ASCLD/LAB
INSPECTION REPORT

NORTH CAROLINA
STATE BUREAU OF INVESTIGATION
RALEIGH CRIME LABORATORY

MAY 11, 2009

INTRODUCTION

This is a report of the ASCLD/LAB accreditation inspection of the North Carolina State Bureau of Investigation (SBI) Raleigh Crime Laboratory. The initial inspection was conducted on January 12 - 15, 2009. During the period of April 15, 2009 through May 5, 2009 staff inspector Edward A. Moilanen reviewed documentation which was provided by the laboratory concerning compliance with the criteria for which the laboratory was found to not be fully compliant during the initial inspection.

The **ASCLD/LAB** inspection team consisted of the following members:

Edward A. Moilanen, Staff Inspector, ASCLD/LAB, Roscommon., MI
Deb Rector, Mesa PD, Mesa, AZ
Jonathan Newman, Centre of Forensic Sciences, Toronto, Canada
Michael Gilmore, FBI, Washington DC
Chester Ubowski, Colorado Bureau of Investigation, Denver, CO
Kent Gardner, Oakland County Sheriff Laboratory, Pontiac, MI
Susan Stanitski, Virginia Department of Forensic Science, Norfolk, VA
Steve Robertson, Texas DPS, Austin, TX
Harry A. Fox III, (retired) Annville, PA
Chris Tomsey, (retired) Latrobe, PA
Denise K. Rankin, Miami Valley Regional Lab, Dayton, Ohio
Theresa A. Adams, Florida Department of Law Enforcement, Tampa Bay, FL
Mark Waruch, New York State Police, Olean, NY
Robert Taylor, L.A. County Sheriff Department, Los Angeles, CA
Michael Rafferty, Florida Department of Law Enforcement, Ft Meyers, FL
Shawna Hilliard, Phoenix PD, Phoenix, AZ
Charles Moore, (retired) Houston, TX
Floyd P. Bowen, Pennsylvania State Police, Wyoming, PA
Stuart Lee, Oakland PD, Oakland, CA

The inspection was performed using the principles, standards and criteria established in the 2008 version of the ASCLD/LAB Accreditation Manual and version 6.0 of the FBI "Quality Assurance Standards for Forensic DNA Testing Laboratories and Convicted Offender DNA Databasing Laboratories."

LABORATORY OVERVIEW

The North Carolina State Bureau of Investigation Raleigh Crime Laboratory is a state laboratory which provides services for the State of North Carolina. The laboratory is located at 121 East Tryon Road in Raleigh, North Carolina and is seeking renewal of its ASCLD/LAB accreditation. SBI Assistant Director Jerry Richardson is Director of the Crime Laboratory System. He reports to SBI Director Robin Pendergraft. The Laboratory provides services in Controlled Substances, Toxicology, Trace Evidence, Biology, Firearms/Toolmarks, Latent Prints, Questioned Documents and Digital & Multimedia Evidence. The laboratory has a staff of one hundred and ten (110) testifying analysts and thirty-five (35) support staff.

The Laboratory also provides Crime Scene services but elected not to apply for accreditation in this discipline.

INSPECTION TEAM FINDINGS

The inspection team's scoring of each of the ASCLD/LAB Accreditation Standards and Evaluation Criteria from the 2008 Accreditation Manual follows. Each criterion for which the inspection team determined the laboratory to be in compliance is scored "Yes." Each criterion for which the inspection team found the laboratory to not be in total compliance is scored "No." Each criterion which is not applicable to the inspection of this laboratory is scored "N/A." The Summary portion of the report documents the basis for all non-compliance and all non-applicable findings of the Inspection Team.

STANDARDS AND CRITERIA

The laboratory should establish objectives which are relevant to the community that it serves and communicate them to all employees orally and in written form.

		Yes	No	N/A
1.1.1.1 (I)	Does the laboratory have a written statement of its objectives?	✓		
1.1.1.2 (I)	Do the objectives appear to be relevant to the needs of the community serviced by the laboratory?	✓		
1.1.1.3 (D)	Does the laboratory staff understand and support the objectives?	✓		

A laboratory or its parent agency should have a formal written budget which is consistent with the forensic services provided by it.

1.1.2.1 (I)	Does the laboratory or its parent agency have a formal written budget?	✓		
1.1.2.2 (I)	Is the budget adequate to meet the written objectives?	✓		

Clearly written and well understood procedures must exist for handling and preserving the integrity of evidence; laboratory security; preparation, storage, security and disposition of case records and reports; control of materials and supplies; maintenance and calibration of equipment and instruments; and for operation of individual characteristic databases. Clearly written and well understood documentation or procedures should also exist for job requirements and descriptions; personnel evaluations and objectives; and for employee complaints concerning the quality system.

Does clearly written and well understood documentation or procedure exist for the following:

1.1.2.3 (E)	Handling and preserving the integrity of evidence?	✓		
1.1.2.4 (E)	Laboratory security?	✓		
1.1.2.5 (E)	Preparation, storage, security and disposition of case records and reports?	✓		
1.1.2.6 (E)	Control of materials and supplies?	✓		
1.1.2.7 (E)	Maintenance and calibration of equipment and instruments?	✓		
1.1.2.8 (E)	Operation of individual characteristic databases?	✓		
1.1.2.9 (D)	Job requirements and descriptions?	✓		
1.1.2.10 (D)	Personnel evaluations and objectives?	✓		
1.1.2.11 (D)	Employee complaints concerning the quality system?	✓		

A laboratory should have a management information system which provides information which assists the laboratory in accomplishing its objectives.

		Yes	No	N/A
1.1.2.12 (I)	Does the laboratory have and use a management information system?	✓		

The laboratory manager should be able to relate the organizational structure to interacting variables such as those stated in the principle.

1.2.1.1 (D)	Does the organizational structure group the work and personnel in a manner that allows for efficiency of operation, taking into account the interrelation of various forensic disciplines?	✓		
1.2.1.2 (D)	Has the laboratory director considered and taken appropriate action to correct any discrepancies with regard to numbers of personnel when grouping work and resources?	✓		

The laboratory director should have authority commensurate with the assigned responsibilities.

1.2.2.1 (I)	Is the laboratory director's authority well defined?	✓		
1.2.2.2 (I)	Does the laboratory director have authority commensurate with responsibilities?	✓		

Delegation of authority within the laboratory should follow the organizational process outlined in the principle.

1.2.2.3 (I)	Is there sufficient delegation of authority?	✓		
1.2.2.4 (I)	Is authority of supervisors commensurate with their responsibilities?	✓		
1.2.2.5 (I)	Is each subordinate accountable to one and only one immediate supervisor per function?	✓		
1.2.2.6 (I)	Are performance expectations established and are they understood by laboratory personnel?	✓		

Constructive discussion should occur between supervisors and subordinates.

1.3.1.1 (D)	Is there constructive discussion between supervisors and subordinates?	✓		

Supervisors should carefully and objectively review laboratory activities and personnel.

1.3.1.2 (I)	Do supervisors carefully and objectively review laboratory activities and personnel?	✓		

Supervisory techniques should encourage creative thinking and objectivity and should recognize meritorious performance of subordinates.

		Yes	No	N/A
1.3.1.3 (D)	Do the supervisory techniques encourage creative, objective thinking and recognize meritorious performance?	✓		

Communication within the laboratory should exist for coordination of case work and to ensure wide dissemination of technical and operational information.

1.3.2.1 (D)	Does an effective means of communication exist within the laboratory?	✓		

A training program to develop the technical skills of employees is essential in each applicable discipline and subdiscipline.

1.3.3.1 (E)	Does the laboratory have and use a documented training program in each discipline and subdiscipline for employees who are new, untrained or in need of remedial training?	✓		

A formalized personnel development program is important to prepare employees to assume more responsible jobs.

1.3.3.2 (I)	Does the laboratory have an employee development program?	✓		

The laboratory should maintain an adequate forensic library to include literature published in the applicable functional areas.

1.3.3.3 (I)	Does the forensic library contain current books, journals, and other literature dealing with each functional area?	✓		

A system or procedure should exist to encourage a review of appropriate new literature by personnel.

1.3.3.4 (I)	Does a system exist to encourage each examiner to review appropriate new literature?	✓		

A chain of custody record must be maintained which provides a comprehensive, documented history of each evidence transfer over which the laboratory has control.

1.4.1.1 (E)	Does the laboratory have a written or secure electronic chain of custody record with all necessary data which provides for complete tracking of all evidence?	✓		

Each individual item of evidence must be marked for identification, when practical. If the item does not lend itself to marking, its proximal container or identifying tag must be marked.

1.4.1.2 (E)	Is all evidence marked for identification?	✓		

Evidence seals must be designed and used to protect the integrity of the evidence.

1.4.1.3 (E)	Is evidence stored under proper seal?	✓		

Procedural precautions must exist which reduce the risk of evidence loss, cross transfer, contamination and /or other deleterious change.

		Yes	No	N/A
1.4.1.4 (E)	Is evidence protected from loss, cross transfer, contamination and/or deleterious change?	✓		

A secure area for overnight and/or long-term storage of evidence must be available.

		Yes	No	N/A
1.4.1.5 (E)	Is there a secure area for overnight and/or long-term storage of evidence?	✓		

A forensic laboratory must establish whether individual characteristic database samples are treated as evidence, reference materials, or examination documentation.

		Yes	No	N/A
1.4.1.6 (E)	Has the laboratory established whether individual characteristic database samples are treated as evidence, reference materials, or examination documentation?	✓		

Each individual characteristic database sample under the control of the laboratory must be uniquely identified.

		Yes	No	N/A
1.4.1.7 (E)	Is each individual characteristic database sample under the control of the laboratory uniquely identified?	✓		

Procedural precautions must exist which reduce the risk of individual characteristic database sample loss, cross transfer, contamination and /or other deleterious change.

		Yes	No	N/A
1.4.1.8 (E)	Are individual characteristic database samples protected from loss, cross transfer, contamination and/or deleterious change?	✓		

Access to individual characteristic database samples under the control of the laboratory must be restricted to those persons authorized by the laboratory director.

		Yes	No	N/A
1.4.1.9 (E)	Is access to individual characteristic database samples restricted to those persons authorized by the laboratory director?	✓		

All elements of a laboratory's quality system must be clearly documented in a quality manual which is kept current under the responsibility of a quality manager.

		Yes	No	N/A
1.4.2.1 (E)	Does the laboratory have a comprehensive quality manual?	✓		

A laboratory must have an individual designated as the Quality Manager.

		Yes	No	N/A
1.4.2.2 (E)	Is an individual designated as the quality manager?	✓		

To verify that its operations continue to comply with the requirements of its quality system and the standards under which ASCLD/LAB accreditation was granted, each accredited laboratory must conduct an annual audit of its operations and submit an Annual Accreditation Audit Report (Appendix 6) to ASCLD/LAB by the anniversary of its accreditation.

		Yes	No	N/A
1.4.2.3 (E)	Did the accredited laboratory conduct and document an annual audit of its operations and submit an annual accreditation audit report to ASCLD/LAB by the required deadline?	✓		

The quality system requires that laboratory management conduct a review at least once yearly to ensure the continued suitability and effectiveness of such a system.

1.4.2.4 (E)	Does the laboratory conduct and document an annual review of its quality system?	✓		

Procedures used must be generally accepted in the field or supported by data gathered and recorded in a scientific manner.

1.4.2.5 (E)	Are the procedures used generally accepted in the field or supported by data gathered and recorded in a scientific manner?	✓		

New technical procedures must be validated to prove their efficacy in examining evidence material before being implemented on casework.

1.4.2.6 (E)	Are new technical procedures scientifically validated before being used in casework and is the validation documentation available for review?	✓		

The laboratory must maintain written copies of appropriate technical procedures.

1.4.2.7 (E)	Are the technical procedures used by the laboratory documented and are the documents available to laboratory personnel for review?	✓		

Controls and standard samples must be used and documented in the case record to ensure the validity of the testing parameters and, thereby, the conclusion.

1.4.2.8 (E)	Are appropriate controls and standards specified in the procedures and are they used and documented in the case record to ensure the validity of examination results?	✓		

The quality of the standard samples and reagents must be adequate for the procedure used.

1.4.2.9 (E)	Is the quality of the standard samples and reagents adequate for the procedure used?	✓		

All reagents must be routinely tested for their reliability.

1.4.2.10 (E)	Does the laboratory routinely check the reliability of its reagents?	✓		

Instruments/equipment should be adequate for the procedures used.

1.4.2.11 (I)	Are the instruments/equipment adequate for the procedures used?	✓		

Instruments/equipment should be maintained in proper working order.

		Yes	No	N/A
1.4.2.12 (I)	Are the instruments/equipment in proper working order?	✓		

Instruments/equipment must be properly calibrated and calibration records maintained for all calibrated instruments.

1.4.2.13 (E)	Are the instruments/equipment properly calibrated?	✓		

The laboratory must create and maintain a uniquely identified case record for all administrative and examination documentation generated and/or received by the laboratory for each case involving the analysis of evidence.

1.4.2.14 (E)	Does the laboratory create and maintain a uniquely identified case record for all examination and administrative documentation generated and/or received by the laboratory for each case involving the analysis of evidence?	✓		

The laboratory's unique case identifier must be on each page of examination documentation, and the handwritten initials (or secure electronic equivalent) of the person generating the examination documentation must be on each page generated by that person.

1.4.2.15 (E)	Does the laboratory's unique case identifier appear on each page of examination documentation, and does the handwritten initials (or secure electronic equivalent) of the person generating the examination documentation appear on each page generated by that person?	✓		

Examination documentation must be sufficiently detailed to support the conclusions and opinions reported by the examiner(s) and must be such that, in the absence of the examiner(s), another competent examiner or supervisor could evaluate what was done and interpret the data. Examination documentation must be of a permanent nature and must be free of obliterations and erasures.

1.4.2.16 (E)	Are conclusions and opinions in reports supported by data available in the case record, and are the examination documents sufficiently detailed such that, in the absence of the examiner(s), another competent examiner or supervisor could evaluate what was done and interpret the data?	✓		
1.4.2.17 (E)	Is examination documentation of a permanent nature and is it free of obliterations and erasures?	✓		

Laboratory personnel who issue findings based on examination documentation generated by another person(s) must complete and document the review of all relevant pages of examination documentation in the case record.

1.4.2.18 (E)	Has each person(s) in the laboratory who issued findings based on examination documentation generated by another person, completed a review of all relevant pages of examination documentation and documented the review in the case record?	✓		

Written reports must be generated for all analytical work performed on evidence by the laboratory and must contain the conclusions and opinions that address the purpose for which the analytical work was undertaken. The significance of associations made must be communicated clearly and qualified properly. The name of the author(s) must appear in the report.

		Yes	No	N/A
1.4.2.19 (E)	Does the laboratory generate written reports for all analytical work performed on evidence, and do the reports contain the conclusions and opinions that address the purpose for which the analytical work was undertaken?	✓		
1.4.2.20 (E)	Where associations are made, is the significance of the association communicated clearly and qualified properly in the report?	✓		
1.4.2.21 (E)	Does the name of the author(s) appear in the report?	✓		

It is essential that a representative number of reports be subjected to a technical review.

1.4.2.22 (E)	Does the laboratory have, use and document a system of technical review of the reports to ensure that the conclusions of its examiners are reasonable and within the constraints of scientific knowledge?	✓		

Administrative reviews must be conducted to ensure the completeness and correctness of the reports issued.

1.4.2.23 (E)	Does the laboratory conduct and document administrative reviews of all reports issued?	✓		

The laboratory must have and follow a written procedure whereby the testimony of each examiner is monitored at least once every year.

1.4.2.24 (E)	Does the laboratory monitor the testimony of each examiner at least annually and is the examiner given feedback from the evaluation?	✓		

The laboratory must have a written procedure which it uses to initiate a review and to take corrective action when the laboratory has an indication of a significant problem with a technical procedure or the work of an analyst.

1.4.2.25 (E)	If the laboratory has an indication of a significant technical problem, is there a procedure in writing and in use whereby the laboratory initiates a review and takes any corrective action required?	✓		

Each laboratory must have a documented program of proficiency testing which measures the capability of its examiners and the reliability of its analytical results.

1.4.3.1 (E)	Does the laboratory have a documented program of proficiency testing?	✓		

The laboratory must participate in proficiency testing programs in which samples are provided by an external test provider. ASCLD/LAB approved providers must be used where available.

		Yes	No	N/A
1.4.3.2 (E)	Does the laboratory participate in proficiency testing programs conducted by approved test providers or by other external provider(s) when no approved provider is available?	✓		

Each Examiner should be proficiency tested annually in each subdiscipline in which casework is performed.

1.4.3.3 (I)	Was each examiner proficiency tested annually in each subdiscipline in which casework was performed?	✓		

The laboratory should conduct annual proficiency testing in each discipline using re-examination or blind techniques.

1.4.3.4 (I)	Does the laboratory conduct proficiency testing using re-examination or blind techniques?	✓		

Each examiner must be proficiency tested at least once, during each five-year accreditation cycle, in each subdiscipline in which the examiner performs casework examinations and issues report.

1.4.3.5 (E)	Was each examiner proficiency tested at least once, during the previous five-year accreditation cycle, in every subdiscipline in which the examiner performed casework examinations and issued reports?	✓		

MANAGEMENT

The laboratory director should have a minimum of a baccalaureate degree in a natural science, criminalistics or a closely related field. If the director lacks a scientific background, then there should be support within management by personnel with appropriate scientific background.

2.1.1 (I)	Does the laboratory director possess a degree in a natural science, criminalistics or in a closely related field, or is the laboratory director supported by scientific personnel of sufficient managerial rank and authority?	✓		

A laboratory director should have at least five years of forensic science experience performing casework in one of the ASCLD/LAB accredited disciplines.

2.1.2 (D)	Does the laboratory director have at least five years of forensic science experience?	✓		

Additional education in management or business administration by college course work or short training courses (or both) is recommended.

2.1.3 (D)	Does the laboratory director have some formal training in management?	✓		

The laboratory director should have at least two years of experience in management.

		Yes	No	N/A
2.1.4 (D)	Does the laboratory director have at least two years of managerial experience?	✓		

CONTROLLED SUBSTANCES

Examiners must have education and experience/training commensurate with the examinations and testimony provided. A baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field is required.

2.2.1 (E)	Does each examiner possess a baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field and does each have experience/training commensurate with the examinations and testimony provided?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures as applied to the tasks performed.

2.2.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have successfully completed a competency test.

2.2.3 (E)	Did each examiner successfully complete a competency test prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

2.2.4 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

TOXICOLOGY

Examiners must have education and experience/training commensurate with the examinations and testimony provided. A baccalaureate or advanced degree in a natural science, toxicology, criminalistics or in a closely related field is required.

2.3.1 (E)	Does each examiner have a baccalaureate or advanced degree in a natural science, toxicology, criminalistics or in a closely related field and does each have experience/training commensurate with the examinations and testimony provided?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures applied to the tasks performed.

2.3.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have successfully completed a competency test.

		Yes	No	N/A
2.3.3 (E)	Did each examiner successfully complete a competency test prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

		Yes	No	N/A
2.3.4 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

TRACE EVIDENCE

Examiners must have education and experience/training commensurate with the examinations and testimony provided. A baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field is required.

		Yes	No	N/A
2.4.1 (E)	Does each examiner possess a baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field and does each have experience/training commensurate with the examinations and testimony provided?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures applied to the tasks performed.

		Yes	No	N/A
2.4.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

A competency test must be successfully completed prior to working cases of each evidence type.

		Yes	No	N/A
2.4.3 (E)	Did each examiner successfully complete a competency test in each of the subdisciplines processed prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

		Yes	No	N/A
2.4.4 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

BIOLOGY

Examiners must have education and experience/training commensurate with the examinations and testimony provided. A baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field is required.

		Yes	No	N/A
2.5.1 (E)	Does each examiner possess a baccalaureate or advanced degree in a natural science, criminalistics or in a closely related field and does each have experience/training commensurate with the examinations and testimony provided?	✓		

		Yes	No	N/A
2.5.2 (E)	Does each examiner performing DNA analysis have education, training and experience consistent with those required by the quality assurance audit document?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures applied to the tasks performed.

2.5.3 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have successfully completed a competency test.

2.5.4 (E)	Did each examiner successfully complete a competency test prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually?

2.5.5 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

Two proficiency tests must be successfully completed by each DNA examiner annually.

2.5.6 (E)	Did each examiner performing DNA analysis successfully complete two annual proficiency tests from an approved test provider?	✓		

FIREARMS/TOOLMARKS

Firearms/toolmarks examiners should have a baccalaureate degree with science courses.

2.6.1 (I)	Does each examiner possess a baccalaureate degree with science courses?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures used as applied to the tasks performed.

2.6.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have education and experience/training commensurate with the examinations and testimony provided. Independent case examinations must not be undertaken until extensive instruction from a qualified examiner has been completed.

2.6.3 (E)	Did each examiner have extensive training from a qualified examiner and does each have experience commensurate with the examinations and testimony provided?	✓		

Examiners must successfully complete a competency test.

		Yes	No	N/A
2.6.4 (E)	Did each examiner successfully complete a competency test prior to assuming case work responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

		Yes	No	N/A
2.6.5 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

QUESTIONED DOCUMENTS

Questioned document examiners should have a baccalaureate degree with science courses.

		Yes	No	N/A
2.7.1 (I)	Does each examiner possess a baccalaureate degree with science courses?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the instruments, and the methods and procedures used as applied to the tasks performed.

		Yes	No	N/A
2.7.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have education and training/experience commensurate with the examinations and testimony provided. Independent case examinations must not be undertaken until extensive instruction from a qualified document examiner has been completed.

		Yes	No	N/A
2.7.3 (E)	Did each examiner have extensive training from a qualified examiner and does each have experience commensurate with the examinations and testimony provided?	✓		

Examiners must have successfully completed a competency test.

		Yes	No	N/A
2.7.4 (E)	Did each examiner successfully complete a competency test prior to assuming case work responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

		Yes	No	N/A
2.7.5 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

LATENT PRINTS

Latent print examiners should have a baccalaureate degree with science courses.

		Yes	No	N/A
2.8.1 (I)	Does each examiner possess a baccalaureate degree with science courses?	✓		

Examiners must have a good understanding of the concept of individualization and the principles, uses and limitations of the instruments, and the methods and procedures used as applied to the tasks performed.

		Yes	No	N/A
2.8.2 (E)	Does each examiner understand the instruments, and the methods and procedures used?	✓		

Examiners must have education and training/experience commensurate with the examinations and testimony provided. Independent case examinations must not be undertaken until extensive instruction from a qualified latent print examiner has been completed.

2.8.3 (E)	Did each examiner have extensive training from a qualified examiner and does each have experience commensurate with the examinations and testimony provided?	✓		

Examiners must have successfully completed a competency test.

2.8.4 (E)	Did each examiner successfully complete a competency test prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

2.8.5 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

TECHNICAL SUPPORT

The individual must meet the specification of the job description.

2.9.1 (E)	Do technical support personnel meet the requirements of their job descriptions?	✓		

The job description and the duties performed must be in agreement.

2.9.2 (E)	Are the job descriptions and the duties performed in agreement?	✓		

Technical support staff must have successfully completed an appropriate competency test.

2.9.3 (E)	Did each member of the technical support staff successfully complete an appropriate competency test prior to assuming casework responsibility?	✓		

Technical support personnel must successfully complete an appropriate proficiency test annually.

2.9.4 (E)	Did all technical support personnel successfully complete an appropriate proficiency test, annually?	✓		

Two proficiency tests must be successfully completed annually by all technical support personnel performing DNA analysis.

		Yes	No	N/A
2.9.5 (E)	Did all technical support personnel performing DNA analysis successfully complete two annual proficiency tests from an approved test provider?	✓		

CRIME SCENE

The examiner must meet the requirements of the job description.

2.10.1 (E)	Do examiners meet the requirements of their job descriptions?			✓

Examiners must have a good understanding of the concept and theory of scene security and integrity, and the uses and limitations of the equipment, methods and procedures used to document and process crime scenes, as applied to the tasks performed.

2.10.2 (E)	Does each examiner understand the equipment, methods and procedures used?			✓

Examiners must have training and experience commensurate with the examinations, documentation and testimony provided, as applied to the tasks performed. Independent examinations and documentation at crime scenes must not be undertaken until extensive instruction from a qualified examiner has been completed.

2.10.3 (E)	Did each examiner have extensive training from a qualified examiner and does each have experience commensurate with the examinations/documentation and testimony provided?			✓

Examiners must have successfully completed a competency test(s) as applied to the task(s) performed.

2.10.4 (E)	Did each examiner successfully complete a competency test(s) prior to primary responsibility for the examination, documentation and processing of a crime scene?			✓

A proficiency test must be completed by each person conducting crime scene examinations at least annually. The proficiency test should reflect the types of procedures, methods and equipment as applied to the typical task(s) performed.

2.10.5 (E)	Did each examiner successfully complete an annual proficiency test?			✓

DIGITAL & MULTIMEDIA EVIDENCE

Digital and multimedia evidence examiners should have a baccalaureate degree with science courses.

2.11.1 (I)	Does each examiner possess a baccalaureate degree with science courses?	✓		

Examiners must have a good understanding of the principles, uses and limitations of the hardware, software, and the methods and procedures as applied to the tasks performed.

		Yes	No	N/A
2.11.2 (E)	Does each examiner understand the equipment, programs, methods and procedures used?	✓		

Examiners must have education and training/experience commensurate with the examinations and testimony provided. Independent case examinations must not be undertaken until extensive instruction from a qualified examiner has been completed.

2.11.3 (E)	Does each examiner have experience commensurate with the examinations/documentation and testimony provided?	✓		

Examiners must have successfully completed a competency test.

2.11.4 (E)	Did each examiner successfully complete a competency test in each subdiscipline prior to assuming casework responsibility?	✓		

A proficiency test must be successfully completed by each examiner at least annually.

2.11.5 (E)	Did each examiner successfully complete an annual proficiency test?	✓		

Each employee should have adequate work space to accomplish assigned tasks.

3.1.1 (I)	Does each employee have adequate work space to accomplish assigned tasks?	✓		

Sufficient space should be provided for storage of supplies, equipment and tools.

3.1.2 (D)	Is there sufficient space provided for storage of supplies, equipment and tools?	✓		

Examiners should have space available for writing reports and other official communications.

3.1.3 (I)	Is there adequate space available for examiners for writing reports and other official communications?	✓		

Adequate and appropriate space should exist for records and reference materials.

3.1.4 (I)	Is there adequate and appropriate space available for records, reference works and other necessary documents?	✓		

Sufficient space should be available for instrumentation/equipment to facilitate its operation.

3.1.5 (I)	Is adequate space available for instrumentation/equipment to facilitate its operation?	✓		

Accessories should be stored near instrumentation/equipment to facilitate its use and operation.

		Yes	No	N/A
3.1.6 (D)	Are accessories stored near instrumentation/equipment to facilitate its use and operation?	✓		

The physical design should permit the efficient flow of evidence from the time of its acceptance until its proper disposal.

3.2.1 (I)	Does the physical design permit the efficient flow of evidence from the time of its acceptance until its proper disposal?	✓		

The relative locations of functional areas should facilitate the use of equipment and instruments.

3.2.2 (D)	Do the relative locations of functional areas facilitate the use of equipment and instruments?	✓		

Adequate and proper lighting should be available for personnel to carry out assigned tasks.

3.2.3 (I)	Is there adequate and proper lighting available for personnel to carry out assigned tasks?	✓		

Adequate and proper plumbing and wiring should be available and accessible to carry out assigned tasks.

3.2.4 (I)	Is there adequate and proper plumbing and wiring available and accessible to carry out assigned tasks?	✓		

The laboratory should have proper general ventilation.

3.2.5 (I)	Does the laboratory have proper general ventilation?	✓		

There should be adequate heating, cooling and humidity control in the laboratory.

3.2.6 (I)	Is the heating, cooling and humidity control in the laboratory adequate?	✓		

Access to the operational area of the laboratory must be controllable and limited to those individuals who are assigned to routinely work in the area or to those individuals designated by the laboratory director to have access.

3.3.1 (E)	Is access to the operational area of the laboratory controllable and limited?	✓		

All exterior entrance/exit points require adequate security control.

3.3.2 (E)	Do all exterior entrance/exit points have adequate security control?	✓		

Internal areas requiring limited/controlled access must have a lock system.

		Yes	No	N/A
3.3.3 (E)	Do all internal areas requiring limited/controlled access have a lock system?	✓		

Accountability of all keys, magnetic cards, etc., must be documented and their distribution limited to those individuals designated by the laboratory director to have access.

3.3.4 (E)	Is distribution of all keys, magnetic cards, etc., documented and is distribution limited to those individuals designated by the laboratory director to have access?	✓		

The laboratory must be monitored during vacant hours by an intrusion alarm or by security personnel.

3.3.5 (E)	Is the laboratory secured during vacant hours by means of an intrusion alarm or by security personnel?	✓		

The laboratory should have a fire detection system.

3.3.6 (I)	Does the laboratory have a fire detection system?	✓		

All elements of a laboratory's health and safety program must be clearly documented in a manual. The program should be monitored and the manual kept current by a health and safety manager.

3.4.1 (I)	Does the laboratory have an effective health and safety program documented in a manual?	✓		
3.4.2 (I)	Is an individual designated as the health and safety manager?	✓		
3.4.3 (I)	Is the health and safety program monitored regularly and reviewed annually to ensure that its requirements are being met?	✓		

The laboratory should have available and encourage the use of safety devices (particularly those required in its health and safety manual). Examples of such devices are goggles, face protectors, ear protectors, gloves and fire extinguishers.

3.4.4 (I)	Does the laboratory have available and encourage the use of safety devices, particularly those required by its health and safety manual?	✓		

Proper equipment and material should be available for the handling of carcinogenic, toxic and/or other dangerous material spills.

3.4.5 (I)	Does the laboratory have proper equipment and material available for the handling of carcinogenic, toxic and/or other dangerous material spills?	✓		

The laboratory should have safety shower and eye wash equipment in appropriate locations and in good working condition.

		Yes	No	N/A
3.4.6 (I)	Does the laboratory have safety shower and eye wash equipment in appropriate locations and in good working condition?	✓		

Exhaust hoods must be available to maintain a safe work environment.

3.4.7 (I)	Are sufficient exhaust hoods available to maintain a safe work environment?	✓		

Sufficient first-aid kits should be available and strategically located.

3.4.8 (I)	Are sufficient first-aid kits available and strategically located?	✓		

An adequate number of personnel should hold current certification in first-aid.

3.4.9 (I)	Does the laboratory have an adequate number of personnel holding current certification in first-aid?	✓		

Space should be provided for safe storage of volatile, flammable, explosive and other hazardous materials.

3.4.10 (I)	Is appropriate space provided for safe storage of volatile, flammable, explosive and other hazardous materials?	✓		

Emergency exits from the laboratory should be in compliance with safe working requirements.

3.4.11 (I)	Are the emergency exits from the laboratory adequate for safe exit in an emergency?	✓		

General cleanliness and good-housekeeping should be apparent.

3.4.12 (D)	Is there general cleanliness and apparent good-housekeeping in the laboratory?	✓		

SUMMARY

The following summarizes the criteria for which the Inspection Team determined the laboratory to not be in compliance at the time of the initial inspection and documents the basis for the findings under the heading of Original inspection finding. The report also documents, as Supplemental findings, the laboratory's compliance with those criteria since the initial inspection.

1.1.2.5 (E) Does clearly written and well understood documentation or procedure exist for preparation, storage, security and disposition of case records and reports?

Original inspection finding:
Biology Section policy, 3.3.3 of the DNA Database Unit requires that additions to records be initialed and dated. Additions made to DNA Database Collection Cards are not dated or initialed as required by policy.

Supplemental finding:
The supervisor of the DNA Database Unit, Forensic Biology Section, met with analysts assigned to the Unit. These individuals were instructed to initial and date any additions made to the DNA Database Collection Cards as required by policy. Copies of fifteen case records received electronically on May 4, 2009, were reviewed verifying compliance with the laboratory policy.

1.1.2.7 (E) Does clearly written and well understood documentation or procedure exist for maintenance and calibration of equipment and instruments?

Original inspection finding:
Toxicology acceptance criteria for checking the performance of extraction procedures is defined as being able to observe the internal standard peak. There are no minimum acceptance values assigned.

Supplemental finding:
A copy of the revised Toxicology Criteria for Identification of Analytes dated 2-15-09 was submitted and reviewed. Minimum acceptance values for checking the performance of extraction procedures were included in the revision.

Original inspection finding:
There is no documentation or procedure for performance checking the pH meter in the toxicology section.

Supplemental finding:
Laboratory procedure J-09, effective January 15, 2009, describes the procedure used to performance check the toxicology pH meter as well as the information necessary to document the performance checks. A copy of the procedure and documentation of completed performance checks on a performance check log were submitted and reviewed.

Original inspection finding:
There is no documentation or procedure for performance checking the chronograph which is used to check the velocity of projectiles in the firearms section.

Supplemental finding:
The chronograph used in the firearms section was sent out for calibration and performance checking. The laboratory received a letter dated 2-11-09, describing the procedure used for performance checking the chronograph, the parameters of the calibration and notification that the instrument was tested and calibrated to performance specifications. The laboratory has adopted and documented the procedure for performance checking the chronograph. A copy of the Firearms/Toolmark Section Manual, Equipment Calibration, Calibration Check Procedure, Section 3, #6, effective 3-16-09, describing the protocol was submitted and reviewed.

Original inspection finding:
There is no calibration documentation for the computerized measuring capability of the seven newly purchased comparison microscopes which are being used in Firearms section case examinations.

Supplemental finding:
Documentation of calibration checks performed on the Firearms/Toolmarks section comparison microscopes was received electronically on 5-5-09 and 5-6-09. A review of the documentation verified compliance with the criterion.

Original inspection finding:
There is no documentation or procedure for performance checking the Firearms section comparison microscopes computerized measuring capability used for measuring lands and grooves.

Supplemental finding:
A copy of the Firearms/Toolmarks Section manual, Section 3, Calibration Check Procedures dated 3-16-09 was submitted and reviewed. The procedure describes the process for performance checking the Firearms section comparison microscopes computerized measuring capability. Documentation of performance checks performed on the Firearms/Toolmarks section comparison microscopes was received electronically on 5-5-09 and 5-6-09. A review of the documentation verified compliance with the procedure.

1.3.3.1 (E) Does the laboratory have and use a documented training program in each discipline and subdiscipline for employees who are new, untrained or in need of remedial training?

Original inspection finding:
The firearms training program does not include training in the use of the chronograph.

Supplemental finding:
A copy of the Firearms/Toolmarks Training Manual, Unit 12, describing the training required for use of the chronograph was submitted and reviewed.

1.4.2.7 (E) Are the technical procedures used by the laboratory documented and are the documents available to laboratory personnel for review?

Original inspection finding:
The Trace Evidence section reporting guidelines for gunshot residue examinations refer to minimum threshold levels and the proper distribution of barium, antimony and lead. The

procedures do not define the threshold limits necessary to report the presence of gunshot residue nor define the term proper distribution.

Supplemental finding:
The Trace Evidence section reporting guidelines, GSR Reports and Guidelines, have been revised to include the minimum threshold levels necessary to report the presence of gunshot residue and a definition of the term proper distribution. A copy of the reporting guidelines was submitted and reviewed.

Original inspection finding:
The DNA QA manual states that Combined Probability of Exclusion (CPE) values may be calculated independently for each reference sample not excluded. The manual (Appendix F-4.4.3.7) states the report will indicate the number and identity of the loci used in the calculation when performing separate calculations for the inclusion of each reference sample. None of the reports reviewed indicated the loci or the number of loci used in the calculation.

Supplemental finding:
The laboratory revised the Interpretation Guidelines (Appendix F-4.4.3.7) of the DNA Policy and Procedure Manual (DNA QA Manual). The wording has been changed from "the report wording will be as follows" to the report may be worded as follows". The reporting standards used by the laboratory are in compliance with the revised interpretation guidelines and the criteria. A copy of the revised policy was submitted and reviewed.

Original inspection finding:
There is no technical procedure for use of the Firearms section chronograph.

Supplemental finding:
A copy of Firearms/Toolmarks technical procedure 8C.1 through 8C.8, Protocol for Testing Muzzle Velocity using the chronograph was submitted and reviewed.

Original inspection finding:
Controlled Substances procedure H-06 requires that GC/MS septa be changed weekly. The procedure requires that the change be documented in the log book for each instrument. Log books for four of the five GC/MS instruments used for controlled substances testing revealed multiple instances of noncompliance with septum change intervals ranging from two to three weeks.

Supplemental finding:
Personnel of the Drug Chemistry Section were reminded of the existing GC/MS maintenance procedure. They were made aware that these instruments must be maintained weekly and that this must be recorded in the maintenance log of each GC/MS instrument. A copy of the maintenance log for each of the GC/MS instruments was received and reviewed.

1.4.2.16 (E) Are conclusions and opinions in reports supported by data available in the case record, and are the examination documents sufficiently detailed such that, in the absence of the examiner(s), another competent examiner or supervisor could evaluate what was done and interpret the data?

Original inspection finding:
Conclusions reported in gunshot residue cases are not supported by data available in the case record. Examination documentation in GSR case records do not detail the threshold limits necessary to confirm the presence of gunshot residue nor document or define the term, distribution, used in the report. The examination documentation is not sufficiently detailed such that, in the absence of the examiner(s), another competent examiner or supervisor could evaluate what was done and interpret the data.

Supplemental finding:
Trace Evidence Section Technical Procedures Manual, GSR Reports and Guidelines, has been re-written. The threshold limits necessary to confirm the presence of gunshot residue are detailed in the document. The term, "proper distribution", is also defined in the document. The GSR limits of detection and the phrase "proper distribution" are now noted in the worksheets of the GSR case file and on every GSR report which is issued. A copy of the revised Trace Evidence Section document entitled "GSR Reports and Guidelines" was received and reviewed. Copies of fifteen case records, received electronically on 5-4-09, were reviewed verifying compliance with the revised procedure.

Original inspection finding:
The laboratory STR Interpretation Guideline, Appendix F, section 4.4.2.2.3 specifically states that: if alleles are not present at one or more loci then there must be a compelling reason for "NOT" excluding a standard (e.g. allelic dropout and/or inhibition). There is no documentation in the case files reviewed as to why the analyst selected loci to be excluded.

Supplemental finding:
The laboratory revised the Interpretation Guidelines (Appendix F-4.4.2.2.3) of the DNA Policy and Procedure Manual (DNA QA Manual), by deleting the statement, "If alleles are not present at one more locus, then there must be a reason for not excluding a standard (e.g., allelic dropout and /or inhibition)". A copy of the revised policy was submitted and reviewed confirming compliance with current laboratory case documentation practices.

1.4.2.25 (E) If the laboratory has an indication of a significant technical problem, is there a procedure in writing and in use whereby the laboratory initiates a review and takes any corrective action required?

Original inspection finding:
Section 10.1.2 of the DNA Policy and Procedure Manual states that the Special Agent In Charge and the Technical Leader will be notified anytime questions arise concerning discrepancies or the efficacy of a technical procedure using casework analysis. This section also states the technical leader should then immediately investigate. This section of the manual is in conflict with the laboratory's corrective action plan (Procedure 39) which states that the individual recognizing the problem immediately notifies the supervisor who in turn notifies the Laboratory Director, Quality Manager and the Assistant Deputy Director.

Supplemental finding:
The laboratory corrective action plan, Procedure 39, has been amended to coordinate DNA Policy and Procedure with that of Procedure 39. Procedure 39 now states the individual who identifies a potential substantial discrepancy shall inform their supervisor and/or technical leader in a timely manner. The supervisor and/or technical leader shall briefly but clearly document the discrepancy and the method of identification in an e-mail to the

Laboratory Director, Quality Manager and the Assistant Deputy Director. A copy of the revised policy was submitted and reviewed.

3.3.4 (E) Is distribution of all keys, magnetic cards, etc., documented and is distribution limited to those individuals designated by the laboratory director to have access?

Original inspection finding:
The distribution of keys for individual evidence lockers is not documented.

Supplemental finding:
Laboratory sections have expanded master key logs for every key in their Section. These key logs now include keys for individual evidence lockers maintained within the Sections. Copies of the updated key logs were submitted and reviewed.

All criteria for section 2.10, Crime Scene, were scored N/A because the laboratory elected to not apply for accreditation in the Crime Scene discipline.

SUMMATION OF CRITERIA RATINGS

	Total Possible	Total Yes	Total No	Total N/A	Total Number Yes/No
Essential	91	86	0	5	86
Important	45	45	0	0	45
Desirable	16	16	0	0	16

Percent Essential: 100%

Percent Important: 100%

Percent Desirable: 100%

Areas sought for accreditation are as follows:

Controlled Substances
Firearms/Toolmarks
Toxicology
Latent Prints
Questioned Documents
Trace Evidence
Biology
Digital & Multimedia Evidence

Prepared by: Edward A. Moilanen, ASCLD/LAB Staff Inspector

Ralph M. Keaton

Ralph M. Keaton, Executive Director