

Procedure for collection of Water Samples from Open wells for the analyses of common Drinking Water Parameters

Preparation & Planning of Sample collection

Sample Source

While sampling the well water, it should be agitated for proper mixing to get a representative sample. If pump set is used to draw water from the well then collect the sample from the tap after running the water for several minutes.



Fig: Domestic Open well

Sampling devices and Sample collection bottles required

For the analysis of general parameters, sample should be collected in 2L capacity new Polyethylene (PE)/Plastic container as a volume of 2L sample is normally sufficient for physical and chemical analyses. Pre sterilized glass bottle of 100 ml capacity collected from water testing Lab or Sterilized Polypropylene (PP) bottle (100 ml) bought from chemical suppliers/medical stores shall be used for the collection of sample for microbiological analysis. A weighted bottle or Bucket can be used for collecting water from the well.



Fig: Bucket for collection



Fig: PE Bottle (2L) for General Sample

Figures showing Sterilized bottles for collection of microbiological samples



Fig: Sterilized bottle with protective wrapper



Fig: Sterilized Glass Bottle

Water Sample Collection Procedure

Cleaning of Sample Container for General Chemical analysis

- Before collecting the sample, clean the new containers thoroughly in order to minimize possible contamination of the sample.
- For this, clean the sample container with small amount of detergent and wash it thoroughly with water for removing the dust particles and packing materials completely.
- Then rinse the sample container three times with the sample to be tested before it is filled with the same.



Fig: Cleaning with detergent



Fig: Rinsing the sample container with the sample

Sample collection for Micro Biological Analysis

- For the collection of samples for Microbiological analysis, it is mandatory to use sterilized bottles.
- Either a sterilized glass bottle or a pre sterilized polypropylene bottle shall be used.
- Normally the sterilized readymade bottles are wrapped around the lid with a seal to prevent the entry of any contaminants from outside to keep the bottle in a sterile condition.
- So if a sterilized plastic bottle is used, first remove the wrapper of the sterilized bottle using one hand and open the lid carefully. Do not touch inside of the bottle and the lid to avoid external contamination.
- If a glass bottle is used, it is to be ensured that no physical contact with the inside of the lid or the bottle is occurred.
- Fill the container with sample and carefully close the lid.
- After collection, label the container properly with Name, Address, Date and Time of sample collection.



Fig: Removing the wrapper



Fig: Filling the sample



Fig: Closing the lid

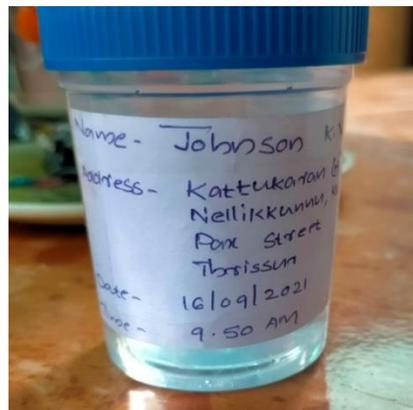


Fig: Sample labeling

Preservation of Sample

Sample for microbiological analysis should be kept in icebox to preserve at 4°C and transport to the nearest lab without much delay. If ice box is not available, keep the sample bottle in dark to avoid direct contact with sun light.

Sample collection for Physical and Chemical analysis

- Unscrew the cap of the cleaned container and place the cap of the container on a clean surface in the inverted position.
- Fill the container with the sample and carefully close the lid.
- Leave a small air space in the container to allow mixing of sample at the time of analysis.
- Close the screw cap tightly to avoid leakage of sample.
- After collection, label the container properly with Name, Address, Date and Time of sample collection.



Fig: General sample collection



Fig: Closing the lid



Fig: Labeling of sample

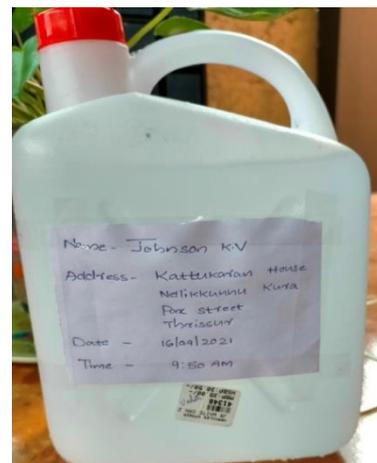


Fig: Sample ready for analysis