



THE GOVERNMENT CHEMIST LABORATORY AGENCY

A: FORENSIC LABORATORY TESTING

A.1. Overview

The Forensic Science and DNA Services Department (FSDS) is one of the four departments of the Government Chemist Laboratory Agency (GCLA). The department comprises four sections or laboratories namely: Forensic Chemistry, Forensic Toxicology, Forensic Biology & DNA and the National Poison Control Centre (NPCC). The laboratories have been performing forensic testing for over the past 100 years. The testing procedures are designed to meet the strictest requirements for application to criminal and civil justice processes in Tanzania.

GCLA Forensic scientists have extensive expertise in conducting and explaining the forensic testing findings. If you need to know that the forensic testing is solid and defensible, turn to GCLA Forensic Laboratories. This is partly facilitated by international recognition (ISO Certification and accreditation) and national recognition as a Referral Laboratory.

Forensic laboratories bring the innovative tests and services that meet the ever-changing world of drugs and crimes. Under the guidance of experts renowned throughout the forensic chemistry, forensic toxicology and forensic biology & DNA fields, the forensic science laboratory (FSL) provides comprehensive expert testing and analysis for the broadest range of forensic tests in numerous different samples and exhibits. The clients turn to us for expertise, service and innovation because they simply cannot find such services anywhere else. In fact, many of the tests are the only ones offered in the country.

A.2. Forensic Laboratory Testing: What Is It?

Forensic testing is the gathering of data from analysis for use in legal proceedings, depending on the laws of particular jurisdictions. The data gathered include physical, chemical and other testing reports. It is this legal aspect of forensic testing which differentiates it from clinical testing. This legal aspect requires standard procedures for handling samples, use of specific testing methods as required by law while following and maintaining a "chain of custody."

The chain of custody requires documentation of every person who has handled the sample, every step of analysis and everywhere it has been. If the chain of custody procedure is handled correctly, forensic laboratory evidence can be admitted in court with the assurance that the item was collected from the stated location and/or person in question without compromising the evidence.

Laboratory staff who handle and process such samples typically receive special training that is pertinent to both laboratory science and the legal demands of forensics. GCLA staff are well trained and qualified to perform their duties at the required standard. Forensic technical staff include both Technologists and Chemists. While Forensic Technologists often have a full laboratory technician training, Forensic Chemists have completed Bachelor of Science in Chemistry and related sciences and both with specialized forensic training. These professionals work together in forensic testing.

Variety of forensic services is offered by GCLA laboratories including drugs of abuse tests, toxicological tests, DNA tests and forensic biology tests. In case involving death forensic chemists conduct testing and analysis on a broad range of samples such as: body tissues, blood and/or other bodily fluids collected during an autopsy or other evidence from the crime scene and interpret the findings to establish if death was caused by poisoning, the manner and in some instances, to establish the identity of the deceased. Likewise, in cases related to arson and drugs of abuse, forensic analysts conduct testing and analysis. Moreover, drug of abuse testing has been among the core functions of forensic scientists at GCLA for many years performing analysis of different number of cases and samples which show an increase year after year. The GCLA forensic laboratory also performs its duties in collaboration with other stakeholders in educating and providing awareness on forensic issues, these include the courts, Police, hospitals, Drugs Control Commission and the public in general.

A.3. Reality of Forensic Testing

Forensic testing can take some days or even months to complete depending on technical requirements of different forensic tests, limited availability or integrity of some samples, complexity of testing for some tests and the extensive record keeping necessary for legal proceedings.

Because of the complexities of forensic testing and advancement in technology over the past decade, few if any laboratories can do all the types of testing that may be required. Therefore, tests that are beyond the laboratory's scope of expertise or unavailability of required instruments at the time of test, have to be referred to other certified laboratories. In cases of sample subcontracting to other laboratories, the Chief Government Chemist (CGC) shall remain the sole custodian of the results as well as the samples.

The quality of samples, their preparation for testing, performing the tests and evaluating all the results takes time, expertise and money to complete. This reality is sometimes frustrating to our customers, when turnaround times (TAT) exceed the pre-stated number of days. Therefore GCLA appreciates the understanding on the side of our esteemed customers.