STATEMENT OF CATHERINE ALLEN

I, **Catherine Allen,** of 39 Kessels Road, Coopers Plains in the State of Queensland, do solemnly and sincerely declare that:

Background

1. I am employed by Queensland Health Forensic and Scientific Services (**QHFSS**).

2. I hold the position of Managing Scientist at QHFSS at Coopers Plains.

3. I hold a Bachelor of Science from the University of Queensland, conferred in 1994, a Master of Science (Forensic Science) from Griffith University, conferred in 2002, and a Certificate IV in Project Management, conferred in 2008.

4. On 19 September 2022, under s 5(1)(d) of the *Commission of Inquiry Act 1950* (Qld), Commissioner Sofronoff QC issued Notice 2022/00201 (**Notice**) to me. I am required to provide a statement regarding my knowledge of the matters set out in paragraphs 1 to 61 of the Notice.

5. To provide this response, I have read and had regard to the following:

   (a) the Notice; and

   (b) the documents annexed to this statement.

6. Before turning to the questions I have been asked to answer, I record that I have endeavoured to provide as much assistance as I am currently able to provide, given some medical issues I am currently experiencing (about which my solicitors have previously made the Commission aware) and my ability to efficiently access documents is limited by the current circumstances of my employment.

Structure of staff across QHFSS

Question 1

Explain who made the decision in July 2008 to separate the structure of the laboratory into Evidence Recovery, Analytical Team and Reporting Team, and for what reasons and on what material or information that decision was made.

[redacted]

7. Modification of the organisational structure represented the change in the business model implemented by the Queensland Police Service (QPS). On 18 February 2008, planning for this change began at a Management Team Planning Day. Please see attached – Exhibit – CA-1 [DNA Analysis Planning Day 180208]

8. My recollection is that in mid-2008, Vanessa Ientile, previous Managing Scientist, Samantha Cave, previous Major Crime Team Leader, Justin Howes, Acting Major Crime Team Leader and myself (in the role of Volume Crime Team Leader) met to discuss the workflow that would be required to support the change in business model. During this meeting, a possible team structure was devised regarding teams being based around the flow of sample through the laboratory. Vanessa Ientile in her capacity as Managing Scientist was responsible for liaising with Dr Greg Smith, then Acting Senior Director. Please see attached – Exhibit – CA-2 [ED Brief DNA Analysis Issues_300508]. This briefing was later updated by me and provided to Greg Shaw, then Senior Director. Please see attached – Exhibit – CA-3 [ED Brief updated DNA Analysis Issues_250808]

9. Searches for other documentation regarding this change have not been successful.

Question 2

Explain the effect of the DNA Analysis Team restructure in July 2008 on overall results and laboratory efficiency (including number of samples processed, cost, percentages of obtaining a DNA profile that could be compared to a reference sample or uploaded to the NCIID). Include reference to any studies, investigations or data collated on this topic.

10. Vanessa Ientile, previous Managing Scientist issued weekly updates to staff members on the change, followed by weekly staff meetings. These detail the changes to the team. Please see attached – Exhibit – CA-4 [Weekly updates 1 to 4] and Exhibit – CA-5 [DNA Analysis staff update powerpoints – 6].

11. To my knowledge, comparison on costing, percentages of DNA profiles obtained and profiles uploaded to NCIDD before and after the change have not been undertaken.

12. The number of items submitted by QPS since 2005 is displayed in the top graph of the statistics obtained from the Forensic Register. Please see attached – CA-6 [forensic-register statistics as at 20220811].

[redacted]

Question 3

Explain any challenges identified or concerns raised by any person in relation to the structure of the DNA Analysis Team and the division of certain teams, including the division of analytical and reporting scientists. Provide documents (including emails, file notes, diary notes or meeting minutes) relating to such raising and/or resolving of those challenges or concerns since July 2008.

13. Concerns regarding this change of business model would have been directed to Vanessa Ientile, previous Managing Scientist. I don't have access to Ms Ientile's emails, file notes or diary notes.

14. Some staff members from Evidence Recovery raised some concerns that they were being deskilled by not being able to examine whole items, as they previously had. Staff were advised that once their training in all areas of Evidence Recovery had been completed, they would have the opportunity to learn other tasks such as assessment of DNA profiles (referred to as 'plate reading'), interpretation of DNA profiles and entry of DNA results (referred to as 'case management'). There has been success in completing training for assessment of DNA profiles for some Evidence Recovery staff members.

15. Staff members raised concerns when they learnt that QPS had purchased an Applied Biosystems 3500 Genetic Analyzer, and what that meant for their jobs. On 5 December 2011, Greg Shaw, then Senior Director and Supt Michael Keller (now retired) provided information to staff regarding background and the intent on the use of the Genetic Analyzer. Staff concerns remained regarding the QPS' use of this Genetic Analyzer for crime scene sample processing. Greg Shaw and Supt Michael Keller agreed to keep each other appraised of the developments of the Genetic Analyzer and, in April 2012, Greg Shaw offered Forensic DNA Analysis staff members expertise with respect to the Genetic Analyzer, given a DNA module has been developed within the Forensic Register. By the end of 2012, Inspector Neville, QPS Quality Manager, had contacted me regarding the transfer of the Genetic Analyzer to Forensic DNA Analysis for use. Snr Sgt Rechelle Cook, QPS Quality Management Section organised with Applied Biosystems for the transfer and set-up at Forensic DNA Analysis. Please see attached – Exhibit – CA-7 [5 Dec_Minutes of DNA Team Meeting Shaw Keller]; Exhibit – CA-

8 [Email re collaboration between QPS FSS on 3500 instrument_20120430] and Exhibit – CA-9 [Email from QPS re relocation of QPS 3500 to FSS_20121204].

16. Staff members expressed their concern regarding job losses and contestability that was occurring in some work units across Queensland Health. Each of these items could have an impact on organisational structure. Greg Shaw, then Senior Director addressed Forensic DNA Analysis staff members and detailed information regarding this. Please see attached – Exhibit – CA-10 [03 April 2013 Extraordinary Meeting Minutes].

17. Staff members raised concerns regarding QPS pursuing changes to the *Police Powers and Responsibilities Act* which would allow a third party to provide DNA services to QPS. The QPS advised that the change was to ensure business continuity for QPS.

18. Staff members expressed that they would like to become competent in tasks performed by other teams (eg Evidence Recovery staff become proficient in Analytical tasks). The Forensic DNA Analysis management team have discussed this concept on a number of occasions, but because no resolution has been reached on how to easily maintain the competency of tasks, this has not progressed despite all management team members being in favour of this concept.

19. Staff members have requested the opportunity to have an annual refresher of how a different team undertakes its core tasks. This concept is readily agreed as a great opportunity for ongoing professional development. This can be difficult to achieve due to the workload and some staff members have expressed feeling uncomfortable or nervous about other staff overseeing them undertake a core task as they may make a mistake during the process.

20. To assist with gaining expertise in other teams, if a vacancy exists within either the Evidence Recovery Team or the Analytical Team, an Expression of Interest is generally circulated given staff the opportunity to move to a different team. It is more difficult to fill a short-term vacancy within the Reporting Teams, due to the length of training required to become competent in many tasks that the Reporting Teams undertake. Please see attached – Exhibit – CA-11 [001 Email and 001 Email att of EOI]

21. Due to the stable workforce within Forensic DNA Analysis, it is difficult for staff members to apply for a promotion and may move to another area of Queensland Health

[redacted]

or commercial companies to gain a promotion. Promotion can be seen as a Reporting Scientist role or a management team role.

Question 4

Explain your understanding of best practice process in relation to structuring a DNA laboratory, and the basis of your understanding. Based on this, explain whether you consider the current structuring of the DNA Analysis Team to be best practice, and why or why not.

22. The laboratory maintains accreditation under National Association of Testing Authorities Australia, which requires adherence to a number of standards. Validations are completed in line with Standard Operating Procedure called Forensic DNA Analysis Validation and Verification Guidelines. Validations may include review of published journal articles to ensure a number of aspects are considered within the experimental work. Please see attached – Exhibit – CA-12 [23401]. The Standard Operating Procedure references the Scientific Working Group on DNA Analysis Methods (SWGDAM) Validation Guidelines for DNA Analysis Methods. Please see attached – Exhibit – CA-13 [SWGDAM]. The laboratory has a quality system in place that includes proficiency testing, positive and negative controls processed with crime scene samples, peer review processes and investigations into adverse events, to name a few. All of these elements go towards best practice processes for the laboratory that need to be supported by its structure. Staff members develop knowledge and experience in their field of work through completion of training modules, processing of routine samples which may require some problem solving and any additional professional development they may undertake. Staff members can undertake projects to further improve laboratory processes, and may be mentored by another staff member or Senior Scientist through this process. Staff members can advise their line manager that they'd like to be involved in a project at any time or they can raise it during their Career Success Planning session with their line manager. The time required for project work will vary depending on the project so the line manager will liaise with the project leader and staff member to assess time required for project work. Some parts of the project work may be part time; an example is that during experiments they may be able to be set up and then other core tasks can be undertaken. Other parts of the project work may require more time, such as the report writing phase. Project work is prioritised dependent on the urgency of the outcome. For example, if an instrument is aging and

[redacted]

can no longer be serviced, validation of the new instrument may be prioritised over other projects. Staff members need to maintain competency in the tasks that they undertake, so movement of staff across teams for periods of time can impact in maintaining the competency. Competency of task is maintained by undertaking the task regularly, and extended absences may mean that refresher training is required prior to undertaking the task. The line manager can make the assessment regarding length of absence and information provide by the staff member regarding competency and refresher training. Movement between teams can reduce the number of competent staff members in the team, which may mean additional work for the remaining team members. The team receiving the 'new' staff member will be impacted through training and the assigning of a mentor. Some staff members have advised that they have become fatigued by training a number of staff members in succession. Movement of staff has been possible due to vacant positions which staff can apply for (both formal recruitment processes and informal expression of interest processes that may be used to backfill maternity leave for example). To provide QPS with timely DNA results that can assist with their goal of preventing and disrupting crime, a process of a scientist handling a case from end to end can no longer be sustained as it doesn't assist with timely provision of results that can impact the investigative phase. This was shown in the National Institute for Forensic Science (NIFS) End to End Report in 2012, where the Queensland laboratory (Jurisdiction D) was the top performer. During this project, the laboratory had a structure based around how a sample is processed through the laboratory and efficiencies gained by QPS submitting samples that required less scientific resources to process, Enabling staff to become subject matter experts in a specific area means that the laboratory can assist with the QPS goal and provide rapid DNA intelligence that assists investigations.. During discussions at the Biology Specialist Advisory Group meetings, other Australian and New Zealand laboratories have advised of dedicated teams for either Evidence Recovery or Analytical processes or both. Please see attached – Exhibit – CA-14.

Question 5

Explain how a sample moves between the Analytical Team and the Reporting Team, including what information is provided between the two teams about the individual sample and the overall case.

[redacted]

23. The sample remains within the Analytical Team freezers (which is to say that the sample itself does not physically move from one team to the other) and data from the analytical processes are available on the Forensic Register for the Reporting Teams. Data available includes the extraction batch details, quantitation batch details, quantitation values, amplification batch details, capillary electrophoresis batch details, profile data obtained from the GeneMapper ID-X software, positive and negative controls associated with each of the batches and any notes made an Analytical Team member pertaining to the sample. Analytical data for all items within a case are available on the Forensic Register under the QPRIME number or Forensic Register Number for the Reporting teams to review the case overall.

Question 6

Explain how validations undertaken by the analytical or evidence recovery team are reported to, or explained to, the reporting scientists, and vice versa.

24. The laboratory follows Standard Operating Procedures to undertake validations, namely:
    (a) 'Procedure for Change Management in Forensic DNA Analysis 22871.v7' attached Exhibit CA-15;
    (b) 'Forensic DNA Analysis Validation and Verification Guidelines 23401.v4' attached Exhibit CA-16; and
    (c) 'Writing Guidelines for Validation and Change Management Report 23402.v4', attached Exhibit CA-17.

25. The status of validation projects are discussed at Forensic DNA Analysis Management Team meetings, and all members are able to provide feedback to their teams.

26. The change management project documentation is available on a local network drive that all staff have access to. Prior to the COVID-19 Pandemic, validation projects were presented at team meetings.

Laboratory KPIs

Question 7

[redacted]

Explain the providence of the "Forensic DNA Analysis KPIs request for FR_March 2022" spreadsheet. In particular identify:

(a) *Who determined that those would be the KPIs of the DNA laboratory;*

(b) *Who was involved in developing the KPIs in that document, and how were they involved;*

(c) *How were the KPIs developed, including a time line of all steps taken in relation to their development;*

(d) *What were they intended to cover, in terms of the fundamental services provided by the DNA laboratory;*

(e) *What consultation was undertaken with staff of the laboratory, other members of FSS, Queensland Health or the Queensland about the proposed KPIs.*

27. Tess Brook, consultant from 1st Call had individual meetings with some Forensic DNA Analysis staff members and collated a list of issues that had been identified during the discussions. During discussion between Tess Brook and John Doherty, previous Executive Director, John chose three items to be worked on first. These were referred to as the Top 3: Navigating New and Novel practices; Difference of Scientific Opinion and Management Team Alignment.

28. On 7 April 2021, the Forensic DNA Analysis Management Team held a Strategy Focus Meeting and discussed that as the Top 3 were in progress, the management team were supplied with the spreadsheet of issues and asked to review and identify an idea or issue that should be progressed next. Please see attached – Exhibit – CA-18 [03_Minutes Strategy Management Meeting_07042021].

29. On 22 April 2021, the Forensic DNA Analysis Management Team held a Culture Focus Meeting, where each management team member discussed the idea or issue that they would like to work on next. The majority of management team members were in favour of Performance and KPIs and it was decided that this would be progressed. Please see attached – Exhibit – CA-19 [03_minutes Cultural Management meeting 20210422].

30. On 2 June 2021, the Forensic DNA Analysis Management Team held a Strategy Focus Meeting, and all management team members were requested to put forward ideas

[redacted]

regarding KPIs by 14 June 2021. These were collated by an Administration Officer, Vicki Pendlebury-Jones or Wendy Harmer. Please see attached – Exhibit – CA-20 [04_Minutes Strategy Management Meeting_0206201].

31. On 4 August 2021, the Forensic DNA Analysis Management Team held a Strategy Focus Meeting, where Luke Ryan presented his initial thoughts regarding KPIs with respect to his team – the Analytical Team. Please see attached – Exhibit – CA-21 [06_Minutes Strategy management meeting_04082021]

32. Progress on this Action Item was detailed within the Action Register and all Forensic DNA Analysis management team members participated in the development of the KPIs. Please see attached – Exhibit CA-22.

33. The KPIs were intended to serve as individual as well as team KPIs. This would allow the laboratory to gather data on the throughput of each team, set expectations for work that could be reasonably achieved, assess the staff members in each team achieving the workload, gather data on the average amount of work that could be achieved over a period of time and could assist with cost modelling, input into the Memorandum of Understanding with QPS and future planning.

34. Each management team member was able to discuss the KPIs with their team members and provide input into the KPI spreadsheet. John Doherty, previous Executive Director was at the meeting on 4 August 2021where Luke Ryan discussed the KPI spreadsheet and the initial concept. Some management team members then had follow up meetings with Luke Ryan to clarify any items and add additional metrics. To the best of my knowledge, there was no discussion regarding KPIs with other FSS staff, Queensland Health or QPS.

Sample extraction

Question 8

Who made each decision to introduce the use of equipment, such as the QIASymphony and any other equipment, for sample extraction (i.e. robotic extraction as opposed to manual extraction)? What was the extent of your involvement?

[redacted]

35. Forensic and Scientific Services are able to replace existing capital items under a program called Health Technology Equipment Replacement. The HTER program ensures that aging equipment can be replaced, eg when it is end of life, is no longer able to be maintained with service or parts or no longer fit for purpose.

36. The Perkin Elmer robotic platforms (MPII) were due for replacement in the HTER 2014 – 2016 program. The QIAsymphony replaced the Perkin Elmer platform for extraction purposes. On 19 August 2014, Paula Brisotto, Team Leader and I received an email confirming HTER funding was available for the replacement of the Perkin Elmer robotic platform for extraction. Please see attached – Exhibit – CA-23 [email confirming HTER funding_20140819]

37. Sometime in the last quarter of 2014, Luke Ryan, Senior Scientist – Analytical Team was the lead scientist for the market research to identify a suitable replacement for extraction purposes. This market research identified the Qiagen QIAsymphony instrument that met the criteria required. A QIAsymphony trial instrument was obtained so that an assessment could be undertaken by staff members from the Analytical Team. A report was prepared regarding the trial and recommended that the QIAsymphony was a suitable replacement for the Perkin Elmer robotic platform. I reviewed the report and approved it, after all other endorsers had signed off on the report. Please see attached – Exhibit – CA-24 [Email plus Forensic DNA assessment report].

38. On 18 August 2015, procurement documentation was submitted for the financial delegate to review and approve or not approve. Please find attached – Exhibits – CA-25 [email plus 4 attachments].

39. On 25 August 2015, approved procurement documentation was received by me. Please see attached – Exhibit – CA-26 [005 email Type 4 plus 3 attachments]

Question 9

When was each decision identified in question 58 above made?

40. Initial email advice regarding HTER funding was provided to me on 19 March 2014. Please see attached – Exhibit – CA-27 [email initial advice on HTER_20140319].

[redacted]

41. On 19 August 2014, Paula Brisotto, Team Leader and I received an email confirming HTER funding was available for the replacement of the Perkin Elmer robotic platform for extraction. Please see attached – Exhibit – CA-28 [email confirming HTER funding_20140819].

42. Sometime in the last quarter of 2014, Luke Ryan, Senior Scientist – Analytical Team was the lead scientist for the market research to identify a suitable replacement for extraction purposes.

43. On 3 February 2015, Greg Shaw, previous Senior Director submitted a Brief for Approval and a Memorandum of Understanding with Qiagen to trial the QIAsymphony instrument. An approved Brief and signed MOU was provided to me on 4 February 2015. Please see attached – Exhibit – CA-29 [004 email with signed Qiagen MOU and 2 attachments]

44. Between February and June 2015, extraction experiments were undertaken on the QIAsymphony by staff members of the Analytical Team.

45. Luke Ryan, Senior Scientist, provided the report regarding the trial of the QIAsymphony to Forensic DNA Analysis management team members on 17 July 2015. This report was finalised on 22 July 2015. Please see attached – Exhibit – CA-30 [signed report for replacement of multiprobe]

46. On 17 August 2015, a Brief for Approval regarding Type 4 Procurement delegation to purchase a QIAsymphony SP/AS instrument was put forward. On 25 August 2015, a copy of the approved Brief for Approval was received by me. The Brief was approved by Chris Preston, Chief Procurement Officer. Please see attached – Exhibit – CA-26 [005 email re approval of Type 4 plus 3 attachments]

Question 10

Explain the rationale and decision-making process undertaken in each decision.

47. The Brief for Approval that was authored by Greg Shaw, outlines the rationale for trialling the QIAsymphony instrument.

48. A QIAsymphony trial instrument was obtained and assessed by staff members from the Analytical Team. The report regarding the trial recommended that the QIAsymphony

[redacted]

was a suitable replacement for the Perkin Elmer robotic platform. Please see attached – Exhibit – CA-30 [Replacement of Multiprobe with QIAsympony]

49. The Brief for Approval that was authored by Luke Ryan, outlines the rationale for proceeding with purchase of the QIAsymphony. Please see attached – Exhibit – CA-31 [Brief for approval – QIAsymphony SP AS instrument].

Question 11

Explain the risks and benefits relating to the implementation of 'robotic' sample extraction, and how they were balanced.

50. The risks and benefits are covered in both the report on the trial of the QIAsymphony and the Brief for Approval to purchase the instrument. Please see attached – Exhibit – CA-32 and CA-33 [both used above].

Question 12

Explain what training was provided to DNA Analysis Team staff members following the introduction of each of the equipment items identified in question 58 above.

51. Change management Project #168 outlines the validation undertaken for the QIAsymphony instrument. Please see attached – Exhibit – CA-34 [project 168]

52. An Implementation Plan was devised, which included updating Standard Operating Procedures and Training Modules. Please see attached – Exhibit – CA-35 [QIAsymphony Implementation Checklist].

Question 13

Provide specific answers to questions 8 to 12 in respect of bones?

53. After the implementation of the QIAsymphony for other biological material, change management Project #192 was raised to validate this process outlines the validation undertaken for bone samples. Please see attached – Exhibit – CA-36 [Project #192]

54. The Forensic DNA Analysis management team members approved, and I endorsed, the final and supplementary reports for Project #192.

[redacted]

55. The use of the QIAsymphony allows for the streamlining of standard operating procedures, a reduction in different training types to be undertaken, increase the efficiency of bone extractions with an increased capacity from both an instrument perspective and a staff member perspective, and remove a chemical hazard (phenol chloroform) that staff members need to use. The rationale of the decision to move forward with validating the QIAsymphony for bone extractions are also the risks and benefits. If Change management Project #192 had shown that the organic extraction method was more superior, the recommendation would have been not to implement this method.

56. An Implementation Plan was drafted which lists the activities required to be undertaken. The Standard Operating Procedure and the associated Training Module required updating, with staff training to follow. Please see attached – Exhibits – CA-36(a) [Implementation Plan Project #192], [QIAsymphony Training Module][17182V15 Extraction DNA] and [34132V6 QIAsymphony extraction].

Work List System and workflows

Question 14

Define 'Priority 1', 'Priority 2' and 'Priority 3' cases/samples. Refer to formal documentation if applicable.

57. QPS became responsible for the prioritisation of cases following the Ministerial Taskforce Review in 2005. QPS mapped the crime class code against 1 for Urgent, 2 for High, 3 for Medium or 4 or 5 for Low priority and cases were tested by that priority. Please see attached – Exhibits – CA-37 [QPS Priority System] and [SOP Case allocation]

58. On 13 December 2006, a Forensic Sciences Workshop was held. Attendees are not listed within the document, however Action Register lists QPS and FSS staff members (eg VI is Vanessa Ientile, NT is Niki Taxidis, AF is Insp Adrian Freeman and PB is Insp Paul Baker). This workshop discussed the prioritisation process that was in place in 2006, with an Action Register that was updated following the workshop. Please see attached – Exhibit – CA-38 [Workshop Notes 13122006; Workshop actions_25012007 and 01022007].

[redacted]

59. This priority system was further simplified by QPS after the business model change in 2008 to be 1 for Urgent cases, 2 for Major crime cases and 3 for Volume crime cases. Please see attached – Exhibit – CA-39 [Comment against SOP and SOP 17159v10]

60. On 12 to 14 March 2008, the Biology Specialist Advisory Group (BSAG) held a Critical Issues Workshop. Vanessa Ientile, previous Managing Scientist attended as the Queensland representative on this Group. Ms Ientile presented on the topic of Triage / Case Management. Within this document reference is made to the work list system. Please see attached – Exhibit – CA-40 [Critical issues 12-14 March 2008]

61. On 10 June 2008, a meeting was held with Forensic DNA Analysis management team members to discuss engagement with QPS DNA Unit staff members with respect to the change in business model. Please see attached – Exhibit – CA-41 [QPS DNA Unit workflow_100608]

62. Vanessa Ientile, previous Managing Scientist sent a letter to then Superintendent Michael Keller, QPS outlining the changes made to facilitate the business model change. Please see attached – Exhibit – CA-42 [QPS Letter_DNA Analysis procedures_sent230708]

Question 15

How are reporting scientists allocated individual samples that relate to Priority 1 cases or large-volume cases? Is there a process (whether formal or informal) whereby an individual reporting scientist is allocated all samples in relation to a case of that kind?

63. QPS advise by email items that require Priority 1 status. This email advice is received by the Managing Scientist and both Team Leaders. Usually, the Team Leaders will acknowledge the QPS email, update the priority in the Forensic Register (or delegate it to a staff member) and will advise the management team via email of the Priority 1 samples (I rarely do these actions, however, will undertake this if I know that neither Team Leader is available to do this).

64. The allocation of Priority 1 samples or large cases, referred to as Operations, are maintained in a spreadsheet. The allocation to a Reporting Scientist and peer reviewing scientist is done by either of the two Senior Scientists or the Team Leader within the Forensic Reporting and Intelligence Team. It's my understanding that it's these staff

[redacted]

members will update and maintain the spreadsheet. Please see attached – Exhibit – CA-43 [Operations_P1s_Allocations].

Question 16

How are reporting scientists allocated to Priority 2 and 3 samples or cases? At what stage in the process?

65. The Standard Operating Procedure called Procedure for Profile Data Analysis using the Forensic Register describes how a scientist, who is deemed competent to assess profile data, can access a sample. Please see attached – Exhibit – CA-44 [SOP 33773V3 PDA SOP].

66. The Standard Operating Procedure called Procedure for Case Management outlines the guidelines for scientific interpretation DNA profile results. Please see attached – Exhibit – CA-45 [SOP 17117]

Question 17

When was the 'Work List System' introduced to the laboratory?

67. Standard Operating Procedure called Case Prioritisation and Allocation details the worklist system used in AUSLAB. This Standard Operating Procedure was valid from 7 October 2006. The allocation of cases was to a particular team's worklist, eg Sexual Assault Team's worklist. Please see attached – Exhibit – CA-46 [17159v8 Case Allocation SOP].

68. Following the business change in process in mid-2008, Standard Operating Procedure called Case Prioritisation and Allocation was updated to reflect the change in process regarding the case management worklist. Please see attached – Exhibit – CA-47 [17159v9 Case Allocation SOP and 17117 Case Man SOP and QPS Letter_DNA Analysis procedures_sent230708, which was used at Q14]

69. After the introduction of the Forensic Register in June 2017, the worklist process to manage DNA results was maintained and updated. Please see attached – Exhibit – CA-48 [33773V1 PDA SOP] and Exhibit – CA-49 [34006V5 Procedure for Release of Results].

Question 18

[redacted]

Who was involved in the introduction of the Work List System? What was the extent of your involvement in its introduction?

70. To the best of my recollection, the work list system within Auslab was developed by Vanessa Ientile, previous Managing Scientist and team members from Major Crime Team, given there were three separate teams working on distinct case types. The work lists in AUSLAB were then modified to reflect the business model change in mid-2008. Please see attached – Exhibit – CA-47 [17159v9 Case Allocation SOP and 17117 Case Man SOP used at Q17]

71. The updated work list system within the Forensic Register was developed by the Subject Matter Experts from Forensic DNA Analysis and Acting Inspector Troy O'Malley, Forensic Technologies Coordinator, QPS. Subject Matter Experts from the Reporting Teams included Robert Morgan, previous Reporting Scientist, Adrian Pippia, Reporting Scientist and Emma Caunt, Reporting Scientist. I attended some of the early FR development meetings for Forensic DNA Analysis but had no input into the Work List System.

Question 19

Explain the reasons for the decision to introduce the Work List System.

72. One of QPS' goals is preventing and detecting crime. One way to assist in achieving this goal is to provide rapid DNA results. The business model change in mid-2008 meant that QPS Forensic Officers examined items and placed sub-samples in a tube. This meant less examination time for Forensic DNA Analysis scientists and with an electronic reporting system, the provision of rapid DNA results could be achieved. Samples for a case may be delivered on different days or weeks, so waiting for all DNA results on all items to be completed before providing results, means that there is a delay in the provision of intelligence information. The Work List System meant that individual samples from any case could be electronically reported when they became available, thereby providing rapid DNA results to QPS. This was highlighted to then Superintendent Michael Keller, QPS in a letter from Vanessa Ientile. Please see attached – Exhibit – CA-42 [QPS Letter_DNA Analysis procedures_sent230708 – used at Q14]

[redacted]

Question 20

Explain any investigation or consultation undertaken in relation to the introduction of the Work List System.

73. I don't have any independent recollection of investigation or consultation undertaken with respect to the work list system when it was first introduced in AUSLAB. The Forensic DNA Analysis management team members were consulted about changes to the work list system in AUSLAB after the business model change in mid-2008.

74. Consultation was undertaken regarding the work list system in the Forensic Register during the development phase for Forensic DNA Analysis. Subject Matter Experts from the Reporting Teams included Robert Morgan, previous Reporting Scientist, Adrian Pippia, Reporting Scientist and Emma Caunt, Reporting Scientist. Each of these staff members socialised the progress of the development work with their peers during the period of the project and during the training phase.

Scientist oversight

Question 21

Define 'senior scientist' as referred to in Standard Operating Procedures. Provide any relevant documents.

75. A 'senior scientist' is usually the staff member's line manager, unless there is a specific reference to a particular team within Forensic DNA Analysis (eg 'senior scientist of the analytical section'). The senior scientist role referred to Standard Operating Procedures are Health Practitioner Level 5 (HP5). Please see an example of a Standard Operating Procedure referring to senior scientist in Section 5.2, 5.3, 6.5.2, 6.5.4, 14.1 and 19.2 – Exhibit – CA-47 [17117v21 Case management SOP].

Question 22

What is the difference between a 'supervising scientist' and a 'senior scientist?

76. Within Forensic DNA Analysis, no role is referred to as a Supervising Scientist. Roles within Forensic DNA Analysis are referred to as Senior Scientist, which is a Health Practitioner Level 5 (HP5).

[redacted]

Question 23

Explain the rationale behind the FSS policy which requires reporting scientists to obtain approval from the Managing Scientist to rework samples which have been finalised in their reporting lines.

77. On 24 January 2019, Inspector David Neville had emailed me regarding some mixed DNA results that had been electronically reported to QPS on 27 November 2018 and then the result had been amended on 22 January 2019. Inspector Neville requested further information regarding this and an email exchange occurred on 25 January 2019 to resolve this. Following the email exchange, John Doherty, previous Executive Director verbally requested that I put in a place an approval process for reworking samples where an electronic result has been provided to the QPS. Approval can be provided by either the Managing Scientist or Executive Director. Please find attached – Exhibit – CA-50 [Email exchange with QPS re mixed DNA profile_20190125] and Exhibit – CA-51 [Email to Justin Howes re EDFSS direction on reworks_20190125] and Exhibit – CA-52 [Comment against SOP 17117 Procedure for Case Management] and Exhibit – CA-53 [17117V21 Procedure for Case Management].

78. The rationale for the procedure to be put in place was to ensure there was oversight of the amendments of results, how this may have affected the result and therefore QPS and to assist with the explanation of these amendments to QPS.

Question 24

List all scientific processes that require permission from:

(a) *solely you; and*

(b) *you or Justin Howes or Paula Brisotto.*

79. Approval is required by either the Managing Scientist or Executive Director to rework a sample that has previously had a final result electronically reported to QPS. The Team Leader provides an endorsement of the rework request. The permission is role-based, rather than person-based. Please see attached - Exhibit – CA-53 [17117V21 Procedure for Case Management].

[redacted]

80. Approval is required by either the Managing Scientist or Executive Director to release preliminary or final results via email, phone or case conference, as the agreed method of result delivery with QPS is via the Forensic Register (or AUSLAB previously). Please see attached – Exhibit – CA-54 [23968V11 Forensic DNA Analysis Communications Procedure].

81. Approval is required from the substantive Team Leader to use population data from other jurisdictions or sources provided it is validation and acceptable by NATA accreditation requirements as per Section 5.3 of Standard Operating Procedure called Procedure for Single Source DNA Profile Statistics (now called Basics of DNA Profile Interpretation). This previously required approval from the Managing Scientist and was changed to substantive Team Leader in January 2017. Please see attached – Exhibit – CA-55 [Procedure for Single Source DNA Profile Statistics v11 and v12]

Question 25

Explain the justification for requiring approval in each of the circumstances above.

82. Please see response for Question 23 regarding justification for approval for reworking a sample after electronic results have been reported to QPS.

83. Standard Operating Procedure called Procedure for Release of Results using the Forensic Register, Section 4.4.10 details the review process that is undertaken prior to releasing an electronic result. To ensure that all results are peer reviewed prior to release, approval is required to report results in an alternative way to the Standard Operating Procedure. Please see attached – Exhibit – CA – 49 [34006V5 Procedure for Release of Results FR].

Interpretation of DNA profiles

Question 26

List all guidance, instructions or Standard Operating Procedures provided to reporting scientists about the interpretation of exhibit results and DNA profiles.

84. Standard Operating Procedures in place for interpretation and analysis of DNA profiles are: 17117 – Procedure for Case Management; 17168 – Basics of DNA profile interpretation; 26993 – Procedure for authorising staff to release results for NATA

[redacted]

accredited tests; 31010 – Forensic DNA Analysis Capability Development Program; 33773 – Procedure for Profile Data Analysis using the Forensic Register; 34006 – Procedure for the Release of Results Using the Forensic Register; 34229 – Explanations of Exhibit Results for FR; 34246 – Uploading and Actioning on NCIDD; 34247 – Creating and Reviewing Links; 34308 – Procedure for Intelligence Reports and Interstate and Interpol Requests in the Forensic Register; 34322 – Technical and Administrative Review of Records Created in the Forensic Register; 35007 – Use of STRmix Software; 35998 – NIFA for Familial, DVI and Missing person searching and 36061 – Procedure for Resolving DNA Profile Interpretation Difference of Opinion. Please see attached – Exhibit – CA –56.

85. Training Modules in place are: 9009 - Paternity and Paired Kinship Statistics Training Module; 23839 – Uploading Profiles to NCIDD, Creating and Reviewing Links Training Module; 24234 – Basics of DNA Profile Interpretation Training Module; 24276 – Case Management Training Module; 25301 – Genotype Frequency Module in Kinship Training Module; 25582 - Paired Kinship and Paternity Trio/Missing Child Module of Kinship software Training Module; 26048 – Procedure for STR Analysis using GeneMapper ID-X Training Module; 28078 – Analytical Processes for Reporting Scientists Training Module; 28079 – Evidence Recovery Processes for Reporting Scientists Training Module; 28080 – Intelligence Processes for Reporting Scientists Training Module; 31476 – STRmix Training Module; 32555 – DVI and Coronial Casework for Reporting Scientists Training Module; 32618 – STRmix Data Entry for Case Management Training Module and 36082 – NIFA for Familial, DVI and Missing Persons Searching Training Module. Please see attached – Exhibit – CA –57.

Question 27

Do you understand that there is consistency of approach between reporting scientists as to the interpretation and reporting of results?

86. All Forensic DNA Analysis staff members deemed competent to interpret DNA profiles follow Standard Operating Procedures, which assists with consistency of approach. During the training phase, the trainee is allocated a Trainer (staff member deemed Competent to Train) and can be allocated a Mentor. Consistency of Training Modules and expectations also assist with consistency of approach to interpretation.

[redacted]

87. It's my understanding that there is a consistency of approach for the interpretation of mixed DNA profiles. However, the conclusion obtained from that approach is generally consistent with respect to simple mixed DNA profiles, however there may be divergent opinions when more complex mixed DNA profiles are encountered. This may be due to experience with mixed DNA profiles, other mixed DNA profiles within the case or a more conservative opinion with mixed DNA profiles.

Question 28

How is consistency of approach amongst reporting scientists achieved?

88. Please see response for Question 27.

Question 29

What difficulties, if any, are caused by differences in opinion between reporting scientists, including difficulties relating to:

(a) *laboratory processes; and*

(b) *culture amongst scientists within the laboratory.*

89. Staff members' experience with the concentration process may differ in the choice of concentration level – ie to 35µL or to Full. This may be based on success they've had, which could be skewed due to only remembering the positive outcomes.

90. Staff members may not offer an opinion during a discussion on interpretation of mixed DNA profiles as they feel inferior to other Reporting Scientists that have more experience in interpretation than they do. This could lead to staff members remaining silent, despite having great suggestions on improvements for fear of being excluded from the group in future.

91. Staff members may experience difficulties in achieving a similar DNA profile result with regard to mixed DNA profiles. This may be due to a difference of opinion on the number of contributors within the mixed DNA profile or the peaks that are visible below the limit of detection that some scientists include and others may not,

[redacted]

92. Staff members may experience difficulties in resolving differences based on the perception or strongly held belief that a particular the staff member/s are difficult or not open to others' views on the DNA profile.

93. The turnover of staff within the Reporting Teams (and within Forensic DNA Analysis) is minimal, which can mean that one or two occasions of a difference of opinion may be held against the staff member for a long time. This may be discussed amongst other Reporting Scientists to gather support for their perception that a staff member is difficult and despite this 'difficult' staff member changing or improving that won't be recognised due to the strongly held belief.

94. Staff members appear to have a perception that certain staff members will only approach particular staff members to review their mixed DNA profile interpretations. This appears to build mistrust amongst the Reporting Scientists and could add to the disharmony within the team.

95. If a staff member is unable to resolve their difference of opinion on the interpretation of a mixed DNA profile, they may approach Emma Caunt to gather her opinion. If Ms Caunt agrees with their opinion, the staff member sometimes reapproached the original staff member and informs them that Ms Caunt agrees with them and placing the original staff member in a two against one situation.

96. It appears that discussions regarding differences of scientific opinion can be taken personally, which can affect the harmony of the team. It's rare that feedback is given to the staff member that could assist in improving the relationship, instead the action taken is to advise the line manager and hope that they will resolve it.

Question 30

Explain all difficulties created that you are aware of and what has been done to resolve them.

97. I am aware of the difficulties as described in Question 29 and resolution of them sits with the line managers to resolve at a local level. If this is unable to be achieved, it's my expectation that they would be raised to Justin Howes, Team Leader and then escalated to me (agreed path of escalation). These difficulties weren't specifically escalated to me. Most recently staff members chose to raise issues with either John

[redacted]

Doherty, previous Executive Director or Lara Keller, Acting Executive Director, without including me.

98. I encouraged management team members to review Staff Survey results and work with their teams to create Action Plans to improve the culture and environment within Forensic DNA Analysis (I also encouraged Forensic Chemistry to do the same). Please see attached – Exhibit – CA-58 [001 Email re Staff Survey 2021_20210510 with 2 attachments].

99. It's my understanding that a Change Management Project is currently being formulated to review the DNA outcome from a microcon to 35µL and microcon to full.

100. Emma Caunt, Reporting Scientist and Robert Morgan, previous Reporting Scientist drafted a Number of Contributors Guideline to assist with consistency of DNA profile interpretation (Change management Project #149). Please see attached – Exhibits – CA-59 [Project #149 report x 2]. This has since been included in the Standard Operating Procedure called Basics of DNA Profile Interpretation. Please see attached – Exhibit – CA-56 [used at Q26]. This was to provide guidance on how to determine the number of contributors to a DNA profile in a consistent manner.

101. Standard Operating Procedure called Technical and Administrative Review of Records Created in the Forensic Register provides guidance on the differences of scientific opinion and resolution of this can be by including a Senior Scientist from the Forensic Reporting and Intelligence Team or the Team Leader (if escalated to them).

102. In 2021, Tess Brook, Consultant from 1st Call undertook a series of workshops with some Forensic DNA Analysis staff members, including members of the management team. At the conclusion of the workshops, a draft process on the resolution of differences of scientific opinion was formulated. Please see attached – exhibits – CA-60 [5 appointments and 2 documents].

103. The draft process on the resolution of differences of scientific opinion was then placed into a Standard Operating Procedure in August 2021 and has been utilised twice. Please see attached – Exhibit – CA-56 [used at Q26].

104. During the engagement with Tess Brook, discussion was held regarding a forum that staff members could use to discuss difficult DNA profile interpretations. This meeting

[redacted]

was called the Profile Interpretation Meeting and the chair of this meeting was delegated to Kylie Rika, Senior Scientist and Sharon Johnstone, Senior Scientist. Three meetings have been held for this type of discussion. Please see attached – Exhibits – CA-61 [3 meetings and Action Register].

105. During the work with Tess Brook, opportunities were taken during Forensic DNA Analysis Management Team meetings that had a Culture focus to view relevant videos. Paula Brisotto, Team Leader, put forward a useful video regarding dealing with problematic behaviour and the bystander effect. This was watched during the meeting on 17 June 2021 and available for line managers to share with their team members. Please see attached – Exhibit – CA-61(a).

106. During the work with Tess Brook, members of the management team went through an exercise where we held discussions regarding how we liked to receive feedback. Management Team members then had the opportunity to do the same exercise with their team members to assist with giving and receiving feedback.

107. Through the work with Tess Brook, Paula Brisotto, Team Leader worked with staff members from each team to create the Forensic DNA Analysis Values and Behaviour in action document. This was launched to the team in November 2021 and placed onto QIS2.

Question 31

In particular, explain the differences of opinion about the concept of 'double stutter' in the context of interpreting DNA profiles, how that matter has been raised with you or with the management team, and what steps you or others have taken to resolve that difference of opinion.

108. The Change Management Project #213 VerFiler Plus Validation is currently assessing stutter (+2, +1, -1 and -2 stutter) for this DNA profiling kit. This portion of the validation project is yet to be completed.

109. To the best of my recollection, this topic hasn't been raised to me specifically or discussed within a Management Team Meeting. I have not maintained my practical competency with respect to DNA interpretation and have not involved myself in this issue. I have maintained my theoretical knowledge and overview of determination of

DNA profile interpretation and its considerations. In my opinion, the resolution of this issue should remain with the staff members and management team members deemed competent in this task.

Question 32

Explain, to your knowledge, the extent to which 'double stutter' is interpreted by reporting scientists.

110. Please see response to Question 31.

Incorrect results

Question 33

What is the process for changing a result that has been:

(a) *reported as an interim result;*

(b) *reported as a final result (but not yet reported in a formal witness statement); and*

(c) *reported in a formal witness statement.*

111. Standard Operating Procedure called Procedure for Profile Data Analysis using the Forensic Register detailed how amending an interim result and final results in Section 13. Standard Operating Procedure called Procedure for Case Management also details amendment of results in Section 6.5.2. Please see attached – Exhibit – CA-56 [33773 Procedure for Profile Data Analysis using the Forensic Register] and Exhibit – CA-56 [17117 Procedure for Case Management].

112. Standard Operating Procedure called Procedure for the Release of Results Using the Forensic Register details an Addendum Statement in Section 5.2. Please see attached – Exhibit – CA-56 [34006 Procedure for the Release of Results using FR]

Question 34

Explain how the change is communicated to the QPS, DPP, defence lawyers, Coroners' Court or other courts.

[redacted]

113. The amendment of final results is visible to QPS from the Forensic Register for that sample. It is my understanding that this amendment then appears on QPRIME. Please see attached – Exhibit – CA-56 [33773 Procedure for Profile Data Analysis using the Forensic Register] and Exhibit – CA-56 [17117 Procedure for Case Management].

114. The amendment of a Statement of Witness document is communicated through an Addendum Statement being issued. Please see attached – Exhibit – CA-56 [34006 Procedure for the Release of Results using FR]

Question 35

In relation to the QPS, identify the guidance, instructions or Standard Operating Procedures given to staff at the laboratory as to the wording to be used in "intel reports". What is the process if the reason for the change in result does not fit in the proposed wording?

115. Standard Operating Procedure called Procedure for authorising staff to release results for NATA accredited tests provides an overview of how an Intelligence Report should be formulated. Please see Exhibit – CA-56 [used at Q26]

116. Standard Operating Procedure called Procedure for Intelligence Reports and Interstate/Interpol Requests provides guidance on the Intelligence Report and suggested wording within Appendix 7. Please see attached – Exhibit – CA-56 [used at Q26].

117. Proposed new wording can be added as a comment to the Standard Operating Procedure or discussed with the peer reviewer. This could be documented as to why a departure from the Standard Operating Procedure was required and if it could be added to the Standard Operating Procedure for future use by others. Sufficient information within the new wording regarding the reasons for amendment is required to ensure that this is conveyed to QPS.

Question 36

Explain the justification for the processes identified above in questions 121 and 122.

118. FSS gave an undertaking to QPS to provide them with sufficient information as to why an amendment of result was required. This assisted QPS with reasonings for the amendment, given they may have used the previous final result in their investigative process.

[redacted]

Question 37

Explain any difficulties caused by the changing of a result:

(a) *reported as an interim result;*

(b) *reported as a final result (but not yet reported in a formal witness statement); and*

(c) *reported in a formal witness statement.*

119. The difficulty in amending an interim result is minimal, however this could highlight a training issue that may need to be addressed by the line manager if this was a regular occurrence.

120. Amending a final result causes difficulties for QPS as they may have already used that intelligence within their ongoing investigation and the ramifications of the amendment may not be fully known within the laboratory.

121. Amending a Statement of Witness document may cause difficulties for QPS or DPP as the result that has changed may have been relied upon for the court process.

Question 38

Who was involved in the development of the 'Incorrect Results Preventions Report'? What was the extent of your involvement?

122. I did not have any involvement in the development of the Incorrect Results Preventions Report. It's my understanding that Sharon Johnstone, Senior Scientist and Kylie Rika Senior Scientist were assigned this task by Justin Howes, Team Leader.

Question 39

Who was consulted to offer opinion or feedback in the development of the 'Incorrect Results Preventions Report'?

123. I am not aware of who was consulted in the development of the Incorrect Results Preventions Report.

Question 40

[redacted]

What was the rationale for the development of the 'Incorrect Results Preventions Report'?

124. I did not have any involvement in the development of the Incorrect Results Preventions Report, so I'm not aware of the rationale for its development.

Question 41

Are there any formal or informal rules about what is to be entered into the intelligence report provided to QPS regarding a change in result?

125. Please see response for Question 35.

Outsourcing

Question 42

Who decides what samples will be outsourced to an interstate or international laboratory for testing? How is this decision made?

126. QPS own the samples and delegate testing to Forensic DNA Analysis via the Police Powers and Responsibilities Act 2000. Given QPS own the samples, they are the decision makers for outsourcing of samples, based on the context of the case, the investigative results obtained to date and what may be further required.

Question 43

Who decides where the outsourced samples will be sent for testing? How is this decision made?

127. QPS assess the results obtained to date and make the decision on where to outsource samples to.

Question 44

What are the contractual and funding arrangements between FSS and the laboratories where samples are outsourced to?

128. There is no contractual or funding arrangement between FSS and other laboratories where samples are outsourced to.

Question 45

[redacted]

Are samples sent to external laboratories for testing always accepted? Have there ever been instances where an external laboratory has refused to accept samples due to capacity issues or any other issues?

129. QPS engage with external laboratories regarding testing, and I am not involved with this process.

Involvement of QPS

Question 46

Describe how, and to what extent, QPS is involved in decisions about scientific processes in the FSS laboratory, if at all. Include in your answer any instances where QPS has been consulted regarding a change in policy.

130. The *Police Powers and Responsibility Act 2000* states in s 488B 'The Commissioner may enter into a contract or other arrangement with 1 or both of the following about analysing DNA under section 489 – a) the chief executive (health); b) the chief executive officer, however described, of an accredited laboratory.' Given the delegated responsibility for DNA testing, and QPS owning the samples, QPS will be consulted about many different scientific aspects. Consultation with QPS will occur for changes in DNA profiling kits, adoption of new testing technology such as Y-STR testing, efficiencies that can enhance workflow and release of results, and wording of scientific results.

131. Collaboration between QPS Forensic Services Group (FSG) and Forensic DNA Analysis was at its height during the 2005 Ministerial Taskforce Review and continued through to the 2008 change in business model. Collaboration occurred regarding how items were examined in the laboratory and what techniques Forensic Officers could utilise either in the field or within a QPS laboratory. This included the sharing of Standard Operating Procedures. Please see attached – Exhibit – CA-62 [3 sets of meeting minutes].

132. Collaboration occurred between QPS FSG and Forensic DNA Analysis for the following projects:

[redacted]

a) Use to Post-It Flags by QPS Forensic Officers in the field. This work resulted in the submission of a journal article – please see attached – Exhibit – CA-63 [Parts 1, 2 & 3 of report; QPS Tape-lift and email]

b) Use of Copan 4N6 swab by Forensic Officers in the field – please see attached – Exhibit – CA-64 [final report]

c) In early 2008, staff members from Forensic DNA Analysis assisted Snr Sgt Jamie Cook with the experimental work on the Comparison of Methods of Touch DNA Collection from Skin and Fabric. This work was submitted as a thesis for the Master of Science in Forensic Science (Police Stream) at Griffith University. Please see attached – Exhibit – CA-65 [Jamie Cook 2008 – 3 parts]

d) In July 2009, Supt Michael Keller engaged with staff from Forensic DNA Analysis to respond to questions regarding the QPS DNA Elimination from the QPS Police Union. Please see attached – Exhibit – CA-66 [Questions received from QPS Police Union].

e) In September 2009, QPS engaged with Forensic DNA Analysis regarding the suitability of Lovelle brand cuticle pushers to be used for fingernail scrapings. Please see attached – Exhibit – CA-67 [Final report Project #31].

f) In July 2011 - Change management project #80 reviewed quantitation data from Priority 3, Volume Crime samples to advise QPS of a revised workflow that could be implemented. On 8 July 2011, email correspondence from Paula Brisotto (nee Taylor) was sent to staff members regarding the review of data that had been conducted and the approval of Superintendent Michael Keller (now retired) was gained for Priority 3, Volume Crime samples only. This process was implemented on 11 July 2011. Please see attached – Exhibit – CA-68 [Email communications Project #80]

g) In July 2011, QPS engaged with Forensic DNA Analysis regarding the evaluation of an Adhesive DNA Collector Kit. Please see attached – Exhibit – CA-69 [QPS Adhesive DNA collector trial report]

h) In 2011, I engaged with Supt Michael Keller, now retired, regarding the national approach to replacing Profiler Plus with a new DNA profiling kit. Please see attached – Exhibit – CA-70 [Appt for Briefing Supt Keller_20111125] and [Notes from Briefing for Greg Shaw and Supt Michael Kellr_291111.

[redacted]

i) In early 2012, QPS and Forensic DNA Analysis collaborated on a journal article regarding Trace DNA Tapelift Kits for Crime Scene Use. Please find attached – Exhibit – CA-70(a). [003 email and att]

j) In December 2013, QPS requested that a Forensic DNA Analysis staff member review a QPS Standard Operating Procedure and provide feedback. Please see attached – Exhibit – CA-70(b). [002 email and att]

k) On 8 February 2018, Acting Inspector Ewen Taylor shared with me the report that they had received from Parabon-Snapshot for a [redacted] case. Forensic DNA Analysis were not asked to provide comment on the report, but was shared as the work unit would like to progress into this type of testing for QPS. Please see attached – Exhibit – CA-70(c). [001 email and att]

l) On 21 February 2012, I provided Forensic DNA Analysis staff and Greg Shaw, then Senior Director with an overview of QPS' trail of the Genetic Analyser that they'd purchased. Forensic DNA Analysis would test the same samples and comparisons would be made of the results. Please see attached – Exhibit – CA-71 [Email to Forensic DNA re QPS 3500 instrument project_20120221]

m) A recommendation was put forward to Acting Superintendent David Neville in July 2012 with respect to processing of QPS Environmental Samples that have been taken from QPS examination suites and Acting Superintendent Neville agreed it was a good way forward – Please see attached – Exhibit – CA-72 [email A-Supt David Neville environmental].

n) In September 2014, Inspector Neville engaged with Forensic DNA Analysis regarding a trail of an M-VAC machine, which was wet vacuum designed to improve the collection of DNA. Allan McNevin then Senior Scientist provided advice on experimental design. Forensic DNA Analysis extracted and quantitated the samples and provided results back to QPS. Please see attached – CA-73 [Email with Insp Neville re QPS M-VAC project_20141107].

o) On 16 March 2015, members of QPS and FSS met to discuss a collaborative approach to problem solving. The agreement reached by all was:

    a. a working group comprised of 3 members each from QPS and Forensic DNA Analysis to reduce turnaround times after the implementation of PowerPlex 21

[redacted]

b. a working group to develop a Memorandum of Understanding or similar outlining QPS Forensic Services Group's desired service delivery outputs, with FSS developing an operational plan
c. to meet on a quarterly basis

Please see attached – Exhibit – CA-74 [Email summary of QPS FSS meeting_20150316]

p) In April 2016, the QPS conducted a trial of a ParaDNA instrument to assess its fit for use and Forensic DNA Analysis provided crime scene samples back to the QPS for testing by ParaDNA. DNA results from Forensic DNA Analysis testing was supplied to Inspector Neville so that they could review profile concordance. This demonstrated that QPS were investigating ways to test DNA samples in a faster manner than submitting them to the laboratory. Please see attached – Exhibits – CA-75 [Email from Insp Neville re ParaDNA project_20160419 and Email from Insp Neville re ParaDNA project_20160419_2]

q) In July 2016, a meeting was held to discuss DNA profiling options for Volume Crime samples with Supt Dale Frieberg and Inspector Scott McLaren and most likely Paula Brisotto, Team Leader and Justin Howes, Team Leader (I was on leave at this time). The manufacturer had advised that they would be discontinuing the production of Profiler Plus. Upon my return to work, I followed up with Supt Frieberg to provide me with the option that QPS would like the laboratory to progress with. Please find attached – Exhibits – CA-76 [001 Email from Supt Frieberg confirming PP21 Vol_20170906] and [001 Assessment of Kits_2016_v4]

r) In late 2017, Forensic DNA Analysis began collaboration with QPS on a Massively Parallel Sequencing Project to determine if it could be used as an investigative tool. This project was funded from the FSS Team Based Research Fund. Whilst it was allocated Change Management Project #190, however documentation followed the FSS Research and Development Funding Guidelines. This work resulted in a published journal article in 2020. Please see attached – Exhibit – CA-77 [FSS Research and Dev Guidelines] and Exhibit – CA-78 [MPS as an investigative tool_Ryan].

s) In April 2018, Forensic DNA Analysis identified an issue with the PowerPlex DNA profiling kit that had just been received. Investigations into the issue were underway and I provided a number of updates to Superintendent Dale Frieberg on

the situation. I verbally put forward an interim reporting workflow for QPS consideration whilst Superintendent Frieberg and I were attending an Australian and New Zealand Police Advisory Agency meeting. Superintendent Frieberg advised was that it was not a workable solution for QPS, so it did not proceed. The issue was identified as the manufacturer changing a component of the extraction kit that was being used. Please see attached – Exhibits – CA-79 [Email advice from Supt Frieberg on interim workflow_20180518] and [Email advice from Supt Frieberg on interim workflow_20180628].

t) On 30 May 2019 QPS proposed a change in the workflow for Intelligence Reports and release of electronic results. I sought approval from Inspector Neville for this change. Please see attached – Exhibit – CA-80 [Email with QPS re proposal for workflow_20190531].

u) In mid-2019, QPS and Forensic DNA Analysis collaborated on a project and subsequent journal article regarding Fluorescent dye-based detection of trace DNA on forensic tapelifts from worn shirts. Please see attached – Exhibit – CA-81 [Fluoro dye paper].

v) On 17 October 2019, Inspector Neville emailed 'DNA Stakeholders' with a cc to myself providing an overview of success rates of DNA analysis based on collection method, sample type and substrate that had been put together by Dr Matt Krosch. Please see attached – Exhibits – CA-82 [Email Insp Neville DNA data analysis_20191017] and [Email Insp Neville data analysis attachment dna_analysis_summary spreadsheet].

w) In early 2020, QPS and Forensic DNA Analysis attempted to collaborate on the impact of magnetic fingerprint powder on bead-based trace DNA extraction. This project was placed on hold and then closed without completion due to workload constraints with QPS.

x) On 14 July 2020, Acting Inspector Bill Crick advised me that the QPS DNA Management Section had undertaken an evaluation of DNA person samples that were currently on NCIDD but had information missing from the profile, and requested that a number of the samples be re-run or re-extracted. QPS DNA Management Unit had assessed a number of reference samples on NCIDD as being less than ideal and wished for them to be retested and this was undertaken. Please

see attached – Exhibit – CA-83 [Email A-Supt Neville missing information on NCIDD rworks_20200717]

y) On 29 June 2020, QPS provided a proposed workflow for reference samples. I sought advice from Paula Brisotto, Team Leader and provided advice back to QPS at the QPS FSS meeting that was held on 1 July 2020. Please see attached – Exhibits – CA-84 [002 Email with Paula Bisotto and 002 Email att flowcharts] and [QPS FSS Minutes 01.07.2020 and QSP FSS Action Register].

z) A recent example of continued liaison regarding exhibit explanations has been between Justin Howes, Paula Brisotto and staff members from the QPS Results Management Unit. They have collaborated to update and refine the exhibit explanations that appear in the Forensic Register and QPRIME. This liaison occurred between March 2021 and July 2021. Please see attached Exhibit – CA-85 [QPS Response_July 2021]

aa) Justin Howes, Team Leader has worked with the QPS Cold Case Team to devise a workflow where the samples from a cold case are quantified and held, pending further advice from QPS. Information regarding the quantitation value is provided to QPS Cold Case Team via the Forensic Register. This ensures that the DNA sample is not exhausted by testing with PowerPlex21, when QPS may want to test for Y-STRs. The laboratory is not aware of how the decision is made on testing,

bb) Intelligence Reports are issued to QPS which may detail results that are not able to be reported through electronic means due to the complexity or the nature under which the samples were taken (covert samples for example). QPS is able to make decisions on this information to move the investigation forward.

cc) In either 2018 or 2019, QPS requested the National Institute of Forensic Sciences (NIFS) to include a staff member from QPS Forensic Services Group as a member of the Biology Specialist Advisory Group (BSAG). This staff member was Inspector David Neville. This group discusses scientific processes that occur within a laboratory framework.

Question 47

Explain what information and/or material is provided to the laboratory by QPS for each of the following sample types submitted for testing:

(a) *SAIK sample;*

[redacted]

(b) *reference sample;*

(c) *crime scene sample; and*

(d) *who exhibit sample.*

133. Please see attached information from the Forensic Register regarding information supplied for a SAIK that is yet to be examined – Exhibits – CA-86 [Details provided for a SAIK in FR_1 to _5].

134. Please see attached information from the Forensic Register regarding information supplied for a Reference sample from a Complainant and a Reference Sample from a Suspect– Exhibits – CA-87 [Details provided for a Ref Complainant and Details provided for a Ref Suspect].

135. Please see attached information from the Forensic Register regarding information supplied for a crime scene sample that has been finalised – Exhibit – CA-88 [Details provided for a Crime Scene sample in FR_1 to _5].

136. Please see attached information from the Forensic Register regarding information supplied for a whole item that is not yet finalised – Exhibit – CA-89 [Details provided for a Whole Item in FR_1 to _5].

Question 48

In your view, is the information and/or material provided by QPS above sufficient for the laboratory to do a thorough analysis of the sample in the context of the sample type and overall case?

137. QPS have given an undertaking that all information required to make a scientific decision will be provided. If this information is not available, Forensic DNA Analysis staff members will contact the QPS Forensic Officer via the Forensic Register to seek the additional information before proceeding with the examination of the item.

138. Staff members have not directly raised with me that scientific information is absent from the Forensic Register and that they are unable to complete their core tasks due to this, so, in my opinion, the information provided is sufficient to progress the sample and report on it.

[redacted]

Question 49

Is there any other information or material that you consider should be provided by QPS when samples are submitted? If so, why? Explain steps that have been taken to raise each issue with the QPS.

139. Staff members have advised that it would be beneficial for the ownership of items to be readily available within the Forensic Register. In February 2018, Justin Howes, Team Leader contacted Inspector David Keatinge, QPS Quality Manager to request that ownership of items was included with information provided. Please see attached – Exhibit – CA-90 [Email 14022018 JAH_QPS response ownership of items]

140. A large number of enhancement requests have been placed into the software called Visual Studio Azure DevOps to assist with workflow and visibility of items. Since the laboratory began using the commercial version of the Forensic Register in May 2022, a comparison of existing enhancements and new functionality obtained in the commercial version hasn't been undertaken yet. On 1 March 2019, I supplied to the Queensland Audit Office auditors a list of enhancements that had been requested for Forensic DNA Analysis. Please see attached – Exhibit – CA-91 [Azure summary for FR_20190301].

141. FSS hasn't had access to many hours of development within the Forensic Register, as QPS approves all Forensic Register development work.

Question 50

What formal mechanisms are in place that facilitate collaboration between QPS and FSS scientists as to the appropriate and necessary testing of samples submitted by QPS?

142. Forensic DNA Analysis staff members are able to request additional information from the QPS Forensic Officer via the Forensic Register. This is of benefit as it records the response and is retained against the case file.

143. Forensic DNA Analysis staff members are able to call or email QPS DNA Management Unit regarding queries on items or cases. QPS DNA Management Unit staff members are able to call or email Forensic DNA Analysis staff members. QPS DNA

[redacted]

Management Unit enquiries may be on behalf of an Investigating Officer or to gain further information regarding an item result or case results.

144. Forensic DNA Analysis staff member are able to request staff from FSS Scientific Services Liaison Unit (SSLU) to follow up with an Investigating Officer to gain information regarding the item or case. The staff member would put the query to the SSLU via email or the Forensic Register. SSLU offer administrative assistance to Forensic DNA Analysis by answering queries by phone, following up on enquiries, statement due dates and court dates, to name a few.

145. QPS Investigating Officers are able to contact FSS via the main contact line for SSLU [redacted] and they will be directed to the appropriate staff member in Forensic DNA Analysis.

146. Specific feedback regarding quality issues that have been encountered will be directed by the Senior Scientist for the Evidence Recovery Team (was Allan McNevin and is now Allison Lloyd) or Paula Brisotto, Team Leader to Inspector David Keatinge, Quality Manager (previously Inspector Neville).

147. Meetings between QPS and FSS were held at least once per year from 2009 to 2013. These meetings were to discuss highlights, risks, communication, turnaround time and general business. Infrequent meetings were held between 2013 and 2019, as communication was either by phone, email or a scheduled meeting to discuss a specific topic. More regular meetings have been held between QPS and FSS since 2019. Lara Keller, Acting Executive Director put forward a Terms of Reference for the group to review and are yet to be ratified. Please see attached – Exhibits – CA-92 [QPS Meeting Agendas & Minutes 2019 to current], [QPS Meetings at QHFSS 2009 to 2013] and [Proposed TOR for QPS FSS meetings LK HG].

Question 51

In your experience, are these formal mechanisms utilised frequently by QPS and/or FSS scientists? Please provide an indication of how regularly scientists liaise with QPS about a specific case.

148. Data regarding contact with QPS has not been collated, but its my understanding that Evidence Recovery staff would contact QPS Forensic Officers for additional

information at least twice a week. Contact between Forensic DNA Analysis and QPS DNA Management Unit would be at least daily. I'm unsure how often QPS Investigating Officers and Forensic DNA Analysis staff would contact each other. I am aware that SSLU staff members may follow-up with QPS Investigating Officers with respect timing of court appearances for staff members.

Question 52

In your opinion, are these formal mechanisms sufficient to allow analytical and reporting scientists to effectively make decisions about samples, analyse results and report in statements?

149. The formal mechanisms discourage Forensic DNA Analysis staff members from having direct contact with QPS Investigating Officers. QPS have advised that they wish for Investigating Officers to use QPS DNA Management Unit as the point of contact and will pass along Investigating Officers queries to Forensic DNA Analysis if relevant. I understand that benefits of having a point of contact for QPS Investigating Officers, so that scientists are able to focus on their core duties. I also understand that QPS Investigating Officers may feel that going through SSLU as the point of contact at FSS is an impediment to them for having their queries directly answered. QPS DNA Management Unit do pass along queries from Investigating Officers and they will supply relevant information from Forensic DNA Analysis back to Investigating Officers. QPS DNA Management Unit are responsible for setting up a case conference if required to discuss complex scientific aspects of the case.

150. Care needs to be taken regarding discussion of results with QPS Investigating Officers, as these are only available on QPRIME after processing through the quality assurance procedure with QPS DNA Management Unit. This is discussed within Standard Operating Procedure called Forensic DNA Analysis Communications Procedure in Section 4.2.3. Please see attached – CA-54 [used at Q24].

151. In my experience, whilst there are occasions that QPS Forensic Officers are contacted for additional information, the majority of information supplied is sufficient for decision making regarding samples and cases. Staff members have not directly raised with me that scientific information is absent from the Forensic Register and that they are unable to complete their core tasks due to this absence.

[redacted]

Y-STR Analysis

Question 53

Explain whether FSS has the capabilities to conduct Y-STR analysis.

152. Forensic DNA Analysis is currently validating and verifying the use of Y-STR profiling, under Change Management Project #206 – Y-Filer Plus and Change Management Project #189 – Y-Filer Plus Implementation. Kylie Rika, Senior Scientist is the project lead and is assisted by Thomas Nurthen, Reporting Scientist. Please see attached Exhibit CA-93.

Question 54

If FSS does not have the capabilities, explain any consideration of implementation of Y-STR analysis that has been undertaken by the FSS laboratory, and when?

153. Please see response for Question 53.

Question 55

Who has been involved in discussion or action regarding Y-STR analysis implementation in the FSS laboratory?

154. All Forensic DNA Analysis management team members have had the opportunity to review documents as part of the Change Management Project #206. On 4 July 2019, at an all Forensic DNA Analysis staff meeting, Kylie Rika, Senior Scientist presented an overview of the Y-STR project. Staff members have access to Meeting Minutes, the presentation and the project documentation as staff have been advised of the Change Management project, with the documentation being available on an accessible local drive. Please see attached – Exhibit – CA-93 [03_July_04_2019 and Project 206 Y Filer Plus_ten(1)].

Training

Question 56

During your time as Managing Scientist, have any scientists requested secondments, development programmes or otherwise requested to use their training leave for professional development?

[redacted]

155. The human resources delegation regarding approval for secondments sits with the Executive Director, FSS. The Executive Director may ask advice from me regarding a secondment request, however the decision is made by the Executive Director.

156. Over the period of 2008 to date, the following staff members have requested secondments that have been documented within local staff spreasheets: Vanessa Ientile – Managing Scientist, Megan Penny – Scientist, Judy Livingstone – Laboratory Assistant, Kirsty Wright – Scientist, Mary Gardam – Scientist, Megan Ellis – Scientist, David Park – Scientist, Karina Muharam – Scientist, Frances Calderon – Scientist, Samantha Cave – Team Leader, Amanda Reeves – Senior Scientist, Julie Connell – Scientist, Robert Morgan – Reporting Scientist, Inga Sultan – Scientist, Shannon Thompson – Scientist, Crystal Revera – Laboratory Assistant, Amy Morgan – Scientist, Hannah Pattison – Reporting Scientist, Sharelle Nydam – Scientist, and Ryu Eba – Laboratory Assistant.

157. Given my role as Team Leader at the time that Vanessa Ientile and Samantha Cave requested secondments, I had no input in the approval of their secondments. I supported all requests, with one exception. My support was based on the skills and knowledge the staff member would gain from their secondment experience where were within other scientific work areas. Robert Morgan had shared with me that he wanted promotion, however he understood that it was unlikely given the stable nature of the workforce with Forensic DNA Analysis and he had sought an opportunity the National Institute of Forensic Sciences (NIFS). I provided information to Paul Csoban regarding Robert's desire to be promoted and with Robert's intellect, experience and personable attributes, I felt it was unlikely that he would return to a Reporting Scientist role after being exposed to a larger area of responsibility within NIFS, however the decision sat with Paul Csoban. It's my understanding that Paul and Robert had a discussion regarding his secondment, and I was then advised that Robert had resigned. Robert Morgan is now the Assistant Director – Biometrics at the Victoria Police Forensic Science Centre.

158. The human resources delegation regarding approval of professional development leave sits with the Managing Scientist (endorsement is by the staff member's line manager and Team Leader). All staff members with the Health Practitioner work stream are entitled to Professional Development Allowance (PDA) of approximately $1,826 per

[redacted]

annum and Professional Development Leave (PDL) accrual of three days per year. I am guided by the Health Practitioners and Dental Officers – Professional development allowance and leave policy. I have approved many requests for development programs or training, as the requests have been relevant to their area of work and in line with the policy. Please see attached – Exhibit – CA-94 [QH Policy for PDL and PDA plus 8 folders of PDL forms].

Question 57

If so, give an indication of how frequently this occurs. Provide examples of what requests have been made and when.

159. Please see response for Question 56 with examples of requests. It is difficult to calculate frequency as staff are usually applying for courses that may have been advertised by the Scientific Skills Development Unit, so there may be a number of staff interested in that course. The same can be said for the recent Australian and New Zealand Forensic Science Symposium held in Brisbane in September. A number of staff applied to attend and I approved all requests regarding this Symposium.

Question 58

Have you ever refused a request for a secondment, development program or other request to use training leave for professional development? If so, on what basis. Provide copies of relevant correspondence where appropriate.

160. The human resources delegation regarding approval for secondments sits with the Executive Director, FSS. The Executive Director may ask advice from me regarding a secondment request, however the decision is made by the Executive Director.

161. I am guided by the Health Practitioners and Dental Officers – Professional development allowance and leave policy and to the best of my recollection, I have not declined requests for development programs or professional development leave. Please see attached – Exhibits – CA-94 [used at Q56].

Mixtures

Question 59

[redacted]

Explain whether there have been any trends established by data that show the reporting of complex/mixed results in the DNA Analysis Unit has increased, decreased or remained reasonably consistent over the last 10 years. If so, explain:

(a) *what the trends indicate;*

(b) *whether they raise issues with the DNA Analysis Unit's ability to obtain correct and accurate results; and*

(c) *if and how any issues were or are being addressed.*

162. No data analysis has been conducted by Forensic DNA Analysis on trends for complex or mixed DNA profiles.

Question 60

Explain how and why the 'Number of Contributor Guidelines' were created.

163. Emma Caunt, Reporting Scientist, and Robert Morgan, previous Reporting Scientist, drafted a Number of Contributors Guideline to assist with consistency of DNA profile interpretation (Change management Project #149). Please see attached – Exhibits – CA-59 [Project #149 report x 2]. This has since been included in the Standard Operating Procedure called Basics of DNA Profile Interpretation. Please see attached – Exhibit – CA-56 [used at Q26]. This was to provide guidance on how to determine the number of contributors to a DNA profile in a consistent manner.

Question 61

Explain how the 'Number of Contributor Guidelines' were implemented in the DNA Analysis Unit.

164. On 11 December 2014 at a Forensic Reporting and Intelligence Team meeting, the Number of Contributors Guideline was discussed. Emma Caunt, Reporting Scientist and Robert Morgan, previous Reporting Scientist gave a presentation which provided an overview of the Guideline. From the presentation, it appears that a copy of the Guideline was provided, however I am unable to locate the document provided at this meeting. Feedback was sought from the team members. Please attached – Exhibits – CA-95 [FRIT_11122014, FRIT presentation_Dec 2014 and Reporter Feedback Jan 2015].

[redacted]

165. On 5 March 2015, the final report for Change Management Project #149 was approved.

166. On 27 March 2015 at a Forensic Reporting and Intelligence Team meeting, Robert Morgan, previous Reporting Scientist provided a presentation regarding the Number of Contributors Guideline and copy of the Guideline. Please see attached – Exhibits – CA-96 [FRIT_27032015, FRIT presentation_Mar 2015 and Guidelines Feb 2015].

167. A post implementation review was conducted by Emma Caunt, Reporting Scientist and project leader in July 2016.

168. In June 2020, the Number of Contributors Guideline was incorporated into Standard Operating Procedure called Basics of DNA Profile Interpretation (previously called Procedure for Single Source DNA Please find attached – Exhibit – CA-56 [SOP 17168v14 – used at Q26].

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 20th day of October 2022

[redacted]

Catherine Allen Witness

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