

DNA Analyst Training Laboratory Training Manual

Protocol 8.04 Technical Review



This laboratory protocol (or part thereof) has been provided as an example of a laboratory SOP, courtesy of the Illinois State Police. It has been included for training and example purposes only.

PRESIDENT'S
DNA
INITIATIVE



Technical Review

All aspects of an analyst's case files will be proofed by another qualified analyst. The criteria to be used are set forth on the Technical Proofing Checklist. The minimum scope of this review will be to determine whether the analytical results support the interpretations and conclusions stated in the report.

Agency Name
TECHNICAL PROOFING CHECKLIST: STR

Case # _____

Initials _____

Date _____

Reviewed by _____

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General:

- ___ All file items marked with case/item number, initials, date (if appropriate).
- ___ DNA procedure consistent with procedures manual.
- ___ Adequate agency contact.
- ___ Adequate conversation record.
- ___ Notes paginated/total listed.
- ___ Case file organized according to policy.

Chain:

- ___ Evidence receipt/custody history report complete.
- ___ Supporting documents (e.g., locker receipts) in file.
- ___ Additional exhibits generated tracked appropriately.

Case notes:

- ___ Case number, date, initials.
- ___ Description of exhibit packaging.
- ___ The nature of the seals.
- ___ Brief description of exhibits including size.
- ___ Portion of exhibit consumed in analysis.
- ___ Date and description of repackaging.

Yield gel worksheet:

- ___ Worksheet filled out.
- ___ Photo attached and labeled.
- ___ Interpretation of quantity/quality of DNA.
- ___ Re-extractions and re-dilutions have own worksheet.

Slot blot worksheet:

- ___ Worksheet filled out.
- ___ Slot blot image, quantitation standard curve and quantitation results attached and labeled.
- ___ Quantitation of DNA correct and documented.
- ___ Re-dilutions have own worksheet.

Sample amplification worksheet: Profiler Plus

- ___ Worksheet filled out.
- ___ (+) and (-) controls and manipulation blanks.

Sample amplification worksheet: Cofiler

- ___ Worksheet filled out.
- ___ (+) and (-) controls and manipulation blanks.

Genotyper electropherograms:

- ___ Positive control verifying ladder present for each sample tray.
- ___ (+) and (-) amplification controls present for each amplification.
- ___ Samples present.
- ___ Labeled with case number, sample number and date of electrophoresis run.
- ___ Protocol alterations clearly documented.

Case # _____

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Allele summary sheet: Profiler Plus

- ___ Sheet filled out listing all samples.
- ___ (+) and (-) amplification control and manipulation blank checked.

Allele summary sheet: Cofiler

- ___ Sheet filled out listing all samples.
- ___ (+) and (-) amplification control checked.

Frequency calculations:

- ___ Calculation sheet filled out/ printout present.
- ___ Correct values entered.
- ___ Statistics documented for all probative samples.

CODIS:

- ___ Documentation of appropriate CODIS uploads.

Other:

- ___ Worksheet filled out.
- ___ (+) and (-) controls and manipulation blanks.
- ___ Interpretations correct and documented.
- ___ Gel or photo labeled.

Report:

- ___ Report references all items received.
- ___ Loci documented.
- ___ All matches/exclusions reported in results.
- ___ Frequency of probative profiles.
- ___ Conclusion statement identifies potential donors of probative profiles.
- ___ Conclusions supported by notes.
- ___ References to indexing searches if open profile.
- ___ Signature.
- ___ Coversheet/stats/reviewer initials.

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Case # _____

Analyst _____

Reviewer _____

Date _____

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Evidence Receipt/Custody History

- _____ Evidence receipt/custody history report complete
- _____ Additional exhibits generated tracked appropriately on evidence receipt/custody history report

General

- _____ All file items marked with case number and initials
- _____ Case conversations documented to include deferral or exhibit/actions taken per telephone or direct agency request
- _____ Supporting documents in file, i.e. police reports, registered mail documents, etc.

Case Notes

- _____ Work notes recorded on appropriate worksheet forms
- _____ Case number, item number, date and initials present where appropriate
- _____ Description of exhibit packaging and nature of seals recorded
- _____ Description of storage conditions prior to analysis
- _____ Description of exhibits
- _____ Drawing or photograph of exhibits that contain positive results to include:
 - _____ Orientation of the drawing, i.e. back, front, inside, not to scale (NTS) etc.
 - _____ Location of all positive stains
 - _____ Stains marked by a Q or a #
 - _____ Dimensions of stains, length and width of knives, etc.
 - _____ Location, description and size of all portions removed/preserved
- _____ Subexhibits generated are numbered and tracked
- _____ Notation if stain(s) was consumed in analysis
- _____ Notation of items found in pockets or pockets checked
- _____ Light source (ALS, etc) used and noted
- _____ Notation of any evidence potential for other sections
- _____ Collection, packaging and disposition of trace evidence documented
- _____ Location of KPIC slide storage noted (if appropriate)
- _____ Date and description of repackaging
- _____ All cross-outs and interliniations initialed

Agency Name
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Analysis

- _____ Positive/negative controls and appropriate standards used
- _____ Reagent lot numbers recorded (only when not recorded in a separate log)
- _____ Procedures consistent with procedures manual
- _____ Protocol alterations clearly documented and reasons stated
- _____ Results obtained answer case questions

Report

- _____ All findings reported
- _____ All items received are listed or referred to
- _____ Findings support work indicated in case notes
- _____ Appropriate requests (standards, etc) included in report
- _____ Evidence disposition references samples in storage and/or forwarded for DNA analysis
- _____ Evidence disposition references return of evidence to agency
- _____ Report wording guidelines have been followed
- _____ Report cc'd to all pertinent agencies
- _____ Any related reports are properly cross-referenced
- _____ No misspellings, errors or inconsistencies in report
- _____ Report signed

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