

SUBJECT	FIRE CARTRIDGE CASE/SHOTGUN SHELL EXAMINATION PROTOCOL
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5.0 Fired Cartridge Case/Shotgun Shell Examination Protocol:

5.1 Handle evidence cartridge cases/shotgun shells carefully

5.1.1 Refer to the SBI Policy and Procedure Manual - Evidence Which May Carry Infectious Diseases - Page 37-3

- Read SBI-5 to determine if request for serological examination was made or if summary of incident indicates that such an examination is necessary. If determined that serological examination is necessary, transfer evidence to Molecular Genetics Section prior to examining.

5.1.2 Wear recommended laboratory gloves when handling evidence cartridge cases/shotgun shells that may be contaminated with blood/body matter or other biological material.

5.1.3 Cartridge cases/shotgun shells that are contaminated with blood/body matter or other biological material should be cleaned with a disinfectant such as 10% bleach, Hibiclens or denatured Ethanol.

- Body matter may be cleaned off with a clean cotton tipped swab.

5.2 Mark all evidence cartridge cases/shotgun shells for identification.

5.2.1. Do not mark on base or rim or mark on possible extractor or chamber marks. Find an area on the case devoid of markings.

- If possible mark with item #, case # and initials.
- If necessary, markings can be made inside a case mouth.

**FIREARM AND TOOL MARK SECTION
TECHNICAL PROCEDURES MANUAL**

**SECTION 5
JULY 1, 1996**

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5.3 Fill out a Cartridges/Cartridge Cases Work Sheet with the following fields:

5.3.1 Item #:

- The “Q” number assigned to the cartridge case/shotgun shell by the examiner.
- When applicable, the Laboratory Item number assigned to the item(s) by the Evidence Control Unit.
- The item number assigned by the submitting agency to this/these cartridge case(s)/shotgun shell(s).

5.3.2 Caliber/Gauge:

- Enter the appropriate caliber/gauge as determined by examination of the base of the cartridge or comparison with known standards.

5.3.3 Manufacturer:

- Enter the manufacturer as determined by examination of the base of the cartridge, comparison of known standards.

5.3.4 Description: (may include):

- Centerfire or Rimfire.
- Shape of the cartridge. E.g., belted, rimless, tapered, etc.
- Composition of casing or shotgun base and hull.
- Composition of primer.
 - Description of primer sealant if present.

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- Position and number of any cannelures.
- Shotgun shell load information. E.g., Max 1¼ #6
- Written and/or sketched description of head stamp.

5.3.5 Firing Pin Shape:

- Description of firing pin shape.
- On centerfires, is there any flow or drag marks associated with firing pin impression.
- Are there multiple firing pin impressions present? .

5.3.6 Extractor:

- Is there an extractor mark present?
- Are there multiple extractor marks present?
- An examiner may note the shape and quality of an extractor mark.
- If it can be determined, a clock relationship for the extractor may be noted. Based on looking at the base of the cartridge.

5.3.7 Ejector:

- Is there an ejector mark present?
- Are there multiple ejector marks present?
- An examiner may note the shape and quality of an ejector mark.
- If it can be determined, a clock relationship for the ejector may be

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noted. Based on looking at the base of the cartridge.

5.3.8 Notes: (may include:)

- Trace evidence noted. Is the casing damaged?
- Are there resizing marks present? Indicative of remanufactured ammunition.
- Are there chamber marks present?
- Are there magazine or clip markings present?
- Are there ejection port markings or any other miscellaneous markings present that may be unique to a particular firearm?

5.4 A sample cartridge/cartridge case examination work sheet can be seen on the following page.

5.5 No formatted spaces on any case work sheets are to be left blank. It is permissible to use N/A (not applicable) or a single line through unused spaces. If a work sheet contains multiple formatted sections, those not utilized must be crossed through or deleted.

Centerfire Cartridge Case/Shotshell Examination

Item #:

Caliber/Gauge:

Description:

Manufacturer:

Firing Pin Shape:

Extractor:

Ejector:

Trace Evidence:

Container(s):

**Package entered
through:**

Notes: