



## **Nalco sampling and testing QA/QC procedures**

All sampling is performed by trained personnel in accordance with procedure A.2.18 and relevant parts of Australian Standard 5667, for which NATA accreditation is held.

The following Quality control measures apply to all sampling events.

### **Sampling and Data Collection**

- All sampling is performed in accordance with the relevant AS 5667 standard.
- Site measurements (DO, pH, turbidity, temperature and conductivity) and sampling observations (water depth) are recorded and reported.

### **Sample bottles.**

- Pre-labeled sample containers are used for routine sampling and testing.
- The sample bottles are prepared so that samples are preserved in accordance with Australian Standard 5667.1:1998 and Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> Edition (APHA).

### **Delivery of samples.**

- Eskies and freezer packs are used to maintain the integrity of the samples during transport from the sampling sites to our Analytical Resources Laboratory.

### **Quality Assurance/Quality Control**

The Laboratory's Quality Assurance/Quality Control Program ensures that sampling activities and analytical data is accurate, reliable and acceptable.

The Quality Assurance/ Quality Control Program consists of both internal and external measures, which include:

#### *Internal Quality Assurance/ Quality Control*

- Laboratory equipment is calibrated at the correct intervals, as prescribed in the relevant NATA Chemical and Microbiological Supplementary Accreditation Guides.

- Regular preventative maintenance is carried out on all key laboratory instrumentation and field equipment.
- Trip blanks (where appropriate) are supplied to monitor contamination.
- Certified reference materials are analysed routinely.
- Duplicate analysis is conducted to check precision.
- Spike analysis is conducted to check analyte recovery
- Laboratory Blanks are analysed to monitor contamination.
- Quality Control checks on media are performed.
- All records and subsequent reports are systematically checked.
- Quality Control Charts are used to statistically monitor trends in data.
- The laboratory is audited regularly.

#### *External Quality Assurance/ Quality Control*

Nalco Analytical Resources participates in regular chemical and microbiological external proficiency testing programs