# Commission of Inquiry <br> Into the Wrongful <br> Conviction of David Milgaard <br> before 

THE HONOURABLE MR. JUSTICE EDWARD P. MacCALLUM
and
Testimony before the Commission
sitting at the
Delta Bessborough Hotel at Saskatoon, Saskatchewan

On Thursday, January 19th, 2006
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Inquiry Proceedings

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## Transcript of Proceedings

(Reconvened at 9:00 a.m.)
COMMISSIONER MacCALLUM: Good morning.
MR. HARDY: Good morning, Mr. Commissioner.

We're ready to proceed with our first witness,
Dr. Colin Merry.
COLIN CLIVE MERRY, sworn:
BY MR. HARDY:
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It deals with essentially $I$ suppose blood, but also includes -- well, it includes the whole of
the reticular endoceliac system and deals with leukemias, lymphomas, that sort of thing. It also extends into other areas. The lab which I was director of, we had a section which analysed urine, we had another section -- well, that section -- well, urine, it was more or less a section on its own because of the volume. Another area also examined body fluids. They ranged from cerebrospinal fluids, acidic fluids, pleura fluids, joint fluids, seminal fluids, any fluid more or less you could recover with a needle from a body, or without a needle shall we say. And this was your expertise, in effect, through most of your career?

Well, expertise -- well, I had I guess 40 years' experience. I don't like the term expert myself. And in any event, though, your specialty or your area of work included the study and analysis of bodily fluids?

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Not really. We -- I had minimal contact with them. There was a Dr. Rockaby who was head of the biochemistry section, he did collaborate with them I believe on developing breathalyzers for alcohol concentrations in breath. Blood bank? They occasionally dropped in and we used to give them specimens of blood when they wanted particular blood type. That was only very occasionally. I think they used it for development purposes or some sort of reference, but the technologists sort of dealt with them when they might drop in once

And during your time in Regina were you familiar with the capacity and abilities of the RCMP forensic lab?
every month or few months.
Were you familiar at all with Staff Sergeant Bruce Paynter who worked in the lab at the RCMP facility in Regina in 1967?

No. I really didn't get to know any of them by name. I mean, I did the odd medical legal autopsy as well but, you know, they came from the RCMP, they witnessed the procedure and took exhibits away, but we never got -- I never got to be an acquaintance, shall we say.

And moving forward in time, what were you doing in 1990 ?

1990? Well, $I$ was at that time at what was the Winnipeg General Hospital, but we also had to cover all the associate hospitals which later became the Health Sciences Centre and attached to the University of Manitoba.

And perhaps you can explain that for us, what was your position in that regard?

I started off as lecturer when they sort of hired me on a -- you have a probationary period and, you know, if you survive the first 12 months, that's it, you are on permanent staff, so $I$ was lecturer for 12 month s. That's on the university side. After that $I$ became assistant professor and ended
up as associate professor on the university side and $I$ was the lab director of the sort of section of haematopathology.

Well, Dr. Markesteyn was a professor of forensic pathology and chief medical examiner in Manitoba and he would consult with the pathologists in various subsections if there was some aspect which involved that particular area and he consulted -now, if it was a head injury case or something of that description, he would just consult with a neuropathologist and when there was other involvements which involved my area, he would consult with me and we would go over the case, so

I think it was sort of just after lunchtime one day he phoned me in my office and said he had an interesting case which he would like my assistance with, so $I$ was a little curious and walked over to his office to find out what it was about and that's how I sort of became involved.

And perhaps take us forward from there, what did you learn and what did you initially attend to? Well, there was a question of frozen yellow, yellowish substance which later thawed into a yellow liquid, as to the nature of that material which he asked me to evaluate.

Q Did you have any other source information available to you?

A
Not really. I did -- I later communicated with

David Asper and I did ask for various other items of information with no success, also regarding the possibility of re-examining some of the material. Now, the anatomic pathology slides which Dr. Markesteyn had in his area, there wasn't a problem recovering them, but all the physical evidence resulted -- associated with the area which I was interested in were not available.

And you mentioned anatomical slides that were available. What were those?

They were histological sections from the autopsy. And would that have taken the form of pictures and the autopsy report or what --

They would be glass slides.
You recall they were glass slides?
I don't recall they were, but that's what they would have been.

Okay.
And Dr. Markesteyn did mention to me that yes, he had examined the glass slides and did make various comments, but since it was not the area $I$ was involved in, $I$ didn't explore that any further.

And $I$ won't dwell on this too long, but what did you understand the glass slides to contain?

A
there was some difference of opinion on the interpretation of some of the uterine slides, but I didn't personally see them. It's not my, the area I examined.

So in terms of your work, would $I$ be correct in stating then that your sole source of information was the transcript of the trial itself?

What was contained in the transcript and what $I$ could try and reconstruct as to what actually transpired at the time.

Okay. And you did not have in your possession then any original lab reports or lab notes from 1969; would that be correct?

That's correct.
I'm going to turn your attention to some documents now, Dr. Merry. The first one $I$ would like you to look at is document ID 169913, which will appear on the screen in front of you. And you'll note it's a memorandum to file from David, who we understand to be David Asper, and at the bottom of the page you'll note the date, May 30th, 1990, re: David Milgaard, and I'll read a portion of this to you. It indicates, at the beginning of the memo: "I was contacted on Sunday, May 27, 1990 by a Dr. Merry, who is a

Hematopathologist at the Health Sciences Centre, and connected with the University of Manitoba Medical School. He was consulted by Dr. Markesteyn as to the blood grouping issues because that is his specialty."

And I'll pause there. Would that information be accurate up to that point that $I$ have read? Yes, that would be accurate.

And continuing from there it indicates:
"He will be conducting a battery of tests which he believes will establish among other things:
a) that human semen is not yellow in the snow, but rather either clear or white, and not visible to the human eye. This likely means that what the police officer found in the snow was urine, and probably urine from some kind of an animal. He believes that certain enzymes present in urine will give rise to a positive test for human semen, as well as any testing for the presence of antigens."

And I'll pause there. In terms of that paragraph
that $I$ have just read to you, would that be accurate, in terms of what you initially stated to Mr. Asper?

Well, it's not entirely accurate. Umm -Maybe let's take it a sentence at a time. If we look at the first sentence:
"That human semen is not yellow in the snow, but rather either clear or white, and not visible to the human eye."

Would that be something that you had advised Mr. Asper?

A

When frozen it is crystal white as snow. Now there are photographs available of that, I believe, which Dr. Markesteyn and myself organized.

Just for the time being, Dr. Merry, I just want to get an accurate account of what you initially advised Mr. Asper in terms of the tests which you were planning and what you thought those tests might establish. And so $I$ think the first sentence, you've got no concern with that, --

A No.
$Q$

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Okay. And in terms of the last sentence he indicates: have anything to conduct it on, but I could investigate similar materials to see if they would have appearance or yield results which were obtained.

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& \text { "He believes that certain enzymes } \\
& \text { present in urine will give rise to a }
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                positive test for human semen, as well as any testing for the presence of antigens."
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Umm, not present in urine. It is a question that one could get in association with urine containing traces of semen, false positive results, as a result of the urine contamination.

And I'm probably going to oversimplify this, but at this point in time were you advising Mr. Asper that the findings in relation to the yellowish substance that we will be talking of could be consistent with that substance being urine? Umm, consistent with it being urine. Umm, the presence of spermatozoa had been confirmed in the transcript, so it appeared to be that it was most probably urine, but was contaminated with seminal fluid, which $I$ am very familiar with, perhaps we will get to that later.

Yeah, and that's probably -- as I say, I was just trying to establish sort of what your mindset was at the outset, and we will look at these specific findings in a little bit more detail and, hopefully, make them clear at that point. Moving to the second paragraph, that indicates again, the sentence leading into
these paragraphs was as follows:
"He will be conducting a battery of tests which he believes will establish among other things:", and if we move to the second paragraph:
"Assuming that the samples were in fact human semen, there is no evidence whatever to establish the presence of blood, and in the absence of such, the only conclusion was that the antigens were present in the semen by virtue of secretion, and therefore excludes Milgaard as the donor based on the evidence."

That according to what was in the transcript, and I know that there was other evidence has come to light. At the time there had been no test for blood, no specific test conducted for blood, on that specimen. A peroxidase reaction was conducted, which is not specific, and since spermatozoa had been identified, if there is any contamination of a specimen by cellular material, which will necessarily contain cytochromes, it would automatically give a positive test.

And doctor --

A

Q time?

Well, more or less, I guess. Shall we say if one was satisfied that a result indicating the
Now would that have been, overall, a statement that you would have agreed with at this point in time based upon what you knew at this point in
presence of antigens was a valid result, then this would have excluded Milgaard. On the other hand, if one entertained the possibility that this was a false positive result, then it doesn't get us anywhere.

So you are saying worked into your agreement with this conclusion is also the assumption that Mr. Milgaard was a non-secretor and that the A antigen test was accurate?

Well the evidence presented was Milgaard was a non-secretor and that $A$ antigen had been found in the seminal fluid. Now, if one believes that, yes that sentence is correct.

Okay.
But $I$ came to gravely doubt that and, well, we'll get to that later on.

Okay. And we -- yeah, okay. I'm going to move forward. What information -- and let me ask this first; do you recall why you were having direct contact with Mr. Asper?

A
Umm, well it was Dr. Markesteyn who got me into it, and he said "you better talk to David Asper direct", so that's what I did. I think that was probably our first contact by phone.

Okay. I'm going to turn you to another document,
it is 155509 , and you'll see it's a letter to yourself from David Asper. And he reviews portions of the case, you will see particularly in the middle paragraph he gives you some information relating to the Crown's star witness, Albert Cadrain, suffering from some kind of acute psychiatric disorder, he encloses in the first paragraph a complete copy of the trial transcript, and then the letter concludes shortly after that. I take it this information on Albert Cadrain, and aspects relating to the case outside the serological portions, were not relevant for your purposes?

Umm, well, I've been involved in a few medical/legal cases in the past. One does encounter, shall we say, unusual characters involved in such events so, you know, they tend not to be upstanding citizens, shall we say. So that sort of thing, you know, didn't really have any great impact on me, shall we say.

And wouldn't it be fair to say that it had no relevancy whatsoever for the purposes of the work that you were conducting?

A
Umm, no, there is no possible way it could influence investigation of serological results.

Q
Okay. I turn you next to 106948. It's a report dated June 1st, 1990 from yourself directed to Mr. Asper, and it's just a two-page report, a very short report; do you recall this particular report, Dr. Merry?

Yes, I recall that. I sort of gave him a short, preliminary report, you know, just how far $I$ had got evaluating the situation.

And $I$ see in the first sentence he indicates, or you indicate:
"I have examined the forensic evidence presented at the trial."

And, again, do I assume correctly that that would be based upon your review of the trial transcript?

Yes, umm, that's correct.
And I'll read this next portion to you again: "From this $I$ do not believe that the possibility can be excluded that the frozen yellowish substance found near the body of the deceased was dog urine, from a dog positive for a blood group antigen cross reacting with the human blood group A.

Approximately 50 percent of
dogs are known to have the Tr antigen which cross reacts in this manner.

Such dog urine might well also contain spermatozoa." That is correct. I think it was either -- it was around the time -- I have cross-matched, I guess, thousands of units of blood for transfusion to humans, never transfused a dog. I was aware that the variants of the human $A$ antigen are present in animal species, and $I$ knew of the association with Tr antigen in dog. I did phone up the Animal Sciences Laboratory, which $I$ had done some work with in the past, and they provided me with specimens of 21 dogs who they'd had in. Umm, I didn't want to try and secure dog blood myself, so they gave me the remains of specimens from a day, which I took to the lab I had, and I tested them against human anti $A$ antisera used for blood transfusion purposes, and 11 of them did cross react and give a positive reaction. It varied a bit. Some gave a strong agglutination reaction characteristic of a human Group A1, and others gave a positive agglutination reaction corresponding to a human Group A2, which gives a weaker agglutination. So, you know, I have seen
it in the literature, $I$ believed it, but I verified, yes, this is what does happen.

Okay. And, just, $I$ want to try and state this in simple terms if we can. You were considering the frozen yellowish substance --

That's correct.
-- which had been concluded to be semen in the course of the 1970 trial, and were you stating here that in fact it could have been urine, and the fact that in 1970 A antigens were found was not necessarily inconsistent with your conclusion that it could be urine; and, similarly, the fact in 1969 that spermatozoa were found in the yellowish substance would similarly not necessarily be inconsistent with the conclusion that the substance was urine, and in fact dog urine?

Umm, it meant dog urine was a possibility. Umm, I had demonstrated that a dog could be a source of $A$ antigen in that specimen.

And - -
And, well, there are other possible sources of $A$ antigen as well.

But in simple terms, if they -- the tests that would have been conducted in 1969 to detect the
presence of $A$ antigens, $I$ think what you are saying is because of the Tr antigen, which $I$ take it is similar to the $A$ antigens, that the result, although interpreted as being human A antigens, could have been just as consistent with it being the Tr antigen in terms of the person who was conducting the test?

That is correct, yes.
And, similarly, dog urine -- implicit in this, what you are stating is that dog urine -- and you've stated expressly -- can contain spermatozoa?

It is as likely to contain spermatozoa as human urine.

Okay. The next paragraph states:
"The use of a test, "used by hospitals to test for blood in urine", to test for blood in seminal fluid is totally invalid. Normal human seminal fluid specimens will, on standing, test positive as the spermatozoa disintegrate and liberate cytochromes and enzymes which catalyse the benzidine/peroxide reaction. This was known but was tested on some seminal fluid specimens
submitted to this laboratory for analysis."

And just to give some context for this paragraph, in this paragraph are you considering the evidence at trial that related to the question of whether or not there was blood in the yellowish substance that was being considered?

Yes. This is based on the sort of photograph we took. We did seminal fluid analysis I guess virtually for the whole province, we seemed to be the only hospital that did it, and this was for fertility purposes, also some post-vasectomy cases who hoped they weren't fertile any more, so, you know, we had a mixture of cases. On the particular day when we had set up the test $I$ think the, $I$ think there were about, I think there were 11, the racks have 12 in, specimens of seminal fluid which had come through, and they had been analysed, they had just got finished with them. So I tested them using the dipstick, one tested slightly positive, the rest were all negative. Umm, and the specimen which we, or I used, had a normal sperm count. I believe it was 117 million, the average, the normal, or the motile value is 106. We normally, you know, take 100 million as,
you know, sort of normal. I looked at that specimen myself, no evidence of any blood in, no red cells to be seen, and on testing it was negative for peroxidase reaction. Umm, then it was poured on some snow and stuck in a deep freeze for 72 hours at minus 40 .

The rest of the specimens which had been finished with, we used to hold them 24 hours, they got stuck in the refrigerator. So the following morning, out of curiosity, I re-tested them. Well, the spermatozoa had died overnight, and they tested intensely positive.

On the benzidine/peroxide test?

Yeah.

Okay. And so let's --

Except for those which were post-vasectomy.
Okay. And, again, $I$ want to try and simplify this paragraph if we can. You start off by saying:
"The use of a test, "used by hospitals
to test for blood in urine", to test for blood in seminal fluid is totally
invalid."

And as we know, that test, the hemostix test was applied in 1969 by the Regina lab to test for the presence of blood in what was believed to be
seminal fluid, and you are stating here that that was an entirely invalid use in that respect?

A
It was. Once a spermatozoa dies it may morph -maintain its morphology, its physical appearance down the microscope for a while will not appear much altered, however the cell wall, the proteins of the cytoskeleton will still be there, but the integrity of the cell membrane will have completely been destroyed or degenerated and it will leak. More or less, I guess, like a tea bag dipped into hot water, you know, you can see the tea come out of it, so that's what happens to the cytochromes in a cell when it dies.

Okay. And just let me stop you there for a moment. So you agree with the statement that it was an invalid use of that test, being the hemostix test, which $I$ think we're noting is also referred to as the benzidine/peroxide reaction test; would that be correct?

That is correct.
Okay. And if $I$ understand you correctly what you are stating is that if you have a sample of unadulterated semen which you allow to sit for a period of time, and later apply this test, the hemostix or benzidine/peroxide reaction test, that
in fact you can get a positive result notwithstanding that it is pure semen that has been sitting for a time being?

You will get a positive result. Now the specimen in question was found in snow, it was said to be minus 40 , we reconstructed those conditions.

When seminal fluid is frozen for
storage for later use for, you know, producing a family, that is entirely different to normal
freezing. It is snap-frozen in liquid nitrogen at -- I -- it's minus 194 point something degrees,
it is literally snap-frozen so that ice crystals do not form and totally disrupt the internal structure.

At minus 40 , when seminal $f l u i d$ is dropped onto snow, it is -- it freezes rapidly, but is not snap-freezing frozen, and you will get crystallization within the spermatozoa and they will be dead there and then.

How long would it take for, as $I$ say, using again the example of pure semen sitting still and leaving out for a moment the question of it being frozen, how long would it take before the positive hemostix test of our -- or before that test would show positive?

A
Umm, well, immediately it thawed the cytochromes would begin diffusing out. When we took the specimen which we had in the deep freeze out $I$ had it on my lab bench in my office and it had started to thaw, and there was just a little fluid, and I was a bit curious so $I$ stuck a test strip in it before I went for coffee and it tested, immediately, extremely strongly positive.

Are we --
Umm - -

Are we talking, then, a matter of hours?
Well it had only just started to freeze -- to thaw when it came out, after $I$ had took it out of the deep freeze. I mean later on it, you know, thawed right out.

Okay. And I just want to be sure I'm following you. You have been talking about the substance being in a frozen state?

Yeah.
And is the breakdown of the sperms that you earlier spoke of, which allows for the leakage of the cytochromes, does that occur in the frozen state or are those sperms, in effect, preserved in the frozen state?

Oh, well, they are preserved and dead in a frozen
state, but they are not going to leak anything, because they are frozen and they are solid. It's when -- once they thaw that the leakage occurs. And are you saying in the freezing and thawing circumstances which we believe would have applied in this case, being frozen at minus 40, eventually thawing after the passage of hours, in fact days, that the positive hemostix test would have resulted almost immediately upon thawing?

Yes.
Okay. Now was this issue that we have been speaking of, in other words knowledge that pure semen could later test positive on the hemostix test, was that knowledge known in 1969 ?

Umm, yes, it was known. I mean there are warnings about using those, it comes in the blurb attached to the package that you can get false positive results, so, you know, if you dip it in, it comes out blue, that is a purely presumptive test and it requires further investigation. It does not mean there is blood there.

Right. And we understood that even in 1970 it was understood that it was a presumptive test, that it did not mean necessarily that there was blood there, --

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No.
-- but was it known by those with expertise at that time that one of the possibilities for a positive hemostix test would be simply the degradation of individual sperm sitting in a pure semen sample?

Well I mean I have been -- taught medical
laboratory technologists, interns, residents for, I don't know, going on 40 years, and $I$ think they are all well informed of that fact in, you know, that process of being taught.

So the answer to that is "yes", as of 1969 that knowledge was known amongst those with expertise in this area?

Well, the ones I taught. I mean, how other people taught, $I$ wouldn't know.

COMMISSIONER MacCALLUM: Who did you teach, medical students or other people, simply technicians.

I taught technologists, medical students, interns, residents.

BY MR. HARDY:
And that was teaching in 1969?
That was teaching in 1969 .
But what about within the body of your peers who
are working similarly as you are, what would be your conclusion, or reasonable conclusion as to whether or not they would be aware of this aspect that we've just been discussing?

It's partly the core material they are supposed to know and that's it, they should have learned that. And you were aware of this in 1969?

I've been aware of it for many years, yes.
Okay. Turn to the next page, please, at the top of the page it states:
"From the manner in which the test for secretor status was performed it is not possible to be certain if David Milgaard is a secretor or non-secretor of blood group A-antigen."

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Yes.
And $I$ take it that you had reached that conclusion again from your review of the trial transcript? Yes, I had come to the opinion that one could not rely upon that result. There did not, in the material I had examined, seem to be sufficient validation of scientific requirements to apply the test or analytical procedures. I mean, one has to know exactly what you are analysing, you have to know what interfering substances are present, what
will give false positive and what will give false negative results. I mean, you don't take something out of a packet, stick it into it, test it and say that's positive or that's negative, it is far more complex than that.

So from your review of the transcript, you immediately had concerns about the validity of the secretor status testing that had been apparently conducted in relation to David Milgaard? I did phone David Asper and ask him where and how was that saliva specimen collected and he told me it was collected in a police station in Saskatoon I believe, it was collected in the police station. Well, $I$ thought it unlikely that a police station would have had a water bath available at least at 56 degrees Centigrade or preferably at 100 degrees Centigrade, $a$ boiling water bath available to immediately inactivate the ptyalin, or the other name for it is alpha amylase present in saliva. I thought it was unlikely.

Okay. And we are going to look at what the proper secretor status test would have been, but $I$ take your point that you immediately had suspicions about whether or not that secretor test, status test had been properly done?

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I did, yes.
I'll turn you --
That is why I suggested to David Milgaard ultimately that $I$ thought that that should be really examined.

And when did you suggest that?
I can't remember the exact dates. It's kind of a while ago, you know. I did suggest it and it did get done. I'm not sure if it was documented or whether we discussed it entirely by phone. He did want me to do the test myself. Well, I told him no, I would not do it myself. It was done initially by another lab and as a lab director, if I thought somebody else's result was inaccurate, I would not repeat it myself, I would make sure that that lab was informed and that they should be given the opportunity to re-examine the matter themselves, so I told him I would rather it was done, repeated by that laboratory that -- it was a sort of ethical matter $I$ guess between laboratory directors. Okay. But, Dr. Merry, can you place with any more specificity when this conversation was taking place?

Not really. It was, I don't know, perhaps two,
three weeks or longer. It did initiate the subsequent testing which was done.

Okay. And that's the best you can tell us on that in terms of timing?

A

It would be sometime later that $I$ sort of followed up and said, you know, you better get it done, better get it re-examined.

Okay. I'm going to turn you next to a report that was done by Dr. Markesteyn dated June 4th, 1990 . The document is 155517. I think you've already confirmed for us that you were working with Dr. Markesteyn at the time, being consulted by him in relation to this matter. Are you generally familiar, or were you familiar with this report, Dr. Merry?

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Yes. He didn't -- you know, he knew what $I$ was doing, he was witness to the procedure when we organized the photographs, but he, as far as I
know, didn't do any further investigation in that area himself.

Okay. Let's turn to page 155522. Oh, I'm sorry, it's page 6 of the document. The first paragraph, the title is, "Seminal stains at scene, yellowish stains in the snowbank." This is Dr. Markesteyn writing:
"I share Dr. Ferris' concerns about the integrity and continuity of the samples of the alleged semen which were recovered on February 4, 1969, at the scene. The scene, according to the evidence, had been extensively searched, trampled, and, the know had been melted

- in and around the body. There was heavy staining with blood from the deceased. The evidence seems to indicate that two yellowish stains were discovered some four days after the assault took place."

And did you have these concerns respecting the integrity and continuity of the samples that you were considering?

A
Well --
Indirectly?

A Indirectly. When $I$ have done medical or legal autopsies, immediately the specimen is collected. I have to write in diamond pencil on the tube, the glass tube or whatever it's in, my initials so it can be identified. There has to be an absolute chain of custody. I mean, seminal fluid specimens, or semen specimens, that was a problem when $I$ went to the Health Sciences Centre in Winnipeg, they would get assault cases into the emergency or casualty department. A casualty officer would examine the patient, take the swab, so on, then they would come up to the lab. A technologist would get it, then that technologist would go off duty at 11:30 at night and another technologist would come on, it would be handed over to another technologist and down the road. Then we would get subpoenas for the whole lot of them to go to court to validate the chain of custody.

I understand, Dr. Merry, and --
So I simplified that, I had a box put in the fridge with a baffle in it and I told them the guy who examines the patient comes up, sticks it in that locked box and that is it and then when he has to go to court he comes up to the lab, I will
open it with a key that $I$ have and he takes it back again and we hear no more of it and $I$ don't have my staff in court.
$Q$

I mean, in the British Court I don't think it would have got to court, shall we say. Okay. And in terms of the next paragraph, it states:

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\begin{aligned}
& \text { "Yellowish stains in snowbanks most } \\
& \text { commonly find their origin, not in human } \\
& \text { ejaculates, but in urine, most commonly } \\
& \text { of canine origin. I have been informed } \\
& \text { that male dog urine often contains } \\
& \text { semen. "Unused" semen in dogs is not }
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reabsorbed but is secreted in the urine.
Dogs urinate over other dogs' semen and/or urine to establish territory. Dogs have antigens which serologically cross-react with human A-antigen. One of the two yellowish stains contained semen, perhaps intermingled with urine. The other one did not contain semen and perhaps contained urine only. We will never know."

And I think we covered these aspects previously in terms of the possibility of this substance being dog urine; would that be correct, Dr. Merry?

Yes, so far as $I$ have been informed that male dog urine, that that is Dr. Peter Markesteyn. Now, one of the last residents $I$ taught actually came from the States, originally a doctor of veterinary medicine, then went into human medicine and qualified in that and then became a resident in pathology. I was one of the people who taught her pathology. She also simultaneously at this university qualified in veterinary pathology, so she was, ended up as both a human and veterinary pathologist. I specifically asked her about
spermatozoa in dog urine since $I$ have not seen a great deal of dog urine, I've seen much more dog blood I guess. I mean, we did used to have drug trials and that sort of thing going on which we did lab testing for research purposes, but I've not seen that much dog urine.

So am I correct in --
She confirmed, yes, you can find spermatozoa in dog urine the same as you do in humans.

Okay. This next paragraph states:
"Human semen does not freeze into a yellowish stain at -40 degrees $F$. In fact, it is white and difficult to spot in snow other than through special techniques such as ultraviolet light exposure, etc. One of the two yellowish lumps was found to contain semen; the other one, although it looked the same, did not contain semen or any other human material in that it did not contain, we are informed, blood, sweat, tears, or saliva. Dr. Emson examined the material prior to having it sent to the Crime Laboratory in Regina. He has informed me that he was sure it was semen, but,
that he could not say from what species it originated. The Serology Section determined it to be not only semen but of human origin. In order to reach a firm scientific conclusion whether the semen retrieved from the snowbank four days after the assault was indeed human one needs to review the methodology used by the serologist at that time and thus one needs to review the notes that were made at that time."

And in particular in relation to that last sentence that $I$ read to you, Dr. Merry, would you agree with that, and would you have agreed with that in 1990?

A

Q
You weren't in possession of original lab notes which would advise you of the methodology; would that be correct?

A That's correct.
Okay. Just in completing that aspect, the next paragraph states:
"I have been informed that the original notes on which this evidence by Staff Sgt. Paynter was based are no longer available. Staff Sgt. Paynter informed me that he does not remember (some twenty years after the event) whether or not he performed specific tests to determine the human origin of these specimens."

Would you have similarly been under the impression at that time that the original lab notes were not available, Dr. Merry?

Yes.
Move to the next paragraph which states:
"The fact that the semen contained an
A-antigen does not make it human --"
And I'll pause there for a moment. I think we've covered that; correct?

A That's correct.
Q
"-- nor, $I$ am informed, does the enzyme test for phosphatase used at that time make it human."

I'm going to pause there for a moment. We know from the trial evidence of Staff Sergeant Bruce Paynter that in examining the yellowish substance
he conducted a test initially known as an acid phosphatase test and obtained a positive result and $I$ think what's being indicated here is that a positive acid phosphatase result does not necessarily mean that a substance is human; is that correct?

That is correct. The prostate produces acid phosphatase. It can be distinguished from other acid phosphatases produced elsewhere in the body. It is -- it used to be called heat and formal stable acid phosphatase whereas the other phosphatases were destroyed on treatment with those things, so you could sort of crudely fractionate them in those days, and you would expect to find acid phosphatase in any seminal fluid irrespective of species. Dogs are used as research and experimental model in prostate disease in fact. Elderly dogs and elderly men both on occasion suffer from benign aplasia of prostate, you know, prostatic disease, so it's an ideal experimental model, and yes, the prostate in a dog does very closely resemble, react and have the disease conditions of humans.

Okay. The next comment is:
"The human antibody test doesn't make it
human if there was any contamination with human blood."

And again, $I$ take it you had no information at this point in time that a human antibody test had actually been done on the yellowish substance? No, I had no information.

And we'll be talking about that aspect in a moment further. And then the last point:
"The only way of excluding this semen from being of non-human origin would have been the morphology and/or species specific antigen-antibody reaction tests."

And in terms of the first comment, "would have been the morphology," do you understand what Dr. Markesteyn was referring to in referring to that aspect?

A of this sentence?

Well, let's see, "The human antibody test doesn't make it human if there was any contamination with human blood." Yes, that's right. "The only way

Well, morphology isn't very good for speciation. Just -- I'm going to stop you there for a moment, Dr. Merry. Do you understand what use Dr. Markesteyn was using of this phrase in the context
of excluding this semen from being of non-human origin would have been the morphology." I don't -- spermatozoa of different mammalian species look very similar.

So again back to my question though, are you aware what use Dr. Markesteyn was making of this phrase? "And/or species specific antigen-antibody reaction tests," that I can understand. The morphology bit, morphology is not reliable for speciation. And we're going to get to that in a moment, Dr. Merry, but $I$ take it from what you are saying to me, that you didn't understand or don't understand what use Dr. Markesteyn is putting that term to; would that be correct?

A
Well, he's suggesting that morphology might contribute in some way. Well, yes, it would identify, and yes, it would possibly be human, but you couldn't say it was human.

Okay.
COMMISSIONER MacCALLUM: It might be useful for you to explain to us what morphology means. Morphology is the physical appearance of something down a microscope.

COMMISSIONER MacCALLUM: Right.
A
I mean, a spermatozoa is kind of like a tadpole,
it has a head, an acrosome and a very long tail. They all have the same basic morphology. COMMISSIONER MacCALLUM: As between species?

A
As between species. There might be some very discrete differences, but, you know, I've looked at $I$ guess thousands of human seminal fluid specimens and unless somebody warned me actually they slipped a dog specimen in, you know, I might very well look at it and not realize that it was different. Now, we do come to another confounding factor in this, I did examine what $I$ knew was human seminal fluid after it had been frozen for 72 hours and then thawed out. Well, the morphology has, you know, considerably deteriorated, they are very dead, and you then have suboptimal morphology, so some who say they are experts, I always refuse to acknowledge that I'm an expert, once I think I'm an expert I'm in trouble because I think I've learned a lot. Forget it. Now, those who claim to be experts, well, $I$ would be a little weary about that. BY MR. HARDY:

Q
And, Dr. Merry, we'll $I$ think talk a little bit more about this morphology aspect, and I take your
point that you've just said $I$ think in terms of semen or sperm that sits over time, that there's some degradation which $I$ think I'm hearing you say perhaps would make it even more difficult to distinguish as between species when you are looking at the morphology or physical
characteristics of the sperm; would that be correct?

A
That's correct.

Okay. If we could move to the next page, 155523, you'll see the heading at the top is "Blood in Semen from Snowbank," and it states:
"The evidence suggested that an attempt was made to determine if the seminal fluid specimen retrieved from the snowbank contained blood. Evidence was given that a method used in hospitals at the time was used for the determination of blood in urine. This in all probability was the Hemostix test and, if so, would have been used contrary to manufacturer's instructions which specifically limits the use to a screening test for blood in urine."

I think we talked about this before, but you
would agree with that aspect?
Well, $I$ would agree with it. Now, spermatozoa do occur in urine. I guess -- and if they are alive you won't get a positive reaction, it's when they die and decide to fuse out that you get a positive reaction. Now, in connection with this, yes, one could say it's a common finding. Whenever such a term is used it has to be defined as far as I'm concerned. Now, I told the technologists, you know, $I$ would like to know how common this is, I want a figure, so after three days they looked at out-patient specimens, patients who had something wrong with them, shall we say, but it was not disabling, it was not affecting their lifestyle in any way, and, you know, we came up to a plus/minus around the 10 percent mark. This was no surprise, I mean, we all knew about it. We never record that except if it is in a female under the age of 14 years in which case we are obliged to report it to the Child Protection Agency.

You are talking about the location of spermatozoa in --
$A \quad--$ female urine.

Q Okay.
A

## 2

$\square$
But other than that, we do not report it at all, it is just dismissed as a normal finding. Okay. And as I say, I think we've talked about this before, just finishing off that paragraph: "The evidence given at the trial made it very clear that this test is not specific for blood."

And again what's being referred to here is the hemostix test.
"Not only do vegetables and leather give a positive reaction but so do also a range of bacteria and contaminated material such as soil ... as well as the cytocrome enzymes of spermatozoa themselves."

And I think we've talked about the cytochrome enzymes of spermatozoa themselves perhaps given that positive hemostix reaction, and additionally here we see the vegetables and leather aspect which was referred to originally at the trial and added to that is also a range of bacteria and contaminated material such as soil which I take it can similarly give a false positive on the hemostix test?

A
"The evidence stated that confirmatory
tests (presumably hemochromogen) failed to confirm that this was blood."

And as $I$ understand it, after you would have a positive hemostix test, that that would be a presumptive result and that you would go on, in terms of trying to determine whether the substance was blood, to conduct a hemochromogen test which would be a confirmatory test that the substance was blood; is that correct?

A
Yes. If we get -- well, I mean, we do get positive tests for blood in -- a genuine positive test for blood in urine, we confirm them. A hemochromogen test -- well, if we see red cells in it, $I$ mean, we don't bother about a hemochromogen test, you can see the red cells in it so we know that it's blood, right, and it will be, you know, reddish in colour. If we can't see red cells in it, then we will have a look at, well, I guess you
would call it a hemochromogen test, we would see what absorption bands there were on spectroscopy, and cyanmethaemoglobin has a very strong alpha absorption band at 540 millimicrons, so you can say yes, that's haemoglobin.

And in terms of the comment itself, it seems that Dr. Markesteyn is stating here:
"The evidence ...",
which I take to be the trial evidence:
"... stated that confirmatory tests
(presumably haemochromogen) failed to confirm that this was blood."

Now we've reviewed the trial evidence of Staff Sergeant Paynter, he has indicated that he did not go on to conduct the haemochromogen test because there was insufficient sample; do you know otherwise where Dr. Markesteyn may have received information that confirmatory tests were, in fact, conducted?

I -- I don't know, this is not my report, -Okay.
-- I don't know where. Now the other thing, tests wasn't conducted because of inadequate material, well this is a common situation you face with medical specimens, a limited specimen. Well
in this case, to pour the urine or whatever the liquid was into a cuvet, stick it in a double-beam scanning spectrophotometer is no great problem, and then pouring it out again and using it for some other test, this is non-destructive testing. Okay.

All you do is shine, you know, specific wave lengths of light through it to find where the absorption bands land or are.

Okay. I'm going to move you down the par -- the page to a single paragraph under the A-antigens in the Semen From Snowbank, and I'm look at this paragraph here, and Dr. Markesteyn has stated:
"I agree with the opinion expressed by Mr. Brian Jay that if blood
contamination of type $A$ had taken place, but that the amount of blood was so little that it would be Hemostix positive and hemochromogen negative, the amount of blood would also be too small to show the presence of A-antigen."

And we'll try to state that in simpler terms, but first of all would you agree with that comment, Dr. Merry?

A
I would agree with it. When you are looking for $A$
antigen in saliva or in seminal fluid there is a tighter range. You can take the saliva and you can dilute it down 1 part in 200 with normal saline with 0.9 percent sodium chloride, you can dilute it down to say 1 in 200 or you can dilute it down to say 1 in 500 , that is the normal tighter found in saliva in about 95 percent of them. I mean you'll get the odd one you can dilute to 1 in 1,000, you know, they are outliers, or you will get ones which, you know, don't go past 50 or something, so there is a tighter. And the same is true with seminal fluid, there is a tighter range. And this is nowhere near the tighter range, we are talking of logarithmic differences in magnitude.
$Q \quad$ So --
A
Now it isn't sort of even 10 to the power of 2 , $a$ difference of 100, --

Okay.
-- it's more like 10 to the power of 3, a thousand.

Q
So if, ultimately, if we try again to think of this in simple terms we know that in 1969 the substance tested positive for the presence of $A$ antigens, we know as well that it tested positive
on the hemostix test, which would be a presumptive test for blood, but we know as -- we also know that there was insufficient sample to conduct the haemochromogen test. Now is this analysis, in effect, saying that, in that circumstance, the presence of the A antigens cannot be accounted for by the presence of blood?

Well it looks like it is extremely probable that it can't be accounted for that way.

Now the detection of $A$ antigen, that's another problem we should go into I guess, because this --

Q
A
$Q$
A

So the circumstance $I$ just provided to you; would that not be an absolute conclusion then?

A

Q

A
$Q$

A

Q

A

Q
2

In other words, that the A antigens that we know were found in 1969 could not be accounted for by the presence of blood?

I think that's as near as beyond reasonable doubt as you are likely to get. Umm --

And would that have been known in 1969 ?
Well, it would have been known in 1969 , and if you
had knew you were in that situation that's one
thing, but if you didn't know you were in that situation and really didn't know what you were analysing, that's another situation, isn't it. I mean you could say in good faith "I think this" or in good faith "I think that" but, you know, if you haven't really started from the right place --

And --
-- you are not going to arrive at the right destination either.

I understand. I'm not trying to oversimplify it, I am -- if we had a hypothetical scenario in 1969 where someone came to you with what was understood to be semen that tested positive for A antigens, and they had advised that it had also tested positive for the hemostix tests, but that there was insufficient blood present to test or to conduct the haemochromogen test, would that have
led you to the conclusion that the A antigens could not have been accounted for by the presence of blood?

A
Umm, my reaction would be done -- be forget the hemostix testing, that was inappropriate at any rate, you haven't tested it for the presence of blood; if A antigen is found -- well, you don't anticipate that there's going to be any blood in seminal fluid.

Umm, you know, I think in the
lab which I last was director of $I$ got the technologists to look up how many seminal fluid specimens we had analysed since I'd been running the place, it was around 15,000, I think only on perhaps three or four occasions did we ever detect blood in seminal fluid. I mean it's kind of a rare event.

And would the rarity of that event have been known in 1969?

Well $I$ guess if you are in the business, you know, and you do a fair bit of seminal fluid testing, yes, you would know. Whether somebody who tests -- did far less testing would know, you know, perhaps they might not be so familiar. Okay. If we move down to the bottom of this
section $I$ just note, again, Dr. Markesteyn
comments:
"The determination of the non-secretor status of Mr. Milgaard, although perhaps acceptable at that time, would now no longer serve as proof of his non-secretor status."

Well --
And I'm not sure, from what you have previously told us, whether you would agree with that comment or not?

Umm, well:
"The determination of the non-secretor
status of Milgaard, although perhaps acceptable at that time, ...",
well $I$ kind of wouldn't think it was acceptable at the time myself.
"... acceptable at that time ..."
well I, you know, I would not be enthusiastic about agreeing with that bit.
"... would now no longer serve as proof
of his ...",
yeah, well, $I$ don't entirely agree with it.
Okay. And I think you've explained to us before that you have doubts about the tests or the

A
$Q$

A
propriety of the test or properness of the test that was conducted in 1969?

Yes.

Okay.
Now I was consulted and asked to give my opinion on the subsequent analytical report which $I$ cannot personally disclose, there is a caution on that, that it may not be disclosed without specific permission. If the Inquiry is in possession of it, I'm prepared to discuss it, --

I think --
-- otherwise it must be obtained by the Commission.

I think we have it. You are talking about your subsequent report on secretor status?

The subsequent $R C M P$ report.
Yes, okay, I think we do have that and we'll get to it in a moment.

Just going to the conclusion of this report, 1555 -- oh, I'm sorry, page 8, a couple of comments. The first one here, Dr.

Markesteyn states:
"I agree with Dr. Ferris that the serological evidence presented at the trial failed to link David Milgaard with
the semen retrieved from vagina, snowbank, and crotch of panties." A fairly general statement, but would you be in agreement with that comment?

A
$Q$
Well, it's a general statement, and I'm generally
in agreement I suppose.

Okay. And the next paragraph:
"If, to everyone's satisfaction, it was established that the origin of the yellowish patch was unadulterated, uncontaminated human semen, then the presence of the A-antigen in this specimen clearly, from a serological point of view, could not be Mr. Milgaard's."

The 'yellowish patch'; where is this yellowish patch exactly?

This is the yellowish substance we have been speaking of.

In the snow?
Yes.
Yeah. Well, it's not compatible with what was reported at the time, is it. I mean non-secretor, and then we find A antigen, which I think was false positive result at any rate, but the two
don't go together, do they.
Sure. And I think there's an assumption built into that conclusion that in fact Mr. Milgaard is a non-secretor, we know that that was later proven to be wrong, but based upon that assumption being worked into that paragraph would you otherwise agree?

Well, 'otherwise agree', umm. I mean I'm agreeing with, you know, we know it's erroneous but if you put the two together $I$ agree with two erroneous bits of information to end up with an answer which would be erroneous.

Okay.
An unusual proposition in logic.
I take your point. But, of course, assumptions are built into what $I$ am saying to you, and $I$ think perhaps we've covered that, based upon those assumptions, that you would be in agreement?

Yeah.
And I realize that you are taking issue with those assumptions, and in fact we'll look at your report which details, more specifically, some of those concerns.

This is perhaps a good time to break though, Mr. Commissioner.
(Adjourned at 10:29 a.m.)
(Reconvened at 10:48 a.m.)
BY MR. HARDY:
Dr. Merry, I'm next going to direct your attention
to a document, it's a letter from the Chief
Scientist of the Serology Central Forensic
Laboratory for the RCMP, it's 185365. The letter
is directed to Eugene Williams, counsel for the
Department of Justice, they are considering Dr.
Markesteyn's report that $I$ have just referred you
to. And you will see that, in the first paragraph:
"I have attached a copy of a report from Dr. Peter Markesteyn, Chief Medical Examiner, Manitoba. He has reviewed Dr. Ferris' report and all the other information as provided to Dr. Ferris." If we move into the next paragraph, it indicates: "The comments he makes in this area are interesting. From personal experience, I have noted that some canine blood will carry A-like antigens. I cannot make any comments regarding canine urine or semen. The morphological differences of human spermatozoa and canine spermatozoa
are several. The experienced examiner would not have any problems in distinguishing between human and canine spermatozoa."

Is that a comment you would agree with, Dr. Merry?

A

Q

A
Not that $I$ would readily appreciate. Under a microscope there might be differences but they are so small $I$ don't think you could use them as reliable criteria to differentiate.

What would be some of the differences? I'm not
spermatozoa and canine spermatozoa?
promising I'm going to understand, but what would be some of the differences?


A

I don't know of any definitive differences. I mean if you sort of start from the top to the bottom, they all have a head which looks rather similar, it's sort of ovoid and slightly pointed; that's followed by an acrosome which contains mitochondria; then you've got a tail filament. Umm, you know, they have all got the same components and they look similar. I would not, myself, claim to be able to reliably distinguish between species.

Would an experienced examiner in such matters be able to reliably distinguish between species?

Well, that would be their opinion upon their expertise, I guess. I wouldn't. My opinion of my expertise is such that $I$ wouldn't make such a claim.

You wouldn't be comfortable making those decisions
yourself or recognizing those differences yourself?

No.
And in terms of someone else who is indicating that the experienced examiner would be able to tell the difference, would you have any reason to
disagree with that comment?
Well $I$ won't disagree or agree with it. I mean it's a comment. I mean if you believe it, you believe it, if you don't believe it you don't believe it, it's up to you.

Do you believe it?
I do not believe one can reliably, on morphologic grounds, speciate spermatozoa.

Okay.
Period. Right.
I turn you next to document 002094 . And this is a
lab report that you may recognize or be familiar with, it's dated February 3rd, 1992, and it was a report, I believe, that confirms that David Milgaard is a secretor. Perhaps you could take a look at it for a moment and confirm whether or not I'm correct on that conclusion?

Yeah, I'm familiar with that report.
And this report confirms that David Milgaard is a secretor?

A
That is my understanding of it. I don't see how you can interpret it any other way.

Okay. Now I'll turn you next to a letter that shortly followed, 165775. So it was a letter directed to yourself dated February 10th, 1992
from David Asper, and he indicates as follows:
"Please find enclosed a copy of the lab report recently prepared with respect to secretor status testing performing on the saliva of David Milgaard. I have two questions:

1) Is it possible that an individual can at one time be a "secretor" and at a later time be a "non-secretor?" Will the ingestion of drugs, such as lithium, affect the testing for secretor status? 2) What is the most reliable testing procedure available for determining the secretor status of an individual?

Also, we obviously interpret the test result to conclude that David Milgaard is in fact a secretor. Is there anything else about this report about which you might wish to comment?" If we could turn to a report dated 155546, a letter dated February 18th, 1992 from yourself to Mr. Asper; do you recognize that letter, Dr. Merry?

A Yes.
the doc ID on the February $10, \quad$ ' 92 letter. MR. HARDY: It is -- the first one is
165775.

COMMISSIONER MacCALLUM: Thanks.
BY MR. HARDY:
And you respond to Mr. Asper stating:
"In answer to your questions:

1) David Milgaard always was and always will be a blood group A antigen secretor all of the time. No drugs are known to influence the production or secretion of the A antigen. There are many patients who receive blood transfusions who are also on lithium and no immunohematologic abnormalities are noted in the medical literature."

And that would be an accurate account, obviously, of your position at that time?

A
Yes. If lithium did affect it it would cause problems in cross-matching. Well, there's nothing in the literature, so that's it. As far as we know it doesn't cause any problems at all.

Q Okay. And then number:
"(2) The testing procedure in this circumstance would be entirely reliable
since:
a) The reliability of the previous result has been challenged and especial care would have been taken, particularly with the prospect of independent testing. The present result vindicates the challenge and demonstrates the unreliability of the previous testing procedure now confirmed by the same laboratory.
b) In the vast majority of cases one either is a secretor of a blood group antigen within the A.B.O.(H) blood group system and secretes a lot of it, or one is not a secretor; the results are clear cut. In rare instances the results might be difficult to interpret and other confirmatory testing procedures would be appropriate. Had this been the case, they would have been done in view of the previous challenge and the present intense scrutiny of such laboratory tests."

So I take it you are in complete agreement with the results of that lab test that we previously
looked at at this time?

A
Well the lab test did give me some sort of scientific data which $I$ could assess, and the stuff in the transcript wasn't exactly scientific data, it was rather confusing in fact. Umm, so yes, I'm satisfied. I mean if anybody is in any doubt we can refer to an international reference centre, but $I$ don't think it's necessary, I'm prepared to agree with the RCMP that they did it correctly.

Okay.
Umm, now I think, you know, there are extenuating circumstances as to how the error arose in the first time.

Right, and I'm not going to ask you about that right now because $I$ think it's covered to some extent in your report, which we're going to touch upon next, but $I$ will invite you to comment at that point.

A
All right. Now there is another comment, I:
"In rare instances the results might be difficult to interpret and other confirmatory testing procedures would be appropriate."

Now the report received, I would interpret it
that they just used the normal testing procedures, they did not have any problem. They did not have to resort to an enzyme labelled immunosorbent technique, so-called ELISA technique, they didn't have to do that. I mean, if you can secure a reliable result with a test that is as far as you go, you do not go further. I mean on ordinary microscopy I have made, $I$ suppose, hundreds of thousands of diagnoses. I have also submitted quite a bit to electron microscopy, but $I$ only do that when it's necessary, otherwise you bankrupt the laboratory and the whole system. I mean you don't use a sledge hammer to crack a nut, do you.

Okay. I'm going to turn you to a copy of your report, Dr. Merry, that you completed and that was dated March 6th, 1992. The document is 155549 and

I assume you recognize that report?
Well, if you blow it up a bit on the screen, I could read it.

Sure.
That's better, yeah.
And I see the date of this is March 6th, 1992. Your preliminary report, $I$ think, was June 1st, $1990 ?$

A Yeah.
Q
Can you tell us what precipitated this particular report?

Umm, well, you know, $I$ was a bit frustrated that $I$ couldn't actually conduct any testing on anything and everything seemed to have been lost, hadn't been kept, what have you, and then I suddenly realized they hadn't lost one thing, hadn't mislaid one thing, they had him in prison for 23 years, so he was available for testing, so I said "let's do it".

And are you talking about in terms of the secretor status aspect?

That's right.
Okay. And I see at the outset, and perhaps I'll look at this report, but do you recall -- first of all do you recall discussions with Mr. Asper prior to providing this report? As I say, you had previously provided a preliminary report two years prior?

A
I had provided a preliminary report two years prior and eventually got 'round to submitting the final report.

And did you understand --
And then, you know, this came up and we got the
repeat of the saliva test on David Milgaard. Okay. And did you understand how this report was going to be used by Mr. Asper? No, not entirely. It's -- I mean, just because an expert turns up in court and presents evidence, you know, you do have to evaluate and analyse it and, you know, if I turn up in court I like somebody else there as well, and, you know, perhaps they will confirm what $I$ say and perhaps they will give me ideas and $I$ better think about something else, some other possibility. I mean, expert witnesses really shouldn't appear for defence or prosecution, they appear as expert witnesses and give a scientific evaluation. Okay.

Who they are appearing for should not enter into it.

Did you have any further information in terms of source material that you were additionally relying upon in writing this report, and when $I$ say additionally, $I$ mean additional to the trial transcript that you already confirmed for us that you did have?

No, I didn't have any additional on this, no.
Okay. Let's take a look at some of the report.

It begins by confirming that Mr. Milgaard is a secretor according to the recent lab report that we looked at and you start in the fourth paragraph by saying:
"This totally contradicts the evidence contained in the trial transcript provided by this same laboratory 23 years ago, namely, that Mr. Milgaard was not a secretor of $A$-antigen.

I do not consider that this is an advancement. Mr. Milgaard's secretor status is probably irrelevant since, the "yellowish substance" found in the snowbank which was subsequently examined was, mostly likely, dog urine."

I'll pause there just for a moment. Were you comfortable with the use of that terminology, "most likely"?

A

Q

A
Yes. It was not used in a scientific context. You don't use terms "most likely". If there's a
probability, you give some evaluation of statistical probability.

But you indicate -- I mean, you were a scientist looking at this, you indicate you don't use terms like "most likely", but you have used that term? I did use it, yes.

And I'm asking if you are comfortable with the use of that term?

Well, $I$ still believe that yellow stains in snow are most likely dog urine and not human urine. I mean, they could be human urine in some -- I mean, in the east end of London there are some undesirable districts and $I$ guess human urine is more prevalent than in other areas, but, I mean, dog urine is more common in snow than human urine. Okay. Let's continue to the next page, it starts -- sorry, at the page we were just on it says:
"From --"
And then the next page,
"-- the transcript it appears unlikely
that the original specimen of saliva
obtained from Mr. Milgaard was
immediately heat inactivated, as is
required in determining antigen secretor
status. Failure to do this would result
in the enzyme ptyalin, which is present
in saliva, digesting the A-antigen
before the specimen was examined. This
would account for the false negative
A-antigen secretor status obtained. In
Caucasians, the incidence of positive
secretor status is approximately 78\%,
the incidence of blood group $A$ is
approximately 45\%."
And do I take it correctly that you were explaining in greater detail what the likely failure was in terms of the initial lab test for secretor status?

A
Yes. I thought that it was probably -- it wasn't immediately heat inactivated which would make the result unreliable.

And would that be because this enzyme you mentioned, ptyalin --

Ptyalin.
Sorry, ptyalin?
Yeah. Well, call it alpha amylase.
Alpha amylase?
It's now referred to as alpha amylase, yes. But it would allow that substance to persist which would in effect digest the A-antigens?

A

Q

Yes. The A-antigen is a glycol protein and that is -- it is an amylase and it will digest the glycol part, the glycogen moiety of the molecule and the molecule would fall to bits so it gets digested.

Okay. Then moving down to point 1, it states:
"Frozen lumps of "yellowish substance" found in snowbank, later thawed to a "yellowish liquid":

Two observers, Joseph Penkala and Bruce Ivan Paynter stated that this substance was yellowish. Seminal fluid is
translucent white in colour, so this could not have been seminal fluid! In the 24 years that $I$ have been the Medical Section Head of this laboratory, we have examined approximately 15,000 specimens of seminal fluid and have not ever encountered such a specimen which could be described as "yellowish"! The degree of translucency may vary slightly according to the sperm count but, the colour is never "yellowish"! There is no biological pigment in seminal fluid to impart colour."

And I take it that would have been your position at the time, Dr. Merry, that you were writing this report?

A

Q

A

Q

A
Q

A

Q

A It could. If you dilute blood down, it's sort of pink, the pink sort of fades away. It can look very slightly yellowish with a white background and strong light, but very difficult -- I mean, by the time there's any suggestion of yellowness,
it's just about become imperceptible completely, so the sort of degree of yellow which you would get to, $I$ can't imagine you would notice that in snow.

Okay.
You would have to really look at it with a white background, a clean, white background.

Are we to read when we read this paragraph -There is another actual confounding bit, you know, when things crystalize or become finally divided, they turn white, it's an optical effect. I mean, if you take blue glass and you powder it up finely, it's virtually not blue any more, you've got sort of whitish powder.

Okay. I want to take you back to this paragraph, and have $I$ heard you correctly then that the way it should read when you say, "Seminal fluid is translucent white in colour so this could not have been seminal fluid," what you are stating there is that pure seminal fluid is translucent white in colour, so this could not have been pure seminal fluid?

A
No, it couldn't have been pure seminal fluid, that's for sure.

But you've acknowledge that the yellowish
appearance could have resulted from contaminated seminal fluid?

A paragraph says:
"When seminal fluid is frozen it becomes opaque and as crystal white as snow. On 5th June, 1990, a sample specimen of seminal fluid from this laboratory, was frozen ... on some snow and photographed in white light and in ultra-violet light."

You go on to indicate who was aware of the testing and that copies were provided, copies of the photographs were provided and included were colour chip charts. And again, was this testing or photographing done with pure seminal fluid samples?

A
Yeah, it was done with a seminal fluid sample which $I$ personally examined and $I$ think the count on it was 117 million per cubic millimeter. I did
microscope it, no red cells present. Did test it, no peroxidase reaction. I've never tested seminal fluid with a hemostix before, $I$ didn't think anybody else had, but still -- well, obviously they had, so I did it.

Okay. So that was pure seminal fluid that you were using though?

Yes.
Okay. To the next paragraph:
"This laboratory also examines approximately 65,000 specimens of urine each year. The finding of spermatozoa, in both male and female urine is very common. Over 10 percent of out-patient urine specimens contain spermatozoa."

And you are speaking of human urine here; correct?

A
Q
That's the only type of patient we treat, yes.
Okay. Then going down to the next paragraph:
"The "yellowish frozen
substance/yellowish liquid" could only
have been urine which contained
spermatozoa. There is no other
yellowish body fluid which contains spermatozoa."

A Yes.
Q
A

Q
A
$Q$

A

Q it to be yellow.

I mean, I'm just, I'm wanting to test you a bit on the certainty of your conclusion here. You seem to state it quite aggressively and perhaps, and if

I'm misphrasing that you can let me know, but we know that the scene, that four days had passed before this substance was located. We don't know, I guess, what went on at the scene necessarily, but I assume in scientific terms we can assume that there was the chance for contamination of varying sorts, and I'm wondering if you could eliminate contamination in this circumstance as being a possible source of the yellowish appearance?

I suppose if you want to go to a thousand and one against or greater, you know, no, you couldn't. I don't think it really matters a great deal pursuing this. There are other problems with testing for antigens in the presence of a high delusion with urine, so, you know, we're getting into an awkward situation. We've got a positive result, which I don't believe was true, so would blood possibly have interfered? Well, it might have interfered with the true result, but since I think it's a false positive result, I mean, though it interfered -- well, it didn't interfere with getting a false positive result because -- the logical sequence is getting a little difficult for me to follow.

Q

A

And $I$ think because you are saying that the most likely source of a yellowish substance, including in a contamination scenario in the circumstances that we're aware of, would be urine and, in particular, dog urine?

Well, yellow stains in snow, actually they are
quite common around where $I$ live, $I$ think they are dog, and in fact I've seen some of the dogs doing it and I try to discourage them from doing it shall we say.

Okay. The next paragraph talks about how spermatozoa can leak into dog urine, and $I$ think we've talked about that, and you confirmed that that was a possibility. If we go on to point 2 , it says:

```
                                    "The presence of the A-antigen in the
                                    "yellowish substance":
```

There is no indication in the transcript that the possibility was considered that this "yellowish substance" was urine containing spermatozoa. Scanning spectrophotometry would have undoubtedly shown absorption bands consistent with urochromogens, the biological pigments in urine which impart the characteristic colour. Simple chemical analysis thereafter would easily have confirmed that this was indeed urine."

And the question $I$ had for you, in terms of the scanning spectrophotometry, was that something that, a test that was available in 1969, for
example, in Regina?
A
Yes. We had a very good double beam scanning spectrophotometer at the Regina Grey Nuns Hospital, it was in the chemistry department, and anybody in the other areas, you know, we shared equipment in common, so yes, it was not only available, but we had an extremely good one there. Now, I do not know what equipment the RCMP had available. Maybe they didn't have a scanning spectrophotometer, maybe that's why they used the tests they used.

Okay. But that scanner would have been available in 1969 and you are simply stating that we don't know whether the Regina lab had access to that equipment?

No, I don't know.
Okay.
Personally $I$ think, you know, they should have had access to it, but, you know, that's none of my business --

Okay. And you state --
-- what they are equipped with or not equipped with.

You state:

```
"Simple chemical analysis thereafter
```

would easily have confirmed that this was indeed urine."

And again, just to ask you a couple of questions, you don't know at this point when you are writing this report, do you, conclusively, that the substance that you are considering was urine? No, you know, I considered that is an extremely strong probability, so now we do some simple analysis to document and prove it is, right. Okay.

But it wasn't done.
No. You are saying it wasn't done originally in terms of proving that conclusion?

And if we go to the next page, at the top you state:

$$
\begin{aligned}
& \text { "This is a very serious oversight since, } \\
& \text { if one is examining a body fluid under } \\
& \text { the impression that it is one thing } \\
& \text { whilst in reality it is something else, }
\end{aligned}
$$

inappropriate test procedures may be employed and anomalous results may be obtained which would lead to misinterpretation of this original sample.

This cautionary comment applies to this section and to the following sections of this report."

And you felt these comments, $I$ take it, were important in the context of your report?

A Yes.

Okay. If we move down the page --
Are we going to get into that area again?
No. I'm going to take you to the --
Well, you know, we can go all through the sort of complicating problems which exist in that area if you like.

I think we've been covering them and I'm hoping that we continue to cover them as we make our way through your report, because I'm assuming you considered most of these aspects in your report, we still have several pages to go, so let's see if we hit them as we make our way through, and then if there's anything left over we can discuss that, but down the page, still talking about the
presence of A-antigens, you indicate:
"The A-antigen is present in the urine
of $A$-antigen secretors but, may also be
present in small quantities in the urine
of non-A-antigen secretors by a
non-secretory mechanism. The A-antigen
is not limited to red blood cells and is
found associated with all body cells.
When such body cells slough-off in the
normal process of replacement they carry
the $A$-antigen with them, e.g. into urine
and faeces."
I think $I$ follow that, and the only question $I$
really had in relation to that is whether that
applied similarly to semen. Can the
sloughing-off process lead to A-antigens in
seminal fluid in the same way as you've described
it occurring into urine and faeces in a
non-secretor?
Not anything comparable. Kidneys have an enormous
surface, the gut has an enormous surface area and
you are getting cells shed off. When you are
looking at salivary glands and prostate gland,
nothing like the same order of magnitude.

A

Q

A
$Q$
A

Q
A
$Q$

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I mean, the only way that, you know, the surface epithelium of gut gets replenished, it grows up and the surface is sloughed out with faeces. Okay. So -- and in summary then, in simple terms in this paragraph, you are saying that in the urine of an A-antigen secretor and in the urine of an A-antigen -- or a non-secretor, you may still find A-antigens?

If you use enzyme labelled immunosorbent assay, you may very well find $A$-antigen in a non-secretor.

Okay.
But if you use an agglutination inhibition technique, no, you wouldn't.

Okay.
I mean, it is the same as glucose in urine, if you use an ultra-sensitive technique, you will find traces of glucose in everybody's urine, but -If you can please keep your voice up, Dr. Merry, just for the reporter's sake.

You will find traces of glucose in everybody's urine if you use ultra-sensitive analytical techniques. However, for clinical analysis, you do not find it in normal urine.

Okay.

A
$Q$

A
$Q$

The level of sensitivity is deliberately kept above the normal level.

Okay.
I mean, technology is such that we can now detect the normal or irrelevant, so you sort of put your testing procedure into the relevant range.

Okay. And of course $I$ want to concentrate on what you are stating here in your report in March of 1992 and if we move to the next paragraph it states:
"Neither is the A-antigen limited to the human species. It is found in many, diverse life forms, from the simple forms of bacteria and moulds to the higher life forms of plants and animals."

And would $I$ be correct then -- and actually I'll skip down to the bottom of the page:
"The "yellowish substance" which was undoubtedly urine containing spermatozoa would inevitably be contaminated with micro-organisms which may well have been the source of the $A$-antigen detected. Microbiological cultures of the "yellowish substance" should have been
undertaken to ascertain if
micro-organism producing "A-antigens"
were present."
And again, if $I$ was to state this in simple terms, was this simply a further explanation for why A-antigens may have been detected in the yellowish substance?

Well, there are all sorts of possibilities. I should, at the time $I$ wrote that, perhaps also added that they should have tested that micro-organisms were not present which were producing even agglutinin, an agglutinin which would clump all types of red cells regardless of their actual grouping, because then we are going to get into agglutination inhibition techniques and --

No, but my question for you, Dr. Merry, is this was another source you are referring to here of A-antigens in the yellowish substance, another potential source?

That's another potential source of that and the presence of agglutinins themselves would also produce a false positive result. Okay.

So we've got another bit to add into that.

Okay. You continue on:
"There's no evidence in the transcript that this was either thought of or done! There is a further problem: That approximately $50 \%$ of the dog population possesses the $T r$ antigen which cross-reacts with the human (blood group) A-antigen.

And $I$ think we've talked about that, and again in simple terms you are indicating this could again be another potential source of the A-antigens that were detected in the yellow substance? Yeah.

Okay.
All we have is we think most likely that's it. No scientific proof here, just most likely. And just a general observation, $I$ know that you've used bolding and exclamation marks through portions of your report, and it might be obvious, but what was the intent of bolding certain words and using exclamation marks in various locations? Well, they were mainly to sort of highlight things which should have been considered at the time. I mean, trying to analyse this, I wouldn't have been able to do it, it's too complex and the technology
was not such that $I$ could have done it; that is, if you appreciate the complexity of what you were dealing with.

Okay. The next sentence:
"Obviously, the "yellowish substance" which tested positive for the A-antigen could have been and, probably was, dog urine."

This next portion $I$ don't, $I$ 'm not going to read all of it, and $I$ don't mean to cut it short, Dr. Merry, but it's the next three paragraphs and if they are important, please let me know. I think what it is was that it was another explanation for why there may have been an A-antigen positive test result and you are questioning I think the testing procedures that may have brought about that A-antigen positive result?

Yeah. Well, the question of negative controls, non-specific binding, you know, $I$ would have to have the exact documentation of the procedure which was performed.

Q
Okay.
A
Which I didn't have, and I, you know, I can't even say if it was done or not.

Okay. If $I$ move you to the next page, page 7,
there's a new heading, "The positive test for blood in the yellowish substance," and you indicate:
"I have read Dr. Peter H. Markesteyn's report of 4 th June, 1990 and agree with his comments in this regard. I would only add that in the specimen of seminal fluid from this laboratory which was used in the photographs was examined microscopically for the presence of red blood cells and none were found. I also performed a "Hemostix Test" on this specimen, which is totally inappropriate but, was done in view of the special nature of this case, and the result was negative. Other random seminal fluid specimens were also tested for comparative purposes and it was found that fresh seminal fluid specimens may test positive or negative initially, but all test positive if tested later, due to the liberation cytochromes from the spermatozoa."

And was this what we spoke of earlier on, Dr. Merry?

A
$Q$
A

Q

A

2

Yeah, that's what we spoke of later on, earlier on rather. I guess that should be qualified, if a guy has had a vasectomy and he hasn't got any spermatozoa, obviously we're not going to get positive results, but --

Okay.
But $I$ know guys who have had a vasectomy and they are now totally infertile.

Okay. Well, moving on, --
It might take three to six months to become totally infertile, but -Okay. I'll move you on to the next paragraph, and I think we've covered this as well, but we'll just recap it:

```
"A wildly speculative hypothesis was advanced at the trial, which is
scientifically untenable; namely: to
explain how Mr. Milgaard, who was
incorrectly determined at the time to be
a non-secretor of the A-antigen, could
have produced the yellowish substance
which contained the A-antigen!
```

I agree with the opinion of
Mr. Brian Jay and Dr. Peter H.
Markesteyn that it is not possible that
the explanation could be that the A-antigen was present as the result of blood contamination of blood group A in so little quantity that it gave a positive Hemastix (benzidine/peroxidase reaction) but not a positive haemochromogen reaction." And, again, is this what we spoke of earlier? Yeah, that's what's -- yes, it is. So in those circumstances $I$ think you had indicated that -- and $I$ can't remember your words exactly -- but the A antigens would almost certainly not be accounted for by the presence of blood?

Yes.
Was that -- sorry?
Yes, that's correct.
Okay. If we move to the next page, 155555, at the bottom of the page, point number 4, it states:
"Is there any evidence that the
yellowish substance was of human origin?
Dr. Peter H. Markesteyn has
already dealt with this in his report.
I would repeat my cautionary comment:
that it is absolutely critical that one

```
is fully aware of the exact nature of
the body fluid under examination! If a
    specific test was performed (probably a
    precipitin reaction at that time) on the
    yellowish substance (undoubtedly urine
    containing spermatozoa); the
possibilities of spurious results are
such that any conclusions would be open
to grave doubt. If there was any human
protein present in the yellowish
substance it should have been
concentrated and purified by gel
filtration in a Sephadex column
(cross-linked dextran) before any such
test was performed. It would seem
likely that if this had been done that
it would have been remembered and
recorded in the laboratory record."
And would I be correct, at this point in time,
you were not in possession of the original
laboratory record; is that correct?
No, I was never in the possession of any original
Okay. And I note again in this paragraph -- and,
Dr. Merry, forgive me if I'm dwelling on it
```

laboratory records.
unduly -- but you seem very certain, although you haven't examined the substance obviously, that that substance was urine containing spermatozoa. I guess all $I$ can ask you is if you are comfortable with your commitment on that aspect? Well I have seen urine which contained spermatozoa personally, and through the laboratory we have had so many cases that this is very common, and I can't think of any other circumstances in which you can get spermatozoa in something which looks like urine. I just can't think of what it would be. Now that is not a satisfactory scientific position. Somebody should have undertaken simple analysis to determine that it was urine. Now that is as close as we're going to get to it from a scientific point of view.

Okay. And I don't want to venture back too deeply, but there -- again, we had talked about contamination, and have $I$ heard you correctly
that, yes, contamination could have been another explanation outside of urine?

A

Q

A
$Q$ It could have been. Probability factor, highly, very highly unlikely. I can't put a figure on it, but it, it wouldn't really occur to me unless somebody suggested it to me, shall we say, repetitively and forcefully.

So, so -- but this is all -- am $I$ correct that your position on this is coming solely from the descriptor of this substance as yellowish?

Well, it's not just been described by one individual, you know. They have got me convinced that this was a yellowish substance all right, yes, from that descriptor.

Okay, and we're going to look at that in just a moment, what the actual descriptions were. Just on the next page, it's your -- the last page of the report, number 5:

"Red blood cells in normal human seminal<br>fluid (Dr. Harry Emson's testimony):<br>Here again $I$ agree with Dr.<br>Peter Markesteyn's comments in his<br>report -- of all the thousands of<br>seminal fluid specimens examined in this laboratory and, in four other

laboratories with which $I$ have been associated, $I$ can only recollect red blood cells being found on perhaps 3 or four occasions!"

A

Q

A
$Q$

A

 which you do get red cells in seminal fluid, which is rare, you don't actually ultimately find a cause. It's probably some very minor vascular abnormality, one always has to consider the possibility it might be associated with neoplasia, cancer of prostate, seminal vesicles, something of that sort. Fortunately, that is virtually unheard of. Probably the commonest cause is acute injury to the genitalia which may result in transitory presence of red cells. That also takes it into a
clinical situation. Those with acute injuries, recent acute injuries to genitalia, are unlikely to be wandering around the streets looking for any sort of sexual activity, should we say.

Okay. So let's go back to the position -- and hopefully I've fairly stated it -- but if Dr. Emson had stated that it was common to find blood in the semen of young men --

Well, he didn't say how common it was. This is why I object to, you know, the use of "common". I mean if $I$ say something is common, what do $I$ mean by "common" within my experience?

Well, let's just try our best and use "common" as best we can for a moment, and bear with me. Well you better not use it, aren't you, unless you are prepared to give a figure attached to it. Let's say 6 out of 10 circumstances equals common; would you agree with Dr. Emson's position on his comment that blood is commonly found in the semen of young men?

A
Well if you are taking 6 out of 10 or even 4 out of 10, no.
$Q$
What would it be out of 10?
I would think nil.

Okay.

A
$Q$

A
$Q$

A

Q
A
$Q$

A

Q

A
Well, you are getting into statistics. Maybe I happen to have a sample which wasn't
representative, maybe it should have been 30 to 40 .

Sorry, I only used 15,000, I thought you had
Well yes, $I$ mean it would not have changed over the ages, $I$ mean this is very basic factual data. Okay. So would it be fair to say, at that point in time, that out of 15,000 specimens you might
expect to see three or four occurrences?
$Q$
You know, in about 15,000 I happened to have seen it perhaps three or four times.

Okay.
I mean --
Wouldn't it be --
-- I'm not going to say it's common, I'm not going
to say it's rare, $I$ just said 15,000 and three or four.

Fair enough.
Well, that's it. And any other pathologist who handles that volume would have also seen it, so within our experience, it's common.

And would what you have just described for me, at
least from your perspective, have been known in 1969 ? Sorry, I
mentioned that number, and if I'm wrong I'm sorry. Well no, 15,000, we'll use that number, three or four. So perhaps the sample I happened to have had might not have been representative, all right, let's multiply it by ten, 30 to 40 . Well, okay, we've got 30 to 40 in 15,000, well, common? Up to you to decide, isn't it.

And -- but back to my question; is that what you would expect -- and $I$ know that that's the difficult question to answer -- but is that about what you would expect in 1969?

Well, that's what $I$ would expect in 1969 , it's what I would expect now.

Okay. And just to confirm, I have no questions arising from the report, doctor, there are no further questions. This report was filed on the case on reference, and $I$ don't have actually the volume reference but $I$ will be able to obtain that for the Commission.

COMMISSIONER MacCALLUM: The Supreme Court hearing?

MR. HARDY: Sorry?
COMMISSIONER MaCCALLUM: The Supreme Court
hearing?
MR. HARDY: Yes, that's right. I believe
it's -- well, I'm only going to start guessing, so I won't.

BY MR. HARDY:

Dr. Merry, $I$ want to bring your attention to sort of what we know now today. And some of this information was available in 1969-1970, some of this information was available but you did not have during your work, and some of it has come out in testimony during this Inquiry, and $I$ want to just review some of it with you briefly and see if it would have impacted any of your opinions as we have been reviewing them. And the first aspect is the appearance of the substance. We have been calling it "yellowish" throughout, and I took a review of the transcripts, and you've mentioned that it's Lieutenant Penkala and Staff Sergeant Bruce Paynter who described the substance, and that is correct. And at trial, just for reference sake, indeed Lieutenant Penkala describes it as yellowish, he described finding yellowish frozen lumps of snow or yellowish frozen lumps of some substance; Staff Sergeant Paynter described it as pale yellowish or clearish, and at another time he described it as pale yellowish, very pale yellowish. And I'm wondering, it seemed you were
working from the position that the substance was yellowish, would these other descriptors that $I$ have just mentioned to you have affected any of your opinions or conclusions as you've expressed and as we've reviewed thus far?

No. They all, you know, thought it was yellow in some manner, urochromogen pigments are yellow. Okay. But I'm asking you to -- and I'm not saying you are wrong on that -- we have the yellowish description by Lieutenant Penkala, we have a pale yellowish or clearish description by Staff Sergeant Paynter, --

Yeah.
-- so let's take one of those, let's take the clearish description. Would $I$ be correct that, if the substance had been described to you as clearish, you would not have thought of the possibility that the source of the substance was urine?

A
Umm, urine, some urine is crystal clear, some urine is so turbid you can't see through it, I mean but that's pathological, admittedly, but, you know, the clearness of the urine has nothing to do with whether it is urine or not.

I agree with you, but let's just, let's be fair
for a moment. If someone had come to you and asked you to consider a substance and the serology of that substance and described the substance to you and it was given -- purported to be seminal fluid, and it was described to you as clearish, could you have --

Well, if it was described as clearish -Sorry, just let me finish my question.
-- it ain't seminal fluid, because seminal fluid is not clearish.

Would you have suspected, if that was the descriptor, that the substance was urine?

Now it's got to be clear and it's got to be yellow, has it?

No, I'm asking you, if it was described to you as clearish would you have suspected that it was urine?

It is still highly probable it's urine, yes. So I guess what I'm saying is if, in 1990, Peter Markesteyn had asked you to assist him in determining the serology surrounding a sample of substance which purported to be semen, and it was described to you as being clearish, are you telling me that one of the first thoughts you would have had was that this substance may, in
fact, have been urine?
A
Q

A

Okay. And I think we've talked about the descriptor pale yellowish as well, and can semen that is contaminated with blood appear pale yellowish?

A
Umm, I would hardly think so. If you want to
stretch the limits of probability, all right, well
I guess we could say "yes", but I doubt whether it's within anybody's experience, but still -Okay. So I think overall I'm hearing you, notwithstanding some of the descriptors $I$ told you -- and in fairness still including the yellowish descriptor by Lieutenant Penkala -- that none of that information would have changed any of your opinions or thoughts on this matter as you have expressed and as we have reviewed?

That is correct. I am left in the position, umm, there are possibilities of what things might be, I don't know, and $I$ wouldn't have embarked on any sort of analysis until $I$ had found out exactly what $I$ was dealing with and knew all the problems associated with it in selecting the tests and interpreting it.

And $I$ hear that from you, and it sounds like a reasonable approach, but it -- and -- but it doesn't seem to fit, though, with your conclusions in your report that's -- that read to me as if you were deciding that it was most probably urine. And perhaps that's just how I'm hearing you, but it -- that doesn't seem to fit the cautionary approach you are suggesting in terms of knowing
what substance you are looking at?
Well, I mean, I dealt with what was done. I could have taken the position it was totally inappropriate to have done this lot without doing preliminary testing to find out exactly what you have got and selecting your test procedures fully aware of all the problems associated therewith. Okay.

But I tried to give an assessment with what has -was done, which shouldn't have been done without this preliminary work to know what they were analysing.

Okay. And I think we've covered it and you were comfortable with your conclusions on that basis. I mean $I$ guess $I$ sort of deserve to get into some sort of problems. If $I$ comment on something which was invalid and $I$ don't believe should have been done, you know, I'll get myself into problems trying to criticize it or analyse it. I mean, it shouldn't have been done, period.

Okay. Let's consider another aspect, which some of this information was available at the original trial, and I'll give a summary again for you, and we'll refer to a couple of documents just for confirmation. But Lieutenant Penkala, who located
the frozen substances, reported that he had found hair in the substances, the hair was sent to the laboratory along with the substance and was tested by a Mr. Molchanko or Corporal Molchanko, and he had concluded that there were seven human pubic hairs in the yellow substance that we have been speaking of, in the vial that ultimately tested positive for the A antigens, etcetera. And just to refer you to a couple of documents, we have them for reference sake -- and you wouldn't have had access to these documents obviously, Dr. Merry, when you were conducting your work -- but if we turn to 084974 you will see it's a letter to the lab enclosing a number of exhibits. Exhibit I is identified as:
"two plastic vials of unknown yellowish substance",
as we have been talking about:
("in frozen state)".
And if we can turn to the next page, point number 9, the request from Lieutenant Penkala to the lab is to:
"Examine Exhibit "I" (two plastic vials of unknown substance) for the presence of spermatozoa, and establish whether it
is of human origin. Examine hair in this sample to determine nature of the hair (pubic, etc.)".

And then if we move forward to the actual lab report, which is 105544 , again Exhibit $I$ is noted:
"two plastic vials of unknown yellowish substance (in frozen state)".

If we move to the next page, point 5, purpose:
"Examine the hair in Exhibit "I" (two plastic vials of unknown substance) to determine the nature of the hair (pubic, etc.) and whether it has any similarity to Exhibits "J" and "K"."

And then at the bottom of the page, under Data, it states:
"The hair from Exhibit "I" vials was examined and compared microscopically with the hair samples, Exhibits "J" and "K"."

And then if we move to the next page, under Conclusion, Corporal Molchanko states:
"Six human pubic hairs were removed from one of the vials from Exhibit "I".

These hairs had characteristics which
were similar to those found in the human hair sample, Exhibit "J" (control sample of pubic hair from victim). A common origin is possible."

And just one other reference. Corporal Molchanko's original notes, what we believe to be his original notes -- he has not testified -- but if we turn to 249782 , again, what we understand to be notes from Corporal Molchanko. If we turn to 249790 of that document the note he has written under Conclusions at the bottom:
"Seven human pubic hairs were removed from one of the vials from Exhibit "I" (P-13). These hairs had characteristics which were similar to those found in the human hair sample, Exhibit "J" (control sample of pubic hair from victim). A common origin is possible."

Next page, he goes through the descriptors of the hair, I just note the bottom:
"General human hair pubic".
And then he also confirms I2, which is the other vial:
"No hairs found."
And his testimony is quite straightforward,
simply stating that pubic hair was located. In fact, the evidence relating to comparison with the control sample from the victim wasn't allowed.

But I'm wondering, just in terms of knowledge of the existence of these seven human pubic hairs in the yellow substance which you had been asked to consider in later years, would knowledge of the fact that these pubic hairs were present with that substance have had any impact on your conclusions or opinions as we've reviewed?

A

Q
A Umm, yes, it would. If it is scientifically validated they are human hairs, and pubic hairs at that, well it would be reasonable to assume that they were associated with this yellowish substance containing spermatozoa, which you could then postulate, $I$ suppose, reasonably, that if there's human hairs in it, it's human. Okay.

You don't have any direct test for that. I do not -- I am not an expert of hair, identifying whether it's human or not, and if it came from one human or more than one human, or if it's the same, I don't know. If you assume that yes, it's human
hairs in it, pubic hairs, so they have something to do with it, so we don't know what the A antigen was, but we can let the dog off the hook, shall we say. Right.

Okay.
COMMISSIONER MacCALLUM: You used "it" and I'm not sure to what you referred. "You could then reasonably postulate that if human hair was present it was human"; do you mean this, the spermatozoa, the semen that --

A
$Q$

A
$Q$

The yellowish fluid containing spermatozoa, yeah. COMMISSIONER MacCALLUM: All right. Okay. MR. HARDY: I see the time, Mr.

Commissioner, probably a good time to break. COMMISSIONER MacCALLUM: Okay.
(Adjourned at 11:58 a.m.)
(Reconvened at 1:31 p.m.)
BY MR. HARDY:

Good afternoon, Dr. Merry.
Good afternoon.
Prior to the lunch break $I$ was bringing to your attention some information which wasn't available to you when you were conducting your work in 1990, some of which was from the original transcript, and we had finished talking about the location of
the pubic hair within one of the samples of yellowish substance found in 1969. The next portion that $I$ want to speak with you about arises from some of the original lab notes by staff Sergeant Paynter in terms of the tests that he conducted on the yellowish substance in 1969 , and I'll turn your attention to document 082386, and these have been identified by Staff Sergeant Paynter in testimony here at the hearing as his original notes that he kept during his work on the exhibits relating to the Gail Miller murder, and if we turn to the next page, please, you'll see at the top he refers to the two vials of substance that we have been speaking of, in large part 11 , the frozen yellowish substance, and he has some of his own notations in relation to that sample, and he explained those to us during his testimony, and the first one I'm going to bring your attention to is the plus sign beside the phos notation, and in testimony Staff Sergeant Paynter confirmed for us that what that indicated is that with respect to this particular sample, he conducted an acid phosphatase test and that that test was positive and he described that as a test for detecting seminal fluid, and first of all, is that your
understanding of an acid phosphatase test, is it used for that purpose?

Acid phosphatase test, yes, it is used for that purpose. In a clinical setting, if a man has carcinoma of prostate with extensive bony metastasis, you can use a concentration of acid phosphatase as some sort of index as to how bad the condition is and how far it has progressed. It's a specific form of acid phosphatase. All enzymes have isoenzymes, that sort of variance. Now, acid phosphatases are active in acid pH and you have a great number of variance of those. In those days, you know, they didn't have molecular biology, they were kind of crudely fractionated, and prosthetic acid phosphatase is heat and formal
stable. As $I$ said before, formal refers to formaldehyde, right, so -- but he said it was positive for phosphatase. That's fine. I don't know if he sort of fractionated it and determined whether it was formal stable or not, but if it's seminal fluid, it's going to be formal and acid stable. An elevated phosphatase otherwise in another clinical setting you would have to differentiate because it might not be associated with carcinoma prostate, it might be associated
with Paget's disease or something else.
Would this be an appropriate initial test at least for the identification of seminal fluid in 1969?

It would be an appropriate test to apply to
identify -- well, seminal fluid, period, no speciation.

For any species?

No.

So would $I$ be hearing you correctly then that you could, from everything else you've told us, apply an acid phosphatase test to dog urine and potentially get a positive result?

Yes. I've not dealt with dog tissue to any great extent, so $I$ have not done these sort of tests. I've done it on human material, but not dog material.

Okay. And I guess the question would be would the positive acid phosphatase test on this substance eliminate the possibility that the substance was dog urine?

No.
Okay. And beside that you'll see the positive micro, and again Staff Sergeant Paynter testified at the Inquiry and advised that following the positive acid phosphatase test on this sample, he
would have proceeded to examine the sample microscopically and in so doing would have identified spermatozoa and, in particular, human spermatozoa, and I'm going to refer you just briefly to what -- give me a moment, please -- if we turn for a moment, please, to page 11017 of the transcript from the Inquiry, I'll read this portion to you, and again this is Staff Sergeant Paynter testifying at this Inquiry, Dr. Merry. Yeah.

And it starts at this question:
"Q And so we see in terms of that first area that you cut out of the panties, it was negative, and in the second area, it was positive on the phosphatase test, and is that, as soon as you have the positive phosphatase test is when you would go onto microscopically examine that particular item?

A Yes, it would.
Q And perhaps you can tell us about that, what are you looking for on microscopic examination?

A Is to identify the human spermatozoa which can be a confirmation that human seminal fluid was present.

Q And $I$ note that you describe it as human spermatozoa. Was there a way to particularly identify human spermatozoa?

A Yes. When you saw them in a microscope, it was not difficult to tell, to differentiate human spermatozoa from other animal forms." And would $I$ be correct, $I$ think we've talked about this previously, but would you perhaps disagree with that position?

I would disagree to an extent with that position. I mean, $I$ might try to tell human from an animal species. The problem would be how do I know how correct I am. I mean, unless somebody got the answer and has submitted you all these specimens, I have no means of knowing if I looked at 10 different specimens and try and say which were human and which were dog, I have no means of telling how correct $I$ am, unless somebody actually has the real answer. I mean, this has turned up in other contexts like identifying hair as coming from definitely one individual rather than two separate individuals, they are very similar, but now with DNA technology we know that what was
thought to be fairly reliable isn't, and in fact, you know, there are a number of cases now under legal review. I mean, I am very cautious in my interpretation of things.

And I know we touched on this previously, but would it be possible, you've been speaking of your own abilities and that is fair to state, and $I$ don't know if you can answer the question, but would it be possible for an expert in this area in 1969 to distinguish microscopically between canine sperm and human sperm?

A
I cannot dispute that claim. I would say that I would not attempt to do it.

Okay. I turn you next --
I mean, the other problem is if you consider the ideal situation of fresh seminal fluid with perfect morphology, that's one thing, but then you have to consider what happens when it isn't fresh seminal fluid, the morphology is degraded -- I mean, we did, we had at the Health Sciences Centre some people who were practiced as forensic pathologists and they would sometimes have this problem, not worrying about whether it was human or not, but looking at it to be sure that they could absolutely identify spermatozoa and this
wasn't some other artifact, and occasionally they would bring it to me, what do you think, you know, and then they sort of conned me into spending half, three-quarters of an hour looking at field after field until $I$ could come up with the answer, yes, I have seen 10,11 or whatever and I'm sure that they are spermatozoa, they are not artifact, so you have to interpret things within a context. Okay. The next area $I$ want to speak to you about is testing that was originally done which led to, further led to the conclusion on the part of Staff Sergeant Paynter that the seminal fluid was of human origin. I'm again going to take you through some original materials which you would not have had access to during your work in 1990 and the first document is 084974 and we've seen this previously, again it's the letter to the crime lab identifying Exhibit $I$ being the substance, unknown yellowish substance, that we've been speaking of, and if we move to the next page, please, I read this to you previously, the first portion of that entry indicated:
"Examine Exhibit "I" ... for the
presence of spermatozoa, and establish
whether it is of human origin."

And if we move on to document 084976, again the lab report by Staff Sergeant Paynter in response, the substances that we've been speaking of are identified, and if we move to the next page, under conclusions you'll note he states in relation to I1 that:
"Human seminal fluid, highly probably from a "secretor" of Group "A" was found in Exhibit: I1 - sample of liquid."

And again $I$ 'm focusing on the human aspect. When Staff Sergeant Paynter testified at this Inquiry he was asked some questions in relation to this aspect, and I'll bring your attention to those, Dr. Merry, if we could turn to page 11022, please, and it states in the transcript:
"Q And can you tell us, I'm not promising I'm going to understand, but can you tell us, briefly, what that particular test involved?

A The human, antihuman test?"
And he's speaking of conducting this test generally speaking:
"Q Yes?
A It involved making an extraction of
the stain or a liquid sample of the
stain, we would then add to a portion of that extract an antihuman globulin that we obtained commercially from Ortho Diagnostics and allow them to sit overnight. If there was human protein in the stain it would combine with the antihuman globulin from the material we put in it. The next morning $I$ would then test for the presence of that added material, if it had been tied up by the blood sample being human blood $I$ would not be able to find the material I had added, and that would tell me that it was human blood.

Q And would that have been a standard test, then, used in 1969 --

A That was --
Q -- for the purpose you have identified?
A That was the test we used prior to and long after 1969."

And if $I$ move forward, please, to page 11033, just a single question and answer here:
"Q Okay. And I think, then, you've already answered this question, but the AH test
that you have been describing for us, then, could be conducted on a blood sample or on a semen sample; is that correct?

A Yes, you used the same tests for both materials."

And then the last piece of information I'll show you, Dr. Merry, is again Staff Sergeant Paynter's original notes, if we can turn to 082386 , and the second page of those notes, you'll see in relation to the substances we've been talking of, on this side of the page there's a positive AH and that was the aspect that Staff Sergeant Paynter was asked to comment on in the portion of the testimony $I$ just read to you. And are you familiar with the antihuman test that Staff Sergeant Paynter explained?

A

Q

A

Q

A ,

Ortho pharmaceutical company, I know them very well, they have very prestigious research labs in are used in blood bank technology.

And would it be an accurate test for determining whether a substance was of human origin?

Now we're going to get into some problems. Okay.

Raritan, New York. They produced this antisera for a specific purpose and it is licensed by the FDA for that purpose, all right, the federal department -- well, FDA, Federal Drug Administration. Now, in blood banking -- well, let's go back to the A situation. Now, they produce antisera for use in cross-matching for determining patient blood groups. To correctly determine group A, or even fractionate them into group $A-1$ and group $A-2$ we know that the $\operatorname{Tr}$ antigen cross-reacts with that human antisera. Well, for the application which it has been tested for and licensed for, Ortho aren't concerned about that, the FDA are not concerned about that, if you are cross-matching human blood who cares if it cross-reacts with a dog or a kangaroo, it doesn't matter, it's not relevant.

Let's come back --
So the same applies to antihuman serum, right, it is licensed for use in blood banking, it has not been either verified or licensed for forensic work, so whoever uses it for that purpose would have to conduct the quality assurance tests themselves and they might find that yes, this batch is specific and does not react with other
species, or they might find, yes, it does react with other species, then they would have to use tissue extracts of that other species to absorb out the material in that antibody which was cross-reacting.

Are you suggesting --
This is a common situation in manufacturing antisera.

Are you suggesting then that the antihuman protein test that has been described by Staff Sergeant Paynter, that the use of that test to determine the origin of seminal fluid was not an endorsed use of that test in 1969?

You would have to go back to Ortho pharmaceuticals and ask them if it could be used outside -- well, you would have to ask them exactly what testing had been carried out on that, if it was indeed suitable. It may have been or it may not have been.
$Q$

A
You are not aware whether it was and you were suggesting it was suitable --

Well, if you compare it to anti-A antisera, we know it's licensed for use in human clinical work. They are not interested in what other species it might cross-react with, it's irrelevant. I mean,
with the antihuman stuff, so long as it detects human immunoglobulin on the surfaces of red cells for comparability testing, that is the only requirement. I mean, if you've got human donor blood, it ain't going to have dog immunoglobulin in its red cells is it, you didn't get it from a dog.

So you are saying it was an endorsed test for determining that blood was of human origin? No, it is endorsed for detecting human globulin within specific limitations, within a very specific context.

Would you have concerns about how Staff Sergeant Paynter used this test in this scenario that I've just read to you to reach the conclusion that the seminal fluid had a human origin?

A

Q

A

I can't say yes or no. It's up to the person who did the test and the manufacturers of the antisera to say yes, this was okay. to this once, $I$ think it was in one of David Asper's letters. It's not up to me to give an opinion on it. If the person does the test, it's up to them to provide the data.

So do you have any ability then to --

Q

A

Q
A

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A

Q

A

Q

Q

A
$Q$

So this test may in fact have been okay for purposes of determining human origin -It may well have been. On the other hand, a particular batch might not have been.

And you don't know --
We don't know, and be sure of what you know and be sure of what you don't know.

Agreed.
A man -- I always trust second opinions from people who occasionally say they don't know. If they always say they know, I'm suspicious. So would it be correct then you can't offer us any assistance in determining whether or not this was a proper test for determining human origin?

It was the proper test. The verification of the antisera is the responsibility of the person doing it.

Okay. So nothing to say that this result was wrong in terms of his conclusions --

Nothing to say that it was wrong.
Let me finish, Dr. Merry. Nothing to say that it was wrong in terms of his conclusion that this result told him that it was of human origin? That's right.

Okay.

A
There are other problems. This is an agglutination inhibition technique. The detective system you use doesn't actually give you a positive result identifying anything, it just tells you that what was there in the antisera you used, it's bound with something in what you were testing in the seminal fluid, saliva or what have you.

Okay, fair enough.
But it's not fair enough when you are dealing with urine. If you are dealing with urine, urine is concentrated human -- well, human urine is concentrated soluble excrement. It is very complex.

Well, let's talk about that for a moment if you've brought it up. If the substance was dog urine and the test was properly conducted, could you get a positive result; in other words, a false positive for the antihuman protein test when the substance you are testing is dog urine? If the antisera was absolutely specific for human, no. On the other hand, since you are testing urine, you maybe get non-specific binding which would appear to give a positive result.

A false positive? A false positive result. Okay. So the answer to that question then is yes, it could be dog urine and you could end up with a false positive result?

The answer to the question, you know, to quite a number of questions is $I$ don't know. That's it. Okay. I'll turn to -- I'm finished with that portion of questions, Dr. Merry, and just a couple of other things $I$ wanted to cover with you. You would have had an opportunity to review and consider the original trial evidence and $I$ was going to bring to your attention the closing address to the jury by the Crown. If we could turn, please, to document 141905, and I don't think you would have previously had the opportunity to look at this document, Dr. Merry, as it wasn't a part of the transcripts in the initial state that $I$ think you would have received them, although that's some speculation on my part, but in any event, it doesn't matter for purposes of my question. Crown counsel deals with the question of the serological evidence starting at page 141936, and I'm not going to review all of this with you. He goes through his thoughts on the serological evidence in his submissions and $I$
want you to try and place your mind back at the point of time when you had also similarly considered the trial evidence as a whole on this aspect, and at the end of it, at page 141940 he concludes with the comment at the top of the page, which states:
"So I leave that phase of the matter by stressing again that while this part of the evidence does not, of itself, identify the accused, it most certainly does not eliminate him."

And would you, upon your review of the trial evidence, agree with that comment, Dr. Merry? Yes, it doesn't identify him and it doesn't eliminate him. I guess one would have to ask the question, well, what does it do.

And perhaps that is the question, did it have -and please expand on that, did it have value in terms of what you've identified for us?

No. I mean, all this bit we've been reviewing -well, $I$ guess it landed in a difficult situation. They determined he was a non-secretor, then they go get this evidence, or -- well, I think it was a false positive that his urine is positive as a secretor, so they couldn't sort of take the
position, you know, we think this is totally unreliable, we'll drop the whole lot because, you know, you have to explore, well, how reliable is it, so non-secretor, seminal fluid, looks like secretor, you know, the defence would, I guess, claim that he's innocent, but $I$ think -- well, we know that he was a secretor, I suspected it when $I$ assessed the evidence, so we ended up he's a secretor, so I'm satisfied we got that bit right. I think the second bit of there's evidence of secretion in the urine, $I$ think that bits wrong, so now we've gone from sort of negative at the top and positive at the bottom to positive at the top and negative at the bottom as far as I'm concerned.

Okay.
This evidence, it would have been better if it had never been produced at all.

Okay.
It has not contributed to anything and, as far as I can see, it has not only confused some what you might call medical experts. It seems to have been very confusing all around.

Okay. Dr. Merry, I think those are all the questions that $I$ have for you, thank you very
much.

My Friends may have some
questions in cross-examination.
BY MR. GIBSON:

Dr. Merry, my name is Bruce Gibson, I act for the RCMP, and in light of your comments in the last two minutes here with respect to the value that the evidence actually had and your views on whether it linked Mr. Milgaard to the offence or not, $I$ might be very brief with you. But if you are patient with me, I'll try to scan my notes quickly, and see where $I$ want to go first. All right.

I'm going to try not to refer to
the transcript of evidence that Staff Sergeant Paynter gave at the inquest, and trust that you will take what $I$ say as what his evidence is rather than belabour the point and go through lengthy transcripts. Staff Sergeant Paynter gave some evidence with respect to the testing that he did. He informed the inquiry in 1969 that he did a hemostix testing screening test, which gave him a presumption that there would be blood in the sample that he has tested, and we've heard your evidence on that and you indicated that that
hemostix test could give a presumptive reading of there being spermatozoa or seminal fluid in a sample; is that correct?

A
Q
A

Q

Well, umm --
And, again, I'm using the word "presumptive". -- since spermatozoa -- I mean I'm conceding, yes, they looked and they saw spermatozoa. I'm not arguing with that. So they saw spermatozoa, which were very dead, and because they were there you would expect a positive peroxidase reaction. If you didn't get a positive peroxidase reaction the next most likely explanation would be your hemostix have long since expired and aren't working. Right.

Now the other aspect of that was the hemostix test would give a, could also give a presumptive test that there could be blood present in the sample, and you'd agree with that $I$ believe? Again -I'd agree with that, yeah.
-- it's all being presumptive. And Staff Sergeant Paynter went on to give evidence that you would then have to use a confirmation test, and he mentioned the haemochromogen test, and again would you agree that that's the type of testing that would have been done to try and confirm, or should
have been done to try and confirm if there was blood in that sample; correct?

A
Yeah, he talks about the haemochromogen crystal test.

Now would he --
Now that is not what $I$ would have used, but okay, if it's positive that's fine.

Maybe --
On the other hand --
-- if $I$ could just stop you there, Dr. Merry, so we don't go down a path that we don't necessarily have to go to. Mr. Paynter gave evidence that he was not able to do a confirmatory test, being a haemochromogen test, and therefore his evidence was that he could not chemically or clinically, or whatever, positively state that there was blood in the sample that he had tested; does that make sense to you? If you can't do a confirmatory test, how could you say that it's blood, fair? That is correct. And if you look at the transcript, that's the sort of judge's instruction to the jury, "there ain't blood there".

Absolutely. And I'm going to move along along that line. Staff Sergeant Paynter gave evidence as well at the trial and at this Inquiry that
there could be many reasons for a false reading, that it could not be blood as well, there could be some other reason for there to be a positive reading on the presumptive test, on the hemostix test, and $I$ think he mentioned leather and some vegetable matter and there was numerous others, and he gave evidence to that effect. So, again, would you agree with me that at the evidence at trial it was pretty well established, as you referenced the judge's comments, that there was no confirmation that there was blood, necessarily, in the sample that he tested? That's right. Umm, presumptive test done, we have one explanation already for a positive presumptive test, if you try the test again and try to say there's blood there who knows whether there is or not.

Now in 1969 the evidence was that David Milgaard was an A blood type non-secretor?

That's correct, yes.
And the snowbank sample was identified as being from an A blood type secretor?

Yeah.
Which, arguably, was favourable to Mr. Milgaard in the sense that there wasn't a link necessarily
made between those two?

A
$Q$

A

Q

A Well, if you start from a false hypothesis, you can directly get to a correct false answer, for what that's worth, if you understand what I am trying to say.

COMMISSIONER MacCALLUM: I get your point,

Mr. Gibson. MR. GIBSON: Okay, thank you, Mr.

Commissioner.
BY MR. GIBSON:

And I don't know whether you have had a chance to review Dr. Ferris' report, but perhaps you have, and again $I$ don't want to take a great deal of time plowing through that report, but again, Dr. Ferris at document 028652 at 658 says:
"... serological evidence at trial
failed to link David Milgaard ..."
to the crime and could reasonably be concluded to have excluded him. And, again, would you agree with that hypothesis, doctor?

A
Not after my assessment of the evidence. I mean, it came as no surprise to me when his secretor status was repeated and was found to be positive, that's what I expected.

But, again, just backing up to the evidence -But then, well so we've changed that bit of the equation, and I'm not satisfied we know whether it was yes or no so far as the secretor -- so far as the seminal fluid was concerned, as far as I'm concerned it's a null result.

COMMISSIONER MacCALLUM: What's the doc ID please?

MR. GIBSON: The doc. ID on that is 028652 at 028658 .

COMMISSIONER MacCALLUM: 652 at 658 . BY MR. GIBSON:

Q
But, again, you would agree that some medical individuals -- and Dr. Ferris will have an opportunity to testify -- took the position that the medical evidence that was led at the Milgaard trial back in 1969 or 1970 went more towards exonerating David Milgaard than implicating him? Some have taken that view, and I take it you have a different view, but you can see how that view of that evidence could be -I can understand, $I$ can understand how he came to that situation, but $I$ have had other material presented to me and, shall we say, I now realize that $I$ was in the twilight, but $I$ think poor Rex Ferris, he was in the darkness when he decided that, you know, this would exonerate him.
$Q$

A
A

And - -
We just did not have enough detail in the material which was presented, and even though we now have further detail, you cannot validate a lot of
things scientifically and they must remain null.
Now one comment that you gave us earlier this morning was the frozen lumps were found with some what was identified by Mr. Molchanko as pubic hair, human pubic hair, and $I$ think you had the line of the morning, certainly, when you said that that let the dog off the hook?

Well, if they were correctly identified as human, it would let the dog off the hook.

Now, doctor, would you agree with me that, as a forensic scientist, if someone gives you a sample like that --

Yeah, but I'm not a forensic scientist, I'm a haemopathologist, I just got dragged into this. Oh, sorry, okay. Now if we put ourselves into Mr. Paynter's position, and he has a sample that's given to him -- and $I$ don't want to go through all of the tests that he undertook -- but would you agree with me that if there is human pubic hair identified with that sample one might be more inclined to identify that it was of human origin than of animal origin; that would just be common sense, wouldn't it?

A Yes, one would be inclined to come to that conclusion.

Okay. And we also talked about the coloration of the sample that was found, and again $I$ don't want to talk about whether it was a pale yellowish or a -- you know, I don't want to go through that in any great detail with you, but $I$ think you were fair in your comments this morning that there was contamination at the scene and that it's possible that if there is some blood, and if it's diluted, that it could give coloration to the sample, and that that one -- one could look at that and it's possible to have found a yellowish tinge to it, or a clearish coloration with a bit of yellow in it. Is -- is that, again, a fair summary of what your evidence was?

Well I said possible, highly improbable, $I$ think. I mean it reminds me of the Yorkshire expression: "I'll believe you, but thousands wouldn't". Now we have the testing, and I won't go through that with you again, that Mr. Paynter has done, and $I$ think you'd probably agree with me that a scientist basically doesn't have a choice, necessarily, of what his samples are that he is going to test?

Yeah. I would like to add something to that. What --

A
I sympathize with Sergeant Paynter. He was given this to examine. Now did he have the option of saying, you know, "I've considered it and decided we'll get into more trouble than a little, this isn't going to provide unequivocal verifiable evidence, forget it". I mean I doubt that.

I mean $I$ have been a laboratory director for quite a long time. None of my technical staff are in that position. They bring it to me, and I tell whoever thinks they are going to get the lab to analyse it that they are not going to get it to analyse, because it isn't going to yield a valid result.

So I do not wish to criticize Sergeant Paynter in his situation, or predicament, depending upon just how -- what the situation was. And $I$ guess, in sort of looking at that situation, Sergeant Paynter had the police come with him -come to him with a sample and say "this is what we have, we found it four days later near the, where the body was, is there anything you can do to help us", and $I$ suppose as a scientist he said "well, I don't know what $I$ can do, but I'll have a look"?

Umm, well --
I mean it --

A

Well, I don't know, maybe they came and said "here it is, you process it, and that's it". But -But would you agree with me that, in the situation that we're dealing with here, it would have been much better to have a sample that was more closely tied to the body? Now there is evidence that the vaginal aspirate was destroyed and that was never tested by Staff Sergeant Paynter. Now would you agree with me that that would have been a better sample to have tested than something that was found four days later in a snowbank?

Yeah, but -- well there is a problem there. David Milgaard was blood Group A, secretor, the deceased was blood Group O, secretor status I don't know. Umm, I think that's another sample which would have been better -- well, it was not processed, -It wasn't.
-- and I think it would have been better if this lot hadn't been processed either.

I mean I have concerns about
this. I mean did Staff Sergeant Paynter have the staff and resources to go send somebody to Saskatoon to secure a valid sample from David Milgaard in the first place? Did he? No. It just arrives on his door step. I mean, it is one
thing -- well, $I$ mean there is no reason why a valid sample couldn't have been collected if there were resources available; it's another situation if you find saliva, dried saliva at a crime scene, you process what you have got, that's all you are gonna get. But with David Milgaard in Saskatoon, they could have got a perfectly good sample, we wouldn't have had this rather unfortunate situation we now have.

Now I take it, Dr. Merry, that the tests that went on in 1969 where you have a sample, and whether it's from a secretor or a non-secretor, etcetera, that that type of testing is probably not used much these days, and that if you have a human sample one would try to do DNA analysis on that, and you would get a much more specific result?

If you have got a seminal sample you go straight for DNA. Who cares what the blood groups are, you are not going to transfuse the deceased or the accused, so you are not interested in blood groups.

Q
So part of the mandate of this Commission is to, obviously, try to make recommendations so wrongful convictions don't happen in the future, and $I$ take it you would agree that, for future cases, it
would be advisable to save exhibits so that they could be tested later on when science advances, and that may well help to solve the crime? I suppose that's a fairly easy thing to agree with? I think when one looks at quality assurance procedures, which weren't fulfilled in various points of what we have looked at, that is a systemic failure. You have to identify the systemic failure and you have to make sure that it does not happen in the future. So there were low-tech systemic failures, okay, now we're going high-tech, well high-tech systemic failures isn't going to help us a helluva lot either, is it. So we better identify some fundamental principles. COMMISSIONER MacCALLUM: So are you telling me that the valid recommendation would be that even if the science today is not capable of making use of a given sample, it should be saved anyway, in case science advances to the point where that sample will become useful? That's what $I$ understood by his question.

BY MR. GIBSON:
Q Yes.
A Yes, that is correct. COMMISSIONER MacCALLUM: Okay.

A
And, you know, we have to make sure there is absolute validation, all quality assurance procedures are in place, proficiency testing has verified the methods. If they fail in low-tech stuff, if they aren't in place for high-tech stuff, there will be errors in that as well. BY MR. GIBSON:

Dr. Merry, I want to talk just briefly about Mr. Paynter doing the microscopic analysis of the sample that he did. And, again, we've talked at length today about metamorphological differences between canine and human spermatozoa, if that's possible to differentiate, and I take it that you were of a different view than Dr. Markesteyn. That document was 04772 at 04778 , and Dr. Markesteyn took the view that the only way of excluding this semen for being of non-human origin would have been the morphology and/or species-specific antigen body reaction tests. So he was of the view that you could make that determination through morphological testing or examination under a microscope, and you take a different view than that, and $I$ think you've told us that; correct?

A
I don't think it could be absolutely reliably
done.
Q
A
$Q$

Yeah. And, in fairness, his document says morphology and/or those species-specific antigen antibody reaction testing?

A
Well, I mean, if you put it to Dr. Markesteyn perhaps you should qualify it; spermatozoa which had been dead four days, are all scrunched up, the morphology leaves a great deal to be desired, do you think you can identify human from dog under those conditions. We're not looking at fresh material, you know. I mean --
No, and $I$ appreciate that you have given us that.
And Dr. Markesteyn also gave some evidence I suppose, and will give some evidence, but through that document that was put to you he took that position, and you disagreed with that; correct? Well, I disagree with the first premise he puts. The second premise, --

Yes?
-- specific immunologic identification, I agree with that.

And --
-- I have had the odd medical -- well, I've had
one medical/legal autopsy, it took us two days to find out whether the body was male or female. I mean, things can get in a rather deteriorated condition.

And I take it, doctor, that your evidence was that you obviously never looked at the sample and you weren't able to comment on whether Staff Sergeant Paynter was able to make that differentiation? No, I'm not able to comment on that. Okay.

I don't know what he looked at, so that's it.
And --
The other problem is, since we're on spermatozoa, how much -- how many spermatozoa were in the specimen? I mean, if we know the number, it might give us an idea as to dilution factors. I think we were logs out of detectable range. I mean, there is no data there recorded, is there any in existence at all?

Not to our knowledge, we simply have Staff Sergeant Paynter's notes in that he identified the sample as human, but he never quantified it, and he gave evidence at the Inquiry that that's what he was able to differentiate or identify from the sample.

A
$Q$
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We're left with the unanswered question; was the dilution of the sample 1 in 10,1 in 10,000 , or possibly --

Yes.
-- 1 in 100,000 or a million or more. We don't know, do we.

Now, if we could just put up document 002511. And I think that document was put to you earlier today and, again, it was a letter from a Patricia Alain to a Mr. Eugene Williams, it's dated June 12th of 1990. And she takes the position, the last sentence or two of that paragraph that's highlighted:
"The morphological differences of human spermatozoa and canine spermatozoa are several."

And that:

> "The experienced examiner would not have any problems in distinguishing between human and canine spermatozoa."

So I take it that Dr. Markesteyn's position was that that is a test that could be done, you could look at that and make that differentiation; Mr. Paynter took that position; and it appears that Ms. Patricia Alain, who is the Chief

Scientist, Serology Department with the RCMP lab, also takes that position that there can be a differentiation under a microscope made. And I take it you disagreed with that as well; is that correct?

Well Dr. Markesteyn and $I$ did sort of briefly discuss that at one time. I wanted to see slides to have a look at the morphology.

Unfortunately, those weren't available.
They weren't available.
But you will agree with me --
The other thing --
No, if I may, Dr. Merry; you will agree with me that Dr. Markesteyn took the position that it was possible to look under a microscope and make a determination on morphology?

A
Well, that's what it says in the transcript. Absolutely.

I took the position that we'll try, I'd like to see it under optical microscopy, if we've got a good sample we can do electron microscopy on it and see if, at electron microscopy level, we can distinguish, definitely, a difference. There was nothing there to do anything on.

Right. And then we have Staff Sergeant Paynter
give evidence that he was of the view you could look under a microscope and make a determination, and now we have Patricia Alain who also takes that position as well. And if $I$ could just put up another document, please, 278893. And, again, this is a document originating within the Government of Canada from a Cathy MacMillan with the Biology Section of the RCMP, and it's an internal RCMP memo. If we could just turn to the next page of that, please, and if we could call up this part, please, and she writes:
"In my opinion, the results obtained at the time of the Miller investigation indicating the two frozen lumps were human semen, are correct. The tests used at that time have not changed significantly and are currently in use in the Biology Section.

Two tests are carried out in order to conclude a stain is human semen. The preliminary test, identifies high levels of acid phosphatase which is found in human semen. If this test is found to be positive, the area is examined microscopically for
spermatozoa. Human spermatozoa are morphologically different (as seen microscopically) than animal spermatozoa. Only at this stage, can a conclusion be drawn as to the origin of the semen."

And, again, we have Cathy MacMillan with the Biology Section of the RCMP indicating in her view, looking at spermatozoa under the microscope, that one is able to distinguish between animal spermatozoa and, I guess, human spermatozoa. And I take it you would disagree with that view, then, proffered by her? Well, I wouldn't take a black and white position, I would say with what certainty can you identify it; at a 99 percent level, at a 90 percent level, at 75 percent level? I mean --

So, again, it --
-- morphology, I mean it's just eyeballing things, really, either directly or down a microscope. It's just a question of a visual valuation, $I$ mean, it is not high-tech. You note what features you can see, but when the features are all extremely similar, it's very subjective. It's a very subjective judgement, it's not objective, you
know; "this -- dogs have this, humans have that". Now, Dr. Merry, we know that the individual that was eventually convicted of the crime through DNA analysis, Mr. Fisher, was identified as an A blood type secretor, and would it be your view, then, that it was just a coincidence that Staff Sergeant Paynter was able to identify an A blood type secretor sample in the snow and identify that as human seminal fluid?

Well, we have been through that, $I$ think that's a sort of a null situation. I mean, statistically speaking, you are looking at -- well, it varies according to the population, over here they use the figure of 49 percent are Group A positive, it depends upon the ethnic mix of the community, but we look at 49 percent. I mean a coincidence, there is a 49 percent chance, if they got it right. If the result was right there is a 49 percent chance that -- well, 49 percent they could get it right by chance. Umm, I don't think they -- you can regard it as a valid result. And again, and $I$ won't belabour this, this is my last point here, your view is that the evidence that was led at the trial for Mr. Milgaard, and we went through that at the outset of my questioning,
never linked Mr. Milgaard to the crime?
A
No. I mean, if we had had the ideal situation, we got the secretor status right from the outset, that David Milgaard was positive, we had a valid seminal fluid specimen and we were quite sure that that was from a group A secretor, so we have evidence. Well, I looked up some data. Apparently Saskatoon in 1967 had a population of 95,526. Well, that's near enough around the time I guess. So males over 16, I calculated that, I calculated the group A individuals, so if we've got a group A secretor and we've got a group A specific substance in the seminal fluid, David Milgaard would have been a suspect amongst 12,778 others. I mean, I don't know how useful that is, but --

Certainly not useful to link him to the crime? Well, it narrows it down you might claim. I mean, you've narrowed it down from 33,434 males who could have done it, you've narrowed it down to 12,778.

Now, if on the other hand the evidence goes in to the point where he's identified as a non-secretor and the sample found is for an $A$ secretor and he's an A non-secretor, again that arguably, as you
said, would not connect him to the crime and arguably would go to eliminate him?


A

Yes. The irony of the whole situation is they got the secretor status wrong from the outset, we have a result which $I$ would regard as null, but they said it was positive. There would have been good reason that he could be acquitted on the evidence which wasn't right and on erroneous evidence justice might have been done.

MR. GIBSON: Thank you.
MR. HARDY: No questions on re-exam.
COMMISSIONER MacCALLUM: Thank you, Dr.
Merry, for coming, and you are excused.
Thank you.
MR. HODSON: The next witness is Tom Vanin.
I'm wondering if we should take the afternoon
break. We only sit until four today.
COMMISSIONER MacCALLUM: All right, yes. (Adjourned at 2:35 p.m.)
(Reconvened at 2:54 p.m.)
MR. HODSON: Mr. Commissioner, the next witness is Mr. Tom Vanin and $I$ would ask him to come up to the witness stand, please.

## THOMAS VANIN, sworn:

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BY MR. HODSON:
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Good afternoon Mr. Vanin. Thank you for agreeing to testify before this Commission of Inquiry. I should note for the record that Mr . Vanin is represented by counsel, Mr. Morris Bodnar, who is present today.

COMMISSIONER MacCALLUM: Mr. Bodnar.
BY MR. HODSON:
And as well, Mr. Vanin, $I$ understand, sir, would you like to claim the protection of the Canada Evidence Act and the Saskatchewan Evidence Act?

BY MR. HODSON:
I understand, Mr. Vanin, that you are 62 years of age; is that correct?

Yes, sir.
And that you reside in Saskatoon?
Yes, sir.
And that you are a retired police officer having worked with the Saskatoon City Police from 1964 to 1996; is that correct?

Yes, sir.
I would like to show you document ID 333242, and
this is a document, Mr. Vanin, that I showed you the other day, it's a document provided to us by the Saskatoon City Police, they provided us similar information for all former police officers, or retired police officers who have testified, and $I$ just quickly want to go through this to ensure that it's accurate. Have you had a chance to look at it?

Yes, sir.
And $I$ understand there may be one, is there a -that you may have gone straight from constable to sergeant, is that right, or is that accurate? That's correct, $I$ went from constable to sergeant. So the '73, corporal, you say that's not correct; is that right?

That's not correct.
And then if we could just go down to transfers, please, this sets out time frames and the areas where you were assigned. Are you able to tell us whether that is accurate?

A
Where it says "operations support/service centre unit -- reader detail," to my knowledge I've never worked in those positions.

Okay. Do you recall, if we could just go back, prior to that you were with major crime. Do you
recall where you went between major crime and finance informatics, or was it in major crime? No, from major crimes $I$ would have gone to the finance informatics.

Okay. There's a couple of time frames just from this that $I$ want to point out that we'll touch on a bit later. In 1969, at the time of Gail Miller's death, I understand that you were a uniform officer on patrol; is that correct?

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$Q$

A No, sir.

Were you generally aware of the case at that time?
A

And just generally what did you know about it and where did you know about it from?

Everybody in the department was advised that there was a murder and an investigation was taking place and this would have been common knowledge to all the members.

And $I$ take it, sir, at some point in time you would have become aware that a Mr. David Milgaard was arrested, charged and convicted for that crime; is that correct?

A
Yes, sir.
Did you at some point form any view regarding David Milgaard's guilt or innocence for the murder of Gail Miller?

A
Yes, sir.
And can you explain when that took place, if you can put a time frame on it and what that was? Right from the time that Mr. Milgaard was arrested until this date, I've always believed that he was innocent.

Q And on what basis did you have that belief, Mr. Vanin?

A
I couldn't find anybody that could give me any evidence, any of the detectives or anything that would convince me that Mr. Milgaard was

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responsible for the murder. Eddie Karst and I had become good friends, and $I$ think until this day we're still good friends, and I would ask him, you know, what evidence did they have, and he said from what he knew of the file there was nobody else -- that they had eliminated everybody else and this left Mr. Milgaard.

And just again to go back, sir, I take it you would have been aware that Mr. Milgaard went through a court proceeding and was convicted by a jury back in 1970?

Yes.
And notwithstanding that conviction, did you have doubts at that time that he was the person that had committed the crime?

Yes, I still had doubts, and I'll tell you, there was a large number of people in the department that were shocked when the jury came in with a guilty plea. Mind you, these were uniform members that had nothing to do with the case. He was represented by Mr. Tallis and we just felt that he had the best lawyer that was available and we just didn't see any hard evidence pointing to him, but again, we didn't have access to any of the files. I did not attend the trial or the prelim. It's
just the way the membership felt, or some of the membership felt.
$Q$

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And I'll be going to some documents later, and one would suggest that that would be in the 1991 time frame; is that right?

A
$Q$
Were you aware of the incriminating evidence that was presented against Mr. Milgaard at trial?

Yes, I was told by somebody that Mr. Cadrain gave evidence and $I$ was also told that there was blood on Mr. Milgaard's clothing. Later talking to other officers, and $I$ didn't know Mr. Cadrain, I never did meet him, but the other officers that did know him told me that he was absolutely crazy and not believable, and in respect to the blood on the clothing, I found out later there was no blood.

And where did you find that out from?
I think $I$ found that out from David Roberts, a reporter for Globe Manitoba.

And I think he's a Globe and Mail writer, or was a Globe and Mail writer at the time; is that correct?

I think so.

1991 or possibly earlier.
Okay. And again I'll show you some documents
later, some articles of Mr. Roberts. So again if I could just go back at the time, 1970, and I think you've told us, and please correct me if I'm wrong, that at that time you had the same doubts then that you had later and still, or that you had later on; is that correct?

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$Q$

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wrote my exam and was promoted to sergeant, I was immediately transferred to detectives and then $I$ started talking to detectives, and again $I$ just couldn't, $I$ couldn't -- nobody could give me any information that proved to me beyond a doubt that he was guilty.

And what effect if any did the fact that a jury found beyond a reasonable doubt that he had committed the crime, what role if any did that play in your thinking?

None whatsoever. I think there's 140 men in the United States that were on death row that were acquitted or had their convictions reversed because of DNA.

And just back on your comments about Mr. Tallis, and $I$ know there's a number of defence counsel in this room who would say oftentimes good defence counsel have clients who are convicted, or represent guilty parties, and I'm not suggesting that Mr. Milgaard was guilty, he was not, but the fact that Mr. Tallis represented him, can you explain how that influenced your thinking that he was not guilty or innocent?

It wasn't so much the fact that Mr. Tallis represented him as $I$ could not learn from anybody
what good, concrete evidence they had to point to Mr. Milgaard's guilt. There was no forensic evidence, there was no -- I just didn't see any hard evidence and nobody was able to show me any hard evidence.

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$Q$

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Q
A Central Booking - Call Irene @ 1-800-667-6777 or go to www.compucourt.tv
And would that be again in the 1990 time frame? It would be in the late ' 80 s or $\quad 90 \mathrm{~s}$, I'm not sure.
No. Larry Fisher's name came to me either by way of newspaper or from David Asper, a lawyer in Winnipeg.
Okay.
And that's what $I$ was looking for.
And would it be fair to say, Mr. Vanin, that over the course of, let's say, from 1970 , the date of the conviction through until the early 1990s, and I'll be dealing with that a bit later, that over those 20 years you continued to hold views, continued to ask questions and continued to hold a view that Mr. Milgaard was innocent; is that fair?

That's correct.
Just back in 1969, 1970, do you have any
recollection of Larry Fisher, that name being known in police circles, or did you know that name at all?
sure. .

And so to the extent that you were probing and asking questions from 1970 onward, is it your evidence, sir, that the name Larry Fisher never came up then?

A

Q

And what is your recollection?
Just that there was rapes, but $I$ was assigned, I was a young constable and $I$ was assigned to patrol division and had nothing to do with any of the investigation, and at that time the structure was such that morality didn't share any information with patrol division or wouldn't share any information with detectives, the detectives wouldn't share any information, everybody worked in their own little clique.
$Q$
And when you say, when you use the word wouldn't, are you saying a deliberate desire not to provide the information or that it just didn't happen?

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The only time a patrol member would ever become involved, if somebody from morality or detectives
And so if there were some rapes and rape investigations being conducted by morality officers, to what extent if any would you as a patrol officer be aware of what's going on or be involved in their investigation?

You work in uniform in a marked patrol car, you are assigned a certain area of the city and you work a lot of shift work. You respond -- mostly responding to calls.
would come to them and ask them if they saw anything unusual in their district or any unusual cars or, you know, if they could shed any light on any suspects.
$Q$
And can you give us --
Nobody in patrol was ever asked to be part of the investigation, or at least $I$ was never asked to be.

Can you give us any specific examples of situations where morality and detectives did not share information or deliberately didn't work together or anything of that nature?

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Q Particularly in relation to bootlegging, often the bootleggers would be informants for the detectives and the morality people would be trying to arrest the bootleggers, so this information wouldn't be shared.

I don't think I'll touch that one. Again, so that was an area where there was some discomfort then between morality and detectives? I wouldn't say discomfort. I would like to think of it they were competing with each other.

And so competing in the sense that morality wanted to arrest the bootleggers and the detectives wanted to use the bootleggers to get information
to solve other crimes; is that fair?
A

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BY MR. HODSON:
Now, I understand, Mr. Vanin, at some point you began to express -- or let me just back up. Would it be fair to say that -- did you express your views and concerns about David Milgaard's innocence within the city police department to other police officers, to your superiors, for example, over the years?

No, I didn't share that information with anybody because administration $I$ think would have taken a very dim view of that.

And why is that?
I don't know. I can't answer for administration. Now, at some point, sir, did you begin to express your views and concerns about David Milgaard's
innocence with people outside the Saskatoon City Police Force?


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In the 1980 s I believe Mrs. Milgaard was in the Saskatoon area and it became noted that there was private detectives making inquiries and there was some write-ups favouring Mrs. Milgaard and perhaps David Milgaard's innocence and then I started -at that time $I$ was in major crime and I started receiving phone calls from all over Canada from different news organizations and $I$ was learning more about David Milgaard's conviction from them than $I$ was, than $I$ knew from within the department.

And at some point, sir, did you start to talk to people outside of the Saskatoon City Police Force about your views and concerns about David Milgaard? And at the time, sir, $I$ think you said you were in major crimes?

Yes.

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$Q$
And would the first contact then have been by
media; is that correct?
Yes.
And do you remember any of the names of the people or the organizations that called you? solving a number of homicides and I guess the word spread and these people would be contacting me, and I was contacted at work, I was contacted at home.

And would the first contact then have been by media; is that correct?

Yes.
And do you remember any of the names of the people

A

I remember a gentleman by the name of Karp.
Carl Karp?
I'm not sure of the first name. I had two conversations with him, but we never really shared anything, and then Dave Roberts, I had several calls from him and he made trips to Saskatoon to interview me and advised me that he was either working for Mr. Wolch or giving information to Mr. Wolch and at that point in time $I$ contacted Mr. Wolch.

Okay. Let me just pause there for a moment. If we can call up 333242, please, and this was the document $I$ showed you before, Mr. Vanin, I'm just trying to get a sense of the time frame, and I'll be showing you some articles from Mr. Roberts that suggest that he started to write in The Globe and Mail about this matter in 1991 and $I$ think you said that the calls would have been either all or primarily when you were in major crime. Are you able to tell us whether it was likely in this time frame of January, '91 -- well, let's just take the year 1991. Would that sound right about the time frame when you would have started to talk to Mr . Roberts and Mr. Wolch and others?

I think $I$ was talking to Roberts before that and
that might have been about the time frame where $I$ started to talk to Mr. Wolch's -- people in Mr. Wolch's firm.

So again are you able to, and again, if you are not able to tell us, that's fine, but just from your answer that you were in major crime when you were contacted, $I$ think you told us this was the time frame when you were in there, can we take it from that that it would likely be in and around 1991, perhaps late 1990 that the media would be calling you?

A

That's fine. So let's just go back, I think what you told us, the first call -- the first call came from Mr. Karp?

Oh, no, there was calls from Toronto and -Okay. Now -- and for the early calls, did you talk to them or did you turn them away?

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I talked to them, but $I$ had no information to give them.

And who would be the first person then outside the Saskatoon City Police Service that you began to share internal information, if $I$ can call it that, or information related to the Saskatoon City Police matters, would that have been Mr. Roberts? Yes, I shared information, but not the confidential information. I made arrangements with Mr. Wolch's firm to do that.

Okay. Let's just walk through then, and maybe we'll identify first the people that you talked to. First was Mr. Roberts; right? Is that correct? I think you said Mr. Karp, you talked to him a couple of times, but really didn't say much to him; is that fair? Am I characterizing your evidence right?

That's correct.
And we know Carl Karp was with the CBC and had also written a book. Does that ring a bell at all?

I'm aware that he was writing a book.
Okay. And was that what he was calling you about do you think?

I believe so.

And then Dave Roberts we know is a writer with The Globe and Mail, and there's another fellow there, Timothy Appleby that often wrote columns with him. Does that name sound familiar?

Yes, and Appleby came to my house. I think he was from Toronto.

Yes. And so David Roberts and Timothy Appleby were reporters with The Globe and Mail that you shared information with from time to time; is that correct?

A

And what were your concerns, or what was your understanding, Mr. Vanin, of what your obligations were as a member of the Saskatoon City Police about discussing police matters outside the confines of the police force?

That you were subject to a charge.
And so again would it be fair to say that you knew that you weren't supposed to talk to the media and lawyers and others about police matters; is that fair?

A
I could talk to them about police matters, but not
about confidential matters.
And so then, after you talked to Mr. Roberts, I think you -- did you then call Mr. Wolch?

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Yeah. So you phoned Mr. Wolch and said "I have confidential information that may help you"; is that right?

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I told him I believed that I could have some
information or could learn of some information that could help him in his file in respect to Mr. Milgaard.

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And at that time what was the confidential
information that you had?
I'm not really certain, now, what it was.
Well was it a case that you had some or you thought you, you may have had some but you thought that you could get some more, or --

I think it was that $I$ could get more information.
As $I$ was getting information from them, things started to come together, and $I$ just felt I could help him.

Okay. And what did Mr. Wolch -- tell us more about what you recall of your discussion with Mr. Wolch?

He asked me to talk to David Asper, who was really in charge of the file, and in my conversation with Mr. Asper I asked him, if I shared information with him, whether $I$ would have lawyer/client privileges, and he assured me that $I$ would. I asked him, if $I$ shared information with people that worked for him or others that were obtaining information for him, if $I$ shared it with them would $I$ still have lawyer/client privileges, and
he assured me I would. I also asked him that if I was ever charged, would he represent me and without any cost to me, and he assured me that he would.

And when you asked him about whether you shared information with others working for him who were you referring to?

Roberts.
That would be David Roberts?
Yes.
And did Mr. Asper tell you that David Roberts was working for him?

I don't recall.
Okay. Did you understand that David Roberts was working for David Asper?

That was my understanding.
And based on what?
Just with my conversations with Roberts.
And when you say "working for Mr. Asper", can you expand upon that, in what sense?

Gleaning out information and passing it on to him, that they could follow it up.
$Q$
And in the course of your -- and we'll get into this in detail -- but in the course of your subsequent dealings with Mr. Asper and Mr. Roberts
were there occasions where, in fact, you saw the two of them working together in the sense of sharing information back and forth?

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Are you referring to Asper and Roberts?
Yes.
I never did meet Mr. Asper, I only spoke to him many, many times on the phone.

When you gave information to Mr. Roberts did you believe that it would get through to Mr. Asper?

I was assured it would.
By Mr. Roberts?
Yes.
When you gave information to Mr. Asper were you assured that it would get through to Mr. Roberts? Oh no, he never -- that wasn't the deal, that he would share it with Roberts.

At the time you had the discussion with Mr. Asper, again, do you recall what confidential information or what information you had that you thought might benefit them?

I -- I can't recall at this time.
And this issue of lawyer/client privilege, was that your concern or issue, did you bring that up or did Mr. Asper bring that up?

No, that was my reason for calling Mr. Wolch and
speaking to Mr. Asper.
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$Q$
Well, again, that's again for you to decide. I understand from Mr. Bodnar that it's not being raised in this proceeding that there is any privilege that would attach with your
communications with Mr. Asper or Mr . Wolch; is that fair? You are prepared to tell us about your discussions with Mr. Asper and Mr. Wolch?

A Yes, sir.

Yeah. Now let's just -- you've talked to Mr.

Asper twice, you talked to Mr. Wolch, you talked with Mr. Asper; do you recall what Mr. Asper -anything else that he said to you at the time? Did he make any requests of you on the first call or what else was discussed?

I don't know what call it was on. As I stated before, Asper and $I$ had many many conversations, and at one time he asked me if $I$ knew a Larry Fisher or if $I$ ever heard of a Larry Fisher, and $I$ said "no, I've never heard of that", and he says "that has never come up in the Milgaard file", I says, "not to my knowledge, I have no knowledge of such a person".

If we can then go, just to try and define, then, the people that you talked to, Mr. Roberts -- or pardon me -- Mr. Roberts, Mr. Asper, Mr. Wolch; did you ever deal with a person by the name of Paul Henderson, an investigator with Centurion Ministries?

Yes, sir.
And can you tell us when and how that came about? I can't tell you when that was, but Mr. Asper was to come -- was going to fly to Saskatoon to interview me, and then he phoned me and told me that he had some other commitments and asked me if
it was okay if Joyce Milgaard and Paul Henderson would come to Saskatoon, and he explained to me who Paul Henderson was and I agreed to meet with him.

Did he tell you what Paul Henderson was doing in connection with the case?

Yes, he was investigating the -- reinvestigating the case, I guess, would be the proper word. And then did you have a meeting with Mr. Henderson and Mrs. Milgaard?

A
$Q$

A

Q
Okay. And, again, how long after your first contact with Mr. Asper would this meeting have been with Mr. Henderson and Mrs. Milgaard; are you able to -- weeks, months, years?

A It would definitely have been months.

Okay. And tell us, then, about your meeting with

Mr. Henderson and Mrs. Milgaard; what do you recall, where was the meeting, how long was it, and what did you discuss?

A
I received the phone call from Mr. Henderson, I
knew what date they would be in town, I received a
phone call and we made -- agreed to meet at the
Colonial Motel. Mrs. Milgaard was there with him,
and that's the first time $I$ ever met
Mrs. Milgaard. And we sat down, we had coffee, we
made some small talk, and at that point
Mrs. Milgaard left. And any information that $I$
shared was just with Paul Henderson, not with
Mrs. Milgaard, because she had left, and that was,
I believe that was the arrangement Asper and I had
made.
That, what, that you would only share information
with Paul Henderson and not with Mrs. Milgaard?

A
knew what date they would be in town, I received a phone call and we made -- agreed to meet at the Colonial Motel. Mrs. Milgaard was there with him, and that's the first time $I$ ever met

Mrs. Milgaard. And we sat down, we had coffee, we made some small talk, and at that point

Mrs. Milgaard left. And any information that $I$ shared was just with Paul Henderson, not with Mrs. Milgaard, because she had left, and that was, I believe that was the arrangement Asper and I had made.

That, what, that you would only share information with Paul Henderson and not with Mrs. Milgaard? That's correct.

And why was that?
I don't know.
Was that his idea or your idea?
Probably my idea.
And do you know why that would be?
I can't tell you. I don't know.
And so again, at that time, your meeting with

Mrs. Henderson -- or Mr. Henderson, pardon me, and Mrs. Milgaard; when Mrs. Milgaard was present, did you share any confidential information when -- in her presence to either her or to Mr. Henderson? Absolutely not, we just had a coffee and made small talk and sort of got to know each other a little bit, $I$ don't think Mrs. Milgaard was there for more than ten minutes and then she excused herself and --

Did you ever meet with Mrs. Milgaard again?
The next time $I$ saw Mrs. Milgaard was yesterday.
And did you ever talk to her on the telephone or provide her with any information?

No, sir.
And I understand that, as well, there was an individual by the name of Greg Rodin, a lawyer acting for David Milgaard as well, that you had some dealings with after Mr. Asper; is that right?

Yes. I understood that Mr. Asper resigned from the firm and the file was turned over to Rodin. And, again, we'll touch on some documents a bit later but I take it that you had some further dealings with him; is that correct?

With Mr. Rodin?
Yes?

A Yes. He flew to Saskatoon, I believe twice, to interview me.
$Q$
And would that have been in connection with the civil proceeding, do you know, or --

I think with everything.
Did you have any further discussions with Hersh Wolch after the first phone call?

No.
And so again, --
Not, not 'til yesterday.
Okay. And just as far as, let's talk non-media,
if $I$ can call it that, we can talk -- we've
identified David Asper, Hersh Wolch, Paul
Henderson, Greg Rodin, and Joyce Milgaard for about ten minutes, but the first -- so Asper, Wolch, Henderson and Rodin; would it be fair to say that you provided confidential information -well, let me take out Mr. Wolch. Did you ever provide any confidential information to Mr. Wolch?

Yeah. Did you ever provide any confidential information on police matters to Hersh Wolch?

A No.

And did you provide confidential police information to David Asper?

A

Q

And so again, when $I$ used the word "confidential", what $I$ mean to say is information that you knew, as a police officer, should not be shared outside

I think the administration would have looked at it as inappropriate.
the walls of the police service; is that a fair understanding?

A

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$Q$
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$Q$

\author{

} so, and we'll get into that in detail. I'm just trying to establish that what $I$ thought you told me is that you made a decision to provide information on internal police matters, or what was happening on the matter, to people assisting

David Milgaard, and that you knew that it was not appropriate or it was against police regulation to be providing that information; is that fair?

A
I wasn't certain that it was inappropriate, I just
took that position myself, that --
Okay.
To be cautious.
Okay, then let's put it on this basis, information
that you believed it might be inappropriate to
share with third parties; is that fair?
Yes.
Okay. So, again, we have a category of
information that would be known to city police
officers and not known outside the city police
service, and you say you were concerned that it
might not be appropriate to share it, and so you
took the precautions; correct?
Yes, sir.
So that when I talk about 'confidential
information' that's what $I$ am referring to, that
type of information that only police officers
would know unless a police officer told someone,
do you understand?
Yes.
Okay. And $I$ want to know whether that
information, whether you provided -- who you provided that to. You've told me you provided it, I think, to Mr. Asper; is that right?

A

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$Q$

A

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$Q$

A No, sir.
Q
Why did you decide to provide this information to non-police members?

A
Because I strongly believed that David Milgaard was innocent --

Q
A

2

A
$Q$
A
$Q$
And I'll go through some documents in a moment, sir, that $I$ understand that there were a number of run-ins, for lack of a better word, between you and administration in the late ' 80 s and early '90s; is that fair?

A That's correct.

And is that one of the reasons, Mr. Vanin, that
you decided to share this information with David Asper and Paul Henderson and Mr. Roberts, was your dealings with Mr. Penkala?

I knew I wouldn't get any assistance from Penkala or the administration, so -- and, again, I just believed so strongly that David Milgaard was innocent and $I$ just felt obliged, as a police officer, to help where $I$ could help.

But, again, the question is the reason you didn't go to administration and to the chief with your concerns, was it related to the fact that you had other unrelated issues with Mr. Penkala, ongoing disputes with Mr. Penkala; is that fair?

That's fair, and plus the fact $I$ had no confidence
in Penkala whatsoever, and most members didn't have any confidence in him, and nor would we get anywhere if we went with information to him, I think he would just put a stop on it.

And why do you say that?
Just for -- working with the man or working for the man. He just decimated the police department when he took over. We had what was considered one of the best police forces in Canada, and when he took over he just slashed all the specialized units, and it seemed to us that his only objective
was to save as much money and return as much money to the Commission as possible.

If -- let's go back to the early '90s, whatever the time frame is when you began to share police information with outside parties, and I think you said '90-'91, in that time frame; is that fair, that time frame?

That time frame, but $I$ think it was as early as the ' 80 s .

Sure. And we'll go over some documents that might assist you. Whatever the time frame, if there had been a different chief in place with the Saskatoon City Police, would you have gone to that chief with the information and the concerns you had about David Milgaard and his innocence?

Yes, sir. When $I$ was in major crime my boss was Deputy Chief Huey Fraser, and he is the best man $I$ ever worked for, and $I$ consider him the best police officer $I$ ever met, and $I$ certainly would have gone to him with this information, and $I$ know that he would have given me the green light to go and assist.

Okay. And why didn't you go to him?
He was retired.
But before he retired?

A
$Q$

A

And, again, what -- what would have caused you to go in, and whatever, let's say 1990, and I know you are not pinning it down on a date, let's just take that for an example. What was happening in 1990 that would cause you to go -- or let me back up. I think you said in 1990, if Hugh Fraser had been the chief, you would have gone to him; why didn't you go to someone in 1970, or 1975, or 1980, or 1985, what was the reason it wasn't until 1990 or thereabouts?

Because none of this information was coming to light. It's only after Mrs. Milgaard got some assistance and we started the investigation and
articles started appearing in different papers and it started to snowball and it appeared that she was on the right track, and her, her lawyers and her assistants were on the right track. This did not come about in the '70s.

Okay. But, again, and $I$ thought you said earlier that even back in 1970 you thought he was innocent, and $I$ guess I'm trying to understand or have you explain what -- and I'm not, I don't intend to fault you for this, Mr. Vanin -- but if you felt that from 1970 to 1990 what would it be, 20 years later, that caused you to do something that you didn't do in the previous 20 years? I think $I$ just answered that question, is because of what Mrs. Milgaard had started, and new evidence started to come to light, and -Okay.
-- from talking to the news media and all these phone calls that $I$ was getting from them. I didn't get any of that in the 70 s .

Now, and again you may have touched on this, if it had been somebody other than Chief Penkala that had been chief at the time when you actually did go and give this information outside the police force, someone that you trusted, would you have
gone to the chief with your concerns as opposed to providing it to outside parties?

A
$Q$
I read this document and the majority of it is accurate.

Okay. And $I$ just want to touch on a couple of
parts because $I$ think this might summarize some of the issues that -- would it be fair to say that prior to -- let's just get a time frame. I think it was the late ' 80 s , maybe -- what year was your automobile accident, was it '80 -1986 I had two accidents, and one was a very serious accident. It was a high-speed chase, I was on duty, and the patrol car was rammed twice and involved in a head-on collision with the culprit, which resulted in very severe injuries to me.

And then $I$ think you were off work for a lengthy time period; is that right?

I was off work for approximately a year.
And then some issues arose regarding your return to work, and would that be, if $I$ could call it, the start of issues between you and administration, and in particular Mr. Penkala; is that fair?

That's what caused the rift, yes.
Yeah. And prior to that, at least looking from this document, prior to that it looks as though from this letter -- and I'd ask you to confirm it -- that there were no, no issues or very few issues between you and administration or the force
generally; is that fair?
A
The police force was extremely good to me, I loved being a police officer, I think $I$ was a very good police officer. And $I$ loved the work, I had good job satisfaction, and it was until this accident arose and this injury, and then $I$ started to -- I felt $I$ was being harassed by administration, and particularly Penkala, for not returning to work. And I'll give you one example.

I was in City Hospital waiting to go in for $I$ believe it was a CT scan, and Joe Penkala was in there, apparently he fell off a ladder and broke his ankle or something, and he told me there, he says, "I think it's time you got back to work" is what he said directly to me in the waiting room when both of us were waiting for medical treatment.

And apart from Penkala, were there any other specific officers that you had issues with at the time in administration, or was it just Mr. Penkala?

A
Well, you always have some issues with some officers, but nothing that -- you don't hold grudges forever.

Okay. If we can just go to the next page, and I
just want to go through parts of this, because it might shed some light on some matters. And, again, this is Inspector Quinn writing to

Inspector Sawatzky in 1993, and I think Inspector Sawatzky had asked Inspector Quinn just to give a summary of your career with the police, and it says here:
"Staff Sergeant Vanin was noted by his supervisors and, on some occasions, by Crown Counsel as being a very intelligent and excellent investigator. He had noted successes with a number of major investigations, including homicides, during his tenure in the Detective Division. He also worked very closely in investigations with Detective E. Karst and senior investigators assigned to those divisions during the period of time that Vanin served there. He also had a reputation of being very protective of his information and very protective of what he was working on including documentation of his reports. He did not associate with a large number of members on duty and kept considerably to himself."

Now that's someone else's words, but is that, do you agree with that characterization? Yes?

A
Q
Now if we could just scroll down, $I$ think this talks, it may summarize the following years. It says:
"Upon being transferred to the traffic division in 1985, he worked as a Supervisor in this area. During the mid summer of 1986 Staff Sergeant Vanin was involved in a motor vehicle accident while operating a Patrol car and sustained injuries to his back and neck areas. Subsequent problems occurred after this accident which resulted in excessive loss of work through the injuries and other medically related problems. The time off became a major source of aggravation for, not only Staff Sergeant Vanin, but also with the Department in attempting to ascertain when Vanin could return to work. This issue was the subject of a number of exchanges between Vanin and the

Administration of the Saskatoon Police Service at that time. Vanin did not return to duty for approximately one year, after which there continued to be an additional number of lengthy illnesses which were directly related to his back problems and other medical problems Vanin was suffering from. This absence from duty and what appeared to be a reluctance on Vanin's part to return to duty, continued to become a problem for both the Administration and Staff Sergeant Vanin."

It says:
"During this period of 1988 there was a request by not only Vanin, but one of the Inspector, to have Vanin transferred to a plainclothes unit, however, this apparently appeared to have been denied. It was also during the period commencing in 1988 that a number of disciplinary issues came to light. In April of 1988

Vanin filed a complaint against his
Staff Sergeant at that time, Staff
Sergeant Martin, for Abusive Language
and Neglect of Duty. At the same time a complaint was laid against Vanin by the Staff Sergeant for Insubordination, subsequently resulting in a Written Warning. The matter was appealed and the appeal granted."

Now is that an accurate summary of those events?
There are a number of mistakes there, or a couple mistakes.

Sure. If you could point them out?
Could you back up to the --
Sure.
A Just -- it says:
"... involved in a motor vehicle
accident while operating a patrol car
. . .",
I was not operating the patrol car, I was a passenger in the patrol car.

And anything else?
Well, $I$ certainly don't agree with the very last sentence:
"This absence from duty and what appeared to be a reluctance on Vanin's part to return to duty, ..."

Would it be fair to say that there was a
disagreement between you and administration as to whether you were fit to return to work; is that fair?

A

Q

A

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A
$Q$
A I was, if $I$ was involved in another accident or in a serious scuffle or a violent arrest, that the
injuries to my neck could result in paralysis. Okay. If we can just scroll down to the next paragraph. Was there anything else there, I'm sorry, Mr. Vanin, that you wanted to point out? No, sir.

And then this paragraph here about the complaints, issues with Staff Sergeant Martin, etcetera, is that accurate?

No, that's not accurate. Martin left a report against me, Martin advises me that he was ordered by Inspector Wilton to leave that report and charge me with neglect of duty or --

Q There was issues between you and Mr. Martin; is that fair, and Mr. Wilton?

No, actually his nickname was Smokey, Smokey Martin and I were actually good friends, and he came to me after, he said he only did that because he was ordered to do that by Wilton.

So a complaint was filed -- I mean, I don't want to get into debating over who was right or who was wrong, $I$ simply want to understand and just identify, Mr. Vanin, that there were issues and generally the nature of the issues, and $I$ appreciate, sir, that you, I'm sure, have strong views about your position on those issues; is that
fair, and that they are probably not the same views as administration?

A
$Q$

Okay. Just go down to the next paragraph, it says:
"Also in 1988 there was a complaint laid against Inspector Wilton by Staff Sergeant Vanin regarding an Assault and Abusive Conduct. During 1989 the charge of Neglect of Duty was laid against Staff Sergeant Vanin which specifically indicated he had left his assigned area without permission, for which 9 convictions were registered."

And again I'll touch on some of those materials later because $I$ think that ended up in some court proceedings; is that right?

And if we can just scroll down, it says:
"There was a long period of appeals to
the Saskatoon Board of Police
Commissioners and also the Saskatchewan

Police Commission which eventually
resulted in Vanin being initially
demoted to the rank of Corporal and subsequently reinstated to the rank of sergeant to be returned to his position held prior to the sentencing of the conduct charges under the "Police Act". At that time Vanin was assigned back to the Major Crime Unit where he remained until his transfer to the Crime Index position. This appeal was heard and a decision rendered on January 17, 1991, by chairman of the Provincial Police Commission R.D. Lang, Q.C." And I'll go to those materials a bit later, but is that correct, you had a prolonged dispute over -- I think Deputy Chief Wagner had a disciplinary proceeding, found you -- registered nine convictions, you went to the Police Commission, you went to the Court, I think you went back to the Police Commission and to the Court, something like that; is that --

A Yes.
Q
And that would be 1990 -- ' $89, \quad$ '90, '91; is that correct?

A
Q A

Q

Yes.
And then if we can go to the next page --
I would just like to note that Mr. Laing, who was the chairman of the Provincial Police Commission, totally reinstated me and reinstated my rank and my position after the hearing.

Yeah, and I'll just identify those documents in a moment. And then lastly here:
"In addition, there was conflict in 1990
between Staff Sergeant Vanin and an
Inspector Ed Grabowski, in which Vanin
laid a complaint against Grabowski for
doing personal business on company time
and perjury. The complaint laid was
subsequently found not to be
substantiated."
It's my understanding the perjury charge related
to his evidence given in your disciplinary
proceeding; is that right?
That's correct.
And again, if we can call up 223639, and again this is a document from the public record, and I think this is one of the Court applications brought, if you could just go to the next page, please, again we won't spend much time on this,
but this shows April 24 th, 1991 , an application under the Police Act for disciplinary proceedings, and this would be relating to those convictions registered by Deputy Chief Ken Wagner; is that right?

That's correct.
And again $I$ don't propose -- actually, if you can just scroll down, it talks about the order of Chief Wagner on August 2nd, 1990, so that looks like the first decision, and then the next page, it says he found you guilty of nine counts of neglect of duty and this is an application to the Court for relief.

And then if we could go to 333243 , please, and again this is for the benefit of counsel, this is just a copy of a Court decision July 18th, 1991, and I'm not sure if this relates to the earlier motion, but this is an application brought to Court naming Joe Penkala and the Police Commission as a Respondent, and I think you were appealing a decision and he was appealing a decision, and just a couple of things. So that would be the date this decision was handed down, July 18th, 1991; is that correct?

A I'm not certain, but --

Q
I'm telling you that's what the Court document says.

A
Q Yes.

So can I summarize that, that after you went through these appeal proceedings, the Police Commission upheld the conviction but said you should go back to the position of -- restore your
rank and then when you got back to work Chief Penkala moved you to platoon patrol; is that right?

A
Q

A

A
I'm not sure. I very well could have. MR. HODSON: This is probably an appropriate spot to break. It's four o'clock, Mr. Commissioner.

COMMISSIONER MacCALLUM: Thank you. (Adjourned at 3:58 p.m.)

OFFICIAL QUEEN'S BENCH COURT REPORTERS' CERTIFICATE:
We, Karen Hinz, CSR, and Donald G. Meyer, RPR, CSR, Official Queen's Bench Court Reporters for the Province of Saskatchewan, hereby certify that the foregoing pages contain a true and correct transcription of our shorthand notes taken herein to the best of my knowledge, skill, and ability.

$\qquad$ , CSR<br>Karen Hinz, CSR<br>Official Queen's Bench Court Reporter<br>$\qquad$<br>Donald G. Meyer, RPR, CSR<br>Official Queen's Bench Court Reporter

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