

1 THE COURT: Be seated, please. And please
2 call your next witness.

3 MS. FULLER: State calls Juli Rehfuss.

4 THE COURT: Right up here, please, ma'am. And
5 before you have your seat, if you'll raise your right hand.

6 (Witness sworn.)

7 THE COURT: If you would, have your seat. And
8 if you would, please state and spell your name for my court
9 reporter.

10 THE WITNESS: Yes, ma'am. It's Juli Rehfuss.
11 J-U-L-I R-E-H-F-U-S-S.

12 THE COURT: You may proceed.

13 MS. FULLER: Thank you, Your Honor.

14 **JULI REHFUSS,**

15 having been first duly sworn, testified as follows:

16 **DIRECT EXAMINATION**

17 Q. (BY MS. FULLER) Good afternoon, Ms. Rehfuss.

18 A. Hi.

19 Q. Who are you employed by?

20 A. I'm employed with the Houston Police Department
21 crime laboratory.

22 Q. And what is your position with the HPD crime lab?

23 A. I'm a serologist.

24 Q. What does that mean? What is a serologist?

25 A. I basically screen evidence for the presence of

1 bodily fluid such as blood and semen.

2 Q. Okay. And once you screen a piece of evidence and
3 find a bodily fluid, what would you do with that piece of
4 evidence next?

5 A. Well, first when I receive the evidence, I want to
6 make sure that all of the unique identifiers match up, make
7 sure the incident number's correct, the item number, et
8 cetera. And then once I receive the evidence, I'll put the
9 unique identifier on there again, I usually handwrite it and
10 then I put the item number as well as my initials and the
11 date that I receive it.

12 Q. Okay. Let me back up a little bit. Can you tell
13 the jury a little bit about your educational background?

14 A. Yes. I have a bachelor of science degree in
15 biology from North Carolina State University.

16 Q. And are you a member of any organizations or groups
17 in terms -- professional groups and organizations?

18 A. Yes, ma'am. I am a member of the Southwestern
19 Association of Forensic Scientists as well as the
20 Association of Forensic DNA Analysts and Administrators.

21 Q. How long have you been a serologist with HPD?

22 A. I've been with HPD since 2000.

23 Q. Before that what did you do?

24 A. Before that I worked at the Houston Zoo.

25 Q. How long were you at the Houston Zoo for?

1 A. Approximately two years.

2 Q. What were you doing with them?

3 A. I was a zookeeper.

4 Q. You've been with HPD, you said, since 2000?

5 A. Yes, ma'am.

6 Q. And as a serologist, do you continue your legal --
7 not your legal -- your education in terms of keeping up to
8 date with changes in serology or the science behind that?

9 A. Yes, ma'am. We are expected to keep up with the
10 continuing education at least once a year by attending
11 different training seminars and classes.

12 Q. Have you testified in the courts in Harris County?

13 A. Yes, ma'am.

14 Q. Regarding serology?

15 A. Yes, ma'am.

16 Q. Would you say that would be on few or many
17 occasions?

18 A. Few.

19 Q. And have those courts deemed you to be an expert in
20 the area of serology?

21 A. Yes, ma'am.

22 Q. Okay. Now I want to turn your attention back to --
23 let's talk first about the process of extracting or
24 looking -- not extracting but looking for whether or not a
25 piece of evidence has a bodily fluid or some type of fluid

1 on it, okay?

2 A. Yes, ma'am.

3 Q. When a piece of evidence first comes in, what are
4 you going to do with it?

5 A. The first thing after I double-check to make sure
6 it is the correct piece of evidence for that case, I do a
7 visual examination.

8 Q. Okay. What are looking for?

9 A. Basically I'm looking for blood or semen, any dark
10 staining, any, like, white crusty stains, pretty much
11 anything on that level.

12 Q. Okay. And after your visual inspection, what do
13 you do?

14 A. After the visual inspection, I'll go ahead and do
15 some presumptive testing such as the alternate light source,
16 which is basically the UV light. I'm sure you've seen it on
17 TV, with the goggles. We take most of our evidence under
18 the alternate light source to see if anything may or may not
19 fluoresce.

20 Q. What type of fluids generally fluoresce?

21 A. Semen generally fluoresces. We use the light
22 source more as a tool, an investigative tool for us. It's
23 not very specific, if you will; so, it just gives an
24 indication that a bodily fluid may or may not be present.

25 Q. Okay. Now, let's say that you've got a piece of

1 evidence and you visually inspect it and you don't see
2 anything that looks to you like it could be blood or semen.
3 Would you still do some of those presumptive tests to see if
4 there is a fluid there?

5 A. Yes, yes, I would take it under the alternate light
6 source.

7 Q. Okay. In addition to the alternate light source,
8 are there other presumptive tests you can do at this stage?

9 A. Yes. If I visually see a stain, I can test it for
10 acid phosphatase, which is our presumptive test for semen.
11 Acid phosphatase is actually a protein found in seminal
12 fluid. If I see reddish-brown staining and I'm looking for
13 blood, I'll go ahead and do a presumptive blood test that we
14 call phenolphthalein.

15 Q. After you do those presumptive tests, what would
16 your next step be?

17 A. Well, the presumptive tests really just give you an
18 indication something may or may not be there. They're very
19 sensitive but they're not specific. So, if a presumptive
20 test comes back positive, I'll take that on to a
21 confirmatory test.

22 Q. Can you tell us about the confirmatory test?

23 A. Yes. The confirmatory tests are more specific.
24 For the blood test, it's called a Hematrace and that's
25 specific for blood of human origin, and then the acid

1 phosphatase test. If that comes back positive, we'll go
2 ahead and search for sperm.

3 Q. Okay. After you finish that testing, what would
4 you do next?

5 A. If those come back positive for human origin, I'll
6 go ahead and take a sample of that, be it swab or clothing,
7 anything to that nature, and then I would package it and
8 process it for DNA.

9 Q. Okay. So, you yourself wouldn't actually do the
10 DNA testing?

11 A. No, ma'am. I would just actually put it into the
12 tube and preserve it for the DNA analyst.

13 Q. Okay. Now, let's say you've got a piece of
14 evidence and you take it through all the presumptive tests
15 that you have and you come up with nothing. What would you
16 do next?

17 A. With the presumptive tests, if we don't get any
18 positive results, we stop.

19 Q. Okay. I want to talk to you a little bit also
20 about the state at which the evidence comes to you. The
21 evidence is coming to you -- where do you get the evidence
22 from?

23 A. Well, it comes from the property room. Our
24 evidence technician will go and actually pick up the
25 evidence and bring it to us.

1 Q. Okay. So, when you get a bag from the property
2 room and you open it up, generally has anyone else at that
3 point been into that bag?

4 A. When we receive it from the property room, it is
5 properly sealed. It's usually in a box or a bag and it's
6 got the seal and the initials of the person who actually
7 placed it into that box or bag.

8 Q. Okay. And when you are looking at a piece of
9 evidence to determine whether or not you've got any fluids
10 on it, can you tell me what kind of environmental factors
11 will affect whether you can find the presence of semen or
12 whether there is the presence of semen or blood on a piece
13 of evidence?

14 A. Yes, the environmental factors can affect DNA. DNA
15 is very robust; however, it can be affected by heat,
16 humidity, sunlight, bacteria, anything like that.

17 Q. Rain, wind?

18 A. Yes, yes, many environmental factors.

19 Q. Okay. And what would those factors do to that DNA
20 or to those fluids?

21 A. Well, it can break down and degrade the DNA almost
22 to the point where we are unable to detect it.

23 Q. Okay. I want to talk to you about contact DNA.
24 Can you tell the jury what contact DNA is?

25 A. Yeah. Contact DNA is usually probably your skin

1 cells, your saliva, your sweat, stuff of that nature.

2 Q. Would it also include hair fibers or hairs?

3 A. Hairs. It depends on the hair that you would have.
4 If we're going to do DNA on a hair, it's usually from the
5 root area of the hair or any follicular tissue that was
6 attached to the root of the hair. There's another DNA
7 testing you can do on the hair called mitochondrial testing;
8 however, we do not perform that.

9 Q. Okay. So, if it was just a piece of hair that fell
10 out of somebody's head, is that something you could test for
11 DNA?

12 A. We could examine it to see if there was a root
13 attached to the hair and/or any follicular tissue, but if
14 there's not, it would have to go to the second testing, the
15 mitochondrial testing.

16 Q. Okay. Now, how easy is it for contact DNA and hair
17 fibers to be preserved when you're talking about some of
18 those same environmental factors you just talked about, the
19 humidity, the rain, the heat?

20 A. Well, the chances of getting any contact DNA are
21 kind of slim, just depending on how the evidence was stored.
22 If it was affected by the heat, humidity, rain, et cetera,
23 if it was left out in the elements, then the DNA could just
24 possibly degrade to the point where we cannot detect it.

25 MS. FULLER: May I approach the witness?

1 THE COURT: You may.

2 Q. (BY MS. FULLER) I'm going to hand you these and I
3 would like to show you what has already been entered into
4 evidence. State's Exhibit 92, state's Exhibit 93 and
5 State's Exhibit 94 and the contents therein. Do these look
6 familiar to you? You can look inside the bag, too, if you
7 need to.

8 A. Okay. I do not recognize this bag only because it
9 does not have my initials or date or unique identifier on
10 it.

11 Q. Okay.

12 A. These two bags, however, do have the identifier, my
13 initials, as well as the item numbers.

14 Q. Okay. Now, what is this number that we're looking
15 at right there?

16 A. This is the incident number, the unique
17 identifiers -- identifiers specific to this case.

18 Q. Okay. And can you tell me the name associated with
19 this unique identifier?

20 A. I'm sorry.

21 Q. To the case. Was there a name attached to this
22 case?

23 A. Let me check my file, please.

24 Q. Please.

25 A. According to my paperwork, the complainant is

1 listed as unknown.

2 Q. Okay. Do you have any other information, other
3 names listed with the report?

4 A. On an additional report, the complainant name has
5 changed to Linda Hartsough.

6 Q. Okay. Can you tell us what you tested in State's
7 Exhibits 92, 93 and 94. And if -- actually, if you would,
8 refresh -- look at your report first and tell me what items
9 were submitted to you for testing.

10 A. Yes. According to my report, the items that were
11 submitted for testing consisted of a box containing panties,
12 a left sandal, right sandal, another box containing a
13 T-shirt, a second T-shirt, a pair of pants and a pair of
14 jeans.

15 Q. Okay. Can you look at these State's Exhibits and
16 tell me what corresponds to what you were asked to test?

17 A. Yes, ma'am. Item 2.1, which is State's Exhibit 93,
18 is a pair of panties.

19 Q. Okay. I'm going to take State's Exhibit 2 -- 92
20 and put it down here. State's Exhibit 93, could you please
21 look at that and tell me what else you noticed about the bag
22 and any seals?

23 A. The bag does have a broken seal here with my
24 initials and the date.

25 Q. Okay. And can you open that bag and confirm that

1 what you tested was, in fact, in there?

2 A. Take it out?

3 Q. Please.

4 A. Yes. This is a butcher fold with the seal, my
5 initials and date as well as the unique identifier, my
6 initials and the item number.

7 Q. Okay. And can you tell us what you did when you
8 received this piece of evidence?

9 A. Yes. When I first received the pair of panties, it
10 was in a box with the sandals and it was in its own paper
11 bag, a sealed paper bag contained in that box. And when I
12 opened it, I observed trace evidence which we listed as
13 apparent dirt, debris, leaf litter, and that's why I
14 retained it in the butcher paper, just to preserve any of
15 that trace evidence.

16 Q. Okay. So, when you took the contents of State's 93
17 out, the panties, you put them on this butcher paper in
18 order to keep any of the debris that was located on that
19 piece of evidence?

20 A. Yes. After I was finished with my examination of
21 the panties, I just folded up the butcher paper and returned
22 it to its original packaging.

23 Q. Okay. Can you tell me if you were able to -- did
24 you -- tell me the results of your testing on State's
25 Exhibit 93, which would be the panties; is that correct?

1 A. Yes, ma'am. When I first opened the panties, I
2 noticed that they were covered in apparent leaf litter,
3 dirt, debris, they were very odorous, they were crusty and
4 they had several areas of brown staining.

5 Q. Okay. What was the first thing that you did when
6 you observed those things?

7 A. The first thing I did, I used the alternate light
8 source to see if I could see any areas that could possibly
9 fluoresce and I found approximately four areas that
10 fluoresced. However, when I did more presumptive testing,
11 the acid phosphatase test, all the results came back
12 negative.

13 Q. Okay. That was testing for semen, correct?

14 A. Yes, ma'am.

15 Q. After those presumptive tests came back negative,
16 did you do any further testing?

17 A. No, ma'am.

18 Q. At that point were you able to extract anything you
19 could preserve and then send on to the DNA analyst?

20 A. No, ma'am. There was nothing positive on the
21 panties to send to DNA.

22 Q. Okay. Now, you stated that there was a lot of
23 debris. Can you tell me what kind of debris you saw?

24 A. I'm not an expert with the debris, but it just
25 looked like a bunch of dirt, sand, a lot of leaf litter and,

1 yeah, they were odorous.

2 Q. Okay. Now, State's Exhibit 94 -- so -- excuse me.
3 Let me back up. State's Exhibit 93, and I'll let you put
4 that back in the back. State's Exhibit 93, you were not
5 able to extract any fluids that could be sent off for DNA?

6 A. No, ma'am, it was negative.

7 Q. What do you do with the piece of evidence after
8 that?

9 A. Well, after I placed it in the butcher paper and
10 sealed it, I returned it to its original envelope and then
11 back into the box.

12 Q. Okay. That would be this evidence seal right
13 there?

14 A. Yes, ma'am.

15 Q. Okay. State's Exhibit 94, did you do any testing
16 on State's Exhibit 94?

17 A. Yes, ma'am. That would be Items 2.2 and 2.3, the
18 pair of sandals.

19 Q. Uh-huh.

20 A. Take it out?

21 Q. Sure.

22 A. Okay.

23 Q. Just to confirm that they were --

24 A. My unique identifier, the item numbers, my initials
25 and the seal with my date and initials are on the items.

1 Q. Okay. Now, when you received State's Exhibit 94,
2 what did you first do for testing purposes?

3 A. When I first took them out, I did a visual
4 inspection just to see what the sandals looked like. They
5 appeared to be a pair of sandals. They were brown, size 6,
6 and I did not see any visible bloodstains on the sandals. I
7 took them under the alternate light source and I didn't see
8 any areas that fluoresced.

9 Q. Okay. So, from there, were there any other
10 presumptive tests you could do?

11 A. No, ma'am, it was just presumptively negative.

12 Q. Okay. So, again on State's Exhibit 94, there was
13 nothing you could extract -- semen or blood that you could
14 then send on to DNA for further testing?

15 A. Correct.

16 Q. Okay. Now, if you learned that these pieces of
17 evidence had been out -- had been outside in Houston from
18 May 15th until June 25th, 2010, what conclusions could you
19 base on whether or not you could get any type of serology
20 from those pieces of evidence?

21 A. Well, the chances of any biological fluid still
22 being on the item would be pretty slim if they were left out
23 in the elements for that period of time, and any possible
24 blood and/or semen could be degraded to the point where I
25 could just not detect it.

1 Q. Okay.

2 MS. FULLER: Pass the witness, Your Honor.

3 THE COURT: Mr. Cornelius.

4 **CROSS-EXAMINATION**

5 Q. (BY MR. CORNELIUS) Ms. Rehfuss, my name is Skip
6 Cornelius. We've talked on this case, I think, but it's
7 been awhile.

8 A. Yes, sir.

9 Q. Is it -- tell me if I'm correct. It appears that
10 you were trying to get or attempt to get something that
11 might develop a DNA profile on someone other than the person
12 that was deceased; is that right?

13 A. Well, sir, I was just screening the items of
14 evidence for any possible blood or semen.

15 Q. Okay. Because -- did you know that a body
16 completely decomposed, allegedly, on the shorts and one of
17 these shirts and on these panties? I mean, the entire body
18 fluid passed through them, basically. Did you know that?

19 A. No, sir, I was not made aware.

20 Q. Okay. Because, I mean, body fluid like that, you
21 can develop -- well, you can at least attempt to develop DNA
22 from that, couldn't you?

23 A. It could be possible.

24 Q. What about bones? I mean, you weren't asked to
25 look at the bones or try to develop DNA for the bones, were

1 you?

2 A. No, sir.

3 Q. Do you know if anybody -- do you know if anybody
4 was trying to develop the DNA of the person who actually
5 died?

6 A. No, sir, I was not instructed to test for anything
7 other than blood and semen.

8 Q. Okay.

9 MR. CORNELIUS: Pass the witness.

10 THE COURT: Anything further?

11 MS. FULLER: Nothing further, Your Honor.

12 THE COURT: And may this witness be excused?

13 MS. FULLER: Yes, Your Honor.

14 MR. CORNELIUS: Yes, Your Honor.

15 THE COURT: Thank you, ma'am. You're free to
16 go.

17 THE WITNESS: You want me to put that back in
18 the bag?

19 THE COURT: Please. And please don't discuss
20 your testimony with any of the other witnesses.

21 THE WITNESS: Yes, ma'am. Thank you.

22 THE COURT: Call your next witness, please.

23 MS. FULLER: State calls Officer Brooks.

24 THE COURT: Come on up, Officer. Raise your
25 right hand.