



COMMONWEALTH OF VIRGINIA
 DIVISION OF CONSOLIDATED LABORATORY SERVICES
 Bureau of Forensic Science

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November 7, 1977

CERTIFICATE OF ANALYSIS

TO: Sheriff
 Mecklenburg County Sheriff's Department
 P. O. Box 390
 Boydton, Virginia 23917

Attention: Deputy Sheriff Ruby Fox

Re: Rape

Your Case # - - -

FS Lab # 77-02423

Victim(s):



Examiner: Joan Faunce

Suspect(s): HILL, Calvin

Laboratory: Central
 P. O. Box 999
 Richmond, Virginia 23208

Date Received: 10-6-77

Evidence Submitted By: Deputy Sheriff Ruby Fox

- Item #1 - Physical Evidence Recovery Kit from victim.
- Item #2 - Print gown and blue housecoat.
- Item #3 - Glass and wood.
- Item #4 - Blue shade.
- Item #5 - Light blue curtain.
- Item #7 - Plastic bag containing red crusts.
- Item #8 - Two (2) pieces of torn striped material.
- Item #9 - Torn striped bedspread and two (2) pieces of torn striped material.
- Item #10- Two (2) pieces of torn striped material.

Evidence Submitted By: Deputy Sheriff Ruby Fox

Date Received: 10-18-77

- Item #11- Hair samples (head, pubic and facial) and saliva swabs from suspect Calvin Hill and control swabs.

IN FUTURE CORRESPONDENCE REFERENCE THIS MATTER PLEASE REFER TO THE FS LAB # ABOVE

- Item #12- Hair samples (head, pubic and facial) and saliva swabs from William L. Bugg and control swabs.
- Item #13- Blood sample from victim [REDACTED]
- Item #14- Blood sample from suspect Calvin Hill.

RESULTS OF EXAMINATION:

Item #1 - Intact spermatozoa were identified on the smears and in the vaginal wash. No seminal fluid was identified on the oral or rectal swabs. Further tests on the swabs indicate the secretions on the oral swabs are insufficient for typing or are from a non-secretor. Tests on the rectal swabs, vaginal swabs and swabs made from the vaginal wash indicate the secretions on each are type O.

The pubic combings contained many negroid hairs, none of which were similar visually to the pubic hair of William Bugg (Item #12). Several of the hairs were similar visually and microscopically to the pubic hair of the victim (Item #1) and not the pubic hair of Calvin Hill (Item #11). Several hairs were not similar visually to pubic hairs submitted from either the victim or the suspect. Three (3) hairs were similar microscopically in most respects to the pubic hair of both the victim and the suspect.

Item #2 - No blood or seminal fluid was detected on the robe. No seminal fluid was detected on the night gown. Dilute blood stains were identified on the left front breast area and the left and right back near the neck area of the gown. These stains were not sufficient for typing. No foreign hairs or fabric were detected on the items.

Item #3 - No fabric was noted.

Item #4 - Small smears at the lower back left side of the shade were identified as human blood. Further tests indicate these stains are type B. The quantity was not sufficient for further typing.

Item #5 - Human blood was identified near one edge of the curtain. Further tests indicate the stains are type B. The quantity was not sufficient for further testing. A short negroid hair fragment insufficient in length for comparison purposes and a pinkish fiber bundle were noted.

Item #7 - The sample consisted of a clear plastic bag containing minute red crusts identified as blood, insufficient for further testing.

Items #8, #9 & #10- The torn pieces of fabric Items #8, #9B, #9C, #10A and #10B were at one time a part of the torn bedspread, #9A. Blood, insufficient for further testing, was identified on pieces #9B and #10A.

Item #11- Tests indicate the saliva swabs are from a non-secretor.

Item #12- Tests indicate the saliva swabs are type O.

Item #13- Blood of the victim [REDACTED] is type O.

Item #14- Blood of the suspect, Calvin Hill, is type B.

The other requested examination is the subject of another report.

The evidence can be picked up in the laboratory.

JF:smp

STATE OF VIRGINIA
CITY/COUNTY OF Richmond to-wit:

Joan Faunce
Forensic Scientist

THIS day personally appeared before me, Shirley M. Patterson, a notary public, in and for said City/county in the Commonwealth of Virginia, Joan Faunce, who signed the foregoing Certificate of Analysis, before me, and after being duly sworn, made oath (1) that he performed the analysis and/or examination the results of which are herein contained, (2) that said analysis and/or examination was performed in a laboratory operated by the Division of Consolidated Laboratory Services of the Commonwealth or authorized by such Division to conduct such analysis and/or examination and (3) that this Certificate of Analysis is true and correct.

Given under my hand this 7 day of November, 19 77.

My commission expires September 29, 19 79

Shirley M. Patterson
Notary Public

that. I think he said himself that he could only say that she had intercourse.

MR. HODGES: All right. That is all. Stand Aside.

THE WITNESS STANDS ASIDE

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JOAN FAUNCE, a witness for the Commonwealth, after being duly sworn, testifies as follows:

DIRECT EXAMINATION

BY MR. HARRIS:

Q. Would you state your name, please?

A. Joan Faunce.

Q. How do you spell your last name?

A. F-a-u-n-c-e.

Q. Is that Miss or Mrs?

A. Miss.

Q. What is your profession or occupation, Miss Faunce?

A. I am a forensic scientist.

Q. Employed by who?

A. By the Bureau of Forensic Science, in the Central Lab in Richmond, Virginia. Crime lab system for the Commonwealth of Virginia.

Q. How long have you been so employed and

working in this field?

A. Approximately five years.

Q. And just briefly, what is your educational background for this work and your experience in the work?

A. I have a bachelor of science degree from Mary Washington College in Biology, and a masters science degree from William and Mary in Biology. When I came to the lab in 1973 I underwent a period of approximately one year during which time I trained in the area of blood, body secretions, hairs and fibers under an experienced examiner in those area.

Q. And have you been working in this particular field for the last five years?

A. Yes, sir, I have.

Q. All right. In your capacity as a forensic scientist, did you have delivered to you by Deputy Sheriff Ruby Fox, certain blood specimens belonging to Calvin Hill and to [REDACTED]?

A. I had--yes, sir, I did.

Q. All right. You typed the blood testing of Calvin Hill to find out what his blood type is?

A. Yes, sir, I did. I found that the blood of Calvin Hill is Type B.

Q. Type B. Did you type the blood of [REDACTED]

██████████ to determine what type blood she had?

A. Yes, sir, I did.

Q. And what is her type?

A. She is Type O.

Q. Which, for my information, is the more common type of blood?

A. Type O occurs in approximately forty-five percent of the population, and Type B in approximately ten percent.

Q. Ten percent?

A. Yes.

Q. So, Type B is fairly rare?

A. Yes, sir.

Q. Now, did you likewise have submitted to you by Deputy Sheriff Fox a window curtain and a window shade?

A. Yes, sir, I did.

Q. It is in evidence here that these items apparently had some bloodstains on them.

A. Yes, sir, I identified human blood, Type B on both items.

Q. You identified human blood, Type B, on both the window shade and the curtain?

A. Yes, sir.

Q. That would be the same type of blood as Calvin Hill has?

A. That is correct.

Q. And it would be different from the type of blood of [REDACTED]

A. Yes, sir.

Q. Now, did you likewise have submitted to you a blood crust sample that the officer has testified was removed from the floor in the kitchen?

A. I had submitted to me a plastic bag which contained a crust, and I assume this is the sample you may be referring to.

A. All right. Were you able to make any analysis of this particular specimen?

A. Yes, sir. I identified the crust as blood, but the quantity was insufficient to type.

Q. All right. Did the Deputy likewise deliver to you a bedspread and certain fragments of material for you to compare or analyze?

A. Yes, sir, she did.

Q. I hand you two exhibits that have been introduced here today. One contains a bedspread and the other contains certain fragments, and I will ask you if you made an effort to compare these and if so, what results

did you find from your comparison of them?

A. Yes, sir, I did attempt to analyze these and compare them. The fibers---the colors---the makeup of pattern and--were the same as the larger portion of the bedspread. In addition, they were matched together and I came to the conclusion that they were at one time all part of this bedspread.

Q. In other words, it was your professional opinion and professional conclusion that the strips that we have introduced here were originally a part of this entire bedspread?

A. Yes, sir.

Q. All right. Did you have submitted to you any specimen of spermatozoa sperm?

A. I had submitted to me what is known as the physical recovery kit. This is collected from the victim by a doctor. This was submitted to me by Deputy Sheriff Ruby Fox.

Q. And did you make any study or analysis of this specimen?

A. Yes, sir.

Q. And what was your conclusion and the results of your analysis of this specimen?

A. I found intact spermatozoa in the vaginal

wash and on the smears. I did some preliminary chemical tests on the swabs to determine the possible presence of seminal fluids. These swabs were oil swabs--vaginal swabs and rectal swabs. I determined that the vaginal swabs gave a positive test here, and as I have said, I identified intact spermatozoa in the vaginal wash and on the smears. I did not get a positive test for possible presence of seminal fluid on the rectal swabs, nor did I find spermatozoa on these swabs. I typed the swabs and found that the vaginal wash, the vaginal swabs and the rectal swabs were each Type O. I was unable to get a type from the oil swabs and I concluded that the secretions were insufficient for typing. However, due to the fact that I typed the rectal swabs as Type O, I concluded that the victim is a Type O secreter.

Q. All right. From your analysis of this particular specimen, were you able to reach any conclusion as to whether this spermatozoa may have come from the accused, Calvin Hill, or from anyone else?

A. The vaginal swabs contained spermatozoa, so I know the vaginal swabs represent a combination secretion of vaginal fluid and seminal fluid. This type on these swabs was Type O, and that too would represent a combination secretion type. I noted the victim is Type

O, and the seminal fluid then must either have been Type O, or from a non-secreter. The swabs from Calvin Hill were typed and they were found to be from a non-secreter.

Q. So, the conclusion is that these sperms could have come from Calvin Hill?

A. That is correct.

Q. All right. I believe you also had submitted to you for analysis some pubic hairs?

A. Yes, sir.

Q. Were you able to draw any satisfactory conclusion in your mind as to these specimens?

A. There were many pubic hairs found in the pubic combings from the victim. These hairs in the pubic combings--none of them were similar to those of the known specimens submitted from William Bugg. Several of the hairs were similar visually microscopically to the pubic hairs of the victim and not to the pubic hair of Calvin Hill. Several hairs were not similar visually to the pubic hairs submitted from either the victim or the suspect, however three hairs were similar microscopically in most respects to the pubic hair of both the victim and suspect.

Q. So, you really could reach no final conclusion?

A. No real conclusion could be reached from those results.

Q. All right. But there is no question in your mind on the bloodstains on the curtain and the windowshade being the same type blood as Calvin Hill?

A. That is correct.

Q. All right. And there is no question in your mind about the strips of material we have here as having come from or being a part of this bedspread?

A. That is correct. I think there was also another item that was matched in there as well--an item--a small piece--Item 8--perhaps.

Q. All of these were matched to the bedspread?

A. Yes, sir.

Q. All right. Thank you. Answer Mr. Hodges.

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CROSS EXAMINATION

BY MR. HODGES:

Q. In Type B about one out of ten persons-- or everytime you see ten people you see about one person with Type B blood?

A. That's right.

Q. All right. How did you get the blood sample on Calvin Hill?

A. I believe it was brought to me directly-- I believe--it was brought in directly to the lab.

Q. You don't know how it was obtained, do you?

A. Pardon?

Q. You don't know how it was obtained?

A. No, I only know that I received it at the lab.

Q. Is it correct that male spermatozoa contain chromosomes that are almost distinctive?

A. Ah---

Q. Is that accurate or not?

A. I don't know what you mean there. They contain--the male spermatozoa is the germ cell which contains half the number of chromosomes of body cell and unites with the egg to form a total compliment of---

Q. Am I correct--aren't the chromosomes in the spermatozoa in males very distinctive?

A. I don't know that they are any more distinctive than those of the egg.

Q. But they are distinctive?

A. As far as I know they are.

Q. What I am getting at is can the chromosomes in spermatozoa be tested so that it is almost distinctive as to one individual?

A. Not that I know of.

Q. All right. That is all.

THE WITNESS STANDS ASIDE

E. H. COX, a witness for the Commonwealth, after being duly sworn, testifies as follows:

DIRECT EXAMINATION

BY MR. HARRIS:

Q. Would you state your name, please?

A. E. H. Cox.

Q. You are a Deputy Sheriff for Mecklenburg County, Virginia?

A. Yes, sir.

Q. Mr. Cox, did you participate in the investigation of the charges we have here against Calvin Hill?

A. Yes, sir.

Q. Did you arrest Calvin Hill?

A. No, sir.

Q. Do you know who arrested him?