

Experiment no : 1.

Aim: To determine turbidity in a given water sample. (Using turbidity rod)

Apparatus: 1. Measuring cylinder
2. Turbidity rod.

Theory: The turbidity is a measure of interference caused by the suspended matter present in water to the passage of light. The turbidity is caused mainly by colloidal suspension of clay, silt, microscopic organism and organic matter. The turbidity is measured on silica scale in mg/l. It means if one mg silica is dissolved in one litre distilled water then it would give one unit of turbidity. For drinking water, a turbidity of less than 10 ppm is desirable. The optimum is 5ppm.

Turbidity Rod consist of a 20cm long graduated non-stretchable tape attached to the upper end of 20cm long graduated aluminium bar. A screw with 25 mm platinum wire at one end and a nickel ring at the other end is passed through the lower end of the bar.

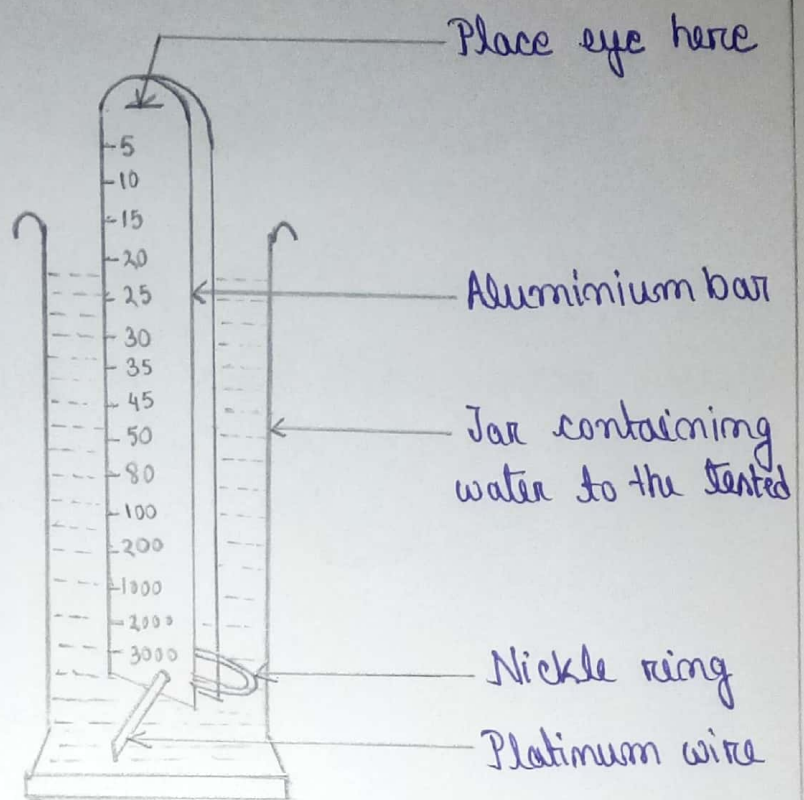


Fig: Turbidity Rod

Procedure:

1. Pour the sample into cylinder.
2. Lower the rod vertically into water until the needle is not visible due to turbidity.
3. Read the turbidity on graduated scale.

Result:

Turbidity of the sample = _____ ppm.

Conclusion:

The sample is not suitable for drinking.

Precautions :

1. Sample should be undisturbed .
2. Measuring cylinder should be cleaned before use .
3. The experiment should be conducted under sufficient light for proper vision .