Gunshot Residue Analysis for Law Enforcement

Webinar Series: DAY 1
“Sample Collection and Submission”

February 25, 2015
Presented by:
The Forensic Scientists at RJ Lee Group
What is Gunshot Residue?

- Gunshot Residue (GSR): The particulate that is expelled from a firearm during the discharge.
Evidence Collection
WHO...
(Or what) can you collect from?

- People (Subjects OR Victims)
  - Hands
  - Faces
- Clothing
- Vehicles
WHEN...

Should you collect your samples?

• ASAP!
• Time/Activity are factors in particle loss
  – Washing hands/clothing
  – Wiping hands
  – Running/walking
  – Etc.
WHERE...

Should you collect your samples?

• At the scene if possible

• If collection takes place at the department/laboratory, then it should be performed in a clean, sterile environment.
Considerations When Collecting

- Activity
- Time
- Weather & Airflow
- Biological Material
- Contamination
- Bagging of Subjects Hands
- Preservation of clothing
Hand Kits

[Image of hand kits with labels: Left Palm, Right Palm, Left Back, Right Back, Control.]

[Image of a hand with a wristwatch and a gloved hand applying a material to the back of a hand.]
Sample Collection from Hands
Sample Collection from Clothing

- Right Sleeve
- Right Side
- Left Sleeve
- Left Side
Sample Collection from Vehicles

• Areas for collection in a vehicle include, but are not limited to:
  – Seats (cushion, back rest and back of seat)
  – Headliner
  – Door paneling
  – Center console
  – Dashboard
  – Steering wheel
  – Gear shift
  – Outer portions of vehicle
Correct Sampling is IMPORTANT!

- Ideal situations vs. realistic situations
- Proper, correct, and efficient procedures
- Ease of testimony
Packaging

Proper Packaging

• Fold item in butcher paper before packaging (Prevent cross-contamination from one area of an item to another area)
• One item per package
• Proper seals
• Initial/ date on seal and package

Improper Packaging

• Multiple items of evidence in the same package (Could cause cross-contamination from one item to another)
• No Seal
• Broken Seal
• Broken Contents
Evidence Submission
Submission Information

- Evidence should be properly packaged and sealed.
  - A chain of custody or a submission letter should be included with the evidence.
Chain of Custody

- Go to www.rjleegroup.com
- Submit a sample

2. Complete a Chain of Custody (COC).
   - General COC
   - IH / Environmental COC
   - Vermiculite Analysis COC
# Request for Laboratory Analytical Services - Chain of Custody

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RJ Lee Group
DELIVERING SCIENTIFIC RESOLUTION

RJ Lee Group
Gunshot Residue Analysis for Law Enforcement - Webinar Series Day 1
Submission Letter

January 18, 2012

To: Forensics – RJ Lee Group

RE: Gunshot Residue Testing for Police Department Case Number 10101010

The Police Department is requesting the RJ Lee Group to test evidence related to a homicide investigation. The items to be tested for gunshot residue include an RLG GSR hand collection kit and the suspect’s shirt.

Item #123 – RLG GSR Hand kit collected from Robin Banks
Item #456 – Shirt worn by Robin

The following is a brief synopsis of the shooting:

On December 10, 2011, Mrs. Banks was arrested later that day. A GSR kit was collected from her hands at the scene, and her shirt was removed at the jail.

We are requesting that item #123 (GSR collection kit) and item #456 (Mrs. Banks Shirt) be tested for the presence of gunshot residue.

Once Testing is Complete, please send report and evidence to:

Police Department
Attn: Detective
789 East Street
Phone: 
Fax:

Please send invoice to:

Police Department
Accounts Payable
789 East Street

Sincerely,
Detective

LETTERHEAD
ANALYSIS
CASE #
SYNOPSIS
EVIDENCE
REPORT TO CONTACT
INVOICE CONTACT
Carrier Services

- Evidence should be shipped through any means that provides that package with a tracking number.
  - UPS
  - FedEx
  - US Postal Service (certified mail)

- Evidence can also be hand delivered to RJ Lee Group.
THANK YOU!!!!

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