

COMMISSION OF INQUIRY
INTO FORENSIC DNA TESTING IN QUEENSLAND

Brisbane Magistrates Court
Level 1/363 George Street, Brisbane

On Monday, 17 October 2022 at 9.48am

Before: The Hon Walter Sofronoff KC, Commissioner

Counsel Assisting: Mr Michael Hodge KC
Ms Laura Reece
Mr Joshua Jones
Ms Susan Hedge

1 THE COMMISSIONER: Yes, Ms Hedge?

2
3 MS HEDGE: Thank you, Commissioner. Commissioner,
4 I intend to outline now the issue that has been described
5 as sperm microscopy. Could I start with an understanding
6 of the workflow that existed in the laboratory for sperm
7 samples. From about 2010, suspected sperm samples were
8 processed by the laboratory using what was called the
9 suspension method. The sperm swab or material was scraped
10 or cut up into a tube with distilled water. A microscope
11 slide was prepared where some drops of that solution were
12 dropped on to the slide. The scientist then looked at the
13 slide under the microscope to identify whether and what
14 density of sperm was in the sample.

15
16 Presumptive tests were also performed on part of that
17 solution. If the presumptive tests were positive or the
18 microscope slide had sperm seen on it, then part of the
19 solution would be processed through quantitation,
20 amplification and capillary electrophoresis.

21
22 Sometimes, before that process, the solution would
23 undergo differential lysis, a process to separate the sperm
24 cells from other cells, such as skin or tissue cells.
25 Often, suspected sperm samples were taken in relation to
26 sexual assaults, and so the swabs may contain a large
27 amount of the complainant's cells and DNA compared to
28 a small amount of sperm.

29
30 Differential lysis allows the sperm and the DNA it
31 contains to be detected more readily by separating it from
32 other sorts of DNA. If differential lysis is performed,
33 another slide is created after that process, known as
34 a differential lysis slide, which should make it easier to
35 see the sperm once the other cells are removed. However,
36 in some circumstances, if the presumptive tests were
37 negative and the first slide created - often called the ER
38 slide or the evidence recovery slide - did not show any
39 sperm, then the sample would not be processed further at
40 all.

41
42 Toward the end of 2015, a reporting scientist noticed
43 in a particular case that there was a discrepancy. She had
44 obtained a strong male DNA profile from a sample, but the
45 slide that was created had not shown any sperm.

46
47 Could I have on the screen [FSS.0001.0067.6316]. Can

1 we scroll down. Is there a second page of that document?
2 Thank you. Just looking at that email there that we see
3 spans the first and the second pages, this is an email sent
4 from Jacqueline Wilson, who is one of the reporting
5 scientists at the laboratory, on 4 March 2016, and you will
6 see that she is writing to her supervisor or line manager,
7 Amanda Reeves, and to Amanda's line manager, Justin Howes,
8 all part of the reporting team. Ms Wilson says:

9
10 *Here's another example of where the initial*
11 *slide assessment has differed greatly from*
12 *the DLYS slide --*

13
14 that is the diff lysis slide --

15
16 *initial screening was 0 sperm seen however*
17 *upon examination of the [diff lysis] slide*
18 *it was 3+.*

19
20 Now, these numbers are not exact quantitations, that is, it
21 is not zero sperm and then 3+ sperm. That's
22 a semiquantitative scale. So zero means none; 3+ is very
23 easy to find, but it would be more than literally the
24 number --

25
26 THE COMMISSIONER: So it's a rule of thumb method of
27 signifying the amount of sperm from zero to 1+, to 2+, to
28 3+, but they don't signify one sperm head, two sperm heads
29 or three sperm heads. They signify general quantities
30 from --

31
32 MS HEDGE: That's right, how easy they are to find when
33 you look through the microscope at the slide.

34
35 Ms Wilson says here is another example. Ms Wilson
36 cannot now remember what that previous example was or when.

37
38 Mr Matthew Hunt, another reporting scientist in the
39 reporting team at the laboratory, remembers this issue
40 being raised in late 2015.

41
42 Ms Wilson posits a potential issue in the third
43 paragraph there:

44
45 *I personally think we have an issue with*
46 *the preparation of the slide itself, not in*
47 *the reading of the slides; Janine phoned me*

1 *to tell me about the 3+ and indicated that*
 2 *she had gone back to the original slide and*
 3 *still could not find sperm so, in my*
 4 *opinion, there's something wrong there.*

5
 6 She suggests "a bit of an investigation on some mock-up
 7 samples" to look at the slide preparation issue.

8
 9 Could we then turn back to the top of the first page.
 10 Commissioner, Ms Reeves handed or passed on this email,
 11 forwarded it to Mr Howes, and said that - could we just
 12 also redact that number in the subject line, please,
 13 operator. Sorry. Thank you. She said that in her view
 14 also, a further investigation was warranted:

15
 16 *... perhaps looking at how the smear was*
 17 *prepared etc --*

18
 19 "smear" is another word for "slide" --

20
 21 *with the view to widening the investigation*
 22 *if a more systemic issue is observed.*

23
 24 So this was the start of the raising of this concern within
 25 the laboratory.

26
 27 Can we turn, then, to [FSS.0001.0067.6318]. Can
 28 I say, Commissioner, I will tender a number of documents
 29 using an index at the end of the opening rather than as we
 30 go through, if that's suitable.

31
 32 THE COMMISSIONER: Yes. Do you want to then in due course
 33 tender them as a bundle of some kind?

34
 35 MS HEDGE: Yes.

36
 37 THE COMMISSIONER: All right.

38
 39 MS HEDGE: We can see at the bottom of the page, this is
 40 the same email that we looked at on the last page, and then
 41 at the top of the page is Mr Howes' response, again on the
 42 same day, 4 March 2016. He thanks Ms Wilson for raising
 43 the concern, and he said:

44
 45 *Good work and we will follow things up*
 46 *here.*

1 In fact, from there, there was a delay of approximately
2 two months before further particular action was taken,
3 I say that because no doubt there were some discussions,
4 but there was a delay while Mr McNevin was on leave, and
5 when he returned he was tasked with --
6

7 THE COMMISSIONER: Just so I understand it, what we're
8 dealing with here is that in the first instance, a sample
9 that has been received where what is being looked for, if
10 it's there, is DNA in the form of sperm heads, that sample
11 is treated so that if there are any sperm heads, some of
12 them will be transferred to a microscope slide, so the
13 sample can be viewed through a microscope in the first
14 instance to see if there are sperm there and so the sample
15 would be worth processing further. But if you don't see
16 any sperm heads, then it's not worth processing further and
17 that's the end of it, in general?
18

19 MS HEDGE: It's not as black and white as that in the
20 workflows that existed pre-2016, and I say that because
21 there was the presumptive testing. So if there was no
22 sperm seen but positive presumptive tests, it was often
23 moved on to processing. And there was also some ability at
24 least for a scientist to exercise a discretion, if no sperm
25 was seen and there were negative presumptive tests, still
26 to proceed. So the first slide wasn't the end of it, and
27 if it had been, then Ms Wilson would never have found that
28 example --
29

30 THE COMMISSIONER: Yes.
31

32 MS HEDGE: -- because that had obviously gone on through
33 the process despite being zero on the evidence recovery
34 slide. But in many cases, if there was no sperm seen on
35 the slide, presumptive tests negative, in many, or I say
36 even in most cases, that would have been the end of the
37 testing.
38

39 THE COMMISSIONER: So, in summary, the examination of
40 a microscope slide is part of the procedure to determine if
41 it's worth proceeding with or not, but there is the
42 presumptive test, which would indicate the possible
43 presence of sperm, and, if so, in general, that sample
44 would go ahead whether the microscope slide showed anything
45 or not. Secondly, if something showed up on the microscope
46 slide, it would go forward. And, thirdly, there were other
47 cases in which, notwithstanding nothing on the slide, the

1 sample might go forward, but there would be a class of
2 samples which, if they showed nothing on the slide, they
3 would not progress further?
4

5 MS HEDGE: That's right.
6

7 THE COMMISSIONER: What Ms Wilson was identifying was that
8 one of these - when progressed further, one of these that
9 might have been risked not going further did in fact go
10 further, for some reason to do with the work process, and
11 it showed at a subsequent step that there was sperm, and
12 then when they went back to the slide, indeed there were no
13 sperm, so there was a problem of some kind in the
14 preparation of the slide or the extraction or something
15 leading up to that slide being examined. So there was
16 a potential for a range of samples to be missed?
17

18 MS HEDGE: That's right. It was the view of Ms Wilson and
19 Ms Reeves that there must be some problem at that point in
20 the process.
21

22 Others have a different view. For example, Mr McNevin
23 expresses the view in his statement that because the
24 evidence recovery slide has many cells on it, including
25 sperm cells, assuming sperm is present, whereas the diff
26 lysis slide would only have the sperm cells, then it would
27 be expected that there would be cases in which they
28 wouldn't be seen on one but seen on the other.
29

30 But the exact cause of it, as we will come to, has
31 never been identified by the laboratory - the exact cause
32 of that discrepancy. The key feature, as you said,
33 Mr Commissioner, is that some things could be missed and
34 that the missing of a sample like that - that is, missing
35 of sperm and meaning that there is no further testing of
36 a sample - might have a very significant impact on
37 a particular case. It may not, as well, in the sense that,
38 as you know, a sexual assault investigation kit has
39 a number of swabs; perhaps this problem or concern might
40 arise in relation to one swab, but sperm would be seen on
41 some other swab, and so the evidential matrix that goes to
42 a court would be similar. But, on the other hand, if that
43 concern or problem arose in relation to a particular swab
44 that had a particular probative impact at the trial, then
45 not testing and not finding that sperm could be very
46 significant in a particular criminal case.
47

1 THE COMMISSIONER: Yes.

2

3 MS HEDGE: And so the consequences of even one swab not
4 being fully tested could be very significant for one case,
5 which is reflected in - as time goes on, some people within
6 the laboratory are very concerned about this issue, very
7 concerned that it be quickly and promptly dealt with.

8

9 THE COMMISSIONER: Yes. All right.

10

11 MS HEDGE: March is the first time that there is a written
12 record, but, as I say, Ms Wilson identifies that it's not
13 the first time that she has seen it. One of the particular
14 issues that the Commission will be considering in the
15 evidence today is the length of time over which this issue
16 was investigated and the reasons for that and, in
17 particular, this first period between when the issue was
18 first identified to managers and when real steps were taken
19 to investigate it.

20

21 Because that's one of the issues that will confront
22 you, a little of the history needs to be set out in this
23 opening.

24

25 Can we turn, then, to [FSS.0001.0066.8701]. We come
26 now to 6 May, so it's about two months after that last
27 email. Mr Howes wrote to Ms Wilson and Ms Reeves following
28 up on this issue. He says he had a meeting planned with
29 Kirsten. That would be Dr Kirsten Scott, the quality
30 manager within the laboratory. Then he indicates there
31 that:

32

33 *Al appreciates the issue raised and we will*
34 *look into how to handle the matter. He had*
35 *some lengthy absence since I passed it on*
36 *to ERQ --*

37

38 the evidence recovery team --

39

40 *previously and should be in a better*
41 *position now to investigate further.*
42 *I will keep you informed of the*
43 *outcomes ...*

44

45 THE COMMISSIONER: But the team, is that what you're
46 saying, did nothing between 4 March and 6 May?

47

1 MS HEDGE: At least no concrete steps towards an
2 investigation. There may have been discussions or
3 something of that nature, and that appears to be the case.
4 Mr Howes --

5
6 THE COMMISSIONER: What I mean is they did nothing to
7 prevent samples containing sperm but that showed no sperm
8 on microscopy being missed?

9
10 MS HEDGE: That's right, no change to the workflow and no
11 particular investigation into how the particular cases --

12
13 THE COMMISSIONER: But more importantly, no steps to
14 ensure that samples weren't missed?

15
16 MS HEDGE: Yes, that's right. That's right. Later, as we
17 will come to, there was a change in the workflow to do
18 that, and that was not done until August. So that's right,
19 between March and May, there was no step taken to test all
20 samples or take any other step to make sure that --

21
22 THE COMMISSIONER: And, what, nothing until August?

23
24 MS HEDGE: That's right. 8 August 2016 was the first
25 change to the workflow.

26
27 This issue was then discussed after this email on
28 12 May and 27 May. At the second of those meetings, the
29 outcome from the meeting was that Allan McNevin would
30 initiate a project plan for the next step. So we can see,
31 effectively, another month has passed to the end of May.

32
33 Could we turn, then, to [FSS.0001.0013.2386]. This is
34 the initial request for what became Project #181. You can
35 see that it was proposed by Mr McNevin on 2 June 2016. The
36 title was "Investigation into sensitivity of spermatozoa
37 microscopy".

38
39 Could we zoom in, please, Mr Operator, on the text in
40 the middle box. The first paragraph identifies the
41 concerns that have been raised, and two particular concerns
42 are raised about the sensitivity of the original slide
43 microscopy - the suspension method resulting in overly
44 diluted material, or a potential problem associated with
45 the slide staining procedure.

46
47 The project was said, at the bottom of this part:

1
2 ... to investigate [part] (i) ... as there
3 is no current in-house experimental data
4 comparing the sensitivity of sperm
5 microscopy, AP and p30 detection and DNA
6 profiling.
7

8 AP and p30 detection are the two presumptive tests that
9 were in place, and there is an indication of how they will
10 be carried out, or how the project will be carried out
11 according to this proposal. That proposal was signed off
12 by Dr Scott.
13

14 On 9 June, so about seven days after this document,
15 the matter was discussed at a management meeting. This was
16 the meeting at which Mr McNevin banged his hands on the
17 table. He later apologised for raising his voice and for,
18 in his words, spitting the dummy.
19

20 Can we put up an apology email which Mr McNevin sent.
21 It's [FSS.0001.0066.8657]. I'm sorry, that's not the right
22 number. Could we take that document down. I'm sorry, one
23 moment. Sorry, I will come back to that in Mr McNevin's
24 evidence. In the email, Mr McNevin, very shortly after the
25 meeting, apologises for his behaviour in the meeting and
26 describes it as I have said.
27

28 The relevance of that meeting to the Commission, in my
29 submission to you, and what occurred there is only insofar
30 as it relates to the continuation of the project, the
31 delays that were experienced and the impression or
32 hesitancy that remained amongst other staff about raising
33 scientific issues because of what occurred at that meeting.
34

35 Could we turn then to [FSS.0001.0066.8676]. This is
36 an email on 19 July 2016, so it is about five or six weeks
37 after that meeting. Ms Rika wrote to her reporting team,
38 as we can see there, on 19 July, attaching that document,
39 that Initial Request #181, which was signed. She cc'd
40 Ms Reeves, who was the other reporting team senior
41 scientist at that time, and Mr Howes. She said to her team
42 that:
43

44 *A few people have asked ... about where we*
45 *are at with the micro slides issue ...*
46

47 And she identified that initial request to them.

1
2 *Investigations are still progressing but in*
3 *the meantime --*

4
5 she suggested to her team --

6
7 *checking your diff lysis slide in any*
8 *situations where the ER slide and your DNA*
9 *results don't quite tell the same story.*

10
11 Now, of course, while that is prudent advice, that doesn't
12 deal with the issue of a case which doesn't progress at all
13 past the ER slide, because there would be no diff's lysis
14 slide or DNA result in a case which didn't progress past
15 that initial slide.

16
17 Could we have on the screen [FSS.0001.0067.6328]. You
18 see down the bottom of the page that there is Ms Rika's
19 email that we just looked at, and at the top of the page,
20 Ms Reeves forwarded that up to Mr Howes - forwarded to
21 Mr Howes again to say that she was particularly concerned.
22 She said in her second sentence:

23
24 *We really need this sorted ASAP, and*
25 *I can't understand why there is not more*
26 *urgency around this? It is freaking me*
27 *out! I dare not say anything else though,*
28 *this is how I got yelled at the last*
29 *time ...*

30
31 In the last time, importantly, she says:

32
33 *Given the high risk I am asking if it can*
34 *be made a priority please?*

35
36 So it was raised again by Ms Reeves.

37
38 Then can we turn to [FSS.0001.0052.8289]. Mr McNevin,
39 on 20 July, so only one day after that, was providing
40 a copy of the project plan proposal, so a more in-depth
41 description than the initial request, and he sent it to
42 Ms Brisotto, who would have been his line manager at that
43 time. He was the senior scientist in charge of evidence
44 recovery.

45
46 Can we look at that document. It is
47 [FSS.0001.0013.2174]. This is the project plan prepared by

1 Mr McNevin. Could we zoom in on the text that's in the
2 box. The concern again is repeated by the staff who raised
3 it. You can see there, Commissioner, the semiquantitative
4 scale that I described: "Zero (nil seen), less than 1+
5 (less than 10 cells seen on the whole slide, very hard to
6 find)". 1+ means hard to find; 2+ means easy to find; 3+,
7 very easy to find; 4+, abundant.

8
9 THE COMMISSIONER: Do the documents we have seen explain
10 why there was no sense of urgency in ensuring that no
11 samples in sexual offence cases were being missed?

12
13 MS HEDGE: No.

14
15 Then at the bottom of the page, we have the concerns.
16 Again, this is the same concerns that were in the initial
17 request form. Could we turn then to page 2 of that
18 document, please, operator. Again, there is an indication
19 that item (i) will be looked at by in-house experimental
20 data, and there is a description of what will be done.
21 Now, it is clear that the focus on AP and p30 - that is,
22 the presumptive tests - are not directly relevant to
23 whether the slide-making procedure was correct or had some
24 concern with it. There are different tests done.

25
26 In the "Benefits", Mr McNevin has stated that because
27 there was no formal validation of the making of cell
28 suspensions that might have started about 2008:

29
30 *... an investigation into the effectiveness*
31 *of current procedures will fill the gap in*
32 *departmental records.*

33
34 *Additionally, the determination of the*
35 *sensitivity of microscopy and presumptive*
36 *testing compared to [the] profiling [of]*
37 *results is worth investigating ...*
38

39 So it is clear from this stage that Project #181 intends to
40 look at a much wider range of things than only the sperm
41 microscopy issue that has been identified, which is the
42 slide-making procedure.

43
44 Can we turn then to [FSS.0001.0079.5361]. Could we
45 start at the bottom of the page, please. This is an email
46 from Mr Pippia to Mr Howes, Ms Reeves and Ms Rika.
47 Mr Pippia is a reporting scientist at the laboratory. He

1 says he thought he would "pass this on". It was a sample
2 tested for presence of semen, micro negative - that's the
3 microscopy - greater than 1+ epithelial cells; PSA
4 positive. I understand that's one of the presumptive
5 tests.

6
7 THE COMMISSIONER: So the microscope showed nothing, but
8 there had been a positive presumptive test?

9
10 MS HEDGE: Yes. So it went on. Then "SFRAC" is the sperm
11 fraction, and when the sperm fraction was processed for
12 a DNA profile, it returned a strong single-source male
13 profile with peaks around 1200RFU. That's the peaks on the
14 electropherogram. Then on the diff slide, the diff lysis
15 slide, there were 3+ sperm heads, using that
16 semiquantitative scale we have discussed, and less than 1+
17 epithelial cells. So, again, there is that discrepancy
18 between what was on the microscope slide at evidence
19 recovery and the differential lysis.

20
21 At the top of the page - could we just redact that
22 sample number in the top email, please, operator.
23 Thank you. Mr Howes thanked Adrian and asked for a sample
24 number, which he provided.

25
26 Could we then turn to [WIT.0002.0106.0001]. Could we
27 start with the bottom email, please, operator. This is an
28 email the day after Mr Pippia's email. Ms Rika wrote to
29 Ms Howes and Ms Reeves. She said she had had
30 a conversation with Paula Brisotto about a plan for sorting
31 out the ER micro slides issue. She had been thinking about
32 it. She suggested that the reporting team did its own
33 projects. She suggested some people who might be
34 particularly appropriate to perform that project, ER
35 experienced people, and she identified the type of
36 project - that they would formulate a project or
37 proposal/plan and carry out experiments and testing in the
38 ER lab. As she says there:

39
40 *Allan/ER could still do what they feel is*
41 *necessary in terms of sensitivity study*
42 *etc ... if they wanted to.*
43

44 Commissioner, you might remember her evidence last week was
45 that whilst she considered the particular tasks or
46 investigations that Mr McNevin was carrying out were
47 interesting, they weren't a direct answer to the issue, and

1 so that is the motivation, then, for writing this email, to
2 try and have things moving on the particular issue that had
3 been raised rather than the more general question of
4 whether microscope slides were being produced or whether
5 the workflow was optimised.

6
7 Could we go down to page 2, please, operator. She
8 said that the project plan would likely deal with some
9 issues below. Now, let's move right down to the bottom of
10 the page, that bottom email. On 12 May there had been an
11 email from Mr Howes, so we're just going back a little in
12 time here, from Mr Howes to Mr McNevin and Ms Scott
13 suggesting some investigations that could be done with some
14 suggestions from reporting staff. Could we just look
15 through those. They are in the italicised font there.
16 Firstly, "identifying a staining or fixing issue", and
17 there are suggestions of what should be looked into in
18 terms of how the slide was created. And if we turn on to
19 the next page - is that the last page?

20
21 THE OPERATOR: Yes, there are just the two pages.

22
23 MS HEDGE: All right, thank you. There are some other
24 suggestions, which I will have to come back to. Can we go
25 to the top of page 2 now. This is the end of Ms Rika's
26 email. She said obviously at this stage she hasn't spoken
27 to anyone else and it would be for Ms Reeves and Mr Howes
28 to agree, as the people she nominated were outside of her
29 team.

30
31 Can we go back to the top of the first page, please.
32 Ms Reeves then writes to Ms Rika and Mr Howes again
33 emphasising what she considers to be the urgency of it.
34 She says over six months have passed, she has been ignored,
35 and:

36
37 *... there is still no outcome and we are*
38 *still exposed in terms of risk, as Adrian's*
39 *most recent example has illustrated.*
40

41 She says she is going to step away and let Justin decide if
42 her staff are required or not. So that's 28 July, keeping
43 in mind that the issue was raised, it appears from
44 Mr Hunt's evidence, some time at the end of 2015.

45
46 We come now to that point that was mentioned earlier,
47 Commissioner, about a workaround. Can we turn to

1 [FSS.0001.0051.5190].
2

3 THE COMMISSIONER: So five months have passed, and not
4 a step has actually been taken even to obviate the risk,
5 let alone find out why this has been happening, so nothing
6 has changed?
7

8 MS HEDGE: That's right, at this stage. So we come to
9 8 August 2016. Could we zoom in on the top half, perhaps,
10 of that page. Thank you. This is an email from Mr McNevin
11 to his team - that is, the evidence recovery team. He says
12 in his first sentence:
13

14 *Due to concerns and identified potential*
15 *risks associated with the possibility of*
16 *missing semen with current ER processes, we*
17 *are making a minor change to processes*
18 *effective immediately.*
19

20 At this stage, it's clear that this is in response to the
21 risk that we've discussed:
22

23 *Please note that this change in process is*
24 *being done to mitigate against the above*
25 *risk, as well as buy us time to further*
26 *investigate the current process and*
27 *develop/test potential process*
28 *improvements. Please also note that this*
29 *has arisen, not because of concerns around*
30 *your ability to follow correct procedure or*
31 *identify spermatozoa or any similar*
32 *problem, but rather that the process that*
33 *was put in place at a time when*
34 *verifications/validations were new to the*
35 *department and that we were not fully*
36 *cognizant of the limitations or risks*
37 *associated with the said process.*
38

39 THE COMMISSIONER: What does that mean?
40

41 MS HEDGE: As I understand it, the process for doing
42 validations and verifications has become more and more
43 rigorous over time, particularly within forensic DNA, so
44 the validations being done now are a much more rigorous
45 thing than would have been done in 2008. In fact,
46 Mr McNevin says he cannot find a validation of the process
47 when introduced in 2008.

1
2 THE COMMISSIONER: He cannot find what?
3
4 MS HEDGE: A validation done at the time of introducing
5 that new process, the suspension method.
6
7 THE COMMISSIONER: I see.
8
9 MS HEDGE: The Commission has not investigated whether
10 that was out of the ordinary for 2008, but he has
11 identified that in 2016 as something that was different
12 than what he would have done if he was introducing the
13 process in 2016.
14
15 THE COMMISSIONER: Is the evidence going to show that the
16 lab has worked out for how long there was a process in
17 place under which samples might have been missed?
18
19 MS HEDGE: That is known because it's the time between
20 when the process was introduced in about 2008 and when the
21 workaround was introduced in almost 2016. So that time
22 period is known. But what samples there were that were not
23 processed because of a lack of sperm on the ER slide has
24 not been --
25
26 THE COMMISSIONER: They never went back to find out what
27 has been missed, so whatever has been missed has now been
28 missed and they have never looked to find out whether they
29 missed any and how many?
30
31 MS HEDGE: That's right.
32
33 THE COMMISSIONER: Is that right?
34
35 MS HEDGE: That is right. But what they did do was do
36 a piece of data analysis between August 2016 and about
37 March 2017, and I can confirm that time period when I come
38 to the document - they did a piece of data analysis of
39 samples in that period, so after the workaround, where they
40 said, "Let's look at the ones that would have been missed
41 under the previous", they had about 730 samples in that
42 data analysis, and they looked at how many of them would
43 have changed the case.
44
45 THE COMMISSIONER: I see. Well, you will come to that.
46
47 MS HEDGE: That was a relatively small number, would have

1 changed the case, and so that is likely to have fed into
2 the decision not to go back.

3
4 Just to round out that - I will deal with it in
5 greater detail, but just to round out that topic of going
6 back and finding examples, Mr Clint Cochrane, who is an
7 expert witness who has been engaged by the Commission to
8 consider this issue, identifies that that is something that
9 could be done now, and he sets out a number of criteria
10 under which the laboratory might decide which of those
11 samples which were missed in the past should now be
12 retested, because of course some of them might relate to
13 cases that have been resolved either by a plea of guilty or
14 conviction, and some of them - or acquittal, I should say,
15 resolved in any way - and some of them may also be only one
16 swab of a group of swabs, others of which came up positive
17 for spermatozoa.

18
19 So he says that it would be possible for the
20 laboratory now to go back and look for things that were
21 missed and identify particular cases. Whether that should
22 be done or not is a policy consideration that balances
23 a number of features, but he says that at least it could be
24 identified how many of them there are by applying certain
25 criteria, and then that policy decision balancing resources
26 could be undertaken, whereas at this stage, as far as the
27 Commission knows, it's not known what was missed to know
28 how to balance that decision.

29
30 THE COMMISSIONER: Remind me, what they did was for the
31 period from when the workaround started in August 2016
32 until the date they performed this analysis - was how long?

33
34 MS HEDGE: When they did the data analysis?

35
36 THE COMMISSIONER: Yes.

37
38 MS HEDGE: Approximately nine to 12 months. I will just
39 confirm that. The data analysis covered the period
40 8 August 2016 to 28 March 2017, but you were looking for
41 when - and that was reported in a draft paper in May 2017.

42
43 THE COMMISSIONER: That's about eight months' study that
44 they did?

45
46 MS HEDGE: That's right.

1 THE COMMISSIONER: And they had about 700 samples for
2 eight months?

3
4 MS HEDGE: That's right. Perhaps I can tell you the
5 details of that now rather than coming back to it later, so
6 could I have on the screen [EXP.0004.0001.0009]. This is
7 the expert report of Mr Cochrane. Could we zoom in on
8 paragraphs 47 and 48 at the bottom of the page there. So
9 this is the review: 738 samples tested between those dates
10 where sperm was not identified on the ER slide and
11 a differential extraction slide was made. Of the 738,
12 591 did not have sperm on the differential slide, either,
13 and 147 subsequently identified sperm on the differential
14 slide.

15
16 Then they looked at those 147, and as you see there at
17 48(a), 71 would have been tested by differential
18 extraction, anyway, because of presumptive testing results,
19 sample type or other results.

20
21 If we can turn then to the next page and zoom in,
22 47 samples would have progressed through DNA testing using
23 the routine cells protocol. It is less effective.

24
25 THE COMMISSIONER: Just pausing there, of those 700,
26 29 would not have progressed; all the rest would have been
27 rightly eliminated or would have progressed. Is that how
28 I read it?

29
30 MS HEDGE: In some way, that's right. Those 47 there
31 wouldn't have progressed through differential lysis but
32 would have progressed through a cell - a different protocol
33 but would have progressed in some way, that's right. 29
34 would not have been tested for DNA based on the previous
35 workflow, and then of those 29, you see there that 28 would
36 not have recovered new evidential DNA profiles because of
37 other SAIK results in the case.

38
39 Now, could I just indicate - well, we will deal with
40 all of it. And one would have recovered DNA evidence that
41 would not have been tested, so that one of the 738 would
42 have found sperm which was not found anywhere else in the
43 SAIK, is the point. That suggests limited --

44
45 THE COMMISSIONER: Well, just leaving aside what happened
46 here, about 28 samples would not have been tested, so we
47 wouldn't know what they contained; is that right?

1
2 MS HEDGE: That's right.
3
4 THE COMMISSIONER: So that's about 30 samples in the
5 period, which is six months. So about 60 samples per year
6 would not have been tested, over eight years, so that's
7 about 500 samples that went through to the keeper over that
8 period - between 400 and 500 samples?
9
10 MS HEDGE: I'm not entirely sure of that mathematics.
11
12 THE COMMISSIONER: Well, it's 30 samples, it's in
13 six months, so it's six --
14
15 MS HEDGE: I think it's - oh, yes, I suppose it is.
16 I think it's about seven or eight months. Start of August
17 to the end of March of the next year, is that eight months?
18
19 THE COMMISSIONER: August, September, October, November,
20 December, January, February, and it's the beginning of
21 March, so it's six months.
22
23 MS HEDGE: I don't mean to be argumentative, it's
24 28 March.
25
26 THE COMMISSIONER: Oh, did you say 28 March? All right,
27 so it is seven months.
28
29 MS HEDGE: So August, September, October, November,
30 December, January, February, March. I have eight.
31
32 THE COMMISSIONER: All right, eight.
33
34 MS HEDGE: So if it's eight, 30 in eight months, and eight
35 months is two-thirds of 12 months, so --
36
37 THE COMMISSIONER: Well, it's eight years.
38
39 MS HEDGE: That's right, so perhaps 40 to 50, say --
40
41 THE COMMISSIONER: So it's about 12 periods of eight
42 months, is that right, so about 400 have been missed?
43
44 MS HEDGE: Yes.
45
46 THE COMMISSIONER: Yes, go on.
47

1 MS HEDGE: And we see in (c), and moving on to
2 paragraph 49, that Mr Cochrane - and this is the way that
3 the Queensland laboratory saw it, too, that those 28 that
4 would not have recovered new evidential DNA profiles, they
5 sort of put them to one side as not being a significant
6 effect.

7
8 THE COMMISSIONER: That's because there were other results
9 in those cases.

10
11 MS HEDGE: That's right. But all I wish to add is that of
12 course in the criminal justice system, sometimes one result
13 is the one that matters, that is, if the victim or the
14 complainant says that sperm was deposited in a particular
15 place, perhaps on a hand or on a back, then it is that one
16 that matters for credit, so having other sperm somewhere
17 else in the SAIK may not be a full answer to the case.

18
19 THE COMMISSIONER: That's right.

20
21 MS HEDGE: So I just wish to add that caveat as well, that
22 it may not occur to scientists, but it is something that,
23 as a criminal lawyer, Commissioner, you would be aware of.
24 Sometimes it's the one that matters.

25
26 THE COMMISSIONER: Anyway, what we know is about that many
27 samples would not have been tested, and the implications of
28 that are unknown.

29
30 MS HEDGE: That's right.

31
32 That mathematical exercise we have done proceeds on
33 the basis that the workflow was pretty consistent through
34 that period from 2008 to 2016. Now, there is no evidence
35 that it changed, but of course there can be minor changes
36 from staff doing things in slightly different ways, and it
37 also assumes that in all of those periods there is the same
38 number of SAIKs coming in as in that period in 2016/2017.
39 So there is a few assumptions under there, but it is clear
40 that there is a large number of samples, it's not just four
41 or five, over that period that could be now looked at.

42
43 All right, so that's the data analysis. Could we go
44 back to that email on 8 August 2016 that started that
45 workaround, [FSS.0001.0051.5190]. We had looked at the top
46 of the email. Then could we look at the part under the
47 heading "The change". So it is indicated that:

1
2 *The change is around the examination for*
3 *semen/spermatozoa ...*

4
5 *... Samples that are micro negative for*
6 *sperm and AP negative are to be submitted*
7 *for Differential Lysis ...*

8
9 *... Samples that are micro negative for*
10 *sperm and AP positive, P30 negative are to*
11 *be submitted for Differential Lysis ...*

12
13 So the effect of that is that everything goes to
14 differential lysis. The additional process change is that
15 the diff lysis slide will be read. Then there is some
16 discussion about what exhibit lines might be used.

17
18 So that's the workaround and described by Ms Rika as
19 a safety net to catch the cases that might come through.

20
21 To this point, at least seven months had passed since
22 the issue was first identified, more likely eight months or
23 longer. This change to the process resolved the issue
24 moving forward because all samples would be subject to
25 differential lysis and both slides reviewed, no matter the
26 result of the initial slide assessment and the presumptive
27 tests.

28
29 However, there were some aspects that remained
30 outstanding at this point. One is, why did the issue arise
31 in the first place, and the second is what to do about
32 samples that had been analysed before the process changed,
33 and we've just dealt with the data analysis.

34
35 THE COMMISSIONER: So what happened in August was that
36 this idea was raised that, "We're missing things on the
37 microscope, so let's send everything through to the
38 differential lysis process"; is that right?

39
40 MS HEDGE: That's right.

41
42 THE COMMISSIONER: "All of these relevant samples - let's
43 send it straight through to the differential lysis process,
44 because that's the process which we know is picking up
45 sperm when there is sperm"?

46
47 MS HEDGE: At least to the greatest degree, that's right.

1 Nothing's perfect, but --

2

3 THE COMMISSIONER: Yes, yes. So is there any evidence
4 that we have seen as to why this idea didn't occur to
5 anybody when Ms Reeves first raised the problem at the end
6 of 2015?

7

8 MS HEDGE: No.

9

10 THE COMMISSIONER: All right. Because it sounds like
11 a plain and logical idea, not requiring a project to work
12 through, and in the end it was just a plain and logical
13 idea that Mr McNevin put forward --

14

15 MS HEDGE: That's right.

16

17 THE COMMISSIONER: -- but nobody thought of it eight
18 months before?

19

20 MS HEDGE: Well, no-one implemented it, and there's no
21 evidence of discussion about it or proposal of it, yes.

22

23 THE COMMISSIONER: Or even of the need to think of
24 something like that?

25

26 MS HEDGE: That's right. And this didn't come out of the
27 project per se. The project was still just at --

28

29 THE COMMISSIONER: No, I understand that. That's what
30 I mean, that you can have your project, but this was an
31 idea that had nothing to do with experiments and
32 statistical analysis. This was just a notion that, well,
33 if method A doesn't work and we have found that method B is
34 working in picking up these things, let 's just go straight
35 through to method B. It just baffles me why that
36 proposition didn't occur to anybody at around the time that
37 the issue was first raised by Ms Wilson and Ms Reeves.

38

39 MS HEDGE: Yes.

40

41 THE COMMISSIONER: But we don't know why?

42

43 MS HEDGE: And they did continue to do the evidence
44 recovery slide, but they just always - they just did both
45 slides for every case rather than --

46

47 THE COMMISSIONER: After August?

1
2 MS HEDGE: That's right.

3
4 THE COMMISSIONER: But before that, for eight months, they
5 continued with the process that was leading to error?
6

7 MS HEDGE: They just continued, that's right.

8
9 THE COMMISSIONER: It doesn't sound very scientific.

10
11 MS HEDGE: It's something we can take up with Mr McNevin
12 and Mr Howes. They were the ones in charge of that
13 decision.

14
15 THE COMMISSIONER: Yes.

16
17 MS HEDGE: And Ms Brisotto.

18
19 On 16 August, the project proposal was circulated, and
20 there was feedback from management committee members.
21

22 In October 2016, there were steps taken by the
23 executive director, Paul Csoban, to engage Livingstones
24 Australia to investigate concerns about the laboratory.
25 Some of those concerns or investigation topics related to
26 Ms Reeves and Mr McNevin and their personal interaction,
27 which is of less concern to the Commission than the more
28 general investigation into the poor working relationship
29 between the substantive team members of the management
30 team.
31

32 So while the project continues, there is also this
33 culture/human resources type investigation occurring, which
34 you have heard evidence of from some of the scientists.
35 For example, you might remember Ms Keller, Angelina Keller,
36 indicated that when she had her interview with
37 Livingstones, they just asked her about Mr McNevin and
38 Ms Reeves, who she preferred working with and their working
39 styles, and so on. So this becomes part of the story of
40 this project, that there is a coincident - well, not
41 coincident - there is another investigation about culture
42 occurring at the same time.
43

44 Mr McNevin says in his statement that the culture of
45 the laboratory generally did decrease or become worse in
46 this period 2016/2017. In his view, that had an impact on
47 the speed with which this project continued.

1
2 In November 2016, Ms Reeves went on leave from the
3 laboratory, and around this time there were some
4 workplace-related meetings about Ms Reeves and about her
5 role in the laboratory which are not relevant to the
6 Commission and we don't intend to go into in depth or at
7 all.

8
9 Can we turn, then, to a different aspect of this.
10 Part of the interaction with Ms Reeves was that Ms Reeves
11 maintained concerns about the process and looking backwards
12 at previous samples past the workaround. So while some
13 were satisfied with the workaround - Ms Rika was satisfied
14 that it was a safety net at least, even if she wasn't
15 satisfied that it was a root cause analysis - Ms Reeves
16 remained concerned and expressed those concerns.

17
18 In January 2017 Ms Cathie Allen and Mr Paul Csoban
19 started to prepare a brief to go to ESR, which is the
20 laboratory that does, among other things, forensic DNA
21 analysis in New Zealand.

22
23 Could we have on the screen [FSS.0001.0079.3192].
24 Does that document have another page? No. That's the
25 email where Mr Csoban and Ms Allen discuss the brief.
26 Could we then turn to [FSS.0001.0066.9377]. Sorry, that's
27 not the right document. Can we take that down. That might
28 resolve the redaction issue.

29
30 Could we have instead, please, operator,
31 [FSS.0001.0024.1535 at 1536]. This is the terms of
32 reference or instructions given to ESR. Could we zoom in
33 on the "Background" first, please. The issue that is
34 identified in the first sentence is accurately identified,
35 that is:

36
37 *... raised specifically regarding*
38 *spermatozoa negative, acid phosphatase --*

39
40 which is the presumptive test --

41
42 *negative sexual assault samples, however*
43 *a review of the processing of SAIKs would*
44 *be appreciated in the spirit of continuing*
45 *quality improvement.*

46
47 Then under the "Terms of Reference", you see:

1
2 *The objective ... is to examine the*
3 *processing of sexual assault investigation*
4 *kits ... to ascertain its validity as an*
5 *acceptable, scientific process.*
6

7 There are four dot points of what the ESR review will
8 cover. None of those are email advice of the difference
9 between the ER slide and the diff lysis slide.
10

11 If we can go back to the top of the page, under
12 "Background", there is an indirect reference there
13 indicating spermatozoa negative, but there is nothing in
14 this document that indicates that the negative is on the ER
15 slide when sperm were seen on the diff lysis slide, or
16 something of that specificity, to identify what the problem
17 was that was raised by staff.
18

19 There is also no reference in here to Project #181 or
20 the workaround put in on 8 August. So essentially --
21

22 THE COMMISSIONER: Just pause for a moment so I understand
23 it. ESR, of course, is a recognised world-class facility
24 for DNA testing?
25

26 MS HEDGE: Yes.
27

28 THE COMMISSIONER: In fact, we've retained somebody from
29 ESR to give expert advice in this Commission, haven't we?
30

31 MS HEDGE: Yes.
32

33 THE COMMISSIONER: So they are being told that an issue
34 has been raised regarding spermatozoa negative, and the
35 objective of the review, under "Terms of Reference", is to
36 examine the processing of these examples, and what ESR is
37 being given are the standard operating procedures, relevant
38 ones, and something called a "small report titled
39 'AP Paper'". Do we know what that is?
40

41 MS HEDGE: AP is one of the presumptive tests, and it
42 relates to false positives, so that is when a sample would
43 test positive for seminal fluid using acid phosphatase, but
44 it was a false positive, so it's not --
45

46 THE COMMISSIONER: So they are given standard documents
47 from the lab, but ESR is not being told that they are

1 missing cases that ought to produce DNA?
2
3 MS HEDGE: That's right.
4
5 THE COMMISSIONER: All right.
6
7 MS HEDGE: That paper was prepared by Valerie Caldwell and
8 Allan McNevin. It's effectively like a short journal
9 article.
10
11 THE COMMISSIONER: You mean the AP paper, you're talking
12 about?
13
14 MS HEDGE: Yes.
15
16 THE COMMISSIONER: Yes, all right.
17
18 MS HEDGE: I can bring it up on the screen --
19
20 THE COMMISSIONER: No, no. I just wanted to know what it
21 related to.
22
23 MS HEDGE: Yes. I will just put it on the screen briefly
24 just to deal with the start of it. It's
25 [FSS.0001.0066.9267]. Can we zoom in under "Incident",
26 please. On 8 November 2016, a negative control gave
27 a false positive AP result when testing was performed using
28 the large filter paper sheets. Obviously a negative
29 control should have no seminal fluid on it, because it
30 should have nothing on it, and it tested positive for
31 seminal fluid or semen. So that was the issue. The
32 relevance of this is that not only was the ESR not briefed
33 on the specifics of the issue raised by Amanda Reeves, they
34 were briefed on the specifics of this other issue.
35
36 THE COMMISSIONER: Which was not a problem at the time -
37 at least it was not the problem at the time?
38
39 MS HEDGE: Yes. It is a problem to have a negative
40 control come up like that --
41
42 THE COMMISSIONER: Yes.
43
44 MS HEDGE: -- but presumptive tests are notoriously
45 imperfect. So it was not the issue that Amanda Reeves was
46 raising, and as we will see, the ESR report was then linked
47 to Amanda Reeves' issues rather than being linked to these

1 other issues.

2
3 THE COMMISSIONER: So she was expressing her frustration -
4 we saw one of her emails in which she said she was freaking
5 out and another in which she said she had tried and tried
6 and tried to have this issue raised. This was at a time
7 when samples were going through the same procedure, with
8 the risk that relevant evidence was being missed. And then
9 after that, there is a controversy between her and
10 management staff about her insistence about this matter,
11 I take it?

12
13 MS HEDGE: That's right. The details are not necessary
14 for the Commission, but that issue continued to be raised
15 by Ms Reeves during discussions about her workplace issues.

16
17 THE COMMISSIONER: Yes, so in order to put the issue to
18 bed, among other things, ESR is briefed to have a look at
19 sperm microscopy and the sperm identification and testing
20 process, and they're not told about the single greatest
21 issue that affects that process that arose in 2016;
22 instead, they are given the standard documents to have
23 a look at?

24
25 MS HEDGE: That's right, and that big issue was the
26 impetus for the project which was then ongoing, and it's
27 not mentioned there, either.

28
29 THE COMMISSIONER: Yes, yes. The one big issue concerning
30 that process was something that they are not told about.
31 All right, so that brief goes out to them. Where do we go
32 next?

33
34 MS HEDGE: On 3 February 2017, Paul Csoban wrote to Amanda
35 Reeves about her return to work and told her that there was
36 a scientific investigation ongoing. Can we put that on the
37 screen, [FSS.0001.0067.0539], and can we turn to page 3 of
38 the document. This is the "Outstanding issues with the
39 scientific process". It indicates here - this is the
40 letter from Mr Csoban to Ms Reeves - that she had
41 previously raised issues about the integrity of the
42 scientific tests that were undertaken. In the third
43 paragraph, he says:

44
45 *... I have engaged an external report, to*
46 *undertake a further scientific*
47 *investigation and provide a report ...*

1
2 So there is discussion there about how she might return to
3 work while her concern about the scientific process
4 remained.

5
6 Can we turn to page 4, and there should be a heading
7 "Options" on that page, "Available options". Alternative
8 options for duties for Ms Reeves were identified there,
9 including a temporary role in research or a temporary
10 scientist role working within Pathology Queensland. We
11 know from the evidence we have heard that there was
12 a research project that Ms Reeves did when she did return
13 to the workplace.

14
15 Could I turn then to 8 February - so we are in
16 February 2017 now - and to a briefing note that Ms Allen
17 drafted for the director-general about this Amanda Reeves
18 issue. [FSS.0001.0024.0924].

19
20 THE COMMISSIONER: Before you go there, could you go to
21 the previous page of this document. In the fourth
22 paragraph, if you could highlight that, please - at
23 a meeting in January 2017, apparently Ms Reeves had said it
24 wouldn't be appropriate for her to review sexual assault
25 cases as a reporter or give evidence about them because of
26 her ongoing concerns. Do I understand that to mean that
27 having regard to her doubts about the integrity of the
28 testing system up to August 2016, she was not prepared to
29 give opinion evidence as though the process was working
30 well, or what, do you know?

31
32 MS HEDGE: I don't believe it was said in such a blanket
33 way. By that, I mean that it may be that in a particular
34 case, if she was asked, she would have to express her
35 opinion or her doubts about the process. It would all
36 depend on the particular case and the particular testing
37 that was done, because there might be cases from before
38 August 2016 where the differential lysis slide was prepared
39 and read, and so then she would have no concerns about that
40 particular case. But there was a risk.

41
42 THE COMMISSIONER: So if she had concerns about the
43 integrity of the testing in cases where semen samples were
44 involved, why would it be inappropriate for her to give
45 evidence in accordance with the truth as she saw it? Why
46 should she be prevented from giving evidence about her
47 doubts about the integrity of the process if she had doubts

1 about the integrity of the process?

2

3 MS HEDGE: Well, I don't say it would have been
4 inappropriate for her to do that, but the Commission hasn't
5 investigated any particular case where that risk arose. As
6 I understand it, this was a discussion about the risk of it
7 as opposed to --

8

9 THE COMMISSIONER: Yes. What I mean is that the risk that
10 is spoken of is that somebody whose expert opinion is that,
11 "I can't give you an absolute opinion about this because
12 I have no faith in the way the semen samples were
13 processed", would be giving that evidence.

14

15 MS HEDGE: Yes, well --

16

17 THE COMMISSIONER: And if it's true, what's the risk that
18 was being spoken of?

19

20 MS HEDGE: I understand the risk would be that while that
21 was her belief, that may not have been the true state of
22 affairs, in the sense that at this stage she has been on
23 leave and so her knowledge of the intricacies of the
24 process may be --

25

26 THE COMMISSIONER: But everybody knew that samples were
27 being missed and that a workaround had been put in place
28 that would catch those samples henceforth, so what was the
29 inappropriateness of her giving expert evidence because of
30 her concerns in that respect? I'm not asking you to - I'm
31 asking you whether we know what - I don't understand that
32 paragraph.

33

34 MS HEDGE: I think the answer is we don't know. We don't
35 know the specific concern, and, can I say, just looking at
36 the wording of that, it does say Ms Reeves "accepted", as
37 opposed to Ms Reeves "said" --

38

39 THE COMMISSIONER: Yes, that's right, yes.

40

41 MS HEDGE: -- written in that particular language. That
42 may not be accepted by Ms Reeves, and the intent of counsel
43 assisting is to not descend necessarily into the --

44

45 THE COMMISSIONER: No, no, the rights and wrongs of human
46 resources issues - that is, staffing issues - are
47 peripheral, although some of them are important, of course.

1 But the story so far is that something is going wrong with
2 microscopy when looking for semen, and everybody knows that
3 as a consequence some samples might have been missed, and
4 it took eight months - longer, actually - from the time
5 when the issue was first raised in 2015, according to the
6 evidence you have opened, for anything to be done about it.
7 So I think we've agreed that about 400 samples might have
8 been missed - anyway, a not-insignificant number of
9 samples --

10
11 MS HEDGE: Yes.

12
13 THE COMMISSIONER: -- the forensic significance of which
14 is unknown, and if an expert from FSS goes to court and
15 gives evidence in accordance with those truths, unless
16 there was something else that was concerning Ms Reeves that
17 made her an inappropriate expert witness for FSS to offer,
18 I don't see why telling the truth about that - but, anyway,
19 you don't know the answer yet, so we'll see what happens.

20
21 MS HEDGE: Thank you. The risk is described by Ms Allen
22 in this draft briefing note, at least as she perceives it,
23 so [FSS.0001.0024.0924]. Can we turn down to 1.8 and 1.9
24 at the bottom of the page there. So there is a threat of
25 a public interest disclosure. At 1.9, it says that risk
26 mitigation steps have been introduced and a scientific
27 review of those kits has been commenced, so it indicates
28 what the review is.

29
30 Can we turn to the next page, please. In paragraphs 2
31 to 5, it indicates that while Ms Reeves has obtained
32 a clearance to return to duties, an offer of alternative
33 employment has been made.

34
35 THE COMMISSIONER: The last sentence of paragraph 2
36 suggests she hadnot agreed it would be inappropriate for
37 her to give evidence. All right. Number 3 is what you are
38 talking about?

39
40 MS HEDGE: Yes.

41
42 THE COMMISSIONER: Well, I don't understand that at all.
43 Anyway, it will become clear. Don't hold up things for
44 that reason.

45
46 MS HEDGE: Yes. And that is the risk, as I say, as
47 drafted by Ms Allen, as I understand it.

1
2 THE COMMISSIONER: Paragraph 4:

3
4 *If Ms Reeves were to provide evidence that*
5 *processing of sexual assault evidence was*
6 *inadequate ... the community would lose*
7 *faith in the scientific work ...*
8

9 MS HEDGE: That's right, that's the risk that has been
10 identified.

11
12 THE COMMISSIONER: And the inadequacy we're speaking of is
13 that period during which samples were probably being
14 missed? There is no other inadequacy that we are talking
15 about, is there?
16

17 MS HEDGE: No, that's right, but perhaps at this stage it
18 may be - and I don't know, but it may be that different
19 people in the laboratory had different views about how much
20 might have been missed, if anything, so whether those
21 examples that were coming up in late 2015, early 2016 were
22 an anomaly as opposed to a systemic issue. Mr McNevin
23 says, for example, that he is not necessarily convinced
24 that there was a systemic issue as opposed to a number of
25 anomalies which do exist in forensic DNA analysis.
26

27 THE COMMISSIONER: I see, all right. That is to say,
28 Ms Reeves' concerns might have been unreasonably - they
29 might have been overblown? She might have been overly
30 concerned about something that didn't warrant that degree
31 of concern?
32

33 MS HEDGE: That's right.

34
35 THE COMMISSIONER: Therefore, you can't have those
36 concerns being aired when they weren't justified in the way
37 she saw it; is that what you are saying?
38

39 MS HEDGE: That's right, that's right, because the science
40 is not perfect, so missing a couple of samples - a couple,
41 you know, a very small amount - may not indicate a greater
42 problem with the whole process, that's right. So there's
43 a difference of opinion about that. So if Ms Reeves'
44 concern was an unreasonable one, then it would not be
45 a good outcome for that evidence to be given and then call
46 into question what is otherwise an acceptable process. But
47 that's what the evidence will bring out, whether that

1 risk --

2

3 THE COMMISSIONER: Yes, all right. Yes, I understand. We
4 will see how it comes out.

5

6 MS HEDGE: How that risk was dealt with and how
7 significant it was.

8

9 Mr Cochrane, I should say, holds the view that there
10 were sufficient examples, from what he has seen, that there
11 should have been an OQI raised or an adverse event raised
12 and there should have been some urgent attention paid to
13 this. So, in his view, there was a sufficient risk to do
14 something quickly.

15

16 Can we move then to March 2017. Mr Csoban wrote to
17 Crown Law about Amanda Reeves, and this is an attachment to
18 Ms Allen's statement, [WIT.0019.0016.0001 at 0877]. It is
19 the middle email. In that first paragraph there, Mr Csoban
20 says that:

21

22 *Amanda is currently removed from the*
23 *reporting section but has been placed into*
24 *a project role outside of DNA pending*
25 *outcome of the HR Review and also the*
26 *Scientific review of the process she is*
27 *challenging.*

28

29 THE COMMISSIONER: I see. So the basis for the ESR review
30 was that they were reviewing the scientific process that
31 gave rise to Ms Reeves' concerns?

32

33 MS HEDGE: I'm sorry, I just didn't catch that?

34

35 THE COMMISSIONER: The basis for the ESR review was that
36 it would be examining whether Ms Reeves was justified in
37 the concerns that she was expressing and that, if called
38 upon to give evidence, she might have occasion to voice in
39 open court?

40

41 MS HEDGE: And that's how it is portrayed by Mr Csoban in
42 this email, that the ESR review has some responsive feature
43 to her concerns.

44

45 THE COMMISSIONER: Yes.

46

47 MS HEDGE: But as we looked at the terms of reference --

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THE COMMISSIONER: It didn't.

MS HEDGE: -- it didn't. It looked at the process that she was concerned about, but it didn't tell them, "This is the thing that we have seen" --

THE COMMISSIONER: It looked at the process that was being used that actually gave rise to the problems.

MS HEDGE: That's right. So without the factual circumstance of having seen the sperm on the diff lysis slide but not on the ER slide, there is no indication - it's perhaps not apparent to ESR what the issue is. Mr Cochrane says that about the process before the workaround - the process at the start of 2016. He says that process is fine if it works. And so if it's not working, then there is some problem, and that's what these particular examples show. But ESR weren't told the particular examples or the particular problem.

THE COMMISSIONER: They weren't being told that the process they were being asked to look at wasn't working.

MS HEDGE: That's right, or at least had some examples of that, that's right.

THE COMMISSIONER: Well, it has to work in every case. Variability in measurement and the occasional failure might be inherent in any scientific process, but that's not what Mr Pippia and Ms Wilson were talking about when they were raising these issues in their emails.

MS HEDGE: That's right, because they had started to see a few, that's right.

THE COMMISSIONER: That's not what management thought was happening, because they generated at least a project and a workaround - two things - to deal with it. So this wasn't scientific variability; this was a failure that required action, and action was being taken - slow that it might have been, but action was being taken.

MS HEDGE: Yes. That may not be wholly agreed across the laboratory - for example, Mr McNevin says of course you would start a project and gather data, but the purpose of that is to determine whether there is a problem. So he

1 wasn't necessarily accepting that there was a problem when
2 he started to look at this.

3
4 THE COMMISSIONER: I see, all right.

5
6 MS HEDGE: But, yes, we will hear more from these people
7 about that.

8
9 Can we turn, then, to [WIT.0019.0016.0001 at 0746].
10 Could we just turn to the page before that, I'm sorry.
11 This is an email from Ms Allen to lawyers at Clayton Utz,
12 who were briefed to give advice about Ms Reeves, and if we
13 can turn back to the second page, in about the fourth-last
14 paragraph:

15
16 *I've attached the Australian and*
17 *New Zealand Forensic Science Study ...*
18

19 THE COMMISSIONER: Who is Ms Allen writing to?

20
21 MS HEDGE: To a lawyer at Clayton Utz --

22
23 THE COMMISSIONER: Right, at Clayton Utz, yes, sorry.

24
25 MS HEDGE: -- who were briefed to give advice about the
26 Amanda Reeves situation.

27
28 THE COMMISSIONER: What's the date of this?

29
30 MS HEDGE: 9 March 2017.

31
32 THE COMMISSIONER: All right.

33
34 MS HEDGE: Ms Allen indicates what she says might be
35 a breach of a code by Ms Reeves, but that's not the present
36 purpose of this paragraph. Rather, it says what ESR said:

37
38 *... given that ESR have said that we have*
39 *a sound, scientific procedure, if Amanda*
40 *were to not accept this, then perhaps she's*
41 *not being objective ...*
42

43 Again suggesting that there is a connection between what
44 ESR were asked to do and what Ms Reeves has raised.

45
46 Could we turn, then, to when the report is obtained
47 from ESR. At first it's a draft, but it becomes the final

1 report. That was in late March 2017. So could we look at
2 [FSS.0001.0079.3295]. In short compass, the report found
3 that there was no concern about that process. This is the
4 email attaching the report from ESR and sending it to these
5 people, from Mr Csoban. Importantly, Jade Franklin is an
6 HR person within Queensland Health. That's 23 March.

7
8 Can we then turn to [FSS.0001.0079.3297]. So in the
9 context of everything that has gone before, it is clear
10 that at least some people have the impression that this
11 relates to Amanda Reeves' concern. Can we turn to the
12 email right at the bottom of the page there from Jade
13 Franklin. Commissioner, you see in the third sentence Jade
14 writes:

15
16 *Is it a problem that the report does not*
17 *comment on the fact that Ms Reeves is wrong*
18 *in her thinking?*

19
20 *In terms that "false negative" issue*
21 *Ms Reeves discusses is not an issue at all.*

22
23 THE COMMISSIONER: What does that mean?

24
25 MS HEDGE: It's just not in the report, because they
26 weren't asked to consider that issue. So there's just
27 nothing about it.

28
29 Jade Franklin identifies that. Then can we turn to
30 [FSS.0001.0079.3299]. This is a response - sorry, could we
31 scroll down to the next page, please, sorry, back to
32 page 1. Sorry, I don't think that's the right email. In
33 any case, Ms Allen responds and does not identify exactly -
34 does not say anything in response to that point made by
35 Jade Franklin about whether it is a problem that the report
36 doesn't comment on Ms Reeves' issue.

37
38 Can we then turn to advice given by Clayton Utz in
39 late March 2017. It is [FSS.0019.0021.0001]. Again, all
40 these documents, while they have lots of material about
41 Ms Reeves, are really directed by counsel assisting to this
42 ESR report issue. Could we turn to page 6 of that document
43 and could we zoom in on the "ESR Scientific Report" part,
44 please. Clayton Utz indicate they "have reviewed the ESR
45 Scientific Report":

46
47 *Whilst it appears to support HSQ's current*

1 *testing process, it is not clear whether it*
 2 *also [considered] the testing process in*
 3 *place prior to August 2016.*
 4

5 In fact, Mr Cochrane's view is that it was the previous
 6 process that they considered, because the workaround wasn't
 7 advised to them and the standard operating procedure hadn't
 8 been amended by the time it was sent to them.

9
 10 In any case, Clayton Utz said:

11
 12 *In our view, this needs to be clear if it*
 13 *is to be presented to Ms Reeves.*
 14

15 THE COMMISSIONER: So that relates to the first
 16 paragraph on that page, namely, that Ms Reeves was
 17 insisting on going back to her original job, and the only
 18 reason that's put forward as to why she can't go back to
 19 her original job is that it was said to be inappropriate
 20 for her to be involved in assessing sexual assault case
 21 samples because of a risk, and that was based upon
 22 a rejection of her concern about how such samples were
 23 tested until August 2016, and Clayton Utz are being told
 24 that the ESR report has addressed the mode of testing by
 25 the lab in absolute terms and has given it a big tick.

26
 27 MS HEDGE: Yes, that's right.

28
 29 THE COMMISSIONER: But unknown to Clayton Utz - well,
 30 Clayton Utz then pick up in paragraph 7 that the ESR report
 31 doesn't actually address what Ms Reeves is concerned about.

32
 33 MS HEDGE: That's right, not the specific issue.

34
 35 THE COMMISSIONER: All right, so where do we go then?

36
 37 MS HEDGE: Then in April 2017, Mr Csoban met with Amanda
 38 Reeves and her legal representatives, and it was made clear
 39 that a willingness to abide by the outcome of the ESR
 40 review was required of Ms Reeves in order for her to be
 41 permitted to return to her substantive role, although there
 42 is no evidence that she was ever given a full copy of the
 43 report or of the terms of reference.

44
 45 There is a number of other further HR-related matters
 46 involving Ms Reeves' position, and in September 2017 there
 47 was a letter written about her return to her substantive

1 position. Could we turn to [FSS.01 - I'm sorry, I don't
2 think we need that document. There was an email about her
3 actual return, and she did return for some short period to
4 her substantive position before eventually leaving the
5 laboratory.

6
7 In the meantime, the Project #181 continued, and while
8 I will tender the particular documents that form part of
9 Project #181, Mr Cochrane has summarised them in his
10 report, so it is convenient to look at it that way.
11 [EXP.0004.0001.0001 at 0002]. Could we just zoom in on
12 this table. We can see that there is a number of parts of
13 this project.

14
15 Part 1 looked into the current microscopy method
16 sensitivity - that is, how good it was at picking up
17 spermatozoa, including the presumptive tests.

18
19 Then in part 2, there was an alternate microscopy
20 preparation method using a spin basket.

21
22 Can we then turn over on to the next page. Thank you.
23 Part 3, which was done in May 2018 - and these dates are
24 the dates of commencement - they looked at the viability of
25 varying ER sample suspension volumes to allow for
26 presumptive screening.

27
28 Part 4, optimisation of ER suspension incubation
29 conditions.

30
31 Part 5, effects of different variables on AP
32 performance - that's one of the presumptive tests.

33
34 Part 6, further attempts to optimise the performance
35 by reducing suspension volume.

36
37 Part 7, different substrates and semen donor source.

38
39 And at the end, there was a new modified protocol
40 implemented about the use of a presumptive test. So you
41 can see, Commissioner, that none of those parts are a root
42 cause analysis of why the ER slides weren't showing sperm
43 in those particular examples or more broadly, as was
44 identified by the scientists.

45
46 THE COMMISSIONER: Just to go back to the commencement,
47 which was in August 2016 - is that Project #181 we are

1 talking about?

2

3 MS HEDGE: Yes.

4

5 THE COMMISSIONER: Yes, on page [EXP.0004.0001.0001 at
6 0002], yes. So the project begins in August. If we look
7 at the entry for April 2017, they are trying an alternate
8 preparation method for microscopy; correct?

9

10 MS HEDGE: Yes.

11

12 THE COMMISSIONER: In May 2018, they are exploring the
13 viability of varying suspension volumes. In short, upon
14 the launch of the project, they are trying different
15 methods on the basis that the methods outlined in the
16 standard operating procedure were giving rise to problems?

17

18 MS HEDGE: Yes, although I'm not sure that was accepted by
19 Mr McNevin, but he was trying to optimise the procedure, in
20 any case. Whether there was a problem or not, his aim was
21 to optimise the procedure.

22

23 THE COMMISSIONER: Yes, but the trouble is that ESR were
24 being given the standard operating procedures in print
25 without being told anything about this?

26

27 MS HEDGE: That's right. That perhaps is only a problem
28 depending on how you use the ESR report. If you use it for
29 what it is, then there is --

30

31 THE COMMISSIONER: Well, that raises the question, what is
32 the purpose of getting a report from ESR looking at the
33 printed standard operating procedures and asking for an
34 opinion about them, when in the background you have
35 scientists complaining about the viability of the system
36 and a scientist engaging in a project trying to improve the
37 system for some reason or other. Anyway, we will find all
38 that out in due course. Where do we go next, then,
39 Ms Hedge?

40

41 MS HEDGE: Can I deal briefly - that's effectively the end
42 of the history of the matter, and you will have seen that
43 the end of the project is in 2020. So in total, the
44 project went for about four years. That is another issue
45 that the Commission engaged Mr Clint Cochrane to consider,
46 and he considered that that also was a long period of time
47 and that the matter should have been able to be done more

1 quickly.

2
3 Can I briefly open Mr Cochrane's evidence. He will
4 give evidence after the opening, perhaps after the morning
5 break. He concluded that the workflow before the issue was
6 identified --

7
8 THE COMMISSIONER: Do you want to have the break now,
9 before getting on to Mr Cochrane's report?

10
11 MS HEDGE: I will only be a few minutes. I'm just opening
12 it --

13
14 THE COMMISSIONER: Right, yes, go ahead.

15
16 MS HEDGE: He concluded that the workflow, as I said, was
17 best practice as long as each of the processes was working,
18 but, in his view, the number of examples of sperm not being
19 found on the ER slides but found on the diff lysis slide
20 warranted an OQI or an adverse event. After that, though,
21 performing a project was not concerning to Mr Cochrane.

22
23 There were two delays in the case: one is that first
24 delay that we have discussed between late 2015 and August
25 2016, and the other is the whole of the project, and both
26 were concerning to him.

27
28 In terms of the ESR report, he notes that they were
29 not advised of the particular issue.

30
31 His view, and perhaps most importantly in terms of
32 moving forward from here, is that by 2020, using Y-STR
33 processes was best practice in Australia, not using sperm
34 microscopy at all. So in his view, by the time this
35 project finished, what the laboratory should have been
36 focused on was not optimising sperm microscopy but
37 obtaining Y-STR capability.

38
39 THE COMMISSIONER: The Y-STR process is a process that
40 concentrates attention by various chemical means upon the
41 male DNA content of any sample?

42
43 MS HEDGE: Yes, that's right. It separates the male DNA
44 and it looks at only that.

45
46 THE COMMISSIONER: So that if you have a huge amount of
47 female DNA and a tiny amount of male DNA, whereas the

1 normal process would give prominence to the female
2 component and, I think the expression is, it might swamp
3 the male component because it's so small by comparison, the
4 Y-STR method concentrates solely upon the male component of
5 the DNA if it is there, and then the male component can be
6 looked at without the female component having an influence
7 upon the profile that results, so you get a cleaner picture
8 of the male DNA, whatever it is worth.

9
10 MS HEDGE: That's right, and by 2020, Mr Cochrane's view
11 is that that was best practice in Australia.

12
13 THE COMMISSIONER: Did FSS have that capacity to do work
14 in that way?

15
16 MS HEDGE: They did not, and they still do not. There is
17 a project ongoing, which Dr Kogios and Ms Baker, the
18 experts looking at the current operation of the lab, can
19 speak about the week after next. So there is a project
20 ongoing, but the lab has not yet been able to validate
21 Y-STR, so it still lacks that capability.

22
23 In terms of witnesses that relate to this topic,
24 Mr McNevin will be called after Mr Cochrane. It may be
25 that he is the only other witness called to give oral
26 evidence and that others will simply be dealt with by their
27 written statements, other than, of course, Mr Howes,
28 Ms Allen and Mr Csoban, who will all be called in the next
29 two weeks or so.

30
31 THE COMMISSIONER: Yes.

32
33 MS HEDGE: If now is a suitable time for the morning
34 adjournment, we can set up the videolink for Mr Cochrane.

35
36 THE COMMISSIONER: Yes. It's 25 past 11. Shall we resume
37 at a quarter to 12?

38
39 MS HEDGE: Thank you.

40
41 **SHORT ADJOURNMENT**

42
43 THE COMMISSIONER: Yes, Ms Hedge?

44
45 MS HEDGE: Just before I call the next witness, could
46 I deal with the documents that I tender.

1 THE COMMISSIONER: Yes.

2
3 MS HEDGE: There is an index, which I will tender as an
4 exhibit, but can I just indicate some small amendments,
5 given some of those documentary difficulties we encountered
6 in the opening.
7

8 For the parties who have this document, item 28 will
9 have a new FSS number, and the description should be "Email
10 from Allan McNevin to Amanda Reeves". There will be a new
11 34A, which is [FSS.0001.0067.6325], an email from Justin
12 Howes to Allan McNevin, dated 12 May 2016. And number 51
13 now has a number [WIT.0029.0005.0001].
14

15 What I propose, Commissioner, is that I give you this
16 index, which has some handwritten amendments, at least as
17 a placeholder. If you could give it an exhibit and then an
18 exhibit number for the bundle of documents.
19

20 THE COMMISSIONER: Yes. The list of documents to be
21 tendered in relation to the sperm microscopy issue is
22 exhibit 90.
23

24 **EXHIBIT #90 LIST OF DOCUMENTS TO BE TENDERED IN RELATION TO**
25 **THE SPERM MICROSCOPY ISSUE**
26

27 THE COMMISSIONER: The bundle of documents in relation to
28 the sperm microscopy issue is exhibit 91.
29

30 **EXHIBIT #91 BUNDLE OF DOCUMENTS IN RELATION TO THE SPERM**
31 **MICROSCOPY ISSUE**
32

33 MS HEDGE: We will replace that with a fully updated clean
34 index when we can.
35

36 THE COMMISSIONER: Thank you.
37

38 MS HEDGE: Thank you. The next witness is by videolink.
39 It is Mr Clint Cochrane. I call Mr Cochrane.
40

41 **<CLINTON MARK COCHRANE, affirmed: [11.54am]**
42

43 **<EXAMINATION BY MS HEDGE:**
44

45 MS HEDGE: Q. Can you see and hear me, Mr Cochrane?
46 A. Yes. You're very small, but I can see you.
47

1 Q. Thank you, I think. You are Clinton Mark Cochrane; is
2 that right?
3 A. That's correct.
4
5 Q. You are the laboratory manager of Forensic Biology/DNA
6 in New South Wales?
7 A. That's correct.
8
9 Q. You have provided a report to the Commission dated
10 10 October 2022?
11 A. I did.
12
13 Q. Could I have that brought up on the screen.
14 [EXP.0004.0001.0001]. Do you see that there, Mr Cochrane?
15 A. I do.
16
17 Q. That's the first page of your report?
18 A. It is.
19
20 Q. There are two appendices to that report, the first
21 being your curriculum vitae and the second being your
22 instructions and index to brief?
23 A. Yes, that's right.
24
25 Q. Can we have a quick look at appendix A, which is
26 [EXP.0004.0002.0001]. This sets out your qualifications
27 that you have obtained?
28 A. Yes.
29
30 Q. And your current position?
31 A. It does, yes.
32
33 Q. You have held that position since 2018, so four to
34 five years?
35 A. That's right.
36
37 Q. Moving over on to the second page of that document, it
38 sets out at the top of the page, if we can zoom in there,
39 please, operator, your previous relevant experience in
40 forensic DNA?
41 A. Yes, that's right.
42
43 Q. So you have been working as a biologist at one level
44 or another, in increasingly higher levels, since 2002; is
45 that right?
46 A. Yes, that's right.
47

1 Q. So 20 years in this field?

2 A. Yes, a little bit over.

3

4 Q. Is it the case that you have had a particular research
5 interest in sexual assault-type casework, including the
6 presentation of sexual assault investigation kit evidence;
7 is that right?

8 A. Yes, that's right.

9

10 Q. Thank you. You were engaged by the Commission to deal
11 with a topic that at least here we've been referring to as
12 sperm microscopy?

13 A. Yes.

14

15 Q. You were asked a number of questions about how the
16 laboratory dealt with that issue that arose in late 2015 or
17 early 2016; is that right?

18 A. That's correct.

19

20 Q. Can I just take you to some particular parts of your
21 report. Can we turn to page 5 of the main report, please,
22 operator, and if we can expand on the bottom half of the
23 page from the heading. Do you have your report with you,
24 Mr Cochrane?

25 A. I do.

26

27 Q. You are welcome to refer to it if it's easier than the
28 screen - whatever is easier for you.

29 A. Okay, thank you.

30

31 Q. We see there the question that was asked:

32

33 *Whether the methods, systems and processes*
34 *in relation to sperm detection, testing and*
35 *analysis was consistent with international*
36 *best practice when the issue arose in 2016.*

37

38 So this is before any actions were taken by the laboratory.
39 In paragraph 22, you conclude that they were in line with
40 best practice, assuming that those processes were working?

41 A. Yes, that's right.

42

43 Q. Is it your view that the particular instances of sperm
44 not being found on the ER slides but found on the diff
45 lysis slide suggests that the process was not working?

46 A. I think it's the disparity between the sperm densities
47 that we're seeing between the evidence recovery and the

1 differential extraction slide that leads to the conclusion
2 that it is not an optimal method used in the evidence
3 recovery process to create that sperm microscopy slide.
4

5 Q. So is it the magnitude of the difference that was of
6 particular import to you?

7 A. Yes, if they were very close, it could be just random
8 occurrences or slight differences in dilution factors
9 between the methods that could cause slight differences.
10 It was the magnitude of differences between the two sperm
11 microscopy readings that gave rise to the concerns about
12 the evidence recovery process for creating sperm microscopy
13 slides.
14

15 Q. And so the difference between - we've heard this
16 morning a little about that semiquantitative scale, but is
17 the difference between zero and 3+ a very big difference?

18 A. It is very big, yes.
19

20 Q. Can we turn, then, to page 6 of the report. In
21 paragraph 24, you say that your opinion is that those
22 multiple instances of sperm not being found in ER slides
23 but then in abundance on a differential slide would warrant
24 an OQI or an adverse event?

25 A. That's right.
26

27 Q. Does that relate to whether these issues could be
28 simply variability within the lab or a systemic problem?

29 A. The differences between the amount of sperm found
30 between those times - it didn't just happen once. If it
31 happened once, you could put it down to a one-off event.
32 The fact that it was seen on multiple occasions and raised
33 by multiple people within the laboratory over a period of
34 time would suggest that there was something of a systemic
35 nature in underperformance of the evidence recovery process
36 to make sperm microscope slides.
37

38 Q. What's the benefit of it being an OQI or an adverse
39 event as opposed to not being recorded in those quality
40 management tools?

41 A. The way that quality management usually occurs is you
42 flag that there is an issue through a mechanism within the
43 laboratory. So in Queensland, it appears that it's an OQI
44 or an adverse event. Typically you raise these notices,
45 and, from there, that leads you to an investigation in
46 terms of what is working or not working in terms of the
47 quality of that process.

1
2 Q. Can we turn, then, to paragraphs 26 to 27, and this
3 deals with the time period before which the workaround was
4 implemented in August 2016. You understand the time period
5 I'm talking about?

6 A. I do, yes.
7

8 Q. You identify in paragraph 26 that there was about
9 six months between the issue being initially flagged and
10 the initial project request and then about eight months
11 between that initial issue being flagged and the
12 workaround, and you say this meant that a suboptimal method
13 was used for approximately eight months after concerns were
14 initially voiced?

15 A. That's right.
16

17 Q. In paragraph 27, you say that's an excessive period to
18 initiate an investigation?

19 A. Yes, given those three points (a), (b) and (c) below.
20

21 Q. What sort of time period would you have expected the
22 workaround to be implemented within?

23 A. It's not only the time frame; it's the amount of times
24 that it was flagged as a concern. It happened on multiple
25 occasions within a three-month period. If there's an issue
26 that's raised as a one-off event, then a wait-and-see
27 approach is not typically that bad an idea with situations
28 like that, depending on the significance of the event. The
29 fact that it was happening on multiple occasions within
30 a few months would suggest that it was probably to be seen
31 as an issue of concern.
32

33 Throughout that period from three to six months, for
34 instance, there were on multiple occasions emails also
35 suggesting that the reporting biologists in particular were
36 quite concerned about the matter and the consequence that
37 some DNA samples might not be tested. So in that time
38 frame, I would have expected probably three months as the
39 outside limit, especially when you started seeing multiple
40 occasions being reported in a fairly short period of time.
41

42 Q. That workaround that was implemented on 8 August -
43 that is, for every case, to look at the ER slide and the
44 diff lysis slide - is that an obvious workaround or is that
45 one that would have taken a lot of effort to consider?

46 A. That workaround was effectively part of their process
47 already in their SOPs. So the evidence recovery slide is

1 one opportunity to create a slide. The differential lysis,
2 which is when a sample goes through for testing
3 specifically for semen, extraction method for semen, is
4 another opportunity to make that. So that was already an
5 option to be made within the process prior to that fix
6 being put in place. Effectively, what it meant was that it
7 was being done as a routine on all samples suspected of
8 containing semen, regardless of what the sample is. So
9 I would have said that that was a fairly logical step if
10 you were unsure about the adequateness of the evidence
11 recovery process to make slides.

12
13 Q. Did you see any reason or can you think of any reason
14 why that wasn't done in, say, March 2016, when the email
15 came from Ms Wilson indicating a further example?

16 A. Not in particular. I can't see any great reason.

17
18 Q. You say in paragraph 28 that that workflow
19 modification largely resolved the ER sperm microscopy
20 issue, ensuring that samples containing sperm progressed as
21 required. But then Project #181 continued, and so do we
22 take from that that Project #181 looked at a much wider
23 range of issues than the particular sperm microscopy issue
24 that had been raised in late 2015, early 2016?

25 A. Project #181 went through a number of different
26 phases. I think there were seven parts, from my report.
27 Originally it was looked at that they were looking at the
28 effectiveness of the evidence recovery slide process,
29 followed by trying to make a change or to check out
30 a different option for the evidence recovery slide process.
31 From that point onwards, they largely made the decision to
32 move towards the slide preparation in the differential
33 extraction part, and from that point onwards, they were
34 really trying to move towards the differential slide as the
35 port of call but also to modify the evidence recovery
36 process to maintain the ability to do presumptive testing
37 in retrospect as well.

38
39 Q. And so Project #181 did not identify a root cause of
40 the problem that was identified; is that right?

41 A. I think that there was - it was acknowledged that
42 their evidence recovery slide was not creating sperm
43 density readings in line with either the DNA results or the
44 differential slide readings. So I think that they quite
45 quickly came to the conclusion about the issue was in some
46 way in the evidence recovery preparation. They ruled out
47 that it was a personnel issue where the staff were unable

1 to visualise sperm under a microscope, so really it was
2 around the creation of the evidence recovery slide. So
3 they, in effect, did come to the cause of the issue, being
4 the preparation of the evidence recovery slide. They
5 probably didn't go to a further sub-step of why that wasn't
6 working, apart from noticing that it wasn't working prior
7 to and also in the first stage of that Project #181.

8
9 Q. Can we move forward, then, to paragraphs 47 and 48,
10 which appear on page 9. Here you deal with a data analysis
11 that was performed to look at samples that may have been
12 affected by this inadequate process. You identify there
13 that there was a data analysis of samples between 8 August
14 2016 and 28 March 2017. Do you see that?

15 A. I do.

16
17 Q. And 147 of those 738, there was a difference between -
18 there was no sperm on the ER slide and some sperm at least
19 on the differential slide; is that right?

20 A. That's correct.

21
22 Q. Now, can we go through paragraph 48 together. Of
23 those 147, (a), 71 would have been tested anyway due to
24 other sorts of results?

25 A. That's right.

26
27 Q. Can we turn on to the next page and look at (b). In
28 (b), 47 samples would have progressed through DNA testing
29 using the routine cells protocol. Can you explain what the
30 cells protocol is?

31 A. So I'll probably start with a differential protocol is
32 basically trying to separate sperm cells from the remainder
33 of the DNA. In terms of the cells protocol, that would be
34 their routine extraction protocol that's used that is not
35 performing the differential component, trying to separate
36 any cellular components. Effectively, it is extracting DNA
37 from any potential cells that are in that sample as opposed
38 to a component of the cells.

39
40 Q. You say that that method may be less effective for
41 internal swabs. Can you explain to us why that would be?

42 A. For an internal swab, typically internal swabs are
43 highly cellular-dense areas, so any competing - if you're
44 trying to find the DNA of a foreign person, so not the
45 person who owns the body cavity, they're in competition
46 with the person's own cells to try to find the other
47 person's DNA. So effectively the person's own body might

1 swamp the DNA profile, making it so you wouldn't be able to
2 visualise the component of DNA from a different person than
3 the person whose body cavity it is.
4

5 Q. How much less effective is it than the differential
6 lysis process?

7 A. For sperm, are you talking about there?
8

9 Q. Yes.

10 A. Okay. For sperm, it's very effective to be able to
11 separate the sperm cells, so effectively it renders the
12 background material irrelevant and you are targeting the
13 component of the DNA that you are interested in. So in
14 terms of not performing that differential lysis component
15 if sperm is available, what it means is that you may be
16 unable to pick up the profile of the unknown person or the
17 person who it's not their body. In terms of how much of
18 a concern this would be would be heavily based on the area
19 that the sample was taken from and also the material that
20 the external person could have left as well.
21

22 Q. So can you give a generalised - is it much less
23 effective or just a little less effective, or what's your
24 view?

25 A. If you have a significant amount of sperm, you are
26 better off using a differential lysis, because you are much
27 more likely to get a probative result.
28

29 Q. Then in (c), you have 29 samples would not have been
30 DNA tested, and, of those, 28 would not have recovered new
31 evidential DNA profiles and one would have recovered new
32 DNA evidence; is that right?

33 A. That's correct.
34

35 Q. And so in paragraph 49, you conclude, and I understand
36 the Queensland lab also concluded, that only one of 738
37 samples would have been heavily affected; is that right?

38 A. Yes, if you were using the previous --
39

40 Q. Just going back to - I'm sorry?

41 A. If it was using the previous workflow, it would have
42 been affected, yes.
43

44 Q. Can we just go back to paragraph 48 and have (b) and
45 (c) on the screen. Could I just ask you about these.
46 Given that the cells protocol is less effective than the
47 differential lysis process, is it right that perhaps some

1 of those 47 samples would also have been affected by the
2 previous workflow, because sperm would not have been
3 detected when it was in fact present?
4 A. Yes. It also probably would mean that if it was used
5 through the other method with cells, it may be that you
6 could not define the cellular component as being from semen
7 as well, which may have evidential value.
8
9 Q. And of the 28 in paragraph (c)(i), the way that was
10 calculated is whether there was a new DNA profile - ie,
11 a new person who hadn't been identified from some other
12 swab; is that right?
13 A. Yes. So these 28 samples would not have been tested
14 previously, but when they were tested, there were other
15 results within the sexual assault investigation kit that
16 would have obtained the same information or the DNA results
17 were unsuccessful or non-comparable.
18
19 Q. When you say the "same information", do you mean the
20 same identification of a person?
21 A. Yes. So I'll use the vaginal cavity for example. If
22 you took multiple samples from the internal vaginal cavity,
23 if you find a DNA result from the endocervical swab, for
24 instance, that is still indicative of pretty much the
25 internal vaginal cavity, so finding the same profile on the
26 endocervical swab, the high vaginal swab, the low vaginal
27 swab would not give you any additional information that
28 just one of those samples would have provided.
29
30 Q. I understand. Is it the case, though, that there
31 could be a case where a sample would give extra
32 information, for example, if the allegation was ejaculation
33 on to a hand or on to the back, and that's the one that was
34 missed, that swab, then the fact that that same person's
35 spermatozoa was on the high vaginal swab would actually
36 give extra information?
37 A. Yes --
38
39 THE COMMISSIONER: I'm not sure that's a question that
40 Dr Cochrane can answer better than anybody else who is
41 familiar with criminal trials.
42
43 MS HEDGE: Perhaps I should ask it in this way.
44
45 Q. That example I just gave, that would have fallen
46 within - the way they did the data analysis, would have
47 fallen within the 28, that wouldn't have made its way into

1 the number (i)?

2 A. Yes, I believe so.

3

4 Q. So is it fair to say, then, that taking into account
5 those examples that we have just done, at least one sample
6 would have been heavily affected - that's the one in
7 paragraph (c)(ii) - but there may be others that would have
8 been heavily affected, depending on the particular case?

9 A. Definitively one. The other ones - there potentially
10 could be more, yes.

11

12 Q. Thank you. Can we go back, then, to paragraph 36 of
13 your report, and this is where you deal with whether there
14 is an opportunity for retesting of these samples. I'm
15 sorry, before we go on - sorry, we can put paragraph 36 up,
16 please, from both pages, if possible. What the Queensland
17 lab did - correct me if I am wrong, Mr Cochrane - is did
18 that data analysis after the workflow had been put into
19 place and drew from that conclusions about what might have
20 been happening before the workflow was in place - the
21 workaround?

22 A. Yes, the data analysis was from the period - it was
23 roughly nine months following the introduction of both the
24 evidence recovery and the differential lysis slides both
25 being examined, so it was basically a concurrent test of
26 those first nine months to see what the believed effect
27 would be if they did a retrospective analysis of other
28 casework.

29

30 Q. Was that data analysis done as part of Project #181 or
31 was it separate?

32 A. I believe it was separate.

33

34 Q. Was there a conclusion drawn because of those
35 statistics - that is, the one out of 738 - that they
36 wouldn't do any other reconsideration of the previous
37 samples?

38 A. I believe so, yes.

39

40 Q. Here at paragraph 36, you deal with the opportunity to
41 consider retesting?

42 A. I do.

43

44 Q. You say that there should be some case-by-case
45 analysis of whether there was other evidentiary results or
46 whether there has been a conclusion to the case; is that
47 right?

1 A. Yes.

2
3 Q. And that would narrow the number of cases that might
4 benefit from retesting; is that right?

5 A. That's correct.

6
7 Q. You suggest that should be done with consultation or
8 with information sharing with police and courts,
9 potentially defence lawyers as well?

10 A. Yes. I'm doing this on the basis that - an example
11 would be a sexual assault allegation; if the consent, for
12 instance, was the area of concern, the DNA evidence is
13 unlikely to provide evidential results one way or another.
14 So I think that you could limit the amount of retesting
15 that would be required for these cases.

16
17 Q. In paragraph 37, you recommend or you say that the
18 Queensland lab should perform a data analysis to identify
19 cases fitting those criteria so that they can then
20 determine how big this task would be of checking what might
21 have been missed?

22 A. If it's practical. So it comes down to, this is
23 a while ago and obviously LIMS do make a difference of how
24 practical it is to be able to do this. Given the previous
25 data analysis that we have been talking about, it is
26 believed that the amount of samples that could be affected
27 would be minimal with this case. So if you could make an
28 easily identifiable way to be able to extract these data,
29 and there really shouldn't be that many cases that it
30 applies to, then the testing would be quite minimal, you
31 would anticipate, in this circumstance.

32
33 THE COMMISSIONER: Q. Do I understand you to mean that
34 you can get a list of cases that underwent the process, and
35 you can then get a list from police of cases that have been
36 finalised in one way or another, so you can exclude all of
37 those --

38 A. Yes.

39
40 Q. -- as your first step, for example, and then you can
41 take other steps to exclude other cases, and that would
42 leave you with a much smaller class of cases that would
43 warrant thinking about further, and, of those, maybe if you
44 consider the criteria for selection for retesting, or for
45 testing, then you would expect that you would end up with
46 a manageable number of samples that would require
47 retesting, not hundreds?

1 A. Yes, that's right. So if you had a way to easily
2 identify the samples through a LIMS system that would meet
3 the criteria that I have put elsewhere in this, in my
4 report, then I would expect that the amount of rework that
5 would need to be done on these samples would be quite
6 minimal.

7
8 Q. If this error had arisen in your laboratory, is that
9 what you would direct be done?

10 A. In 2016, that's probably - I would do that, because
11 our LIMS would cater for us to be able to do this search.

12
13 THE COMMISSIONER: Yes, thank you.

14
15 MS HEDGE: Q. Can I turn to a different topic now - I'm
16 sorry, the last thing I should say on that topic is your
17 view is that some of these samples might benefit from Y-STR
18 testing?

19 A. Yes. I would say that just broadly, sexual assault
20 investigation of cases that haven't had prior Y-STR
21 testing, there is a potential avenue for investigation,
22 whether it's within this dataset or other datasets. So it
23 is just a way that you can retrospectively test samples
24 further.

25
26 Q. Is the Y-STR method a more effective method than the
27 differential lysis and sperm microscopy method?

28 A. They're done for slightly different purposes. So the
29 ideal situation would be that you would have a sperm
30 microscopy method that was robust, that gave you the
31 results that you wanted. You would do the differential
32 extraction on the samples that had sperm for these
33 circumstances; and for things that didn't have sperm, you
34 could put in for Y-STR testing instead. To do a Y-STR
35 test, you can do that on the epithelial fraction in the
36 differential extraction, but the differential extraction is
37 quite an inefficient method, where there is considerable
38 cellular loss during the method. So there are methods that
39 are extraction methods that are better if you are going to
40 use a Y-STR analysis instead of the differential
41 extraction.

42
43 Q. Just taking a step back in how the process works, is
44 it right that using the suspension method, you obtain
45 a sample that has all the cells, sperm and other epithelial
46 cells and so on, all together in the suspension; and then
47 when you do differential lysis, that changes that whole

1 solution into just having the sperm. Is that right?

2 A. It changes it into two components. It changes it into
3 the sperm cell component and then the epithelial fraction
4 component, so it's effectively removing sperm from the
5 remainder of what is in that sample. A small thing, that
6 is what Queensland, the QHFSS, did in terms of the
7 suspension method. Their suspension method isn't what is
8 performed at FASS in New South Wales.

9

10 THE COMMISSIONER: Q. You have the Y-STR process in
11 place; is that right?

12 A. That's correct.

13

14 Q. When did you implement that?

15 A. The first time we implemented Y-STRs was using Yfiler
16 in 2009. Subsequently, I believe it was 2018 or 2019 that
17 we implemented Yfiler Plus, which is an updated Y-STR kit.

18

19 Q. So you began using the process in its then current
20 form in 2009?

21 A. That's right.

22

23 Q. Does it take a great deal of trouble and expense to
24 validate it and implement it?

25 A. I would say any amplification kit has its problems in
26 validation and implementation that you have to overcome
27 with a thorough process to do the validation and perform
28 any troubleshooting that comes along, but any time that you
29 put in an amplification kit, the laboratories are well
30 placed to overcome those obstacles.

31

32 Q. Were you at the lab in 2009 when the first system was
33 instituted?

34 A. Yes. I started in 2002.

35

36 Q. Can you recall how long it took to validate and
37 implement the system for 2009?

38 A. No would be the short answer.

39

40 THE COMMISSIONER: Thanks very much.

41

42 MS HEDGE: Q. How about 2018/2019, when you validated
43 Yfiler Plus?

44 A. It would have taken months.

45

46 Q. Months, did you say?

47 A. Yes.

1
2 Q. Thank you. I'm sorry to take you back to the
3 suspension method, but I just want to confirm, once you
4 have done differential lysis, you don't retain any part of
5 that mixed solution that had both the epithelial and the
6 sperm in it; is that right?
7 A. They're split into different components. If the
8 differential extraction works as it's designed, and it's
9 not a foolproof process, the idea is that the separate the
10 sperm fraction from the epithelial fraction as far as
11 possible, so they become separate tubes.
12
13 Q. And without retaining some part - I'm sorry?
14 A. They go into separate tubes.
15
16 Q. So there's no retention of any part of that initial
17 suspension?
18 A. Depending on the laboratory policy would be depending
19 if they keep the original substrate in a basket.
20
21 Q. What I'm seeking to ask is, and perhaps I will just
22 ask it more directly, are you on the back foot or are you
23 starting from behind, having already done differential
24 lysis, to then send these samples to Y-STR? Are you in a
25 worse position than if you just sent them to Y-STR at the
26 start?
27 A. If you did a Y-STR, the best way to get a DNA profile
28 for Y-STRs would be to use the cell method, the routine
29 extraction protocol, not a differential lysis.
30 Differential lysis is designed to try to get the sperm
31 fraction specifically, but as I said, it's a very
32 inefficient method, where there is considerable cell loss
33 along the process. So you are better off doing a routine
34 cell lysis to be able to get a maximal amount for Y-STR
35 testing.
36
37 Q. Can we turn to paragraph 56, please, which is on
38 page 11. Here you conclude that by 2020, utilising Y-STR
39 testing in sexual assault investigations is considered best
40 practice?
41 A. There is no such thing as a designated best practice.
42 There are two options that are considered acceptably good
43 practice. The first would be to be able to create evidence
44 recovery slides that are reliable and produce the results
45 that are expected, and then go through and choose whether
46 to do differential extraction and/or a routine lysis,
47 depending on which DNA typing kit you want to use. The

1 other option that is recommended in the United States, for
2 instance, is what they call a direct to DNA process, where
3 effectively all samples are put through for DNA and they
4 use the Y quantitation as a screening tool to determine
5 what testing - sorry, what DNA typing kit to use.
6

7 So both of those methods are in place for different
8 purposes. The direct to DNA method would be considered
9 appropriate for areas that are especially backlogged in
10 their sexual assault investigations. Other laboratories
11 could potentially take the first option for a more nuanced
12 approach to be able to determine which way they want to
13 proceed with their evidence.
14

15 So I think either option can be chosen and would be
16 considered best practice. It comes down to the resources
17 you have available, the time that you have available to do
18 things and what tools are at your command.
19

20 Exclusively doing differential extractions throughout
21 the piece, though, for instance, would limit your chances
22 of being able to obtain Y-STR profiles from those samples,
23 especially ones that don't have sperm, sorry.
24

25 Q. So if you put aside time, resource, backlog
26 considerations, resourcing considerations, is there
27 a scientific best practice, putting aside those things?

28 A. Both of those methods that I said are best practice.
29 So in terms of if you can get reproducible results in your
30 sperm microscopy, either by the doctors who are collecting
31 the sexual assault kits creating slides or the evidence
32 recovery team using a method that actually is effective,
33 I think that the first method is actually better because
34 then you can choose which extraction method you want to use
35 to determine what is the most effective way to recover the
36 DNA type that you are wishing to target.
37

38 So if sperm is available, you will potentially do the
39 differential extraction as your predominant test, because
40 you are trying to remove the female from that. If you
41 don't have the ability to do the differential extraction
42 because there is no sperm present, then you are better off
43 maximising the amount of DNA that is present in the sample
44 to target for Y-STR testing.
45

46 Y-STR testing isn't as discriminatory between
47 individuals. It is to a familial, a paternal line. So,

1 for instance, my father, myself and my son would all have
2 the same Y-STR profile. So there are limitations that
3 Y-STRs give.
4

5 What it does give you an opportunity to do, if you use
6 Y-STRs, though, is to recover DNA profiles that you
7 wouldn't see because the internal swabs - DNA that are
8 contained within those internal swabs are probably swamping
9 whatever remnant DNA is left from a potential sexual
10 offender.
11

12 Q. I will try to summarise this: the two best practice
13 methods, one is a reliable evidence recovery slide
14 production, and one is direct to DNA?

15 A. I would say that - it could be evidence recovery or it
16 could be prior to that, so the slide is made at the
17 hospital as opposed to in the evidence recovery process.
18

19 Q. I see. So a reliable slide-making process right at
20 the start, or direct to DNA?

21 A. Yes, they are two acceptable methods, depending on
22 what you are trying to find.
23

24 Q. And neither of them are currently in place at the
25 Queensland lab?

26 A. No.
27

28 Q. By "no", you are agreeing that neither of them are in
29 place, just to confirm?

30 A. Yes, neither of them are in place. If you were to -
31 it would be closer to the second model, but it's not
32 a like-for-like comparison.
33

34 Q. So the difference - so Y-STR and differential lysis
35 are two potential secondary steps once you have got that
36 reliable slide-making capacity - that's what you have
37 explained; is that right?

38 A. That's right.
39

40 Q. So the problem with the current process is that they
41 don't have that reliable slide-making capacity either at
42 the hospital or in evidence recovery?

43 A. Yes, so the only reliable method they had demonstrated
44 in the laboratory was the differential slide.
45

46 Q. Thank you. Finally, can we deal with the report given
47 to ESR, which is paragraphs 51 to 54 on page 10, and you

1 reviewed the material given to ESR?

2 A. I did.

3

4 Q. Your conclusion in paragraph 54 is that on the
5 material you obtained, or you were given, briefed with, by
6 the Commission, ESR were not specifically tasked with
7 assessing the microscopy issue, its cause or its potential
8 solutions; is that right?

9 A. Yes, that's right. If I can draw your attention to
10 51, the apparent only reference to this issue was the
11 quote:

12

13 *An issue has been raised specifically*
14 *regarding spermatozoa negative, acid*
15 *phosphatase negative sexual assault*
16 *samples, however a review of the processing*
17 *of SAIKs would be appreciated in the spirit*
18 *of continuing quality improvement.*

19

20 That appeared to be the only reference to the sperm
21 microscopy issue that we've been discussing.

22

23 MS HEDGE: Thank you. Those are my questions.

24

25 THE COMMISSIONER: Thank you.

26

27 MR HUNTER: No questions, thank you.

28

29 <EXAMINATION BY MR RICE:

30

31 MR RICE: Q. Mr Cochrane, I just wanted to get you to
32 clarify, if you would, some aspects of the workflows that
33 you refer to in paragraphs 20 and 21 of your statement.
34 Perhaps if we bring that up and you can refresh your memory
35 about what you have said.

36 A. Thank you.

37

38 Q. It is page 5 of the report, please, Mr Operator.
39 Paragraph 20 deals with workflows that you identified as
40 being in place from September 2010; am I right?

41 A. Could we scan in on that? I'm looking on a fairly
42 small computer.

43

44 Q. Sure. If you would enlarge paragraphs 20 and 21, if
45 you would, Mr Operator.

46 A. Sorry, could you repeat the question?

47

1 Q. I was just drawing your attention to paragraph 20. Is
2 it right that you describe there the workflows as you
3 identified them as being in place in September 2010?
4 A. Yes. That's the document that I referred to, with
5 that method.
6
7 Q. It is SOP number 17189 version 10; correct?
8 A. That's correct.
9
10 Q. I'd just like to show you a portion of that.
11 Mr Operator, the document is [FSS.0001.0052.7882]. That's
12 the facing page. Can you see that, Mr Cochrane?
13 A. Yes.
14
15 Q. Could I ask you to go, Mr Operator, to page 7894.
16 I just wanted to ask you, it appears that that is
17 a representation in diagrammatic form of what you have
18 described within paragraph 20.
19 A. Yes. That appears to be the case, yes.
20
21 Q. In paragraph 20, you have set out subparagraphs (a),
22 (b) and (c). They are represented on this diagram by the
23 three boxes, one containing the words "Internal swabs" on
24 the one hand; secondly, "External swabs"; and, thirdly,
25 "DNA (DLYS)". Do they represent those three options?
26 A. Yes, also 20(a)(i) was the DNA (DLYS).
27
28 Q. Correct, and that's the one "DNA (DLYS)" towards the
29 top left of the diagram; correct?
30 A. Yes. So the four boxes would be (a), (b) and (c) -
31 the contents.
32
33 Q. In paragraph 21, if we go back to the report, you
34 refer to another SOP there, being 32106 version 3. You
35 note in the last sentence that that SOP details how the
36 case context may modify the laboratory progression;
37 correct?
38 A. That's right.
39
40 Q. I'd just like to explore the way in which that is so.
41 Mr Operator, could you bring up document
42 [WIT.0044.0007.0001]. Perhaps, Mr Operator, if you go to
43 the bottom left-hand corner where the document ID resides
44 and just allow Mr Cochrane to see that.
45 A. Yes.
46
47 Q. That's the document you are referring to at

1 paragraph 21; am I right?

2 A. That's correct.

3

4 Q. Could I go firstly to page 6, where there is an
5 amendment history. Could you enlarge the amendment
6 history, Mr Operator. You know how these things work:
7 when a version is updated, the update goes into the
8 amendment history, and we see as against the amendment what
9 is the nature of the amendment in the case of each version;
10 correct?

11 A. Yes.

12

13 Q. Is it right, then, to conclude that this SOP first
14 commenced operation on 23 October 2013?

15 A. Yes.

16

17 Q. And we can see the nature of the amendments to the
18 second and third versions in the final column; correct?

19 A. That's right.

20

21 Q. If we go from there to page 7, to a diagram, does this
22 diagram then represent the applicable workflow apparently
23 commencing with version 1 in October 2013?

24 A. It appears so, yes.

25

26 Q. Just to be fair, Mr Operator, if you would go above
27 the diagram to the introductory heading and the wording.
28 This diagram relates to SAIK examination workflow, which -
29 correct me if I am wrong - was the same workflow as you
30 described in paragraph 20 of your report?

31 A. Yes, that's right.

32

33 Q. So this is a more recent and perhaps more updated
34 version of the workflow from that which you described in
35 paragraph 20?

36 A. If you pull up the workflow diagram in its whole, it's
37 effectively - if you say "Microscopy" down in that
38 workflow, it is pretty similar. It's the same from that
39 point, obviously, just not particularly - they are using
40 "exam strategy" instead of other options that are
41 available. But it does appear to be a more updated version
42 taking into account exam strategy as well.

43

44 Q. What I was going to suggest is that this appears to
45 introduce for the first time - and you can tell me if I am
46 right - this appears to introduce for the first time the
47 concept of examination strategy?

1 A. Yes.

2

3 Q. And to understand that, Mr Operator, could we go back
4 to the first page, 4.1, the paragraph "Examination
5 Strategies", this is what appears to be new, am I right,
6 with this workflow - the concept of development of
7 a workflow strategy for all SAIKs?

8 A. That does seem to be the context of this case, above
9 and beyond what - just the sperm microscopy. Sexual
10 assault cases don't just rely or relate to just microscopy
11 in itself, so I think that the method that is being put up
12 really is going through what you would do if you received
13 a sexual assault investigation.

14

15 Q. I see. So the concept is wider than microscopy?

16 A. Yes. It's wider than just SAIK kits as well. It's
17 more inclusive.

18

19 Q. I understand. But if we go back to the diagram at
20 page 7, we see towards the bottom right of the diagram two
21 boxes with the words "Exam strategy". Do I interpret that
22 correctly that in the event of negative microscopy and
23 negative presumptive testing, this introduces a further
24 layer to the process by way of recourse to the examination
25 strategy once those screening tests have been concluded?

26 A. Yes, it does give an avenue to determine what is
27 further using an exam strategy. I do believe that further
28 on in this document, it talks about some specific scenarios
29 where exam strategy would be used.

30

31 Q. It is a form of discretion, is it not, to the
32 scientist to determine what ought be done in the context of
33 all of the case history and all information known,
34 irrespective of the fact that all screening may in fact be
35 negative?

36 A. Yes.

37

38 Q. And is it right to say that that further discretionary
39 step is an additional form of risk mitigation for missing
40 evidence even where all screening is negative?

41 A. Potentially, yes. It depends on how it would be used.

42

43 Q. Well, as you say, we don't need to go to it, but there
44 are guidelines within the document as to what matters may
45 be relevant to that. I'm wondering, then, if you could
46 tell me this: given that from October 2013 there appears
47 to be this additional discretionary element to the

1 processing of SAIK samples, allowing a scientist to make
2 a decision about that even if all screening is negative,
3 whether that, in turn, feeds into the size of the problem
4 created by the inadequate process pertaining to the ER
5 slide? Do you see what I'm getting at?

6 A. No, sorry, I didn't follow.
7

8 Q. Do you accept that the examination strategy provided
9 for in this document is an additional form of risk
10 mitigation against missing cogent evidence?

11 A. It allows a biologist some options to be able to
12 perform further testing, potentially.
13

14 Q. Well, that didn't answer me directly. Is it a form of
15 mitigation of risk of missing evidence?

16 A. I think yes, potentially. Once again, it would be how
17 the exam strategy is used. If the exam strategy in
18 a certain scenario was no further testing, it wouldn't
19 mitigate the risk potentially, or potentially it could send
20 you down a pathway where other things may be missed. So it
21 really depends on what is taken up with the exam strategy.
22 By having it there, it does give options for people to do
23 certain testing on there, so it potentially could be a risk
24 mitigation strategy. It depends on how it is used.
25

26 Q. You acknowledge, though, that at the very least, that
27 is a form of discretion which apparently didn't exist
28 according to the workflow diagram we looked at for 2010?

29 A. Yes.
30

31 MR RICE: Thanks, Mr Cochrane.
32

33 By the way, Commissioner, that document doesn't appear
34 to be on counsel's tender list, so I propose to tender it.
35

36 THE COMMISSIONER: Yes. It is current from what date,
37 Mr Rice?
38

39 MR RICE: Version 3 is current from 29 January 2015.
40

41 THE COMMISSIONER: 2015?
42

43 MR RICE: 2015.
44

45 THE COMMISSIONER: Document [WIT.0044.0007.0001] is
46 exhibit 92.
47

1 EXHIBIT #92 STANDARD OPERATING PROCEDURE 32106 VERSION 3,
2 CURRENT FROM 29 JANUARY 2015, BARCODED [WIT.0044.0007.0001]
3

4 THE COMMISSIONER: Does anybody else want to ask
5 Mr Cochrane any questions?
6

7 MR DIEHM: No, thank you.
8

9 MR HICKEY: No, thank you.
10

11 THE COMMISSIONER: Ms Hedge, do you have any
12 re-examination?
13

14 MS HEDGE: No, I don't. There is also Ms Freeman here,
15 for Mr McNevin.
16

17 THE COMMISSIONER: Yes.
18

19 MS A FREEMAN: Thank you, Commissioner, I seek leave to
20 appear on behalf of Mr McNevin. We don't have any
21 questions.
22

23 THE COMMISSIONER: Thank you, Ms Freeman, you have leave.
24

25 MS HEDGE: I don't have any re-examination. Might
26 Mr Cochrane be excused?
27

28 THE COMMISSIONER: Thank you, Mr Cochrane, for your
29 assistance and for the work on your report. You are free
30 to cut the link, if you wish.
31

32 <THE WITNESS WITHDREW
33

34 THE COMMISSIONER: Yes, Ms Hedge where do we go next?
35

36 MS HEDGE: The next witness is Mr McNevin. I wonder,
37 given the time, whether we might adjourn now and resume at
38 2 o'clock or 2.15 and start afresh with him.
39

40 THE COMMISSIONER: Let's adjourn until 2.15.
41

42 MS HEDGE: Yes. There is no rush, I don't think.
43

44 LUNCHEON ADJOURNMENT
45

46 THE COMMISSIONER: Yes, Ms Hedge.
47

1 MS HEDGE: Thank you, Commissioner. I call Allan Russell
2 McNevin, who is present in the witness box.

3
4 <ALLAN RUSSELL McNEVIN, affirmed: [2.21pm]

5
6 <EXAMINATION BY MS HEDGE:

7
8 MS HEDGE: Q. You are Allan McNevin?

9 A. Yes.

10
11 Q. You are currently a reporting scientist at the
12 Queensland Forensic and Scientific Services DNA laboratory?

13 A. Yes.

14
15 Q. You have provided three statements to the Commission;
16 is that right?

17 A. Yes.

18
19 Q. The first of those is [WIT.0040.0001.0001_R], dated
20 21 September 2022. It primarily deals with your work
21 history, the Options Paper and the Update Paper; do you
22 remember that statement?

23 A. Yes.

24
25 Q. The second is [WIT.0040.0018.0001], if we can have
26 that up. It was sworn 10 October 2022 and deals with QQIs
27 and two particular QQIs from 2012?

28 A. Yes.

29
30 Q. The third statement is [WIT.0040.0077.0001]. It was
31 signed last Thursday, 13 October, and deals with bones,
32 validation, sperm microscopy and DNAIQ extraction; is that
33 right?

34 A. Yes.

35
36 Q. Those are all the statements you have provided to the
37 Commission so far?

38 A. Yes.

39
40 Q. In that third statement, there are a number of
41 exhibits, and exhibits 99 and 100, which appear on page 62
42 of that third statement, are two reports prepared by
43 a company called Livingstones, which were provided to you
44 in a redacted form?

45 A. Yes.

46
47 Q. I understand you are content to remove those exhibits

1 or withdraw them from your statement, so they don't form
2 part of your statement before the Commission; is that
3 correct?

4 A. I'm okay with that, yes.

5
6 MS HEDGE: In exhibit 90 - Commissioner, these three
7 statements of Mr McNevin have been tendered, so could it be
8 identified that for item number 3 on exhibit 90, the
9 exhibits ARM-99 and ARM-100 are withdrawn from that
10 statement?

11
12 THE COMMISSIONER: I'm sorry, could you tell me what you
13 mean by that? Exhibits 1, 2 and 3 are Mr McNevin's
14 statements?

15
16 MS HEDGE: That's right.

17
18 THE COMMISSIONER: Or items 1, 2 and 3 are Mr McNevin's
19 statements, yes.

20
21 MS HEDGE: In the third of those, within that statement,
22 exhibits ARM-99 and ARM-100 will be withdrawn or removed
23 from that document, so that what is tendered before the
24 Commission is the statement and all of the other exhibits,
25 not including those two.

26
27 THE COMMISSIONER: All right. That's fine, thank you.

28
29 MS HEDGE: Thank you.

30
31 Q. Can we start with sperm microscopy - well, perhaps
32 I should say generally your third statement is the one that
33 I will ask you some questions about, and it is a very
34 comprehensive statement of your involvement in those topics
35 I mentioned?

36 A. Yes.

37
38 Q. So you understand I won't be taking you through every
39 part of it but just some specific parts of it?

40 A. Yes.

41
42 Q. Can we start with a very brief timeline of your
43 involvement in the sperm microscopy issue. Were you aware
44 that the issue was raised in late 2015 and early 2016 by
45 some reporting scientists?

46 A. To be honest, I'm not sure when I was first made
47 aware.

1
2 Q. At that time, you were the senior scientist in charge
3 of the evidence recovery team?
4 A. Yes, I was, yes.
5
6 Q. So you weren't in the same team with those people who
7 raised it, Ms Wilson, Mr Pippia, Ms Reeves --
8 A. That's correct.
9
10 Q. -- Ms Rika; they were all in different teams?
11 A. They were, yes.
12
13 Q. You took some leave, is that right, between about
14 March and May 2016?
15 A. Yes, I can't really remember, but --
16
17 Q. So do you remember what occurred from when the matter
18 was allocated to you by Mr Howes - the investigation of the
19 matter?
20 A. I actually can't quite remember how it all started, to
21 be honest, and so my best recollections are from what
22 I could find from email records and meeting minutes and
23 that sort of thing.
24
25 Q. When it was allocated to you, do you remember whether
26 Mr Howes indicated what level of urgency he thought it
27 needed to be dealt with?
28 A. From my memory, I don't remember Justin being the one
29 discussing it with me first. I had some sort of
30 conversations with either Paula, who was my line manager,
31 or - I think around that time Paula also had been on
32 maternity leave or was just coming back from maternity
33 leave, so I may have had conversations with whoever was
34 acting in Paula's role beforehand. I don't actually really
35 remember exactly how it was actually raised to me
36 initially, the initial part of it.
37
38 Q. Do you remember, whoever raised it with you, what
39 level of urgency that person suggested it needed to be
40 dealt with?
41 A. I don't remember it being raised as a particularly
42 urgent issue at the time.
43
44 Q. What about when you had spent a little time getting
45 acquainted with what the issue was - did you then think it
46 was an urgent issue?
47 A. Well, we had been using the same process for quite

1 a number of years, so it didn't seem like this was
2 something like where we'd just implemented a change, and
3 then that change was going, you know, bad. It was
4 something that had been in place for quite a long time and
5 the issue was only just being raised, so I thought it was
6 important to just deal with it in, you know, a structured,
7 orderly manner.

8
9 Q. So do I take it from that you didn't see the need to
10 make any urgent changes?

11 A. It didn't seem to be - no.

12
13 Q. Can I take you to paragraph 243 of your third
14 statement, which is page 42, for the operator. You were
15 asked in the question which precedes this paragraph about
16 whether there were any workplace cultural or environment
17 issues that impeded the efficient resolution of the issue,
18 and you identified in the following paragraphs that there
19 were some aspects of the culture within the laboratory that
20 had contributed to the delay in dealing with Project #181
21 and the sperm microscopy issue?

22 A. Yes.

23
24 Q. In particular, in paragraph 243, you mention
25 a management meeting in June 2016 where you let your
26 emotions get the better of you and raised your voice
27 towards Ms Reeves?

28 A. Yes.

29
30 Q. You have heard some evidence about that at this
31 Commission so far, about that event?

32 A. Yes.

33
34 Q. Is it the case that you apologised to Ms Reeves by
35 email on that day?

36 A. Yes.

37
38 Q. Could I just have that on the screen,
39 [FSS.0001.0084.0001]. Is this a copy of that email that
40 you sent on the same morning as the meeting?

41 A. Yes.

42
43 Q. That was item number 28 in the index that has already
44 been tendered, that email. Could I go back to your third
45 statement and to page 32, paragraph 186. Can we go back to
46 this question of urgency of response. Do you see that you
47 said there that Ms Reeves and Ms Rika "were advocating for

1 a halting of all examinations for spermatozoa until the
2 problem was resolved"?

3 A. Yes, that's kind of the way I remember the
4 conversation. Just my best memory of something that
5 happened a while ago.

6
7 Q. Of course. Did this occur at the very early part of
8 Project #181, that is, in May and June 2016, or is this
9 conversation at a later time?

10 A. No, I think that's more - pretty early in the piece,
11 if I remember correctly.

12
13 Q. Could I just ask you to speak a little louder for me.
14 I'm just having trouble hearing you.

15 A. Yes, if I recall correctly, it was early in the piece,
16 yes.

17
18 Q. Thank you. From early on, when you were dealing with
19 it, Ms Rika and Ms Reeves considered some urgent action
20 should be taken, and the majority of the management team
21 seemed satisfied with gathering data before taking any
22 action?

23 A. That's my memory, yes.

24
25 Q. Then in August 2016, you implemented what I might
26 describe as the workaround of, for every case, looking at
27 the diff lysis slide?

28 A. Yes.

29
30 Q. Are you content with that phraseology, "the
31 workaround", or would you prefer to call it something else?

32 A. That's fine. I think we referred to it as "the
33 workaround" in the lab, so --

34
35 Q. Okay, good. So now, thinking back, is there any
36 reason why you didn't implement that workaround earlier?

37 A. From what I remember, I wanted to get some information
38 to determine if there was a problem before we actually did
39 anything. You know, if someone raises an issue, the first
40 thing you need to do is determine if there is an issue
41 before you then proceed with doing anything in response to
42 that. Now, sometimes that is immediately obvious;
43 sometimes it is less obvious.

44
45 Q. Is that workaround the obvious workaround to put in
46 place to deal with the issue, or is it just one of a number
47 of potential workarounds that you could have implemented?

1 A. I think that was probably the most obvious one,
2 I guess. It was a few years ago now, so --

3

4 Q. All right.

5 A. Yes.

6

7 Q. Well, I suppose if the problem is a discrepancy
8 between two slides, looking at both of them does seem, to
9 a non-scientist, the most obvious way of resolving it?

10 A. Yes, but we didn't look at all of both sets. We just
11 looked at those ones where there was nothing seen on the
12 first slide, so let's look at the second slide.

13

14 Q. Do you mean after the workaround?

15 A. Yes, yes. Sorry, that's what I thought we were
16 talking about.

17

18 Q. Yes, no, we are. I was just checking you weren't
19 talking about that data analysis.

20 A. No.

21

22 Q. So after the workaround, if there was no sperm on the
23 ER slide, you would look at a diff lysis slide?

24 A. From what I remember, yes.

25

26 Q. So what would have been the negative, if anything, of
27 implementing that workaround in May or June 2016, when you
28 first were allocated to the project?

29 A. It was a bit more work for my team. It wasn't a huge
30 impost, but it was still, you know, a double-handling of
31 exhibits that took extra time and resources. So, as
32 a manager, you have to weigh those things up. But
33 I don't - I kind of don't really remember having
34 a conversation about the workaround at any point, so
35 I don't really remember at what point it was proposed and
36 at what point we decided to implement it and who actually
37 suggested it. I'm sorry, I can't actually recall how that
38 came about exactly.

39

40 Q. I was going to ask who would be the person to
41 determine - would it be yourself or your line manager or
42 their line manager who would have determined that
43 workaround?

44 A. It could have just been a conversation in the
45 management team, just had in a meeting or something.
46 I can't exactly recall. But it didn't necessarily fall
47 upon just me as the manager of the evidence recovery team.

1 Any manager or even any sort of staff member who had a good
2 idea could have raised it, and then that could have been
3 considered and implemented. So I couldn't tell you whose
4 initial idea it was to, "Let's just do things this way."
5 It could have been my idea, too. I actually really don't
6 remember exactly how that came about.

7
8 Q. Just going back to something that you said a few
9 minutes ago, you said it's important to gather data to
10 identify whether something is a problem?

11 A. Mmm. Yes.

12
13 Q. So did you go about gathering data of discrepancies
14 between the ER slide and the diff lysis slide in the
15 preceding, say, six months or 12 months or some other time
16 period?

17 A. Yes, I think that was the initial part of the
18 investigation, was we did a sort of a review of a whole
19 group of samples. I can't remember the exact methodology,
20 but I believe that we went and looked at examples of where
21 there had already been the two reads, the read of the
22 evidence recovery slide and the differential lysis slide,
23 and then I think we may have gone back to samples that -
24 I think the idea was we would look for ones that hadn't
25 actually been through the full reporting process and found
26 them and then went and read the differential lysis slide
27 for those as well, so we had a broader number to compare.

28
29 Q. Do you remember just approximately how many cases or
30 samples fell into that category that you have described?

31 A. No. Did I put something in my statement? I can't
32 remember.

33
34 Q. I'm not sure that I can answer that, either. Let me
35 ask you this: after you reviewed those, were you content
36 that there was a real problem with the preparation of the
37 evidence recovery slides?

38 A. Well, again, in the way that you phrase it, that there
39 was a problem with the preparation of evidence recovery
40 slides, I didn't know exactly - but there were some
41 examples where there were some different results, for sure,
42 but they didn't necessarily make up a large number of -
43 most results were as kind of expected. So it was a bit
44 hard to really kind of say, "Aha, that's the problem.
45 We'll work on that."

46
47 Q. Let's just take one step back. Were you satisfied

1 there was a problem that needed something to be done about
2 it?

3 A. It wasn't obvious that it was a big problem or even
4 a bit of a problem, because you do expect some sort of
5 natural variation when you do laboratory processes. So,
6 you know, the fact that there was some aberrant results
7 wasn't super - it wasn't - for me, anyway, looking at
8 a large number, it wasn't something that I went, "Oh, yes,
9 there's clearly a problem." But at the same time, it
10 didn't look like there was nothing to see, either. There
11 was something worth investigating a little bit further.

12
13 Q. Can I move on to something else. Do you remember
14 whether the data analysis that we just spoke of, looking at
15 samples, was done before the workaround was introduced?

16 A. Oh, I'm not sure of that timeline, sorry.

17
18 Q. Do you remember whether the workaround was a response
19 to the data?

20 A. I don't remember the timeline, so I can't say either
21 way.

22
23 Q. Do you remember what the workaround was in response
24 to?

25 A. No. Like I said, I can't actually remember how we -
26 at what point we decided to - that there should be
27 a workaround and how we came up with that decision.
28 I can't remember whether that was a conversation between me
29 and my manager or whether it was part of the management
30 team or whether someone else from the management team
31 proposed it. I don't remember finding any email records or
32 anything or meeting minutes that were that prescriptive as
33 to what was exactly discussed word for word, so, I'm sorry,
34 it was - a lot of things happen in our laboratory, so
35 I don't always remember every little detail like that.

36
37 Q. Can I move on to a different topic, and that is the
38 sampling and analysis of bone samples in the laboratory.

39 A. Mmm-hmm.

40
41 Q. That's the first of the topics dealt with in your
42 third statement. Could we turn to page 1 of that
43 statement, please, operator, and paragraphs 2 and 3. You
44 were the manager of the analytical team from 2006 to 2014
45 and then the evidence recovery team 2014 to 2021?

46 A. Yes.

1 Q. You heard Ms Keller - Ms Angelina Keller, I should
2 say - give evidence last week that at the time you took
3 over the role of senior scientist in the evidence recovery
4 team, as far as she knew, you didn't have any experience
5 with bone sampling?
6 A. Correct.
7
8 Q. Or bone reporting?
9 A. Correct.
10
11 Q. And you accept that that is accurate?
12 A. When I took over the team, yes.
13
14 Q. In paragraph 3, you set out what you did to increase
15 your skills and become knowledgeable in the areas of
16 evidence recovery that you hadn't been knowledgeable in
17 before you became that manager?
18 A. Yes, so not just bone sampling but all areas of the
19 evidence recovery task.
20
21 Q. So did that include bones - well, in fact you say that
22 there?
23 A. Yes.
24
25 Q. That it included the collection, testing and analysis
26 of bone samples?
27 A. Yes.
28
29 Q. You gained some hands-on experience, learnt from your
30 team members and read associated textbooks, journal
31 articles and so on?
32 A. Yes.
33
34 Q. From that, you developed, in your view, a sufficient
35 knowledge base to then make some decisions about bone
36 sampling; is that correct?
37 A. Yes.
38
39 Q. Ms Keller also gave some evidence about the use of
40 Tergazyme in the laboratory.
41 A. Mmm-hmm.
42
43 Q. Can I take you to page 11 of your statement,
44 paragraph 59. So this was a change in the bone cleaning
45 protocol, and that was a matter that was raised with you by
46 a Mr Goodrich. Who is that?
47 A. Michael is the senior laboratory assistant in the

1 laboratory.

2

3 Q. He's a trained scientist?

4 A. No, Michael's not a scientist. He's a laboratory
5 assistant.

6

7 Q. Are there qualifications required for that?

8 A. Oh, sorry, no, no, no. It doesn't require a special
9 qualification.

10

11 Q. Did you say he's the senior laboratory assistant?

12 A. Yes. I'm actually not really sure exactly what his
13 role description is, but there's a group of laboratory
14 assistants and he's the senior one of that.

15

16 Q. Are the laboratory assistants, Mr Goodrich and others,
17 in charge of things like cleaning equipment?

18 A. Yes, they do some of the cleaning of the laboratory
19 equipment and consumables and that sort of thing, and they
20 stock cupboards and those sorts of - help the scientists,
21 basically.

22

23 Q. So he would have been using the Tergazyme, the
24 detergent; that was his interest in it?

25 A. No, I don't think it was. I think he may have been
26 just looking at our chemicals that we have and how - like,
27 how we store them. He may have even been doing some sort
28 of health and safety audit. I'm not really sure exactly
29 why it came to his attention, but it did, obviously.

30

31 Q. Can we go to that email that you attach there. It is
32 [WIT.0040.0077.0257]. So if you go to the fourth of those
33 pages, to [WIT.0040.0077.0001] - I'm sorry, it is page 259.
34 My apologies. Just the page immediately above that. The
35 email at the bottom of the page there, that's you following
36 up Mr Goodrich about the Tergazyme question; is that right?

37 A. Yes. So I seem to remember maybe Michael came and
38 spoke to me and I thought it might be easier if he just put
39 all his information in an email, so then I could follow up
40 on it, rather than just relying on my memory. It looks
41 like it was Friday afternoon, so maybe I thought it was
42 easier, it was something I could then deal with on the
43 Monday or something.

44

45 Q. And he responded and told you his concerns in the next
46 email?

47 A. Yes, and I can see there he's reviewing the

1 specifications and technical info pages on the supplier
2 website. So, for whatever reason, he must have been
3 looking at that information and that's what brought it to
4 his attention, I would imagine.

5
6 Q. Now, if we scroll up one more page again, you then
7 forwarded the email to Ms Brisotto, who was your line
8 manager?

9 A. Yes, she was my line manager at the time.

10
11 Q. Dr Scott, who was the quality senior scientist?

12 A. Yes. And just to put that in context, Kirsten would
13 also be Michael's boss.

14
15 Q. I see.

16 A. Yes.

17
18 Q. And Sharon Byrne. Can you explain her role?

19 A. Yes, Sharon was the workplace health and safety
20 representative for the laboratory at the time.

21
22 Q. Looking at that, your email, you say:

23
24 *Given some issues with using/disposing of*
25 *Tergazyme ... should we implement the*
26 *alternative protocol using the dishwasher*
27 *as outlined in Proposal #148 ...*

28
29 A. Yes.

30
31 Q. I assume you had seen Proposal #148. Was that done
32 while you were the senior scientist?

33 A. Yes, I think it was finished when I was taking over
34 the role in evidence recovery, but it might have started
35 prior to my role, maybe.

36
37 Q. But you were aware of the project?

38 A. I was aware of it, yes.

39
40 Q. And you were aware that it related only to the bone
41 crushing mill part?

42 A. Yes.

43
44 Q. It wasn't all bone equipment; it was just that one --

45 A. I think, because there was a little bit of time
46 between when that project finished and when that email was
47 sent, I think I had actually asked one of my staff members

1 to go back and have a bit of a read and let me know what
2 was in it. I probably didn't remember exactly.

3
4 Q. The minor change that was implemented after that -
5 sorry, going back to your statement, I will just take you
6 back there first. So your statement, page 11, please. At
7 paragraph 61, you say "consulted with the management team"
8 and implemented a change. Do you remember that that change
9 was to have the particular part of the bone equipment that
10 Project #148 had related to dealt with how Project #148
11 suggested?

12 A. Yes.

13
14 Q. And all other bone equipment to be dealt with with the
15 ethanol and 70 per cent TriGene; is that right - I'm sorry,
16 do I have that the wrong way around?

17 A. No, that's okay.

18
19 Q. TriGene and 70 per cent ethanol?

20 A. Yes, I believe, from the top of my head, TriGene is
21 used in potentially a 5 per cent per volume solution. I'm
22 not sure exactly what - how TriGene, whether it gets
23 diluted or not. But the ethanol was 70 per cent, yes.
24 TriGene was the product, yes.

25
26 Q. It was bleach, TriGene and 70 per cent ethanol?

27 A. Yes, and/or - yes, so you wouldn't use all three. You
28 would use a different combination depending on what you're
29 cleaning.

30
31 Q. Yes, that's my fault for not saying it specifically
32 enough.

33 A. That's okay.

34
35 Q. Bleach/TriGene and then 70 per cent ethanol; is that
36 right?

37 A. Yes, correct.

38
39 Q. Now, that was implemented at that time for all other
40 pieces of bone equipment, chisels and other things, saws,
41 and so on?

42 A. Yes, it is my understanding that that was the process
43 we were already using to clean the general laboratory
44 environment as well, in that area.

45
46 Q. Was there a specific validation done for bone
47 equipment for that process, to your knowledge?

1 A. No.

2
3 Q. Do you think such a specific validation was necessary?

4 A. Given the sort of widespread use of those cleaning
5 protocols for everything else in the laboratory, it didn't
6 seem particularly unusual. Whilst bone sampling equipment
7 is different equipment to what might be used in other
8 processes, it's still just equipment that needs cleaning.

9
10 Q. Ms Keller also gave evidence that you and Mr Howes had
11 the view that soft tissue samples should be processed,
12 where possible, before any bone samples from a DVI-type
13 incident?

14 A. Yes.

15
16 Q. Why do you hold that view?

17 A. Soft tissue samples are able to be processed in our
18 standard laboratory process, so they can just slot in to
19 the regular extraction quantification, et cetera, processes
20 that we have in our laboratory. They don't require
21 a specific sampling technique - I mean, well, sorry,
22 everything requires its own specific sampling technique,
23 but not a - bone sampling is a rather labour-intensive
24 sampling technique, whereas it's a much simpler technique
25 to sample some soft tissue, and then that can just slot
26 into a regular DNA extraction batch that has lots and lots
27 of other samples on it, so it doesn't require a specialised
28 DNA extraction batch.

29
30 So we can get a rapid turnaround of that result by
31 just slotting it in to the normal routine processes, and
32 that doesn't mean that - it's not an either/or, you can't
33 just do tissue or just do bone. You could just quickly do
34 the tissue, and if it works, great, get a result, don't
35 need to do the bone. If it doesn't work, we can go back
36 and do the bone. So you don't necessarily have to look at
37 it as an either/or, more as a thinking about it in
38 a broader context of how you fit samples in to the routine
39 flow of the laboratory.

40
41 Q. Now, you also heard Ms Keller give evidence about
42 a number of mixed profiles that she has seen for bones in
43 the last perhaps 18 months or so?

44 A. Yes, I heard that evidence, yes.

45
46 Q. You say in your statement you weren't aware of that
47 prior to hearing her evidence?

1 A. No. I was completely oblivious.

2

3 Q. Oblivious, did you say?

4 A. Yes, I hadn't been - sorry, I should have worded
5 that --

6

7 Q. I just didn't quite hear you, that's all.

8 A. Yes, she hadn't - no-one had actually discussed with
9 me that there was an issue with mixtures in bone samples of
10 late.

11

12 Q. You finished being the senior scientist in the
13 evidence recovery section in November 2021; is that right?

14 A. Yes, I think I started as a reporter in November 2021,
15 I think, early in the month, maybe even the start of the
16 month.

17

18 Q. Are you competent, in the scientific use of that word,
19 to report on bones?

20 A. So, no, I haven't received the specific - so it's not
21 really reporting on bones, as such, as the type of
22 calculations that you do when you're using bones for
23 identification purposes, so the parentage testing and that
24 sort of thing. I haven't --

25

26 Q. I see. So do you report on bones?

27 A. No.

28

29 Q. And so you haven't personally come across any profiles
30 in bones?

31 A. No, sorry, because - yes, so I wouldn't have come
32 across any samples - any profiles from bones, so I wouldn't
33 be aware that there was a problem if no-one had actually
34 said to me there's a problem.

35

36 Q. You say in your statement that you can't form
37 a concluded view about whether there is a problem with
38 mixed profiles unless you went and looked at all of those
39 profiles yourself and determined what sort of mixtures
40 there were and so on?

41 A. Yes, just like I said before with the sperm
42 microscopy, you need to look at the data to see what the
43 problems are. So without seeing all the information,
44 I can't draw any conclusions or statements.

45

46 Q. Assuming they are mixed profiles that show clear
47 multiple profiles, would you consider that a problem for

1 the analysis of bones?

2 A. Look, as a general rule, yes, but I would need to know
3 what the issues are around it, you know, what sort of bones
4 they were, what's - how the sampling was done, what was all
5 the nature of it, is it the mixture arising from the bone
6 itself or is it arising from some other process? There's
7 just too many variables to just make a general sort of
8 sweeping statement about that.

9
10 Q. Can I deal with a final topic, which is not covered in
11 your statement. That is about, as a reporting scientist,
12 the information that you receive from the police about
13 a sample and the context of the case surrounding that
14 sample. Is it your view that receiving some further
15 information about samples or cases would assist you to
16 report on those samples and, if so, what sort of
17 information do you think would assist?

18 A. Yes, so I think it - again, it comes down to the
19 samples you have received and the size of the case, but at
20 times it might be useful to know whether, for example, in a
21 sexual assault case, whether you need - you are looking for
22 semen or not. Certainly from my experience as the evidence
23 recovery senior scientist, that was a question we may have
24 when we receive samples for testing. But, you know, just
25 some additional information that is very sort of minimal,
26 but it might just provide a little bit of context that
27 we're looking for - is it multiple people involved in one
28 side or other of the incident? I don't think it's really
29 necessary to get the ins and outs of the case, you know, we
30 don't need to know the story, just some basic information
31 to help us decide what level of testing we need to do.

32
33 Q. What about from your experience in the analytical and
34 evidence recovery teams; do you think there is extra
35 information that could help those teams process samples
36 more effectively?

37 A. So from the analytical side, no, because the
38 analytical team is about doing the mechanics of the DNA
39 profiling. So once the sample hits the analytical team,
40 all the way through to when the DNA profile is done, that
41 information - those decisions should be made beforehand or
42 can be made afterwards, but in that middle part, I don't
43 think it really has an impact.

44
45 From managing the evidence recovery team, yes, there
46 were times when we put samples on hold to seek more
47 information from Queensland Police. So, you know, if we

1 received an example that was a sample taken from some
2 underpants and they haven't ticked that semen testing was
3 required, did they just forget to tick "semen not required"
4 or was it a case where semen was not an issue because it is
5 an allegation of touch? And if there had just been some
6 very basic information in the case page where you could
7 just quickly check that the allegation was a touch rather
8 than of contact with semen, then I wouldn't have had to
9 bother someone with that question. So, yes, there were
10 times when a little bit of extra information would go
11 a long way.

12
13 The same, if you are looking for semen, are you
14 looking for multiple individuals or one individual would be
15 a little bit useful, if you are sampling a very large item
16 and there are multiple areas that are positive for semen.
17 Is there the potential that, you know, semen has come from
18 multiple sources, or has it just come from one? So, you
19 know, that sort of information would be useful. Like
20 I said, we don't need the big story around the case; we
21 just need enough information to enable us to do our job.

22
23 Q. Have you had the opportunity to raise that concern, or
24 that suggestion, perhaps is a better way of putting it,
25 your suggestion to have more information, with anyone
26 within the laboratory?

27 A. Yes, it's something we've discussed, before, yes. And
28 when I say "the information we require to do our job",
29 I shouldn't say that we can't do our job, because we have
30 those communication channels with the QPS. It's more - a
31 little bit more efficient if we don't have to go through
32 the process of question and answer. Yes, at different
33 times, you know, it has been a subject that I've raised
34 before.

35
36 Q. Okay. Who have you raised that with?

37 A. I know I have spoken to my line manager before.
38 I might have even brought it up in general discussions in
39 the management team. I remember discussing what sort of
40 options there may be when we were in development of the
41 forensic register, what sort of pages or something we could
42 sort of create that might be of use. I don't think it was
43 a very - it's not a very straightforward thing, because it
44 requires something at the QPS end, someone to enter data at
45 that end, or something, and I don't think it was a very
46 easy thing to answer.

1 Q. The forensic register was implemented in about 2017;
2 is that right?

3 A. Middle of 2017, I remember, yes.
4

5 Q. So this is a long-term suggestion of yours; it's not
6 something that has come to you since you have been
7 a reporter?

8 A. Oh, no, no, no.
9

10 Q. You have had that view for at least five years?

11 A. Yes, something that, you know - yes, yes.
12

13 Q. And it has been talked about in the management team in
14 that --

15 A. Yes, it's not something that we, you know, bring up
16 every week, but I don't believe it's a new thing that
17 I talked about, no.
18

19 Q. Over your time in the laboratory, have you seen any
20 change to that, since 2017, any increase in information you
21 are provided with?

22 A. Oh, I don't think things have changed from what we see
23 is available in the forensic register. I think we get the
24 same information from when it was implemented, if I can
25 recall correctly.
26

27 MS HEDGE: Thank you, Mr McNevin. Those are my questions.
28

29 <EXAMINATION BY MR HUNTER:
30

31 MR HUNTER: Q. Mr McNevin, do you recall a few moments
32 ago being asked about the decision to use a mixture of
33 bleach, Tergazyme and 70 per cent ethanol to clean the bone
34 sampling equipment?

35 A. Not a mixture of those chemicals, but those different
36 chemicals were discussed, yes.
37

38 Q. Using those three chemicals to clean the bone sampling
39 equipment?

40 A. Well, we discussed that we had been using Tergazyme
41 and we moved to using bleach and ethanol or TriGene and
42 ethanol.
43

44 Q. I'm sorry, I inadvertently wrote down the wrong
45 chemical starting with T. It's TriGene, sorry; is that
46 right?

47 A. TriGene.

1
2 Q. So you were being asked by Ms Hedge about the decision
3 to use bleach, TriGene and ethanol to clean the bone
4 sampling equipment?

5 A. Bleach or TriGene and ethanol, yes. So you use the
6 cleaning agent - either bleach or TriGene - and then you
7 follow that by wiping away the cleaning agent with the
8 70 per cent ethanol.

9
10 Q. You were asked about that and you said that you
11 understood that bone sampling equipment was different;
12 correct?

13 A. Well, it's not the same equipment that you use for
14 other things. There's certain things, like chisels and
15 what-not, that are only used for bone sampling, that you
16 have no call to use for other evidence recovery processes,
17 but if they were useful in another evidence recovery
18 process, you would use them. They don't have to be just
19 for bone.

20
21 Q. But given that they are different, though, why would
22 you use necessarily the same cleaning process for them as
23 for other items?

24 A. Well, they are only different in that you require
25 a different tool. They are not different as in we have
26 forceps and scissors and other cutters and things that we
27 use throughout the laboratory, so you could - you know, you
28 don't need a unique cleaning protocol for every single
29 individual different tool you have. You can use the same
30 cleaning protocol for lots of different things.

31
32 Q. It is important, though, that whatever you do clean
33 them with doesn't cause them to pit or to rust?

34 A. Yes, and that's why you would use TriGene on certain
35 surfaces, because it doesn't have the same corrosive
36 activity as bleach.

37
38 Q. Do you say that there have not been problems with
39 pitting and/or rusting of the bone sampling equipment at
40 the laboratory?

41 A. In my time as the evidence recovery supervisor, no-one
42 had raised it to me, no.

43
44 Q. No-one has ever said to you that the method of
45 cleaning being used was causing the equipment to either pit
46 or rust?

47 A. Correct. So I implemented that cleaning regime as

1 we've discussed, via those emails, and no-one has come back
2 to me to say, "Allan, that wasn't the best process. Maybe
3 we should be doing something different. There's a problem
4 with it." I've not had that conversation with anyone.

5
6 Q. Can I take you back, please, to August 2017.
7 A. Sure.

8
9 Q. In particular, this is in the period of time that is
10 in the lead-up to the adoption of what I will call the DIFP
11 workflow.
12 A. Okay, yes.

13
14 Q. You understand what I'm talking about there?
15 A. Yes, yes.

16
17 Q. Can we have, please, Mr Woolridge,
18 [WIT.0040.0002.0001] on the screen. These are the
19 minutes - sorry, I should say this is the agenda of
20 a meeting that says that you were present. Do you see
21 that?
22 A. Yes.

23
24 Q. Can you go down the page to the bottom where you see
25 item 4.2, "Sub-Team Updates"?
26 A. Yes.

27
28 Q. Now, at this stage, in 2017, which team were you
29 working in?
30 A. I would have been looking after the evidence recovery
31 team at that time.

32
33 Q. You see there "PMB". I assume that's Ms Brisotto?
34 A. Yes.

35
36 Q.
37 *Staffing levels significantly reduced due*
38 *to long term leave. Resourcing to this*
39 *team is being looked into.*

40
41 A. Mmm-hmm.

42
43 Q. So you well understood at that point that there were
44 staffing issues with the evidence recovery team?
45 A. I actually don't really remember what that relates to.
46 I must have had some staff going off on some long-term
47 leave and I must have requested to get more staff, I can

1 only assume.
2
3 Q. Can I ask you about the process of
4 micro-concentration?
5 A. Sure.
6
7 Q. I think we understand that the normal elution process
8 is highly automated?
9 A. Yes.
10
11 Q. Is the quant process also automated?
12 A. Yes.
13
14 Q. What about the micro-concentration process - does that
15 involve manual intervention?
16 A. Yes, it's a tube-by-tube process.
17
18 Q. So it slows the procedure down significantly?
19 A. Slows what procedure down?
20
21 Q. Well, the process of testing.
22 A. Oh, well, it's a more labour-intensive test. I mean,
23 it - it has an impact. Depending on how many you're doing
24 and how often you have to do them, that might have more of
25 an impact, but it's not a procedure done by the evidence
26 recovery team.
27
28 Q. It's not. All right.
29 A. It's done by the --
30
31 Q. By the analytical team. All right. Are there issues
32 with staff suffering repetitive strain injuries and that
33 sort of thing from doing micro-concentration, to your
34 knowledge?
35 A. Yes, so when I managed the analytical team and I had
36 staff that were performing micro-concentration using the
37 microcon filters, we didn't do large batches of them, so
38 I never had issues. But I have heard secondhand that maybe
39 if you're doing a lot of them, you're increasing the amount
40 of pipetting. Pipetting is where you're drawing liquid up
41 and down, and it has a very, you know, repetitive --
42
43 Q. You're indicating pushing up and down with your thumb.
44 A. Yes, it's a repetitive process that might, I would
45 imagine - if not - you know, you could manage, I guess,
46 staff rotation and stuff like that to try and manage that.
47

1 Q. Now, can I ask you about Project #184?

2 A. Yes, you can ask me about Project #184.

3

4 Q. You know what I'm talking about when I say
5 Project #184?

6 A. Yes, yes.

7

8 Q. There were a number of stages to that project, were
9 there not? There was the development of a project plan?

10 A. That's the usual thing when we do projects, yes.

11

12 Q. Do you recall seeing the project plan for
13 Project #184?

14 A. Yes - well, I don't sort of recall. I know that I've
15 looked back through the records and seen that I did.

16

17 Q. Let's have a look, please, at [FSS.0001.0001.0862].

18 Do you see the front page of that document?

19 A. Yes.

20

21 Q. Do you recognise that?

22 A. I can see it's a project plan. I mean, yes, I --

23

24 Q. Well, do you see it's a project plan for Project #184?

25 A. Yes, and as a member of the management team, I'm
26 assuming I read it and I probably even had to complete
27 a risk assessment at the bottom, second page.

28

29 Q. I'm going to come to that risk assessment in a moment.

30 Can we start with what we see at the bottom paragraph
31 that's currently visible, where it talks about:

32

33 *... extracts with low Quantification values*
34 *were recommended to be concentrated.*

35 *Templates of [lower than] 0.132ng were*
36 *found to exhibit marked stochastic effects*
37 *after amplification.*

38

39 A. Yes.

40

41 Q. How does 0.132 nanograms convert to nanograms per
42 microlitre in terms of the standard elution values?

43 A. Well, it's - so the 0.132 nanograms relates to the
44 fact that we use - in the PowerPlex 21 amplification kit,
45 you have to put 15 microlitres of sample into that
46 reaction. Okay? So regardless of whatever concentration
47 your sample is, 15 microlitres needs to go in. So if you

1 only have 5 microlitres of sample, you need to add
2 5 microlitres of sample plus 10 microlitres of diluent,
3 et cetera. So 15 - 0.132 divided by 15 gives you your
4 0.0088 ng/ μ L, so 0.0088 ng/ μ L times 15 microlitres equals
5 0.132 nanograms.
6

7 Q. So you understood that to mean that when samples were
8 processed, samples that had less than 0.0088 ng/ μ L of DNA,
9 without being micro-concentrated --

10 A. Yes, just straight-up first result.
11

12 Q. -- exhibited marked stochastic effects; correct?

13 A. Well, you could still have that effect after
14 micro-concentration. Right? That's just the - so samples
15 where the total DNA template input into your amplification
16 reaction were less than 0.132 nanograms, we would see
17 marked stochastic effects.
18

19 Q. Okay. Can we go, please, at the bottom of page 2, to
20 the "Expected Outcome". Do you see that there on the page:
21

22 *It is expected that the data ... will match*
23 *the anecdotal information from case*
24 *managers which has been gathered from years*
25 *of experience.*
26

27 A. Yes, so generally speaking, if people are thinking
28 that they see, you know, more or less of something, or
29 whatever, you would expect that if you go and look at
30 a broader dataset, you would probably see something similar
31 to what people are reporting anecdotally. But it doesn't
32 necessarily follow. That's why you need to go and look at
33 the broader dataset.
34

35 Q. It's not a very scientific way to approach it, is it,
36 to simply posit the expected outcome of the project in that
37 way - that is, this is what you expect the data to show?

38 A. Well, it's a project proposal, right, so you have to
39 have an --
40

41 Q. My question to you is whether it's consistent with
42 a scientific approach to identify at the outset what you
43 expect the outcome to be?

44 A. Well, we don't run a pure research facility. So we
45 don't just do testing on things where we have no idea what
46 the answer is going to be. We would only do testing on
47 where we have some sort of expected outcome in order for

1 the management team to effectively determine whether that
2 project should go ahead or not.

3
4 Q. But surely you would accept this proposition, that
5 that suggests from the outset a bias in the approach - that
6 is, that you expect the outcome to be a particular one,
7 that is, that the data will accord with the anecdotal
8 information you've received?

9 A. No, because if the data had actually shown us
10 something different, we would have done something
11 different.

12
13 Q. We will come to what the data showed in a minute. Can
14 we scroll down, then, to the "Risk Assessment" which is on
15 page 3. So you were in charge of the evidence recovery
16 team at that stage?

17 A. Yes.

18
19 Q. Did you contribute to this risk assessment?

20 A. I would say I wrote that, yes.

21
22 Q. That's your cipher on the right-hand side with the
23 date underneath it?

24 A. Yes, that's my initials and the date, yes.

25
26 Q. What sort of risks were you considering?

27 A. It was really my role in the evidence recovery team to
28 look at whether this process would impact upon the evidence
29 recovery team, and, as we've discussed, there really
30 wouldn't be any impacts on the evidence recovery team as
31 such.

32
33 Q. Well, what do you mean by impacting on the team? Do
34 you mean the people who actually physically worked in
35 the --

36 A. Well, our evidence recovery processes, our evidence
37 recovery tasks, the people themselves - all of those
38 things, anything that might have an impact upon the
39 evidence recovery team.

40
41 Q. As the name implies, the task of the evidence recovery
42 team was the recovery of evidence; correct?

43 A. It's a catch-all term to refer to basically sampling,
44 and sampling exhibits.

45
46 Q. The idea being, though, that you were attempting to
47 recover evidence in criminal cases that were being

1 investigated by the QPS?

2 A. By that rationale, every team is an evidence recovery
3 team.

4
5 Q. Well, no, wasn't your job to ensure that as far as
6 possible, as far as practical, available evidence was
7 identified so that it could be analysed by other
8 scientists?

9 A. Our role was to do the sampling. That's what the
10 evidence recovery team was.

11
12 Q. But you're sampling so as to recover evidence, aren't
13 you?

14 A. Sampling so as to potentially find any DNA that's
15 present on an exhibit, yes.

16
17 Q. Which would be then evidence?

18 A. Well, yes, but that's no different to, as a reporting
19 scientist, trying to interpret a DNA profile in the process
20 of evidence recovery.

21
22 Q. But it's not even going to get to a reporting
23 scientist if you don't recover it, though, is it?

24 A. In the same way that police need to send us the
25 exhibits.

26
27 Q. What I'm wondering, though, is whether you considered
28 the broader risks of --

29
30 THE COMMISSIONER: Q. Is the answer, yes, that if you
31 don't recover the DNA, then it won't even get to the
32 reporters?

33 A. I guess so, yes. I mean, yes, if you don't sample it
34 correctly.

35
36 MR HUNTER: Q. Did you consider the wider risks of what
37 was being proposed?

38 A. Not really, because my main focus was - as the manager
39 of the evidence recovery team, was to - are there risks in
40 this project proceeding, and it's really about the project
41 proceeding - proceeding to the evidence - is there any risk
42 to the evidence recovery team?

43
44 Q. Did you not consider that there might be risks to the
45 recovery of evidence?

46 A. I identified there that there may be some risks
47 associated to samples not getting results.

1
2 Q. But they're offset by process efficiency so that the
3 results should be more timely - yes?
4 A. I think that's fairly critical, that we get results
5 out in a more timely manner.
6
7 Q. So it doesn't matter if you miss some evidence?
8 A. No. That's not what I'm saying at all.
9
10 Q. Well, that's the inevitable consequence of what was
11 being proposed, isn't it?
12 A. It's just the broader practicalities of working in,
13 you know, a scenario where we can't - it's not practical to
14 sample everything at a crime scene. It's not practical to
15 do everything to the nth degree.
16
17 Q. No-one's --
18 A. So it's just in that broader --
19
20 THE COMMISSIONER: Q. Wait a minute. You're not being
21 asked about the crime scene.
22 A. Sorry, yes. Sorry, my apologies. I'm just thinking,
23 you know, in the broader sort of context that it seems --
24
25 Q. What broader - what's the context?
26 A. The broader context of a laboratory trying to carry
27 out its functions, that it's my understanding at my very
28 junior level of management that you just don't have the
29 resources to do everything and spend, you know, all the
30 time in the world on everything that you can think about.
31
32 Q. Well, you are not being asked to do - it doesn't
33 assist me in working out what's happening here --
34 A. Okay.
35
36 Q. -- if you speak in terms of doing everything in the
37 world as though that's an impossibility. What you're being
38 asked about is whether the lab is doing what it ought to be
39 doing.
40 A. Okay.
41
42 Q. Now, if you concentrate upon the task in front of you
43 in the lab and the questions being asked, it will assist me
44 in understanding your position.
45 A. Okay. So my position at that time was, as the
46 evidence recovery senior scientist, does this project
47 impact upon the sampling of exhibits? And, no.

1
2 Q. Well, how can that be right, when what you are being
3 asked to approve is an experiment that might lead to
4 samples not being tested that might yield results? Why is
5 there no impact upon the evidence recovery team? Its work
6 would be impeded because it wouldn't be doing work on some
7 samples that might yield DNA for analysis.
8 A. Because all the sampling is done prior to DNA
9 quantification. So the task that the evidence recovery
10 team would be carrying out would be exactly the same
11 regardless of whether there is a DNA insufficient process
12 or not.
13
14 Q. Don't you put samples into the Genetic Analyzer; is
15 that part of --
16 A. Not the evidence recovery.
17
18 Q. I'm sorry, you're talking about the evidence recovery
19 team.
20 A. Yes, I am.
21
22 THE COMMISSIONER: Go on. Yes, Mr Hunter. Mr McNevin is
23 distinguishing between his role in recovering the evidence,
24 which is then taken by others for quantitation and
25 submission to the Genetic Analyzer, and if it's determined
26 that some samples with a quant below a particular figure
27 are not to be progressed beyond quantitation, that involves
28 steps beyond the role of the evidence recovery team.
29
30 MR HUNTER: I understand that.
31
32 THE COMMISSIONER: Q. Is that what you are saying?
33 A. Yes.
34
35 MR HUNTER: Q. Nonetheless, you were in favour, weren't
36 you, of some sort of triaging process coming into play to
37 reduce the number of samples that were subject to microcon,
38 weren't you?
39 A. I was more just thinking on a broader context of us
40 doing the best work we can on the sort of samples that give
41 us the most amount of information.
42
43 Q. I'll ask you the question again. You were in favour,
44 weren't you, of adopting an approach that resulted in fewer
45 samples being subject to micro-concentration?
46 A. Well, I suppose ultimately that was the process in
47 question, but it wasn't specifically about microcon; it

1 wasn't specifically about reducing the number of samples
2 that go to microcon. It was just about whether we could be
3 a more efficient laboratory.

4
5 Q. One way you saw it being more efficient was by not
6 testing low-quant samples?

7 A. I don't believe it was just about not testing them
8 straight up. It was about - sorry, about testing - not
9 testing them straight up but having the ability, therefore,
10 for them to be tested at a later date if they were seen to
11 be important.

12
13 Q. But that's what happened, isn't it, that they simply
14 would not get tested if they were quantitated in that DIFP
15 range?

16 A. Unless we were asked to do further testing by
17 Queensland Police.

18
19 Q. Can we go, please, to an email that you sent - and
20 perhaps before we go to it, do you recall that there was
21 a project paper prepared by Mr Howes and circulated for
22 feedback?

23 A. Initial sort of report as part of this project, yes.

24
25 Q. And you provided feedback to him --

26 A. Yes.

27
28 Q. -- on more than one occasion?

29 A. Probably. I can't quite remember exactly, but I do
30 remember giving some feedback, yes.

31
32 Q. I'm suggesting to you that you provided some feedback
33 to him on 5 December. Mr Woolridge, could we please have
34 [WIT.0040.0005.0001]. Could we scroll down the page to
35 where we have "Figure 1" and "Figure 2".

36 A. Mmm-hmm.

37
38 Q. Perhaps if we could just enlarge those two, the
39 "Figure 1" with the emoji after it and "Figure 2" with the
40 emoji, please. So do you agree with me that "Figure 1",
41 you have an unhappy face emoji?

42 A. A sad face.

43
44 Q. "Figure 2", you have a happy face emoji?

45 A. I can only remember, I think that was a bit of an
46 internal joke, that "Figure 1" might have been a pie chart,
47 and I don't particularly like pie charts.

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Q. Well, you agree with me that those emojis mean you liked one and didn't like the other?

A. Like I said, if I remember it correctly, it was just an indication that - it was a bit of a joke with Justin, because it was a running joke in the management team that I didn't particularly like pie charts as a way to represent data.

Q. Could we go, please, to [FSS.0001.0001.0834] and go to page 10, please.

A. It is a pie chart.

Q. That's the pie chart that you didn't like?

A. Well, it was just a general joke about the fact that I'm not a big fan of pie charts as a way to represent data.

Q. Well, that pie chart, though, identified that the success rate for auto-microcon samples was 10.6 per cent?

A. Yes.

Q. You thought, what, that this was an unhelpful way of presenting the data?

A. No, it's not what I was actually trying to say, because I understand that pie charts - when there's a limited number of data points, for example, there's just an A or B data point here, they are not a bad way to present the data. It was, like I said, more of an internal joke between Justin and I that --

Q. Because you understand that within this paper, "Success" and "Fail" were clearly defined at the outset; correct?

A. From memory, I think it is, where it's talking about a DNA profile that's able to be interpreted and one that's not - is that correct?

Q. Yes. So in that sense, it is a binary concept - you have got something that either succeeds or it fails?

A. It's able to - yes.

Q. So a pie chart in this instance is a pretty good way of representing simple data like that, isn't it?

A. Yes, it wasn't something where I was saying to Justin, "You can't have that as a pie chart." Like I said, it was a little internal joke about the fact that "Al doesn't like pie charts."

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Q. Okay. Well, if we go down the page to the next page, please, this is figure 2. You liked that one, though; is that right?

A. It's not a pie chart. That was the joke. It was just a little joke to Justin that I don't like pie charts, and one's a pie chart and one's not.

Q. Do you think that figure 2 is a better representation of the data that the study identified?

A. I guess it does provide a bit more information. It's a little hard to read, to be honest, there's a lot of extra decimal points, and the significant figures there are quite large. It is a little hard to read.

Q. Do you agree that as a dataset, it's likely to be skewed fairly heavily towards the lower-quant samples because of the higher numbers of examples in those various quant categories?

A. Depends on how you're reading it. I think there's a reasonably - a reasonably visual approach there, where you can see that the blue lines are a lot smaller than the red lines at one end of the chart, and they get closer together in their height as you go towards the top of the chart.

Q. Certainly an untrained person looking at that would look at it and see that there's a lot of red and not much blue?

A. At the bottom. And then further up the top, there's more blue and less red. Yes, that's why I think it's a little bit more visual.

Q. Now, this paper, or the draft version of it - were you aware of any controversy amongst the scientists at the laboratory about it?

A. I mean, obviously since, I have become aware that there has been a lot --

Q. I'm talking about at the time.

A. At the time, I can't really remember it being something that was a big controversy, no. I mean, again, we're talking something that was sort of about five years ago, and there's lots of things going on at the laboratory. We've already talked about the sperm microscopy, which was around that same time. Lots of things happening. I can't remember exactly what was a big controversy or not. Put it

1 this way, it didn't stick out in my mind.

2

3 Q. One thing, though, is quite clear, that what was being
4 proposed by this draft paper was that micro-concentration
5 in respect of low-quant samples would cease when it came to
6 P2 samples?

7 A. I think so, yes.

8

9 Q. But not P1?

10 A. I'd have to go back and read it again. Does it say
11 that specifically?

12

13 Q. Well, let's go, then, to another document. Just bear
14 with me a moment, please. Could we go, please, to
15 [WIT.0040.0007.0001]. That's exhibit 5 to your statement.

16 A. Mmm-hmm.

17

18 Q. These are the minutes of a meeting. Do you see you
19 are an apology?

20 A. Okay.

21

22 Q. But we see at 5.7 on page 2, there is reference there
23 to an options paper being drafted for priority 2 samples.

24 A. Yes.

25

26 Q. Am I right that that's how you understood it - that
27 what was going to happen was that it would be priority 2
28 samples where micro-concentration would stop?

29 A. I assume so. If you think of it in a way that if it's
30 an efficiency measure where we don't process the sample
31 automatically, then QPS give us information to process if
32 it's important. Obviously the P1s are more important, so
33 it would be less efficient to then ask for them to give us
34 information and ask them to do it again, so it would be
35 just more efficient to do it straightaway.

36

37 Q. Perhaps if we go back to [FSS.0001.0001.0834] at
38 page 20, do you see at the top of the page:

39

40 *Based on the data analysis, the following*
41 *recommendations are offered:*

42

43 *1. Cease 'auto-microcon' processing with*
44 *the following exceptions:*

45 *a. Priority 1 samples ...*

46

47 A. Yes.

1
2 Q. So what I'm getting at is, it was never your
3 understanding that what was being proposed, and indeed what
4 was implemented, applied to P1 samples?
5 A. I can't remember what my understanding was at the
6 time, but that would appear what all the paperwork
7 suggests, yes.
8
9 THE COMMISSIONER: Q. You are not aware of any document
10 that would have caused you, at the time, to think that this
11 was a process that was being suggested across the whole
12 range of samples, including P1, having regard to the
13 documents that you have been shown by Mr Hunter and having
14 regard to the status of P1 samples as something to which --
15 A. Yes, I don't really recall it being something about
16 P1 samples, no. That's just my memory.
17
18 MR HUNTER: Q. It would make no sense in the case of P1
19 samples, would it?
20 A. I guess not, unless they're talking about - oh, it
21 depends on what sort of processes are in place across -
22 they're monitoring the results and giving us feedback. But
23 generally speaking, I would say that, yes, it would be more
24 efficient to just take them all and work them all
25 straightaway.
26
27 Q. Anyway, we know that up until early 2018, the process
28 was that for P1 and P2 samples, they were all
29 auto-microconned?
30 A. Okay.
31
32 Q. You understood that, didn't you?
33 A. Yes, I'm not sure of the dates, that's all. Sorry,
34 when you say "early 2018" --
35
36 Q. Let's assume for present purposes that the Options
37 Paper, as it has become known, was presented to police in
38 early 2018.
39 A. Okay, right.
40
41 Q. Prior to that point, samples in the low-quant range --
42 A. Were auto-microconned.
43
44 Q. -- were auto-microconned?
45 A. Automatically put through the microcon process, yes.
46
47 Q. They were never amplified without first being

1 micro-concentrated?

2 A. I don't think so. I'm not quite sure whether
3 auto-microcon was something we did straightaway after we
4 implemented PowerPlex 21 or whether it was something we
5 brought on subsequently. I can't remember.

6

7 Q. Certainly immediately prior to 2018 --

8 A. Yes, immediately prior.

9

10 Q. -- there was never a situation where low-quant samples
11 were amp'd without first being micro-concentrated?

12 A. Yes.

13

14 Q. There were procedures, standard operating procedures,
15 that documented all of this; correct?

16 A. I assume so, yes.

17

18 Q. In terms of micro-concentration, though, there were
19 different approaches in terms of the extent to which
20 a particular sample would be concentrated?

21 A. Yes, we've got our - we've already talked about the 35
22 and 15 elsewhere in evidence, I believe.

23

24 Q. But sometimes scientists would ask that a particular
25 sample be micro-concentrated to full?

26 A. Yes.

27

28 Q. And there was a standard operating procedure for that,
29 too, wasn't there?

30 A. Well, it was kind of the same - part of that whole -
31 the standard operating procedure for microcon, as far as
32 I understand, was that that the analytical scientists would
33 look at the notes, and if there was - I think to 35 was the
34 default, and so if there was no notes, you would microcon
35 to 35, but if there was a request to microcon to full, you
36 would microcon it down to a level which could - sometimes
37 it wasn't - in the actual physical nature of doing it, the
38 sample just won't concentrate down lower than something
39 more than that.

40

41 Q. But my point is that micro-concentration to full was
42 something that had been happening for some years prior to
43 2018, hadn't it?

44 A. As far as I was aware, it was an option all the way
45 from when I very first started at FSS.

46

47 Q. When was that?

1 A. 2004.
2
3 Q. Can I ask you, then, about the decision in June of
4 this year, particularly on 6 June - are you aware of the
5 decision I'm talking about, about how to change the
6 workflow with respect to the DIFP?
7 A. Is this following some DG memo?
8
9 Q. Yes.
10 A. Yes, okay.
11
12 Q. That there was a decision made that all samples in the
13 DIFP quant range would be sent directly for amplification?
14 A. Yes.
15
16 Q. You recall seeing that?
17 A. I remember that.
18
19 Q. You remember seeing a memo going around?
20 A. Yes, yes.
21
22 Q. What section were you working in at that time?
23 A. This year? I was a reporting scientist.
24
25 Q. Did it strike you as an odd decision to make, to amp
26 these low-quant samples without first micro-concentrating
27 them?
28 A. A little bit, yes, but I thought that the department
29 was - it seemed to me that they were working off some
30 wording of what the director-general had said. I can't
31 really remember. I just remember, "Okay, this is the new
32 rule. Okay, I'll work under this paradigm now."
33
34 Q. You knew, though, that prior to 2018, it had been
35 identified that amping these low-quant samples without
36 micro-concentrating them simply led to marked stochastic
37 results?
38 A. Yes.
39
40 Q. Did it occur to you in June of this year, when you saw
41 what was being proposed, that that process was likely to be
42 a complete waste of time?
43 A. I wouldn't agree with that because - yes, I just -
44 I wouldn't agree with that.
45
46 Q. You wouldn't agree with it?
47 A. No.

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Q. What was it likely to achieve?

A. Well, you can get an indication from the profile, when it is amped, as to whether it might be better to microcon it to 35 or microcon it to full, because you have an indication of what's in that.

Q. But doing that potentially wastes 15 microlitres of the sample, doesn't it?

A. Well, it's not a waste if you get some information from it.

Q. Well, do you agree with me that amping a low-quant sample in the DIFP range without first micro-concentrating it was likely to lead to a result that was forensically useless?

A. Yes.

THE COMMISSIONER: Q. Nobody is trying to put responsibility on you in any way for this process. What's being asked for is your expert opinion about the process and what you think about its efficiency or lack of efficiency. That's what Mr Hunter is after.

A. Yes, sorry if I sound a little vague, because I think there's a little bit of nuance there that's not really being discussed.

MR HUNTER: Q. What I'm putting to you is that what was proposed in June of this year with respect to samples in this range was completely different from how they had been treated immediately prior to the start of 2018?

A. I'd agree with that, yes.

Q. Can I get you to explain, please, what useful result you think might come from proceeding to directly amplify a low-quant sample?

A. So if you got indications that there's a very large number of contributors - and it doesn't matter if you're going to concentrate it, as soon as you get more than four contributors in a mixture, you know that you can't interpret that because we haven't validated to interpret those higher-order mixtures beyond four people. So if you get something that straight up you can see that it's a very complex mixture, there's no point concentrating, because you're not going to be able to interpret it. So that's one example, and --

1 Q. Just pausing there.

2 A. Sure.

3

4 Q. How do you know whether what you are seeing is in fact
5 a number of contributors or merely an example of the
6 stochastic effects?

7 A. Okay, so, yes, when you've got - so I think you've
8 probably already heard evidence about how you interpret
9 pieces of information from both parents, and you get one
10 copy from your father and one from your mother, so you
11 would expect to see no more than two pieces of information
12 at a particular locus when you have a single-source
13 profile, no more than four if you have a two-person
14 mixture. So therefore if you see nine peaks, it has to be
15 at least five people.

16

17 Q. Unless the peaks are a result of the stochastic
18 effects about which we have been discussing?

19 A. But if you've got nine peaks that appear to be
20 allelic, it's a five-person mixture at least, regardless of
21 whether the stochastic effects are there or not. So
22 there's like a number of peaks above which - so, you know,
23 if you have eight peaks which appear to be allelic, you may
24 have four, but you might have five. If you have only got
25 six, you might have three people, but you might have four
26 or you might have five, so you need more information across
27 the profile. But as soon as you see enough to make five
28 people, you know that there's at least five people in that
29 mixture.

30

31 THE COMMISSIONER: Q. But you don't know any of that
32 when you get your quant, which is a low quant; all you know
33 is you have a low quant?

34 A. That's what I'm saying about when you get it amplified
35 straight up. When I said that by amplifying it straight
36 up, do you necessarily - is it a waste of time? Not
37 necessarily, if you get some useable information from that
38 profile.

39

40 Q. Yes, if you do, but --

41 A. If you don't.

42

43 Q. -- if you don't, what do you do?

44 A. Well, then you would need to micro-concentration.

45

46 Q. That's right, so why don't you take that step in the
47 first instance?

1 A. Oh, I'm not saying that it's the most efficient way of
2 doing it, but I don't say it's a complete waste of time, is
3 what I'm saying.

4
5 Q. I understand. Which is the more efficient way of
6 doing it, do you think?

7 A. Oh, I think the auto-microcon.

8
9 MR HUNTER: Q. Can you tell us about any other advantage
10 of directly amplifying low-quant samples?

11 A. Sometimes, from what I can recall, you might see that
12 it's a very clear single-source profile matching the person
13 the sample has been taken from, and so you see that that
14 profile is going to match the person that the sample has
15 been taken from.

16
17 Q. The likelihood of that is surely pretty low, getting
18 a clear single-source profile?

19 A. Depends on the source. If it's taken from a sample
20 that's been taken from an intimate site on someone, then
21 it's highly you'll get a profile matching the person that
22 you're sampling.

23
24 Q. So if it's possible, and you think this is an
25 advantage of amplifying these samples directly - that is,
26 that you might get a single-source profile?

27 A. I didn't believe I said it was an advantage.

28
29 Q. Well, I asked you whether there was any other
30 advantage of directly amplifying these low-quant samples,
31 and you told me that you might get a single-source profile.

32 A. My apologies, I didn't mean it was an advantage over
33 the alternative of the microcon process, but there is some
34 utility in it. I was meaning that it wasn't a complete
35 waste of time.

36
37 Q. Because if there was some utility in it, you
38 understand that under the DIFP regime that applied prior to
39 June of this year, you wouldn't even have the opportunity
40 of getting this rare single-source profile, because the
41 DIFP samples wouldn't get tested at all, would they?

42 A. Correct. Well, unless we were requested to do so.

43
44 Q. Lastly, in connection with the reporting of these
45 directly amplified low-quant samples, let's say you get
46 a complex mixture that's incapable of being interpreted --

47 A. Mmm.

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Q. -- or you get stochastic effects or whatever, something that is effectively meaningless insofar as the police are concerned. The police would still get a reported result, though, wouldn't they?

A. Yes, yes, yes.

Q. The way these samples would get reported on the forensic-register would be different from the way they would previously have been reported for DIFP?

A. Yes, so previously they would get a line that says "DNA insufficient for processing", and then if we amplified it and we had some sort of profile result, we don't provide them with that result - sorry, I might need a drink of water - we would report them with a result line that reflects the DNA profile we were getting.

Q. That's right, but what I'm getting at is under the DIFP regime, at least there would be clearly set out in the forensic-register the prospect that the sample could be further tested by way of micro-concentration or pooling or whatever?

A. That's my understanding, yes.

Q. But post 6 June, the report to the police would suggest, "Well, this is it. This is what we have done, and this is the result"?

A. I would think so. I mean, I'm not sure --

Q. So there would have been nothing to suggest to the police, "Look, there's potentially 75ml or so, maybe 85ml, of sample left over. We might be able to micro-concentrate that and perhaps get a result" - there was nothing that suggested that to them?

A. I don't believe there's anything in the forensic-register that suggests that.

Q. Could we please go back to your email of 5 December 2017, which is [WIT.0040.0005.0001].

THE COMMISSIONER: What's the date of that?

MR HUNTER: 5 December 2017.

Q. Can we go, please, to the bottom of the page where the word "Recommendation 2" appears. When you say you'd "support up to 0.02 ng/µL" --

1 A. Yes.
2
3 Q. -- what were you saying there?
4 A. Look, I can't remember exactly, but it looked to me
5 that I was thinking that there must - I must have been
6 looking at some sort of data and thought it was a point
7 where I was happy that samples below that were more likely
8 or less likely to provide some utility. I go on to say
9 that, you know, "still give QPS an option to ask for more
10 work on the sample". I think I was of the understanding
11 that there would be quite a decent dialogue between the lab
12 and QPS about what gets further worked and what doesn't.
13
14 Q. So your "Recommendation 2" - and I can put it up on
15 the screen if you need to see it --
16 A. Yes.
17
18 Q. -- but what I'm suggesting to you it says is:
19
20 *Cease processing all Priority 3 samples up*
21 *to the Quantification value of*
22 *0.0133 ng/ μ L ...*
23
24 Right?
25 A. Okay.
26
27 Q. In your email, you said you would support up to 0.02?
28 A. Okay.
29
30 Q. So you were suggesting that it was worthwhile
31 abandoning the testing of even more P3 samples than the
32 option paper was recommending; correct?
33 A. I think I - yes, I was just saying that if they wanted
34 to go higher, I would support that. I can't really
35 remember - I can't remember exactly my exact thoughts
36 around that at the time, but maybe - maybe there was some
37 data I saw that showed that 0.0 - sorry, what was that
38 other number, 0.0133 or something?
39
40 Q. 0.0133.
41 A. Yes. So maybe I saw that there wasn't much difference
42 in the data between 0.0133 and 0.02 or something. I can't
43 actually remember that data.
44
45 MR HUNTER: Those are my questions, thank you.
46
47 THE COMMISSIONER: Mr Rice?

1
2 MR RICE: No, thank you.

3
4 <EXAMINATION BY MR HICKEY:

5
6 MR HICKEY: Q. Mr McNevin, the Commissioner received
7 some evidence from Dr Moeller to the effect that she had
8 observed you being belittled by Ms Allen. Is that
9 something that you have any personal recollection of?

10 A. No.

11
12 MR HICKEY: Thank you. Those are the questions,
13 Commissioner.

14
15 THE COMMISSIONER: Q. I just wondered whether you could
16 help me with a couple of things, Mr McNevin.

17 A. Yes.

18
19 Q. On this business of the cleaning change that was
20 instituted, I think you mentioned that you looked at
21 Project #148, a project in relation to optimising the
22 cleaning protocol for bone crusher vials. Did you say
23 that?

24 A. Yes, yes.

25
26 Q. Could document [WIT.0003.0456.0001 at 0007] be put on
27 the screen. Your colleagues who wrote this report were
28 concerned with working out a protocol for washing vials
29 that are used in the testing of bone samples?

30 A. Yes, these special little tubey things.

31
32 Q. Yes, yes. So in order to work out how they were to be
33 cleaned, we see in the second paragraph, on the third line:

34
35 *The purpose of this "Equipment Control" is*
36 *to show that the crushing vial is free from*
37 *contaminating DNA.*

38
39 So the purpose of the cleaning is to get rid of any DNA
40 samples that might have been there before and so that the
41 vial is clean of DNA for the next testing process; correct?

42 A. Yes, I think that was like a historical process that
43 maybe some time in the past they had had some issues, and
44 so they had implemented this use of an equipment control.
45 I'm not really sure how --

46
47 Q. So the purpose is to find out what kind of a washing

1 of the vials will ensure that when the vial is reused, it
2 doesn't have any DNA in it?

3 A. Yes, so I think they collected those - if I remember
4 correctly, they would collect that before they used the
5 piece of equipment.

6
7 Q. Yes, so you see in paragraph 3:

8
9 *To have confidence in our results ... we*
10 *investigated alternative cleaning protocols*
11 *to try to ensure that the amount of*
12 *contaminating DNA ... was sufficiently*
13 *reduced.*

14
15 A. Yes.

16
17 Q. If we look at the second-last paragraph:

18
19 *Any suitable cleaning protocol must not*
20 *damage the stainless steel components of*
21 *the crushing vials by causing rusting or*
22 *pitting.*

23
24 A. Yes.

25
26 Q. Now, what cleaning substances in the lab might have
27 that effect?

28 A. Generally speaking, I think bleach is the most
29 corrosive sort of chemical, I believe, that we use, yes.

30
31 Q. Then if you could put up on the screen
32 [WIT.0003.0456.0001 at 0016]. Now, if you look at the bar
33 chart there, just familiarise yourself with it?

34 A. Mmm-hmm.

35
36 Q. That, as I understand it - and you can look at more of
37 the document if you want - assumes that there are
38 40 alleles in the samples that they are using, because they
39 are test samples, and they have cleaned a vial that has
40 been swabbed with DNA-containing sample, and they cleaned
41 it with water, Tergazyme, Decon 90, TriGene and dishwasher
42 "Special", which is the dishwasher using the substances --

43 A. The cycle it uses.

44
45 Q. Yes. They found that Tergazyme is pretty good; the
46 dishwasher "Special" is also good, in that after washing,
47 you have close to zero alleles in it?

1 A. Mmm-hmm.
2
3 Q. And TriGene is worse than water, because almost all of
4 the alleles are still there?
5 A. Sort of, in that Nanopure Water had a broader spread.
6 Potentially it looks like that chart is trying to show that
7 there was more than 40 from some of the Nanopure Waters --
8
9 Q. But TriGene is not very good, so it seems. If we go
10 to the paragraph below the graph --
11 A. It's actually kind of an odd finding.
12
13 Q. Perhaps, but it's a finding, so we are stuck with it.
14 If you look at the paragraph below, the second sentence:
15
16 *Because of this result TriGene Advance was*
17 *considered not suitable for cleaning bone*
18 *vials ...*
19
20 A. Mmm-hmm.
21
22 Q. Then if we go, please, in the same document, to
23 page 0019, in the large second paragraph at the end, that
24 is the conclusion that is drawn, that TriGene shouldn't be
25 used?
26 A. For the cleaning of the bone vials, yes.
27
28 Q. Because it didn't decontaminate effectively; am
29 I understanding it correctly?
30 A. Yes, because they were using dried saliva stains.
31
32 Q. Then if you go in the same document to page .0020, the
33 recommendation in the middle is that the Miele dishwasher
34 with its special cycle is the best method, and Tergazyme
35 can be a viable backup?
36 A. Mmm-hmm.
37
38 Q. Now, is there a reason why using the Miele machine
39 wasn't appropriate for the bone instruments with which you
40 were concerned?
41 A. You mean something other than the crusher vials?
42
43 Q. Yes, yes.
44 A. Yes. Sorry, yes.
45
46 Q. You changed the cleaning system, as I understand it,
47 for bone equipment from whatever it had been, using

1 Tergazyme, to a different set of substances for cleaning?
2 A. Yes.

3
4 Q. What I'm asking you is, was there any reason why the
5 dishwasher system that is referred to in paragraph 6 was
6 not suitable?

7 A. It's probably just that it didn't occur to me, because
8 I hadn't really thought about that, that we had - this
9 validation just referred to bone crusher vials, so I was
10 going to use the protocol that had been laid out in this
11 validation for bone crusher vials, and then I guess it
12 probably didn't occur to me that that may also be suitable
13 for other pieces of equipment. I guess it might have been
14 something as simple as that.

15
16 Q. Then if we go, please, to document
17 [WIT.0003.0457.0001], that's the change management register
18 entry?

19 A. Yes.

20
21 Q. Just help me with this, if you wouldn't mind:

22
23 *Change in bone processing equipment*
24 *cleaning protocol:*
25 *Cleaning of the bone crushing equipment*
26 *using the dishwasher as per Proposal #148;*
27 *Use bleach and/or TriGene, followed by ...*
28 *[alcohol].*

29
30 A. Mmm-hmm.

31
32 Q. Now, what's the purpose of the alcohol - is it to
33 remove the bleach or TriGene?

34 A. Sort of, yes. It's also - I would have to go back,
35 but I seem to remember some time previous reading some
36 journal articles where it's not just the chemical action of
37 the cleaning agent that reduces the presence of DNA but
38 also the mechanical action of the wiping it away. So you
39 have your twofold chemical action, followed by wiping down
40 with your bleach and ethanol - sorry, your 70 per cent
41 ethanol.

42
43 Q. Now, the bone crushing equipment we're considering,
44 can you tell me what that is?

45 A. That's your vials, the impactor, the cylinder and the
46 bungs, so you have --

47

1 Q. What are the bungs made of?
 2 A. I believe they're a rubber-type material. I think
 3 they are, because the impactor is a metal piece that
 4 slides - so you have a tube, and the tube - you have a bung
 5 on each end and a bit of metal tube - sorry, a metal
 6 cylinder that sits inside that tube, and so then you have
 7 your pieces of bone that are being exposed to liquid
 8 nitrogen, so they're quite brittle. We all know the
 9 experiments. And so then the machine shakes that vial, and
 10 the bit of metal inside bangs around and crushes up the
 11 bone. So I believe that those bungs are rubber, but
 12 I couldn't be certain.
 13
 14 Q. It uses a familiar device - you get a cylinder and you
 15 get a steel ball, or a ball made of something, glass or
 16 something, and you put a hard object inside with the thing
 17 you want to crush, and you shake it --
 18 A. Yes, basically.
 19
 20 Q. -- and the thing inside breaks it into pieces; is that
 21 right?
 22 A. Yes, yes.
 23
 24 Q. And the thing inside that's breaking it into pieces,
 25 what's that made of?
 26 A. I think that's the impactor, I think that's the
 27 stainless steel bit.
 28
 29 Q. Then what else do they use in the bone crushing
 30 equipment line?
 31 A. Well, that's - oh, there's the actual liquid - the
 32 actual crusher itself, the instrument that you pour the
 33 liquid nitrogen in, that that little vial goes in that
 34 shakes the living daylights out of it.
 35
 36 Q. Do you clean that after use?
 37 A. Look, I'm not actually sure, but my expectation is
 38 that my staff would certainly be wiping down the outside of
 39 it.
 40
 41 Q. What about the chisels and all of that?
 42 A. I would imagine all of that - that's - I think I would
 43 have referred to that as sampling equipment, because that's
 44 what you do prior to doing the crushing.
 45
 46 Q. So were you changing the cleaning protocol for that
 47 equipment as well?

1 A. I do believe so. I can't remember. There's an email
2 there that has already been tendered in evidence, I think,
3 that outlines what I was actually changing.
4
5 THE COMMISSIONER: Ms Hedge, the email - I don't have the
6 number of it, but it is dated 21 June 2019, from Mr McNevin
7 to the management team, and you referred to it I think
8 during Ms Keller's evidence.
9
10 MS HEDGE: Yes, I do have that. [FSS.0001.0056.8821].
11
12 THE WITNESS: I think that's the bone processing
13 equipment. It's the broad picture of the bone crusher plus
14 the sampling bits.
15
16 MS HEDGE: Just check that's the right one, Commissioner.
17 Is that the email that's on the screen now?
18
19 THE WITNESS: Yes, I think that's where I stepped out what
20 the changes were.
21
22 THE COMMISSIONER: Q. Why don't you read it, Mr McNevin,
23 and I will read it as well.
24 A. Yes, so that's where I'm stepping out what changes I'm
25 looking to use. I think in the second-bottom paragraph
26 from the bottom of the page there:
27
28 *Therefore I am proposing that we eliminate*
29 *the use of Tergazyme ...[to do the*
30 *following things] ...*
31
32 Q. At the bottom of that email, in the second-last
33 paragraph, you propose that:
34
35 *... we eliminate the use of Tergazyme ...*
36
37 A. Mmm-hmm.
38
39 Q. And we know why that was so. And:
40
41 *- Implement the cleaning of the bone*
42 *crushing equipment using the dishwasher ...*
43
44 A. Mmm-hmm.
45
46 Q.
47 *- Use bleach and/or TriGene ...*

1
2 A. Yes.
3
4 Q. Isn't that - bleach, as a rust causer, and TriGene, as
5 something that fails to eliminate DNA - something that
6 Project #148 said you shouldn't use?
7 A. Well, only in the specific instance of the testing
8 that was done on those bone crushing vials. If you look at
9 Project #153, we'd decided that TriGene was quite useful,
10 and I think there is a lot of literature to show that
11 TriGene is actually quite a good cleaning agent.
12
13 Q. Sorry, let's just take it a step at a time.
14 A. Sure.
15
16 Q. Here you are proposing the cleaning of vials, you said
17 a moment ago? You told me that a moment ago?
18 A. Yes, the bone - there's two steps there. There is the
19 cleaning of the vials and the cleaning of the sampling
20 equipment, so overall the bone processing.
21
22 Q. Yes.
23 A. Yes.
24
25 Q. So why would you be using something to clean the vials
26 that Project #148 said shouldn't be used to clean the
27 vials?
28 A. Sorry, I believe that that's what that line,
29 "Implement the cleaning of bone crushing equipment using
30 the dishwasher", refers to the vials.
31
32 Q. As per what - proposal 148?
33 A. 148, yes.
34
35 Q. But proposal 148 expressly said, "Don't use something
36 that causes rust, and we don't recommend TriGene"; do you
37 remember that?
38 A. Yes. So I'm a bit unclear on your question,
39 Commissioner.
40
41 Q. You recommended eliminating Tergazyme, for good
42 reason.
43 A. Yes.
44
45 Q. And instead, implementing the cleaning of the bone
46 crushing equipment, as per proposal 148, using bleach and
47 TriGene?

1 A. No, sorry, I beg to differ.
2
3 Q. No, well, tell me what it means. I might be wrong.
4 A. So two different points there. The first point, the
5 first dash:
6
7 *Implement the cleaning of the bone crushing*
8 *equipment using the dishwasher as per*
9 *Proposal #148.*
10
11 Q. Yes.
12 A. Then everything else, other than the bone crushing
13 equipment, clean using these alternative protocols.
14
15 Q. Right. And what is "everything else"?
16 A. Well, you know, the bench, the - all the bits and
17 goods and chattels that you use, you know, whether it was
18 chisels or hammers or forceps.
19
20 Q. That's right. That's what I'm talking about. So the
21 reason TriGene was not recommended was that it was not
22 effective in removing DNA.
23 A. From the bone crushing vials under that specific test
24 that was done for the bone crushing vials. There is plenty
25 of other literature, including Project #153, that says that
26 TriGene is actually useful.
27
28 Q. I see so if we look at proposal 153, we find support
29 for its use in cleaning - and bleach, I gather --
30 A. Yes.
31
32 Q. -- in cleaning metal tools?
33 A. It's - well, it was used, I believe that Project #153
34 was about cleaning blood away from - we used a Petri dish.
35 I don't think the actual surface was tested, per se, it was
36 more --
37
38 Q. What I'm concerned about is this, and I don't know the
39 answer, I'm hoping you can help me: Project #148
40 concluded, at page 18, that TriGene Advance was not
41 considered suitable for cleaning the bone vials, and that's
42 because it failed to clean off the DNA.
43 A. Yes. And that's - I think it posits in that report
44 because it was - they were using saliva as the source of
45 the DNA. So one of the issues here is that we weren't
46 crushing bone and testing the ability of equipment to clean
47 DNA from bone off the equipment. Because --

1
2 Q. I see. I'm sorry. I had missed that. You're saying
3 that TriGene --
4 A. Whereas Project #153 was cleaning blood.
5
6 Q. TriGene might be useful for getting rid of any trace
7 of alleles if the DNA was deposited by means of whatever is
8 in bone?
9 A. It could be, yes, and so Project #153 --
10
11 Q. Could be, but where does one get that?
12 A. Well, I think that's part of your problem, is that the
13 sampling of bone and bone samples are a little bit hard to
14 come by. You know, you don't go sampling a large number of
15 bone samples.
16
17 Q. I'm still troubled by this, that I have a report in
18 front of me that says that TriGene Advance was not
19 considered suitable for cleaning the bone vials, and that's
20 because we see from the bar graph that the test they did
21 showed that it didn't tend to get rid of the DNA?
22 A. Didn't get rid of the DNA, yes.
23
24 Q. These are bone vials we're talking about, not saliva
25 tests but bone vials?
26 A. But the bone vials were impregnated with saliva as
27 part of the test.
28
29 Q. I know. So are you saying that the test was flawed,
30 then, that they used the wrong substance; they should have
31 used bone?
32 A. It is a limitation of the testing.
33
34 Q. I see. That's your opinion. Does it appear anywhere
35 in the report?
36 A. I don't believe so. I think - oh, actually, there is
37 a part of the discussion. Doesn't the discussion cover
38 about saliva and proteins or something?
39
40 Q. What we might do is adjourn, and I would invite you
41 overnight, please, to read Project #148 and the other one
42 that was referred to in the --
43 A. 153.
44
45 Q. What?
46 A. 153, I think.
47

1 Q. Because I don't understand it at the moment, because
2 it appears to me that bone crushing equipment was to be
3 cleaned in a particular way but expressly not with TriGene,
4 and not with anything that causes rust, but the new
5 protocol for the cleaning of bone equipment, bone crushing
6 equipment, including metal objects, was to use those
7 substances. Now, having regard to the tenor of what you
8 are saying to me, my view is mistaken, but I need to know
9 why it's mistaken.

10 A. Okay.

11
12 Q. All right? So if you wouldn't mind looking at those
13 documents and anything else that you need.

14 A. Okay.

15
16 Q. And Ms Hedge will give you a copy of those two
17 documents and anything else that you want so that you can
18 explain the technology behind this problem that I see.

19 A. Okay.

20
21 THE COMMISSIONER: Thank you. We will adjourn, then,
22 until 9.30, I think.

23
24 **AT 4.03PM THE COMMISSION WAS ADJOURNED TO**
25 **TUESDAY, 18 OCTOBER 2022 AT 9.30AM**
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