



Quality Division Use Only

Quality Tracking #:	2021-069	Classification:	Incident
Non-Conformance Level:	N/A	Section:	Firearms
Date of Discovery:	11/16/21	Date of Incident:	11/16/21

Forensic Case Number(s), if applicable:	Agency Case Number(s), if applicable:
N/A	N/A

Description of Non-conformance:
A fired bullet jacket fragment was found on the floor by a microscope in the Firearms section.

Additional Information/Follow-Up:
The Firearms section microscope exam area is located on the 14th floor in a controlled access area. Each microscope is typically used by the same examiners. The fragment was found at microscope #6, which is used primarily by the examiner who found the fragment.

The examiner found the fragment on the floor near microscope #6 on Tuesday, 11/16/2021. The area where the bullet fragment was found has a light-colored tiled floor. The examiner stated that the fragment was clearly visible on the floor, and that if it had been there the previous day, he would have expected to have seen it. The area is cleaned regularly, but it is not known if the cleaning crew had swept and mopped the floor that week.

When interviewed, the examiner stated that bullets may fragment during test firing, in which case the fragments are packaged with the test fired bullets, or bullets may fragment after they are packaged, likely during transport to or from the laboratory. Alternatively, examiners may need to pry up petals on hollow-point bullets to visualize lands and grooves on bullets. Frequently, the petals will fragment off the bullet in this process.

Summary of Root Cause Analysis:
Note: Incidents are documented for tracking purposes and trend analysis. Root Cause Analysis is not required for incidents.

N/A



Actions Taken:

After finding the fragment, the firearms examiner notified his supervisor, then investigated his active cases where microscope #6 had been used. None of the examiner's active cases had bullet evidence with characteristics that could be associated with the bullet fragment, nor did they appear to be missing any bullet fragments.

The examiner posted a Teams chat informing the rest of the Firearms section that he found a bullet fragment. He did not receive any responses from co-workers stating that the fragment belonged to one of their cases.

The examiner sealed the bullet fragment in the plastic bag and placed it in the Firearms vault on the 14th floor. He also reported the incident to the Quality Division.

While investigating this incident, the Quality Specialist learned that the Firearms section had found several items in the past, mostly metal fragments, that had never been associated with a known case. The Firearms section had not known what to do with these items, so they kept them in a designated container within their evidence vault. The metal fragment found on 11/16/2021 was added to the other found items, which included one cartridge case, two small bullets, and eight metal fragments. Except for the bullets, none of the items were inscribed or labeled. The two found bullets and the one found cartridge case were not inscribed with the case number and item number as required by section policy. One bullet was inscribed with a '2', and the other was inscribed with '17-15-41'. It is unlikely that the items were fired evidence, but rather test fires or training samples. However, HFSC has investigated and reported on the nonconforming work of a former NIBIN technician who did not consistently inscribe test fires as required by section policy, see Quality Report 2021-032.

HFSC moved its facilities in 2019. Two of the items (both metal fragments) were found at the new facility, 9 items were found at the previous facility (1200 Travis St, Houston, TX 77002), and the location of where one item was recovered is unknown.

All the found items were submitted to the Houston Police Department Property Room as found evidence under forensic case number 2019-20381 item 002 (agency case number 152304719) on 7/7/2022. This case has been used previously by HFSC to submit found items to HPD as found evidence (see Quality Report 2019-086).

The technical impact of lost fragments to a firearms examination request is low because fragments typically lack unique markings. However, HFSC is committed to maintaining the integrity of all items of evidence while in HFSC's custody.

Two issues are addressed in this nonconformance. The first involves the loss of small items, usually fragments, while performing bullet comparisons, and the second involves not having a process in place for analysts to follow when items, such as small metal fragments, are found.

The Firearms section recognizes and accepts that Firearms analysts may inadvertently loose small fragments from bullets while performing comparisons, although this is not a frequent occurrence. This as a risk inherent to the examination process. The section manager discussed this issue during a section meeting on 6/14/2022, including the practice of determining the probative value of fragments while they are still inside their plastic evidence bag, when possible. The section manager also added guidance in the SOP issued on 4/4/2022 stating that bullet fragments (from fired evidence and test fires) that cannot be engraved should be placed in a separate bag in an attempt to prevent their loss.



While no additional actions were taken to mitigate the risk of losing fragments, a process was developed for examiners to follow when fragments or other items of possible evidence are found. The section manager discussed the process with the section during a section meeting on 1/25/2022.

After the process was adopted by the Firearms section a cartridge case was found in the Firearms basement area on 3/11/2022, see Quality Report 2022-049. The newly established process was followed; however, the process did not work as expected. The process required all Firearms staff to respond to a communication regarding the found item indicating whether they had additional information. Two analysts were out of the office and missed the original communication. The process required a workflow be submitted if the origin of the found item could not be determined. The workflow was not submitted in a timely manner because the two analysts who were out of the office did not respond to the original communication. Based on this experience the Firearms section revised the process to require a workflow be submitted when fired evidence is first discovered rather than waiting until staff respond to the initial inquiry. The revised process is provided below, the original process can be found in Appendix A.

The revised process was discussed with staff during a Firearms Section meeting on 08/09/2022.

Revised process for found firearms related items:

If an analyst finds potential firearms related evidence, the following steps will be taken:

1. The analyst will collect the item that cannot be attributed to a specific case, examine it to determine if it has any unique characteristics.
2. The analyst will notify management.
3. If possible, an image should be obtained for bullet items. A description will suffice for cartridges and cartridge cases.
4. A workflow will be initiated to document the found evidence and any actions taken.
5. Management or designee will communicate to Firearms staff that potential evidence has been found.
 - a. Images or an adequate description will be shared with all Firearms staff.
6. All firearms analysts must respond to the original communication. Section management will determine the appropriate time frame for responses.
7. If the origin of the item can be determined, it will be returned to the appropriate location and documented. If the items were determined to originate from a forensic case, it will be documented as a case event.
8. If the origin of the item cannot be determined, it will be submitted to the property room as found evidence.



Houston Forensic Science Center
Incident/Corrective Action Report
Quality Division

Section Manager: Donna Eudaley **Date:** 08/29/22

Division Director: Amy Castillo **Date:** 09/02/22

Incidents or Corrective Actions that involve the Biology/DNA section are reviewed by the Technical Leader and CODIS Administrator.

Technical Leader: N/A **Date:** N/A

CODIS Administrator: N/A **Date:** N/A

Quality Director: Erika Ziemak **Date Closed:** 09/08/22



Appendix A

Original Process for found firearms related items

If an examiner finds potential item evidence, the following steps will be taken:

1. The analyst will collect the item that cannot be attributed to a specific case, examine it to determine if it has any unique characteristics.
2. The analyst will notify management.
3. If possible, an image should be obtained for bullet items. A description will suffice for cartridges and cartridge cases.
4. Management or designee will communicate to Firearms staff that potential evidence has been found.
 - a. Images or an adequate description will be shared with all Firearms staff.
5. All firearms analysts must respond to the original communication. Section management will determine the appropriate time frame for responses.
6. If the origin of the item can be determined, it will be returned to the appropriate location and documented. If the items were determined to originate from a forensic case, it will be documented as a case event.
7. If the origin of the item cannot be determined, it will be submitted to the property room as found evidence and a workflow will be initiated.