THE COURT: Thank you.

THE BAILIFF: Judge, this witness has not been sworn.

THE COURT: Thank you. Come up this way, please. If you would face the jury, I will give you the oath.

(Witness Duly Sworn)

THE COURT: Thank you very much. You may have a seat.

You may begin.

MR. LEONARD: Thank you, Judge.

PRISCILLA HILL,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

Q. ***(BY MR. LEONARD)*** Good afternoon, Ms. Hill.

A. Good afternoon.

Q. Would you please introduce yourself to the jury?

A. Hi. My name is Priscilla Hill, and I work for the Houston Police Department crime laboratory.

Q. How long have you been working for the Houston Police Department crime lab?

A. Approximately seven and a half years.

Q. And what do you do there?

A. I'm a DNA analyst.

Q. And tell the jury a little bit about your education and your background.

A. Sure. I have a Bachelor of Science degree in forensic science from Baylor University and a Master of Science in forensic DNA analysis from the University of Central Lancashire.

Q. And are you required to take continuing education?

A. Yes, sir.

Q. Okay. And tell the jury a little bit about that.

A. We are required to take at least eight hours of external training a year annually; and then we also keep abreast of current literature as well as proficiency testing, as well.

Q. Tell the jury a little bit about the proficiency test.

A. A proficiency test is required twice a year. It is an outside agency that submits a case and I process it as I would casework, but then the results are unknown to the laboratory. We submit those results that I get to that outside agency, and they give me a certificate if I passed or not. This is to ensure that I am doing my job correctly, that our laboratory procedures are in place, are being

performed correctly, and that we're doing what we are doing. So, it is a quality check on the lab and myself.

Q. Okay. Have you ever failed a proficiency exam?

A. No, sir.

Q. Okay. And is the Houston Police Department crime lab accredited?

A. Yes.

Q. And what does it mean to be accredited?

A. To accredit -- well, we are accredited by ASCLD lab, which is the American Society of Crime Lab Directors Laboratory Accreditation Board. And what this is, is a team that comes in and audits our laboratory. The team consists of other scientists in the field that work in perspective laboratories. And they come in and review our policies and procedures to make sure that we are adhering to national standards and guidelines, as well as the lab protocols that we have put in place.

So, they review the facility, casework, my background, if I have the educational background, cases that I have done. They interview myself and look at evidence. All this is encompassed in the audit; and then once everything passes, we are

accredited.

Q. Ms. Hill, I want to talk to you a little bit about the work that you did specifically in this case. Did you compile a report or make any notes with regards to this case?

A. I did make notes, yes.

Q. Okay. And is there a case file associated with this case?

A. Yes, sir.

Q. Okay. And what is that case file number?

A. 083298010.

Q. Okay. And does that case file identify a defendant and a victim with regards to the evidence that is being analyzed in this case?

A. Yes.

Q. Okay. And what does it identify?

A. I have the complainant as Imani Hilton, and the suspect identified as Rodney Milum, Jr.

Q. Okay. And tell the jury what is it that you did in this particular case.

A. Specifically, I re-amped two samples within this case; and then I also -- also technically reviewed the case file once the analyst wrote the report.

Q. Okay. Let's talk about re-amped. We have

talked about several steps in the DNA analysis portion. We talked about extraction. We talked about quantification, amplification, and interpretation. What exactly is re-amp or the amplification process?

A. Sure. Re-amp -- well, it is a part of the amplification process. All re-amp means is that the sample already was amped one time. So, we went back and re-amped it again. In this case it was to try and obtain a more informative result. So, more quantity was amped the second time.

Q. Okay. And what sort of safeguards are you taking to make sure that the evidence that you analyze is not contaminated?

A. Well, specifically, in the amplification process, I have a mask, gloves, lab coat; but I have a prepared area that's specifically for amplification. And I make sure that it's sterile before I use it on my equipment, as well.

We use pipette tips. So, obviously, I only use one tip per sample. Samples are not open at the same time. We have controls in place that follow the samples through this process; and so, are -- in the end it should be blank to show that there was not any contamination.

There is also negative controls incorporated into the amplification process, positive showing that the kit and all your reagents are working properly and negative showing that the reagents are clean. So, all of these are in place to ensure the quality.

Q. Okay. And if there was cross-contamination in a sample that you analyzed, what would happen?

A. Well, first, obviously, it would be investigated; and then what we would do is work backwards to see where the root of the issue happened and then see how it could have been prevented in the future.

Q. Okay. Do you have any evidence or notes or documentation that there was contamination with regards to this particular case that you investigated?

A. No, sir.

Q. Okay. You also said that you were the technical reviewer in this particular case. What exactly does that mean?

A. Once an analyst -- the assigned analyst writes their case -- his or her case, a colleague then goes and reviews that work and agrees with her findings and conclusions and signs off as if it's

their own case, as well. And if they would have made the same conclusions, they agree with everything. So, my initials are on that part. I technically reviewed all of her work and agreed with her report.

Q. Okay. And it's basically a way to doublecheck the work?

A. It's a quality control measure.

Q. Okay. And whose work did you check in this particular case?

A. In this case it was -- well, she was Jennifer Clay, yes.

Q. Okay. What other involvement did you have in this case?

A. I think that's it.

Q. Okay.

MR. LEONARD: I pass the witness.

THE COURT: Thank you.

Mr. Smith?

MR. SMITH: Thank you, Your Honor.

CROSS-EXAMINATION

Q. ***(BY MR. SMITH)*** You're an evidence technician, basically; is that right?

A. Well, no. I'm a DNA analyst. But in this particular case, I amped some samples.

Q. Okay. Which particular samples did you

amplify?

A. I believe it was the extraction of the panties sample.

Q. That is referring to the epithelial portion of the --

A. Yes, sir. Sorry. I made an abbreviation. Epithelial extraction of the panties.

Q. Those -- okay. Those are cells that you know come from like the mouth, the inside of the vagina, maybe the urethra of the male; is that correct?

A. Correct. In the sample, it refers to -- obviously, the different DNA samples, a sperm fraction epithelial fraction would be non sperm cells, or the other cellular material that would also contain DNA.

Q. And you re-amplified the epithelial portion of the panties; is that correct?

A. Yes. But let me find my exact worksheet. I just had it.

Yes, sir.

Q. All right. The reason you did -- you did that was because a -- well, let me back up and ask a few questions.

A. Sure.

Q. When you -- when you processed this through the genetic amp -- analyzer, it comes out and gives you a number value on a graph; is that correct?

A. The electropherogram?

Q. Yes.

A. Yes, sir.

Q. It gives you a number on the graph, and those items are particular to an individual; is that correct?

A. Well, it's just a generic profile at the time. Not until we perform a comparison with a known reference could we see if something of consistency to give exclusion or inclusion.

Q. Okay. So, basically you create a chart; is that right?

A. What chart? The chart that the machine generates?

Q. Yes.

A. Yes. That's created by the machine.

Q. And then you take those -- those amplification numbers, and you put that on a -- on another chart, which is part of the report?

A. Correct, for easy reading.

Q. And you re-amped the epithelial portion of the panties; is that correct?

A. Yes, sir.

Q. Okay. And the reason for the re-amplification of the panties was because there was an indication of a minority profile; is that correct?

A. I believe so. But I think the reason why I re-amped it is just because I was also processing other samples, and she needed some samples to be re-amped. So, I added them to my plate.

Q. Okay. And you analyzed the results; is that right?

A. No, sir.

Q. Okay.

A. What I did do, though, is review Jennifer Clay's work once she was completely done with it and agreed with her conclusions.

Q. Okay.

A. That was my other role in this case.

Q. So, because there was a -- another minority -- let's kind of explain to the jury what we mean by minority profile. Let me ask you some questions on that, please.

A. Sure.

Q. You, many times, have DNA samples that have more than one DNA profile included in them; is that correct?

A. Yes, sir.

Q. Oftentimes, you have what is known as a predominant profile; is that correct?

A. Sometimes there are mixtures where we can determine a dominant donor of DNA versus another donor.

Q. And in other words, in that -- that's a situation where the DNA in that particular sample -- in a particular sample, that particular person is way in excess of any of the others; is that right?

A. Correct. There is more contribution to one donor than the other.

Q. Okay. Now, you also have what are called minority profiles; is that correct?

A. Correct.

Q. Minority profiles are profiles that -- where there is not as much DNA; is that correct?

A. Correct. There is what we call a minor component, which is -- once you have established that there is major and minor, the minor is donating less DNA than the major.

Q. Okay. And it is -- it is also -- it is possible when you have to have a predominant profile that is so predominant that it will mask over minority samples, minority profiles; is that correct?

A. It does when one person donates more DNA than another. Yes, to a degree, they are being masked over because that one person is donating so much that the other sometimes is falling out that you might not see it at every location because of that.

Q. Okay. And that is not an unusual circumstance; is that correct?

A. No, sir.

Q. Okay. Now, in this particular situation, there was a minority sample that was found in the epithelial fractions of the panties; is that correct?

A. Yes. It was a major/minor mixture, yes.

Q. And on the minority profile, your lab made no indications of who that particular profile might belong to; is that correct?

A. Correct.

Q. Well, the reason -- one of the reasons that you -- well, just save that.

And in that particular sample, there are several alleles as you call them; is that right?

A. Yes, they are.

Q. Alleles stands for the particular part of the -- that stands for the particular part of the DNA molecule that you're analyzing; is that right?

A. It's actually a variation within the

location that we're looking at.

Q. Okay. And you call those loci; is that correct?

A. Loci, yes. Loci are the locations, and then alleles are within the locations that that person possesses.

Q. And each of those loci, you know that's where a number value is assigned; is that correct?

A. Correct.

Q. Okay. And in this particular sample, there was a -- several situations where several of the loci rose to the level of having a minority sample; is that right?

A. There -- and let me answer what I think you're asking. There were several alleles in the minor components that was attained, but there wasn't enough to make a conclusion.

Q. There was at least one that you were able to get a value for; is that right?

A. There were three minor alleles that were obtained.

Q. Okay.

A. Everything else is denoted by asterisks, which just means there was activity but we weren't conclusive. We didn't know for sure if it was a true

allele or not.

Q. But some of them did have a number value; is that correct?

A. Correct. Three alleles.

Q. And those numbers -- at least one of those number values did not match either one of the known samples; is that correct?

A. That's correct.

Q. And that would specifically be when this is introduced, D5S818? Is that the --

A. D5S818 is the name of the selection. And, yes, there is a minor allele that is --

Q. Rose to a 12. That was -- called a 12?

A. Yes, a 12 allele that is a minor, and it is not a part of the references from either -- not one of the alleles that either references have.

Q. Which means it had to come from somebody else?

A. It is a foreign allele, but no conclusions were ever made about the minor component. So, that's why it wasn't actually indicated on the report.

Q. Okay. Now, it is true that males have sperm cells; is that right?

A. Yes, sir.

Q. But they also have epithelial cells,

correct?

A. Yes.

Q. Females have only epithelial cells; is that right?

A. Yes, sir. Yes.

Q. When you're doing testing of this type, just to make -- to clarify?

A. Yes, we would only obtain the sperm cells from the male.

Q. Right. And you have amelogenin; is that correct? That is the sex quantifier; is that right?

A. Yes, sir.

Q. Now, basically, the way this works is if you have an allele, okay, that has a value in it, you will -- if both parties have the same value, it will just give -- it will just give you that one number; is that right?

A. Yes. And that's because you obtain these alleles from your mother and your father. So, if your mother and your father gave you both the same alleles, it will only be denoted by one number as opposed to if they give you two different ones, it will denote those two different ones.

Q. Okay. And you will agree with me that transfer can happen in the field before collection;

is that correct?

A. Sure.

Q. Okay.

MR. SMITH: Pass the witness, Your Honor.

THE COURT: Thank you.

MR. LEONARD: Nothing further from this witness, Judge.

THE COURT: Thank you.

May she be excused?

MR. LEONARD: She may.

THE COURT: Thank you so much.

THE WITNESS: Thank you.

(Witness released)

MR. LEONARD: The State would call Jennifer Clay.

THE COURT: Thank you.

THE BAILIFF: Judge, this witness has not been sworn.

THE COURT: Thank you.

How are you?

THE WITNESS: Good.

THE COURT: Good. Come around this way.

THE WITNESS: Okay.

THE COURT: And raise your right hand and face the jury so they can see you.

(Witness Duly Sworn)

THE COURT: Thank you. Please have a seat.

MR. LEONARD: May I proceed?

THE COURT: You may.

MR. LEONARD: Thank you.

JENNIFER CLAY,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

Q. ***(BY MR. LEONARD)*** Good afternoon, Ms. Clay.

A. Hello.

Q. Please introduce yourself to the jury.

A. My name is Jennifer Clay. I'm a DNA analyst at the Houston Police Department crime laboratory.

Q. And how long have you been with the Houston Police Department?

A. I have been there for seven years.

Q. Tell the jury a little bit about your educational training.

A. I attended the University of Houston in Clear Lake where I received a Bachelor's degree in biology.