

WYE ENVIRONMENTAL SERVICES

GLEWSTONE, ROSS ON WYE. HR9 6AN

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SITE REPORT

Date: 02/09/2019

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SITE: Thorneycroft, Narth Road, The Narth, Monmouth. NP25 4QG

CLIENT: SG Rayner Homes

PROBLEM: Percolation Test

TEST DATE: 02/09/2019

REPORT

A percolation test was required on site for the two new five bedroom houses.

The discharge from the sewage treatment plant will go to ground in a drainage field. The size of the drainage field is calculated by carrying out a percolation test in the proposed area of the drainage field. The percolation test procedure is laid out in Part H of building regulations and the test was carried out to this procedure.

Firstly three holes were excavated approximately 1000mm square by 400mm deep. A 300mm x 300mm x 300mm hole was then excavated in the bottom of each hole. The 300mm hole was then filled with water and allowed to soak away overnight. The next day the timing trials were conducted again in line with Part H of building regulations. Each 300mm hole was filled and then timed from 75%(225mm) to 25% (75mm)full (150mm). The time was recorded in seconds and the test was conducted 3 times for each hole. The total times are added and an average calculated and then divided by 150 to give a time for the water to drop 1mm also known as the Percolation value (VP)

The soil type on site would be classified as a sandy clay. The weather on the day of testing was dry with sunny spells and the previous weeks had been sunny with intermittent showers.

PLOT A

TRIAL HOLE ONE TIMINGS (Sec)

1. 8100 seconds
2. 9600 seconds
3. 11'700 seconds

TRIAL HOLE TWO TIMINGS (Sec)

1. 6900 seconds
2. 9900 seconds
3. 10'800 seconds

PLOT B

TRIAL HOLE ONE TIMINGS (Sec)

1. 6900 seconds
2. 10'200 seconds
3. 10'800 seconds

TRIAL HOLE TWO TIMINGS (Sec)

1. 6600 seconds
2. 8100 seconds
3. 8700 seconds

The 6 Trial Hole timings are then added and divided by 6 to give an average time for the site
This is then divided by 150 to give the time it takes for the water to drop 1mm and this is the percolation value (VP).

PLOT A: Total (Sec) $57'000/6 = 9500/150 = 63.33$ (64). VP = 64

PLOT B: Total (Sec) $51'300/6 = 8550/150 = 57$. VP = 57

The area of drainage field required is calculated by the following formula.

AT (Area) = P (Population) x VP (Percolation value) x 0.20 (Sewage treatment plant)