1 see you again, jurors. Thank you for your return. 2 You may proceed. 3 MS. FULLER: At this time the State calls Juli Rehfuss. 4 THE COURT: And, ladies and gentlemen, this witness 5 was sworn just prior to your arrival. 6 7 JULI REHFUSS, having been duly sworn, testified as follows: 8 9 DIRECT EXAMINATION 10 BY MS. FULLER: 11 I probably said your name wrong, so would you please Ο. 12 introduce yourself to the jury. Yes, ma'am. My name is Juli Rehfuss. 13 Α. 14 And who are you employed with? Ο. 15 I'm employed by with the Houston Police Department Α. 16 crime laboratory. 17 Ο. And what is your job duty at the crime lab? 18 I'm a criminalist with the serology biology section. Α. 19 All right. Let's talk about your educational 20 background. Can you give the jury an idea of that? 21 Α. Yes, ma'am. I have a bachelor of science degree in 2.2 biology from North Carolina State University. 23 And have you continued your education in any type of Ο. forensic studies or sciences? 24 Well, we have a pretty intensive in-house training 25 Α.

various forensic articles, and we have a lot of written tests

as well as competency tests, so the training actually

incorporates my degree into the field of biological sciences

program that includes reading forensics textbooks, reading

- through various mock cases that we have to go through, and then
 we're shadowed by another qualified analyst for a time, and
- 7 then we're signed off on actual case work.
 - Q. And that's when you become an actual serologist?
- 9 A. Yes, ma'am.

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- Q. How long have you been a serologist with the crime
- 12 A. I've been with the crime lab since 2000.
 - Q. And you've been a serologist since that time?
- 14 A. Since 2004.
- Q. Tell us what a serologist is, what are your job duties?
 - A. Well, serology basically identifies biological materials, mainly blood and seen, through a series of presumptive and confirmatory tests.
 - Q. Can you, just broadly speaking, kind of give us some examples of what kind of testing you would do for presumptive tests?
- A. Yes. So presumptive tests are really sensitive but they're not specific. So it just gives us an indication that something may be there, a biological fluid, and then if that is

positive, then we'll take it on to a confirmatory test to tell if -- to tell us if it's of human origin, and then we can apportion that and send it on to DNA.

- Q. When you are looking at a piece of evidence, can you always see with the naked eye certain biological materials?
- A. It depends on the item and the biological material that I'm looking for. Such as, you know, blood is fairly easy to see on light colored clothing, or a swab, whereas semen -- you know, it depends on what the item is. If it's just a swab, I can go ahead and just press out that swab and do one of my presumptive tests to see if there could be biological fluid on that swab. With clothing we go through a series of presumptive tests just to help us identify if there are any semen stains.
- Q. Now, sometimes when you are trying to test to determine whether or not a particular piece of evidence has a biological material on it, do you have to make a determination of how you're going to collect that evidence, for example, swabbing it versus performing additional tests to confirm whether or not a biological agent is present?
- A. It depends on what the item is. If it is a swab that was taken in a sexual assault kit, for example, then we will just go ahead and take a piece of filter paper. We put distilled sterile water on the filter paper. We'll actually press out the swabs and then we'll test the filter paper instead of testing the swab directly, and then we can perform

our tests from there. So if my filter paper gives me a color change, it lets me know that the presumptive test was positive and I can take it on to a confirmatory test where I'll physically cut part of the swab and take it down the line.

With clothing, it depends on what I'm looking for.

If I'm looking for semen or blood, it depends on what type of material I'm dealing with if I could swab it or if I could physically cut it out off of that item.

- Q. Let's talk about contact DNA. Can you describe to the jury what contact DNA is?
- 11 A. Yes. Contact DNA is basically touch DNA, if you
 12 will. So they're more than likely just shed skin cells that we
 13 have.
 - Q. And can it be skin cells from outside your body and inside your body?
 - A. Yes, ma'am. The epithelial cells, which are the skin cells, contain a nucleus, and so you can find DNA in any nucleated cell. So it just depends on what the item is, if you were touching something or if it physically came into contact with one of your, you know, bodily fluids.
 - Q. And with touch DNA, do you have the problem of that DNA easily being transferred or removed from certain pieces of evidence?
 - A. Well, again, it does depend on how forcefully that person could have touched the item, what the item is, if it is

- 1 -- is it a smooth surface or rough surface, had they just
 2 washed their hands or have they come into contact with somebody
 3 else or another object. It all depends.
 - Q. Okay. Do you recall working on a case back in 2011 with the -- I believe your incident number is 119305210?
 - A. Yes, ma'am.

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- Q. And the suspect in that case was Dean Wood?
- 8 A. That is correct.
- 9 Q. All right. And in this case can you tell me what you 10 were first requested to do?
 - A. Well, there are a series of three screening reports in the case file. Would you like me to go through all three or one in particular?
 - Q. Let's talk particularly about what you were asked to do with beer bottles and a pair of shorts.
 - A. Yes, ma'am. So the investigator requested a pair of shorts to be worked, which is item 1.1. There's a t-shirt, 1.2; a pair of tennis shoes, 1.3; as well as four bottles; an energy drink can; and then I had known saliva swabs from a Julie Ostlund, which is item 11, and Mary Ostlund, which is item 12.
 - Q. Okay. Let's --
- MS. FULLER: May I approach, your Honor?
- 24 THE COURT: Yes.
- Q. (By Ms. Fuller) I'm going to first show you what has

- already been introduced as State's Exhibit 95. Do you recognize the contents of State's Exhibit 95?
 - A. May I?
- 4 Q. Yes.

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- A. Yes. It has the unique identifier, which is the incident number in this case, my initials, as well as the item, which is 1.1.
 - Q. And 1.1 according to your report is?
 - A. A pair of shorts.
- Q. Okay. And your initials are seen on the bag, on the outside of the bag?
 - A. Yes, on the outside of the bag as well as the seal.
 - Q. Okay. And obviously these have been opened, they've already been admitted, but do those look familiar to you?
 - A. Yes. The shorts have a lab information tag on it which has the unique identifier, the incident number, my initials, item 1.1, and shorts.
 - Q. Okay. All right. So when you received item 1.1, which is a pair of blue shorts, what was the first thing that you did with those blue shorts?
 - A. Let's see -- the first thing I would do with the shorts, I would do a visual examination of the shorts just to see if I can see any blood or stains, food stains, anything like that. And then I'll photograph the evidence and perform some presumptive, and confirmatory tests if the presumptive

1 tests are positive.

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- Q. All right. And on the shorts did you find some stains that appeared to be blood?
 - A. Yes, ma'am. On the front of the shorts there were four, approximately four areas that were presumptively positive for the presence of blood.
 - Q. Okay. Now, at some point did you take any swabs from these shorts?
- 9 A. Actually I pressed them out with a piece of moistened
 10 filter paper, and then I tested the filter paper with my
 11 presumptive test for blood.
 - Q. Okay. So moving on from the blood, at some point did you come back to these shorts to do another swab of a particular area of the shorts?
 - A. Yes. I also took two swabs from the inside crotch area of the shorts.
 - Q. Okay. And --
 - MS. FULLER: May I approach again, your Honor?

 THE COURT: You may.
 - Q. (By Ms. Fuller) I also want to show you what has been marked as State's Exhibit 79, 80, 81, and 82. Do you recognize these bags and their contents?
- A. Yes. They have the incident number on them, my initials, as well as the item numbers.
- O. Okay. And at some point were you requested to take

swabs from these bottles?

- A. Yes, ma'am, I did.
- Q. How did you take the swabs first from the blue shorts?
- A. Well, with the blue shorts, I was looking for possible contact DNA on the inside of the shorts, so I wouldn't do any testing on the swabs. I would just moisten them a little bit with the sterile water. I'll take two swabs at the same time, and I'll just, you know, in a forceful manner swab the inside panel of the shorts, and then I portion one of those swabs for DNA analysis.
- Q. Okay. And with the bottles, how did you collect the swabs from the bottles?
- A. It was basically in the same manner. I'll just take, I believe two swabs -- (checking report.) Yes. So on each of the bottles, items 8.2, 8.3, 8.4, and 8.5, I took two swabs and in the same manner I just swabbed the entire outside and the lip area of each bottle.
- Q. Okay. So I want to show you what has been marked previously as State's Exhibit 121, 122, 123, 124, and 125. Do you recognize what these are?
- A. Yes. These are portions of the swabs that I took from items 1.1, 8.2, 8.3, 8.4, and 8.5.
- Q. And those correspond to the shorts and the four beer bottles; is that correct?

- A. Yes. So I would take two swabs and then I would portion one whole swab for DNA.
 - Q. Okay.

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- A. And that's what this is.
- Q. And how do you know that these are the swabs that you took from the shorts and from the bottles?
 - A. Well, it has the incident number, my initials, the item number, and my seal is on the back with my initials and the date.
 - Q. Okay.
- MS. FULLER: Your Honor, at this time the State moves
 to admit State's Exhibit 121, 122, 123, 124 and 125 into
 evidence.
- 14 THE COURT: Subject to our discussions earlier?
- THE COURT: Which we've already said. I'm going to
- 18 MR. HOCHGLAUBE: Thank you, Judge.

admit now 121, 122, 124, 124 and 125.

MR. HOCHGLAUBE: Yes.

- Q. (By Ms. Fuller) So after you obtained these swabs and you sealed them up into these envelopes, what happens with those swabs next?
- A. I gave those sealed envelopes directly to analyst Clay Davis.
- Q. Okay. And analyst Clay Davis is -- what would he then do with those swabs, I mean, generally speaking?

He is the DNA analyst, so he would take all of those 1 2 portions, the swabs that I had put into the tube, and he would 3 carry those on for the DNA portion. When you took the swabs off of the bottles and off of 4 Q. the shorts, did you follow the standard protocols and 5 procedures that you would use in order to collect that type of 6 evidence? 7 8 Α. Yes, ma'am. And did anyone else aid you or help you in collecting 9 Ο. 10 the swabs from the shorts or from the bottles? 11 Α. No, ma'am. 12 MS. FULLER: Pass the witness, your Honor. THE COURT: Cross-examination. 13 14 MR. HOCHGLAUBE: Thank you, Judge. 15 CROSS-EXAMINATION 16 BY MR. HOCHGLAUBE: 17 A moment ago you were talking with the prosecutor about the dates that you performed your analysis in this case, 18 19 right? 20 Yes, sir. Α. 21 And there was actually a number of different dates Q. 22 that you performed different analyses in this case, correct? 23 May I refer to my notes? Α.

MR. HOCHGLAUBE: Judge, may I use that board right

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Please.

1 behind the witness? 2 THE COURT: Sure. 3 Ο. (By Mr. Hochglaube) Are you ready? Yes, sir. 4 Α. I'm sorry, I was waiting on you. 5 Q. What was the first date that you did testing in this 6 7 case? I actually did all of the testing that was requested 8 Α. of me on March 25, 2011. 9 10 Okay. So, and what you're saying is that you were responsible for testing the shorts, the blue shorts, correct? 11 12 Α. Yes, sir. They were navy. So not the gray shorts? 13 Ο. 14 Α. No, sir. 15 And the four beer bottles, or three beer bottles and 16 one malt liquor bottle; is that right? 17 Yes, sir. Α. 18 Now, are there other dates that you can tell from 19 your records that HPD did testing in this case? Yes, sir. There are two other screening reports. 20 Α. 21 Q. What are the dates? 2.2 Oh, excuse me, three prior screening reports. Α. 23 What are those dates? O.

The first report was submitted on September 22, 2010.

25 O. The next one?

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- 1 A. The second screening report is dated October 5, 2010.
- 2 Q. Okay.

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- A. And the third screening report is dated November 30, 4 2010.
 - Q. Okay. So basically if this incident is alleged to have happened in August of 2010, then your first analyses began about eight, nine months later; is that right?
 - A. Yes, sir.
 - Q. And you weren't requested to do any of these analyses back in August or September, you were requested to do your analyses back in March, right?
- 12 A. The investigator submitted the fourth request, which
 13 would be my analysis.
 - Q. Okay. And so at the time you began your analysis, do you know whether the rape kit in this case has been analyzed?
 - A. Yes, sir, the sexual assault kit from Flora Ryan was processed.
 - Q. It had already been processed at this point, right?
- 19 A. Yes, sir.
 - Q. And what about swabs from the complainant's fingernails?
- A. Yes, sir, the morgue evidence from Flora Ryan was also processed.
- Q. And that included her fingernails, right?
- 25 A. Yes, sir.

- Q. Now, I guess you didn't have anything to do with the testing of those items, right?
- 3 A. No, sir.
- Q. But you certainly have experience with doing at least the serology on rape kits, right?
- 6 A. Yes, sir.
- Q. And so you're aware of why a rape kit might go through serology, right?
- 9 A. Yes, sir.
- Q. And you're aware of why it might be completely processed for DNA purposes, right?
- 12 A. Yes, sir.
- Q. The idea is that with the rape kit there's a

 gathering of all the evidence found on the complainant in this

 case, the supposed, the victim, right? The idea is that you

 might get DNA material off of her body, right?
- 17 A. It is possible.
 - Q. Right. And it doesn't happen every time, right?
- 19 A. That is true.

- Q. But it happens enough of the time that it's worth testing for, right?
- 22 A. Yes, sir.
- Q. And the same thing is true with testing for someone's fingernails, right? Is that right?
- 25 A. Yes, sir.

- Q. Because basically enough of the time you will find a person having acted defensively and get some DNA off of whoever the person they were in contact with underneath their fingernails, right?
 - A. It's a possibility.
 - Q. Right. Enough of a possibility that it's worth testing for, right?
 - A. Yes, sir.

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- 9 Q. The -- now, with these shorts, these blue shorts, you did a presumptive test for blood, right?
- 11 A. Yes, sir.
- Q. And that was based on you being able to see what you believed to be blood on the shorts themselves, right?
 - A. Yes, sir. I did notice a reddish brown staining on the front of the shorts.
 - Q. Now, one other thing about your testing, is that you can't tell how or whether DNA gets to wherever it gets to, or any biological matter gets to wherever it gets to?
 - A. That's true.
 - Q. You can say it's there, but you can't say when or how it got there, right?
 - A. That is true.
- Q. So but you'd agree with me that if a person is
 performing CPR on a body that is bloody, that's a pretty
 reasonable way that they might get blood from the person that

- 1 | they were doing CPR on on their shorts, right?
- 2 A. That's a possibility.
- Q. Right. If they got it on their hands or if they put
- 4 | their hand on their shorts or their shorts came in contact with
- 5 | the person they're doing CPR on they can end up with blood on
- 6 | their shorts, right?
- 7 A. Yes, sir.
- 8 Q. And in this case, you said they were, like, four
- 9 different spots; is that right?
- 10 A. Yes, sir.
- 11 Q. Okay. Now, you did the presumptive testing for blood
- 12 on the shorts, right?
- 13 A. Yes, sir. I also did confirmatory testing for human
- 14 blood.
- Q. Okay. And it was blood, right?
- 16 A. Yes, sir.
- Q. But -- and the idea of doing that testing, right, is
- 18 | because you can see there's something there that is worth
- 19 | testing for, right?
- 20 A. Yes, sir.
- 21 Q. But with the beer bottles and with the malt liquor
- 22 | bottle, you didn't make any type of blood presumptive testing,
- 23 | right?
- A. The only evidence that I noticed on 8.4, which is the
- 25 malt liquor bottle, was that it appeared to have apparent mold

- 1 on the inside that was visible.
 - Q. Okay. Right. But so you did not do presumptive testing for blood on any of the bottles, right?
 - A. No, sir. I just swabbed it for possible contact.
 - Q. And the idea is that you're not going to do presumptive blood testing on every single item that comes before you; is that right?
 - A. That is true.
 - Q. You're going to do it on the things that look like they might have blood to be tested, right?
- 11 A. Yes, sir.

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- Q. Or semen to be tested, right?
- 13 A. Yes, sir.
 - Q. In this case, although you could see it on the shorts, you couldn't see anything and you had no reason to believe that there was any type of blood on any of the beer bottles or the malt liquor bottle?
- 18 A. I made no note of any reddish brown staining on the 19 bottles.
 - Q. Do you know whether -- there were a couple of other items that were also tested through HPD, but I'm assuming you didn't have anything to do with them. There was a blanket that was tested, right? I think it's 7.1.3.1?
- A. Yes, sir.
- Q. And did you talk about the shirt stain, 4.3.2.1?

- A. I did not test the shirt, not me personally.
- Q. Okay. Now, one of the other things I just want to cover real briefly with you is the prosecutor talked about contact DNA, right?
 - A. Yes.

- Q. And along the same lines of contact DNA is the idea of contamination, right? By DNA coming -- touching an item that didn't have the DNA on it before, you can contaminate, I guess, the DNA and the DNA can be spread onto something inadvertently, right?
- A. I wouldn't say contaminate. I would say that possible contact DNA can cross-transfer from one object to another or from one person to another.
- Q. Okay. And I appreciate you correcting me. I think you're right about the wording you're using and I'm not right about it.
- The -- but hypothetically, right, if we stick items like the shirt, the blanket, or other items that have sort of obvious bloodstains, obvious fecal matter, fairly obvious stains, right, when we put them into a washing machine with clothing items, say gray shorts, right, put them all in the washing machine together, right, that's a recipe for getting DNA transferred from one garment to another, is it not?
- A. Yes, sir. And it also depends on the fluid and how the fluid is. So if you have liquid blood and it's not dry yet

- it could easily transfer to something else. However, if you
 were -- a dry crusty bloodstain, you know, it would take a
 little more effort to actually transfer the blood flakes to
 another item. It just depends.
 - Q. Right. And so in theory, if these gray shorts have some sort of biological material on them, right, and again, speaking to the idea that we don't know how or when DNA gets on a particular garment, we can't say the DNA got there before the washing machine or got there when it was put in the washing machine, right?
 - A. No, I couldn't tell you how it got there.
 - Q. And basically either which way is totally plausible, right?
 - A. It's possible.

- Q. Do you know whether the results that come from -- I think I asked this but I want to make sure I covered it. The rape kit and the complainant's fingernails, right, those have been submitted at an earlier day, correct?
- A. Yes, sir. They are in the first report dated September 22nd.
- Q. And the final analysis had come back before you began -- before you were requested to do your testing in March of 2011, right?
- A. The only items that went on to DNA analysis were the fingernail scrapings and clippings of the left hand, item 10.3;

- 1 the fingernail scrapings and clippings from the right hand, 2 item 10.4; and those are processed in the DNA report dated 3 January 26, 2011. Okay. So again, before you ever become involved? 4 5 Α. Yes, sir. 6 All right. Are you -- you're aware, though, that a Ο. 7 rape kit was submitted for DNA evaluation somewhere, right? 8 Α. Yes, sir. That was not submitted to DNA. 9 Okay. Ο. 10 Just for screening. Α. Just for screening? 11 Ο. Yes, sir. 12 Α. 13 Q. All right. The -- do you -- okay. MR. HOCHGLAUBE: I'll pass the witness. 14 15 MS. FULLER: Just briefly, your Honor. 16 May I approach the witness? 17 THE COURT: You may. 18 REDIRECT EXAMINATION 19 BY MS. FULLER: 20 I want to be sure and -- this is State's Exhibit 81, 21 but it's 8.4 in your lab report. I'm going to pull this out 22 real quick. And then 8.1 and 8.2. 8.2, which is State's
- 23 Exhibit 79, did you make a list regarding how exactly you 24 swabbed these bottles? Yes. I photographed the evidence, and according to 25 Α.

my notes, I just took two swabs at the same time, moistened 1 2 with sterile water, and I swabbed the lip area and the entire 3 outside body of the bottle, of each bottle. Of each bottle? 4 Q. 5 Α. Independently. 6 Okay. Did you put the swabs down inside the lip area 0. as well? 7 Yes, just inside the lip. And then I concentrated 8 Α. 9 mostly on the outside of the bottle. 10 Ο. Okay. 11 MS. FULLER: Pass the witness, your Honor. 12 THE COURT: Anything further? 13 MR. HOCHGLAUBE: No, Judge. 14 THE COURT: Call your next. 15 MS. FULLER: The State calls Clay Davis. 16 THE COURT: All right. You may proceed. 17 MS. FULLER: Thank you, your Honor. 18 CLAY DAVIS, 19 having been duly sworn, testified as follows: 20 DIRECT EXAMINATION 21 BY MS. FULLER: 2.2 Good afternoon, Mr. Davis. Would you introduce Ο. 23 yourself to the jury. 24 My name is Clay Davis. Α. And, Mr. Davis, who are you employed by? 25 O.