

1 having been first duly sworn, testified as follows:

2 **DIRECT EXAMINATION**

3 **BY MR. RAMIREZ:**

4 Q. Would you introduce yourself to the jury,
5 please?

6 A. My name is Kim Downs.

7 Q. Ms. Downs, how are you employed?

8 A. I'm a firearms examiner with the Houston Police
9 Department Crime Laboratory, Firearms Section.

10 Q. As a firearms examiner, what do you do?

11 A. I examine fired components such as bullets,
12 cartridge cases, shot shells, determine whether or not
13 they were fired in the same firearm, or if the firearm
14 is submitted, whether they were fired in that firearm.

15 Q. Did you have to have specialized training in
16 order to be able to do the things a firearms examiner
17 does?

18 A. Yes.

19 Q. Can you tell the jury about that training?

20 A. I have formal education that consists of
21 bachelor and master degrees in chemistry. From there I
22 was trained by qualified firearms examiners at the
23 Houston Police Department firearms section of the
24 firearm's lab for a period of approximately 18 months.
25 After that, I was tested, competency tested and

1 proficiency tested. Once all of those tests were
2 passed, I then began practicing as a firearms examiner.

3 I've continued my education in firearms
4 examination by attending the Association of Firearm and
5 Tool Mark Examiner Meetings, the Texas Department of
6 Public Safety, schools given by the FBI and such.

7 Q. All right. And every so often, you undergo
8 additional training; is that correct?

9 A. That's how I continue my training, is through
10 the seminars.

11 Q. Have you had an occasion to have few or many
12 articles submitted to you for examination?

13 A. Many.

14 Q. And how is it that you keep cases, different
15 cases that you handle separate and apart from each
16 other?

17 A. Every incident that occurs in the city of
18 Houston is assigned an incident number. In our
19 laboratory at one time, we would assign those laboratory
20 numbers. And every piece of evidence that comes in
21 under that incident number will be grouped into that
22 case under that incident number. And the item number --
23 and an item number will be assigned to it. And on that
24 piece of evidence and on the bags, every case number,
25 item number, the initials of the person that logged it

1 in, the date it was logged in, all that information will
2 be contained on the outside packaging. And the item
3 number and case number will be etched onto the evidence
4 if it's large enough to be done.

5 Q. All right.

6 MR. RAMIREZ: May I approach the witness,
7 Your Honor?

8 THE COURT: You may.

9 Q. (By Mr. Ramirez) Ms. Downs, let me hand you a
10 number of items that have been marked for identification
11 purposes as 279 through 294, inclusive. Will you look
12 at these items and tell the jury whether or not you
13 recognize them (indicating)?

14 A. (Witness complies).

15 Yes, I do.

16 Q. How is it that you recognize them?

17 A. As I stated, every incident that occurs in the
18 city of Houston is assigned an incident number. In this
19 particular case, that number is 049850509-Q, as in
20 Quebec. At that time, we were assigning laboratory
21 numbers. And that laboratory number was L09-07054. And
22 every bag that came in had that incident number placed
23 on it by the CSU officer. Here is our lab number. And
24 each item that came in was given an item number. And if
25 you look at the evidence itself, the case number and the

1 item number are etched onto that evidence and it matches
2 the evidence that I received in the case and analyzed.

3 Q. Did you receive State's Exhibit No. 279 through
4 294 for examination?

5 A. Yes.

6 Q. What are State's Exhibit No. 279 through 294?

7 A. They are 16 fired 9-milimeter Luger cartridge
8 cases.

9 Q. Can you explain to the jury what a cartridge
10 case is?

11 A. Yes. May I use my model?

12 Q. Absolutely.

13 A. This is a model -- not a real -- cartridge, a
14 model of a cartridge. An entire cartridge contains four
15 components. The bullet, the cartridge case, a primer
16 and powder. In order to detonate and send the bullet
17 down the bore of the firearm, a firing pin has to come
18 into contact with the primer. There's an explosive
19 mixture in there. When the firing pin comes into
20 contact with some force and slams into it, flames are
21 jetted into where the powder is and the powder begins to
22 burn and it burns at a very determined rate. Once it
23 reaches a certain pressure, in order to release that
24 pressure the bullet comes out of the end of the
25 cartridge case, goes down the bore of the firearm, and

1 the cartridge case slams up against the breech face of
2 the firearm. What these are, are the expended cartridge
3 cases after that detonation (indicating).

4 Q. Are there some types of pistols that will eject
5 the casing after the gun is fired?

6 A. Yes. Automatics, semiautomatics will do it.

7 Q. Semiautomatics will do that?

8 A. Yes.

9 Q. What happens to the casing in a revolver?

10 A. In a revolver, the mechanism is a little
11 different because there's a cylinder that revolves,
12 which is why it's called a revolved. And every
13 cartridge is fed into that cylinder and in pulling the
14 hammer back and pulling the trigger, it rotates the
15 cylinder to get the cartridge in position. In order to
16 get those cartridge cases out of the revolver, you have
17 to open the cylinder by hitting the thumb latch, open
18 the cylinder and manually eject the cartridge cases.

19 Q. Is it safe to say, then, that in a
20 semi-automatic the cartridge is automatically ejected?

21 A. If everything is working right, it should be
22 automatically extracted and ejected from the firearm.

23 Q. And in a revolver, the casing remains in the
24 revolver and must be manually removed after the gun is
25 fired?

1 A. That is correct.

2 Q. Now, with regard to 279 to 294, you testified
3 they are all 9-millimeter Luger casings. Is that right?

4 A. Yes, they are.

5 Q. What does the designation 9-millimeter Luger
6 mean?

7 A. The complete designation for a cartridge is the
8 diameter of the cartridge times the length of the
9 cartridge case from the face and mouth, not including
10 the bullet. 9-millimeter Luger was a round that was
11 designed by Luger for their 9-millimeter Luger pistol
12 that he put together. And that was a 9-millimeter
13 diameter by a 19-millimeter length of cartridge case.
14 So, 9-millimeter is really not quite correct because
15 9-millimeter covers a lot of weapons. So, what we're
16 looking for: Is it a 9-millimeter Luger? Yes.
17 Diameter plus the length of the cartridge case.

18 Q. Now, although all of these casings are
19 9-millimeter Luger, are -- were they all made by the
20 same manufacturer?

21 A. No, they were not.

22 Q. There are different manufacturers; is that
23 right?

24 A. Yes.

25 Q. In fact, what -- are there three different

1 manufacturers there?

2 A. Yes.

3 Q. Does the manufacturer of a particular -- well,
4 let me strike that.

5 You can mix and match rounds made by
6 different manufacturers so long as they are the same
7 caliber, is that right, 9-millimeter Luger?

8 A. Yes.

9 Q. Okay. So, you can have different types of --
10 different manufacturers' rounds in a weapon so long as
11 they're the same caliber?

12 A. Yes.

13 Q. In relation to this case where you received the
14 casings, did you ever have a weapon submitted to you
15 also for comparison?

16 A. Yes, I did.

17 MR. RAMIREZ: May I have the weapon
18 checked, Your Honor?

19 THE COURT: You may.

20 THE BAILIFF: It's clear.

21 THE COURT: Okay.

22 Q. (By Mr. Ramirez) Let me ask you to take a look
23 at State's Exhibit No. 278, and tell us whether or not
24 that weapon was submitted to you for testing
25 (indicating)?

1 A. Yes, it was.

2 Q. All right. What kind of weapon is that?

3 A. It's a semiautomatic pistol.

4 Q. Can you tell the members of the jury the make
5 and model, so to speak, of that weapon?

6 A. This is a Steyr, model GB, 9-millimeter Luger
7 pistol.

8 Q. Okay. What type of ammunition would it fire?

9 A. 9-millimeter Luger cartridges.

10 MR. RAMIREZ: Your Honor, may Ms. Downs
11 step down from the witness stand and demonstrate how
12 that weapon would be operated?

13 THE COURT: She may.

14 A. (Witness complies).

15 This is a semi-automatic 9-millimeter
16 Luger. I load the cartridges into a separate magazine.
17 There's a spring in the magazine. As you load them, it
18 compresses the spring so there's always an upward force
19 in the cartridge. You place that in the butt stock of
20 the pistol and release the slide. That action loads a
21 round to the chamber of the weapon. As this point, as
22 you can see, the hammer is cocked. All you need to do
23 at this point is to pull the trigger. This is a single
24 action. That will detonate the cartridge (indicating).

25 From here, I would have to do a

1 double-action trigger pull. In pulling the trigger,
2 it's going to produce two actions. It's going to cock
3 the hammer and fire the weapon. As long as you've got
4 ammunition in the weapon, you will have ammunition to
5 continue to shoot (indicating).

6 Q. Now, what happens to the casing when that
7 weapon is fired?

8 A. It will be ejected from the firearm.

9 Q. And can you tell the members of the jury what
10 direction the casing would be ejected from that weapon
11 as it's fired?

12 A. This has a two-six extractor and ejector. What
13 that means is there's a hook on this side that the
14 cartridge case comes into contact with. On this
15 particular weapon, it's missing, but it should have it.
16 And about the 6 o'clock position on the left-hand side
17 would be a hard piece of metal called the ejector.
18 Basically, what happens during the detonation process,
19 the bullet comes out of the bore of the firearm. The
20 other force is pushing the slide of the firearm
21 backwards. As it does so, the cartridge case is coming
22 back with it. It continues to come back with it. And
23 as it comes back, it comes into contact with a hard
24 piece of metal. And around that, it kind of pivots.
25 When it pivots, it's extracted free and clear of the

1 firearm and then the slide comes home and loads the next
2 round (indicating).

3 Q. So, if you're holding that weapon properly at
4 the gun range and you're firing it, what direction would
5 the cartridges or the casings be ejected?

6 A. They would extract to the right and upward.

7 Q. Upward and to the right.

8 Okay. What if you turn the gun 90 degrees
9 when you fire it, in that instance what direction would
10 the casings be ejected?

11 A. Approximately up and to the left of it.

12 Q. Okay. So, by adjusting the position of the
13 weapon when you fire, you might also adjust the ejection
14 of the casings; is that correct?

15 A. Yes, that's been proven.

16 Q. Okay. Thank you. You may have your seat.

17 A. (Witness complies).

18 Q. Now, you've testified you had that Steyr
19 submitted to you for testing and comparison; is that
20 correct?

21 A. I did.

22 Q. When you got -- when you began testing that
23 weapon, did you check to make sure it was operating
24 properly?

25 A. Yes, I did.

1 Q. Was it a properly functioning firearm?

2 A. Yes, it was.

3 Q. In connection with this investigation, was
4 there a second firearm that was thought to be involved
5 in this same case?

6 A. Yes.

7 Q. What type of firearm was that?

8 A. That was a Glock type firearm.

9 Q. A Glock type firearm?

10 A. Yes.

11 Q. Did you ever personally have a Glock type
12 firearm submitted to you?

13 A. Personally, no.

14 Q. Did you ever receive some items that had been
15 fired out of the Glock that was thought to be related to
16 this offense?

17 A. Yes, I did.

18 Q. How did you acquire those test-fires from the
19 Glock that was thought to be involved in this offense?

20 A. A firearms examiner by the name of Brad Bruns
21 at the Harris County Sheriff's Office had received
22 firearm and test-fired it and we were able to determine
23 that there was a high probability that it was used in
24 our case. And he brought over the test-fires that he
25 made from that firearm and we conducted an examination

1 in our laboratory.

2 Q. And with respect to Mr. Bruns, is he a
3 firearm's examiner like you?

4 A. Yes.

5 Q. Does he do his work for a different agency?

6 A. Yes, he does.

7 Q. The testing that you did on the test-fires that
8 Mr. Bruns brought over, was he involved in that?

9 A. Yes, he was.

10 Q. What was his role?

11 A. He was my second examiner.

12 Q. Which means?

13 A. It's a quality assurance process that we put in
14 place. I analyze the evidence, determine what my
15 conclusion is, and another examiner comes along, pulls
16 the evidence separately, and examines it as well and our
17 conclusions match.

18 Q. Okay.

19 MR. RAMIREZ: Your Honor, at this time I
20 believe that we have agreed to stipulate that the
21 test-fires that Mr. Bruns brought to Ms. Downs were
22 fired in State's Exhibit 73.

23 MR. GAISER: Which is the Glock firearm.

24 MR. RAMIREZ: Which is the Glock firearm.

25 MR. GAISER: That's correct, Your Honor.

1 We so stipulate.

2 THE COURT: All right.

3 MR. RAMIREZ: And at a later point, Your
4 Honor, we may put that in writing and submit it with the
5 evidence in the case.

6 May I approach the witness?

7 THE COURT: You may.

8 Q. (By Mr. Ramirez) First off, Ms. Downs, would
9 you assure us that that weapon is safe (indicating)?

10 A. (Witness complies).

11 It is.

12 Q. And it doesn't have a magazine attached to it,
13 does it?

14 A. It does not.

15 Q. Okay. What type of weapon is State's Exhibit
16 No. 73?

17 A. This is a 9-millimeter Luger Glock pistol.

18 Q. Okay. A 9-millimeter Luger indicating that it
19 can fire the same type of ammunition as this Steyr,
20 State's Exhibit No. 278 (indicating)?

21 A. That is correct.

22 Q. Okay. So you didn't actually test that weapon,
23 but you test-fired cartridges or casings that had been
24 fired from it; is that right?

25 A. Yes.

1 Q. How is it possible to examine a casing such as
2 279 through 294 that was submitted to you and tell
3 whether it was fired in a particular firearm or not?

4 A. During our examination process we use what's
5 called a comparison microscope. This is actually two
6 compound microscopes that are bridged together. What
7 they allow me to do is look at two different pieces of
8 evidence at the same time. What I will do is take
9 test-fires from the weapon and I will put them under the
10 microscope on both stages. And then I'll determine what
11 markings are being produced by this weapon and are they
12 repeating.

13 Once I've determined that, I will take the
14 known off the left-hand stage and place an unknown on
15 that stage and determine whether or not the markings
16 that I just saw that were produced by this weapon were
17 present upon the unknowns.

18 Q. What type of markings -- with regard to a
19 casing, what type of markings might help you determine
20 whether or not a casing was fired in a particular
21 firearm?

22 A. As I stated during the demonstration, when the
23 cartridge is detonated, there are two forces that are
24 acting at that particular moment. The bullet is going
25 down the bore of the firearm and the cartridge case is

1 slammed against the breech face. The breech face is the
2 part of the firearm through which the firearm -- firing
3 pin just came. As the cartridge case slams up against
4 that, there's a lot of pressure and a lot of heat. So,
5 I actually get an imprint of the breech face.

6 In this particular weapon, it's a recoil --

7 MR. GAISER: Your Honor, may she denote
8 which weapon she's referring to?

9 THE COURT: Yes.

10 Q. (By Mr. Ramirez) Is that State's Exhibit 73,
11 the Glock?

12 A. Yes, State's Exhibit 73.

13 State's Exhibit 73, the Glock pistol, is a
14 recoiled-based firearm. So, as the slide is coming
15 back, the barrel dips down. And as it dips down, that
16 cartridge case kind of sheers on the breach face. So,
17 they are identifiable markings from the imprint and also
18 from the sheer that was produced during the unlocking of
19 the weapon.

20 Q. So, to summarize, the markings that you might
21 look for are markings made on the firing pin; is that
22 right?

23 A. That is what I'm looking for, yes. I'm sorry.
24 Not the firing pin. What I'm looking for are the
25 markings primarily made on the primer.

1 Q. On the primer.

2 With respect to the Glock and the Steyr,
3 are different markings made on the primer when those
4 weapons are fired?

5 A. Yes.

6 Q. What type of markings are made on the primer of
7 a cartridge when the Glock is fired?

8 A. The Glock has a particularly shaped firing pin
9 called elliptical. It's basically an ellipse. So,
10 you've got a longer access versus a shorter access in
11 the circle.

12 The Steyr has a hemispherical firing pin.
13 So, it's a complete circle. So, it's very easy -- we
14 call those class distinctions -- very easy to determine
15 what was fired in the Glock type firearm versus what was
16 fired in a Steyr type firearm.

17 Q. And those class differences that you spoke of,
18 are those visible to the naked eye?

19 A. Yes.

20 Q. So, could we actually take a couple of these
21 casings and see for ourselves?

22 A. I believe so, yes, if you can magnify it a bit.

23 Q. Would you pick one of these out that was fired
24 in a Steyr and another that was fired in a Glock?

25 A. (Witness complies).

1 That's a Glock (indicating).

2 Q. Okay. State's Exhibit No. 281, Glock?

3 A. And State's 279 is consistent with the Steyr.

4 Q. 279, Steyr.

5 Okay. Looking at 281 here right --

6 A. Yes.

7 Q. -- see that (indicating)?

8 A. I do.

9 Q. It's got number 3 on it.

10 A. It does.

11 Q. See if we can zoom in. Okay. Looking at the
12 primer, do you see an imprint there (indicating)?

13 A. I do.

14 Q. How would you describe that imprint?

15 A. I would describe that as a rectangular firing
16 pin orifice with an elliptical firing pin in it.

17 Q. So, that would lead you to conclude that it was
18 fired in what type of firearm?

19 A. The Glock type firearm.

20 Q. Looking at 279. All right. It's got a number
21 1 on it (indicating)?

22 A. Yes.

23 Q. What type of mark has been made in the primer
24 here?

25 A. You have a round firing pin impression.

1 Q. Consistent with a Glock or not?

2 A. Inconsistent with a Glock.

3 Q. Okay. Consistent with a Steyr?

4 A. Consistent with a Steyr firearm, yes.

5 Q. With respect to 279 through 294, were you able
6 to determine whether or not any of those casings were
7 fired in the Steyr pistol in front of you that's marked
8 No. 278?

9 A. Yes, I was.

10 Q. And what did you find?

11 A. I was able to determine -- I was able to
12 determine that State's Exhibit No. 280 --

13 Q. Let me stop you there. State's 280 has a CSU
14 I.D. number what on it?

15 A. Two.

16 Q. All right. Go ahead.

17 A. State's 291.

18 Q. 280. And what else?

19 A. 291.

20 Q. 291. Uh-huh.

21 A. CSU No. 14.

22 Q. Okay.

23 A. State's Exhibit No. 282, CSU No. 4.

24 Q. All right.

25 A. State's Exhibit No. 284, CSU No. 6; State's

1 Exhibit 283, CSU No. 5; and State's Exhibit No. 279, CSU
2 No. 1 were fired in State's Exhibit No. 278, the
3 9-millimeter Luger Steyr.

4 Q. So, those six casings you just listed were
5 fired in that Steyr pistol, 278?

6 A. Yes.

7 Q. How is it you were able to determine that?

8 A. As I stated, I use a comparison microscope that
9 allows me to magnify objects up to 40 times their normal
10 size. What I'm looking for is first an agreement on
11 class characteristics. As you saw, or as I hope you saw
12 on the monitor, this one had a rectangular firing
13 orifice with an elliptical firing pin. This one had a
14 very round firing pin. Right away I can break that into
15 two groups.

16 And then I'll take test-fires from the
17 weapon, as I stated, and I'll place them on the
18 microscope and determine what markings are being
19 reproduced and what markings are actually there. Then
20 I'll take the unknowns and I'll compare them to the
21 test-fires that I just made to determine whether or not
22 the unknown markings are consistent with the known
23 markings.

24 Q. Okay. Going back to 279 through 294, the
25 casings, were you able to determine whether any of those

1 casings -- sorry. Do you follow me?

2 A. So far, yes.

3 Q. Were you able to determine whether any of those
4 casings would have been fired in a Glock, the same Glock
5 that fired the test-fires that Mr. Bruns brought over?

6 A. Yes.

7 Q. Which ones were those?

8 A. State's Exhibit No. 294, CSU No. 17; State's
9 Exhibit No. 292, State's Exhibit No. 15 -- I'm sorry --
10 CSU 15, State's Exhibit No. 292; State's Exhibit
11 No. 293, CSU No. 16; State's Exhibit No. 290, CSU 13;
12 State's Exhibit No. 289, CSU No. 12; State's Exhibit
13 No. 288, CSU 11; State's Exhibit No. 287, CSU 10;
14 State's Exhibit No. 286, CSU No. 9; State's Exhibit
15 No. 285, CSU No. 8; and State's Exhibit No. 281, CSU
16 No. 3 were all consistent with having been fired in the
17 9-millimeter Luger Glock pistol, State's Exhibit 73.

18 Q. So, assuming all these casings, 279 through
19 294, were found at the same crime scene from the same
20 incident, is it necessary that two separate weapons
21 would have fired these casings?

22 A. Yes.

23 Q. And that they could not all have been fired in
24 the same firearm; is that correct?

25 A. That's correct, they were not fired in the same

1 firearm.

2 Q. Now, did you have some other firearms evidence
3 submitted to you in this case aside from casings?

4 A. Yes.

5 Q. What did you have submitted to you?

6 A. Bullets.

7 Q. Let me pull these together so we don't get them
8 mixed up.

9 I'll show you 296 through 299. Do you
10 recognize those items (indicating)?

11 A. Yes.

12 Q. Were these bullets that were submitted to you
13 for examination in this same case?

14 A. Yes, they were.

15 Q. Let me show you 295. Would you tell me if 295
16 was submitted to you in this case?

17 A. Yes, it was.

18 Q. Is 295 a bullet or not?

19 A. It's a fired bullet fragment.

20 Q. It's a fragment of a bullet?

21 A. It is.

22 Q. State's Exhibit No. 300, was this submitted to
23 you (indicating)?

24 A. Yes.

25 Q. Okay. And does it appear that State's Exhibit

1 No. 300 came from the medical examiner's office?

2 A. It came in packaging consistent with that, yes.

3 Q. Okay. And from time to time do you have
4 evidence that comes from the medical examiner's office
5 because sometimes they will pull firearms evidence out
6 of bodies that are autopsied?

7 A. Yes.

8 Q. With respect to the bullets that were fired --
9 and let's talk about State's Exhibit No. 296 through
10 299. Were you able to determine whether or not any of
11 those bullets were fired in either the Steyr, State's
12 Exhibit No. 278 or the Glock 73, for which you have the
13 test-fires?

14 A. I was able to make a determination on one of
15 the bullets.

16 Q. Which one?

17 A. State's Exhibit No. 299.

18 Q. What CSU I.D. number has been placed on that?

19 A. Seven.

20 Q. What did you determine from your examination of
21 299, No. 7?

22 A. State's Exhibit No. 299 was fired in the Steyr
23 9-millimeter Luger pistol.

24 Q. What about the others, 296, 297, 298?

25 A. These were eliminated from the Steyr pistol.

1 Q. Those were not fired in the Steyr?

2 A. No, they were not.

3 Q. Do you know whether or not they were fired in
4 the Glock?

5 A. No.

6 Q. Okay. Is it possible they were fired in the
7 Glock?

8 A. Yes. They're consistent having come through a
9 Glock, yes.

10 Q. Okay. What do you look for when you're
11 examining bullets and trying to determine whether they
12 were fired in a particular weapon?

13 A. In order for a bullet to be shot straight to
14 its target, you have to impart a spin to it, just like
15 you do with a football. The way that these two firearms
16 are manufactured, they're both what we call polygonally
17 rifled. And that is a technique that is used by both
18 Glock and Steyr. In order to formalize grooves, it's
19 hammered and gorged. So, you have this mandrel that
20 goes down the center of this gorge and these hammers are
21 kind of pounded. And so, it actually shapes around the
22 mandrel. And then they remove the mandrel. And in
23 doing so, it doesn't leave behind these nice big cuts
24 that you normally would see in a cut rifle. What you
25 see is a nice smooth twisting either to the right or to

1 the left. In this case, this is to the right and this
2 is to the right (indicating).

3 This has six sides, what we call six lands
4 and grooves. And this is manufactured using three lands
5 and grooves. So, a class distinction exists between the
6 two bores of the firearm, and, therefore, things that
7 were fired in Glock type firearms can be immediately
8 eliminated from this firearm.

9 Q. So, of the four bullets, 296 through 299, one
10 was fired in the Steyr 278 and the others could have
11 been fired in the Glock, 73?

12 A. 299 was definitely fired in the Steyr, State's
13 Exhibit No. 278. State's Exhibit No. 297, 298, and 296
14 are consistent with having been fired in a Glock type
15 firearm such as State's Exhibit 73.

16 Q. All right. Now, there was a bullet fragment
17 before you. I believe it's 295. Is that correct?

18 A. Yes.

19 Q. Were you able to come to any conclusions from
20 looking at the bullet fragment, 295?

21 A. Yes, I was able to.

22 Q. What was that?

23 A. It was eliminated from the Steyr as well.

24 Q. Not a Steyr?

25 A. Not a Steyr.

1 Q. Could you tell whether it could have been fired
2 in a Glock?

3 A. It is consistent with a rifling pattern that
4 were it complete, would have been fired in a Glock.

5 Q. What about the items that came from the medical
6 examiner's office, No. 300, State's Exhibit No. 300?
7 What are those, by the way?

8 A. State's Exhibit No. 300 is a fired jacketed
9 lead bullet and also a couple of jacket fragments.

10 The conclusion that I was able to make was
11 that the item that is almost a full bullet but kind of
12 smushed was fired in a firearm that's consistent with a
13 Glock and not fired through a firearm such as a Steyr.

14 Q. Okay. So, one of the three pieces within
15 State's Exhibit No. 300 you found enough markings to
16 state that it was not fired in the Steyr 278, but could
17 have been fired in the Glock 73?

18 A. That is correct.

19 Q. And the other two pieces within 300 had not
20 enough for you to go on; is that correct?

21 A. That is correct.

22 MR. RAMIREZ: May I have a moment, Your
23 Honor?

24 THE COURT: You may.

25 (Pause)

1 Q. (By Mr. Ramirez) By the way, when Brad Bruns
2 was with you when you were doing this testing, did he
3 concur --

4 MR. GAISER: Objection to hearsay.

5 THE COURT: Sustained.

6 Q. (By Mr. Ramirez) Well, you said he was your
7 second; is that right?

8 MR. GAISER: Objection under the Sixth
9 Amendment, Your Honor, to any testimony about what
10 Mr. Bruns did or said about this case.

11 THE COURT: Sustained.

12 Q. (By Mr. Ramirez) What does a second do in an
13 examination?

14 MR. GAISER: Objection, Your Honor.

15 THE COURT: Overruled.

16 MR. GAISER: It's another way around the
17 rule.

18 A. The second examiner comes along behind the
19 primary examiner as a quality assurance process. It
20 simply --

21 MR. GAISER: Objection. Nonresponsive.

22 THE COURT: Sustained.

23 Q. (By Mr. Ramirez) What does a second do in an
24 examination?

25 A. They analyze the same evidence I did and

1 determine what their own --

2 MR. GAISER: Objection. Nonresponsive.

3 THE COURT: Sustained.

4 Q. (By Mr. Ramirez) Does the second check your
5 work?

6 MR. GAISER: Objection, Your Honor. I
7 object on hearsay grounds and Sixth Amendment grounds.
8 It violates the right of confrontation.

9 THE COURT: Sustained.

10 MR. GAISER: Is Mr. Bruns available?

11 MR. RAMIREZ: He's able to be subpoenaed,
12 Mr. Gaiser.

13 MR. GAISER: Is he available and willing?

14 MR. RAMIREZ: Yes.

15 THE COURT: Are y'all going to argue back
16 and forth?

17 MR. GAISER: Sorry, Judge.

18 Q. (By Mr. Ramirez) Is it common in any type of
19 scientific testing to have a second, to have the work
20 checked by another individual?

21 A. In firearms examination, yes.

22 Q. Okay. And that's all you do; is that correct?

23 A. That is what I do, yes.

24 Q. Okay. Did I ask you to take a look at -- let
25 me ask you to take a look at a chart now that I've

1 marked State's Exhibit No. 302-A. Does it appear to be
2 a smaller version of State's Exhibit No. 302
3 (indicating)?

4 A. It does.

5 Q. All right. Now, 302 has numbering that
6 corresponds to the CSU I.D. numbers on the evidence that
7 you reviewed; is that correct?

8 A. I'm not familiar with what CSU numbers were,
9 but they appear to be consistent with the same numbers
10 that I'm seeing on the bags.

11 Q. Okay. All right. Looking at this chart,
12 Ms. Downs, you testified as to which exhibits and which
13 CSU I.D. numbers were fired in the weapons in question.
14 Is that right?

15 A. Yes.

16 Q. With respect to CSU I.D. No. 1, which is
17 State's Exhibit No. 279, was it your testimony that it
18 was fired in the Steyr (indicating)?

19 A. Do you have the evidence so I can look at it?

20 Q. I do. I'm sorry.

21 A. I didn't memorize it. Thank you.

22 Q. I'll pull some of this out -- all right -- so
23 we don't get it mixed up.

24 State's Exhibit No. 279 does have a number
25 that was placed there that is consistent with the CSU,

1 the Crime Scene Unit, and it does have our evidence
2 identifier on it as well.

3 Q. Okay. And it was fired in the Steyr?

4 A. Yes.

5 Q. State's Exhibit No. 280 with the CSU I.D. of
6 No. 2, what weapon was it fired in?

7 A. State's Exhibit No. 280, CSU No. 2, was fired
8 in the Steyr.

9 Q. What about State's Exhibit No. 281, CSU No. 3?

10 A. State's Exhibit No. 281, CSU No. 3, was fired
11 in the Glock.

12 Q. I'll highlight that in a different color?

13 State's Exhibit No. 282, CSU No. 4.

14 A. Yes. State's Exhibit No. 282, CSU No. 4, was
15 fired in the Steyr.

16 Q. I'll highlight the items that were fired in the
17 Steyr in pink.

18 State's Exhibit No. 283, CSU I.D. No. 5.

19 A. State's Exhibit No. 283, CSU No. 5, was fired
20 in the Steyr.

21 Q. State's Exhibit No. 284, CSU No. 6?

22 A. State's Exhibit No. 284, CSU No. 6, was fired
23 in the Steyr.

24 Q. State's Exhibit No. 285, CSU I.D. 8.

25 A. State's Exhibit No. 285, CSU No. 8, was fired

1 in the Steyr.

2 Q. Moving ahead to State's Exhibit No. 299,
3 State's Exhibit No. 7 {sic}, what was that fired in?

4 A. What was the State's exhibit?

5 Q. It's a bullet, not a cartridge. Sorry about
6 that.

7 A. Which one was it?

8 Q. 299.

9 A. 299. That was CSU No. 7. The bullet was fired
10 in the Steyr.

11 Q. 286, CSU I.D. No. 9.

12 A. State's Exhibit No. 286, CSU No. 9 was fired in
13 the Glock.

14 Q. State's Exhibit No. 287, CSU No. 10?

15 A. State's Exhibit No. 287, CSU No. 10 was fired
16 in the Glock.

17 Q. State's Exhibit 288, CSU No. 11?

18 A. State's Exhibit No. 288, CSU No. 11, was fired
19 in the Glock.

20 Q. State's Exhibit No. 289, CSU No. 12?

21 A. State's Exhibit No. 289, CSU No. 12, was fired
22 in the Glock.

23 Q. State's Exhibit No. 290, CSU No. 13?

24 A. State's Exhibit No. 290, CSU No. 13, was fired
25 in the Glock.

1 Q. State's Exhibit No. 291, CSU 14?

2 A. State's Exhibit No. 291, CSU No. 14, was fired
3 in the Steyr.

4 Q. State's Exhibit No. 292, CSU No. 15?

5 A. State's Exhibit No. 292, CSU No. 15, was fired
6 in the Glock.

7 Q. State's Exhibit No. 293, CSU No. 16?

8 A. State's Exhibit No. 293, CSU No. 16, was fired
9 in the Glock.

10 Q. State's Exhibit No. 294, CSU No. 17?

11 A. State's Exhibit No. 294, CSU No. 17, was fired
12 in the Glock.

13 Q. State's Exhibit No. 296, which is a bullet, CSU
14 19?

15 A. State's Exhibit No. 296, CSU 19, was not
16 identified to any of the firearms in this case.

17 Q. State's Exhibit No. 298, CSU 18?

18 A. State's Exhibit No. 298, CSU No. 18, was not
19 identified to any of the firearms in this case, however
20 it was eliminated from the Steyr.

21 MR. RAMIREZ: I'll move to enter State's
22 Exhibit No. 302-A, Your Honor.

23 **(State's Exhibit No. 302-A Offered)**

24 MR. GAISER: No objection.

25 THE COURT: Admitted without objection.

1 **(State's Exhibit No. 302-A Admitted)**

2 MR. RAMIREZ: May I have a sidebar with
3 counsel, Your Honor?

4 THE COURT: You may.

5 (Discussion off the record between counsel)

6 (Open court, defendant and jury present)

7 Q. (By Mr. Ramirez) Ms. Downs, let me show you a
8 chart marked State's Exhibit No. 306. Would that be
9 helpful to the jury to be able to keep all of this
10 evidence straight as to which items were fired in the
11 Steyr, which items were fired in the Glock, which items
12 were not able to be identified (indicating)?

13 A. Yes.

14 MR. RAMIREZ: Move to introduce State's
15 Exhibit No. 306.

16 **(State's Exhibit No. 306 Offered)**

17 MR. GAISER: No objection.

18 THE COURT: Admitted without objection.

19 **(State's Exhibit No. 306 Admitted)**

20 MR. RAMIREZ: I'll pass the witness.

21 THE COURT: All right.

22 **CROSS-EXAMINATION**

23 **BY MR. GAISER:**

24 Q. Ms. Downs, how are you? My name is Terry
25 Gaiser. I don't know if we've ever met or not.

1 A. I don't think so.

2 Q. You're going to have to help me because all I
3 know about guns is I'm afraid of them. So, if you'll
4 help me a little bit, I'd appreciate it.

5 You obviously went to college and graduated
6 with some sort of scientific degree, right?

7 A. Yes.

8 Q. What was that in?

9 A. Chemistry.

10 Q. And did you go on and get a higher degree at
11 some college or university?

12 A. Yes.

13 Q. Where did you go?

14 A. University of Houston.

15 Q. And you got a masters --

16 A. Yes, sir.

17 Q. -- in chemistry?

18 A. Yes, sir.

19 Q. And did you immediately start working for the
20 police department or what did you do?

21 A. After I earned my bachelor of science degree in
22 chemistry, I began work at the police department.

23 Q. Over at the lab?

24 A. Yes, sir.

25 Q. The laboratory?

1 A. Yes, sir.

2 Q. You're not a police officer?

3 A. No, sir.

4 Q. Okay. You're a scientist?

5 A. Yes, sir.

6 Q. Okay. The -- let's talk about these two
7 weapons for a minute. Both of these weapons apparently
8 are called semiautomatic and they hold a certain number
9 of rounds, each one, don't they, certain number of
10 cartridges for each particular weapon; is that correct?

11 A. Yes, sir.

12 Q. How many rounds does the Glock hold?

13 A. I don't have the magazine. I don't know.

14 Q. Do you know what -- the weapon came to you
15 without a magazine?

16 A. Well, it came to the laboratory where the
17 test-fires were produced by Mr. Bruns.

18 Q. Okay. So, he didn't provide you with a
19 magazine from that particular weapon?

20 A. No, sir.

21 Q. And the Steyr, that was provided to you with a
22 magazine, I take it?

23 A. Yes, sir.

24 Q. How many rounds of ammunition does the Steyr
25 hold?

1 A. The magazine capacity on the Steyr is 18.

2 Q. You testified you test fired the Steyr
3 yourself?

4 A. It was test-fired in our laboratory, yes, sir.

5 Q. I noticed when you were up there demonstrating
6 for the jury how the weapon worked, how it functioned,
7 you said some part was missing from the weapon.

8 A. Yes, sir.

9 Q. What was missing from the weapon?

10 A. The extractor itself, the extractor spring, and
11 the extractor pin.

12 Q. Was that the way the weapon came to you? Was
13 that the condition the weapon was in when it came to the
14 laboratory?

15 A. Yes.

16 Q. What does that do as far as how the weapon
17 fires? Does that affect the way the weapon functions?

18 A. No. During test-firing, there were no problems
19 with the firearm.

20 Q. Okay. So, it ejected the material, the used
21 cartridge casings and functioned normally even though it
22 lacked all of those devices?

23 A. Yes. It really is all just one device.

24 Q. But that was missing from this particular
25 weapon?

1 A. Yes, sir.

2 Q. And that wouldn't cause any sort of malfunction
3 in the weapon?

4 A. There were no malfunctions that I noticed
5 during my testing of the firearm.

6 Q. Okay. Would that normally cause a malfunction?

7 A. I've had several firearms that have been
8 submitted without extractors and have had no problems.

9 Q. Now, I noticed that when you were talking
10 about -- Mr. -- Mr. Ramirez asked you to compare the --
11 if I'm not mistaken, 279 and 281, the exhibits, because
12 he wanted you to look at the markings on the firing pin.
13 And you looked at that and were able to determine that
14 one came from what you referred to as a Glock type
15 firearm and the other came from a Steyr type firearm?

16 A. Yes, sir.

17 Q. Because -- merely because of the shape of the
18 primer, the marking on the primer?

19 A. The shape of the firing pin impression, yes.

20 Q. I'm sorry. I don't know the terminology.

21 A. That's quite all right, sir.

22 Q. And the -- are there other specific markings on
23 cartridge cases that come from Steyr type firearms?

24 A. They have an hemispherical firing pin and
25 whatever markings the firearm might produce.

1 Q. The individual firearm or all Steyrs?

2 A. The individual firearm.

3 Q. So, each one produces different -- different
4 markings on the cartridge cases?

5 A. Yes.

6 Q. And so, when you say it came from a Steyr type
7 firearm, that was solely based on the impression on the
8 firing pin?

9 A. Yes, sir. At that point we were dealing with
10 macroscopic characteristics, the big picture. And so,
11 what I do on classes, divide them into two groups simply
12 based upon the shape of their firing pin. The same way
13 I would if I had an apple and an orange.

14 Q. Okay. Very obvious?

15 A. Yes, sir.

16 Q. When you look at the bullets that were
17 submitted to you in this case, it was very obvious also
18 as to which ones could have come from a Glock and which
19 ones could have come from a Steyr; is that correct?

20 A. Yes, sir.

21 Q. Explain to the jury why that is.

22 A. The rifling on the Glock, as I stated before,
23 although it is polygonally rifled, is in six patterns.
24 So, we have six lands and grooves spiraling off to the
25 right. In the Steyr, we have three. So, there's a

1 difference between the rifling pattern immediately that
2 can be seen between the two bullets.

3 Q. So, you don't have to look at that under a
4 microscope to tell that they came from two different
5 firearms, correct?

6 A. That is correct.

7 Q. Okay. Now, as far as the cartridge casings are
8 concerned, there's been some testimony about what
9 happens to a cartridge case after it's ejected from a
10 firearm. How forcefully is the cartridge case ejected
11 from a semi-automatic?

12 A. I couldn't give you a force number, but they --
13 it can go a long way.

14 Q. If someone fires a semi-automatic weapon, the
15 cartridge case shoots out, would I want to stand in the
16 way and be hit by it?

17 A. It won't hurt you.

18 Q. What will it do to me?

19 A. Well, I had one land on my chest one time and
20 it blistered.

21 Q. Okay. That's something you'd rather not have
22 happen?

23 A. I'd rather not.

24 Q. Okay. Is it possible to tell from merely --
25 where the cartridge case is going to end up if you're

1 firing it, say, in an enclosed area, an area of, say, 15
2 by 30, could I tell -- could I predict where the
3 cartridge case was going to end up if I stood in a
4 particular position in a room that size?

5 A. No, sir.

6 Q. It could end up anywhere?

7 A. Yes, sir.

8 Q. Would that also -- if I fired a firearm in a
9 room that size, say 15 by 30 or so, and after I fired it
10 several people walked through the room or ran through
11 the room, and after that some firemen came through and
12 walked through the room, would that also distort the
13 probability of where I might find those cartridge cases?

14 A. Yes, absolutely.

15 Q. So, where these cartridge cases end up doesn't
16 necessarily tell you where the weapon was fired?

17 A. That is correct.

18 Q. In fact, that would be a dangerous assumption
19 to make?

20 A. It would not be an assumption I would make.

21 No.

22 Q. Is it possible to tell from one of these
23 firearms whether it was fired by a right-handed person
24 or a left-handed person?

25 A. No, sir.

1 Q. Or if they were both fired by the same person?

2 A. No, sir.

3 Q. Is it possible to tell if two different people
4 were firing them at the same time?

5 A. No, sir.

6 Q. Nothing you could do would be able to tell?

7 A. No, sir.

8 Q. How many Steyrs come across your lab in a
9 year's time?

10 A. This was the first one I saw in 2009. And in
11 my entire career, I think I've seen two.

12 Q. So, they're a pretty rare weapon, correct?

13 A. In my experience, yes, they are.

14 Q. Did you -- have you compared, say, the
15 cartridge casings that you examined in this case with
16 other cartridge casings fired from a Steyr?

17 A. No, sir.

18 Q. So, this would be the -- only the second Steyr
19 you've ever examined, correct?

20 A. That I can remember, yes.

21 Q. Have you done much reading about the Steyr?

22 A. A bit in my training, yes.

23 MR. GAISER: I'll pass the witness.

24 **REDIRECT EXAMINATION**

25 **BY MR. RAMIREZ:**

1 Q. Ms. Downs, you talked about class
2 characteristics such as the mark made in the primer by
3 the firing pin. Is that correct?

4 A. Yes, sir.

5 Q. There are individual characteristics as well;
6 is that correct?

7 A. That is correct.

8 Q. What would they tell you?

9 A. They would tell me whether or not the evidence
10 that I'm examining was fired by one and only that
11 particular firearm.

12 Q. With respect to the Steyr and the casings that
13 you identified back to the Steyr, did those casings have
14 individual characteristics that would allow you to
15 identify it back to that Steyr and no others?

16 A. Yes.

17 Q. What were those?

18 A. They were -- in this particular case, it was a
19 granular type breach face, granular. So, you actually
20 had an imprint because this is a blow-back type firearm.
21 And the imprint -- so the cartridge case didn't move.
22 It slammed up against the breech face, so I got a nice
23 big impression. The way the firearms are manufactured
24 is that even if you take the same tool and manufacture
25 the same firearm, made several different firearms using

1 the exact same tool and the exact same metal, you won't
2 get the exact same markings between firearms. That was
3 one of my first tests.

4 Q. Why not? Why wouldn't you get the same
5 markings?

6 A. Because the tools are made of metal. And as
7 the tools are working on the firearm, the metal of the
8 firearm is also going to be working on the tool. So,
9 you actually have a mutual wearing that is occurring.
10 So, you get the individual characteristics simply from
11 that. After that, someone purchases the firearm. After
12 they use it and abuse it and shoot it and clean it,
13 maybe leave it in the rain, you get individual
14 characteristics that start to creep in. It becomes even
15 more individual.

16 Q. Let me get you to take a look at a couple of
17 photographs. What we see here is State's Exhibit
18 No. 320. Can you tell what weapon this individual
19 appears to be holding in 320 (indicating)?

20 A. I can make out that it's a pistol. The hammer
21 is down and I see the beginning of the serial number on
22 the slide, what appears to be a P, a 0, and a 5. The
23 rest I can't read. It does say: Made in Austria.

24 Q. Where is the Steyr made?

25 A. Austria.

1 Q. What about this view of the pistol
2 (indicating)?

3 A. It's consistent with the Steyr that I examined.

4 Q. Both of the pictures that I showed you, 321 and
5 320, are consistent with State's Exhibit No. 278, the
6 Steyr?

7 A. They are.

8 MR. RAMIREZ: Nothing further, Your Honor.

9 **RECROSS-EXAMINATION**

10 **BY MR. GAISER:**

11 Q. Lawyers get scared with words like consistent.
12 People make big leaps with words like that.

13 MR. RAMIREZ: I'll object to the sidebar,
14 Your Honor.

15 MR. GAISER: I'll withdraw the remark in
16 that case, Judge.

17 Q. (By Mr. Gaiser) When you say it's consistent,
18 are you saying it's the same weapon?

19 A. No, sir. I can't tell by looking at this
20 photograph, no.

21 Q. This was not on a difficult analysis for you,
22 was it?

23 A. No, sir.

24 Q. It was quite easy, wasn't it?

25 A. It's routine for what I do, yes.

1 MR. GAISER: Pass the witness.

2 MR. RAMIREZ: Nothing further, Your Honor.

3 THE COURT: You may step down.

4 Y'all are tired, aren't you? We're going
5 to take a break.

6 (Recess)

7 (Open court, defendant present, no jury)

8 MR. GAISER: I understand the State may be
9 calling a family member next.

10 MR. RAMIREZ: I am.

11 MR. GAISER: I'd like to have an
12 understanding about the purpose of this and how much
13 victim character evidence we're going to be -- this is
14 not the phase for victim impact testimony or victim
15 character testimony. I would object to anything other
16 than the assertions of identity and family members and
17 then living in Houston, et cetera, but going beyond that
18 is going beyond the realm of this phase of the trial.

19 THE COURT: Sir.

20 MR. RAMIREZ: Well, I'm familiar about the
21 rules regarding testimony of survivors. We don't intend
22 to offer victim impact through this witness. We don't
23 intend to offer victim character through this witness.

24 THE COURT: All right. Let's go.

25 (Open court, jury and defendant present)