



Idaho State Police Forensic Services

FAQ for Firearms/Toolmark Discipline



Submitting Firearms and firearm related evidence:

*All Firearms evidence (including Agency Exemplars/test fires for NIBIN) should be submitted to the Coeur d'Alene Forensic Lab **unless** additional analysis is needed (ie – Latent Print Examination or Biology/DNA Analysis).*

- Upon entry of firearms related evidence into ISPFPS Prelog system: please indicate **all** requested analysis for the item. ISPFPS will coordinate evidence transfer to additional labs for processing. (IE- Firearm and accessories submitted to Meridian for Latent and DNA analysis, with comparisons needed from the Firearms Section. Evidence will be sent to Coeur d'Alene Lab once analysis in Meridian is complete).

Packaging a Firearm Evidence:

Securing the firearm

- UNLOAD! Call the Firearms section first if for some reason you cannot.
- Please, do not run zip ties down the barrel
- Package in a box or gun case and tie firearm securely to the bottom with multiple ties. Seal with evidence tape.
 - Semi-automatic – secure by zip tie through magazine well & out ejection port
 - Double action – secure by opening cylinder and zip tie hammer to frame
 - Single action – remove the cylinder
 - Bolt action – remove the bolt
- If a scope is present, remove it if not relevant to the case.
- Use appropriate size box to the size of gun.
- Do not dry fire or test fire the gun when submitting for Firearms examination.

Additional Information:

From your Agencies standpoint:

- Usually a comparative test.
- Collect fired bullets, cartridge cases and/or shotgun shell components, known and questioned.
- Collect all bullet fragments if possible.
- Record location found, either at scene or in the firearm (when unfired).
- Package all fragments separately in tissue paper, avoid using cotton if possible.
 - If recovered at autopsy, please examine for fibers or possible trace evidence, if none is noted, rinse the bullet before allowing to air dry then package .
 - If trace is possibly present, please submit to the lab as soon as possible to avoid bullet degradation/corrosion from blood contamination.
 - Label the source of each sample
- **Do NOT mark bullet or cases** – mark the package.



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Firearms Examination:

- Record position of hammer, position of casings or live ammunition in firearm, and position of cylinder.
- **Always submit the magazine** with the firearm, if one was recovered. (some firearms have a safety function that does not allow for firing without a magazine)
- If ammunition is recovered with the firearm, please submit unfired ammunition to laboratory for use to test firing the firearm and complete comparisons.

Fired Ammunition component examination and comparison (with or without a recovered Firearm)

- Examination of fired ammunition components can be completed regardless of if a firearm is recovered. Comparative analysis is completed when a firearm is recovered.
- Fired evidence cartridge case(s) and/or shotshells recovered:
 - Single recovered cartridge case can be submitted for entry into NIBIN.
 - Multiple cartridge cases- submission for comparative examination (with or without a recovered firearm) and NIBIN entry.
- Fired bullet(s) and/or fragments:
 - Single bullet can be examined and a GRC list may be generated for assisting with investigative leads on Firearms manufacturers.
 - Multiple bullets and fragments- inter comparisons between the submitted bullets and to lab created test fires from the firearm, if recovered.

NIBIN:

- National Integrated Ballistic Information Network, national database managed by the A.T.F.
- Digitally recorded images of fired cartridge cases.
- Search regional database for possible matches, if nationwide search is needed please notify the firearms unit.
- If a NIBIN lead is received: firearm and related evidence must be submitted to the ISPFS Coeur d'Alene Lab to be confirmed by a Firearms examiner
- ISPFS is now able to enter cartridge cases into NIBIN.
- Types of cases to submit:
 - Agency created test fires (exemplars) from firearms seized, which will not be submitted for firearms analysis.
 - Fired cartridge cases retrieved/collected from crime scenes, when no firearm is recovered.
 - Exemplar test fires from firearms in which the serial numbers have been obliterated, this should only be completed by the agency if there is no request for serial number restoration
 - If there are any questions, please contact the Firearms section located in the CDA laboratory.



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Gunshot Residue (GSR):

- ISP does not provide this service. It only indicates the presence or absence of GSR. Presence of GSR does not distinguish between shooter and mere proximity to shooter. We do recommend if you collect samples, collect for SEM (Scanning electron microscope). This testing can be completed by multiple private laboratories, contact ISPFIS Firearms section for the current list of private laboratories.
- Use GSR kit available from various sources
- Collect within as soon as possible after incident
- This test is for primer residue.
- Tests for powder residue on items (proximity determination) we do perform.

Evidence for Proximity/Distance Determination:

- Distance Determination.
 - If a revolver: record position of cylinder and ammunition. For Semi-automatic: document condition of firearm as found (slide position, safety position, number and ammunition contained in magazine)
 - Photograph scene and autopsy with a scale. If autopsy photos are taken, use scale and photograph at 90-degree angle from the surface.
 - Garments - Dry first, lay flat on butcher paper, and roll or fold (prefer roll).
 - Submit same gun and identical ammunition (different length barrel and different ammunition produce different results). The firearm and ammunition will be used for creating test panels.
 - Submit incident report and autopsy report

Tool Mark Comparative examination

- Package in wrapped & taped paper to prevent loss of trace and damage to the surface of the tool.
- Brace the wrapped tool inside the box using zip-ties.
- **DO NOT** attempt to “fit” the tool into the tool mark.
- If possible, submit the whole item with the toolmark to the laboratory.
- If not – photograph the item at close, medium & distant ranges and submit photos
- Photograph marks before and during casting with Mikrosil, AccuTrans AW, or other similar silicone casting materials and submit the pictures to the laboratory.
- Mark back of the card with date, initials, and a diagram indicating the position of the cast on the surface from which it was recovered.

Please direct any questions to the Firearms Examiners in the Coeur d’Alene Forensic lab.
Britany.wylie@isp.idaho.gov, janev.dunn@isp.idaho.gov or call 208-209-8700.