

WCBC

Planning Department
Lambpit Street
Wrexham
LL11 1AR

Our Ref: B164/010
05th July 2024

Dear Sir/Madam

Re: P/2023/0547 Vacant Barn at Buck Road, Wrexham LI13 9TF

Please see below results from percolation tests undertaken.

2 separate test holes were provided on site to the following dimensions: 300mm x 300mm x 300mm deep. Three separate tests were undertaken. Those test results are recorded below.



Picture for illustration purposes only

Test 1:

The water level took 47 minutes to fall between markers set at 75% full and 25% full. Converted into seconds for the purposes of the calculation we are left with the figure of 2820.

The VP is then calculated by dividing the time by 150 in test 1 case 2820/150.

A VP of 18.8 is calculated.

Test 2:

The water level took 52 minutes to fall between markers set at 75% full and 25% full. Converted into seconds for the purposes of the calculation we are left with the figure of 3120.

$3120/150$.

A VP of 20.8 is calculated.

Test 3:

The water level took 1hr & 2 minutes to fall between markers set at 75% full and 25% full. Converted into seconds for the purposes of the calculation we are left with the figure of 3720.

$3720/150$

Vp = 24.8 (percolation value)

Calculating and average over the 3 test results adding all VP's together and dividing by 3.

$18.8 + 20.8 + 24.8 = 64.4$

$64.4 / 3 = 21.46 = \text{Average VP}$

The above information provides evidence that a drainage field will disperse the clear water outfall from the bio disc effectively.

Size of drainage field has been calculated using the following formula: $A_t = p \times V_p \times 0.25$ p being the maximum number of persons residing in the property.

$2 \times 21.46 \times 0.25 = 10.73\text{m}^2$

10.73m^2 Is the drainage field area required to serve the property based on the results as noted above.

Should you have any queries regarding the proposal please do not hesitate to contact the office at your convenience.

Yours faithfully



Dafydd Edwards ACIOB
Senior Architectural Technician
for blueprint architectural services