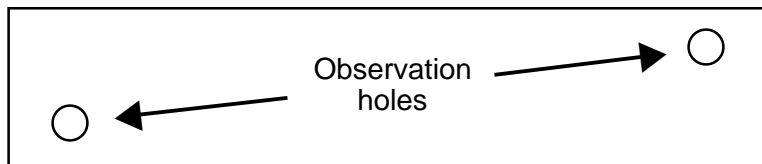


1
SITE INVESTIGATION — PERCOLATION TEST PROCEDURE
GENERAL

The owners of a parcel of land or the contractor must include the following information as part of an application for permit to construct a sewage disposal system:

- a) determine the subsurface soil conditions (Item 2)
 - to establish the presence of bedrock, clay, water table, etc., and
 - to establish soil texture and characteristics;
- b) determine the suitability of the soil to absorb sewage effluent by performing a percolation test (Item 3-4)
 - the percolation test determines the rate in minutes per inch (2.5 cm) that the water level drops within the percolation test hole. The length of drainage pipe is determined from the results of the percolation test.

2
SUBSURFACE SOIL CONDITIONS


Proposed area of the ground absorption field

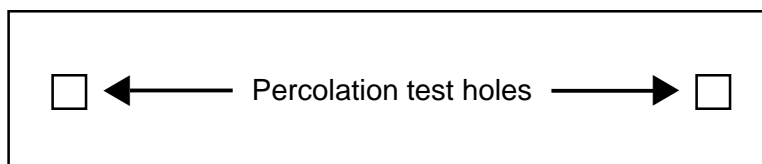
- a) Dig or bore at least two holes to a minimum depth of 4'0" (1.2 m). Holes must have sufficient diameter so that the Environmental Health Officer (EHO) can see clearly the sides and bottom of the hole. Additional holes may be required by the EHO.
- b) Describe the conditions found in the test holes and leave the excavated material undisturbed beside the test holes for an inspection*. Cover the holes with a solid board.

* Description: i) soils (loam, sand, gravel, clay or combination of these, colour and depth),
 ii) depth of root systems,
 iii) depth of water table or hardpan (rock, clay).

3
PERCOLATION TEST

To determine the suitability of the soil to absorb sewage effluent:

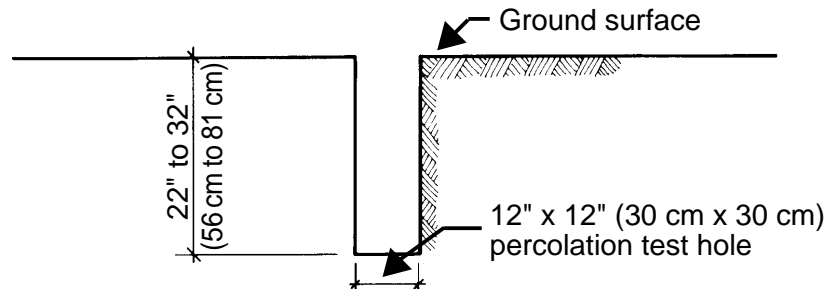
- a) Percolation test hole



Proposed area of the ground absorption field

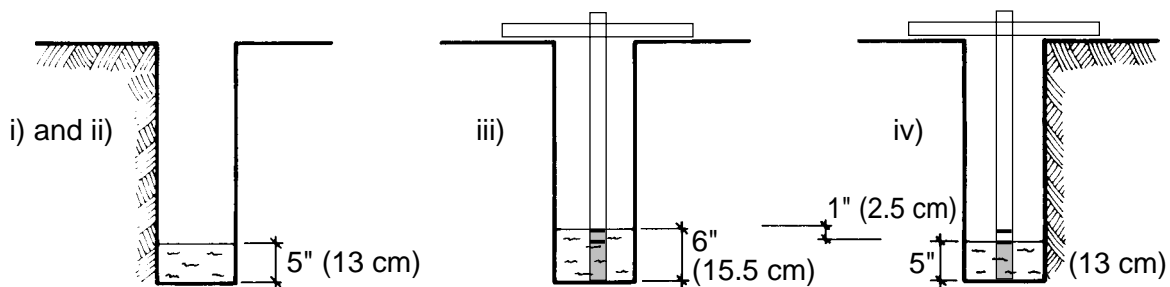
- i) Dig a minimum of 2 percolation test holes 12" (30 cm) square to a depth of 22"-32" (56 cm-81 cm).
- ii) Remove any smeared soil surfaces on the walls and bottom of the percolation test holes, using a knife or sharp tool, etc. On some lots, water or hardpan (rock, clay) may be closer to the surface than 22"-32" (56 cm-81 cm). If this is the case, carry out the percolation test above the water or hardpan.

b) Presoak the percolation test hole.




- i) If the soil contains silt and/or clay, keep the percolation test hole filled with water for a minimum of four hours.
- ii) *Immediately* proceed with next step.

c) Percolation test



- i) Fill percolation test hole with water and allow the water to drain to 5" (13 cm) from the bottom of the hole.
- ii) Refill the percolation test hole, allowing the water to again drain to 5" (13 cm) from the bottom.
- iii) Add enough water to the percolation test hole to raise the water level in the hole to just above 6" (15.5 cm) from the bottom of the hole.
- iv) When the water level reaches 6" (15.5 cm) above the bottom of the hole, start timing until the water level reaches 5" (13 cm) above the bottom of the hole. Record time.
- v) Repeat procedures iii) and iv) until the last two rates of fall do not vary by more than two minutes.
- vi) Record all times.

NOTE: To help you accurately measure the water level in the test holes as you do this procedure, make a measuring stick (as shown in the diagram) with marks at 5" (13 cm) and 6" (15.5 cm) from the bottom.

- d) The percolation rate of the absorption field is calculated by averaging the slowest rates recorded for each percolation hole tested and is reported in minutes per inch (2.5 cm) (see pamphlet PHI 046).
- e) Cover the percolation test holes with a solid board and flag  their locations for inspectional purposes.

An application for a permit to construct a sewage disposal system must be filed with the public health inspector prior to construction.

If you have questions, contact your Health Region office.