410			a _(p50) =	Initial surface 50% effective the base are	e depth ar		=	0.90	m²
75.0 90.0 105.0	1.450 1.490 1.540			t _(p75-25) =	= Time for the 75 % to 25%	water leve effective	el to fall from depth.	=	85	min
				Soil inf	iltration rate =		V _(p75-25) t _(p75-25) x a _{(p50}	₎₎ x 60		-
				-	Depth (25%) =	1.51	Dept	h _(75%) =	1.330	m
						Soil infil	tration rate =	1.6	E-05	m/sec
				Remarks	ated soil infiltra	ition rate				
]						
			10	Time (mins)			100			120
0.00 0.20 0.40	20		40	60		80		·		
Mater Level (m bgl)										
1.40 1.60	* •	•	•		•		•	•		
1.00 -				Contract:	Hope and	Anchor	· Pub Celler	head	Con	tract No

SEC01

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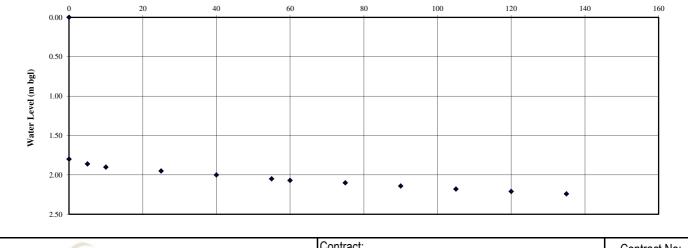
Date of Test: 10-06-13

Hole ID: SA4 Test 1 Start of Test 12:35

Trial Pit	Length	Width	Depth	Depth for Analysis
Dimensions (m)	1.00	0.40	2.40	0.60

Time (mins) 0.0 5.0	Depth of water (m bgl) 1.800 1.860	Time (mins)	Depth of water (m bgl)	Effective storage volume in trial pit $V_{(p75-25)}$ = between effective depths 25% to = 0.12 m ³ 75%.
10.0 25.0 40.0 55.0	1.900 1.950 2.000 2.050			Initial surface area of trial pit up to $a_{(p50)} = 50\%$ effective depth and including = 1.24 m ² the base area.
60.0 75.0 90.0 105.0	2.070 2.100 2.140 2.180			t $_{(p75-25)} = \frac{\text{Time for the water level to fall from}}{75 \% \text{ to } 25\% \text{ effective depth.}} = 105 \text{ min}$
120.0 135.0	2.210 2.240			Soil infiltration rate = $\frac{V_{(p75-25)}}{t_{(p75-25)} \times a_{(p50)} \times 60}$
				Depth (25%) = 2.25 Depth (75%) = 1.950 m
				Soil infiltration rate = 1.5E-05 m/sec
				Remarks Fill material at upper levels, pit taken down into natural sand and test performed at lower level. Soakaways in this area will be deep. * Extrapolated soil infiltration rate

Time (mins)



	Contract:	Hope and Anchor Pub Cellerhead	Contract No:
BETTS ASSOCIATES		hope and Anchor Pub Cellemead	SEC01

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		30	JARAWA	T IESI I	KESULI	5				
	Date of Test:	10-06-13			Hole ID: Start of Test	Т	SA4 fest 2 2:50			
	Trial F	Trial Pit Dimensions (m)		Width	Depth	Depth f	or Analysis			
	Dimensio			0.40	2.40	0.47				
Time (mins		Time (mins)	Depth of water (m bgl)	V _(p75-25) =	=	0.09	m ³			
0.0					75%.					
5.0										
10.0							6 m ²			
<u>15.0</u> 40.0				a _(p50) =	=	1.06				
50.0										
65.0										
80.0				·	Time for the	water leve	I to fall from	_	400	
95.0) 2.160			l (p75-25) -	Time for the 75 % to 25%	effective of	depth.	=	100	min
110.0	0 2.190									
125.0	0 2.220									
140.0	0 2.250			Soil infi	tration rate =		V _(p75-25)			
				t _(p75-25) x a _(p50)						
					Depth (25%) =	2.2825	Depti	n _(75%) =	2.048	m
						Soil infiltration rate =				m/sec
				Remarks						
							en down into n			d test
				performed	at lower level.	Soakawa	ys in this area	will be d	eep.	
				* Extranala	ted soil infiltrat	tion rata				
				Exilapoia		lion rate				
				Time (mins)						
0.00	0 20	40	60	80	100		120	140		160
0.00										
0.50										
ng ng										
Water Level (m bgl) 1.00 1.20										
ter L										
A 1.50	,									

Contract: Contract No: Hope and Anchor Pub Cellerhead BETTS ASSOCIATES SEC01

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		30	ANAWA	TIESIT	LOULI	3				
	Date of Test: ⁷									
	Trial F	Pit	Length	Width	Depth	Depth	for Analysis			
	Dimensior		1.00	1.00 0.40 1.70			0.55			
Time (mins) 0.0	Depth of water (m bgl) 1.150	Time (mins)	Depth of water (m bgl)	V _(p75-25) =	=	0.11	m ³			
5.0 10.0 25.0 30.0 45.0	1.230 1.290 1.350 1.380 1.430			a _(p50) =	=	1.17	m²			
60.0 75.0 90.0 105.0	1.460 1.490 1.520 1.550			t $_{(p75-25)} = \frac{1}{75\%}$ to 25% effective depth.					100	min
120.0	1.580			Soil infiltration rate = $V_{(p75-25)}$ t $_{(p75-25)}$ x a $_{(p50)}$					x 60	
					Depth (25%) =		th _(75%) = 1.288			
				Soil infiltration rate = 1.6E-05 m/s Remarks Fill material at upper levels, pit taken down into natural sand and test performed at lower level. Soakaways in this area will be deep. * Extrapolated soil infiltration rate						
0.00	20	40	<u> </u>	Time (mins) 60	80	100		120		140
0.40 (m pgl)										
₿ 1.20 1.40	• •	•	•	•	•	,	•			

Contract: Contract No: Hope and Anchor Pub Cellerhead BETTS ASSOCIATES SEC01

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						U							
	Date of Test: 10-06-13			Hole ID: SA5 Test 2									
					Start of Test		3:00						
	Trial F	Pit	Length	Width	Depth	Depth	for Analysis						
	Dimensio	ns (m)	1.00	0.40	1.70		0.55						
Time (mins) 0.0 5.0	Depth of water (m bgl) 1.150 1.210	(m bgl)(mins)water (m bgl)Ellective stora1.150(m bgl)V (p75-25) = between effect 75%.											
10.0 25.0 40.0 55.0	1.250 1.320 1.370 1.420			a _(p50) =	Initial surface area of trial pit up to a $_{(p50)}$ = 50% effective depth and including = 1.1 the base area.								
70.0 85.0 90.0	1.470 1.520 1.570			t _(p75-25) =	Time for the 75 % to 25%	water leve	el to fall from depth.	=	75	min			
				Soil infil	tration rate =		V _(p75-25) t _(p75-25) x a _{(p50}	_{o)} x 60		-			
					Depth _(25%) =	1.5625	Dept	h _(75%) =	1.288	m			
						Soil infil	tration rate =	2.11	E-05	m/sec			
				performed		Soakawa	en down into n ys in this area			d test			
0	10	20	30 40	Time (mins)	60	70	80	90		100			
0.00 • 0.20 -													
0.20													
() 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10													
→ 000 mater Level (m bgl)													
1.00 -													
B 1.20	•												
1.40 -		•	+		•	•							
1.60 -								* •					
1.80													
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