

Forensic Science ISO/IEC 17025 Application Document

Annex A: Parentage Testing for the Australian Family Law Act

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Annex A: Parentage Testing for the Australian Family Law Act

1. Introduction

This Annex is applicable to facilities accredited under NATA's field of Forensic Science and involved in parentage testing reporting in accordance with the Australian Family Law Act, the Status of Children Act (NSW) and/or the Children and Community Services Act (WA).

2. Assessment process and accreditation criteria

In addition to the requirements of ISO/IEC 17025, ISO/IEC 17025 Standard Application Document (SAD) and the Forensic Science ISO/IEC 17025 Application Document (AD), facilities will need to comply with the criteria detailed below.

The clause numbers follow those of ISO/IEC 17025 but since not all clause numbers require interpretation the numbering system may not be consecutive.

5.2 Personnel

DNA analysts undertaking parentage testing under the Family Law Act, the Status of Children Act (NSW) and/or the Children and Community Services Act (WA) and who prepare Form 5, Part I and/or Form 5 Part II must have a Bachelor degree or equivalent. They must have appropriate DNA facility experience, have completed a relevant training program and have demonstrated the following:

- a sound knowledge of the scientific literature and procedures relevant to DNA testing;
- a thorough knowledge of the relevant theory and practice of DNA typing;
- the necessary skills to evaluate and interpret results of those tests;
- an ability to communicate orally the technical aspects of DNA typing to a lay audience;
- the successful completion of competency test(s) in the relevant area(s).

DNA analysts undertaking parentage testing and who are competent to prepare Form 5, Part 1 are called Reporters. Reporters must have relevant experience in the interpretation of genetic data.

NATA will retain records of persons who are approved Reporters. These records will include academic and professional qualifications, relevant work experience and date(s) of assessment interviews.

A facility cannot be accredited for parentage testing without the services of an approved Reporter. Technicians are expected to have completed a relevant training program.

Technicians will not have the sole responsibility for the interpretation of results and will not prepare reports.

5.4 Test and calibration methods and method validation

Facilities should ensure that they have a sufficient number of DNA typing systems at their disposal (e.g. by the use of large STR multiplex systems) to enable the resolution of more difficult cases (e.g. those involving related male individuals as potential fathers of a child).

The paternity/maternity index must not be less than 200.

Test systems used must achieve a combined power of exclusion of 99.9%.

There must be at least two independent examples of a mismatch to report an exclusion of parentage.

In the event of a single mismatch (i.e. a mutation) an appropriate calculation must be used to determine the mutation index and must include the mutation rate for the mismatched locus. This calculation must be incorporated into the combined paternity or maternity index.

5.10 Reporting the results

Reports must comply with the requirements of the Family Law Regulations, the Status of Children Act (NSW) and/or the Children and Community Services Act (WA).

The following must be noted on test reports:

- discrepancies between specimen labelling and the accompanying Forms;
- omissions from the requirements for Forms as detailed in the Family Law Regulations, the Status of Children Act (NSW) and/or the Children and Community Services Act (WA);
- inadequacies in specimen seals including any deviations as detailed in the relevant Act and/or Regulations;
- Paternity/Maternity Index reported to a whole number;
- Relative Chance of Paternity/Maternity reported as a percentage;
- all test results obtained must be recorded on Form 5, Part II;
- Form 5, Part II must present actual test results, not an interpretation of test results;
- Form 5, Part I must include a statement as to the source of the data base used.