investigator can establish lividity and some other things?

A Correct.

Q And lividity being blood settling?

A Blood settling, yes.

Q Okay. And that would indicate whether or not a victim had been moved?

MR. SANDERS: Objection, your Honor, to the prosecutor testifying.

MR. THOMAS: I can ask or rephrase it.

THE COURT: In a way that's it's not leading, go ahead.

MR. THOMAS: As far as lividity is concerned, do you know other than establishing --

THE COURT: Just a second. Counsel, are you going to be asking these same questions of the person who was there --

MR. THOMAS: I can ask the pathologist these questions.

BY MR. THOMAS:

Q I'm going to show you Exhibit 34.

Looking at Exhibit 34, is that when the body is being rolled?

(Whereupon Exhibit 34 was marked for identification.)

THE WITNESS: Yes.

BY MR. THOMAS:

Q Then afterwards, was there a picture taken of

the bed after the body was removed?

A Yes.

Q I'm going to show you Exhibit 18.

Do you recognize that exhibit?

(Whereupon Exhibit 18 was marked for identification.)

THE WITNESS: Yes.

BY MR. THOMAS:

Q What does that exhibit depict?

A The top of the water bed with the blanket, sheet with body fluids present on the sheet.

Q Then as far as all of the photographs that I've shown you that you've been able to identify, so excluding those ones that you said I don't know what's in these photographs, are all those photographs true and accurate depictions of the crime scene as you saw it back on September 23rd, 1985?

A Yes.

Q Did you do an investigation in the interior of the residence to determine if you could see any signs of forced entry?

A Yes.

Q Did you find anything to indicate there was a forced entry?

A No.

Q Did you find any indications that there was a theft or some sort of burglary at the location?

A No.

MR. THOMAS: Nothing further at this point.

THE COURT: Mr. Sanders, do you have any questions?

MR. SANDERS: If I may have just a moment, your Honor? No questions. Thank you, your Honor.

THE COURT: Okay. May Sergeant McCoy be excused?

MR. THOMAS: Yes.

MR. SANDERS: If he may remain on call.

MR. THOMAS: Can we approach on that?

THE COURT: Sure.

(Whereupon the following proceedings were held at the bench out of the hearing of the jury:)

MR. THOMAS: Sergeant McCoy is from Idaho. The DA's Office had to fly him in here. He's scheduled to leave first thing Wednesday morning to go back to Idaho.

MR. SANDERS: Can we agree if there's a statement that I need to corroborate, we can use his report?

MR. THOMAS: Yeah.

MR. SANDERS: Okay.

MR. THOMAS: I don't have any problem with that.

THE COURT: In other words, make sure we understand, he said, I don't see anything wrong with that. He's concerned that he's going to have Joe Smith on the stand and Joe Smith is going to

testify differently than the report that McCoy made back in 1985.

MR. SANDERS: We have an agreement that we can use those reports for that purpose.

MR. THOMAS: Okay.

THE COURT: So in other words, I can tell him that he's subject to recall, but it's a technicality that he's going to be going; right?

MR. THOMAS: Yes.

MR. SANDERS: Yes.

(Whereupon the following proceedings were held in open court in the presence of the jury:)

THE COURT: Or in the alternative, we could simply excuse him subject to the stipulation?

MR. SANDERS: Excused.

MR. THOMAS: Yes, your Honor.

THE COURT: Sergeant McCoy, thank you for being with us, sir. You are excused.

THE WITNESS: Thank you.

THE COURT: Call your next witness.

MR. THOMAS: People call Donald Jones.

THE CLERK: You do solemnly state that the evidence you shall give in the matter pending before this Court shall be the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.

THE CLERK: Thank you. Please be seated.

THE BAILIFF: Please state your full name and

spell it for the record.

THE WITNESS: My name is Donald Thomas Jones D-o-n-a-l-d T-h-o-m-a-s J-o-n-e-s.

THE COURT: Good afternoon, Mr. Jones.

THE WITNESS: Good afternoon, sir.

THE COURT: Your witness, Mr. Thomas.

MR. THOMAS: Thank you, your Honor.

DONALD JONES, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. THOMAS:

Q What is your current occupation?

A I'm a criminalist with the San Bernardino County Sheriff's Department. Basically a forensic scientist who works in the crime laboratory.

Q When you say forensic scientist, what does that mean?

A It means someone who has received training with regard to the laws of natural sciences and applies that to physical evidence as it is necessary for investigations for court purposes.

Q And how long have you been employed with San Bernardino County as a criminalist?

A For about 30 and a half years.

Q And as far as your qualifications to be a criminalist, can you briefly describe to the jury what your qualifications are?

A It's pretty basic to be a criminalist. You need to have a bachelor of science degree in some sort of natural science. I have a bachelor of science degree in chemistry from California State University at Northridge. I have a -- went back to school to get a master's degree in biology from California State University at San Bernardino.

In order to do some of the specialized techniques that we do at the laboratory, we do receive additional training, either in-house practical exams or through additional training that we go to outside agencies, such as, the Federal Bureau of Investigation, California Criminalistics Institute, or there are some private organizations which will train us in various techniques we use in the crime laboratory.

Q Then during your 30-plus years as a criminalist, did you continue to be educated and go to different classes that you attend in order to progress in the things that you do as a criminalist?

A Yes, sir. There were classes and courses of which I have just got finished talking about. In addition to that, there's a professional organization I belong to, the California Association of Criminalists. We have semiannual meetings. We have study groups in which we can attend to exchange information with other forensic scientists who are either in the same discipline or field that I'm in or in related fields, and we get to exchange information about what's

happening in our laboratory, in our region with what's happening in other regions, either of the state or of the country.

Q Are there any licenses or certificates that you need to do what you're doing as a criminalist?

A There are -- there is a certification program. It is not a requirement. I am not certified. There was, for the individual laboratories, what's called an accreditation program that is required primarily to do forensic DNA work. You must have -- you must be an accredited laboratory. Our laboratory has been accredited through an organization called the American Society of Crime Lab Directors. They're a laboratory accreditation board since 1995.

Q And what are some of the things that you've done or fields that you've been in as far as a criminalist and things that you've done as a criminalist in San Bernardino County?

A When I was first hired, I primarily worked in the areas of controlled substance analysis, looking at drugs and narcotics and forensic alcohol analysis, doing blood alcohol samples, working with breath alcohol instruments.

I also did crime scene investigations. As kind of a subset of crime scene investigations, I did clandestine laboratory investigations, illegal drug labs.

I worked a short amount of time on a few cases

in what's was called trace analysis, looking at maybe hairs or fibers or paints, shoe prints, and so on, but in about 1984, 1985, I began to specialize in the area that is now called forensic biology. At the time it was called serology. It was the identification of physiological fluids and the characterization -- or comparison of physiological fluids and stains.

Q Okay. And now it's forensic biology?

A Forensic biology was developed over the years. Right now the primary area that is known in forensic biology is forensic DNA work, and I have been trained in forensic DNA. I went to an FBI course back in 1990. It was one of the initial pushes of our laboratory to put forensic DNA work online. It wound up replacing the conventional serology techniques we used prior to that.

Since then, forensic DNA has changed in a number of ways with advances of different technologies that have come along with some of the research projects, the human genome project. Forensic science is kind of an applied science, which is a nice way of saying the techniques that are used in pure research, we steal them and use them to analyze evidence and so forth. We apply the techniques they have developed for these other uses in a specific area of looking at evidence especially evidence in criminal investigations.

Q And you said that forensic biology kind of replaced serology. What was some of the major differences between what you did in serology area versus

what you're doing now in forensic biology?

A To get down to the technical parts, forensic serology most of time you looked at the fluids that were left behind, the liquid part, the blood or say the blood or saliva or semen samples and so on, the fluids.

When you get more to forensic DNA work, you're no longer looking at the fluid part of it. You're looking at the cells that are there because that is where the DNA is housed, and so it -- it really shifted the focus from basically the water part of the biology to the cellular part of the biology.

In so doing, what it did was it allowed us to become more specific in terms of who could have left a particular sample. It's called the discriminating power of the genetic markers we would get looking at serology. It was not very powerful. We would be -- we'd feel really good if we could get a number that said one in a hundred or one in a thousand people could have left that stain.

When you look at DNA, it is much more discriminating because of the markers we look at in DNA and in the relative biology of what these markers are. It allows us to look instead of one in a hundred or one in a thousand, one in a billion, one in a trillion, one in a quadrillion.

Q As far as specific training that you received in the area of forensic biology, you already told us that you went to a month-long course by the FBI academy?

A Yes, sir.

Q What other stuff have you done?

A The California Criminalistics Institute has a number of courses that it put on. When a particular technology came out, which uses what's called the polymerase chain reaction, it allowed us to look at smaller amounts of DNA.

The initial course I took at the FBI, in order for it to be applied to evidence, you need to have a fairly large stain that had a lot of DNA in it. If the stain was a mixed stain, say of semen and blood or semen and something else, you could separate the semen out, the sperm cells. You could separate them out and get the DNA, but you needed a lot of it in order to get the technology that was in play at that time.

With the advances, as I mentioned, with the human genome project and other researching, they developed this process called the polymerase chain reaction, which allows you to take a small amount of DNA, that previously we couldn't do anything with, and it puts it into a molecular Xeroxing mode and copies the information millions of times. In so doing, it then produces enough material for us to actually work with and get an answer.

This became really advantageous in forensics where a lot of times the samples that you get are not big stains. They are small stains, and maybe something as a cigarette butt and so forth. Previously we weren't

able to do a lot with those. With the advances, we were able to take a look at skin cells that were left on the cigarette butt.

The courses that I took then started to train me as to how to apply these technologies, and the kits that were being produced by certain commercial manufacturers, to the analysis of these -- to the analysis of evidence and the DNA that I recovered from evidence.

Over the last ten years, the -- the kits and the DNA markers that we look at have pretty much plateaued or stabilized such that we have a set of DNA markers or DNA locations that we look at. That is pretty standard across the nation, so that a -- a sample that I look at in San Bernardino County, and I can do some DNA typing on it, can be compared to samples done in Kansas City or in Tampa or anywhere across the nation.

A lot of the western hemisphere uses the same set of DNA markers, so my results can be compared to either offender samples or to crime scene samples that are typed in other laboratories across the country.

Q Then you referred to it as polymerase chain reaction. That's also referred to as PCR?

A It's much easier to say PCR.

Q I'll start referring to it as PCR. PCR is basically the process by which you multiply whatever cells you have and DNA cells and make it into -- where

you might have few make it into millions?

A Roughly.

Q Does that seem accurate?

A What the PCR process does is it mimics what our body does. Our body will have a cell that has various organs in it. It has a nucleus, and in order for us to grow, our cells have to divide. In order to divide, the DNA has to duplicate itself, has to replicate itself.

Well, this PCR process mimics that replication process. It doesn't do it exactly the same way the cell does because we don't need all of that information. We don't need the entire DNA strand duplicated. We need certain segments.

What they've done is they've designed a kit. That kit will look at the specific DNA segments that we are interested in and copy them and copy the information, and they do that the same way the cell does in terms of by what's called division or duplication just again and again and again.

It really has assisted us in being able to type more and more forensic samples, some that in times passed we didn't get enough DNA. Now we can process it through this PCR and be able to get results and be able to compare the results then to other results, either other evidentiary samples or from known reference samples.

Q As far as the PCR process, is that generally accepted in the scientific community as reliable and

accurate?

A Yes, sir. It is relied upon.

Q Okay. And then as far as your experience -- going back to your experience as far as that's concerned, have you testified in court prior to today regarding DNA analysis?

A Yes, sir, I have. I've testified twice within the last year. There was a period of time where I was not in forensic DNA. For a period of ten years, I was basically in supervision and so forth. Prior to that, there was a period of about ten years that I was in DNA, and I would say I think I testified probably close to 50 times.

Q And then as far as publications and presentations that you've done regarding DNA, have you done some of those?

A Yes, sir, I have.

Q Approximately how many of those presentations or publications have you done?

A I should know the exact number of that, but I don't.

Q Generally?

A Generally, I'd say 10 to 12.

Q And then as far as your current assignment, you're currently assigned to the forensic biology area?

A Yes, sir. I'm currently assigned to do case work in the forensic biology unit. I've been doing -- back doing case work again now for a little over a year.

Q Back in September, specifically September 23rd of 1985, what was your assignment then as a criminalist?

A I worked in the serology unit at that time, and I also was assigned to crime scene investigations.

Q So that meant you went to a lot of crime scenes as part of your job or duty as a criminalist?

A Yes, sir. As part of my job, every six weeks or so I was on call for a week. If a major investigation needed my assistance to go out and document the evidence or collect the evidence, then I got paged in the hours of the day and night and would go out to do that. If it were -- if it was a major scene, then sometimes a couple of us would go out and do that work with each other.

Q Then as far as going specifically to September 23rd of 1985, did you respond to a homicide location located at 35435 Highway 18 in Lucerne Valley, county of San Bernardino?

A Yes, sir, I did.

Q When you got to that location, what were you assigned to do?

A I was assigned to basically process a homicide scene. There was a single female victim inside the residence. There was some -- there was evidence in -- primarily in a bedroom, some other items of evidence of interest in other parts of the house. My partner -- I had a partner working with me at the time, Dave Stockwell (phonetic), and Dave and I processed the

scene.

Q Then as far as the scene was concerned, do you recall processing the victim's bedroom?

A Yes, sir.

Q And during processing of the victim's bedroom, did you locate certain items of significance that you noted?

A There were a number of items that we -- we noted in the bedroom and collected. Then there were a couple of techniques we used for collecting evidence in there.

Q Let's start with there was a watchband pin. Do you recall that?

A Yes, sir. There was a watchband pin that was near the victim's head on the bed. The bed was a water bed, and the pin was up just to the side of the victim's head.

Q I'm going to show you a photograph that's been marked Exhibit 12.

Do you see that particular watchband pin depicted in Exhibit 12?

A Yes, sir, I do.

Q And that's the pin that looked -- appears in the center of the photograph?

A That's correct.

Q Just below it there appears to be a ruler.

Do you see that?

A Yes, sir.

Q There appears to be several different lines on that ruler, some longer than others on the top and -- or the top ones are longer than the ones on bottom.

Do you see that?

A Yes, sir.

Q What do the top lines represent, if you know?

A If I may use the pointer?

Q Yes.

A This ruler from end to end is about six inches. Each of these dark lines along the top is one inch. These smaller lines are each a centimeter. You have 2.54 centimeters to an inch or so. If you were looking at the watchband, it looks like it's something like probably three quarters of an inch or so.

Q Then for those of us that aren't familiar with watchband pins, what are they used for?

A Watchband pins are used to hold the watchband on. At the edge of the watch, there are a couple of holes -- the pin itself is spring loaded. It can be depressed inside then put through a sleeve in the watchband and then released and it will expand into two receiving holes at the edge of the watch thereby holding the watchband onto the watch itself.

There are usually two of them; one on either side of the watch to hold the band in place so it can be strapped to your wrist or to something else.

Q And that particular photograph with the size of that particular watchband pin, did you -- were you able

to locate a watch that possibly could have fit that watchband pin or this watchband pin could have fit that watch?

A I don't remember seeing a watch or collecting a watch. No, sir.

Q Then as far as the bed was concerned, you were in charge of looking over the bed and making sure that you're not missing any items that were located on the bed?

A Yes, sir. In fact, we had a systematic way in which we entered the room to start with, starting with vacuuming the floor at the entry part of the door, collecting evidence that was along the, as you looked at the bed, the right side of the bed, then vacuuming the floor there, vacuuming the floor around the other side of the bed. We did a tape lift of the body. We vacuumed the surface of the bed being careful not to scoop that up and collected that. There was some other items, a couple of pillows and some cloth and clothing material that were -- that was on the bed also.

Q Then as far as watchband pins, are they all the same length or do they have different lengths?

A I believe they have different lengths. It would depend on the size of the receiver of the individual watches. That particular pin looks very similar to the size of one I've got in my watch. I just replaced my watchband yesterday. Interesting that you asked about watchband pins.

Q Now, as far as the particular watch that you're wearing, the band itself, how big is the band, would you say?

A In terms of the width of the part of the band where the pin would go, probably approximately three quarters of an inch to an inch.

Q Then when you were doing your investigation of the bedroom area, you didn't find any watch during your search that could match that watch pin?

A Not that I recall, no, sir.

Q Okay. Would referring to your report refresh your recollection as to whether or not you collected any watches or --

A I referred to my report a lot while I was sitting in the hallway. I referred to my notes also. I don't remember any mention of a watch.

Q So there's no mention in any of the reports that you reviewed of a watch being found similar to the size of that watchband?

A That's correct.

Q Okay.

MR. SANDERS: What page are you referring to?

MR. THOMAS: 349.

MR. SANDERS: Thank you.

BY MR. THOMAS:

Q As far as photographs were concerned, did you take photographs or were you present when photographs were taken?

A I was present when they were taken, but I did not take them. I believe we had two people from the identification division, I believe, Tom Moody and Jeff Bedetti (phonetic) were present at the scene.

Q I'm going to show you what's been marked Exhibit 11.

Looking at Exhibit 11, can you see what's depicted there?

A I see what's depicted. I believe I know what this is. If I could refer to my crime scene notes, I could get a relative idea.

Q Would that refresh your recollection?

A Yes, sir. Yes, sir. That appears to be a pair of panties that were, as you look at the bed, they were along the right side near the top. They were on the floor actually on the carpeting.

Q Then as far as the photograph -- I forget what exhibit that is.

A Exhibit 11.

Q Exhibit 11, there also appears to be some eyeglasses of some sort?

A Yes, sir. There was a pair of eyeglasses that were underneath a table-like area there.

Q Were those eyeglasses damaged in any way that you could tell?

A I don't remember, and I don't have any notes to that.

Q As far as the collection of evidence, did you

actually collect any evidence from the victim herself, swabs or anything like that?

A Yes. We collected two vaginal swabs and then prepared basically a microscope smear of one of the swabs.

Q And when you go to a crime scene and you do something like that, are you familiar with what they call an LR number?

A Yes, sir.

Q What is that?

A An LR number is a number that our crime lab gives each particular investigation we come involved with. This particular investigation was given the LR number of 44659.

Q As far as that LR number is concerned, is that a unique number to an individual case?

A Yes, it is.

Q Excuse me. As far as the particular LR number in this case, what was it?

A I did just say it. It was 44659.

Q I'm sorry. As far as that number, is that a number that ever changes? Let's say it's given to a case in 1985, in 2011 is that the exact same number?

A Yes, sir. When we initially get a case, that particular case is given that number and then any evidence that comes in is associated with that LR number. At the time that we made the collection of evidence on September 23rd, 1985, we collected items,