

Gunshot Residue Analysis for Law Enforcement

Webinar Series: DAY 1 “Sample Collection and Submission”

February 25, 2015

Presented by:

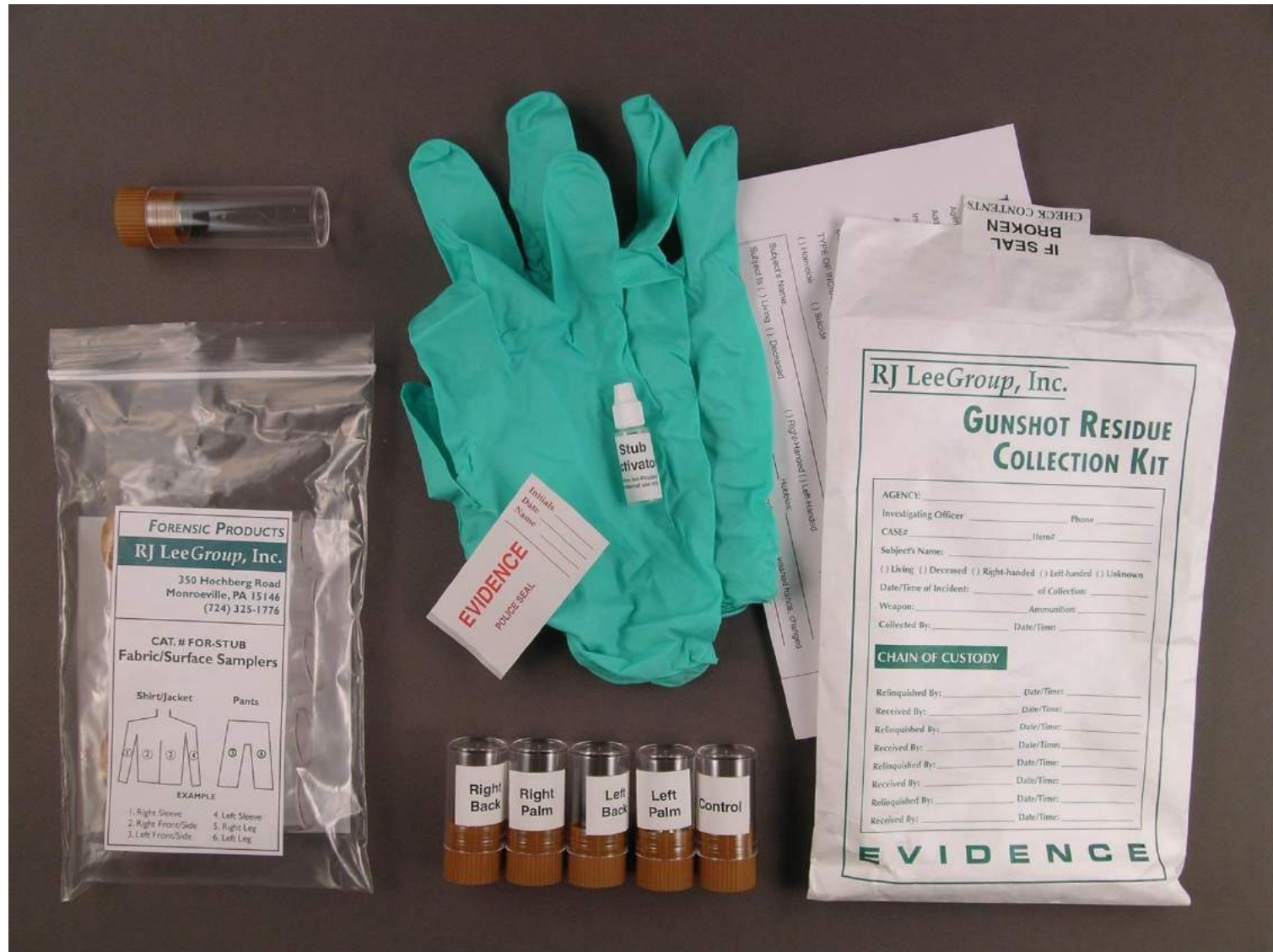
The Forensic Scientists at RJ Lee Group

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?

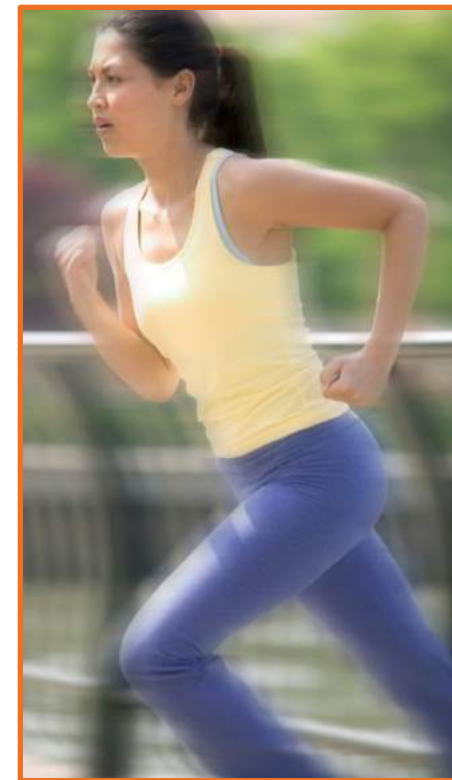
- People
(Subjects OR Victims)
 - Hands
 - Faces
- Clothing
- Vehicles



WHEN...

Should you collect your samples?

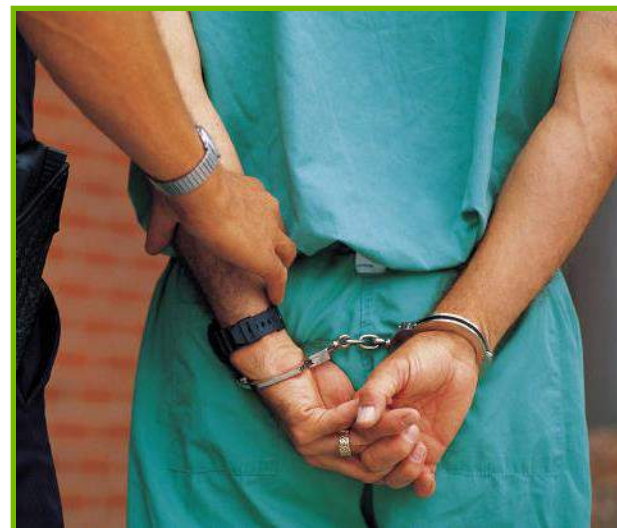
- ASAP!
- Time/Activity are factors in particle loss
 - Washing hands/clothing
 - Wiping hands
 - Running/ walking
 - Etc.



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

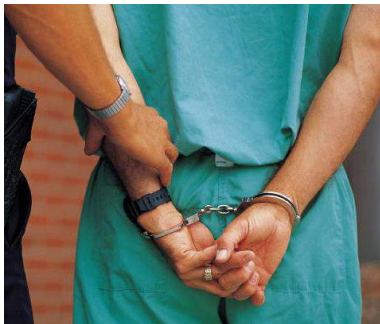
Biological Material

Contamination



Bagging of Subjects Hands

Preservation of clothing



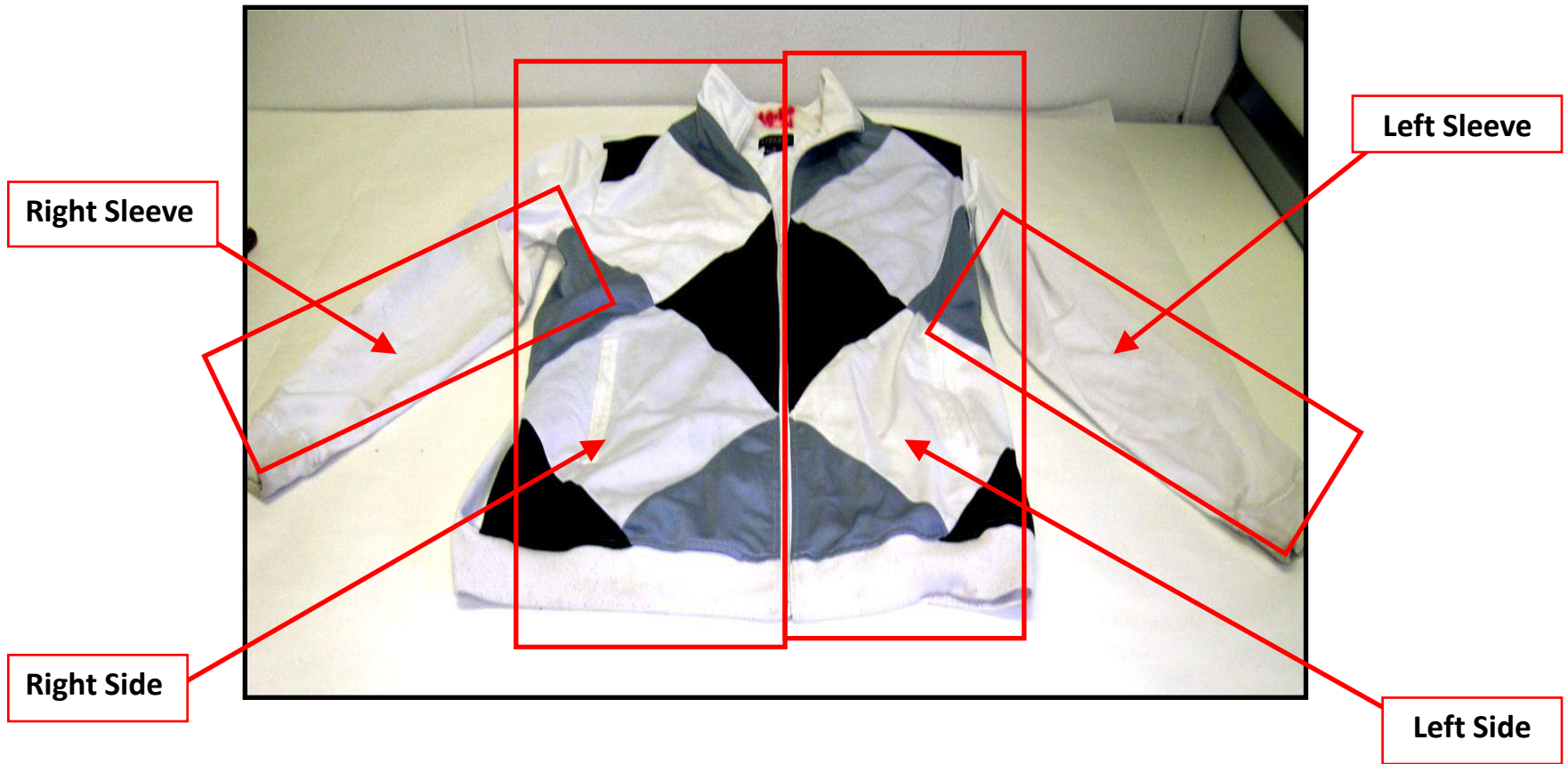
Hand Kits



Sample Collection from Hands



Sample Collection from Clothing



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](#)

Submission Letter



LETTERHEAD

January 18, 2012

ANALYSIS

CASE #

To: Forensics – RJ Lee Group

RE: Gunshot Residue Testing for Police Department Case Number: 1010101010

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 RJLG GSR hand collection kit and the suspect's shirt

Item #123 – RJLG GSR Hand Kit collected from Robin Banks
Item #456 – Shirt worn by Robin Banks

SYNOPSIS

EVIDENCE

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:

REPORT TO CONTACT

Please send invoice to:

Police Department
Accounts Payable
789 East Street

INVOICE CONTACT

Sincerely,
Detective

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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RJ LEE GROUP
DELIVERING SCIENTIFIC RESOLUTION