

### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.49		
24	1.51		
68	1.54		
150	1.58		
246	1.63		
283	1.64		
1291	2.03		

### **Calculations:**

Soil infiltration rate (SIR),  $f=rac{V_{P75-25}}{a_{P50} imes t_{P75-25}}$ 

 $V_{\it p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it p75}$ ) and 25% (d  $_{\it p25}$ ) effective depth

= 1.19494m³

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

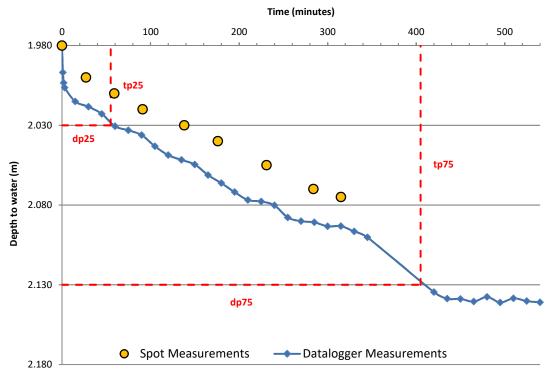
= 885 (minutes)

= 53100 (seconds)

f = 7.87E-05 m/s

Notes Approximately 5000l water added	Title Soil infiltration test (following principles of BRE Digest 365 2016)		
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.18	Soakaway no. SA01	Cycle number	Start date of test 23/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.98		
27	2		
59	2.01		
91	2.02		
138	2.03		
176	2.04		
231	2.055		
284	2.07		
315	2.075		

#### **Calculations:**

Soil infiltration rate (SIR), 
$$f = \frac{V_{\rho75-25}}{a_{\rho50} \times t_{\rho75-25}}$$

 $V_{\it P\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it P75}$ ) and 25% (d  $_{\it P25}$ ) effective depth

= 0.34636m<sup>3</sup>

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

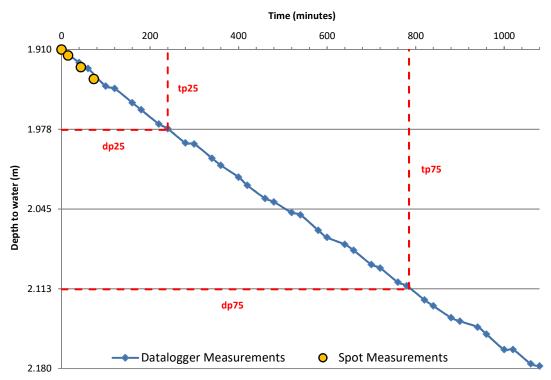
= 350 (minutes)

= 21000 (seconds)

f = 5.77E-05 m/s

Notes  Datalogger results out of sync - relative infiltration rate consistent. Approximately 500l added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)		
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.18	Soakaway no. SA01	Cycle number	Start date of test 24/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.91		
15	1.915		
44	1.925		
73	1.935		

## **Calculations:**

Soil infiltration rate (SIR),  $f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$ 

 $V_{\it p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it p75}$ ) and 25% (d  $_{\it p25}$ ) effective depth

= 0.46759m<sup>3</sup>

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

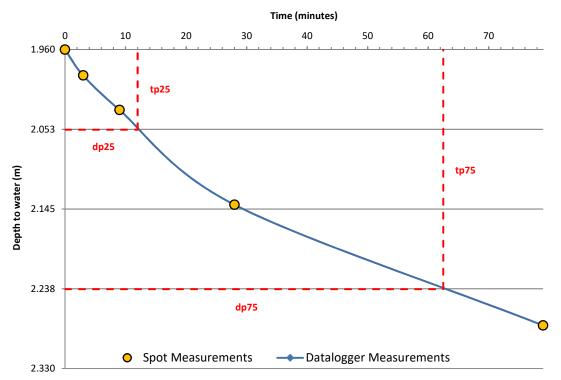
= 545 (minutes)

= 32700 (seconds)

f = 5.00E-05 m/s

Notes Approximately 4200l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)		
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.18	Soakaway no. SA01	Cycle number	Start date of test 29/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.96		
3	1.99		
9	2.03		
28	2.14		
79	2.28		

#### **Calculations:**

Soil infiltration rate (SIR), 
$$f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$$

 $V_{p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{p75}$ ) and 25% (d  $_{p25}$ ) effective depth

 $= 0.64077m^3$ 

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

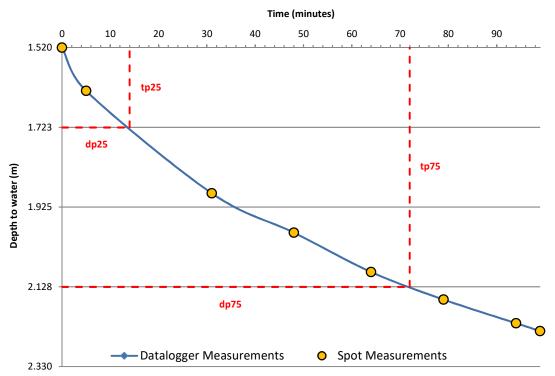
= 50.5 (minutes)

= 3030 (seconds)

f = 7.39E-04 m/s

Notes  Based on spot measurements only due to rate of infiltration. Approximately 5000l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)		
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.33	Soakaway no. SA02	Cycle number	Start date of test 23/05/2019





## **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.52		
5	1.63		
31	1.89		
48	1.99		
64	2.09		
79	2.16		
94	2.22		
99	2.24		

## **Calculations:**

Soil infiltration rate (SIR), 
$$f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$$

 $V_{\it P\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it P75}$ ) and 25% (d  $_{\it P25}$ ) effective depth

= 1.40276m<sup>3</sup>

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

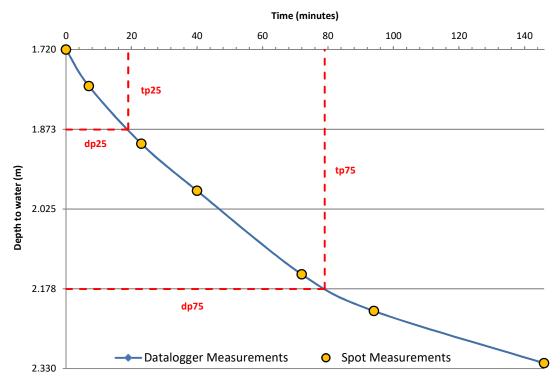
= 58 (minutes)

= 3480 (seconds)

f = 1.41E-03 m/s

Notes  Based on spot measurements only due to rate of infiltration. Approximately 4000l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)		
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.33	Soakaway no. SA02	Cycle number	Start date of test 24/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	1.72		
7	1.79		
23	1.9		
40	1.99		
72	2.15		
94	2.22		
146	2.32		

## **Calculations:**

Soil infiltration rate (SIR), 
$$f = \frac{V_{\rho75-25}}{a_{\rho50} \times t_{\rho75-25}}$$

 $V_{\it p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it p75}$ ) and 25% (d  $_{\it p25}$ ) effective depth

= 1.0564m<sup>3</sup>

 $a_{P}$ 50 = the permeable base area as constructed

 $= 0.286m^2$ 

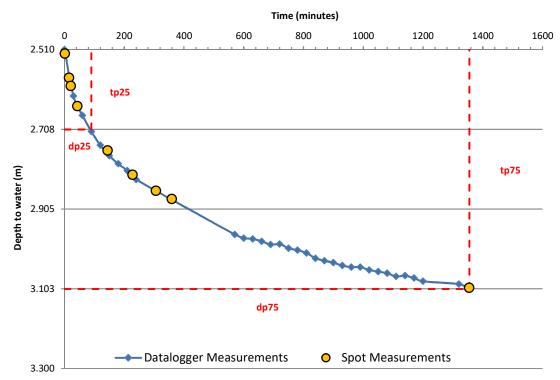
 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

= 60 (minutes) = 3600 (seconds)

f = 1.03E-03 m/s

Notes Based on spot measurements only due to rate of infiltration. Approximately 6500l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)		es of BRE Digest 365
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A
Depth of soakaway at start of test (m) 2.33	Soakaway no. SA02	Cycle number	Start date of test 24/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	2.5		
1	2.52		
15	2.58		
21	2.6		
43	2.65		
144	2.76		
228	2.82		
306	2.86		
359	2.88		
1354	3.1		

#### **Calculations:**

Soil infiltration rate (SIR),  $f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$ 

 $V_{p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{p75}$ ) and 25% (d  $_{p25}$ ) effective depth

= 1.36812m<sup>3</sup>

 $a_{p}$  50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

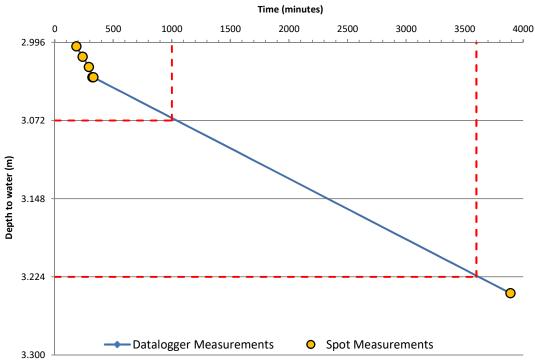
= 1265 (minutes)

= 75900 (seconds)

f = 6.30E-05 m/s

Notes Approximately 5000l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)			
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A	
Depth of soakaway at start of test (m) 3.3	Soakaway no. SA03	Cycle number	Start date of test 23/05/2019	





## **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	2.94		
25	2.96		
67	2.97		
99	2.98		
146	2.99		
185	3		
239	3.01		
292	3.02		
322	3.03		
330	3.03		
3891	3.24		

#### **Calculations:**

Soil infiltration rate (SIR), 
$$f = \frac{V_{\rho75-25}}{a_{\rho50} \times t_{\rho75-25}}$$

 $V_{P}$ 75 – 25 = effective storage volume of water in the borehole between 75% (d  $_{p75}$ ) and 25% (d  $_{p25}$ ) effective depth

= 0.52647m<sup>3</sup>

 $a_{p}$  50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p\,75}$  –  $t_{p\,25}$  = the time for the water level to fall from 75% to 25% effective

depth

= 2600 (minutes)

= 156000 (seconds)

f = 1.18E-05 m/s

#### Notes

Datalogger disturbed while Soiltechnics not on site. Indicative rate based on spot measurements only. Approximately 700l water added.

Geology unit under test

-

Depth of soakaway at start of test (m)

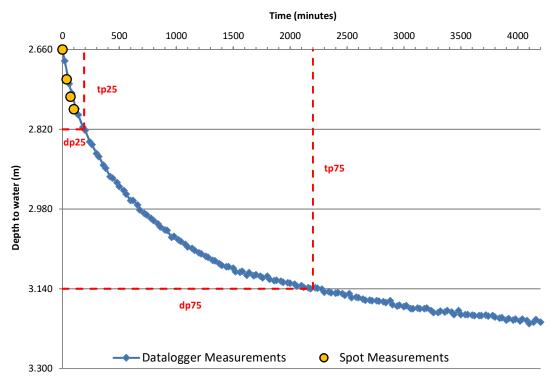
Title

Soil infiltration test (following principles of BRE Digest 365 2016)

Diameter Co-ordinates Ground level
2.1m - N/A

Soakaway no. Cycle number Start date of test SA03 2 24/05/2019





### **Test observations:**

TIME	DEPTH TO	TIME	DEPTH TO
(mins)	WATER (m)	(mins)	WATER (m)
0	2.66		
37	2.72		
71	2.755		
100	2.78		

### **Calculations:**

Soil infiltration rate (SIR),  $f = \frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$ 

 $V_{\it p\,75-25}$  = effective storage volume of water in the borehole between 75% (d  $_{\it p75}$ ) and 25% (d  $_{\it p25}$ ) effective depth

 $= 1.10835m^3$ 

 $a_{p}$  50 = the permeable base area as constructed

 $= 0.286m^2$ 

 $t_{p75}$  –  $t_{p25}$  = the time for the water level to fall from 75% to 25% effective depth

= 2010 (minutes)

= 120600 (seconds)

f = 3.21E-05 m/s

Notes Approximately 4000l water added.	Title Soil infiltration test (following principles of BRE Digest 365 2016)			
Geology unit under test -	Diameter 2.1m	Co-ordinates	Ground level N/A	
Depth of soakaway at start of test (m) 3.3	Soakaway no. SA03	Cycle number	Start date of test 29/05/2019	