

SOAKAWAY INFILTRATION TEST RESULTS

BRE 365 method



Project Name:	Factory Road, Newport
---------------	-----------------------

Project Ref:	8159	Date of Testing:	29/06/2022
--------------	------	------------------	------------

Test Location:	TP01
Fill Number:	1

Soil Infiltration Rate	test failed m/sec
------------------------	-------------------

Test results:

Time (mins)	Water Level (m bgl)
0	0.80
1	0.80
2	0.80
3	0.80
4	0.80
5	0.80
6	0.80
7	0.81
8	0.81
9	0.81
10	0.81
30	0.81
60	0.81
120	0.81
180	0.81
240	0.81
300	0.81
360	0.81
1320	0.84
1440	0.84
1560	0.85
1680	0.85

Pit Dimensions (m)

Length	2.20
Width	0.80
Depth	2.10

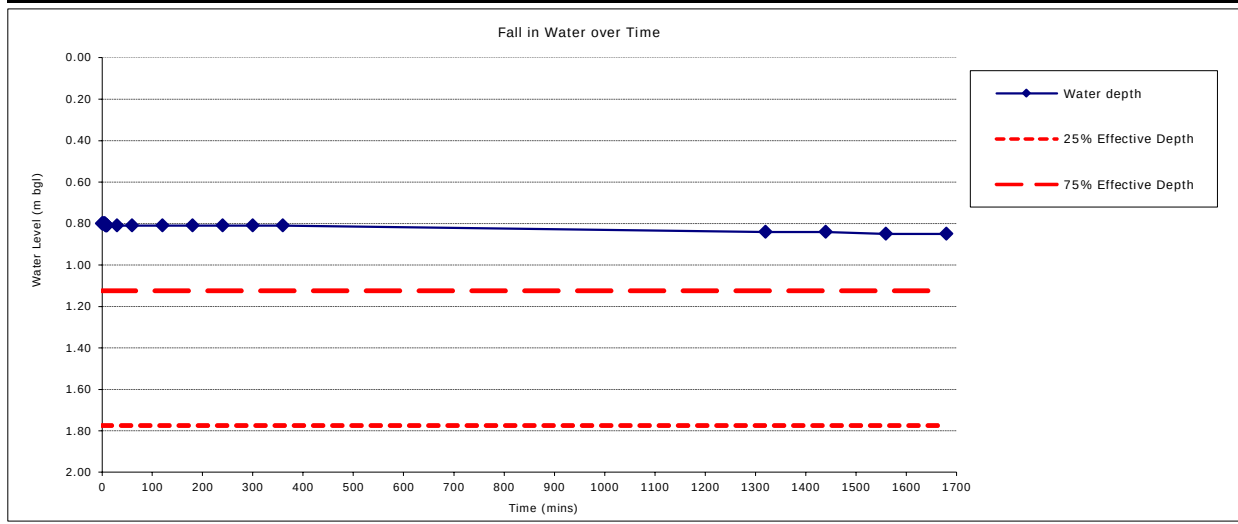
Assumed Invert Level (m bgl)	0.80
------------------------------	------

Ground Conditions:

G.L - 0.05m	Tarmacadam Surface Layer. (MADE GROUND).
0.05 - 0.2m	Dense, grey mottled brown, sandy GRAVEL with low cobble content. (MADE GROUND - SUBBASE).
0.2 - 0.4m	Medium Dense, brown, very sandy GRAVEL with low cobble content. (MADE GROUND - PROBABLE REWORKED FILL MATERIAL).
0.4 - 1.4m	Stiff, reddish brown, slightly gravelly silty CLAY. Gravel is fine to medium subrounded consisting of Mudstone. (GRADE E WEATHERED MERCIA MUDSTONE FORMATION).
1.4 - 2.0m	Stiff, reddish brown, very gravelly sandy silty CLAY with low cobble and boulder content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded consisting of Mudstone. (GRADE D WEATHERED MERCIA MUDSTONE FORMATION).

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Minor spalling of sidewall.
4. Minor inflow of groundwater at base of made ground.



Soil Infiltration Rate (m/sec)

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

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	1.14
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	5.66
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	n/a

Soil Infiltration Rate (m/sec)

$$f = \frac{1.144}{\text{no value}}$$

f test failed

SOAKAWAY INFILTRATION TEST RESULTS

BRE 365 method



Project Name:	Factory Road, Newport
---------------	-----------------------

Project Ref:	8159	Date of Testing:	29/06/2022
--------------	------	------------------	------------

Test Location:	TP02	Soil Infiltration Rate	test failed m/sec
Fill Number:	1		

Test results:

Time (mins)	Water Level (m bgl)
0	0.61
1	0.60
2	0.60
3	0.60
4	0.60
5	0.60
6	0.60
7	0.60
8	0.60
9	0.60
10	0.60
30	0.60
60	0.60
120	0.59
180	0.59
240	0.59
300	0.59
360	0.59
1320	0.61
1440	0.61
1560	0.61
1680	0.61

Pit Dimensions (m)

Length	2.10
Width	0.80
Depth	2.00

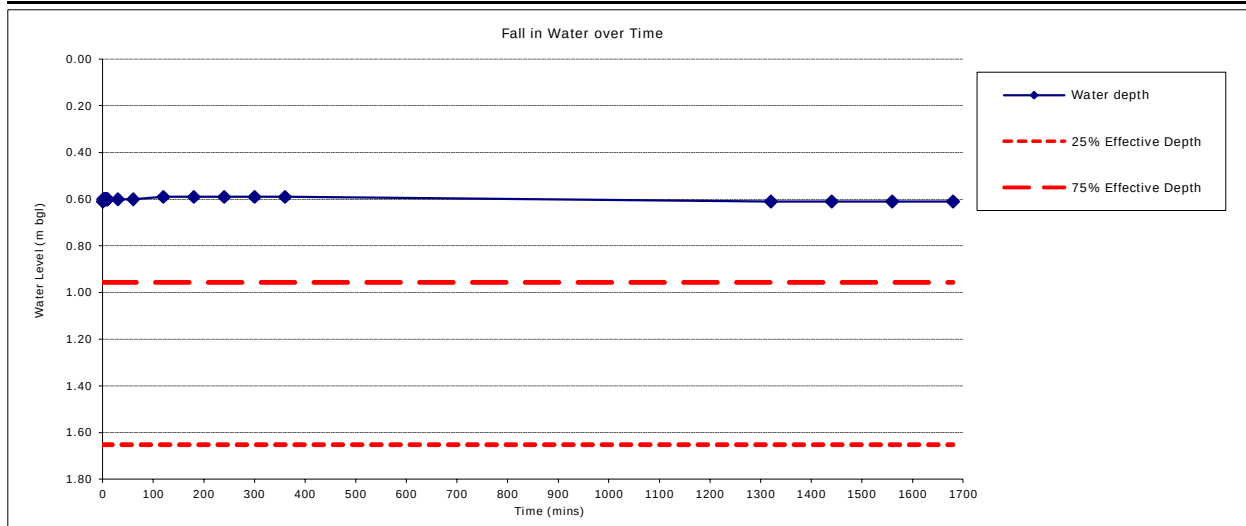
Assumed Invert Level (m bgl)	0.61
------------------------------	------

Ground Conditions:

G.L - 0.05m	Tarmacadam Surface Layer. (MADE GROUND).
0.05 - 0.25m	Loose, reddish brown, gravelly SAND. (MADE GROUND - PROBABLE REWORKED MERCIA MUDSTONE FORMATION).
0.25 - 0.55m	Medium dense, blackish grey, sandy GRAVEL with moderate cobble content. Sand is fine to coarse, gravel is fine to coarse angular to subangular consisting of Limestone, coal, brick and slag. (MADE GROUND - PROBABLE REWORKED FILL MATERIAL).
0.55 - 2.1m	Stiff, reddish brown, very gravelly sandy CLAY with low cobble content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded consisting of Mudstone. Mudstone cobbles are angular to subangular measuring up to 85mm. (GRADE D WEATHERED MERCIA MUDSTONE FORMATION).

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Minor spalling of sidewall.
4. Minor inflow of groundwater at base of made ground.



Soil Infiltration Rate (m/sec)

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

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	1.17
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	5.711
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	n/a

Soil Infiltration Rate (m/sec)

$$f = \frac{1.168}{\text{no value}}$$

f test failed