

**OFFICE OF THE ARMED FORCES MEDICAL EXAMINER
1413 Research Blvd., Bldg 102
Rockville, MD 20850**

**Forensic Trace Materials Analysis Laboratory
Examination Report**

AFDIL#: 99C-0438

Date: November 30, 1999

Lab Control #: 99-09

**Submitting Department: United States Attorney's Office
Washington D.C.**

I. Examination Requested:

Examine submitted slides to determine if:

- a. Human hairs are present.
- b. Human hairs present have roots with or without associated tissue.
- c. Blood is present on any item contained in the submitted slides.

II. Material Examined:

Mounted slides as indicated on the attached evidence inventory sheet.

Exhibit #3

III. Findings:

The following slides containing human hairs and/or tissue that appears to be blood:

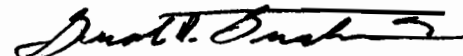
1. Slide 99C-0438-46A: One (1) human hair, medium blond in color, approximately 71mm long, approximate maximum shaft diameter 83.3 μm . Root present with root sheath and follicular tag and attached tissue. Fracture of root sheath noted perpendicular to length of shaft, located toward tip of root. Unknown adhering tissue and/or debris noted along hair shaft.
2. Slide 99C-0438-52A: The slide is in poor condition with dried mounting medium on top of the cover slip and clear tape on both sides holding the broken cover slip in place. The broken portion of the cover slip is loosely under the remaining portion of the cover slip. The slide contains one (1) human hair medium blond in color, approximately 54 mm long, approximate maximum shaft diameter 80 μm . The hair root is present and bears tissue in the form of a follicular tag. Although the condition of the slide makes parts of the hair difficult to observe, there appears to be a red in color substance on the hair shaft that could be blood.
3. Slide 99-0438-113A: Contains one (1) human hair, light blond in color, approximately 82 mm long, approximate maximum shaft diameter 70 μm . The hair has no root, however the shaft bears tissue that appears to be blood. The shaft is broken once along its length.
4. Slide 99C-0438-48A: Contains one (1) human hair, light blond in color, approximately 141 mm long, approximate maximum shaft diameter 70 μm . The hair has a root with small amount of adhering tissue.
5. 99C-0438-51A: Contains three (3) human hairs. Hairs numbered on slide "1, 2, 3" for better identification. The hairs have no roots.
 - a. Hair #1: Light blond – golden brown in color, approximately 23 mm long, approximate maximum shaft diameter 73.5 μm .
 - b. Hair #2: Medium blond – medium golden brown in color, approximately 17 mm long, approximate maximum shaft diameter 83.3 μm . Shaft bears tissue that appears to be blood as well as some unknown debris.
 - c. Hair #3: Medium blond – medium golden brown in color, approximately 24 mm long, approximate maximum shaft diameter 78.4 μm .
6. Slide 99C-0438-63A: The slide is in poor condition with dried mounting medium on top of the cover slip. The slide contains fragments of hairs and fibers however, the poor condition of the slide prevents sufficient clarity to determine if the hair fragments are of human origin. The fragments are located primarily around a blue in color "X" marked

on the cover slip at the center of the slide.

7. Slide 99C-0438-75A: Contains one human hair, approximately 63 mm long, approximate maximum shaft diameter 132.3 μm . The hair has a root and adhering follicular tissue.
8. Slide 99C-0438-58A: Contains two (2) human hairs with roots but no tissue. Hairs marked "1,2" for better identification.
 - a. Hair #1: Dark golden brown in color, approximately 5 mm long, approximate maximum shaft diameter 73.5 μm .
 - b. Hair #2: Blond in color, approximately 43 mm long, approximate maximum shaft diameter 201.9 μm .
9. Slide 99C-0438-112A: Contains four (4) human hairs. Two (2) marked "1,2" for better identification. The hairs are closely intermixed with each other and portions extend into the opaque edges of the mounting medium making length measurement and identification marking difficult.
 - a. Hair #1: No root, light – medium blond in color, approximate maximum shaft diameter 63.7 μm .
 - b. Hair #2: No root, light blond in color, approximate maximum shaft diameter 63.7 μm .
 - c. Hair with no Root. Rounded tip and crushed end located in center of slide area: light blond in color, approximate maximum shaft diameter 73.5 μm .
 - d. Hair with root and adhering tissue Light blond in color, approximate maximum shaft diameter 73.5 μm .
10. Slide 99C-0438-98A: The slide is in poor condition with dried mounting medium on top of the cover slip. Contains one human hair, medium blond in color, approximate maximum shaft diameter 63.7 μm . Due to poor condition of slide, viewing for length measurement is hampered however, the hair length is greater than 120 mm. The hair has a root with associated follicular and sheath tissue. Virtually entire length of hair is encrusted with red in color tissue that appears to be blood.

11. Slide 99C-0438-104A: Contains two (2) human hairs that are numbered "1,2" for better identification.
 - a. Hair #1: Light blond – medium golden brown in color, approximately 61 mm long, approximate maximum shaft diameter 161.7 μm . Has root (elongated) with adhering follicular tissue.
 - b. Hair #2: Medium blond – medium golden brown in color, approximately 51 mm long, approximate maximum shaft diameter 137.2 μm . Has root with a small amount of adhering tissue.
12. Slide 99C-0438-93A: Contains one (1) human hair, light blond – medium golden brown in color, approximately 17 mm long, approximate maximum shaft diameter 73.5 μm . Has root but no tissue.
13. Slide 99C-0438-91A: The slide is in poor condition with dried mounting medium on top of the cover slip. Contains one fiber with red adhering material that appears to be blood. Fiber marked with a black dot and "1" for better identification. Also contains one (1) human hair with root but no tissue. Hair is white in color, approximately 5 mm long, approximate maximum shaft diameter 29.4 μm .

The remaining slides contained no human hairs or possible blood.



GRANT D. GRAHAM SR., M.F.S.

MSGT, USAF

Chief, Forensic Trace Materials Analysis Laboratory

Reviewed by:

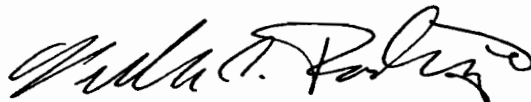


WILLIAM J. GORMLEY, M.D.

Col, USAF, MC

Assistant Armed Forces Medical Examiner

Reviewed by:



WILLIAM C. RODRIGUEZ III., Ph.D.

Chief Deputy Medical Examiner

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Forensic Trace Materials Analysis Laboratory
Evidence Inventory List

The below listed evidence was received by MSgt Grant D. Graham Sr. (563-49-1517) on 26 Nov 99 at approximately 1403 hours from Ms. Suzanne Barrit, AFDIL Sr. DNA Analyst.

One heat sealed zip-lock bag bearing the initials "SMB" and date "11.24.99." The bag contained the following items:

1. One bundle of two (2) slide containers each sealed with evidence tape.
 - a. Container marked 99C-0438-45A, 46A containing slides 99C-0438-45A and 99C-0438-46A.
 - b. Container marked 99C-0438-55A, 56A containing slides 99C-0438-55A and 99C-0438-56A.
2. One bundle of seven (7) slide containers, each sealed with evidence tape.
 - a. Container marked 99C-0438-115A containing slide 99C-0438-115A.
 - b. Container marked 99C-0438-112A containing slide 99C-0438-112A.
 - c. Container marked 99C-0438-104A containing slide 99C-0438-104A.
 - d. Container marked 99C-0438-98A containing slide 99C-0438-98A.
 - e. Container marked 99C-0438-94A containing slide 99C-0438-94A.
 - f. Container marked 99C-0438-93A containing slide 99C-0438-93A.
 - g. Container marked 99C-0438-91A containing slide 99C-0438-91A.
3. One bundle of nine (9) slide containers, each sealed with evidence tape.
 - a. Container marked 99C-0438-113A containing slide 99C-0438-113A.
 - b. Container marked 99C-0438-52A containing slide 99C-0438-52A.
 - c. Container marked 99C-0438-51A containing slide 99C-0438-51A.
 - d. Container marked 99C-0438-48A containing slide 99C-0438-48A.
 - e. Container marked 99C-0438-76A containing slide 99C-0438-76A.
 - f. Container marked 99C-0438-75A containing slide 99C-0438-75A.
 - g. Container marked 99C-0438-63A containing slide 99C-0438-63A.
 - h. Container marked 99C-0438-62A containing slide 99C-0438-62A.
 - i. Container marked 99C-0438-58A containing slide 99C-0438-58A.

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**Forensic Trace Materials Analysis Laboratory
Examination Report
(Addendum)**

AFDIL#: 99C-0438

Date: December 20, 1999

Lab Control #: 99-09

**Submitting Department: United States Attorney's Office
Washington D.C.**

I. Examination Requested:

Examine submitted slides to determine if:

- a. Human hairs are present.
- b. Human hairs present have roots with or without associated tissue.
- c. Blood is present on any item contained in the submitted slides.

II. Material Examined:

Mounted slides as indicated on the attached evidence inventory sheet.

III. Findings:

The findings of this report are an addendum to the original report written on 30 Nov 99. On 15 Dec 99, two (2) additional slides listed on the attached evidence inventory sheet were received from Suzanne Barritt (AFDIL Sr. Analyst) for examination in relation to AFDIL Case #: 99C-0438. The slides contain no human hairs but do contain tissue that appears to be blood:

1. Slide 99C-0438-99A: Contains no human hairs, however, the following observations were made concerning fibers and non-human hairs with adhering debris:
 - a. Non-human hair marked "1" for better identification: Located between the green and black circled areas, adjacent to the opaque border of the mounting medium. Bears red in color tissue along with other unknown debris adhering to shaft of hair. No root present and broken at both ends.
 - b. Area circled in green, contains green and yellow fibers that have debris adhering along the length of the shaft, some of which is red in color and could be blood.
 - c. Area circled in black, contains transparent fibers that have debris adhering along the length of the shaft, some of which is red in color and could be blood.

2. Slide 99C-0438-100A: Contains no human hairs, however, the following observations were made concerning fibers and non-human hairs with adhering debris:
 - Areas circled in green and black, contain red, green, blue, yellow and transparent fibers that have debris adhering along the length of the shaft, some of which is red in color and could be blood. The yellow fiber inside the green circle has an area that has been crushed. Additionally, the black circled area has two animal hairs that have debris adhering along the length of the shaft, some of which is red in color and could be blood.



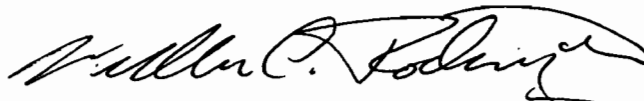
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