

POSTER 23

A quick way of measuring the turbidity of water

Turbidity is the cloudiness or haziness of a fluid caused by individual particles. The measurement of turbidity, therefore, is a key test of water quality. Specialist laboratory or field equipment (a nephelometer) is required to measure turbidity accurately in Nephelometric Turbidity Units (NTU). If you do not have access to such specialist equipment, then a reasonable NTU estimate can be made using locally available materials as shown below.

Equipment

- A clean container with a darkcoloured interior surface - such as an oil drum or a dustbin – and with a minimum depth of 50cm
- A bucket
- A dull brass or copper coin with an approximate diameter of 2.5cm
- A long measuring pole or steel tape measure

Method

- Place the coin in the bottom of the container.
- Gently add water drawn from the well a little at a time (a). At regular intervals, wait for the surface of the water to calm and check to see if the coin is still visible (b). When it can no longer be seen (c), measure the depth of the water (d).
 - If the depth of the water is less than 32cm, then the turbidity is likely to be greater than 20NTU. If the depth of the water is between 32 and 50cm, then the turbidity is likely to be between 10 and 20NTU.



(C)







(b)

If the depth of the water is *greater* than 50cm, then the turbidity is likely to be less than 10NTU.

Source: GODFREY, S. and REED, R.A., 2011. Cleaning and disinfecting wells: WHO Technical Note: 1. Loughborough, UK: WEDC, Loughborough University

For further information visit: http://wedc-knowledge.lboro.ac.uk/

