



ATF-LS-LP2 ACE-V Methodology	Published Online: March 2018
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I. **Purpose:** This policy and procedure guideline establishes the methodology used for friction ridge examinations and the conclusions reached in these examinations.

II. **Scope:** This policy and procedure is applicable to all case work generated by Laboratory Services fingerprint specialists.

III. **References:**

SWGFAST Guidelines/Standards (Current Versions found at swgfast.org):

- Friction Ridge Examination Methodology for Latent Print Examiners
- Standards for Conclusions
- Quality Assurance Guidelines for Latent Print Examiners
- Standard For Simultaneous Impression Examination

Ashbaugh, David R. (1999) *Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology*. Boca Raton, FL: CRC Press.

[IAI](http://iaii.org) (International Association for Identification) website

ATF-LS-4.3.2 Case Records

ATF-LS-5.10 Reporting Results of Analysis

ATF-LS-LP1 Introduction

ATF-LS-LP3 Case Documentation

ATF-LS-LP4 Report Wording

ATF-LS-LP23 Glossary of Symbols and Terms

IV. **Apparatus/Reagents:** None

V. **Safety Precautions:** None specific to this procedure - Standard Laboratory Safety Practices

VI. **Procedure:**

ATF Fingerprint Specialists will apply the current scientific methodology when performing friction ridge examinations. The ACE-V methodology is defined as follows:

Analysis:

Analysis is the examination of friction ridge detail conducted to determine suitability for comparison. Factors to be considered include: the quality (clarity) of the impression, the quantity of detail present and the anatomical source.

Comparison:

Comparison is the direct or side-by-side examination of friction ridge detail to determine whether the information in the impressions is in agreement based on similarity, sequence and spatial relationship.

Evaluation:

Evaluation is the formulation of a conclusion based on the analysis and comparison of friction ridge impressions.

Verification:

Verification is the independent application of the ACE methodology by another qualified examiner.

Range of Conclusions**Identification:**

Identification is the conclusion reached when a qualified latent print examiner determines that two friction ridge impressions, each containing sufficient quality (clarity) and quantity of friction ridge detail, originated from the same source with no unexplainable discrepancies.

Exclusion:

Exclusion is the conclusion reached when a qualified latent print examiner determines that two friction ridge impressions, each containing sufficient quality (clarity) and quantity of friction ridge detail, when all comparable anatomical areas are available, and with one or more unexplainable discrepancies, originated from different sources.

Inconclusive:

Inconclusive is the conclusion reached when a qualified latent print examiner is unable to identify or exclude a source of friction ridge detail that contains sufficient quality (clarity) and quantity of friction ridge detail because the corresponding areas of friction ridge detail are absent or unreliable.

When reporting inconclusive results, the fingerprint specialist must clearly indicate the reason(s) for the result.

VII. Controls

Section Chief or Designee: An administrative review of all case records will be made by the appropriate section chief or his/her designee. This review will be documented on the appropriate case review form.

Technical Reviewer: A technical peer review is performed by an expert proficient in the analysis being performed for each report of analysis. In addition, an administrative review of the case record is performed by the appropriate section chief. These reviews are documented on the appropriate Case Record Review Form according to procedure **ATF-LS-5.9.4 Case Record Review**.

VIII. Quality Programs: A sampling of case records for each case examiner will be reviewed for compliance to the above mentioned requirements during the annual Internal Quality Reviews.