Procedure for Documentation and Review
DNA Database Section
Issued by DNA Database Forensic Scientist Manager and DNA Technical Leader

Version 1
Effective Date: 12/18/2013

Procedure for Documentation and Review

1.0 Purpose - To document the requirements and guidelines for electronic note-taking, case file review requirements, and completion of Case Records using the Forensic Advantage (FA) system within the DNA Database Section.

2.0 Scope – This procedure applies to those Forensic Scientists in the DNA Database Section who perform DNA Database analysis.

3.0 Definitions

- **Administrative documentation** - Materials associated with Case Records which do not include technical records but may include internal chain of custody documents, DNA Database Forensic Scientist statement of qualifications (CV), notes and communication logs of case-related conversations, and other pertinent information which relates to the Case Record.
- **Administrative Review** - An evaluation of the report and supporting documentation for consistency with Laboratory policies and for editorial correctness.
- **Case Record** - Unit of work within a discipline performed by a Forensic Scientist resulting in a single Laboratory Report or memorandum.
- **CODIS** – Combined DNA Index System.
- **Electronic Record** - A data file that has information recorded in a form that only a computer can process.
- **Examination documentation** – Records of tests conducted, standards and controls used, diagrams, printouts, spectra, chromatograms, hand-written notes and other material used by the DNA Database Forensic Scientist.
- **Forensic Advantage (FA)** - The lab wide computer software system used for documenting and storing data and reports generated for each case.
- **Form** - A document with a fixed arrangement of captioned spaces designed for entering and extracting information. Forms become a record once completed.
- **Portable Document Format (PDF)** – A file format that preserves most attributes of a source document no matter which application, platform, and hardware type was originally used to create it.
- **Records** - Materials created or received by the Laboratory that are preserved as documentation of the activities of the Laboratory or for the value of the information. Records include but are not limited to reports, correspondence, telephone logs, quality records and technical records.
- **Technical records** - Accumulations of data and information which result from performing tests as specified in technical procedures.   Technical records include, but are not limited to, forms, worksheets, photographs, and test reports.
- **Technical Review** – An evaluation of reports, notes, data, and other documents to ensure there is an appropriate and sufficient basis for the scientific conclusion.

4.0 Equipment, Materials and Reagents

- Computer with FA software

5.0 Procedure

5.1 Case Notes

5.1.1 All files shall be generated in such a manner that another trained DNA Database Forensic Scientist can follow and understand all the steps taken during the analysis (including decision making steps)**.**

Procedure for Documentation and Review   Version 1
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5.1.2 Before a DNA Database Forensic Scientist begins a CODIS Hit confirmation, proficiency test, or training sample analysis (e.g. taking a punch for extraction, transferring a portion of a DNA extract for amplification or an electrophoretic run), a worksheet shall be created. Analysis shall be documented in the DNA Database Forensic Scientist's notes as it is conducted or in the event of extenuating circumstances (e.g., court, FA/instrument issues, sick leave), shall complete the worksheets at the earliest opportunity thereafter.

5.1.3 If samples are to be reanalyzed at any step, that step of the process officially begins when the instrument is started. At that point, documentation shall be maintained in the DNA Database Forensic Scientists' notes.

5.1.4 Case Record Object Repository - For each Case Record, the FA Case Record Object Repository shall include electronic versions of all notes or data generated during analysis of the hit confirmation, including but not limited to the following information: the DNA Database Forensic Scientist's most recent curriculum vitae, the case communication log (if applicable), case notes generated during analysis (to include any corrections made to case notes, as well as the original electronic copy), GeneMapper Project(s), raw data from instrumentation, the Subject Information Assessment report (if out- of- state or CMPD hit), the confirmation keyboard search, the scanned thumbprints, the scanned DNA Database card, the Match Detail Report, the Individual Specimen report, and the expected results.

5.1.5 Forensic Advantage DNA Database CODIS Hit Worksheet

5.1.5.1 Main Page

5.1.5.1.1 The type of examination for this worksheet is preselected as CODIS confirmation.

5.1.5.1.2 This page contains the prewritten draft of the CODIS Confirmation Report.

5.1.5.2 Extraction

5.1.5.2.1 Choose the date the extraction was started.

5.1.5.2.2 Specimen No: record the sample number(s) extracted.

5.1.5.2.3 Choose the appropriate extraction type (manual or robotic).

5.1.5.2.4 QC Information – choose the appropriate lot numbers of all reagents used during the extraction from the drop down list.

5.1.5.2.5 Note- Notes regarding extractions should be made on the amplification page.

5.1.5.3 Amplification

5.1.5.3.1 Choose the date on which the amplification was performed.

5.1.5.3.2 Choose the appropriate amplification type (manual or robotic).

5.1.5.3.3 Add the names of the controls and samples that shall be amplified into the appropriate amplification table under the Sample heading.

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Procedure for Documentation and Review   Version 1
DNA Database Section   Effective Date: 12/18/2013
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5.1.5.3.4 In the DNA amount column for each sample, enter the appropriate amount of DNA to be added to the amplification. The TE amount field is automatically populated when the DNA amount is filled in.

5.1.5.3.5 QC Information – Choose the lot number of the amplification kit used from the drop-down list. The individual master mix reagents (PCR reaction mix, primer, and Taq) and 9947A lot numbers are not required to be filled in. Add the thermal cycler number used for the amplification from the drop-down list.

5.1.5.4 3100/3130 Data

5.1.5.4.1 See the DNA Database Section Procedure for Genemapper ID for information that shall be added to the Object Repository for samples and/or runs that are not used for analysis.

5.1.5.4.2 Instrument Name, Date, and Run Number – Specify the instrument used for the run, the date the run was performed, and the run number(s) associated with that case for that run.

5.1.5.4.3 QC Info – Choose the appropriate lot numbers for the formamide, size standard, and ladder used for the run. If subsequent runs are performed using the same lot numbers, a note stating the same lot numbers are used below may be added.

5.1.5.4.4 To add the 3130 raw data to the Case Record Object Repository through the instrument network (optional):

5.1.5.4.4.1 In order to put the 3130 raw data into the Object Repository, the folder shall be compressed. Each 3130 computer has a folder labeled Run Data (there should be a shortcut to this folder on the desktop).

5.1.5.4.4.2 Open the Run Data folder and select the appropriate run and right click. Go to Send To and choose the Compressed Folder option. A new, zipped folder appears at the bottom of the list. When there are multiple runs for the same case, each of the run folders can be highlighted and compressed into one zip file.

5.1.5.4.4.3 Rename the zip folder that has been created with an appropriate file name (e.g., 1_case number_Case Record number_run number(s)).

5.1.5.4.4.4 Place the renamed zip folder into the Monitor folder (usually found on the desktop) so the data can be imported into the appropriate FA Case Record Object Repository through the instrument data network.

5.1.5.4.4.5 For runs that contain samples from multiple cases, the original run folder on the 3130 shall be copied so that each run folder in the FA Case Record Object Repository contains samples from that case only.

5.1.5.4.4.6 Make a copy of the run folder by right clicking on the appropriate run folder and choose copy, then right click and choose paste.

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Procedure for Documentation and Review   Version 1
DNA Database Section   Effective Date: 12/18/2013
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5.1.5.4.4.7 Open the copied folder and delete the samples that are not associated with the case, leaving only one case in the copied run folder. The copied run folder can then be compressed, renamed, and transferred to the Monitor folder as described above.

5.1.5.5 Completed Tasks

This tab is not used when processing CODIS hits.

5.1.6 DNA CODIS Letter Worksheet

See DNA Database Section Procedure and CODIS Procedures for procedures regarding DNA CODIS Letters.

5.2 Generating a Database Report

5.2.1 Once analysis has been completed on the CODIS confirmation and all required information has been entered into the worksheet, a Laboratory Report shall be generated.

5.2.2 Laboratory Reports shall be issued on all samples eligible for collection for which CODIS Hit confirmations are analyzed. These shall be prepared in accordance with the State Crime Laboratory Procedure for Reporting Results. All Laboratory Reports shall include:

5.2.2.1 Unique case identifier.

5.2.2.2 A description of the sample examined (including the date the items were received and by whom). For offender and arrestee samples, the submitter is the North Carolina State Crime Laboratory via the DNA Repository.

5.2.2.3 Type of examination requested.

5.2.2.4 A description of the methodology (DNA).

5.2.2.5 The results.

5.2.2.6 Date Report is released. The date listed on the Laboratory Report reflects the date the Laboratory Report was generated. Once all reviews are completed and approved, Forensic Advantage (FA) assigns the report a pending release status. Once the Database Forensic Scientist releases the Report, this date is posted in FA as the release or issue date.

5.2.2.7 Disposition of evidence – For all CODIS confirmations, the punch taken from the database sample is consumed.

5.3 Verification, Technical, and Administrative Review Guidelines for Database - See the DNA Database Section Procedure regarding reviews for CODIS hit confirmations.

6.0 Limitations – N/A

7.0 Safety – N/A

8.0 References

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DNA Database Section Procedure

Procedures for CODIS

DNA Database Section Procedure for Autosomal DNA STR Interpretation

DNA Database Section Procedure for DNA Database GeneMapper ID

State Crime Laboratory Quality Manual

State Crime Laboratory Procedure for Record and Data Management

State Crime Laboratory Procedure for Reporting Results

State Crime Laboratory Procedure for Reviewing Laboratory Reports

State Crime Laboratory Procedure for Evidence Management

State Crime Laboratory Procedure for Use of FA

9.0 Records

- Abbreviation List
- Signature Log

10.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
12/18/2013	1	Original Document