WATER ANALYSIS

SAMPLING PROCEDURES

Microbiological samples:

- Microbiological samples should be collected in sterile plastic or glass bottles which Vinlab supplies. Vinlab supplies 100ml sterile plastic bottles. A sample volume of 200ml should be sufficient for *Faecal coliform, E. coli* and Heterotrophic plate count.

Chemical analysis:

- Keep sample bottles closed until they are to be filled.
- Collect a sample that will be representative of the water being tested.
- Remove the cap of bottle and ensure no contamination of cap or the neck of the bottle when filling occurs.
- **Potable water:** Apply the procedures as described above. Never sample leaking taps where water runs down on the outside of the tap. When collecting water from wells and boreholes, pump water for 5min when a pump is fitted. When sample locations for a distribution system are identified, include dead-end sections and all the different lines in the sample programme.
- **Waste/effluent water:** Sampling frequency may be seasonal for recreational waters, daily for water supply intakes and even hourly for waste water where the quality may vary tremendously. Hold the sample bottle near its base in one hand and plunge it mouth downward below the surface of the water. This is especially important when sampling from a dam, never sample water from the surface.
- **Sample size:** Sample volume should be sufficient to carry out all tests required. A sample volume of 750ml should be sufficient.
- **Sample identification:** Samples must be sufficiently identified. Important information that could be included for identification are: a) sampling date b) sampling time c) origin of sample d) type of sample.
- **Sample preservation and storage:** Although recommendations vary, the time between sample collection and analysis should, in general, not exceed 6 hours, and 24 hours is considered the absolute maximum. It is assumed that the samples are immediately placed in a lightproof insulated box containing melting ice-packs with water to ensure rapid cooling. Sample temperature should be kept below 10^0C for a maximum transportation time of 6 hours. If ice is not available, the transportation time must not exceed 2 hours. It is imperative that samples are kept in the dark and that cooling is rapid.

VinLAB (Pty) Ltd
Tel +27 21 882 8866/7 – Fax +27 21 882 8868 – email lab@vinlab.com – www.vinlab.com
P.O.Box 532, Stellenbosch, 7599, South Africa