

	LOM 2.4 Proficiency Testing	
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2.4 Proficiency Testing

Proficiency testing is used to monitor performance, identify areas where improvement may be needed, and demonstrate the validity of technical procedures. The proficiency testing program demonstrates the current competency of the laboratory.

The Technical Leader from each discipline shall maintain a proficiency testing plan on the Forensic Science Division document management site that ensures each laboratory location on the scope of accreditation successfully completes, per calendar year, at least one proficiency test for each discipline in which accredited services are provided and that the results of the proficiency test are released to ANAB. Additionally, the plan shall ensure that each person that influences the results of tests completes at least one proficiency test per calendar year in each discipline on the scope of accreditation in which the individual conducts work. Observation-based performance monitoring is acceptable with approval by the Quality Assurance Manager.

All proficiency tests must be taken in accordance with this policy and the ANAB Proficiency Review Program. The proficiency test plan follows the test distribution schedule of the external proficiency test providers.

2.4.1 Scope of Testing

Laboratory Directors shall ensure the following:

- At least one external proficiency test is successfully completed on an annual basis in each forensic discipline for which the laboratory provides service and is accredited by ANAB. External proficiency tests must be obtained from an ANAB-approved test provider, when an approved provider and test are available. When an approved provider is not available for a particular discipline, the laboratory must make other arrangements to participate in an external proficiency test for that discipline. The laboratory must document the identity of the test source and outcome of the test in the Annual Report to ANAB.
- Each trained analyst and technician assigned to their laboratory successfully completes at least one proficiency test on an annual basis in the discipline in which the analyst or technician performs casework examinations.
- Each analyst successfully completes at least one proficiency test during each accreditation cycle in each sub-discipline in which the analyst conducts casework examinations.

2.4.1.1 DNA

In addition to this policy, the external proficiency testing protocols for DNA analysts shall follow those guidelines and criteria established by the FBI's Quality Assurance Standards (QAS) for Forensic DNA Testing Laboratories.

- Analysts, technical reviewers, and technicians must undergo semi-annual external proficiency testing.
- Each technology (STRs, Y-STRs) must be used on a proficiency test at least once per calendar year.
- At least one method (manual or automated) in each methodology (extraction, quantitation, amplification, and detection) must be used on a proficiency test at least once per calendar year.
- The proficiency test date will be tracked by the date it is assigned by the Technical Leader.

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- All newly qualified personnel must enter into the external proficiency testing program within eight months of the date of qualification.

All DNA proficiency tests completed by casework analysts shall include appropriate statistical estimates for inclusions (Random Match Probability, Likelihood Ratios and/or Combined Probability of Inclusion) in the case file and report. When a proficiency test does not have an inclusion, either because known references are excluded or because the inclusion is considered an expected contributor, a statistical estimate must still be calculated using a profile or haplotype from a questioned sample. The statistical estimate should not be included in the report, however, but rather uploaded into the Case Record Object Repository.

2.4.2 Program Requirements

2.4.2.1

Proficiency testing may be either open or blind. If the testing is to be open, the following guidelines shall be used:

- Open tests should be labeled as proficiency tests.
- Tests that are non-consumable may be shared among analysts and/or technicians who will perform their examinations independently.
- If tests are consumable, separate samples will be prepared or purchased for each analyst and/or technician.

The QAS requires that each analyst and/or technician be assigned their own.

Proficiency test examinations shall be conducted in the same manner as normal casework, unless otherwise specified (e.g., crime scene proficiency tests) in this procedure or dictated by the nature of the test itself (e.g. the provided evidence is unlike typically submitted evidence). To prevent bias conclusions from being drawn, and to ensure independent test taking, no proficiency test results shall be shared with another analyst/examiner prior to that analyst/examiner taking the proficiency test.

2.4.2.2

Proficiency tests shall be completed on or before the due date established by the proficiency test provider.

2.4.3 Test Administration

The following protocol will be followed for the distribution and documentation of proficiency tests:

- External proficiency tests are received and distributed by the QAM to the Technical Leaders.
- The Technical Leader shall review the test and notify the Laboratory Directors (copying the QAM) that the test is approved for distribution.
- The Technical Leader shall assign the external response(s) for each applicable laboratory based on a proficiency test plan.

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- Internal proficiency test distributions shall be authorized by the Technical Leader and approved by the QAM.

All external proficiency tests completed by DNA analysts shall be reported to the test provider.

- Required authorizations and approvals should be documented and retained on the Document Management System.
- If the test is a shared test, the external designee should complete the examination first. After completing the test, each participant forwards it to the other unit member(s) for test completion.
- The test number, test title, analyst name, Internal/External nature of the test, test provider, date/time completed, along with technical, administrative, and Technical Leader review information shall be captured as part of the test documentation. For paperless tests, the information may be captured in the electronic case record. For paper-centric tests, an FS-42 (Proficiency Test Review form) shall be completed to capture this information.

2.4.4 Proficiency Tests in Forensic Advantage

Proficiency tests that are completed within the Quality Assurance Laboratory module of Forensic Advantage shall be completed as in regular casework with the following exceptions:

- There are no requirements for the RFLE tab to be populated, however all numbered pages of the test provider answer sheets are required to be within the case record.
- The report will not be released by the analyst. It will be released by the Technical Leader after completion of the Technical Leader review process.
- These test items are not meant to be retained on laboratory evidence shelves, nor subject to inventory, etc. when being analyzed and after completion. Final disposition indicated on the electronic chain of custody should be Quality Assurance Laboratory areas, "consumed in analysis" or "destroyed".
- If the analyst is completing an external proficiency test that utilizes an online submission mechanism, the answer sheet is completed online and printed to pdf file format. A copy of the pdf answer sheet is retained in the case record.

2.4.5 Technical and Administrative Reviews

The following protocol shall be followed for the completion and review of all proficiency tests (internal and external):

- After completion of the laboratory portion of the test and generation of a test report, the record shall be technically reviewed by a discipline member who has either already fully completed his/her own examination of the test, or has not been assigned to take that test.
- The technical review in Forensic Advantage shall include a review of the completed test provider answer sheet retained in the case record. After technical review, the completed test shall be administratively reviewed by the Laboratory Director or their designee.
- The administrative review of the test should be conducted by someone other than the individual having conducted the technical review. The administrative reviews in Forensic Advantage shall include a review of the completed external test provider answer sheet retained in the case record. The Laboratory Director or their designee shall retain and forward any applicable non-electronic examination documentation (such as 1:1 photographic enlargements) to the Technical Leader for use in their review.

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2.4.6 External Test Submission

In addition to 2.4.5, the following protocol shall be followed for the external submission of proficiency tests:

- The individual assigned to submit results to the test provider shall ensure consistency between the case record answer sheet and the submission form.
- The Laboratory Director or designee shall fax, mail, or portal the completed test to the test provider on or before the established due date.
- The Laboratory Director or designee shall place submission confirmation into the proficiency test case record.

2.4.7 Technical Leader Review

The following protocol shall be followed for the Technical Leader review of proficiency tests:

- Once the test summary is published by the test provider, the Technical Leader shall review all tests and supporting documentation. If the Technical Leader designates an individual(s) to conduct the Technical Leader review on their behalf, the Technical Leader shall be notified of the Technical Leader review results. In the event of a substantial discrepancy on a reported proficiency test result (in comparison to the test provider information), the Technical Leader, Laboratory Director and Unit Supervisor shall consult as to the appropriate resolution, according to [LOM 2.11 Discrepancies and Corrective Actions](#).

If a corrective action is initiated as a result of a discrepancy on a DNA proficiency test, the DNA Technical Leader shall notify the State CODIS Administrator via written correspondence.

- Corrections and/or comments, not requiring a Corrective Action, shall be documented within the test case record.

2.4.8 Notification of Test Completion

Laboratory Director Notification:

- Once the test has been reviewed and/or remediated, the Technical Leader shall update the test completion information on the FSD Documentation Management System proficiency test page. This will serve as notification to the Laboratory Director that the test was successfully completed.
- For tests administered via paper copy or non-electronic methods, the Technical Leader shall author a completion memo and send it via email to the QAM and Laboratory Director.

Analyst/Examiner Notification:

- Notification of successful completion of the proficiency test will be received by the analyst/examiner in the form of the released Forensic Advantage report or a completion memo from the Technical Leader. Additional feedback information will be available to the analyst/examiner within the test case record.
- Notification of non-conforming test results will be provided to the analyst/examiner by the Technical Leader, Supervisor or Laboratory Director, along with the corrective measures planned.

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- For tests administered via paper copy or non-electronic methods, the Laboratory Director shall forward the Technical Leader's completion memo to the analysts/examiners listed within.

2.4.9 Retention

The following protocol shall be followed for the retention of proficiency tests and test records:

- The original test items shall be retained by the analyst until notification of completion of the Technical Leader review process.
- The Technical Leader shall forward any applicable non-electronic examination documentation (such as 1:1 photographic enlargements of footwear/tire images) to the Forensic Science Division office for storage and retention.
- Upon re-accreditation, all original hard copy documentation for the previous accreditation cycle may be destroyed.
- The retained records shall include the discipline monitored (exam request), design of the activity, expected results (summary reports), laboratory location, records submitted to the test provider, technical/administrative/technical leader reviews and any actions taken, and feedback provided to the participant.

2.4.9.1 For tests administered and documented electronically:

- The Technical Leader and/or their designee shall ensure the proficiency test case numbers from Forensic Advantage are documented in the FSD Documentation Management System. Those case numbers will serve as a reference to the electronic case record, where the proof of proficiency testing exists.

2.4.9.2 For tests administered via paper copy or non-electronic methods:

The Technical Leader and/or their designee shall upload proof of proficiency testing of all reviewed proficiency tests to the FSD Documentation Management System. Uploaded documents shall include the answer sheets (including the FS-42) for each tested analyst and the completion memo.