in earlier. 1 2 THE COURT: Thank you. 3 You may proceed. MR. BURDETTE: Thank you, Judge. 4 ROBIN FREEMAN, 5 having been called as a witness and being first duly 6 7 sworn, testified as follows: 8 DIRECT EXAMINATION BY MR. BURDETTE: 9 10 Good morning, Ms. Freeman. Ο. 11 A. Good morning. 12 Q. How are you doing? Good. 13 Α. Q. Thank you for being here. 14 A. You're welcome. 15 16 Q. Do me a favor and introduce yourself to the members of the jury. 17 18 My name is Robin Freeman. Α. 19 Tell us a little bit about yourself. Where do Ο. 20 you live? 21 I live in the mid-cities between Dallas and Α. Fort Worth. 22 23 Q. How did you get here today? A. I flew in this morning. 24 25 Q. How was that trip?

1	Α.	It was fine.
2	Q.	Kind of short?
3	A.	Kind of short.
4	Q.	A long way to come, right?
5	Α.	Uh-huh.
6	Q.	Who are you employed by now?
7	A.	I am the general manager at Integrated Forensic
8	Laborato	ries.
9	Q.	At some point, were you employed by the Harris
10	County I	nstitute of Forensic Sciences?
11	Α.	Yes, I was.
12	Q.	When?
13	Α.	My I ended working with them March of this
14	4 year, 2014.	
15	Q.	When did you start working for them, do you
16	remember	?
17	A.	I started working for them in October of 2008.
18	Q.	In what capacity were you employed by the
19	Harris C	ounty Institute of Forensic Sciences?
20	Α.	I was their DNA interpretation manager.
21	Q.	And how long did you hold that position?
22	Α.	For the entire time I was there.
23	Q.	What is your educational background?
24	Α.	I have a Bachelor's of Science in biochemistry
25	from Nor	th Carolina State University. I also obtained a

1	Bachelor's of Art in chemistry from North Carolina State
2	University. I have a Master's of Science in forensic
3	science from Virginia Commonwealth University.
4	Q. Do you hold any certifications?
5	A. I am certified by the American Board of
6	Criminalistics and Forensic Biology.
7	Q. Do you participate in continuing education to
8	keep up on the science of DNA?
9	A. Yes, I do.
10	Q. Have you testified before?
11	A. Yes.
12	Q. Tell us a little bit about the Harris County
13	Institute of Forensic Sciences.
14	A. The Harris County Institute of Forensic
15	Sciences is a criminalistics lab that performs testing
16	for law enforcement agencies.
17	Q. And just so we can put it in perspective,
18	there's the Houston Forensic Sciences Center, which used
19	to be the HPD Crime Lab, right?
20	A. Correct.
21	Q. And that's a City institution?
22	A. Yes.
23	Q. And then the Harris County Institute of
24	Forensic Sciences is a County institution?
25	A. That's correct.

1	Q. And they are operated independently?
2	A. Yes.
3	Q. On some occasions, is work contracted out by
4	the City to the County for analysis?
5	A. Yes.
6	Q. Okay. Why would that be done?
7	A. To resolve a backlog, to allow them to do
8	training. If they hired a lot of people who weren't
9	doing casework, but training people instead.
10	Q. Okay. Just any number of reasons?
11	A. Any number of reasons.
12	Q. Is the Harris County Institute of Forensic
13	Sciences an accredited lab?
14	A. Yes, it is.
15	Q. Tell us just briefly what serology is.
16	A. Serology is the identification of biological
17	fluids, such as semen, saliva, and blood.
18	Q. In this particular case, the serology was done
19	by the Houston Forensic Sciences Center; is that right?
20	A. That's correct.
21	Q. And then the DNA was done by the Harris County
22	Institute of Forensic Sciences; is that correct?
23	A. That's correct.
24	Q. All right. So, I want to talk to you a little
25	bit about this case. Was DNA analysis performed in this

1 particular case?

2 A. Yes, it was.

Okay. Now, before we get into the results, 3 Ο. just tell us generally, what is DNA? 4 DNA is a biological blueprint that each person 5 Α. contains that we inherit, you know, half from our mother 6 and half from our father in the form of chromosomes, 7 which makes a unique individual. So, it determines your 8 eye color, your hair color, whether you have two arms 9 versus -- you know, two legs, things like that. 10 Where is DNA found? 11 Ο. It's found in the nucleus, which is the center 12 Α. 13 of cells. It is contained within all your body cells except for red blood cells. 14 So, there's no DNA in red blood cells? 15 Ο. 16 No. It doesn't have a nucleus. Α. 17 Interesting. Ο. 18 What are the common fluids that we think of when we talk about DNA analysis? 19 20 Α. Usually think of blood and semen and saliva. 21 Does DNA vary from person to person? Ο. 22 Yes, it does, except for identical twins. Α. 23 Q. Is it possible to identify DNA of a particular 24 person? 25 It's possible to identify the DNA source, yes. Α.

1	Q. Is it possible to compare the DNA of a known
2	person to an unknown DNA sample?
3	A. Yes.
4	Q. Okay. How is that process done?
5	A. You do the same analysis at separate times and
6	space of the unknown sample and the known sample, and
7	then you do a comparison of the two results.
8	Q. Tell us or give us a brief overview of the
9	different steps in the analysis from the beginning to
10	end.
11	A. Okay. There are several steps in DNA analysis.
12	The first is well, you do the serology to find a
13	particular swab or stain, and then it goes to DNA where
14	we have to expose the DNA out of the cells. So you
15	apply different stringencies of detergents in order to
16	break open the cells and it exposes the DNA which is in
17	the nucleus, which is the chromosomes, which is intact
18	units of DNA.
19	Once you have this, you need to determine
20	the amount of DNA because the testing following that is
21	very dependent upon the amount in order to optimally
22	work. It will still work with less or more, but it
23	optimally works at a specific range. So, once you
24	determine the amount of DNA present, you do
25	MR. RUSHING: Objection. Narrative.

1	THE COURT: Sustained.
2	Q. (By Mr. Burdette) Okay. After you determine
3	the amount of DNA that's present, what's the next step.
4	A. After you determine the amount of DNA that's
5	present, you do a step called PCR, polymerase chain
6	reaction, which is a method in which a specific region
7	of DNA of interest is made, numerous copies. The
8	numerous copies that you produce during this method is
9	then used in capillary electrophoresis, which works as a
10	molecular CIV, whereas the larger fragments flow faster
11	and the smaller fragments flow slower within a matrix in
12	order to separate the fragments. So, these fragments
13	MR. RUSHING: Objection. Narrative.
14	THE COURT: Sustained.
15	Q. (By Mr. Burdette) What do those fragments do?
16	A. These fragments represent the DNA profile of
17	the individual. And the way that the method that's
18	used, which is STR, short tandem repeats, you produce a
19	numerical value for the different sizes of fragments.
20	Q. Okay. That sounds like a lot of steps.
21	A. It's a longer process than you would think.
22	Q. Are there safeguards in place at the Harris
23	County Institute of Forensic Sciences to prevent
24	contamination?
25	A. Yes.

And are there also quality checks that are done 1 Ο. to ensure that the testing is accurate and valid? 2 Yes. Procedures are in place to make sure that 3 Α. there's no cross-contamination sample to sample or 4 contamination of the actual products that you're using 5 to do the testing. 6 7 Q. Okay. So, that procedure that you just described is done for a known sample; is that right? 8 Α. It's done for both the known sample and the 9 evidence sample. 10 Okay. I want to treat them separately. Let's 11 0. 12 just talk about a known sample. What is a known DNA 13 sample? A known DNA sample is a sample that originated 14 Α. from a known source. 15 16 Is a buccal swab a common method for obtaining Ο. a known sample? 17 Yes. A buccal swab is use of a swab to swab 18 Α. the inside of someone's cheek in order to obtain cells. 19 20 0. And then given that the swab is taken from a known person, is that swab then analyzed to develop a 21 22 DNA profile? 23 Α. Yes. 24 0. So then you have a DNA profile of a known individual; is that right? 25

1 Α. Yes. 2 Q. Then to determine whether or not the unknown sample is part of that person's DNA, is that same 3 process completed for the unknown sample? 4 The unknown sample analysis process is the 5 Α. same, and it's used to determine whether that person 6 7 could be a contributor to that DNA profile. Okay. Were those the steps that were followed 8 Ο. 9 in this particular case? 10 Α. Yes. 11 And when you reach some conclusions and some 0. 12 results, do you generate a report? 13 Α. Yes. 14 Was a report generated in this particular case Ο. with your findings and results? 15 16 Α. Yes. 17 MR. BURDETTE: Judge, may I approach the 18 witness? 19 THE COURT: You may. 20 0. (By Mr. Burdette) Ms. Freeman, I'm showing you what's been marked as State's Exhibit 43. Can you take 21 a look at it and tell me if you recognize it 22 23 (indicating)? 24 Α. Yes, I recognize it. 25 Is it a business record of the Harris County 0.

Institute of Forensic Sciences? 1 2 Α. Yes. 3 Ο. Was it made at or near the time of the events contained herein? 4 Α. Yes. 5 б Was it made by a person with personal knowledge Ο. of the events contained herein? 7 Yes. 8 Α. 9 Q. Is it made in the ordinary course of business? 10 Yes. Α. 11 Is it kept in the ordinary course of business? Ο. 12 Α. Yes, it is. 13 Q. And this is a duplicate; is that right? 14 That's correct. Α. Where are originals maintained? 15 Ο. 16 The originals are maintained at the office. Α. 17 MR. BURDETTE: At this time, Your Honor, State offers State's Exhibit 43 into evidence as a 18 19 business record. I'll tender to opposing counsel for 20 inspection. 21 (State's Exhibit No. 43 Offered) 22 MR. RUSHING: No objections, Judge. 23 THE COURT: State's Exhibit 43 is admitted. (State's Exhibit No. 43 Admitted) 24 25 MR. BURDETTE: May I publish this for

1	testimony?
2	THE COURT: You may.
3	Q. (By Mr. Burdette) What items were submitted for
4	DNA analysis in this case?
5	A. The items submitted were the known saliva
б	sample of Andreanne Hernandez, also the known saliva
7	sample of Khalon Westbrooks, and a portion of the penile
8	swab.
9	Q. Okay. So we've got these three items; is that
10	right?
11	A. Correct.
12	Q. Let's move to the summary of results and
13	interpretations. Can you read that and tell us what it
14	means?
15	A. The Identifiler Plus STR DNA was performed on
16	Items K1, K2, and 18. This is referring to the kit or
17	methodology that was used to do the testing.
18	The DNA results obtained from Item 18 are
19	consistent with a mixture of DNA from two or more
20	individuals. Andreanne Hernandez and Khalon Westbrooks
21	cannot be excluded as possible contributors to this
22	mixture. This is denoting that the DNA results that
23	were obtained from the evidence item was consistent with
24	more than one individual.
25	Q. Is that common to see a mixture of DNA?

1 Α. In some items, yes. 2 If my DNA is on somebody else's body and that Q. is swabbed off that person's body, is there a 3 possibility that you will have both my DNA and that 4 person's DNA? 5 б Α. Yes. 7 Why is that? Q. The donation of the DNA is on top of the 8 Α. 9 original source. So I'm always going to have my DNA contained on me, and then yours is going to be combined 10 with mine. 11 12 Ο. And so in this particular case, you found the mixture of DNA, correct? 13 14 Α. Correct. And neither Andreanne Hernandez or Khalon 15 Ο. Westbrooks could be excluded from that DNA sample; is 16 that right? 17 18 That's correct. Α. And then the next paragraph about frequency of 19 Q. 20 occurrence, can you read that and tell us what it means? 21 The frequency of occurrence of an unrelated, Α. 22 randomly selected individual who could be a contributor 23 to the STR mixture on Item 18 is approximately 1 in 8,370,000 Caucasians; 1 in 6,912,000 African-Americans; 24 25 and 1 in 1,875,000 Hispanics.

1	Q. So what do those numbers mean?
2	A. The numbers are how often you would expect to
3	see the combination of alleles that's in that DNA
4	profile to occur in the population.
5	Q. Okay. Now, for Caucasians, it's 1 in
6	8.3 million, a little bit more than that. How many
7	people are in Houston or Harris County, do you know?
8	A. In Harris County, I think it's bumping up
9	against 4 million people.
10	Q. And so, 8.3 million is substantially more than
11	that?
12	A. Yes.
13	Q. Okay. And then for African-Americans, 1 in
14	6.9 million, a little bit more. Again, bigger than the
15	population of Harris County?
16	A. Yes.
17	Q. And then 1 in 1.8 million Hispanics. Less than
18	the total population. Do you happen to know how many
19	Hispanics are in Harris County?
20	A. No, I do not.
21	Q. So does that mean that you're looking at the
22	likelihood that you would find this allele combination
23	in a source other than the sample that was analyzed?
24	A. Correct.
25	Q. In this particular case, does anything indicate

that there was any contamination in this examination? 1 2 Α. There is no indication there is contamination in this. 3 4 Okay. Does your file indicate whether or not Ο. you received an additional request by either the State, 5 б the defense, or an officer to conduct any testing or 7 retesting? No retesting, as far as I know, was requested. 8 Α. 9 MR. BURDETTE: Pass the witness. THE COURT: Mr. Rushing? 10 11 MR. RUSHING: Thank you, Judge. 12 CROSS-EXAMINATION BY MR. RUSHING: 13 Ma'am, your testing can't indicate whether the 14 0. 15 person that that sample came from was intoxicated or 16 not, can it? 17 Α. No. 18 And your testing method can't indicate whether 0. or not someone was intoxicated, whether it was voluntary 19 20 or involuntary, can it? 21 Whether intoxication was? Α. 22 Ο. Yes. 23 Α. Voluntary or involuntary? 24 Ο. Yes. 25 No. Α.

You can't tell that by looking at your test 1 Ο. 2 results? Not by the DNA analysis, no. 3 Α. MR. RUSHING: Pass the witness. 4 THE COURT: Anything further, Mr. Burdette? 5 MR. BURDETTE: No further questions for 6 7 this witness. THE COURT: May this witness be excused? 8 9 MR. BURDETTE: I have no objection. MR. RUSHING: Yes, ma'am. 10 11 THE COURT: Thank you, ma'am. You may step 12 down, and you are excused. 13 I think this would be a good time for us to take our mid-morning break. So I'm going to let you go 14 15 with the bailiff. Please feel free, if you'd like, to go down to the second floor and get coffee or a snack. 16 17 The bailiff just told me that your lunch will not be here until about 12:30. So, we've got a little bit to 18 If you want a soda, coffee, or -- I don't know if 19 go. 20 we have any smokers on the jury, but now would be a good 21 time to step outside the building and smoke if we have 22 any. 23 (Brief recess.) 24 (Open court, defendant and jury present.) 25 THE COURT: Thank you. Please be seated.

1	Mr. Burdette, you may proceed.
2	MR. BURDETTE: State calls Jesse Brown.
3	THE BAILIFF: Your Honor, this witness has
4	not been sworn in.
5	(Witness sworn.)
6	THE COURT: You may proceed.
7	JESSE BROWN,
8	having been called as a witness and being first duly
9	sworn, testified as follows:
10	DIRECT EXAMINATION
11	BY MR. BURDETTE:
12	Q. Good morning, Mr. Brown.
13	A. Good morning.
14	Q. Thank you for being here. Do me a favor and
15	introduce yourself to the members of the jury.
16	A. My name is Jesse Brown. I work for Pretrial
17	Services, Harris County.
18	Q. Tell us a little bit about Pretrial Services,
19	what it is.
20	A. Basically, we gather information from
21	dependent to history, wherein terms they information
22	we use for the criminal history.
23	Q. Okay. Is Pretrial Services something that when
24	a defendant is booked into jail they go through?
25	A. Yes.

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