



ATF-LS-QD6 Indented Writing Examination	Published Online: March 2018
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PRINCIPLE:

To detect and decipher, if possible, written indentations on paper.

SPECIAL HANDLING:

1. Evidence containing body fluids that is received in the Document Section should be dried under a hood and then repackaged in a paper box or envelope. Items should be handled in order to prevent examiner exposure and preserve DNA, if requested by the submitter. Contents should be documented on the front of the packaging.
2. When handling a contaminated document the examiner must have on a lab coat and rubber gloves. The evidence should be opened and examined only under a biohazard safety fuming hood. After examination the document should be heat sealed. The work area should be disinfected and the lab coat placed in a biohazard bag and sent to the laundry. The gloves must be placed in a properly labeled biohazard disposal after the examination is concluded.
3. Evidence submitted requesting a latent print examination should be placed in a plastic or mylar sheet protector covering the evidence. It should be documented in the case notes that a latent print examination has been requested. Do not lay heavy objects on the item to be examined for indentations. Do not write on the evidence container and/or envelope.

SPECIMEN(S):

An item purported to contain indentations.

SUPPLIES REQUIRED:

Paper, pen, toner, imaging film, scissors, rubber gloves, test indentation made on paper stock similar to the questioned document

APPARATUS REQUIRED:

Various light sources to include an articulated light source to produce oblique lighting, Electrostatic Detection Apparatus (ESDA)

CALIBRATION REQUIREMENTS:

Process "test indentations" to ascertain whether the ESDA is functioning properly. If image is faint, additional toner should be added to the cascade developer. Place the lid on the container and shake vigorously. A second "test for indentations" should be performed.

PROCEDURE:

1. The evidence is marked in ink with the appropriate item number as it appears on the Laboratory transmittal sheet, the case number, and the examiner's initials or other mark. Items on the

transmittal sheet may be amended by adding "Q" and "K" identifiers. Such amendments should be notated on a copy of the transmittal placed in the case jacket and the contributor should be notified via phone or email.

2. Photocopy each questioned item to be examined.
3. Examine the document using oblique lighting to disclose the presence of obvious indentations.
4. Process the document on the Electrostatic Detection Apparatus (ESDA)
 - A. Place document in humidifier for approximately five (5) minutes.
 - B. Remove document from humidifier and place on copper bed of the ESDA.
 - C. Turn on Vacuum pump
 - D. Pull imaging film over document and cut imaging film to needed size to fully cover the document.
 - E. Turn on and pass electrostatic wand over the document several times.
 - F. Tilt copper bed up slightly and allow toner to cascade down over entire document. (Process can be repeated as many times as needed to bring out indentations.)
 - G. Place adhesive mylar film on top of imaging film.
 - H. Remove adhesive mylar and imaging film from the original document.
 - I. Place adhesive mylar and imaging film on a white sheet of paper.
5. Make a photocopy of the adhesive mylar sheet.
6. The photocopy is placed in the case jacket with other notes and the original is returned to the contributor.
7. Formulate a conclusion based on all the evidence examined.
8. A complete technical review is conducted by another qualified examiner and documented and initialed on Technical Case File Review Form.
9. Record findings in written form and have the results recorded on formal laboratory report forms.
10. The bases and reasons for the conclusion(s), opinion(s), or finding(s) should be included either on the examiner's worksheet or on photocopies and may be also included in the report.

DOCUMENTATION:

Work notes consisting of decipherment of the indentations. A photocopy or photograph of the adhesive mylar sheet from the ESDA. A Questioned Document Worksheet will accompany each case and may include the equipment and/or procedures used, the identifying or eliminating features, and the results of analysis.

REFERENCES:

ESDA - Operating Instructions, Foster & Freeman, LTD., Essex, England.

Hilton, Ordway, Scientific Examination of Questioned Documents, Elsevier Science Publishing Co., Inc., New York, New York, 1982.

Osborn, Albert S., Questioned Documents, Nelson-Hall, Inc., Chicago, Illinois, 1929.

ASTM E2291-03 Standard Guide for Indentation Examinations.

Various professional papers written on the applications of the Electrostatic Detection Apparatus.

